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92-81 ENDANGERED SPECIES CONSERVATION ACT OF 1972

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HEARINGS

BEFORE THE

SUBCOMMITTEE ON THE ENVIRONMENT

OF THE

COMMITTEE ON COMMERCE

UNITED STATES SENATE

NINETY-SECOND CONGRESS

SECOND SESSION

ON

S. 249

TO IMPLEMENT THE CONVENTION ON NATURE PROTECTION AND WILDLIFE PRESERVATION IN THE WESTERN HEMISPHERE (56 STAT. 1354) ; AMEND PUBLIC LAW 89-669 (OCTOBER 15, 1966) ; AND FOR OTHER PURPOSES

S. 3199 and S. 3818

TO PROVIDE FOR THE CONSERVATION, PROTECTION, AND PROPAGATION OF SPECIES OR SUBSPECIES OF FISH AND WILDLIFE THAT ARE THREATENED WITH EXTINCTION OR LIKELY WITHIN THE FORESEEABLE FUTURE TO BECOME THREATENED WITH EXTINCTION; AND FOR OTHER PURPOSES

AUGUST 4 AND 10, 1972

Serial No. 92-81

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ENDANGERED SPECIES AND CONSERVATION ACT OF 1972

FRIDAY, AUGUST 4, 1972

U.S. SENATE,
COMMITTEE ON COMMERCE,
SUBCOMMITTEE ON THE ENVIRONMENT,
Washington, D.C.

The subcommittee met at 9:38 a.m. in room 5110, New Senate Office Building, Hon. William B. Spong, Jr., presiding.
Present: Senators Spong and Stevens.

OPENING STATEMENT BY SENATOR SPONG

Senator Spong. The hearing will come to order, please. Today we are holding hearings on legislation to protect endangered species of plants and animals. As the makeup of our witness list indicates, the subject of endangered species is one which deeply concerns many of the Nation's environmental authorities.

Yet this concern over the plight of the world's endangered species has increasingly expanded beyond the narrow field of dedicated wildlife specialists to large segments of the general public.

It was probably the case of the whooping crane that first alerted the general public to a serious problem which has arisen from the growth and spread of human populations. The publicity surrounding the effort to save the whooping crane made this strange animal's perilous existence common knowledge.

Each whooping crane hatching and each death became national news. The whooping crane survives today, but in the course of its continuing struggle, the public became aware of similar dangers to many other animals.

The development of the land, it became clear, was slowly whittling down the nesting and breeding grounds on which many species depend. Environmental pollution was weakening the capacity of some species to generate their own kind. Commercial exploitation, whether through thoughtlessness, ignorance or greed, was reducing certain animal populations to the danger level. Species which had survived for thousands and thousands of years were suddenly in danger.

The Department of Interior now lists almost 400 species of fish and wildlife as threatened with extinction. Despite endangered species legislation enacted in 1966 and 1969, the movement toward extinction for many species continues.

The bills we are considering today would broaden the protection offered by the 1969 act. S. 249 would implement the Convention on Nature Protection in the Western Hemisphere by prohibiting the taking of species listed in the annex to that treaty.

Staff members assigned to these hearings: Leonard Bickwit and Michael Brownlee.

S. 3199 extends the coverage of the 1969 act to include a prohibition on the taking, export, and interstate transportation of endangered species. It also provides for two classifications of such animals; those threatened with extinction and those likely within the foreseeable future to become so threatened.

S. 3818 is based on this bill, but it incorporates several of the suggestions made at the House hearings on this subject, including extending the coverage of the act to plants, another step forward in our growing respect for nonhuman life forms.

I would like to make one final comment before calling our first witness. The death of a species is something that no man wants to witness. Yet man has been the direct or indirect cause of the extinction of many wildlife species. The irrevocability of each such loss is frightening. Extinction is quite literally a fate worse than death.

(The bills and agency comments follow :)

S. 249

IN THE SENATE OF THE UNITED STATES

JANUARY 26, 1971

Mr. CRANSTON introduced the following bill; which was read twice and referred to the Committee on Commerce

A BILL

To implement the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere (56 State. 1354); amend Public Law 89-669 (October 15, 1966); and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That this Act may be cited as the "Nature Protection Act".

4 SEC. 2. Congress finds that—

5 (1) the animals of our Nation represent an inval-
6 uable natural resource; that in the past inadequate pro-
7 tection and changing conditions have resulted in the ex-
8 tinction of many species with ecological, historical, edu-
9 cational, scientific, and recreational values; and that

II

1 we cannot afford to allow the disappearance of these
2 assets;

3 (2) there is an overriding need to preserve repre-
4 sentatives of all animal species in their natural habitat
5 in sufficient numbers and over extensive enough areas to
6 protect animals from extinction; and

7 (3) pursuant to our treaty obligations under article
8 VIII and other provisions of the Convention on Nature
9 Protection and Wildlife Preservation, it is the respon-
10 sibility of Congress to protect animal species and sub-
11 species threatened with extinction.

12 DEFINITIONS

13 SEC. 3. For the purposes of this Act —

14 (a) the term "fish" means any finfish or any part,
15 products, egg, or offspring thereof, or the dead body or
16 parts thereof whether or not included in a manufactured
17 product;

18 (b) the term "wildlife" means any wild mammal,
19 wild bird, amphibian, reptile, mollusk, or crustacean, or
20 any part, products, egg, or offspring thereof, or the dead
21 body or parts thereof whether or not included in a manu-
22 factured product;

23 (c) the term "Convention" means the Convention
24 on Nature Protection and Wildlife Preservation in the
25 Western Hemisphere (56 Stat. 1354);

1 (d) the term "annex" refers to that portion of the
2 annex to the Convention which contains the list of spe-
3 cies submitted by the United States of America; and

4 (e) the term "State" means any of the several
5 States of the United States, the District of Columbia, the
6 Commonwealth of Puerto Rico, and the territories and
7 possessions of the United States.

8 PROHIBITED ACTS

9 SEC. 4. (a) Except as provided in section 5 of this Act,
10 no person within any State, or within any place subject to
11 the jurisdiction of the United States, shall hunt, capture, kill,
12 take, transport, sell, or purchase any fish or wildlife the spe-
13 cies or subspecies of which is listed in the annex to the
14 Convention.

15 (b) No person or State (or political subdivision thereof)
16 shall pay or offer to pay any form of bounty for any fish or
17 wildlife the species or subspecies of which is listed in the
18 annex to the Convention.

19 EXEMPTIONS

20 SEC. 5. (a) If the Secretary of the Interior determines
21 that it will not endanger the preservation or health of the
22 species or subspecies protected by this Act, he may grant
23 an exemption to any person from the prohibitions of sec-
24 tion 4 (a) of this Act. Such exemptions shall only be granted
25 in order to further scientific purposes; provide for the display

1 of fish or wildlife in public zoos; administer the area in which
2 the fish or wildlife are found; provide for the propagation
3 in captivity of a species or subspecies with the intention of
4 later release of the fish or wildlife in their natural habitat;
5 or transplant the fish or wildlife to a new natural habitat.

6 (b) Section 4 (a) of this Act shall not apply to the fol-
7 lowing fish or wildlife:

8 (1) the Tule White-fronted Goose (*anser albifrons*
9 *gambelli*);

10 (2) American alligators (*alligator mississippiensis*)
11 found on private property and transported, without harm
12 to the animal, to its natural habitat for release in the
13 wild;

14 (3) fish or wildlife in captivity on the effective date
15 of this Act;

16 (4) fish or wildlife raised and kept entirely in
17 captivity;

18 (5) fish or wildlife released as game animals after
19 having been raised in captivity specifically for that
20 purpose;

21 (6) fish or wildlife taken for the religious purposes
22 of Indian tribes; and

23 (7) individual fish or wildlife which are infected
24 with the plague, rabies, tularemia, or other dangerous
25 disease.

1 LISTING OF ANIMALS IN THE ANNEX

2 SEC. 6. When appropriate the Secretary of State shall
3 transmit to the Pan American Union the list of species of
4 fish and wildlife to be included as part of the annex. This
5 list shall include, but not be limited to, all species of fish
6 and wildlife found by the Secretary of the Interior, pursuant
7 to the provisions and standards of Public Law 89-669 (Oct.
8 15, 1966), to be rare or endangered.

9 ARREST, ENFORCEMENT, SEARCHES, AND SEIZURES

10 SEC. 7. Any employee of the Department of the Interior
11 authorized by the Secretary of the Interior; any Coast Guard
12 officer; and any United States marshal or deputy marshal;
13 any customs officer; and any civil officer having authority to
14 apprehend offenders under the laws of a State; and any other
15 person authorized to enforce this Act shall have the power
16 to: (1) arrest without warrant or other process any person
17 committing in his view or presence a violation of this Act;
18 (2) take any person arrested for violation of this Act for
19 examination or trial before any officer or court of competent
20 jurisdiction; and (3) with a search warrant search any
21 place where he may have reason to believe that a violation
22 of this Act has been committed.

23 PENALTY

24 SEC. 8. Any person that violates any provision of section
25 4 (a) of this Act shall be deemed guilty of a misdemeanor

1 and upon conviction thereof shall pay all costs of the pro-
2 ceedings and be fined not more than \$5,000 or imprisoned
3 not more than six months, or both.

4 STATE LAWS AND REGULATIONS

5 SEC. 9. (a) Except to the extent otherwise specifically
6 provided in the Convention or this Act, nothing in this Act
7 shall be construed so as to (1) abridge the presently existing
8 responsibility of any State for the protection, preservation,
9 and scientific management of fish and wildlife; or (2) abridge
10 or deprive any such State of its power and right to make
11 and enforce laws and regulations for the protection, preserva-
12 tion, and scientific management of fish and wildlife.

13 (b) The Secretary of the Interior, in carrying out his
14 duties under this Act, is authorized from time to time, to
15 consult with the Governors of the several States and the
16 Commissioner of the District of Columbia.

17 SEPARABILITY

18 SEC. 10. If any provisions of this Act or the application
19 of such provisions to any circumstances or persons shall be
20 held invalid, the validity of the remainder of the Act and
21 the applicability of such provisions to other circumstances
22 or persons shall not be affected thereby.

92^D CONGRESS
2^D SESSION

S. 3199

IN THE SENATE OF THE UNITED STATES

FEBRUARY 18, 1972

Mr. HATFIELD introduced the following bill; which was read twice and referred to the Committee on Commerce

A BILL

To provide for the conservation, protection, and propagation of species or subspecies of fish and wildlife that are threatened with extinction or likely within the foreseeable future to become threatened with extinction; and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That this Act may be cited as the "Endangered Species
4 Conservation Act of 1972".

5 SEC. 2. (a) The Congress finds and declares that one of
6 the unfortunate consequences of growth and development in
7 the United States and elsewhere has been the extermination
8 of some species or subspecies of fish and wildlife; that seri-
9 ous losses in other species of wild animals with educational,

1 historical, recreational, and scientific value have occurred
2 and are occurring; that the United States has pledged itself,
3 pursuant to migratory bird treaties with Canada and Mexico
4 and the Convention on Nature Protection and Wildlife
5 Preservation in the Western Hemisphere, the International
6 Convention for the Northwest Atlantic Fisheries, the Interna-
7 tional Convention for the High Seas Fisheries of the North
8 Pacific Ocean, and other international agreements, to con-
9 serve and protect, where practicable, the various species of
10 fish and wildlife, including game and nongame migratory
11 birds, that are threatened with extinction; and that the con-
12 servation, protection, restoration, and propagation of such
13 species will inure to the benefit of all citizens. The purposes
14 of this Act are to provide a program for the conservation,
15 protection, restoration, and propagation of selected species
16 and subspecies of fish and wildlife, including migratory birds,
17 that are threatened with extinction, or are likely within the
18 foreseeable future to become threatened with extinction.

19 (b) It is further declared to be the policy of Congress
20 that all Federal departments and agencies shall seek to pro-
21 tect species or subspecies of fish and wildlife, including
22 migratory birds, that are threatened with extinction or are
23 likely within the foreseeable future to become threatened with
24 extinction, and, insofar as is practicable and consistent with
25 the primary purposes of such bureaus, agencies, and services,

1 shall utilize their authorities in furtherance of the purpose of
2 this Act.

3 (c) (1) A species or subspecies of fish or wildlife shall
4 be regarded as an endangered species whenever, in his discre-
5 tion, the Secretary determines, based on the best scientific
6 and commercial data available to him and after consultation,
7 as appropriate, with the affected States, and, in cooperation
8 with the Secretary of State, the country or countries in which
9 such fish and wildlife are normally found or whose citizens
10 harvest the same on the high seas, and, to the extent prac-
11 ticable, with interested persons and organizations, and other
12 interested Federal agencies, that the continued existence of
13 such species or subspecies of fish or wildlife, in the judgment
14 of the Secretary, is either presently threatened with extinc-
15 tion or will likely within the foreseeable future become threat-
16 ened with extinction, throughout all or a significant portion of
17 its range, due to any of the following factors: (i) the destruc-
18 tion, drastic modification, or severe curtailment or the threat-
19 ened destruction, drastic modification, or severe curtailment
20 of its habitat; or (ii) its overutilization for commercial, sport-
21 ing, scientific, or educational purposes; or (iii) the effect on
22 it of disease or predation; or (iv) the inadequacy of existing
23 regulatory mechanisms; or (v) other natural or manmade
24 factors affecting its continued existence.

25 (2) After making such determination, the Secretary

1 shall publish in the Federal Register and from time to time
2 he may revise, by regulation, a list, by scientific and com-
3 mon name or names of such endangered species, indicating
4 as to each species so listed whether such species is threatened
5 with extinction or is likely within the foreseeable future to
6 become threatened with extinction and, in either case, over
7 what portion of the range of such species this condition ex-
8 ists. The endangered species lists which are effective as of
9 the date of enactment shall be republished to conform to the
10 provisions of this Act: *Provided, however,* That until such
11 republication nothing herein shall be deemed to invalidate
12 such endangered species lists. The provisions of section 553
13 of title 5, United States Code, shall apply to any regulation
14 issued under this subsection. The Secretary shall, upon the
15 petition of an interested person under subsection 553 (e)
16 of title 5, United States Code, also conduct a review of any
17 listed or unlisted species or subspecies of fish or wildlife
18 proposed to be removed from or added to the list, but only
19 when he finds and publishes his finding that, to his satisfac-
20 tion, such person has presented substantial evidence to war-
21 rant such a review.

22 (d) For the purposes of this Act, the term—

23 (1) “fish and/or wildlife” means any wild mammal,
24 fish, wild bird, amphibian, reptile, mollusk, or crus-

1 tacean, or any part, products, egg, or offspring thereof,
2 or the dead body or parts thereof;

3 (2) "United States" includes the several States, the
4 District of Columbia, the Commonwealth of Puerto Rico,
5 American Samoa, the Virgin Islands, and Guam;

6 (3) "person" means any individual, firm, corpora-
7 tion, association, or partnership subject to the jurisdiction
8 of the United States;

9 (4) "take" means to pursue, hunt, shoot, capture,
10 collect, kill, or attempt to pursue, hunt, shoot, capture,
11 collect, or kill;

12 (5) "Secretary" means the Secretary of the Interior
13 or the Secretary of Commerce as program responsibilities
14 are vested pursuant to the provisions of Reorganization
15 Plan Numbered 4 of 1970; and

16 (6) "import" includes commerce with a foreign
17 country, entry into a foreign trade zone, and transship-
18 ment through any portion of the United States without
19 customs entry.

20 SEC. 3. (a) The Secretary shall utilize the land acquisi-
21 tion and other authorities of the Migratory Bird Conservation
22 Act, as amended, the Fish and Wildlife Act of 1956, as
23 amended, and the Fish and Wildlife Coordination Act, as
24 appropriate, to carry out a program in the United States of
25 conserving, protecting, restoring, and propagating those

1 species and subspecies of fish and wildlife that he lists as en-
2 dangered species pursuant to section 2 of this Act.

3 (b) In addition to the land acquisition authorities other-
4 wise available to him, the Secretary is hereby authorized to
5 acquire by purchase, donation, or otherwise, lands or inter-
6 ests therein needed to carry out the purpose of this Act relat-
7 ing to the conservation, protection, restoration, and propaga-
8 tion of those species or subspecies of fish and wildlife that he
9 lists as endangered species pursuant to section 2 of this Act.

10 (c) Funds made available pursuant to the Land and
11 Water Conservation Fund Act of 1965 may be used for the
12 purpose of acquiring lands, waters, or interests therein pur-
13 suant to this section that are needed for the purpose of con-
14 serving, protecting, restoring, and propagating those species
15 or subspecies of fish and wildlife, including migratory birds,
16 that he lists as endangered species pursuant to section 2 of
17 this Act.

18 (d) The Secretary shall review other programs admin-
19 istered by him and, to the extent practicable, utilize such
20 programs in furtherance of the purpose of this Act. All other
21 Federal departments and agencies shall, in consultation with
22 and with the assistance of the Secretary, utilize, where prac-
23 ticable, their authorities in furtherance of the purpose of this
24 Act by carrying out programs for the protection of endan-
25 gered species and by taking such action as may be necessary

1 to insure that actions authorized, funded, or carried out by
2 them do not jeopardize the continued existence of endan-
3 gered species.

4 SEC. 4. (a) In carrying out the program authorized by
5 this Act, the Secretary shall cooperate to the maximum ex-
6 tent practicable with the several States. Such cooperation shall
7 include consultation before the acquisition of any land for the
8 purpose of conserving, protecting, restoring, or propagating
9 any endangered species.

10 (b) The Secretary may enter into agreements with the
11 States for the administration and management of any area
12 established for the conservation, protection, restoration, and
13 propagation of endangered species. Any revenues derived
14 from the administration of such areas under these agreements
15 shall be subject to the provisions of section 401 of the Act of
16 June 15, 1935 (49 Stat. 383), as amended (16 U.S.C.
17 715s).

18 SEC. 5. (a) (1) Notwithstanding any other Act of Con-
19 gress or regulation issued pursuant thereto, and except as
20 hereinafter provided, any person who—

21 (i) imports into or exports from the United States,
22 receives, or causes to be so imported, received, or ex-
23 ported; or

24 (ii) takes or causes to be taken within the United

1 States, the territorial sea of the United States, or upon
2 the high seas; or

3 (iii) ships, carries, or receives by any means in
4 interstate commerce, any species or subspecies of fish or
5 wildlife which the Secretary has listed as an endangered
6 species threatened with extinction pursuant to section 2
7 of this Act, shall be punished in accordance with the
8 provisions of section 7 of this Act.

9 (2) The prohibitions contained in this section shall not
10 apply to American Indians, Aleuts, or Eskimos who take en-
11 dangered species for their own consumption or ritual pur-
12 poses in accordance with a treaty or pursuant to Executive
13 Order or Federal statute.

14 (3) In order to minimize undue economic hardship to
15 any person importing, exporting, taking, or transporting in
16 interstate commerce any species or subspecies of fish or wild-
17 life which is listed as an endangered species threatened with
18 extinction pursuant to section 2 of this Act under any con-
19 tract entered into prior to the date of original publication of
20 such listing in the Federal Register, the Secretary, upon such
21 person filing an application with him and upon filing such
22 information as the Secretary may require showing, to his
23 satisfaction, such hardship, may permit such person to im-
24 port, export, take, or transport such species or subspecies in

1 such quantities and for such periods, not to exceed one year,
2 as he determines to be appropriate.

3 (b) Whenever the Secretary, pursuant to section 2 of
4 this Act, lists a species or subspecies as an endangered species
5 which is likely within the foreseeable future to become
6 threatened with extinction, he shall issue such regulations
7 as he deem necessary or advisable to provide for the con-
8 servation, protection, restoration, and propagation of such
9 species or subspecies, including regulations subjecting to
10 punishment in accordance with section 7 of this Act any
11 person who—

12 (1) imports into or exports from the United States,
13 receives, or causes to be so imported, received, or ex-
14 ported; or

15 (2) takes or causes to be taken within the United
16 States, the territorial sea of the United States, or upon
17 the high seas; or

18 (3) ships, carries, or receives by any means in
19 interstate commerce, any such species or subspecies of
20 fish or wildlife likely within the foreseeable future to
21 become threatened with extinction.

22 SEC. 6. (a) The Secretary may permit, under such
23 terms and conditions as he may prescribe, the importation,
24 taking, or the transportation in interstate commerce of any

1 species or subspecies of fish or wildlife listed as an en-
2 dangered species threatened with extinction for zoological,
3 educational, and scientific purposes, and for the propagation
4 of such fish and wildlife in captivity for preservation pur-
5 poses, but only if he finds that such importation, taking, or
6 transportation in interstate commerce will not adversely
7 affect the regenerative capacity of such species in a signif-
8 icant portion of its range or otherwise affect the survival
9 of the wild population of such species.

10 (b) The Secretary may, by regulation, delegate to a
11 State the authority to regulate the taking by any person of
12 an endangered species when he determines, in his discre-
13 tion, that such State maintains an active program to manage
14 and protect such endangered species in accordance with cri-
15 teria issued by the Secretary.

16 (c) Any action taken by the Secretary under this sec-
17 tion shall be subject to his periodic and continual review at
18 no greater than annual intervals. Such review shall include the
19 consideration of comment received from interested persons.

20 SEC. 7. (a) (1) Any person who violates any provision
21 of section 5 or 6 of this Act or any regulation or permit
22 issued thereunder, or any regulation issued under subsection
23 (d) or (e) of this section, other than a person who com-
24 mits a violation the penalty for which is prescribed by sub-
25 section (b) of this section, shall be assessed a civil penalty

1 by the Secretary of not more than \$5,000 for each such
2 violation. No penalty shall be assessed unless such person
3 is given notice and opportunity for a hearing with respect
4 to such violation. Each violation shall be a separate offense.
5 Any such civil penalty may be compromised by the Secre-
6 tary. Upon any failure to pay the penalty assessed under
7 this paragraph, the Secretary may request the Attorney
8 General to institute a civil action in a district court of the
9 United States for any district in which such person is found
10 or resides or transacts business to collect the penalty, and
11 such court shall have jurisdiction to hear and decide any
12 such action. In the case of Guam such actions may be brought
13 in the District Court of Guam, in the case of the Virgin
14 Islands such actions may be brought in the District Court of
15 the Virgin Islands, and in the case of American Samoa such
16 actions may be brought in the District Court of the United
17 States for the district of Hawaii and such courts shall have
18 jurisdiction of such actions. In hearing such action, the
19 court shall sustain the Secretary's action if supported by
20 substantial evidence.

21 (2) Whenever any property is seized pursuant to sub-
22 section (c) of this section, the Secretary shall move to dis-
23 pose of the civil penalty proceedings pursuant to paragraph
24 (1) of this subsection as expeditiously as possible. Upon the
25 assessment of a civil penalty pursuant to paragraph (1) of

1 this subsection, any property so seized may be proceeded
2 against in any court of competent jurisdiction and forfeited.
3 Fish or wildlife so forfeited shall be conveyed to the Secre-
4 tary for disposition by him in such a manner as he deems
5 appropriate. If, with respect to any such property so seized,
6 no compromise forfeiture has been achieved or no action is
7 commenced to obtain the forfeiture of such fish, wildlife,
8 property, or item within thirty days following the completion
9 of proceedings involving an assessment of a civil penalty,
10 such property shall be immediately returned to the owner
11 or the consignee in accordance with regulations promulgated
12 by the Secretary.

13 (b) Any person who knowingly violates any provision
14 of section 5 or 6 of this Act, or any regulation or permit is-
15 sued thereunder, or any regulation issued under subsection
16 (d) or (e) of this section shall, upon conviction, be fined
17 not more than \$10,000 or imprisoned for not more than one
18 year, or both, and any Federal hunting or fishing licenses,
19 permits, or stamps may be revoked or withheld for a period
20 of up to five years. Upon conviction, (1) any fish or wild-
21 life seized shall be forfeited to the Secretary for disposal by
22 him in such manner as he deems appropriate, and (2) any
23 other property seized pursuant to subsection (c) of this sec-
24 tion may, in the discretion of the court, commissioner, or
25 magistrate, be forfeited to the United States or otherwise dis-

1 posed of. If no conviction results from any such alleged vio-
2 lation, such property so seized in connection therewith shall
3 be immediately returned to the owner or consignee in ac-
4 cordance with regulations promulgated by the Secretary,
5 unless the Secretary, within thirty days following the final
6 disposition of the case involving such violation, commences
7 proceedings under subsection (a) of this section.

8 (c) (1) The provisions of sections 5 and 6 of this Act
9 and any regulations or permits issued pursuant thereto, or
10 pursuant to subsection (d) or (e) of this section, shall be
11 enforced by the Secretary, the Secretary of the Treasury, or
12 the Secretary of the Department in which the Coast Guard is
13 operating, or all such Secretaries. Each such Secretary may
14 utilize, by agreement, with or without reimbursement, the
15 personnel, services, and facilities of any other Federal agency
16 or any State agency.

17 (2) Any authorized agent of the Department of the In-
18 terior, the Department of Commerce, or the Department of
19 the Treasury may, without a warrant, arrest any person who
20 such agent has probable cause to believe is knowingly violat-
21 ing, in his presence or view, section 5 or 6 of this Act, or any
22 regulation or permit issued thereunder, the penalty for which
23 is provided under subsection (b) of this section. An agent
24 who has made an arrest of a person in connection with any
25 such willful violation may search such person at the time of

1 his arrest and seize any property taken, used, or possessed in
2 connection with any such violation.

3 (3) Any authorized agent of the Department of the
4 Interior or the Department of Commerce or officer of the
5 Customs shall have authority to search and seize without
6 a warrant, as provided by the Customs laws and by the law
7 relating to search and seizure. Said officer or agent is au-
8 thorized to execute warrants to search for and seize any
9 property, including, for the purposes of this section, any
10 fish, wildlife, aircraft, boat, or other conveyance, weapon,
11 business records, shipping documents, or other items which
12 have been taken, used, or possessed in connection with the
13 violation of any section, regulation, or permit with respect
14 to which a civil or criminal penalty may be assessed, pursu-
15 ant to subsection (a) or (b) of this section. The several
16 judges of the courts established under the laws of the United
17 States and the several States, and United States magistrates,
18 may, within their respective jurisdictions, upon proper oath
19 and affirmation showing probable cause, issue warrants and
20 subpoenas under the Federal Rules of Criminal Procedure
21 to enforce subsections (a) and (b) of this section. Any
22 property seized pursuant to this section shall be held by any
23 agent authorized by the Secretary or the Secretary of the
24 Treasury, or by a United States Marshal, pending disposi-
25 tion of proceedings under subsection (a) or (b) of this

1 section; except that either Secretary may, in lieu of holding
2 such property, either (1) permit a bond or other satisfac-
3 tory surety to be posted, or (2) place the fish or wildlife in
4 the custody of such person as he shall designate. Upon the
5 imposition of civil or criminal penalty, or a forfeiture, the
6 costs to the Government of transfer, board, and handling,
7 including the cost of investigations at a nondesignated port
8 of entry, shall be payable to the account of the Secretary. The
9 owner or consignee of any property so seized shall, as soon
10 as practicable following such seizure, be notified of the fact
11 in accordance with regulations established by the Secretary.

12 (d) For the purposes of facilitating enforcement of sec-
13 tions 5 and 6 of this Act and reducing the costs thereof,
14 the Secretary, with the approval of the Secretary of the
15 Treasury, shall, after notice and an opportunity for a public
16 hearing, from time to time designate, by regulation, any
17 port or ports in the United States for the importation of
18 fish and wildlife, other than shellfish and fishery products
19 imported for commercial purposes, into the United States.
20 The importation of such fish or wildlife into any port in the
21 United States, except those so designated, shall be pro-
22 hibited after the effective date of such designations; except
23 that the Secretary, under such terms and conditions as he
24 may prescribe, may permit importation at nondesignated
25 ports in the interest of the health or safety of the fish or

1 wildlife. Such regulations may provide other exceptions to
2 such prohibition if the Secretary, in his discretion, deems
3 it appropriate and consistent with the purposes of this sub-
4 section.

5 (e) The Secretary is authorized to promulgate such
6 regulations as may be appropriate to carry out the purposes
7 of this Act, and the Secretaries of the Treasury and the
8 Department in which the Coast Guard is operating are au-
9 thorized to promulgate such regulations as may be appro-
10 priate to the exercise of responsibilities under subsection
11 7 (c) (1) of this Act.

12 SEC. 8. (a) In carrying out the provisions of this Act,
13 the Secretary, through the Secretary of State, shall encourage
14 foreign countries to provide protection to species or sub-
15 species of fish and wildlife threatened with extinction, to take
16 measures to prevent any fish or wildlife from becoming
17 threatened with extinction, and shall cooperate with such
18 countries in providing technical assistance in developing and
19 carrying out programs to provide such protection, and shall,
20 through the Secretary of State, encourage bilateral and multi-
21 lateral agreements with such countries for the protection,
22 conservation, and propagation of fish and wildlife. The Secre-
23 tary shall also encourage persons, taking directly or in-
24 directly fish or wildlife in foreign countries or on the high
25 seas for importation into the United States for commercial

1 or other purposes, to develop and carry out, with such assist-
2 ance as he may provide under any authority available to him,
3 conservation practices designed to enhance such fish or wild-
4 life and their habitat. The Secretary of State, in consultation
5 with the Secretary, shall take appropriate measures to en-
6 courage the development of adequate measures, including, if
7 appropriate, international agreements, to prevent such fish
8 or wildlife from becoming threatened with extinction.

9 (b) The Secretary of Agriculture and the Secretary
10 shall provide for appropriate coordination of the administra-
11 tion of this Act and amendments made by this Act, with
12 the administration of the animal quarantine laws (19 U.S.C.
13 1306; 21 U.S.C. 101-105, 111-135b, and 612-614) and
14 the Tariff Act of 1930, as amended (sec. 1306 of title
15 19). Nothing in this Act or any amendment made by this
16 Act, shall be construed as superseding or limiting in any
17 manner the functions of the Secretary of Agriculture under
18 any other law relating to prohibited or restricted importa-
19 tions of animals and other articles and no proceeding or
20 determination under this Act shall preclude any proceeding
21 or be considered determinative of any issue of fact or law
22 in any proceeding under any Act administered by the
23 Secretary of Agriculture.

24 (c) Nothing in this Act, or any amendment made by
25 this Act, shall be construed as superseding or limiting in

1 any manner the functions and responsibilities of the Secre-
2 tary of the Treasury under the Tariff Act of 1930, as
3 amended, including, without limitation, section 1527 of title
4 19 relating to the importation of wildlife taken, killed, pos-
5 sessed, or exported to the United States in violation of the
6 laws or regulations of a foreign country.

7 SEC. 9. (a) Subsection 4 (c) of the Act of October 15,
8 1966 (80 Stat. 928), as amended (16 U.S.C. 668dd (c)),
9 is further amended by revising the second sentence thereof
10 to read as follows: "With the exception of endangered
11 species listed by the Secretary pursuant to section 2 of the
12 Endangered Species Conservation Act of 1972, nothing in
13 this Act shall be construed to authorize the Secretary to
14 control or regulate hunting or fishing of resident fish and
15 wildlife on lands not within the system."

16 (b) Subsection 10 (a) of the Migratory Bird Conserva-
17 tion Act (45 Stat. 1224), as amended (16 U.S.C. 715i (a)),
18 is further amended by inserting "or likely within the foresee-
19 able future to become threatened with" between the words
20 "with" and "extinction".

21 (c) Subsection 401 (a) of the Act of June 15, 1935
22 (49 Stat. 383), as amended (16 U.S.C. 715s (a)), is further
23 amended by inserting "or likely within the foreseeable fu-
24 ture to become threatened with" between the words "with"
25 and "extinction" in the last sentence thereof.

1 (d) Subsection 6(a) (1) of the Land and Water Con-
2 servation Fund Act of 1965 (78 Stat. 903), as amended
3 (16 U.S.C. 460 1-9(a) (1)), is further amended by in-
4 serting "or likely within the foreseeable future to become
5 threatened with" between the words "with" and "extinction".

6 SEC. 10. (a) Sections 1 through 3 of the Act of October
7 15, 1966 (80 Stat. 926, 927), as amended (16 U.S.C.
8 668aa-668cc), are hereby repealed in their entirety.

9 (b) Sections 1 through 6 of the Act of December 5,
10 1969 (83 Stat. 275-279; 16 U.S.C. 668cc-1 through
11 668cc-6) are hereby repealed in their entirety.

92^D CONGRESS
2^D SESSION

S. 3818

IN THE SENATE OF THE UNITED STATES

JULY 20, 1972

Mr. SPONG introduced the following bill; which was read twice and referred to the Committee on Commerce

A BILL

To provide for the conservation, protection, and propagation of species or subspecies of fish and wildlife that are threatened with extinction or likely within the foreseeable future to become threatened with extinction, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That this Act may be cited as the "Endangered Species
4 Conservation Act of 1972".

FINDINGS AND POLICY

5
6 SEC. 2. (a) The Congress finds and declares that one
7 of the unfortunate consequences of growth and development
8 in the United States and elsewhere has been the extermina-
9 tion of some species or subspecies of fish and wildlife and

1 flora; that serious losses in other species of wild animals
2 with educational, historical, recreational, and scientific
3 value have occurred and are occurring; that the United
4 States has pledged itself, pursuant to migratory bird treaties
5 with Canada and Mexico, the migratory and endangered
6 bird treaty with Japan, the Convention on Nature Protec-
7 tion and Wildlife Preservation in the Western Hemisphere,
8 the International Convention for the Northwest Atlantic
9 Fisheries, the International Convention for the High Seas
10 Fisheries of the North Pacific Ocean, and other international
11 agreements, to conserve and protect, where practicable, the
12 various species of fish and wildlife and flora that are threat-
13 ened with extinction; and that the conservation, protection,
14 restoration, or propagation of such species will inure to
15 the benefit of all citizens. The purposes of this Act are to
16 provide a program for the conservation, protection, restora-
17 tion, or propagation of species and subspecies of fish and
18 wildlife and flora that are threatened with extinction, or
19 are likely within the foreseeable future to become threat-
20 ened with extinction.

21 (b) It is further declared to be the policy of Congress
22 that all Federal departments and agencies shall seek to pro-
23 tect species or subspecies of fish and wildlife, and flora that
24 are threatened with extinction or are likely within the foresee-
25 able future to become threatened with extinction, and, wher-

1 spect to functions and responsibilities under this Act
2 relating to fish and wildlife, consistent with such pro-
3 gram responsibilities therefor as are vested pursuant to
4 the provisions of Reorganization Plan Numbered 4 of
5 1970 and the Secretary of Agriculture with respect to
6 functions and responsibilities under this Act relating to
7 flora.

8 (6) The term "take" means (A) with respect to
9 fish or wildlife, to threaten, harass, hunt, capture, or kill,
10 or attempt to threaten, harass, hunt, capture, or kill; and
11 (B) with respect to flora, to collect, sever, remove, or
12 otherwise damage in any manner, or to attempt to col-
13 lect, sever, remove, or otherwise damage in any manner.

14 (7) The term "United States" includes the several
15 States, the District of Columbia, and the Commonwealth
16 of Puerto Rico, the Canal Zone, the possessions of the
17 United States, and the Trust Territory of the Pacific
18 Islands.

19 (8) The term "wildlife" means any wild mammal,
20 game or nongame migratory bird, wild bird, amphi-
21 bian, reptile, mollusk or crustacean, or other animal, or
22 any part, products, egg, or offspring thereof, or the dead
23 body or parts thereof, including migratory, nonmigra-
24 tory, and endangered birds for which protection is also
25 afforded by treaty or other international agreement.

1 DETERMINATION OF ENDANGERED SPECIES

2 SEC. 4. (a) A species or subspecies of fish or wildlife
3 or flora shall be regarded as an endangered species whenever
4 the Secretary by regulation determines, based on the best
5 scientific and commercial data available to him and after con-
6 sultation, as appropriate, with the affected States, and, in
7 cooperation with the Secretary of State, the country or coun-
8 tries in which such fish and wildlife are normally found or
9 whose citizens harvest the same on the high seas, and with
10 interested persons and organizations, and other interested
11 Federal agencies, that the continued existence of such species
12 or subspecies of fish or wildlife or flora, throughout all or a
13 significant portion of its habitat or range, is either presently
14 threatened with extinction or will likely within the fore-
15 seeable future become threatened with extinction, due to any
16 of the following factors:

17 (1) the present or threatened destruction, modifica-
18 tion, or curtailment of its habitat or range;

19 (2) overutilization for commercial, sporting, sci-
20 entific, or educational purposes;

21 (3) disease or predation;

22 (4) the inadequacy of existing regulatory mecha-
23 nisms; or

24 (5) other natural or manmade factors affecting its
25 continued existence.

1 (b) The Secretary shall publish in the Federal Register,
2 not less than annually, a list, by scientific and common name
3 or names, of species or subspecies determined, pursuant to
4 this section, to be endangered, indicating as to each species
5 or subspecies so listed whether such species or subspecies
6 is threatened with extinction or is likely within the foresee-
7 able future to become threatened with extinction and, in
8 either case, over what portion of the range of such species
9 or subspecies this condition exists. The Secretary may, from
10 time to time, by regulation revise any such list. The endan-
11 gered species lists which are effective as of the date of
12 enactment of this Act shall be republished to conform to the
13 provisions of this Act: *Provided, however,* That until such
14 republication nothing herein shall be deemed to invalidate
15 such endangered species lists. The provisions of section 553
16 of title 5, United States Code, shall apply to any regulation
17 issued under this subsection. The Secretary shall, upon the
18 petition of an interested person under subsection 553 (e) of
19 title 5, United States Code, also conduct a review, on the
20 record, after opportunity for agency hearing of any listed
21 or unlisted species or subspecies of fish or wildlife proposed
22 to be removed from or added to the list, but only if he finds
23 and publishes his finding that such person has presented
24 substantial evidence to warrant such a review.

1 LAND ACQUISITION AND AGENCY COMPLIANCE

2 SEC. 5. (a) The Secretary shall utilize the land ac-
3 quisition and other authorities of the Migratory Bird Conser-
4 vation Act, as amended, the Fish and Wildlife Act of 1956,
5 as amended, and the Fish and Wildlife Coordination Act, as
6 appropriate, to carry out a program in the United States of
7 conserving, protecting, restoring, or propagating those
8 species and subspecies of fish and wildlife that he lists as
9 endangered species pursuant to section 2 of this Act.

10 (b) In addition to the land acquisition authorities other-
11 wise available to him, the Secretary is hereby authorized to
12 acquire by purchase, donation, or otherwise, lands or inter-
13 ests therein needed to carry out the purpose of this Act relat-
14 ing to the conservation, protection, restoration, and propaga-
15 tion of those species or subspecies of fish and wildlife that he
16 lists as endangered species pursuant to section 4 of this Act.

17 (c) Funds made available pursuant to the Land and
18 Water Conservation Fund Act of 1965, as amended, may
19 be used for the purpose of acquiring lands, waters, or inter-
20 ests therein pursuant to this section that are needed for the
21 purpose of conserving, protecting, restoring, or propagating
22 those species or subspecies of fish and wildlife that he lists
23 as endangered species pursuant to section 4 of this Act.

24 (d) The Secretary shall review other programs admin-

1 istered by him and, to the extent practicable utilize such
2 programs in furtherance of the purpose of this Act. All other
3 Federal departments and agencies shall, in consultation with
4 and with the assistance of the Secretary, utilize, wherever
5 practicable, their authorities in furtherance of the purpose
6 of this Act by carrying out programs for the protection
7 of endangered species of fish or wildlife or flora and by
8 taking such actions as may be necessary to insure that
9 actions authorized, funded, regulated, or administered by
10 them do not jeopardize the continued existence of en-
11 dangered species or result in destruction or modification
12 of critical habitat of such species.

13 (f) In carrying out the provisions of this Act, the Sec-
14 retary, through the Secretary of State, shall encourage
15 foreign countries to provide protection to species or sub-
16 species of fish or wildlife threatened with extinction, to
17 take measures to prevent any fish or wildlife from becoming
18 threatened with extinction, and he shall, through the Secre-
19 tary of State, encourage bilateral and multilateral agree-
20 ments with such countries for the conservation and propaga-
21 tion of fish and wildlife. The Secretary is authorized to
22 assign or otherwise make available any officer or employee
23 of his department for the purpose of cooperating with
24 foreign countries and international organizations in develop-
25 ing personnel resources and programs which promote con-

1 servation of fish or wildlife, including (1) educational train-
2 ing of United States and foreign personnel, here or abroad,
3 in the subjects of fish and wildlife management, research,
4 and law enforcement; and (2) rendering professional assist-
5 ance abroad in such matters. The Secretary is also author-
6 ized to conduct or cause to be conducted such law enforce-
7 ment investigations and research abroad as he deems neces-
8 sary to carry out the obligations imposed upon him by this
9 Act.

10

COOPERATION WITH THE STATES

11

SEC. 6. (a) In carrying out the program authorized
12 by this Act, the Secretary shall cooperate to the maximum
13 extent practicable with the several States. Such cooperation
14 shall include consultation before the acquisition of any land
15 for the purpose of conserving, protecting, restoring, or prop-
16 agating any endangered species.

17

(b) The Secretary may enter into agreements with the
18 States for the administration and management of any area
19 established for the conservation, protection, restoration,
20 or propagation of endangered species. Any revenues derived
21 from the administration of such areas under these agree-
22 ments shall be subject to the provisions of section 401 of
23 the Act of June 15, 1935 (49 Stat. 383), as amended (16
24 U.S.C. 715s).

1 (c) The Secretary may delegate to a State the authority
2 to regulate the taking by any person of endangered species or
3 subspecies of resident fish and wildlife when he determines
4 that such State maintains an adequate and active program,
5 consistent with the policies and purposes of this Act, to man-
6 age and protect such endangered species in accordance with
7 criteria issued by the Secretary.

8 (d) Any action taken by the Secretary under this sec-
9 tion shall be subject to his periodic and continual review at no
10 greater than annual intervals. Such review shall include the
11 consideration of comment received from interested persons.

12 (e) Nothing in this Act, or any amendment made by
13 this Act, shall be construed as superseding or limiting the
14 power of any State to enact legislation more restrictive than
15 the provisions of this Act for the protection and conservation
16 of wildlife, including the regulation or prohibition of the
17 retail sale of specimens or of products processed or manu-
18 factured from the specimens of wildlife, whether such speci-
19 mens are alive or dead.

20 (f) The Secretary of the Interior shall promptly under-
21 take an investigation and study regarding the functions and
22 responsibilities which the States should have with respect
23 to the management and protection of endangered species of
24 fish and wildlife. The Secretary shall report the results of
25 the investigation and study to Congress within one year after

1 the date of the enactment of this Act, and such report may in-
2 clude such recommendations as the Secretary may have
3 regarding the extent to, and manner in, which the Federal
4 Government should assist the States in establishing and im-
5 plementing management and protection programs for en-
6 dangered species.

7 PROHIBITED ACTS

8 SEC. 7. (a) Notwithstanding any other Act of
9 Congress or regulation issued pursuant thereto, and except
10 as hereinafter provided, any person who—

11 (A) imports into or exports from the United
12 States, receives, or causes to be so imported, received,
13 or exported; or

14 (B) takes or causes to be taken within the United
15 States, the territorial sea of the United States, Fed-
16 eral lands, or upon the high seas; or

17 (C) ships, carries, or receives by any means in
18 interstate commerce

19 any species or subspecies of fish or wildlife or flora which
20 the Secretary has listed as an endangered species threatened
21 with extinction pursuant to section 4 of this Act, shall be
22 punished in accordance with the provisions of section 9 of
23 this Act.

24 (b) Whenever the Secretary, pursuant to section 4 of
25 this Act, lists a species or subspecies as an endangered spe-

1 cies which is likely within the foreseeable future to become
2 threatened with extinction, he shall issue such regulations
3 as he deems necessary or advisable to provide for the con-
4 servation, protection, restoration, or propagation of such
5 species or subspecies, including regulations subjecting to
6 punishment in accordance with section 9 of this Act any
7 person who—

8 (1) imports into or exports from the United States,
9 receives, or causes to be so imported, received, or ex-
10 ported; or

11 (2) takes or causes to be taken within the United
12 States, the territorial sea of the United States, Federal
13 lands or upon the high seas; or

14 (3) ships, carries, or receives by any means in
15 interstate commerce

16 any such species or subspecies of fish or wildlife or flora likely
17 within the foreseeable future to become threatened with
18 extinction.

19 (c) The Secretary shall allow taking of an endangered
20 species which is likely within the foreseeable future to be-
21 come threatened only (1) when it can clearly be shown
22 that such taking will not damage the population, or (2)
23 in emergency cases involving human health and safety.

24 (d) For the purpose of facilitating enforcement of this
25 Act the Secretary may from time to time, by regulation, ex-

1 tend the protection of this section, to the extent he deems it
2 advisable, to any species or subspecies of fish or wildlife or
3 flora which is not listed as an endangered species, but which
4 so closely resembles in appearance, at that point in question,
5 a species or subspecies of fish or wildlife or flora which has
6 been listed as endangered, that substantial difficulty is posed
7 to enforcement personnel in attempting to differentiate be-
8 tween the endangered and nonendangered species of sub-
9 species of fish or wildlife or flora, and this difficulty poses
10 an additional threat to the endangered species or subspecies.

11

EXCEPTIONS

12 SEC. 8. (a) The Secretary may permit, under such
13 terms and conditions as he may prescribe, the importation,
14 taking, or the transportation in interstate commerce of any
15 species or subspecies of fish or wildlife or flora listed as an
16 endangered species threatened with extinction for scientific
17 purposes, and for the propagation of such fish and wildlife
18 in captivity for preservation purposes, but only if he finds
19 that such importation, taking, or transportation in interstate
20 commerce, or projected use will not adversely affect the re-
21 generative capacity of such specimen or of such species or
22 subspecies in a significant portion of its range or habitat or
23 otherwise affect the survival of the wild population of such
24 species.

25 (b) In order to minimize undue economic hardship to

1 any person importing, exporting, taking, or transporting in
2 interstate commerce any species or subspecies of fish or
3 wildlife or flora which is listed as an endangered species
4 pursuant to section 4 of this Act under any contract entered
5 into prior to the date of original publication of such listing
6 in the Federal Register, the Secretary, upon such person
7 filing an application with him and upon filing such informa-
8 tion as the Secretary may require showing, to his satisfaction,
9 such hardship, may permit such person to import, export,
10 take, or transport such species or subspecies in such quantities
11 and for such periods, not to exceed one year, as he deter-
12 mines to be appropriate.

13

PENALTIES AND ENFORCEMENT

14

15 SEC. 9. (a) (1) Any person who violates any provi-
16 sion of this Act or any regulation or permit issued there-
17 under, other than a person who commits a violation the
18 penalty for which is prescribed by subsection (b) of this
19 section, shall be assessed a civil penalty by the Secretary
20 of not more than \$10,000 for each such violation. No penalty
21 shall be assessed unless such person is given notice and op-
22 portunity for a hearing with respect to such violation. Each
23 violation shall be a separate offense. Any such civil penalty
24 may be compromised by the Secretary. Upon any failure
25 to pay the penalty assessed under this paragraph, the Secre-
tary may request the Attorney General to institute a civil

1 action in a district court of the United States for any district
2 in which such person is found or resides or transacts business
3 to collect the penalty, and such court shall have jurisdiction
4 to hear and decide any such action. In the case of Guam such
5 actions may be brought in the District Court of Guam; in the
6 case of the Virgin Islands such actions may be brought in
7 the District Court of the Virgin Islands; and in the case of
8 American Samoa such actions may be brought in the District
9 Court of the United States for the district of Hawaii and
10 such courts shall have jurisdiction of such actions. In hearing
11 such action, the court shall sustain the Secretary's action if
12 such action is supported by substantial evidence.

13 (2) Whenever any property is seized pursuant to sub-
14 section (c) of this section, the Secretary shall move to
15 dispose of the civil penalty proceedings pursuant to para-
16 graph (1) of this subsection as expeditiously as possible.
17 Upon the assessment and collection of a civil penalty pur-
18 suant to paragraph (1) of this subsection, any property so
19 seized may be proceeded against in any court of competent
20 jurisdiction and forfeited. Fish or wildlife or flora so forfeited
21 shall be conveyed to the Secretary for disposition by him
22 in such a mann'r as he deems appropriate. If, with respect
23 to any such property so seized, no compromise forfeiture
24 has been achieved or no action is commenced to obtain the
25 forfeiture of such fish, wildlife, flora, property, or item within

1 thirty days following the completion of proceedings involv-
2 ing an assessment and collection of a civil penalty, such
3 property shall be immediately returned to the owner or the
4 consignee in accordance with regulations promulgated by
5 the Secretary.

6 (3) Proceedings for the assessment of civil penalties
7 pursuant to paragraph (1) of this subsection shall be con-
8 ducted in accordance with section 554 of title 5. The Secre-
9 tary may issue subpoenas for the attendance and testimony
10 of witnesses and the production of relevant papers, books,
11 and documents, and administer oaths. Witnesses summoned
12 shall be paid the same fees and mileage that are paid wit-
13 nesses in the courts of the United States. In case of con-
14 tumacy or refusal to obey a subpoena served upon any
15 person pursuant to this paragraph, the district court of the
16 United States for any district in which such person is found
17 or resides or transacts business, upon application by the
18 United States and after notice to such person, shall have
19 jurisdiction to issue an order requiring such person to ap-
20 pear and give testimony before the Secretary or to appear
21 and produce documents before the Secretary, or both, and
22 any failure to obey such order of the court may be punished
23 by such court as a contempt thereof.

24 (b) Any person who knowingly violates any provision
25 of this Act, or any regulation or permit issued thereunder,

1 shall, upon conviction, be fined not more than \$20,000 or
2 imprisoned for not more than one year, or both, and any
3 Federal hunting or fishing licenses, permits, or stamps may
4 be revoked or withheld for a period of up to five years.
5 Upon conviction, (1) any fish or wildlife or flora seized
6 shall be forfeited to the Secretary for disposal by him in such
7 manner as he deems appropriate, and (2) any other prop-
8 erty seized pursuant to subsection (c) of this section may, in
9 the discretion of the court, commissioner, or magistrate, be
10 forfeited to the United States or otherwise disposed of. If no
11 conviction results from any such alleged violation, such
12 property so seized in connection therewith shall be imme-
13 diately returned to the owner or consignee in accordance
14 with regulations promulgated by the Secretary, unless the
15 Secretary, within thirty days following the final disposition
16 of the case involving such violation, commences proceedings
17 under subsection (a) of this section.

18 (c) (1) The provisions of sections 7 and 8 of this
19 Act and any regulations or permits issued pursuant thereto,
20 or pursuant to subsection (d) or (e) of this section, shall be
21 enforced by the Secretary, the Secretary of the Treasury,
22 or the Secretary of the Department in which the Coast
23 Guard is operating, or all such Secretaries. Each such Sec-
24 retary may utilize, by agreement, with or without reimburse-

1 ment, the personnel, services, and facilities of any other
2 Federal agency or any State agency.

3 (2) Any authorized agent of the Departments of the
4 Interior, of Commerce, of Agriculture, or of the Treasury
5 may, with or without a warrant, arrest any person who
6 such agent has probable cause to believe is knowingly
7 violating this Act, in his presence or view, or any regula-
8 tion or permit issued thereunder, the penalty for which is
9 provided under subsection (b) of this section. An agent who
10 has made an arrest of a person in connection with any such
11 willful violation may search such person at the time of his
12 arrest and seize any property taken, used, or possessed in
13 connection with any such violation.

14 (3) Any authorized agent of the Departments of the
15 Interior, of Commerce, of Agriculture, or of the Treasury
16 shall have authority to search and seize with or without a
17 warrant, as provided by the customs laws and by the law
18 relating to search and seizure. Any such officer or agent is
19 authorized to execute warrants to search for and seize any
20 property, including, for the purposes of this section, any fish,
21 wildlife, flora, aircraft, boat, or other conveyance, weapon,
22 business records, shipping documents, or other items which
23 have been taken, used, or possessed in connection with the
24 violation of any section, regulation, or permit with respect
25 to which a civil or criminal penalty may be assessed, pur-

1 suant to subsection (a) or (b) of this section. Any property
2 seized pursuant to this section shall be held by any agent
3 authorized by the Secretary or the Secretary of the Treas-
4 ury, or by a United States marshal, pending disposition of
5 proceedings under subsection (a) or (b) of this section;
6 except that either Secretary may, in lieu of holding such
7 property, either (1) permit a bond or other satisfactory
8 surety to be posted, or (2) place the fish or wildlife or flora
9 in the custody of such person as he shall designate. Upon the
10 imposition of a civil or criminal penalty, or a forfeiture, the
11 costs to the Government of transfer, board, and handling,
12 including the cost of investigations at a nondesignated port
13 of entry, shall be payable to the account of the Secretary.
14 The owner or consignee of any property so seized shall, as
15 soon as practicable following such seizure, be notified of the
16 fact in accordance with regulations established by the
17 Secretary.

18 (d) The Secretary may request the Attorney General
19 to bring appropriate action to prevent threatened violations
20 of this Act, or of any regulations or orders promulgated
21 pursuant thereto.

22 (e) For the purposes of facilitating enforcement of
23 this Act and reducing the costs thereof, the Secretary, with
24 the approval of the Secretary of the Treasury, shall, after
25 notice and an opportunity for a public hearing, from time

1 to time designate, by regulation, any port or ports in the
2 United States for the importation of fish and wildlife (other
3 than shellfish and fishery products) or flora into the United
4 States. The importation of such fish or wildlife or flora
5 into any port in the United States, except those so desig-
6 nated, shall be prohibited after the effective date of such
7 designations; except that the Secretary, under such terms
8 and conditions as he may prescribe, may permit importation
9 at nondesignated ports in the interest of the health or safety
10 of the fish or wildlife. Such regulations may provide other
11 exceptions to such prohibition if the Secretary, in his discre-
12 tion, deems it appropriate and consistent with the purposes
13 of this subsection.

14 (f) The Secretary is authorized to promulgate such regu-
15 lations as may be appropriate to carry out the purposes of
16 this Act, and the Secretaries of the Treasury and the De-
17 partment in which the Coast Guard is operating are
18 authorized to promulgate such regulations as may be appro-
19 priate to the exercise of responsibilities under subsection
20 (c) (1) of this section.

21 (g) (1) Any person who engages to any extent in busi-
22 ness as an importer of fish and wildlife must register with
23 the Secretary of the Treasury his name and the address of
24 each place of business at which, and all trade names under
25 which, he conducts such business.

1 (2) Any person required to register with the Secretary
2 of the Treasury under paragraph (1) of this subsection
3 shall—

4 (A) keep such records as will fully and correctly
5 disclose each importation of fish and wildlife made by
6 him and the subsequent disposition made by him with
7 respect to such fish and wildlife; and

8 (B) at all reasonable times upon notice by a duly
9 authorized representative of the Secretary, afford such
10 representative access to his places of business an oppor-
11 tunity to examine his inventory of imported fish and
12 wildlife and the records required to be kept under
13 subparagraph (A) of this paragraph, and to copy such
14 records.

15 (3) The Secretary of the Treasury shall prescribe such
16 regulations as are necessary and appropriate to carry out
17 the purposes of this subsection.

18 INTERNATIONAL AND INTERGOVERNMENTAL COOPERATION

19 SEC. 10. (a) (1) In carrying out the provisions of
20 this Act, the Secretary, through the Secretary of State,
21 shall encourage foreign countries to provide protection to
22 species or subspecies of fish and wildlife or flora threatened
23 with extinction, to take measures to prevent any fish or
24 wildlife from becoming threatened with extinction, and shall
25 cooperate with such countries in providing technical assist-

1 ance in developing and carrying out programs to provide such
2 protection, and shall, through the Secretary of State, encour-
3 age bilateral and multilateral agreements with such countries
4 for the protection, conservation, or propagation of fish
5 and wildlife or flora. The Secretary shall also encourage per-
6 sons, taking directly or indirectly fish or wildlife or flora in
7 foreign countries or on the high seas for importation into the
8 United States for commercial or other purposes, to develop
9 and carry out, with such assistance as he may provide under
10 any authority available to him, conservation practices de-
11 signed to enhance such fish or wildlife or flora and their
12 habitat or range. The Secretary of State, in consultation with
13 the Secretary, shall take appropriate measures to encourage
14 the development of adequate measures, including, if appro-
15 priate, international agreements, to prevent such fish or
16 wildlife or flora from becoming threatened with extinction.

17 (2) To assure the worldwide conservation of endan-
18 gered species and to avoid unnecessary harm to affected
19 United States industries, the Secretary, through the Secre-
20 tary of State, shall seek the convening of an international
21 ministerial meeting on fish and wildlife prior to November 1,
22 1972, and included in the business of that meeting shall be
23 the signing of a binding international convention on the
24 conservation of endangered species.

25 (b) The Secretary of Agriculture and the Secretary

1 shall provide for appropriate coordination of the adminis-
2 tration of this Act and amendments made by this Act, with
3 the administration of the animal quarantine laws (19 U.S.C.
4 1306; 21 U.S.C. 101-105, 111-135b, and 612-614).
5 Nothing in this Act, or any amendment made by this Act,
6 shall be construed as superseding or limiting in any manner
7 the functions of the Secretary of Agriculture under any other
8 law relating to prohibited or restricted importations of
9 animals and other articles and no proceeding or determina-
10 tion under this Act shall preclude any proceeding or be con-
11 sidered determinative of any issue of fact or law in any pro-
12 ceeding under any Act administered by the Secretary of
13 Agriculture.

14 (c) Whenever the Secretary determines pursuant to
15 this Act or any other authority vested in him, that a species
16 of fish or wildlife is an endangered species, and publishes
17 regulations pertaining to the protection, control, management,
18 or enhancement of such endangered species, the Secretary
19 of Agriculture may use all authorities available to him with
20 respect to research, investigations, conservation, development,
21 protection, management, and enhancement of fish and wild-
22 life, including, but not limited to, the conservation operations
23 program, watershed protection and flood prevention pro-
24 grams, rural environmental assistance program, Great
25 Plains conservation program, resource conservation and

1 development program, forestry programs, and water bank
2 program, in the protection, control, management, or en-
3 hancement of such endangered species. Recognizing the na-
4 tional and international interest in the protection and en-
5 hancement of such endangered species, the Secretary of
6 Agriculture is authorized, notwithstanding the provisions of
7 any other law, to bear the full cost, or any lesser amount that
8 he, in consultation with the Secretary may determine desir-
9 able to accomplish the objectives of the Act, of the cost of
10 installing any practice, measure, work of improvement,
11 facility, or other developmental, protective, or management
12 systems on private land, the primary purpose of which is
13 for the purpose of enabling the landowner to comply with the
14 regulations, or other recommendations, of the Secretary
15 pertaining to the protection, control, management, or en-
16 hancement of such endangered species. The Secretary of
17 Agriculture, in carrying out the purposes of this section, shall
18 utilize his authorities to conduct research and investigations
19 into vegetative and structural methods and other methods
20 and practices, measures, works of improvement, and facilities
21 most appropriate or effective in the protection, control, man-
22 agement, or enhancement of such endangered species. If
23 determined desirable, the Secretary and the Secretary of
24 Agriculture shall be authorized to jointly carry out research,
25 surveys, and investigations. The Secretary is authorized to

1 transfer to the Secretary of Agriculture such funds as may
2 be necessary to carry out the purposes of this subsection.

3 (d) Nothing in this Act, or any amendment made by
4 this Act, shall be construed as superseding or limiting in
5 any manner the functions and responsibilities of the Secre-
6 tary of the Treasury under the Tariff Act of 1930, as
7 amended, including, without limitation, section 527 of such
8 Act relating to the importation of wildlife taken, killed,
9 possessed, or exported to the United States in violation of
10 the laws or regulations of a foreign country.

11

CONFORMING AMENDMENTS

12 SEC. 11. (a) Subsection 4(c) of the Act of Octo-
13 ber 15, 1966 (80 Stat. 928), as amended (16 U.S.C. 668dd
14 (c)), is further amended by revising the second sentence
15 thereof to read as follows: "With the exception of endan-
16 gered species listed by the Secretary pursuant to section 4
17 of the Endangered Species Conservation Act of 1972,
18 nothing in this Act shall be construed to authorize the Secre-
19 tary to control or regulate hunting or fishing of resident fish
20 and wildlife on lands not within the system."

21 (b) Subsection 10(a) of the Migratory Bird Conser-
22 vation Act (45 Stat. 1224), as amended (16 U.S.C. 715
23 i(a)), is further amended by inserting "or likely within
24 the foreseeable future to become threatened with" between
25 the words "with" and "extinction".

1 (c) Subsection 401 (a) of the Act of June 15, 1935
2 (49 Stat. 383), as amended (16 U.S.C. 715s (a)), is
3 further amended by inserting "or likely within the foresee-
4 able future to become threatened with" between the words
5 "with" and "extinction" in the last sentence thereof.

6 (d) Subsection 6 (a) (1) of the Land and Water Con-
7 servation Fund Act of 1965 (78 Stat. 903), as amended
8 (16 U.S.C. 460l9 (a) (1)), is further amended by in-
9 serting "or likely within the foreseeable future to become
10 threatened with" between the words "with" and
11 "extinction".

12 REPEALS

13 SEC. 12. (a) Sections 1 through 3 of the Act of
14 October 15, 1966 (80 Stat. 926, 927), as amended (16
15 U.S.C. 668aa-668cc), are hereby repealed in their entirety.

16 (b) Sections 1 through 6 of the Act of December 5,
17 1969 (83 Stat. 275-279; 16 U.S.C. 668cc-1 through
18 668c-6) are hereby repealed in their entirety.

DEPARTMENT OF STATE,
Washington, D.C.

HON. WARREN G. MAGNUSON,
*Chairman, Committee on Commerce,
U.S. Senate, Washington, D.C.*

DEAR MR. CHAIRMAN: The Secretary has asked me to reply to your letter of February 9, 1971 asking for comments on S. 249, a bill to implement the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere.

Section 6 of the bill would require the Secretary of State to transmit to the Pan American Union at an appropriate time the U.S. list of species of fish and wildlife to be included as part of the Annex to the Convention. The Department of State would be willing to undertake this obligation. Such a list has recently been received by the Department of State from the Department of the Interior.

Regarding comments on the specifically domestic or technical aspects of S. 249, we would refer you to the Department of the Interior.

The Office of Management and Budget advises that from the standpoint of the Administration's program there is no objection to the submission of this report.

Sincerely,

DAVID M. ABSHIRE,
Assistant Secretary for Congressional Relations.

COMPTROLLER GENERAL OF THE UNITED STATES,
Washington, D.C., February 24, 1971.

HON. WARREN G. MAGNUSON,
*Chairman, Committee on Commerce,
U.S. Senate.*

DEAR MR. CHAIRMAN: Your letter of February 9, 1971, requests our comments on S. 249, 92d Congress, entitled: "A bill to implement the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere (56 Stat. 1354); amend Public Law 89-669 (October 15, 1966); and for other purposes."

We have no special information as to the advantages or disadvantages of this measure and, therefore, make no comments regarding its merits.

However, we note that the word "State." in the descriptive language preceding the enacting clause should be change to "Stat."

Also, the word "and" should be omitted in lines 12 and 13, page 5.

Sincerely yours,

ROBERT F. KELLER,
Assistant Comptroller General of the United States.

THE GENERAL COUNSEL OF THE TREASURY,
Washington., August 1, 1972.

HON. WARREN G. MAGNUSON,
*Chairman, Committee on Commerce,
U.S. Senate, Washington, D.C.*

DEAR MR. CHAIRMAN: Reference is made to your request for the views of this Department on S. 249, "To implement the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere (56 Stat. 1354); amend Public Law 89-669 (October 15, 1966); and for other purposes."

The proposed legislation, to be administered by the Department of the Interior, would provide for the protection and preservation of wild animals and fish species in their natural habitat pursuant to treaty obligations under the Convention.

Section 4(a) of the bill would prohibit the hunting, capture, killing, taking, transportation, selling, or purchasing of any fish or wildlife the species of which is listed in the annex to the Convention, and prohibit the offer of payment or payment of any form of bounty for any so listed.

Under section 5(a) the Secretary of the Interior may grant exemptions from the prohibitions of the Act, if he determines that it will not endanger the species or subspecies protected. Such exemptions shall be granted only to further scientific purposes, provide for display in public zoos, administer the area in which found, or provide for the propagation in captivity with the intent of

later release to the natural habitat, or to a new natural habitat. Section 5(b) lists fish or wildlife to which the prohibitions of section 4(a) shall not apply.

Section 6 provides for transmittal to the Pan American Union, by the Secretary of State of the list of all species of fish and wildlife found by the Secretary of the Interior, to be rare or endangered, pursuant to the provisions and standards of Public Law 89-669 of October 15, 1966.

Section 7 provides for the enforcement of the Act, including search and seizure, and arrest for violation of the Act. Section 8 makes any violation a misdemeanor and provides penalties therefor upon conviction. Provisions for no abridgement of State laws and responsibilities for wildlife protection, and for consultation between State Executives and the Secretary of the Interior are found in Section 9, while Section 10 provides a separability clause.

The Department expresses no opinion as to the merits of the proposal for the subject of the bill is of primary administrative and enforcement interest to the Department of the Interior. Enactment of S. 249, which includes no specific regulatory or enforcement responsibilities for this Department, would appear to involve no foreseeable administrative or enforcement difficulties.

The Bureau of Customs, the Department foresees, may be called upon to assist in enforcement at ports of entry with respect to import violations. Import shipments requiring detention, lawful disposition, or other measures at the port would add to the Customs workload.

The Department has been advised by the Office of Management and Budget that there is no objection from the standpoint of the Administration's program to the submission of this report to your Committee.

Sincerely yours,

SAMUEL R. PIERCE, Jr.,
General Counsel.

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D.C., August 1, 1972.

HON. WARREN G. MAGNUSON,
Chairman, Committee on Commerce,
U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: This responds to your request for comment on S. 249, a bill "To implement the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere (56 Stat. 1354); amend Public Law 89-669 (October 15, 1966); and for other purposes".

We strongly recommend enactment of S. 3199, the Administration's proposed "Endangered Species Conservation Act of 1972", in lieu of S. 249.

Except as specifically provided, S. 249 (to be cited as the "Nature Protection Act") would prohibit the taking, transportation, or sale of any species listed in the annex to the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere, including all species found by the Secretary of the Interior "to be rare or endangered". Such prohibition would be applicable "within any place subject to the jurisdiction of the United States", but not with regard to certain species and categories of animals identified by section 5(b). In addition, the Secretary would be authorized to grant exemptions in order to further scientific purposes; provide for the display of fish or wildlife in public zoos; administer the area in which threatened species are found; provide for propagation and later release of threatened species; or for translocation of a threatened species, but only if, in each case, he determines that the grant of such exemption "will not endanger the preservation or health of the species or subspecies protected" by this legislation. S. 249 provides further that the Secretary of State shall transmit to the Pan American Union a list of species to be included as part of the annex, and would establish a penalty for violations of section 4(a).

In his environmental message of February 8, President Nixon urged enactment of legislation proposed by this Department to strengthen our program for the protection of endangered species. "We have already found", the President said, that existing law "simply does not provide the kind of management tools needed to act early enough to save a vanishing species". Thus, the "Endangered Species Conservation Act of 1972", now pending before your Committee as S. 3199, would make the taking of endangered species a Federal offense for the first time, and would authorize the protection of species likely, within the foreseeable future, to become threatened with extinction. In addition, the "Endangered Species

Conservation Act of 1972" would eliminate those ceilings which now restrict our acquisition of habitat for endangered species, and would augment the procedures available for prosecution of violators. These provisions are built upon the foundation established by your Committee and the Congress in 1966 and 1969. Our experience in the administration of those laws, the Acts of October 15, 1966 and December 5, 1969, now known together as the Endangered Species Conservation Act of 1969, has demonstrated the need for those additional tools to which the President had reference. A full discussion of our bill is contained in Secretary Morton's letter to the President of the Senate, dated February 8, 1972, and in the sectional analysis which has been provided for the record.

This Department subscribes to the objectives of S. 249, but believes that it offers only a partial solution to the problems associated with preservation of endangered wildlife. We recommend the enactment of S. 3199, which incorporates some of the provisions contained in S. 249, as a comprehensive approach to effective management. We urge that your Committee and the Congress take prompt action to establish this further milestone in the Nation's proud history of wildlife conservation.

The Office of Management and Budget has advised that enactment of S. 3199 would be in accord with the program of the President.

Sincerely yours,

NATHANIEL REED,
Assistant Secretary of the Interior.

OFFICE OF THE SECRETARY OF TRANSPORTATION,
Washington, D.C., August 2, 1972.

Hon. WARREN G. MAGNUSON,
*Chairman, Committee on Commerce,
U.S. Senate, Washington, D.C.*

DEAR MR. CHAIRMAN: Reference is made to your request for the views of this Department on S. 249, a bill

"To implement the Convention on Nature Protection and Wildlife Presevation in the Western Hemisphere (56 Stat. 1354); amend Public Law 89-669 (October 15, 1966); and for other purposes."

The proposed bill would implement the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere and is repetitive of S. 3888, 91st Congress.

While we support the general purposes of S. 249, we note that the Administration has submitted a comprehensive proposal, S. 3199, the "Endangered Species Conservation Act of 1972," to provide for more effective and strengthened management tools to protect endangered species. This Department recommends enactment of S. 3199 in lieu of S. 249.

The Office of Management and Budget advises that from the standpoint of the Administration's program there is no objection to the submission of this report for the consideration of the Committee.

Sincerely,

JOHN W. BARNUM.

DEPARTMENT OF AGRICULTURE,
OFFICE OF THE SECRETARY,
Washington, D.C., August 4, 1972.

Hon. WARREN G. MAGNUSON,
*Chairman, Committee on Commerce,
U.S. Senate.*

DEAR MR. CHAIRMAN: As you requested, here is our report on S. 249, a bill "To implement the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere (56 Stat. 1354); amend Public Law 89-669 (October 15, 1966); and for other purposes."

[This Department recommends enactment of S. 3199, the Administration's proposed "Endangered Species Conservation Act" in lieu of S. 249. The Administration's proposal would provide the needed tools to strengthen and make more effective our programs for the protection of endangered species.

S. 249 would implement the Convention on Nature Protection and Willdlife Preservation in the Western Hemisphere (56 Stat. 1354) and amend the Rare and Endangered Species Act (P.L. 89-669) by prohibiting—within any State or

any place subject to the jurisdiction of the United States—the hunting, capturing, killing, taking, transporting, selling or purchasing of any fish or wildlife which is listed in the Annex to the Convention, with certain exceptions and exemptions. It would also prohibit any offer to pay or actual payment of bounties for any fish or wildlife listed in the Annex to the Convention.

The Department of Agriculture strongly supports the protection from extinction of rare and endangered fish and wildlife species. In this regard, this Department, through the Forest Service, administers areas of National Forest lands which have been withdrawn or designated for administration in a manner to protect recognized endangered species such as the California Condor and the Kirtland's Warbler. Also, in recognition of the need to protect and conserve endangered species of birds, mammals, and fishes, this Department carries out certain special management practices on land and water areas to provide and protect key habitat for their breeding, feeding and survival.

The Office of Management and Budget advises that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely,

J. PHIL CAMPBELL,
Under Secretary.

OFFICE OF THE DEPUTY ATTORNEY GENERAL,
Washington, D.C., August 7, 1972.

HON. WARREN G. MAGNUSON,
*Chairman, Committee on Commerce,
U.S. Senate, Washington, D.C.*

DEAR SENATOR: This is in response to your request for the views of the Department of Justice on S. 249, a bill "To implement the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere (56 Stat. 1354); amend Public Law 89-669 (October 15, 1966); and for other purposes."

This bill would, if enacted, protect species and subspecies of fish and wildlife listed as endangered or rare in the annex to the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere, and would thereby also fulfill the United States' treaty obligation under the Convention to enact such enabling legislation.

On February 8, 1972, in conjunction with the President's Environmental Message the Department of the Interior submitted to Congress the Administration proposed "Endangered Species Conservation Act of 1972." Introduced as S. 3199, the Administration proposal represents a comprehensive approach for strengthening our programs for the effective management and protection of endangered species. We recommend enactment of S. 3199 in lieu of S. 249.

The Office of Management and Budget has advised that there is no objection to the submission of this report from the standpoint of the Administration's program.

Sincerely,

RALPH E. ERICKSON,
Deputy Attorney General.

THE GENERAL COUNSEL OF THE TREASURY,
Washington, D.C., March 31, 1972.

HON. WARREN G. MAGNUSON,
*Chairman, Committee on Commerce,
U.S. Senate, Washington, D.C.*

DEAR MR. CHAIRMAN: Reference is made to your request for the views of this Department on S. 3199, "To provide for the conservation, protection, and propagation of species or subspecies of fish and wildlife that are threatened with extinction or likely within the foreseeable future to become threatened with extinction; and for other purposes."

The bill, which upon enactment would be cited as the "Endangered Species Conservation Act of 1972," includes provisions to prohibit the unauthorized import into or export from the United States, taking, and interstate transportation of any species or subspecies of fish or wildlife, determined by the Secretary of the Interior to be presently or likely to become threatened with extinction throughout all or a portion of its range.

The Secretary of the Interior would publish a list of endangered species and subspecies which he has determined to be threatened, or likely to become

threatened, with extinction; designate, with approval of the Secretary of the Treasury, ports of entry for importation of fish and wildlife; permit importation, exportations, and related excepted or authorized transactions; assess civil penalties against violators or initiate civil action in a district court to collect unpaid assessed penalties; engage in appropriate cooperative and coordinated efforts with interested Federal agencies, States, and foreign countries intended for the protection, conservation, and propagation of threatened species of fish and wildlife and related purposes; and promulgate appropriate regulations.

Functions and responsibilities of the "Secretary", as the term is defined in the bill, would be exercised by either the Secretary of the Interior or the Secretary of Commerce, according to vested program responsibility.

The bill would make conforming amendments to certain Acts, including the Acts cited as the "Migratory Bird Conservation Act" and the "Land and Water Conservation Fund Act of 1965", and would repeal provisions of the Acts of October 15, 1966 (80 Stat. 926, 927), as amended (16 U.S.C. 668aa-668cc), and December 5, 1969 (83 Stat. 275-279; 16 U.S.C. 668cc-1 through 668cc-6), cited as the "Endangered Species Conservation Act of 1969."

The Department takes no position concerning the merits of the bill, deferring to the views of the Department of the Interior, the Department of Commerce, and other Departments on the need for the proposed broadening of existing statutory authority so as to allow for additional, more effective conservation measures.

Enforcement participation by the Department's Customs officers at ports of entry would be continued under the bill, in large measure corresponding to those functions currently exercised under provisions of the Endangered Species Conservation Act of 1969. However, the bill differs importantly in that it would make unlawful unauthorized exportations of endangered species, as well as the taking of endangered species within the United States, the territorial sea of the United States, or upon the high seas, and their unauthorized entry into a foreign trade zone or transshipment through the United States without Customs entry.

The Department considers that definite enforcement difficulties are to be foreseen as concern detections of, and effective enforcement measures against, violations occurring in the territorial sea or upon the high seas, by a person subject to the jurisdiction of the United States. Customs officers ordinarily do not have any contact with vessels engaged in the American fisheries, either on departure for, or on arrival from, fishing grounds. No report to Customs of the vessel's clearance to fishing grounds or arrival from fishing grounds is required. No Customs entry is required for duty free fish or marine products taken in the territorial sea of the United States or upon the high seas by documented vessels of the United States engaged in the fisheries, or by residents of the United States, when the catch is brought into port by the taking vessel or by another vessel of the same fleet to which the catch was transferred at sea. Schedule 1, Part 15A, Tariff Schedules of the United States; 19 CFH 10.78-10.79.

The bill's definition of "United States" would extend coverage to a geographical area greater than the Customs territory of the United States (the States, the District of Columbia and Puerto Rico), the area where the Bureau of Customs administers the laws relating to the importation and exportation of merchandise. The Department assumes that the provisions of the bill concerning unlawful importations into or exportations from the territories of American Samoa, the Virgin Islands, and Guam would be enforced by other agencies without participation by the Bureau of Customs.

The Office of Management and Budget has advised this Department that there is no objection to the submission of this report, and that enactment of S. 3199 would be in accord with the program of the President.

Sincerely yours,

ROY T. ENGLERT,
Acting General Counsel.

OFFICE OF THE ATTORNEY GENERAL,
Washington, D.C., April 10, 1972.

HON. WARREN G. MAGNUSON,
*Chairman, Committee on Commerce,
U.S. Senate, Washington, D.C.*

DEAR SENATOR: This is in response to your request for the views of the Department of Justice on S. 3199, a bill "To provide for the conservation, protection,

and propagation of species or subspecies of fish and wildlife that are threatened with extinction or likely within the foreseeable future to become threatened with extinction; and for other purposes."

Prior laws, such as the Endangered Species Conservation Act of 1969 (16 U.S.C. 668aa-668cc-5) and related Acts, gave the Secretary of the Interior authority to promulgate separate lists of native species threatened with extinction and of foreign species threatened with worldwide extinction; to regulate the interstate transportation of native species taken contrary to State laws; and to restrict the importation of foreign species which he determines to be threatened with worldwide extinction. In addition, the Secretary was given authority to acquire endangered species' habitats within funding limits established by closely the precedent established by Congress in 1966 and 1969, when it enacted Congress.

The bill would repeal the existing Endangered Species Act. It would follow the first legislation to provide protection for those species of fish and wildlife determined to be threatened with extinction in the United States and abroad. The bill would reenact the provisions of the Acts of October 15, 1966 (80 Stat. 926, 16 U.S.C. 668aa-668cc) and December 5, 1969 (83 Stat. 275, 16 U.S.C. 668cc-1-668cc-5), which laid the foundation for conservation of endangered species, add to them provisions which would include selected species and subspecies "likely within the foreseeable future to become threatened with extinction," and extend the scope of prohibited acts. Criteria would be provided for the exercise of the discretion of the Secretary of the Interior in determining which species or subspecies should be regarded as endangered and the Secretary would be directed, after making such determination, to publish in the Federal Register a list of such endangered species.

Subsection 5(a)(1) of the bill would provide that notwithstanding any other Act of Congress or regulation issued pursuant thereto, and except as therein-after provided, any person who (1) imports into or exports from the United States, receives, or causes to be so imported, received, or exported; or (2) takes or causes to be taken within the United States, the territorial sea of the United States, or upon the high seas; or (3) ships, carries, or receives by any means in interstate commerce, any species or subspecies of fish or wildlife which the Secretary has listed as an endangered species pursuant to section 2 of the bill would be punished in accordance with the provisions of section 7 of the bill. Subsection 5(b) would authorize the Secretary to issue necessary regulations to provide for conservation, protection, restoration, and propagation of species or subspecies listed as endangered, including regulations subjecting to punishment in accordance with section 7 of the bill any person who violates the prohibitions of subsection 5(a)(1). The Secretary would be given discretion to permit those acts otherwise prohibited by subsection 5(a)(1) and would be authorized to delegate to states authority to regulate the taking of endangered species where "adequate measures have been adopted by such State for the management and protection of endangered species."

Section 7 would provide civil and criminal penalties for violations of section 5 or 6 or any regulation or permit issued thereunder, or any regulation issued under subsection (d) or (e) of section 7. Subsection 7(a)(1) and (2) would provide a civil penalty of not more than \$5,000 for each violation to be assessed by the Secretary after notice and opportunity for a hearing. The Secretary would be given power to compromise the penalty. Upon non-payment the Attorney General could be requested to institute a civil action in the district court. After conclusion of the penalty proceeding, property seized would be subject to forfeiture. Under subsection 7(b) a knowing violation would be punishable by a fine of not more than \$10,000 or imprisonment for not more than one year, or both, and any fish and wildlife or other property seized would be forfeited.

Subsection 7(c)(1) would provide for the enforcement of sections 5 and 6 of the bill and any regulations issued pursuant thereto or pursuant to subsections (d) and (e) of section 7, by the Secretary of the Interior, the Secretary of the Treasury, or the Secretary of the Department in which the Coast Guard is operating. Subsection 7(c)(2) would grant arrest authority to Interior, Commerce or Treasury Department agents for knowing violations committed in their presence and authority to seize any property taken, used or possessed in connection with such violation. Commerce and Interior Department agents and Customs officers would be given authority under subsection 7(c)(3) to execute search warrants and seize any property, including any fish, wildlife, aircraft, boat, or other conveyance, weapon, business records, shipping documents, or other items.

Subsection 7(d) would provide for designation by the Secretary, with approval of the Secretary of the Treasury, of ports for importation of fish and wildlife, and to make certain exceptions thereto. Under subsection 7(e) the Secretary would be authorized to promulgate such regulations as may be appropriate to carry out the purposes of the bill, and the Secretaries of the Treasury and the Department in which the Coast Guard is operating would be authorized to promulgate regulations appropriate to the exercise of responsibilities under subsection 7(c) (1).

Subsection 8(a) would require the Secretary of the Interior through the Secretary of State to encourage foreign countries to protect species or subspecies of fish and wildlife threatened or becoming threatened with extinction. Subsection 8(b) would require that the Secretary of the Interior and the Secretary of Agriculture coordinate the administration of this Act with the administration of the animal quarantine laws and the Tariff Act of 1930, and subsection 8(c) would provide that this Act shall not limit the functions and responsibilities of the Secretary of the Treasury under the Tariff Act of 1930, as amended.

The significant changes the bill would make in existing law would (1) remove the distinction now existing between native and worldwide endangered species; (2) extend present controls to reach species or subspecies which, though not yet threatened with extinction, are likely within the foreseeable future to become so threatened; (3) provide greater flexibility to reflect a change in the status of a given species or subspecies as that change becomes evident; (4) extend the existing prohibitions to include export as well as import and the taking and interstate transportation of listed endangered species by any person subject to the jurisdiction of the United States.

Whether this legislation should be enacted involves questions as to which the Department of Justice defers to the Departments of Commerce and the Interior.

The Office of Management and Budget has advised that there is no objection to the submission of this report from the standpoint of the Administration's program.

Sincerely,

RICHARD G. KLEINDIENST,
Acting Attorney General.

DEPARTMENT OF AGRICULTURE,
OFFICE OF THE SECRETARY,
Washington, D.C., May 2, 1972.

HON. WARREN G. MAGNUSON,
*Chairman, Committee on Commerce,
U.S. Senate.*

DEAR MR. CHAIRMAN: This is in reply to your request for a report on S. 3199. The bill is entitled "To provide for the conservation, protection, and propagation of species or subspecies of fish and wildlife that are threatened with extinction or likely within the foreseeable future to become threatened with extinction; and for other purposes."

This bill was transmitted to the Congress as part of the President's Special Message on the Environment on February 8, 1972. This Department strongly recommends the enactment of S. 3199.

Our understanding of the bill is that it would (1) incorporate those provisions of the Act of October 15, 1966 (80 Stat. 926) and the Act of December 5, 1969 (83 Stat. 275) which have provided the foundation for efforts by the Department of the Interior to conserve endangered species, and (2) to provide additional authorities which experience has demonstrated is necessary to cope with the continuing decimation of fish and wildlife resources. Among such additional authorities, the bill includes provisions for (1) determining those species or subspecies of fish and wildlife which are not yet threatened with extinction under the present law but are likely to become so threatened within the foreseeable future, and (2) prohibiting the unauthorized import or export, the taking, and the interstate transportation of any species or subspecies of fish or wildlife which have been listed as an endangered species under section 2 of the bill. The bill includes other provisions relating to the conserving, protecting, restoring, and propagating of endangered species and subspecies of fish and wildlife.

Under the animal quarantine laws (19 U.S.C. 1306; 21 U.S.C. 101-105, 111-135b, and 612-614) this Department is responsible for preventing the introduction and spread of livestock and poultry diseases through the movement of

animals including poultry in interstate and foreign commerce. In conducting these program responsibilities, we are working closely with the Department of the Interior under the present law for preventing the importation of endangered species. We will continue to work closely with that Department in attaining the purposes of the bill under the provisions of section 8(b).

The Office of Management and Budget advises that there is no objection to the submission of this report and that enactment of S. 3199 would be in accord with the President's program.

Sincerely,

J. PHIL CAMPBELL,
Under Secretary.

COMPTROLLER GENERAL OF THE UNITED STATES,
Washington, D.C., May 10, 1972.

HON. WARREN G. MAGNUSON,
*Chairman, Committee on Commerce,
U.S. Senate.*

DEAR MR. CHAIRMAN: Your letter of March 20, 1972, transmitted a copy of S. 3199, 92d Congress, entitled: "A BILL To provide for the conservation, protection, and propagation of species or subspecies of fish and wildlife that are threatened with extinction or likely within the foreseeable future to become threatened with extinction, and for other purposes," and requested our comments thereon.

We have no special information which would assist the committee in its consideration of the bill. While we have no recommendations to make on the merits of the proposed legislation, we have the following comments on specific provisions thereof for your consideration.

Subsection 7(b) of the bill provides that any person who knowingly violates any provision of section 5 or 6 of the act or any regulation or permit issued thereunder, or any regulation issued under subsection (d) or (e) of section 7 shall, upon conviction, be fined not more than \$10,000 or be imprisoned for not more than one year or both. We suggest that subsection 7(b) be clarified to state whether each violation shall be treated as a separate offense, as is provided for violations covered in subsection 7(a) (1).

We suggest also that the words "issued to any such person" be inserted after the word "stamps" on line 19, page 12, of the bill and on page 9, line 7, the word "deem" should be "deems".

Sincerely yours,

ROBERT F. KELLER,
Deputy Comptroller General of the United States.

DEPARTMENT OF STATE,
Washington, D.C., July 25, 1972.

HON. WARREN G. MAGNUSON,
*Chairman, Committee on Commerce,
U.S. Senate, Washington, D.C.*

DEAR MR. CHAIRMAN: Thank you for your letter of July 7, 1972, affording this Department the opportunity to comment on S. 3199, a bill to provide for the conservation, protection and propagation of fish and wildlife that are threatened with extinction or likely within the foreseeable future to be threatened.

This legislation was transmitted to the Congress in conjunction with the President's Special Message on the Environment on February 8, 1972. This Department strongly supports S. 3199 and stands ready to accept the responsibilities that would be imposed upon us under Section 8 and elsewhere.

The Department has been advised by the Office of Management and Budget that there is no objection to the submission of this report and that enactment of S. 3199 would be in accord with the program of the President.

Sincerely,

DAVID M. ABSHIRE,
*Assistant Secretary
for Congressional Relations.*

SMITHSONIAN INSTITUTION,
Washington, D.C., August 11, 1972.

HON. WARREN G. MAGNUSON,
Chairman, Committee on Commerce,
U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: Thank you for your letter of July 7, 1972, requesting the views of the Smithsonian Institution on S. 3199, a bill "To provide for the conservation, protection, and propagation of species or subspecies of fish and wildlife that are threatened with extinction or likely within the foreseeable future to become threatened with extinction; and for other purposes."

The bill would authorize the Secretaries of Interior and Commerce to determine, on the basis of the best scientific and commercial data available, those species or subspecies of fish or wildlife which are either presently threatened with extinction, or are likely within the foreseeable future to become threatened with extinction. In making this determination the Secretary of Commerce would have authority over those species of fish and ocean mammals which are presently under the jurisdiction of NOAA. A list of these species would then be published in the *Federal Register*. The bill would prohibit the taking, importation or exportation of those species determined to be endangered, but provides an exemption for American Indians, Aleuts, or Eskimos who take endangered species for their own consumption or for ritual purposes. As for the species which, while not now found to be endangered, are determined to be likely within the foreseeable future to become threatened with extinction, the Secretaries would issue such regulations as deemed necessary or advisable to provide for their conservation, protection, restoration, and propagation. Such regulations might include a ban on the taking, importing or exporting of this category of species, although such a ban is not mandatory. The Secretaries might permit the taking or importation of endangered species for zoological, educational and scientific purposes and for their propagation in captivity for preservation purposes. The bill would modify existing law to make a criminal offense the knowing violation of any of its provisions, or of permits and regulations issued under it.

The Smithsonian endorses the purposes of this bill, which will substantially improve our ability to protect and to preserve threatened species of wildlife. Two provisions of the bill are of especial importance: (1) under the bill a species could be placed on the list if it were found to be endangered in part of its range and the present requirement of a finding of world-wide endangerment would be done away with; and (2) the bill also wisely adopts the concept of "depleted" species and provides for a range of measures to preserve species which are likely to become threatened with extinction. This flexibility will allow the administrators of the endangered species program to take steps well in advance of the time when only desperation measures will save or restore a species.

There are several suggestions that should be brought to the Committee's attention for consideration during action on this bill. The United States-Japan Convention on Migratory Birds, signed in Tokyo on March 4, 1972, is such a significant step in the long-range preservation of Pan-Pacific bird species that it might well be included specifically in the list of international conservation measures in Section 2(a) of the bill.

It is recognized that an expanded list of endangered species may at the outset create enforcement problems and require the training of additional expert inspectors. The Smithsonian, through its own staff of scientists, would provide whatever assistance it can in this respect to the Department of the Interior and the Department of Commerce. If, for example, the National Museum of Natural History were to serve as an identification and forwarding/retention center on a regional basis, it could be helpful at the outset of an expanded protection program. I enclose a copy of a squib in the *Washington Evening Star* of May 19, 1972, showing that enforcement will be almost as difficult in the wildlife area as it is in international drug smuggling for example, Great Britain has had the same problem and falcon smuggling is rife in West Germany. Canada even has a falconers' lobby!

The Smithsonian strongly favors the discretionary authority granted to the Secretary under Section 6(a) of the bill. It is urged that the Secretary exercise this authority so as to distinguish between recently collected specimens and those which have been collected in the past and are being imported for certain purposes. Perhaps the International Union for the Conservation of Nature and Natural

Resources could assist the Secretary in designating those museums in the world having collections of certain species, now endangered, which could be sent internationally under appropriate authority without having to be subjected to inspection and unnecessary or undesirable delay. The International Council for Bird Preservation could be particularly helpful on bird collections as well as live bird smuggling, in which it has very considerable expertise.

Section 8(a) of the bill calls for a program of technical assistance to other nations in programs for the protection of endangered species. One practical and necessary measure that could be undertaken would be the preparation of an illustrated manual for easy identification of endangered species and species threatened with extinction. Such a manual would be of invaluable assistance to the customs officers of foreign nations and would be equally useful to United States enforcement officers. The International Council for Bird Preservation has been in touch with the Fish and Wildlife Service on this.

In relation to this program of technical assistance, it should be noted that the Smithsonian Institution has an extensive and varied program throughout the world dealing with ecological assessment. Much of the program is financed by foreign currency in the form of P.L. 480 funds. It might be helpful to include specific language in the Committee report referring to these funds and other foreign currencies declared excess by the Treasury Department so as to emphasize a Congressional policy endorsing use of these funds for the preservation of endangered species.

The Smithsonian Institution hopes that the Committee will act favorably on legislation which will give greater protection to species threatened with extinction or which are likely within the foreseeable future to become threatened. (The principles embodied in the pending legislation demonstrate the increasing awareness of the American public that we have a moral obligation to treat the future existence of other living creatures, which so often depends on human decisions, with care, respect, and foresight.)

The Office of Management and Budget has advised that there is no objection to the presentation of this report to the Congress and enactment of this legislation would be in accordance with the President's program.

Sincerely yours,

S. DILLON RIPLEY,
Secretary.

Enclosure.

[From the Washington Evening Star, May 19, 1972]

TWO RARE BABY FALCONS BIRDNAPED IN CALIFORNIA

MORRO BAY, CALIF. (AP)—Birdnapers sneaked past a guard, scaled massive Morro Rock and stole two rare peregrine falcon fledglings from their nest.

The 3-week-old birds, worth a reported \$5,000 each, are on the endangered species list. California fish and game officials say only 12 are known to exist in California.

The birds were stolen last week, despite a round-the-clock guard which bird fanciers posted at the base of the 580-foot rock just offshore from this tiny seaside community midway between San Francisco and Los Angeles.

On the night of May 8, two youths eluded sentinels to reach the nest but were arrested when they descended. The baby birds were found in a paper sack at the base of the rock and returned to the nest, police said.

Last week, a three-man team, equipped with climbing ropes and walkie-talkies, got to the nest at the 480-foot level. Police said two of the men were arrested, but the third escaped with the falcons. The birds are still missing.

Fish and game officials say the fledgling are quite friendly to humans and valued for their use in falconry.

COMPTROLLER GENERAL OF THE UNITED STATES,
Washington, D.C., October 6, 1972.

HON. WARREN G. MAGNUSON,
Chairman, Committee on Commerce,
U.S. Senate.

DEAR MR. CHAIRMAN: Your letter of July 28, 1972, requests our comments on S. 3818, 92d Congress, which, if enacted, would be cited as the "Endangered Species Conservation Act of 1972."

Although the purpose of the act, as stated in section 2(a), is to protect endangered species of fish and wildlife and flora, the stated purpose in the title of the bill refers only to fish and wildlife and makes no mention of flora. Also, several provisions of the bill refer only to fish and wildlife and not to flora. Further, subsection 6(e) refers to wildlife but not to fish or flora. We suggest that the language of the bill be revised, where appropriate, to clarify application of its provisions to fish, wildlife, and/or flora, respectively.

Section 3 defines the terms "wildlife" and "fish," but not the term "flora." The inclusion of a definition of the latter term would seem to be desirable.

To further conform the title to the stated purpose in section 2(a) and to other provisions of the bill which refer to its four objectives of conservation, protection, restoration, and propagation, we suggest that the word "restoration" be added in the title clause after the word "conservation." Also, the language of the title is not consistent with various provisions in the bill which use the word "or" (page 2, line 17; page 7, lines 7 and 21; and others), whereas the title uses the word "and." The Committee may wish to clarify whether the four objectives are alternatives.

The following editorial or technical changes appear to be needed:

On page 7, line 9, the reference to "section 2" should be "section 4."

On page 8, line 13, subsection "(f)" should be subsection "(e)."

On page 15, line 22, "mannr" should be "manner."

On page 26, line 8, the citation (16 U.S.C. 46019(a) (1)) should be (16 U.S.C. 4601-9(a) (1)).

On page 26, line 18, the citation (16 U.S.C. 668c-6) should be (16 U.S.C. 668cc-6).

Sincerely yours,

ROBERT F. KELLER,
*Deputy Comptroller General
of the United States.*

Senator SPONG. I would now like to call on our first witness, the sponsor of one of the bills before us, the distinguished Senator from Oregon, Mr. Hatfield. Senator Hatfield is a former member of this committee.

STATEMENT OF HON. MARK O. HATFIELD, U.S. SENATOR FROM OREGON

Senator HATFIELD. Thank you, Mr. Chairman.

Mr. Chairman, it looks very natural to see you sitting there as I used to sit to your right at such hearings as this. I do miss my activity on this committee.

Thank you for the opportunity to appear on behalf of S. 3199. As you know, I introduced S. 3199 in the Senate on February 18. This bill was proposed by the Department of the Interior, and introduced in the House on February 8. The Honorable John Dingell presided over hearings in the House on H.R. 13081, which is identical to S. 3199.

The need for this legislation was aptly stated by President Nixon in his environmental message of February 8 when he said, "We have * * * found * * * that even the most recent act to protect endangered species, which dates only from 1969, simply does not provide the kind of management tools needed to act early enough to save a vanishing species."

The United States has been a world leader in wildlife management and conservation, and must continue to provide an example for other nations.

I believe S. 3199 will strengthen this position. It will not eliminate the threat to wildlife survival, but it will provide needed authorities to effectively manage those animals presently endangered and those likely within the foreseeable future to become threatened with extinction.

S. 3199 will fill major gaps in existing law. It will expand the definition of endangered species in section 1 of the 1966 act and section 3 of the 1969 act to include those species or subspecies presently threatened with extinction, as well as those likely within the foreseeable future to become threatened with extinction.

The proposed act will make it possible to publish a single list of species whether "native" or "foreign" and eliminates the requirement that a listed species be threatened throughout its entire range. Furthermore, the act will provide a different degree of protection depending on the two levels of endangerment.

These changes will place a stronger emphasis on restoration through rehabilitation rather than just through protective reaction. When we wait until a species has almost reached the point of extinction to take action, it is virtually impossible to reverse the process.

It is definitely more costly. Costly, not so much in terms of dollars, but in terms of robbing them, as well as us, of their role in nature.

The extinction of a species limits our potential for scientific advancement and human enjoyment. Extinctions also introduce unknown consequences in the functioning of ecosystems. Each species is a perishable resource of unpredictable value. Fifty years ago, few would have seen the value of the fruit fly for research in genetics or the value of primates to advance the biometrical and pharmaceutical sciences. Fifty years ago, few would have believed that the sea otter would be restored from near extinction.

A further aid to the management of endangered species afforded by this legislation is the removal of the ceilings on acquisition of habitat through use of proceeds from the Land and Water Conservation Fund.

In addition, S. 3199 provides for increased and additional enforcement authority by authorizing suspension of Federal hunting and fishing licenses, permits, or stamps, and by authorizing warrantless search under specific conditions. Additionally, section 5(a) of the bill prohibits the import, export, and taking within the United States or upon the high seas, and interstate transportation of endangered species listed as threatened with extinction.

The 1969 act provided only a prohibition against the import of an endangered species from a foreign country.

Although in Oregon we do not have many endangered species, we do have an active program to insure that this level does not increase.

This past year, Oregon passed legislation which provides its Fish and Game Commission with authority over nongame wildlife. Oregon is developing active programs to manage all of its resident wildlife, including endangered species, and we look forward to passage of S. 3199 which will promote greater Federal-State cooperation and interaction in matters related to endangered species.

Indeed, more and more States have come to realize the importance of all their resident wildlife, not just game species. Mr. Chairman, I would like to digress for a moment and request that a letter from the Department of the Interior be included with my remarks, because

this letter addresses itself to the question of States' jurisdiction over resident wildlife and to the rights of legitimate sportsmen.

As you know from my own association with you on this committee, I support an active State role in the management of resident fish and wildlife. Therefore, I urge that section 6(b) be carefully studied and strengthened if necessary so that States with an active program can maintain their dominant role.

I would like to quote one or two lines from a letter dated May 10, addressed to me, and signed by the Associate Director of Fish and Wildlife of the Department of the Interior, which discusses some common criticisms that have been raised concerning my bill, S. 3199. One criticism which has been often heard is that the Federal Government will usurp the States' rights to manage resident wildlife. The Department responds by saying:

The bill does give the Secretary the right to conserve the propagation and restoration of endangered species, but the bill states in section 6(b) that the Secretary shall delegate to a State the authority to regulate the taking of endangered species when he determines that the State maintains an active program to manage and protect such creatures.

The conservation of resident wildlife historically and rightfully has been the right and the responsibility of the various State conservation departments. However, many States only have authority or programs for those species classified as game, and the Federal Government's authority is generally limited to migratory birds.

Since most endangered species are neither game nor migratory, they have tended to be overlooked at both the State and Federal levels, which probably is the reason many of them are endangered. This bill would simply give the Federal Government the authority to act on behalf of these creatures until the State was able and willing to assume that responsibility.

Now the wording of the letter shows, I think, clear intent as to the attitude of the Department of the Interior, in whatever roles it will play under the enactment of this bill. But, I would like to again suggest that the committee satisfy itself on this language if the committee is in agreement that the States should maintain a dominant role where the State has the will, the machinery, and the capacity to handle this problem.

S. 3199 defines "Secretary" to mean Secretary of Interior or Secretary of Commerce as may be appropriate, in accordance with Reorganization Plan No. 4 of 1970. Mr. Chairman, this committee may wish to study this duality of authority at the Federal level and determine whether such a situation is in the best interest of the endangered species program contained in S. 3199.

It has been suggested that the Department of the Interior retain full the State has the will, the machinery, and the capacity to handle this proposal very carefully.

Thank you, Mr. Chairman, for this opportunity to comment on this important legislative proposal.

Senator Spong. Thank you very much, Senator Hatfield. The letter you read from will be admitted to the record in its entirety. You may be assured that the committee will take a very close look at section 6(b), as you have suggested.

Having been on the losing end of the Ocean Mammal bill over the proper role of the Interior Department as opposed to Commerce, I do not have to tell you what my own views are on this, but I am most appreciative for your directing our attention to that situation with regard to his bill.

We appreciate your testimony.

Senator HATFIELD. Thank you very much, Mr. Chairman.

Senator SPONG. Mr. Nathaniel P. Reed.

We are pleased to have you again before us, Mr. Reed.

STATEMENT OF HON. NATHANIEL P. REED, ASSISTANT SECRETARY FOR FISH AND WILDLIFE AND PARKS; ACCOMPANIED BY CURTIS BOHLEN, DEPUTY ASSISTANT SECRETARY FOR FISH AND WILDLIFE AND PARKS; KEITH SCHREINER, CHIEF, OFFICE OF ENDANGERED SPECIES AND INTERNATIONAL ACTIVITIES, BUREAU SPORT FISHERIES AND WILDLIFE; AND WILLIAM GARNER, OFFICE OF THE SOLICITOR

Mr. REED. Thank you, Mr. Chairman.

I am Nathaniel P. Reed, Assistant Secretary for Fish and Wildlife and Parks. I have with me today Deputy Assistant Secretary for Fish and Wildlife and Parks, Curtis Bohlen; Mr. Keith Schreiner, Chief Office of Endangered Species and International Activities, Bureau of Sport Fisheries and Wildlife; and Mr. William Garner, Office of the Solicitor.

Before I begin, Mr. Chairman, I would like to publicly thank Senator Hatfield and yourself for the excellent opening remarks that you made starting us off on a really superb opportunity to testify before you. I think you have set the tone on a very, very serious issue on which so many thousands, if not millions, of Americans are deeply concerned.

Mr. Chairman, I am grateful for this opportunity to appear on behalf of S. 3199, the proposed "Endangered Species Conservation Act of 1972," and provide comments on other proposals being considered here today. This legislation retains those provisions of the acts of October 15, 1966, and December 5, 1969, which laid the foundation for the Department of the Interior's effort to protect endangered species, and adds to them the authorities which experience has demonstrated are needed to cope with the continuing threats faced by our wildlife resources.

The earlier legislation is the most comprehensive of its type to be enacted by any nation, and has helped reinforce the United States' position as a world leader in the field of wildlife consideration. However, in the 2 years or so this Department has exercised the authorities provided in the Endangered Species Conservation Act of 1969, several major deficiencies have become apparent. We have found, as President Nixon stated in his Environmental Message of February 8, that existing law

simply does not provide the kind of management tools needed to act early enough to save a vanishing species. Of the species and subspecies of wildlife known to have become extinct since initial settlement of the United States, over half the losses have occurred during the past 50 years. During the next quarter century, a total of at least 40 additional mammals and birds, and 25 different fishes may be expected to disappear if positive preventive action is not undertaken. We believe that the proposed "Endangered Species Conservation Act of 1972" will provide us with essential management and enforcement authority to avert these appalling statistical estimates of extinction. The legislation to which we address ourselves today would make the taking of endangered species a Federal offense, and would permit protective measures to be undertaken before a species is so depleted that restoration is impossible.

The restoration of a species which has deteriorated to the point at which it is "threatened with extinction" is a long, costly, and frequently unsuccessful process. Driving a species to extinction or to a point so reduced that preservation of the species is virtually impossible are processes that cannot be reversed. In the long run, it makes little difference how man has influenced the status of a creature, either destroying or poisoning its habitat or by over-exploitation; a biological species is unique, and once it is lost, no force known can recreate it. It is more efficient and in the best interest of the wildlife resource to take action when it becomes apparent that a creature is likely within the foreseeable future to become threatened with extinction. S. 3199 satisfies this need by identifying two general levels of endangerment, and by providing a different degree of protection for each.

This legislation, for simplicity of administration, directs the Secretary to publish and maintain a single list of endangered species, whether "native" or "foreign." It provides further that the Secretary shall indicate whether each listed species is "threatened with extinction" or whether it is "likely within the foreseeable future to become threatened with extinction," and in either case, over what portion of its range this condition exists.

To assure protection to all endangered species commensurate with the threat to their continued existence, this legislation will prohibit the import, export, taking, or interstate transportation of any species or subspecies determined to be "threatened with extinction," by any person subject to the jurisdiction of the United States except for carefully screened scientific, education, zoological, or propagational purposes.

The provisions of section 5(a) are intended to provide a degree of regulation consonant with the Congress' recognition of a national interest in the conservation of endangered species, and with our responsibility to the international community for the conservation of species which are threatened elsewhere in the world. We are currently pursuing adoption of an international convention, which I might add, Mr. Chairman, we worked on all day yesterday, which will insure worldwide protection of endangered species. This will strengthen and reinforce the Federal Government's role in the international protection of wildlife.

The proposed legislation enables the adoption of measures most appropriate to the conservation of an animal throughout all or a significant portion of its range by first: Providing the secretary discretionary authority to regulate the import, export, taking, and interstate transportation of those species or subspecies which are "likely within the foreseeable future to become threatened with extinction," and, second: By authorizing the secretary to delegate the authority to regulate the taking of such creatures to States which have "an active program to manage and protect" them.

I wish here to emphasize that the Federal Government has no intention of usurping the rightful prerogative of the States to manage their resident wildlife. However, wildlife programs conducted by State agencies traditionally have been supported by revenues derived primarily from license holders—the hunter, fisherman and trapper—and have been aimed at "game" species. Very few native game animals are to be found among our "endangered species." Thus, with State

programs heavily oriented toward game species, and since the Federal Government has only very limited authority to act on behalf of "resident wildlife," we could easily lose an "endangered species." This is especially true for some of the less conspicuous ones, such as the reptiles, amphibians, mollusks, or crustaceans. It is possible that while we tried to decide who, if anyone, had the authority or resources to act on behalf of these species, their status would deteriorate to a point of no return. The authority provided in S. 3199 would eliminate that possibility by permitting the Federal Government to bolster the protection provided by the States until the appropriate State or States were "ready, willing and able" to assume the responsibility.

The States have an important role to play in the protection of endangered species. State agencies have scientific and law enforcement personnel that give coverage which we can never duplicate. Their cooperation is essential to the success of this program, and we look forward to a long and fruitful relationship.

Insofar as foreign animals which are "likely within the foreseeable future to become threatened with extinction" are concerned, the bill before us today provides the secretary a means of regulating the import of such animals or of products made from them to discourage commercial over-exploitation and its shadow—the poacher. For example, in the case of an animal which produces a harvestable surplus in a country where an effective wildlife management program exists, the secretary could permit the importation of lawfully taken sport trophies while banning imports for commercial purposes. This new legislation would eliminate most of the problems that occurred as a result of our designation of eight species of cats as threatened with extinction in March of this year.

The act of 1969 allows imports under special permit only for educational, scientific, zoological or propagational purposes. Under the 1969 Act a hunter cannot bring into the United States a trophy of a species threatened with extinction. We recognize that the taking of animals by licensed hunters is not the principal cause of the decline of some of these populations. Under the proposed legislation the secretary would have the authority to permit a hunter to import a trophy of a species classified as "likely within the foreseeable future to become threatened with extinction" when the trophy is taken lawfully in a country which has a good management program for that species; and, when the Secretary is satisfied that such taking would not increase the likelihood of that population becoming threatened with extinction. The intent of this legislation is to encourage countries to adopt effective wildlife conservation programs, and to give the Secretary the flexibility of assisting by regulating the permits. Furthermore, revenue from hunters would provide an economic incentive to the governments of lesser developed countries, which have not yet fully developed an esthetic appreciation for wildlife, to conserve these animals and their habitat—especially those species which pose a real or imagined threat to man, his crops, or his livestock.

The authority in section 5(b) also enables the secretary to provide a "halfway house" for those animals which have been restored to the point that they are no longer "threatened with extinction," but have

not yet responded to the point at which they are ready to be completely removed from the protective umbrella of the Endangered Species Conservation Act of 1972. In these cases, the designation "threatened with extinction" would be changed to "likely within the foreseeable future to become threatened with extinction." This procedure can be likened to that of a hospital where the patient is transferred from the intensive care unit to the general ward until he is ready to be discharged.

An even more immediate problem addressed by this bill is the limitations imposed by law upon the use of land and water conservation fund moneys to acquire habitat for endangered species. Present authorizations are limited to \$2.5 million per area; \$5 million per year, and a total of \$15 million.

Mr. Chairman, I would like to leave my prepared remarks for a moment to tell you that right now we are studying the habitat of an endangered fish. A very small, insignificant fish that lives in the desert in Nevada. We do not know whether we are going to be able to save this animal, which is the byproduct of thousands of years of evolution. With the limitations on funding, we may not even get a good chance at it. We are going to do everything we can within the limitations of the current law to preserve this unique, unspectacular species.

Our fiscal year 1973 land acquisition program takes us to that \$15 million ceiling. There are many instances where endangered species are found outside of public lands and direct habitat acquisition or easement purchase is the only means of giving these species the protection needed to preserve them. Indeed, as our experience at managing endangered species increases, it becomes more apparent that the availability of habitat is a key factor in their restoration. If the program is to continue, it is vital that these restrictions on habitat acquisition be eliminated.

The thousands of articulate, thoughtful letters I have received since coming to Washington have reinforced my conviction that Americans recognize that man is but a single element of our natural environment and, despite our advance technology, that we can never replace an animal allowed to become extinct. The evolution of new species and the decline of extant ones is a natural sequence of events in the total earth ecosystem. Historically, this process occurred as a result of varying natural forces such as climatic changes and natural selection. However, as man emerged on the world scene as a dominant life form, the situation changed dramatically.

Man, with his powerful and efficient technology, quickly attained the ability to disturb the ponderous forces and rhythms of nature as he exploited the world's resources and altered the natural environment to accommodate his own needs. Concomitant with man's emergence as a dominant species was a drastically accelerated rate of loss of other species. This reduction in the number of species, either by direct or indirect action of man, has resulted in instability, reduced man's freedom in choosing species for his utilization, and contributed to an impoverished quality of life. I do believe that mankind has matured to the point that we are no longer willing to participate in the unnatural destruction of the end product of eons of evolution. I am not, however, so naive as to believe that man can stop evolution. I know, despite our best efforts, that some species will be lost. Even though we may not be able to save all endangered species, we must make an effort.

The Department of the Interior is committed to the conservation of all wildlife, and to the belief that man must share his environment if we are to honor the natural order.

We recommend the enactment of S. 3199 as a comprehensive approach to the effective management and conservation of threatened wildlife.

In this presentation I have not been able to discuss all the minor, but nonetheless significant, provisions of the "Endangered Species Conservation Act of 1972." These are addressed in a sectional analysis of the bill, which I would be pleased to submit for the record, and in Secretary Morton's letter to the President of the Senate.

With the understanding that S. 3818 was introduced with the hope of raising various issues within the endangered species program, we would like to comment on selected issues which we feel are significant.

The bill includes flora within the protection of this program. This is a significant addition which emphasizes a total concern for the environment. While we think endangered species of flora should be protected, we do not feel that this bill is the appropriate vehicle for such an effort.

We question whether sufficient information is available at this time to legislate protection of flora. The Department of Agriculture has expressed interest in further studying increased protection for flora. We will cooperate in the conduct of that study; and, recommend that action be deferred pending further consideration.

Mr. Chairman, to digress from my prepared statement for a moment, I have a long history in botany, and I am deeply interested in the field of flora protection. The international convention which we hope to enter into later this fall includes flora as well as fauna, and will provide some needed protection for flora. With further study it should be possible to introduce legislation which will address the specific needs of this subject.

We note that section 4(b) of S. 3818 has added language appearing to guarantee an agency hearing for listing or delisting of endangered species. We oppose this language as a lengthy and costly impediment to the listing process. We welcome public input in addition to existing ties with the scientific community and recognize the utility of public hearings. However, the Secretary must retain his discretion to decide when a hearing would be appropriate as a part of his administrative review.

The exception for consumption and ritual use by American Indians, Aleuts or Eskimos has been deleted in S. 3818.

We support such taking for cultural and survival use when the Secretary determines, in each case, that such taking will not lead to extinction or otherwise irreparably damage population stocks. We anticipate little or no appreciable effect on populations with this restricted exception to the general prohibition on taking. We strongly urge, as the Department which has responsibility for the welfare of Indians and Native people, that your committee adopt language as found in section 5(a) (2) of S. 3199.

We would finally mention that S. 3818 includes language directing the Secretary, through the Secretary of State, to convene an international ministerial meeting for the purpose of signing an international convention on the conservation of endangered species. We would only inform the committee that negotiations are presently underway for such a convention, and a draft treaty is being prepared in conjunction

with the State Department. We hope to have a treaty agreed upon and signed this year. Therefore we do not think the language in subsection 5 (f) is necessary.

S. 249, to be cited as the "Nature Protection Act," would prohibit the unauthorized taking, transportation, or sale of any species listed in the annex to the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere, including all species found by the Secretary of the Interior to "be rare or endangered." This act offers only a partial solution to the problem of protection for endangered wildlife. Partial solutions are not acceptable to the American people.

We urge your committee and the Congress to take prompt action to establish a further milestone in this Nation's proud history of wildlife conservation by enacting S. 3199.

Thank you, Mr. Chairman.

Senator SPONG. Thank you very much, Mr. Reed, for that very fine testimony.

Control of resident wildlife has traditionally been a responsibility of the State. You point out in your statement the importance of State personnel for the success of this program. What is your reaction to allowing the States to conduct their own endangered species programs under Federal guidelines?

Mr. REED. I encourage it wholeheartedly. The State game commissions, on the whole in the last 10 years, have developed extraordinary capabilities in their own scientific communities. I might add, Mr. Chairman, that the tremendous interest by the youth of America in environmental and ecological problems has resulted in the graduation of many highly qualified young men and women from universities throughout the country, giving the States and the Federal Government selection possibilities unequalled. We hired 150 young people last year who had Ph. D.'s or master's degrees. We have hired in recent months 54 biologists, all of whom had more than a master's degree. A master's degree was the minimum requirement for being considered.

The States have had tremendous success in restocking their departments with bright young people. I encourage the States, and I have been encouraging the States, through the International Association of Game, Fish and Conservation Commissioners, which the distinguished Director of the Michigan Department of Natural Resources is here today representing, as President of the Association, and through the Western Association of State Game and Fish Commissioners, which I have just come from in Portland, to assume greater responsibility over the entire range of wildlife within the borders of their States.

As I said in my prepared statement, the States' principal problem is that their wildlife programs are financed principally from the license fees of hunters and fishermen. It is difficult, from a financial point of view, for a State to achieve an all encompassing interest in all the animals within its borders. We are going to have to find a way of giving them fiscal support in years to come, and they must find ways to broaden their income, such as the debate which is going on in Missouri now.

Senator SPONG. Is it your understanding of S. 3199 that the Secretary's delegation to a State, of authority to take an endangered species, could be withdrawn if the State's program did not live up to expectations?

Mr. REED. Yes, sir.

Senator SPONG. Mr. Reed, I am somewhat concerned about whether your Department has the manpower to enforce this bill. How do you propose to do so, and what is your capability for handling this activity along with the enforcement of already enacted, or pending legislation, such as the Bald Eagle Act and the marine mammal bill?

Mr. REED. Mr. Chairman, you have hit a very sensitive point.

Senator SPONG. I gathered as much from something you have already said.

Mr. REED. We will have to make a decision—we had to make a decision last year on priorities within the Bureau of Sport Fisheries and Wildlife. Coming from a State where we have seen tremendous Bureau activity over many years, I personally felt that the first priority, and suggested to the Secretary that the first priority, for realining our programs consist of boosting our manpower within the activities of river basins.

I make no bones about it, the second priority in my opinion is the boosting of our enforcement activities. We spent \$625,000 in fiscal 1972, on the enforcement of importation law with the agents at various ports around the United States. By the way, I had the opportunity while in Portland of meeting our first woman agent in the Port of San Francisco, a brilliant young lady who is a taxonomist. I have met with the law enforcement officers here in Washington and in the field. Morale is up.

Analysis of our fiscal situation for this coming year indicates we will be able to boost our manpower pool in the area of enforcement. We are appointing a very bright and energetic young man as the new Chief of Enforcement for the Bureau, whom I have great confidence in. I believe we will be able to take on the responsibilities in this act, not only in the coming fiscal year, but with increasing emphasis on the funding levels, in years to come.

It will now become one of our major priorities.

Senator SPONG. Would the division of responsibility provided for in S. 3199 require the Secretary of Interior and the Secretary of Commerce to agree before a species could be listed as endangered, or would each Secretary make that determination with respect to those animals under his jurisdiction?

Mr. REED. The latter is correct, sir. The Secretary of Commerce, in the bill, is empowered to handle the listing of the animals under his jurisdiction.

Senator SPONG. I recall seeing an article in the *Washington Star* some months ago about some interdepartmental dispute over who should get endangered species. If you were given responsibility for all endangered animal species, would you be willing and able to handle it?

Mr. REED. Yes, sir.

Senator SPONG. What about plants?

Mr. REED. Yes, sir. With the expertise of the Department of Agriculture and the U.S. Customs Bureau, we would be able to handle plants. But I question whether it is advisable at this particular time is to encumber this very good piece of legislation on endangered animals, S. 3199, with that.

Customs is doing their usual very excellent job on watching importations of flora that is not wanted and not welcome in this country. I believe we can make greater strides through a convention on the handling than in this act.

Senator SPONG. Thank you. I think at this point I will insert that article in the record of these hearings.

(The article follows:)

[From the Washington Star, Feb. 24, 1972]

COMMERCE GETS A SAY—PROTECTOR OF RARE ANIMALS?

(By Roberta Hornig)

Interior Secretary Rogers C. B. Morton has yielded to the White House and accepted legislation—included in the Nixon administration's environmental package to Congress earlier this month—that gives the Commerce Department joint stewardship over wildlife in danger of extinction.

The move has angered Interior officials—and likely will be extremely unpopular with conservationists.

The Interior Department, which has been charged by Congress with protecting endangered species since 1966, generally has been regarded as the government agency to do the job.

Many conservationists do not always trust Commerce, since one of the department's chores is to promote fishing interests. It is widely known, for example, that the department fought the placing of several species of whales on the government protection list.

Conservationists and Interior officials also say that giving Commerce joint jurisdiction puts it in the conflicting position of promoting the tuna fishing industry which, government sources claim, is killing between 250,000 and 400,000 porpoises a year. Porpoises are not on the endangered species list.

Under the joint jurisdiction, it was understood, Interior would be concerned with land species and Commerce with those of the sea, such as whales, seals and porpoises.

The White House, through presidential aide John Whitaker, insisted on Commerce's playing a big role in wildlife protection, but it is not clear why.

There are two conflicting explanations.

One is that former Commerce Secretary Maurice Stans, now the chief Republican fund-raiser, insisted that his department play a role, after learning that Interior had drafted what it considers a strong endangered species bill.

According to that version, Stans intervened and Morton, for his part, fought against sharing jurisdiction. Whitaker, it is said, in effect told Morton he had to accept the joint jurisdiction over animal protection.

Sources charge that Morton's alternative to acceptance was the withdrawal by the White House of support for other pending environmental proposals, including banning the use of poisons to control predatory animals on federal lands. Morton denies this point.

The White House version is different. Whitaker admits some early disagreement with Morton but said the Interior secretary ultimately agreed.

He said it's not true that Stans intervened, and added that the general belief was that a Commerce agency, the National Oceanographic and Atmospheric Administration, knows more about sea animals than Interior does.

He also said that the Nixon administration ultimately hopes to transfer NOAA from Commerce back to Interior—from which the administration transferred it a year ago—under a government reorganization plan setting up a Department of Natural Resources to replace Interior.

One source said that Whitaker, at one point, initiated a telephone conference with Commerce and Interior officials and that at the end said he would "tilt" towards Commerce.

The proposed endangered species act was drafted by Interior and would repeal congressional laws passed in 1968 and 1969. It covers all endangered species in the United States and overrides state laws that may be less protective.

Senator SPONG. Is it correct that the Department of Commerce does not now have any jurisdiction over endangered species?

Have any difficulties arisen with regard to Interior's administration of the 1969 act which would justify giving the Commerce Department part of the responsibility?

Mr. REED. No, sir; I have not had any problems as the line officer in charge of working with Commerce. We work with them on a frequent basis, and it is a very good relationship. I believe their worries are on the new category of threatened with becoming endangered. They have some reservations on that score. They are preparing to come forward in their budget with an increase in enforcement officers on the high seas, which we welcome. They have great expertise, and, of course, they have the flexibility in their ships and airplanes in working with the Coast Guard to provide increased enforcement on the high seas.

We welcome them in that role. We still have the disagreement on duplications of responsibility.

Senator SPONG. My first question is, is it correct that the Department of Commerce does not now have any jurisdiction over endangered species?

Mr. REED. That is correct. We would, obviously, before putting any marine animal on a list, be in consultation with the Department of Commerce. We are now, and have been in the past, in close consultation with them on listing species in which they have some expertise.

Senator SPONG. Will administrative costs increase if jurisdiction is divided?

Mr. REED. I would let the Department of Commerce speak to that, and the representatives of the Commerce Department are here. I would be more than happy to hear what their response is. I think I will leave it that way.

Senator SPONG. In your opinion, does S. 3199 preempt the States from enacting stricter endangered species legislation? Do you favor Federal preemption in this area?

Mr. REED. No, sir; I would encourage the States to go ahead with aggressive programs. Having visited with many of the commissioners from the States, I find a great interest in this, Mr. Chairman, and I think you will find that the States will play an active and energetic role in protecting the endangered species within their own borders. The Western States' game commissioners, who are the great rugged individualists among the State game commissioners, at their recent meeting in Portland were enthusiastic about taking over this responsibility.

Senator SPONG. Will the search-and-seizure power under this bill give you sufficient authority to inspect imports and exports?

Mr. REED. I will ask Mr. Garner to answer that, sir.

Mr. GARNER. We have written into the legislative history of the 1969 act, the authority to use those search-and-seizure provisions which inhere in customs officers. These are quite liberal powers, as you know, particularly in border search situations. With respect to enforcement, the Migratory Bird Treaty Act, however, at least one case has left us wondering whether our agents might not have to have a warrant whenever they search and seize. If the common law would permit a Federal agent to work without a warrant in certain situations, he should be permitted to do so by authorizing statutes such as S. 3199. Also, if he is working in a customs context, he must have all

the authorities to inspect goods that a customs officer would have. Of course, customs is a coenforcer of the 1969 act, and many of our men are deputized as customs officers.

Senator SPONG. Will you answer my question yes or no? Which would you answer? I asked you if this bill had sufficient authority for you to conduct inspections of the imports and exports.

Mr. GARNER. Yes, it does.

Mr. REED. And I might add, Mr. Chairman, it will be of great assistance to us. We have recently had a very involved case. We had hoped very much to be able to use an example for you this morning. We are not able to at this time. It is a situation where this type of legislation would give us authority to much more speedily enforce the law.

Senator SPONG. Do you have authority under S. 3199 to require declarations to be filed by importers and exporters?

Mr. GARNER. It is not clear under S. 3199. I think we would like to provide some language on that.

Senator SPONG. We would like to hear from you.

(The following information was subsequently received for the record:)

S. 3199 provides in subsection 7(d) [subsec. 9(d) of S. 3818] that the Secretary may designate ports of entry through which all fish or wildlife (not just endangered species) must be imported. We have designated such ports [50 C.F.R. Part 17, App. B], and we require declaration to be filed on all imports of fish or wildlife. 50 C.F.R. § 17.4. Although the authority to require declarations to be filed is implied in the Secretary's authority to regulate his affairs at these ports, it is not clear that he may punish misdeclarants or require proof of legal taking, transportation, or sale in the county of origin. The latter point of information is useful to us in enforcing the Lacey Act, 18 U.S.C. §§ 43, 44.

Accordingly, we recommend that subsection 7(d) of S. 3199 be amended by adding the following clause to the last sentence, as follows: "* * * of this subsection, and he may require the filing of declarations stating such information as may be necessary to facilitate enforcement of Federal laws regarding trade in wildlife."

Senator SPONG. Your bill expands your enforcement authority much like the language in the Lacey Act. Wouldn't you want to expand the coverage in S. 3199 by including a prohibition on possession of endangered species so that language would be similar to that of the Lacey Act?

Would you want to expand your prohibition on imports to include all foreign commerce in endangered species?

Mr. REED. The answer to both questions is, yes, sir; and we would be delighted to furnish our thoughts on that. We spent hours on that yesterday, in connection with the draft of a treaty called for in the 1969 Act. I think we have come much further through our thought process on this, because of the meeting yesterday, and because of this hearing. We would be delighted to furnish you in writing our recommendations in that regard.

(The following information was subsequently received for the record:)

A prohibition against the possession of endangered species could be made more explicit by the insertion of "possesses," following "takes" in line 24, page 7 of S. 3199. A parallel amendment should also be made at line 15 of page 9.

Recognizing that the United States is without authority to regulate the activities of foreign nationals abroad, it would not be possible to prohibit "all foreign

commerce in endangered species." Within this limitation, however, we would have no objection to insertion of "or foreign" following "interstate" in line 4, page 8 of S. 3199. A parallel amendment should also be made at line 19 of page 9.

Senator STEVENS. May I inquire?

Senator SPONG. Yes.

Senator STEVENS. Are you talking about endangered species, or species threatened with becoming endangered?

Mr. REED. Senator, it is both. It actually dovetails with this legislation, though they were started at different times by different agencies.

It dovetails surprisingly well. If this is passed, they will fit well.

Senator STEVENS. When will we have a draft of that?

Mr. REED. There are three drafts available, one by IUCN, one by the Government of Kenya, and one by the Government of the United States. At the present time, more than 85 percent of the three conventions are similar if not identical. We are settling on the 15 percent difference.

We had an excellent meeting yesterday. There are a number of people in the room who I presume will be testifying this morning, who were in attendance, and provided a great deal of impact on the decisionmaking process yesterday.

We can certainly send you over the drafts of the three immediately, and if you would like to see a further analysis of where we are going, we will get it to you quickly.

Senator SPONG. We are being called to the floor for a vote. I have almost 20 more questions. In the interest of time, we are going to submit these to you and your associates, Mr. Reed. Some of these call for an additional suggestion from you as well.

We are most appreciative for your appearance here this morning, and we thank all of you very much.

Senator STEVENS. I would like a copy of those, and I would like to submit some questions also.

Senator SPONG. Yes, indeed. We will furnish you with a copy of these questions, Senator Stevens, and I am sure that the witnesses here will be glad to respond to any questions you may have.

Mr. REED. Indeed, Senator. Knowing your keen interest in this area, we will be glad to hear from you, and get our answers to you. I am available to you at any time, sir.

Senator STEVENS. Thank you.

Senator SPONG. We will be in recess for about 15 minutes.

(The questions and answers thereto begin on p. 108.)

C

CONVENTION ON TRADE IN CERTAIN SPECIES OF WILD ANIMALS AND PLANTS

PREAMBLE

The Contracting States, Recognizing that the animal and plant wildlife of the earth in its many beautiful and varied forms is an irreplaceable part of the life-sustaining ecology of the earth which must be protected for this and the generations to come;

Conscious of the ever-growing value of certain species of animal and plant wildlife from a cultural, aesthetic, nutritional, scientific and economic point of view;

Recognizing a need to undertake separate and joint action for the conservation, restoration, and rational utilization of certain species of animal and plant wildlife both within national boundaries and in the high seas by encouraging, establishing, and maintaining measures to accomplish these purposes for an optimum sustained yield result;

Recognizing that the people within the sovereign nations are and should be the

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CONVENTION ON TRADE IN CERTAIN SPECIES OF WILDLIFE

PREAMBLE

The Contracting States, Recognizing that the wildlife of the earth in its many beautiful and varied forms is an irreplaceable part of the life-sustaining ecology of the earth which must be protected for this and the generations to come;

Conscious of the ever-growing value of certain species of wildlife from a cultural, aesthetic, nutritional, scientific and economic point of view;

Recognizing a need to undertake joint action for the conservation, restoration, and rational utilization of certain species of wildlife both within national boundaries and in the high seas by encouraging, establishing, and maintaining measures to accomplish these purposes for an optimum sustained yield result;

Recognizing that the people within the sovereign nations are and should be the

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CONVENTION ON INTERNATIONAL TRADE IN THREATENED SPECIES OF WILDLIFE

PREAMBLE

The Contracting States, Recognizing that wildlife in its many beautiful and varied forms is an irreplaceable part of the life-sustaining systems of the planet which must be protected now and for the generations to come;

Conscious of the ever-growing value of wildlife from aesthetic, scientific, cultural, recreational, nutritional and economic points of view;

Recognizing the need to take separate and joint action for the conservation, restoration and rational use of wildlife both within national boundaries and in the high seas and other international areas by encouraging, establishing and maintaining measures to accomplish these purposes including, but without limitation, action to halt over-exploitation and habitat destruction;

Recognizing that the people within the sovereign nations are and should be the

best protectors of that wildlife which occurs within their own national borders, such wildlife being precious to them most particularly;

Recognizing that the adoption of national measures of control of hunting, killing, capture or collection of certain species is essential to their adequate protection;

Recognizing the need for each national authority to engage in land-use planning which avoids unnecessary destruction of the habitat of threatened or endangered plants and animals;

Recognizing, however, that each nation requires the cooperation of importing nations in policing its exports of wildlife and in protecting its wildlife from excessive commercial use in international trade;

Noting, that the International Union for Conservation of Nature and Natural Resources (IUCN) is willing to carry out the tasks requested of it in this Convention;

Conscious of the urgency of taking further such measures without delay with respect to these species;

Have agreed as follows:

ARTICLE I

Definitions

For the purpose of this Convention:

- (a) "Species" means any species or subspecies; [or isolated population segment;]
- (b) "Specimen" means any representative, dead or alive, of a species of wild

best protectors of that wildlife which occurs within their own national borders, such wildlife being precious to them most particularly;

Recognizing that the adoption of national measures of control of hunting, killing, capture or collection of certain species is essential to their protection;

Recognizing the need for each national authority to engage in land-use planning which avoids unnecessary destruction of the ecosystems and/or the habitats of threatened or endangered plants and animals;

Recognizing, however, that each nation requires the cooperation of importing nations in policing its exports of wildlife and in protecting its wildlife from excessive commercial use in international trade;

Conscious of the urgency of taking further such measures without delay with respect to these species;

Have agreed as follows:

ARTICLE I

Definitions

For the purpose of this Convention:

- (a) "Species" means any species or subspecies; [or isolated population segment;]
- (b) "Specimen" means any representative of a species of wildlife included in any

best protectors of the wildlife which occurs within their own national borders, such wildlife being precious to them most particularly;

Recognizing that the adoption of national measures to control exploitation of wildlife is essential to its conservation;

Recognizing also that each exporting nation requires the cooperation of importing nations in controlling the export of its wildlife and in protecting its wildlife from over-exploitation through international trade;

Recognizing also that despite the best efforts of sovereign nations actions that take place in other countries or internationally may affect their ability to conserve and control the exploitation of their wildlife;

Noting that the International Union for Conservation of Nature and Natural Resources (IUCN) is willing to carry out the tasks requested of it in this Convention;

Conscious of the urgency of taking the separate and joint action referred to in respect of international trade in threatened species of wildlife;

Have agreed as follows:

ARTICLE I

Definitions

For the purpose of this Convention:

- (a) "Wildlife" includes plants as well as animals;
- (b) "Species" means any species or subspecies;

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(c) "Endangered species" means any species in danger of extinction, the survival of which is unlikely if the causal factors currently at work continue operating, including without limitation species whose numbers have been reduced to a critically low level or the extent of their habitat has been so reduced that they are deemed to be in immediate danger of extinction;

(d) "Vulnerable species" means any species believed likely to move into the endangered category in the near future if the causal factors currently at work continue operating, including without limitation species whose populations are decreasing because of over-exploitation, massive depletion of habitat or other environmental disturbance; species with populations which have been heavily depleted by adverse factors, and the ultimate security of which is not yet assured; and species with populations which are still abundant but which are under threat from serious adverse factors throughout their range;

(e) "Threatened species" means any endangered or vulnerable species;

B

of the Appendices to this Convention, whether dead or alive, or any part, product, or egg thereof, except seeds, and accepting an article of clothing, jewelry, or household effects being used by a private person for his personal needs which is not for resale;

(c) "Scientific purpose" means educational, research or propagative purposes, but does not include trade for the principal purpose of public exhibition;

(d) "Mark" means any indelible imprint, lead seal or other suitable means of identifying a specimen, designed in such a way as to render its imitation by unauthorized persons as difficult as possible;

(e) "Scientific Authority" means a national scientific authority designated in accordance with Article VI of this Convention;

C

animals or plants included in any of the Appendices to this Convention or any part, product or egg thereof, except seeds and cultivated plants;

(c) "Scientific purpose" means educational, research or propagative purposes, but does not include trade for the principal purpose of public exhibition;

(d) "Mark" means any indelible imprint, lead seal or other suitable means of identifying a specimen, designed in such a way as to render its imitation by unauthorized persons as difficult as possible;

(e) "Scientific Authority" means the national scientific authority to be designated by each Contracting State in accordance with Article VI;

(f) "Specimen" means any representative, dead or alive, of a species of wildlife included in any of the Appendices to this Convention, including, but without limitation, animals born or raised in captivity and cultivated plants, or any part or product thereof, except seeds, raw or in any state of manufacture, or any part thereof, or any product thereof that is specifically listed in any of the Appendices to this Convention, except articles of clothing, jewelry or household effects being used by a private person for his or her personal needs which are not for resale (and except domestic pets travelling with the owner thereof);

(g) "Introduction from the sea" means the transportation into a State of a specimen taken in the marine environment beyond the territorial sea;

(h) "International trade" means export, re-export, import or introduction from the sea;

(i) "Mark" means any indelible imprint, lead seal or other suitable means of identifying a specimen, designed in such a way as to render its imitation by unauthorized persons as difficult as possible;

(f) "Management Authority" means a national authority, designated in accordance with Article VI of this Convention, which issues and receives permits for trade in specimens and which supervises the implementation of this Convention within a State;

(g) "Rescue center" means an institution sanctioned by a Management Authority to look after the welfare of wildlife whose life is threatened by disease or related phenomena. A rescue center shall also look after wildlife seized by a Contracting State pursuant to the terms of this Convention and shall keep such wildlife until the Contracting State takes the necessary actions to enforce the terms of this Convention;

(h) "State of Origin" means the State in which removal from the wild occurred; or, in the case of captive-bred animals, the State of birth;

(i) "Introduction from the sea" means the transportation into a state of a specimen taken in the marine environment beyond the territorial sea;

(f) "Management Authority" means the authority within a Contracting State which issues and receives permits for trade in specimens and which supervises the implementation of this Convention within that State;

(g) "Rescue centers" means the facilities or areas available to Contracting States where living specimens, having been found to be illegally removed from their native habitat, may be held in accordance with Article VIII;

(h) "State of Origin" means the State in which removal from the wild occurred; or, in the case of captive-bred animals, the State of birth.

(i) "Introduction from the sea" means the transportation into a state of a specimen taken in the marine environment beyond the territorial sea;]

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(j) "Scientific Authority" means the national scientific authority to be designated by each Contracting State in accordance with Article VI;

(k) "Management Authority" means the authority within a Contracting State which issues and receives permits for trade in specimens and which supervises the implementation of this Convention within that State;

(l) "Rescue centre" means a facility or area available to Contracting States where living specimens, having been found to be illegally removed from their native habitat, may be held in accordance with Article VIII.

ARTICLE II

Fundamental Principles

1. Appendix I shall include [all] endangered species which are affected by international trade. The trade in these species shall be subject to particularly strict regulation in order to ensure their survival and shall be authorized only in exceptional circumstances.

2. Appendix II shall include [all] vulnerable species which are affected by international trade. The trade in these species shall be subject to strict control in order to avoid exploitation incompatible with their survival.

3. Appendix III shall include [all] species not appearing in Appendices I and II which any Contracting State identifies as being subject to regulation within its

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(j) "Trade" means export, import or introduction from the sea;

(k) "Wildlife" includes plants as well as animals.

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(j) "Trade" means export, import or introduction from the sea.

ARTICLE II

Fundamental Principles

1. Appendix Ia shall include all species imminently threatened with extinction, the trade in specimens of which must be completely prohibited.

2. Appendix Ib shall include all species threatened with extinction, the trade in specimens of which must be subject to particularly strict regulation in order to ensure their survival.

3. Appendix II shall include all species which are not yet threatened with extinction but the trade in specimens of which must be subject to strict control in order

ARTICLE II

Fundamental Principles

1. Appendix I shall include all species threatened with extinction, the trade in specimens of which must be subject to particularly strict regulation in order to ensure their survival and must be authorized only in exceptional circumstances.

2. Appendix II shall include all species which are not yet threatened with extinction but the trade in specimens of which must be subject to strict control in order to avoid exploitation incompatible with their survival.

3. Appendix III shall include all species which any Contracting State identifies as being subject in territorial under its jurisdiction to regulation for the purpose of pre-

jurisdiction for the purpose of preventing or restricting exploitation, and as requiring international trade control to make such regulation effective.

4. Appendices I and II as attached hereto are hereby adopted by the Contracting States, and are subject to the provisions for amendment contained in Article XIII. Appendix III shall be constituted and amended as provided in paragraph 6 of Article VIII.

5. The Contracting States shall not allow international trade in specimens except in accordance with this Convention. Permits granted by the appropriate Management Authority in accordance with Articles III, IV, V and VI shall be required for:

- (a) all international trade in Appendix I specimens;
- (b) all exports of Appendix II specimens; and
- (c) all exports of Appendix III specimens from their State of origin.

ARTICLE III

Control of Trade in Specimens included in Appendix I

1. Export and Re-export

No permit shall be granted for the export or re-export of Appendix I specimens until:

- (a) the Scientific Authority of the State of export determines that such export will not be detrimental to the survival of the species;

to avoid utilization incompatible with their survival.

4. Appendix III shall include all species which any Contracting State identifies as being subject to regulation within its jurisdiction for the purpose of preventing or restricting exploitation, and as requiring international trade control to make such regulation effective.

5. Appendices Ia, Ib, and II, as attached hereto, are hereby adopted by the Contracting States, and are subject to the provisions for amendment contained in Article XIII. Appendix III shall be constituted and amended as provided in paragraph 5 of Article VIII.

No permit shall be granted for trade in specimens included in Appendix Ia.

ARTICLE III

Control of Trade in Specimens Included in Appendix Ib

1. Export

No permit shall be granted for the export of Appendix Ib specimens to any State until:

- (a) the Scientific Authority of the State of export determines that such export shall not be detrimental to the survival of the species; and

venting or restricting exploitation, and as requiring international trade control to make such regulation effective.

4. Appendices I and II as attached hereto are hereby adopted by the Contracting States, and are subject to the provisions for amendment contained in Article XIII. Appendix III shall be constituted and amended as provided in paragraph 6 of Article VIII.

5. The Contracting States shall not allow trade in specimens except in accordance with this convention. Permits granted by the appropriate Management Authority in accordance with Articles III, IV, V and VI shall be required for:

- (a) all trade in Appendix I specimens;
- (b) all exports or introductions from the sea of Appendix II specimens; and
- (c) all exports of Appendix III specimens from their State of origin.

ARTICLE III

Control of Trade in Specimens Included in Appendix I

1. Export

No permit shall be granted for the export of Appendix I specimens to any State until:

- (a) the Scientific Authority of the State of export determines that such export will be for purposes which are not detrimental to the survival of the species, [and which

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(b) satisfactory proof is presented that any [living] specimen will be properly prepared and packed for shipment and handled in a humane manner;

(c) satisfactory proof is presented that:

(1) the specimen was lawfully taken, transported, sold and exported in the State of export, or in the case of reexportations, that the specimen was imported in accordance with this Convention; or

(2) the specimen is an animal born or raised in captivity or a cultivated plant or a part or product thereof; or

(3) the specimen is being re-exported to be returned to its State of origin or to be sent to a rescue centre by a Management Authority in accordance with the provisions of Article VIII; and

(d) the Management Authority of the State into which the specimen is to be imported has verified that an import permit will be granted upon issuance of a valid export permit, or, in the case of a State not a party to this Convention, acceptable certification is presented from governmental authorities in that State indicating that the import will not be detrimental to the survival of the species.

2. Import

No permit shall be granted for the import of Appendix I specimens from a Con-

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(b) satisfactory proof is presented that any living specimen will be properly prepared or packed for shipment and handled in a humane manner; and

(c) satisfactory proof is presented that: (1) the specimen was lawfully taken, transported, sold and exported in the State of export;

(2) the specimen is being exported to be returned to its State of origin or to be sent to a rescue center by a Management Authority in accordance with the provisions of Article VIII; and

(d) the Management Authority of the State into which the specimen is to be imported has verified that an Import Permit will be granted;

(e) In the case of a State not a party to this Convention, the verification of the grant of an import permit may be met by acceptable certification presented from governmental authorities in that State indicating that the import will not be detrimental to the survival of the species.

2. Import

(a) No permit shall be granted for the import of Appendix Ib specimens from a

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either will further the restoration of the species, or which are essential for human health research;] and

(b) satisfactory proof is presented that any living animal specimen will be shipped in a humane manner, and that any living plant will be properly prepared or packaged for shipment;

(c) satisfactory proof is presented that: (1) the specimen was lawfully taken, transported, sold and exported in the State of export; or

(2) the specimen is an animal born in captivity or a product thereof; or

(3) in the case of re-exportations, that the specimen was imported in accordance with this Convention; or

(4) the specimen is being exported to be returned to its state of origin or to be sent to a rescue center by a Management Authority in accordance with the provisions of Article VIII; and

(d) the Management Authority of the state into which the specimen is to be imported has verified that an Import Permit will be granted upon issuance of a valid Export Permit.

2. Import from Contracting State

No permit shall be granted for the import of Appendix I specimens from a Con-

tracting State until the Scientific Authority of the State of import determines that the import will not be detrimental to the survival of the species, or, in the case of a State not a party to this Convention, acceptable certification is presented from governmental authorities in that State indicating that the import will not be detrimental to the survival of the species.

Contracting State until the Scientific Authority of the State of import determines that the import will not be detrimental to the survival of the species;

(b) No import shall be permitted of Appendix Ib specimens until the permit or certification required by subparagraphs (a) or (b) is presented, and until a valid export permit is presented;

(c) In the case of an import from a State not a party to this Convention, the requirement of a valid export permit may be met by acceptable certification presented from governmental authorities in the exporting State indicating that the requirements of paragraph 1(b) and 1(c) of this Article have been met, and that the import will not be detrimental to the survival of the species.

[3. *Introduction from the Sea*

No permit shall be granted for the introduction from the sea of Appendix I specimens until the Specific Authority of the State of introduction determines that the introduction will not be detrimental to the survival of the species.]

tracting State until a valid Export Permit from the State of export is presented, and the Scientific Authority of the State of import determines that the import will be for purposes which are not detrimental to the survival of the species, [and which will either further the restoration of the species, or which are essential for human health research.]

3. *Import from Non-Contracting State*

No permit shall be granted for the import of Appendix I specimens from a State not a party to this Convention until:

(a) the Scientific Authority of the State of import determines that the import will be for purposes which are not detrimental to the survival of the species, [and which will further the restoration of the species, or which are essential for human health research,] and a certification is presented from the national authorities of the State of origin indicating that the requirements of paragraph 1(c) of this Article have been met; or

(b) upon satisfactory proof that the specimen is being imported to be returned

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to its State of origin or to be sent to a rescue center by a Management Authority in accordance with the provisions of Article VIII.

4. Introduction from the Sea

No permit shall be granted for the introduction from the sea of Appendix I specimens not previously introduced into any other State until the Scientific Authority of the State of introduction determines that the introduction will be for purposes which are not detrimental to the survival of the species, [and which will either further the restoration of the species, or which are essential for human health research.]

4. Introduction from the Sea

No permit shall be granted for the introduction from the sea of Appendix Ib specimens until the Scientific Authority of the State of introduction determines that the introduction will not be detrimental to the survival of the species, and until the requirements of paragraph 1(b) of this Article have been met.

5. Re-Export

No permit shall be granted for the re-export of Appendix Ib specimens until the Contracting State concerned certifies thereon that the specimen was legally imported into that State from its state of origin in accordance with the terms of this Article.

ARTICLE IV

Control of Trade in Specimens Included in Appendix II

1. Export and Re-export

- (1) No permit shall be granted for the export or re-export of Appendix II specimens until the requirements of paragraphs 1(b) and 1(c) of Article III are satisfied.
- (2) The Scientific Authority of a State shall monitor the export permits for Appendix II specimens issued by that State

ARTICLE IV

Control of Trade in Specimens Included in Appendix II

1. Export

- (a) No permit shall be granted for the export of Appendix II specimens to any State until:
 - (1) the requirements of paragraphs 1(b) and 1(c) of Article III are satisfied; and
 - (2) the Scientific Authority of the State

ARTICLE IV

Control of Trade in Specimens Included in Appendix II

[1. Export to Contracting State

- No permit shall be granted for the export of Appendix II specimens to a Contracting State until:
- (a) the requirements of paragraphs 1(b) and 1(c) of Article III are satisfied; and
 - (b) the Scientific Authority of the State

and in the event that the issue of such export permits for a particular Appendix II species is on such a scale that continued exploitation at this level would constitute a threat likely to cause the species to move into the endangered category, the export permits for that species shall be limited in accordance with sound management goals.

of export determines that such export will not be detrimental to the survival of the species.

(b) The Scientific Authority of a State shall monitor the export permits for Appendix II specimens issued by that State and in the event that the issue of such export permits for a particular Appendix II species is on such a scale that continued exploitation at this level would constitute a threat likely to cause a species to become a candidate for Appendices 1a or 1b, export permits for that species shall be limited in accordance with sound management goals.

of export determines that such export will not be detrimental to the survival of the species, and in addition will be consistent with the national management goal or regime for the species, which shall conform to any management goals recommended by any Conference of Contracting States.]

[2. *Export to Non-Contracting States*
No permit shall be granted for the export of Appendix II specimens to a State not a party to this Convention until the requirements contained in paragraph 1 of Article III are satisfied.]

2. *Import*

Import of Appendix II specimens from a Contracting State shall not be permitted until a valid export permit from the State of export is presented and import of Appendix II specimens from a State not a party to this Convention shall not be permitted until acceptable certification is presented from governmental authorities in that State to the effect that the requirements of paragraphs 1(b) and 1(c) of Article III are satisfied.

2. *Import*

(a) No import shall be permitted of Appendix II specimens from a Contracting State until a valid Export Permit from the State of export is presented.

(b) In the case of a state not a party to this Convention, the requirement of subparagraph (a) may be met by an acceptable certification presented from governmental authorities in that state indicating that the requirements of paragraph 1(a) of this Article have been met.

[3. *Import from Contracting State*
No import shall be permitted of Appendix II specimens from a Contracting State until a valid Export Permit from the State of export is presented.

[4. *Import from Non-Contracting State*

No import shall be permitted of Appendix II specimens from a State not a party to this Convention until:

(a) the Scientific Authority of the State of import determines that the import will be for scientific purposes not detrimental to the survival of the species, and a certification is presented from the national authorities of the State of origin indicating that the requirements of paragraph 1(c) of Article III have been met; or

(b) satisfactory proof is presented that the specimen is being imported to be re-

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[3. *Introduction from the Sea*

The Scientific Authority of a State shall monitor the introduction from the sea of Appendix II specimens and in the event that such introductions for a particular Appendix II species is on such a scale that continued introduction at this level would constitute a threat likely to cause the species to move into the endangered category, action shall be taken to limit the introductions of that species in accordance with sound management goals.]

ARTICLE V

Control of Trade in Specimens included in Appendix III

1. *Export*

A Contracting State desiring to invoke international trade controls in respect of an Appendix III species which has been included in that Appendix at its request shall institute a system of permits to control exports of that species. No such permit shall be granted unless the requirements of paragraph 1 (b) of Article III are satisfied.

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3. *Introduction from the Sea*

No permit shall be granted for the introduction from the sea of Appendix II specimens until the requirements of paragraphs 1 (b) of Article III and 1 (a) (2) of this Article are satisfied.

4. *Re-Export*

No permit shall be granted for the re-export of Appendix II specimens until the Contracting State concerned certifies thereon that the specimen was legally imported into that State from its state of origin in accordance with the terms of this Article.

ARTICLE V

Control of Trade in Specimens Included in Appendix III

1. *Export*

No permit shall be granted by the State of origin for the export to any other State of specimens which the State of origin has listed in Appendix III until the requirements contained in paragraphs 1 (b) and 1 (c) of Article III are satisfied.

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turned to its State of origin or to be sent to a rescue center in accordance with the provisions of Article VIII.]

[5. *Introduction from the Sea*

No permit shall be granted for the introduction from the sea of Appendix II specimens not previously introduced into any other State until the requirements of paragraphs 1 (b) of Article III and 1 (b) of this Article are satisfied.]

ARTICLE V

Control of Trade in Specimens Included in Appendix III

The following provisions shall apply in addition to any otherwise applicable requirements in Articles III and IV:

1. *Export*

No permit shall be granted for the export to any State of specimens whose State of origin lists their species for inclusion in Appendix III until the requirements contained in paragraphs 1 (b) and 1 (c) of Article III are satisfied.

2. Import

Where a Contracting State has instituted a system of permits to control exports of an Appendix III species in accordance with paragraph 1 of this Article:

(a) Import of a specimen of that species from that State shall not be permitted unless a valid export permit from that State is presented; and

(b) Import of a specimen of that species originating in that State shall not be permitted from another State unless satisfactory proof is submitted that the specimen in question was imported into the exporting State from the State of origin in accordance with this Convention.

2. Import

No import shall be permitted of specimens which the State of origin has listed in Appendix III, until a valid Export Permit from the State of origin is presented, or, in the case of a State not party to this Convention, acceptable certification is presented from governmental authorities in that state indicating that the requirements contained in paragraphs 1(b) and 1(c) of Article III have been satisfied.

3. Re-Export

No permit shall be granted for the re-export of Appendix III specimens until the Contracting State concerned certifies thereon that the specimen was legally imported into that State from its state of origin in accordance with the terms of this Article.

2. Import from Contracting State

No import shall be permitted from a Contracting State of specimens whose State of origin lists their species for inclusion in Appendix III until a valid Export Permit from the State of export is presented.

3. Import from Non-Contracting State

No import shall be permitted from a State not a party to this Convention of specimens whose State of origin lists their species for inclusion in Appendix III until:

(a) a certification is presented from the national authorities of the State of origin that the specimen was taken and exported in accordance with the laws of that State,

or (b) upon satisfactory proof that the specimen is being imported to be returned to its State of origin or to be sent to a rescue center by a Management Authority in accordance with the provisions of Article VIII.

14. Certificates of Origin

Each contracting State shall issue a certificate, bearing the stamp or seal of the Management Authority, which shall show the State of origin of any Appendix III specimen exported from and originating in that State, whether or not that State had included the specimen on its own Appendix III list. Such certificates shall conform to the provisions of Article VI governing the form and handling of permits.

Permits

ARTICLE VI

1. *Form of Permits*

(a) Permits issued under this Article shall be valid only if they conform to the appropriate model set forth in Appendix IV. Any such permit shall be in the English or French languages or shall be accompanied by a translation into one of those languages.

(b) The description of the specimen given in the permit shall enable the specimen in question to be appropriately identified by species or sub-species as the case may be; and, whenever appropriate and feasible, a mark shall be used in conjunction with the description to identify the specimen. Each permit shall bear a control number assigned by the issuing Management Authority.

(c) A separate permit shall be required for each shipment of specimens. If, at any point, such a shipment is divided into two or more shipments, the original permit shall be presented to the Management Authority in the State where the division occurs for the preparation by that Authority of certified copies which shall accompany each sub-shipment. If such division

Permits

ARTICLE VI

1. *Form of Permits*

(a) Permits issued under this Article shall be valid only if they conform to the appropriate model set forth in Appendix IV. Any such permit shall be in the English, French, Spanish, Russian, and Chinese languages or shall be accompanied by a translation into those languages.

(b) The description of the specimen given in the permit shall enable the specimen in question to be distinguished by species and subspecies; and, whenever appropriate and feasible, a mark shall be used in conjunction with the description to identify the specimen. Each permit shall bear a control number assigned by the issuing Management Authority.

(c) A separate permit shall be required for each shipment of specimens. If, at any point, such a shipment is divided into two or more shipments for re-export, the affected Management Authority shall deduct the quantity thus re-exported from the quantity legally imported by permit theretofore.

Permits

ARTICLE VI

1. *Form of Permits*

(a) Permits issued under this Article shall be valid only if they conform to the appropriate model set forth in Appendix IV. Any such permit shall be in the English, French and Spanish languages or shall be accompanied by a translation into those languages.

(b) The description of the specimen given in the permit shall enable the specimen in question to be distinguished by species and subspecies; and, whenever appropriate and feasible, a mark shall be used in conjunction with the description to identify the specimen. Each permit shall bear a control number assigned by the issuing Management Authority.

(c) A separate permit shall be required for each shipment of specimens. If, at any point, such a shipment is divided into two or more shipments, the original permit shall be presented to the Management Authority in the State where the division occurs for the preparation by that Authority of certified copies which shall accompany each subshipment.

Any shipment of an Appendix III specimen found without such a certificate may be deemed to have originated in the Contracting State which has placed the species in question on Appendix III.]

occurs in a State not a party to this Convention, the documents accompanying each sub-shipment shall not be valid for the purposes of this Convention unless acceptable certification is presented from governmental authorities in that State verifying such documents.

2. *Marks and Records*

The Management Authority of the State of import [or introduction] of any specimen shall, where appropriate and feasible, affix a further mark upon the specimen, and shall retain, cancel and file a copy of any Export permit or certification required under Articles II, III, IV and V for reference in the event of subsequent re-export or for other purposes. The Management Authority shall, where practicable, maintain a record of the number, species, sex, size and volume (where volume is appropriate) of specimens exported, re-exported, imported or introduced from the sea, whether under permit or not, which record shall be made available to the public.

3. *Designation of Authorities*

Each Contracting State shall communicate to the Depository Government, at the time that instruments of ratification or accession are deposited, the name and address of the Management Authority competent to issue permits on behalf of that State, and the name and address of the Scientific Authority competent to make determinations required under this Conven-

2. *Marks and Records*

The Management Authority of the State of import or introduction of any specimen whether under permit or not, which record shall, where appropriate and feasible, affix a further mark upon the specimen, and shall retain, cancel, and file all copies of the Export Permit or certification required under Article II, III, IV and V for reference in the event of subsequent re-export or for other purposes. Export permit shall be void for further trade purposes when import occurs. The Management Authority shall, where practicable, maintain a record of the number, species, sex, size and volume (where volume is appropriate) of specimens exported, imported or introduced, whether under permit or not, which record shall be made available to the public.

3. *Designation of Authorities*

Each Contracting State shall communicate to the Depository Government, at the time that instruments of ratification or accession are deposited, the name and address of the Management Authority competent to issue permits on behalf of that State, and the name and address of the Scientific Authority competent to make determinations required of it by Articles III and IV.

2. *Marks and Records*

The Management Authority of the State of import or introduction of any specimen shall, where appropriate and feasible, affix a further mark upon the specimen, and shall retain, cancel and file a copy of any Export permit or certification required under Articles II, III, IV and V for reference in the event of subsequent re-export or for other purposes. The Management Authority shall, where practicable, maintain a record of the number, species, sex, size and volume (where volume is appropriate) of specimens exported, imported or introduced from the sea, whether under permit or not, which record shall be made available to the public.

3. *Designation of Authorities*

Each Contracting State shall communicate to the Depository Government, at the time that instruments of ratification or accession are deposited, the name and address of the Management Authority competent to issue permits on behalf of that State, and the name and address of the Scientific Authority competent to make determinations as to scientific purposes.

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tion. If a Contracting State changes its Authorities, the Depository Government shall be notified.

ARTICLE VII

*Transit and Exhibitions**1. Transit*

The provisions of Articles II, III, IV, V and VI shall not apply to the transshipment of specimens through a State where no consumption, use, processing or exhibition occurs therein.

2. Exhibition

Notwithstanding the provisions of Articles II, III, IV, V and VI, a specimen being transported for the purpose of public exhibition as the property of a zoo, circus, menagerie or other travelling exhibition may be exported, re-exported or imported without permits provided that the exporter or importer is able to provide proof to the Management Authority of the Contracting State:

- (a) that the specimen was acquired before this Convention came into force with respect to such specimen or was bred in captivity thereafter from specimens acquired before this Convention came into force with respect to such specimens, or was acquired otherwise in accordance with this Convention; and
- (b) that any [living] specimen will be properly prepared and packed for shipment and handled in a humane manner.

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These authorities, may be combined or separate, or constituted in any other manner deemed appropriate by the Contracting States.

ARTICLE VII

*Transit and Exhibitions**1. Transit*

The provisions of Article II, III, IV, V and VI shall not apply to the transshipment of specimens through a State where no consumption, use, processing or exhibition occurs therein.

2. Exhibitions

Notwithstanding the provisions of Article II, III, IV and VI, a specimen being transported for the purpose of public exhibition as the property of a travelling zoo, circus, menageries or other travelling exhibition may be exported or imported without permits provided that the exporter or importer registers with the Management Authority of the Contracting State where such exhibition occurs and is able to provide proof to the Management Authority:

- (a) that the specimen was acquired before this Convention came into force with respect to such specimen or was bred in captivity thereafter from specimens acquired before this Convention came into force with respect to such specimens, or was acquired otherwise in accordance with this Convention; and
- (b) that any living animal will be properly prepared or packed for shipment and handled in a humane manner.

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ARTICLE VII

*Transit and Exhibitions**1. Transit*

The provisions of Articles II, III, IV, V and VI shall not apply to the transshipment of specimens through a State where no consumption, use, processing or exhibition occurs therein.

2. Exhibition

Notwithstanding the provisions of Articles II, III, IV, and VI, a specimen being transported for the purpose of public exhibition as the property of a zoo, circus, menagerie or other travelling exhibition may be exported or imported without permits provided that the exporter or importer is able to provide proof to the Management Authority of the Contracting State:

- (a) that the specimen was acquired before this Convention came into force with respect to such specimen or was bred in captivity thereafter from specimens acquired before this Convention came into force with respect to such specimens, or was acquired otherwise in accordance with this Convention; and
- (b) that any living animal will be shipped in a humane manner.

*National Measures**1. Enforcement*

The Contracting States shall take appropriate measures to enforce this Convention within their territories, including measures to prohibit and penalize international trade in specimens in violation of the provisions of this Convention, and to provide for the confiscation of specimens unlawfully traded.

2. Expeditious Handling

As far as possible, Contracting States shall ensure that the clearance of specimens through any formalities required in connection with international trade are carried out with a minimum of delay, and to facilitate such clearance a Contracting State may designate ports of exit and ports of entry at which specimens must be presented for clearance.

3. Confiscation and Rescue Centers

(a) Where a living specimen has been confiscated, it shall be entrusted to the Management Authority of the State concerned, which shall return the specimen to its country of origin, or, should this be deemed undesirable or likely to endanger the specimen's survival, send it to a rescue centre or to such other place as the Management Authority deems appropriate and consistent with the purposes of this Convention.

National Measures

1. Enforcement. The Contracting States shall take appropriate measures to enforce this Convention within their territories, including measures to prohibit and penalize trade in and possession of specimens in violation of the provisions of this Convention, and to provide for the confiscation of specimens unlawfully traded or possessed.

2. Expeditious Handling. As far as possible, Contracting States shall ensure that the clearance of specimens through any formalities required on export, import or introduction are carried out with a minimum of delay, and to facilitate such clearance a Contracting State may designate ports of exit and ports of entry at which specimens must be presented for clearance.

3. Confiscation of living specimens; Rescue Centers. (a) Where a living specimen has been confiscated, it shall be entrusted to the Management Authority of the State concerned, which shall return the specimen to its country of origin, or, should this be deemed undesirable or likely to endanger the specimen's survival, send it to a rescue center or to such other place as the Management Authority deems appropriate and consistent with the purposes of this Convention.

National Measures

1. Enforcement. The Contracting States shall take appropriate measures to enforce this Convention within their territories, including measures to prohibit and penalize trade in specimens in violation of the provisions of this Convention, and to provide for the confiscation of specimens unlawfully traded.

2. Expeditious Handling. As far as possible, Contracting States shall ensure that the clearance of specimens through any formalities required on export, import or introduction are carried out with a minimum of delay, and to facilitate such clearance a Contracting State may designate ports of exit and ports of entry at which specimens must be presented for clearance.

3. Confiscation and Rescue Centers. (a) Where a living specimen has been confiscated, it shall be entrusted to the Management Authority of the State concerned, which shall return the specimen to its country of origin, or, should this be deemed undesirable or likely to endanger the specimen's survival, send it to a rescue center or to such other place as the Management Authority deems appropriate and consistent with the purposes of this Convention.

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(b) In order to facilitate the choice of the measures referred to in the preceding sub-paragraph, and the choice of a rescue centre or other appropriate place, the Management Authority may obtain the advice of a Scientific Authority and shall, whenever it thinks it desirable, consult the IUCN.

4. Reports

Each Contracting State shall report to the IUCN and to the other Contracting States on the implementation of this Convention in its territories annually. This report shall include legislative and other measures taken, the number of permits for import, export, re-export and introduction from the sea issued in respect to specimens, the number, species, sex, size and volume (where volume is appropriate) of specimens exported, re-exported, imported or introduced from the sea with or without permits, enforcement proceedings instituted, and such other information as may be relevant.

5. Appendix III Species

At the time of the deposit of an instrument of ratification or of accession to this Convention, each Contracting State may convey [to the Depository Government, and, after this Convention enters into force,] to the IUCN, a list of species which it chooses to identify as being subject to regulation in territories under its jurisdiction for the purpose mentioned in para-

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(b) In order to facilitate the choice of the measure referred to in the preceding paragraph, and the choice of a rescue centre or other appropriate place, the Management Authority may obtain the advice of a Scientific Authority and shall, whenever it thinks it desirable, consult the Secretariat.

4. Reports. Each Contracting State shall report to the Secretariat and to the other Contracting States on the implementation of this Convention in its territories annually. This report shall include: legislative and other measures taken; the number of permits for import, export and introduction issued in respect to specimens; the number, species, sex, size and volume (where volume is appropriate) exported, imported or introduced with or without permits; enforcement proceedings instituted; and such other information as may be relevant.

5. Appendix III Species

(a) At the time of the deposit of an instrument of ratification or of accession to this Convention, each Contracting State may submit to the Depository Government, and, after this Convention enters into force, to the Secretariat, a list of species which it chooses to identify as being subject to regulation within its jurisdiction for the purpose mentioned in paragraph 3

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(b) In order to facilitate the choice of the measures referred to in the preceding paragraph, and the choice of a rescue center or other appropriate place, the Management Authority may obtain the advice of a Scientific Authority and shall, whenever it thinks it desirable, consult the IUCN.

4. Reports. Each Contracting State shall report to the IUCN and to the other Contracting States on the implementation of this Convention in its territories annually. This report shall include legislative and other measures taken, the number of permits for import, export and introduction issued in respect to specimens, the number, species, sex, size and volume (where volume is appropriate) exported, imported or introduced with or without permits, enforcement proceedings instituted, and such other information as may be relevant.

5. Appendix III Species. At the time of the deposit of an instrument of ratification or accession to this Convention, each Contracting State may convey to the Depository Government, and, after this Convention enters into force, to the IUCN, a list of species which it chooses to identify as being subject to regulation in territories under its jurisdiction for the pur-

graph 3 of Article II. These lists shall be incorporated in this Convention as part of Appendix III. Each such list shall be transmitted by [the Depository Government or] the IUCN to each Contracting State within 90 days, and shall take effect with respect to each such State upon receipt thereof. Each list shall include the scientific and common names of each species, and shall be accompanied by an addendum containing the best available description or key to identification of each species and the geographical range in which it is found. Revised lists may be submitted from time to time, and these lists shall be transmitted and shall take effect as described above. A true copy of all national laws and regulations applicable to species included in each such list shall be submitted with each list, together with any interpretations which the Contracting State may deem appropriate or the IUCN may request. Amendments or new interpretations of such laws and regulations shall be similarly reported as they are adopted.

ARTICLE IX

Conferences of the Contracting States

1. The Depository Government shall invite the Contracting States to send representatives to a conference to be convened within one year after this Convention comes into force. The Depository Government shall act as host for the meeting. The representatives of the Contracting States shall review the operation and implemen-

of Article II. These lists shall be incorporated in this Convention as part of Appendix III.

(b) Each such list shall be transmitted by the Depository Government or the Secretariat to each Contracting State within 90 days, and shall take effect with respect to each such State upon receipt thereof. Each list shall include the scientific and common names of each species, and shall be accompanied by an addendum containing the best available description or key to identification of each species and the geographical range in which it is found. Revised lists may be submitted from time to time, and these lists shall be transmitted and shall take effect as described above.

(c) A true copy of all national laws and regulations applicable to species included in each such list shall be submitted with each list, together with any interpretations which the Contracting State may deem appropriate or the Secretariat may request. Amendments or new interpretations of such laws and regulations shall be similarly reported as they are adopted.

ARTICLE IX

Conference of the Contracting States

1. The Depository Government shall invite the Contracting States to send representatives to a conference to be convened within two years after this Convention comes into force, and shall act as host for the meeting.

pose mentioned in paragraph 3 of Article III. These lists shall be incorporated in this Convention as part of Appendix III. Each such list shall be transmitted by the Depository Government or the IUCN to each Contracting State within 90 days, and shall take effect with respect to each such State upon receipt thereof. Each list shall include the scientific and common names of each species, and shall be accompanied by an addendum containing the best available description or key to identification of each species and the geographical range in which it is found. Revised lists may be submitted from time to time, and these lists shall be transmitted and shall take effect as described above. A true copy of all national laws and regulations applicable to species included in each such list shall be submitted with each list, together with any interpretations which the Contracting State may deem appropriate or the IUCN may request. Amendments or new interpretations of such laws and regulations shall be similarly reported as they are adopted.

ARTICLE IX

Conferences of the Contracting States

1. The Depository Government shall invite the Contracting States to send representatives to a conference to be convened within one year after this Convention comes into force. The Depository Government shall act as host for the meeting. The representatives of the Contracting States shall review the operation and implemen-

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tation of this Convention, and the progress made toward the restoration, conservation, and rational utilization of species on the Appendices of this Convention. They shall examine any reports or matters presented to them by the IUCN or any Contracting State. Where appropriate, they may make recommendations for improving the effectiveness of the Convention, including the restriction or suspension of trade in particular species, and may, upon the proposal of one-third or more of the Contracting States, consider its revision.]

[2. Thereafter, Conferences of the Contracting Parties shall be convened upon the proposal to the IUCN by one-third or more of the Contracting States to consider revision of the Convention or improvement of its implementation, or for other purposes relevant to the objective of conservation, restoration and rational utilization of the species covered by the Convention. The proposal shall include the subjects to be considered and an offer by one or more of the proposing States to act as host for the Conference, or otherwise to defray the expenses of the Conference other than those expenses attributable directly to the attendance of delegations of the several Contracting States.]

[3. The United Nations, its Specialized Agencies, any State not a party to the Convention but eligible to accede thereto, and the International Union for Conservation of Nature and Natural Resources

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tation of this Convention, and the progress made toward the conservation, restoration and rational use of species included in the Appendices of this Convention. They shall examine any reports or matters presented to them by the IUCN or any Contracting State. Where appropriate, they may make recommendations for improving the effectiveness of the Convention, including the restriction or suspension of trade in particular species, and may, upon the proposal of one-third or more of the Contracting States, consider its revision.]

[2. Thereafter, Conferences of the Contracting Parties shall be convened upon the proposal to the IUCN by one-third or more of the Contracting States to consider revision of the Convention or improvement of its implementation, or for other purposes relevant to the objective of conservation, restoration and rational use of the species covered by the Convention. The proposal shall include the subjects to be considered and an offer by one or more of the proposing States to act as host for the Conference, or otherwise to defray the expenses of the Conference other than those expenses attributable directly to the attendance of delegations of the several Contracting States.]

[3. The United Nations, its Specialized Agencies, any State not a party to the Convention but eligible to accede thereto, and the IUCN may be represented at such Conferences by observers who shall be

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2. At the Conference, the Contracting States shall

- (a) Review the operation and implementation of this Convention, and the progress made toward the restoration, conservation and rational utilization of the species on the Appendices;
- (b) Examine any reports or matters presented to them by the Secretariat or any Contracting State;
- (c) Where appropriate, make recommendations for improving the effectiveness of the Convention, including the restriction or suspension of trade in particular species; and
- (d) Upon the proposal of one-third or more of the Contracting States, consider the revision of this Convention.

3. Thereafter, Conferences of the Contracting States shall be convened upon the proposal to the Secretariat by one-third or more of the Contracting States. At each such subsequent Conference, the Contracting States shall

3. The United Nations, its Specialized Agencies, any State not a party to the Convention but eligible to accede thereto, and the International Union for Conservation of Nature and Natural Resources

entitled to participate and speak but not to vote. Other interested organizations may inform the prospective host Government of their desire to be so represented by observers at such meetings, and shall be admitted unless one-third or more of the Contracting States object.]

[4. Recognizing that Specialized Agencies and other bodies within the United Nations system will be concerned with the conservation of threatened species of wildlife, and desiring to avoid duplication of functions, the representatives shall consider at the Conference called in accordance with paragraph 1 of this Article whether operation of this Convention shall be brought within the framework of a Specialized Agency or other body related to the United Nations.]

ing States shall have the same powers as specified in paragraph 2 of this Article. The proposal for the convening of a Conference pursuant to this paragraph shall include the agenda and an offer by one or more of the proposing States to act as host for the Conference, or otherwise to defray the expenses of the Conference other than those expenses attributable directly to the attendance of delegations of the several Contracting States.

4. The United Nations, its Specialized Agencies, any State not a Party to the Convention but eligible to accede thereto, and other appropriate international organizations may be represented at such Conferences by observers who shall be entitled to participate but not to vote. Other interested organizations may inform the prospective host Government of their desire to be so represented by observers at such meetings, and shall be admitted unless one-third or more of the Contracting States object.

5. Recognizing that Specialized Agencies and other bodies within the United Nations system are concerned with the conservation of endangered species of wildlife, and desiring to avoid duplication of functions, the representatives shall consider at the Conference called in accordance with paragraph 1 of this Article whether operation of this Convention and/or the Secretariat function provided for in Article X shall be brought within the framework of a Specialized Agency or other body related to the United Nations.

may be represented at such Conferences by observers who shall be entitled to participate and speak but not to vote. Other interested organizations may inform the prospective host Government of their desire to be so represented by observers at such meetings, and shall be admitted unless one-third or more of the Contracting States object.]

[4. Recognizing that Specialized Agencies and other bodies within the United Nations system will be concerned with the conservation of endangered species of wildlife, and desiring to avoid duplication of functions, the representatives shall consider at the Conference called in accordance with paragraph 1 of this Article whether operation of this Convention shall be brought within the framework of a Specialized Agency or other body related to the United Nations.]

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ARTICLE X

Responsibilities of the IUCN

[The following powers and functions shall be entrusted to the IUCN, as an organization devoted to the objectives of this Convention and having substantial experience and technical ability in the conservation, restoration and rational use of threatened species of wildlife:

(a) To consider the reports by Contracting States on the implementation of the Convention in their territories described in paragraph 5 of Article VIII, and to request such further information with respect thereto from Contracting States as it deems necessary to ensure effective implementation of this Convention;

(b) To review the information received in paragraph (a), and to present annual reports to the Contracting States and to each conference of representatives of Contracting States on the implementation of this Convention;

(c) To consider Contracting State proposals for amendments to the Appendices of this Convention, and to recommend such amendments to the Contracting States on its own initiative. Any such recommendations shall make reference to the opinions of the Scientific Authorities of the States within which the species in question naturally occurs.

(d) To take the actions contemplated by Article XI to facilitate the effective implementation of this Convention;

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ARTICLE X

THE SECRETARIAT

1. At the first Conference held pursuant to Article IX of this Convention, the Contracting States may:

(a) decide to establish a Wild-Life Protection Secretariat with the headquarters in (-----) to service the Conference both logistically and substantively as stipulated in paragraph 3 of this Article; or

(b) decide that such logistic and substantive functions as defined in paragraph 3 of this Article be performed by the Secretariat of an appropriate, existing United Nations body or Specialized Agency, agreed upon by the Conference.

2. In the event the Contracting States decide to establish a new Secretariat under paragraph 1 (a) of this Article, the Executive Head of such a Secretariat shall be elected for a ----- term by the Conference in accordance with its rules of procedure.

3. The Secretariat provided for under paragraph 1 of this Article shall have the following functions and responsibilities:

(a) to arrange for and service the Conference of the Contracting States to be convened in accordance with Article IX of this Convention;

(b) to receive and study the reports by Contracting States on the implementation of the Convention in their territories described in paragraph 5 of Article VIII, and

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ARTICLE X

Responsibilities of the IUCN

[The following powers and functions shall be entrusted to the IUCN, as an organization devoted to the objectives of this Convention and having substantial experience and technical ability in the restoration and conservation of endangered species of wildlife:

(a) To consider the reports by Contracting States on the implementation of the Convention in their territories described in paragraph 5 of Article VIII, and to request such further information with respect thereto from Contracting States as it deems necessary to ensure effective implementation of the Convention;

(b) To review the information received in paragraph (a), and to present annual reports to the Contracting States and to each conference of representatives of Contracting States on the implementation of this Convention;

(c) To consider Contracting State proposals for amendments to the Appendices, and to recommend such amendments to the Contracting States on its own initiative. Any such recommendations shall make reference to the opinions of the Scientific Authorities of the States within which the species in question naturally occurs.

(d) To take the actions contemplated by Article XI to facilitate the effective implementation of this Convention;

(e) To study and recommend standards

for the appropriate packaging and shipment of live specimens;

(f) To invite the attention of Contracting States to scientific and technical information necessary or useful for the proper implementation of this Convention, especially on the means of identifying specimens;

(g) To carry out or cause to be carried out such scientific or technical studies necessary to ascertain the degree to which particular species may be threatened by trade in specimens, and the measures which may be appropriate under this Convention for their protection;

(h) To periodically publish and distribute to all Contracting States current compilations of Appendix I, II and III species from the lists submitted by the Contracting States, including the scientific name, the common name, available information which will facilitate identification of specimens, the name of the Contracting State or States submitting the name of each species, and the texts of pertinent national laws thereto; this publication will be furnished to each Contracting State in English, French or Spanish, as such State may request; and

(i) To take such other actions as may be necessary to ensure the efficient implementation of this Convention.]

to request such further information with respect thereto for Contracting States as it deems necessary to ensure effective implementation of the Convention;

(c) to review the information received in paragraph (a), and to present annual reports to the Contracting States and reports to the Contracting States and a summary report to each conference of representatives of Contracting States on the implementation of this Convention;

(d) to receive and study Contracting States' proposals for amendments to the Appendices, and to make recommendations on such amendments to the Contracting States either on its *own initiative* or upon request by a Contracting State. Such recommendations shall take into account the opinions of the Scientific Authorities of the States within which the species in question naturally occurs.

(e) to take the actions contemplated by Article XI to facilitate the effective implementation of this Convention;

(f) to study and recommend standards for the appropriate packaging and shipment of live specimens;

(g) to invite the attention of Contracting States to scientific and technical information necessary or useful for the proper implementation of this Convention, especially on the means of identifying specimens;

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(e) To study and recommend standards for the appropriate preparation packaging, shipment and handling of live specimens;

(f) To invite the attention of Contracting States to scientific and technical information necessary or useful for the proper implementation of this Convention, especially on the means of identifying specimens;

(g) To carry out or cause to be carried out such scientific or technical studies necessary to ascertain the degree to which particular species may be threatened by international trade in specimens, and the measures which may be appropriate under this Convention for their protection;

(h) To periodically publish and distribute to all Contracting States current compilations of Appendix I, II and III species, including the scientific name, the common name, and available information which will facilitate identification of specimens, and the name of the Contracting State or States submitting the name of each species included in Appendix III, and the texts of pertinent national laws relative thereto; this publication will be furnished to each Contracting State in English or French, as such State may request; and

(i) To take such other actions as may be necessary to ensure the efficient implementation of this Convention.]

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which may be appropriate under this Convention for their protection;

(i) publish periodically and distribute to all Contracting States current compilations of Appendix I(a), I(b), II and III species from the list submitted by the Contracting States, including the scientific name, the common name, available information which will facilitate identification of specimens, the name of the Contracting State or States submitting the name of each species, and the texts of pertinent national laws relative thereto; this publication will be furnished to each Contracting State in any of the operating U. N. languages, as such State may request; and

(j) to perform any other functions as may be entrusted to it by the Contracting

States.

ARTICLE XI

International Measures

[1. The IUCN may make such comments and recommendations as it considers appropriate on matters relating to this Convention to Contracting States concerned.]

[2. If the IUCN has reason to conclude from the information reported to it by Contracting States that the conservation of one or more of the species listed in the Appendices of this Convention is threatened by excessive international trade in specimens with or without permits, or that the provisions of the Convention are not

which may be appropriate under this Convention for their protection;

(i) publish periodically and distribute to all Contracting States current compilations of Appendix I(a), I(b), II and III species from the list submitted by the Contracting States, including the scientific name, the common name, available information which will facilitate identification of specimens, the name of the Contracting State or States submitting the name of each species, and the texts of pertinent national laws relative thereto; this publication will be furnished to each Contracting State in any of the operating U. N. languages, as such State may request; and

(j) to perform any other functions as may be entrusted to it by the Contracting

States.

ARTICLE XI

International Measures

[1. The Secretariat may make such comments and recommendations as it considers appropriate on matters relating to this Convention to Contracting States concerned.]

[2. If the Secretariat has reason to conclude from the information reported to it by Contracting States that the conservation of one or more of the species listed in the Appendices of this Convention is threatened by excessive trade in specimens with or without permits, or that the provisions of the Convention are not being

ARTICLE XI

International Measures

[1. The IUCN may make such comments and recommendations as it considers appropriate on matters relating to this Convention to Contracting States concerned.]

[2. If the IUCN has reason to conclude from the information reported to it by Contracting States that the conservation of one or more of the species listed in the Appendices of this Convention is threatened by excessive trade in specimens with or without permits, or that the provisions of the Convention are not being effectively

being effectively carried out by one or more of the Contracting States, the IUCN shall inform the Scientific Authorities and the Management Authorities of the concerned Contracting States of its conclusions and the reasons therefor.]

[3. The Contracting States undertake in the event of receiving such communications from the IUCN, to reply without delay, clarifying the situation and if appropriate informing the IUCN of proposed remedial actions.]

[4. If a State receiving such a communication from the IUCN and the IUCN itself consider that an inquiry on the spot would assist in clarifying the situation or in determining remedial actions, such inquiry shall be carried out by one or more persons chosen by agreement of the State concerned and the IUCN.]

[5. Each Contracting State shall consult with any other Contracting State which requests such consultations regarding any matter arising under the terms of this Convention.]

ARTICLE XII

Effect on National Legislation and International Conventions

1. The provisions of this Convention shall in no way affect the right of Contracting States to adopt:

- (a) stricter measures regarding the conditions for the trade, taking, possession, and transport of specimens listed in Appendices I, II or III of this Convention or the complete prohibition thereof;
- (b) measures restricting or prohibiting

effectively carried out by one or more of the Contracting States, the Secretariat shall inform the Scientific Authorities and the Management Authorities of the concerned Contracting States of its conclusions and the reasons therefor.]

[3. The Contracting States undertake, in the event of receiving such communications from the Secretariat, to reply without delay, clarifying the situation and if appropriate informing the Secretariat of proposed remedial actions.]

[4. If a State receiving such a communication from the Secretariat and the Secretariat itself consider that an inquiry on the spot would assist in clarifying the situation or in determining remedial actions, such inquiry shall be carried out by one or more persons chosen by agreement of the State concerned and the Secretariat.]

[5. Each Contracting State shall consult with any other Contracting State which requests such consultations regarding any matter arising under the terms of this Convention.]

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Effect on National Legislation and International Conventions

1. The provisions of this Convention shall in no way affect the right of Contracting States to adopt:

- (a) stricter measures regarding the conditions for the trade, taking, possession, and transport of specimens or the complete prohibition thereof;
- (b) measures restricting or prohibiting the trade, taking, possession, or transport

carried out by one or more of the Contracting States, the IUCN shall inform the Scientific Authorities and the Management Authorities of the concerned Contracting States of its conclusions and the reasons therefor.]

[3. The Contracting States undertake, in the event of receiving such communications from the IUCN, to reply without delay, clarifying the situation and if appropriate informing the IUCN of proposed remedial actions.]

[4. If a State receiving such a communication from the IUCN and the IUCN itself consider that an inquiry on the spot would assist in clarifying the situation or in determining remedial actions, such inquiry shall be carried out by one or more persons chosen by agreement of the State concerned and the IUCN.]

[5. Each Contracting State shall consult with any other Contracting State which requests such consultations regarding any matter arising under the terms of this Convention.]

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Effect on National Legislation and International Conventions

1. The provisions of this Convention shall in no way affect the right of Contracting States to adopt:

- (a) stricter measures regarding the conditions for the trade, taking, possession, and transport of specimens or the complete prohibition thereof;
- (b) measures restricting or prohibiting the trade, taking, possession, or transport

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trade, taking possession, or transport of species not listed in Appendices I, II or III of this Convention.

2. The provisions of this Convention shall in no way affect the provisions of any national measures or the obligations deriving from any convention concerning other aspects of trade, taking, possession, or transport of specimens which may be in force or which may subsequently enter into force in the Contracting States, including, in particular, but without limitation, any measure pertaining to the customs, public health, veterinary or plant quarantine

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of species not listed in Appendices I(a), I(b), II or III of this Convention.

2. The provisions of this Convention shall in no way affect the provisions of any national measures or the obligations deriving from any convention concerning other aspects of the trade, taking, possession, or transport of specimens which may subsequently enter into force in the Contracting States, including, in particular, but without limitation, any measure pertaining to the customs, public health, veterinary or plant quarantine fields.

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of species not listed in Appendices I, II, or III of this Convention.

2. The provisions of this Convention shall in no way affect the provisions of any national measures or the obligations deriving from any convention concerning other aspects of the trade, taking, possession, or transport of specimens which may subsequently enter into force in the Contracting States, including, in particular, but without limitation, any measure pertaining to the customs, public health, veterinary or plant quarantine fields.

ARTICLE XIII

Amendments to Appendices

1. The IUCN or any Contracting State may propose amendments to Appendices I, II or IV. The IUCN shall communicate all such proposals, including its findings and recommendations for or against the proposal, to the Contracting States.

2. If no Contracting State notifies the IUCN of an objection to a proposed amendment within six months of the date on which the proposal was communicated by the IUCN, the amendment shall be considered accepted and shall immediately enter into force.

3. If such an objection is made by a Contracting State within the six-month period, the IUCN shall notify the Contracting States of all such objections, to-

ARTICLE XIII

Amendments to Appendices

1. The Secretariat or any Contracting State may propose amendments to Appendices I, II or IV. The Secretariat shall communicate all such proposals, including its findings and recommendations for or against the proposal, to the Contracting States.

2. If no Contracting State notifies the Secretariat of an objection to a proposed amendment within 180 days of the date on which the proposal was communicated by the Secretariat, the amendment shall be considered accepted and shall immediately enter into force.

3. If such an objection is made by a Contracting State within the 180-day period, the Secretariat shall notify the Contracting States of all such objections, to-

ARTICLE XIII

Amendments to Appendices

1. The IUCN or any Contracting State may propose amendments to Appendices I, II or IV. The IUCN shall communicate all such proposals, including its findings and recommendations for or against the proposal, to the Contracting States.

2. If no Contracting State notifies the IUCN of an objection to a proposed amendment within six months of the date on which the proposal was communicated by the IUCN, the amendment shall be considered accepted and shall immediately enter into force.

3. If such an objection is made by a Contracting State within the six-month period, the IUCN shall notify the Contracting States of all such objections, to-

gether with its comments thereon, and there shall be a further period of three months, during which other Contracting States may object. The proposed amendment shall come into force at the end of such three-month period for all Contracting States which have not objected, unless a majority of Contracting States have objected, in which case the amendment shall not come into force.

4. Any Contracting State raising an objection may withdraw it at any time, whereupon that objection shall be disregarded for the purposes of paragraphs 2 and 3 of this Article. Until a Contracting State withdraws its objection, it shall be treated as not a party to this Convention by other Contracting States with respect to international trade in the specimens concerned.

Signature

This Convention shall be open for signature at ----- from ----- until ----- It shall be open for signatures by all States members of the United Nations or of any of the Specialized Agencies or of the International Atomic Energy Agency or party to the Statute of the International Court of Justice.

ARTICLE XIV

Ratification

This Convention shall be subject to ratification. Instruments of ratification shall be deposited with the Government of -----, which shall be the Depositary Government.

gether with its comments thereon, and there shall be a further period of 90 days, during which other Contracting States may object. The proposed amendment shall come into force at the end of such 90-day period for all Contracting States which have not objected, unless a majority of Contracting States have objected, in which case the amendment shall not come into force.

4. Any Contracting State raising an objection may withdraw it at any time, whereupon that objection shall be disregarded for the purposes of paragraphs 2 and 3 above. Until a Contracting State withdraws its objection, it shall be treated as a non-Contracting State by other Contracting States with respect to trade in the species concerned.

ARTICLE XIV

Signature

This Convention shall be open for signature at ----- from ----- until ----- It shall be open for signature by all States members of the United Nations or of any of the Specialized Agencies or of the International Atomic Energy Agency or party to the Statute of the International Court of Justice.

ARTICLE XV

Ratification

This Convention shall be subject to ratification. Instruments of ratification shall be deposited with the Government of -----, which shall be the Depositary Government.

gether with its comments thereon, and there shall be a further period of three months, during which other Contracting States may object. The proposed amendment shall come into force at the end of such three-month period for all Contracting States which have not objected, unless a majority of Contracting States have objected, in which case the amendment shall not come into force.

4. Any Contracting State raising an objection may withdraw it at any time, whereupon that objection shall be disregarded for the purposes of paragraphs 2 and 3 above. Until a Contracting State withdraws its objection, it shall be treated as a non-Contracting State by other Contracting States with respect to trade in the specimens concerned.

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Signature

This Convention shall be open for signature at ----- from ----- until ----- It shall be open for signatures by all States members of the United Nations or of any of the Specialized Agencies or of the International Atomic Energy Agency or party to the Statute of the International Court of Justice.

ARTICLE XV

Ratification

This Convention shall be subject to ratification. Instruments of ratification shall be deposited with the Government of -----, which shall be the Depositary Government.

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(See Article XVIII.)

ARTICLE XVI

Entry into Force

1. This Convention shall come into force 180 days after the date of the deposit of the tenth instrument of ratification or accession with the Depository Government.
2. For each State which ratifies this Convention or accedes thereto after the deposit of the tenth instrument of ratification or accession, the Convention shall come into force four months after the deposit by such a State of its instrument of ratification or accession.

ARTICLE XVI

Accession

This Convention shall be open for accession by any States belonging to any of the categories mentioned in Article XIV. Instruments of accession shall be deposited with the Depository Government.

ARTICLE XVII

Territorial Application

1. This Convention shall apply, in respect of any Contracting State, to the territories for the international relations of which that State is responsible.
2. A Contracting State may declare that the provisions of this Convention shall not apply to one or more of the territories for the international relations of which that State is responsible, and shall notify

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ARTICLE XVI

Entry into Force

1. This Convention shall come into force 180 days after the date of the deposit of the tenth instrument of ratification or accession with the Depository Government.
2. For each State which ratifies this Convention or accedes thereto after the deposit of the tenth instrument of ratification or accession, the Convention shall come into force four months after the deposit by such a State of its instrument of ratification or accession.

ARTICLE XVII

Accession

This Convention shall be open for accession by any States belonging to any of the categories mentioned in Article XIV. Instruments of accession shall be deposited with the Depository Government.

ARTICLE XVII

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This Convention shall apply, in respect of any Contracting State, to the territories for the international relations of which that State is responsible.

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ARTICLE XVI

Entry into Force

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2. For each State which ratifies this Convention or accedes thereto after the deposit of the tenth instrument of ratification or accession, the Convention shall come into force four months after the deposit by such a State of its instrument of ratification or accession.

ARTICLE XVI

Accession

This Convention shall be open for accession by any States belonging to any of the categories mentioned in Article XIV. Instruments of accession shall be deposited with the Depository Government.

the Depositary Government accordingly. Such declaration may be made at the time of signing, ratifying or acceding to this Convention or at any time thereafter; in the latter case the declaration shall come into force four months after notification to the Depositary Government.

3. Any Contracting State making a declaration under this Article may revoke that declaration. Such revocation shall come into force four months after notification to the Depositary Government.

4. Notwithstanding the provisions of paragraph 1 of this Article, this Convention shall not apply to the area to which the provisions of the Antarctic Treaty apply. Permits under this Convention shall not be required in respect of specimens originating in that area, but the Contracting States agree, in connection with such specimens, to abide by the various measures agreed by the contracting parties to the Antarctic Treaty.

ARTICLE XVIII

Entry into Force

1. This Convention shall come into force four months after the date of the deposit of the tenth instrument of ratification or accession with the Depositary Government.

2. For each State which ratifies this Convention or accedes thereto after the deposit of the tenth instrument of ratification or accession, the Convention shall come into force four months after the deposit by such a State of its instrument of ratification or accession.

ARTICLE XVIII

(See Article XVI.)

ARTICLE XVIII

Entry into Force

1. This Convention shall come into force four months after the date of the deposit of the tenth instrument of ratification or accession with the Depositary Government.

2. For each State which ratifies this Convention or accedes thereto after the deposit of the tenth instrument of ratification or accession the Convention shall come into force four months after the deposit by such a State of its instrument of ratification or accession.

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ARTICLE XIX

Reservations

The provisions of this Convention shall not permit of reservations, except that a Contracting State may reserve as to any species listed in Appendices I or II. Such reservation may be withdrawn at any time. Until a Contracting State withdraws its reservation, it shall be treated as a State not a party to this Convention by other Contracting States with respect to international trade in the species concerned.

ARTICLE XX

Denunciation

Any Contracting State may denounce this Convention by written notification to the Depositary Government. The denunciation shall take effect twelve months after the Depositary Government has received the notification.

B

ARTICLE XVIII

Reservations

1. The provisions of this Convention shall not permit of general reservations, but shall only be subject to specific reservations as stipulated in paragraph 2 of this Article.

2. Any Contracting States may, on ratifying the present Convention, make a specific reservation with regard to a particular species listed in appendices I(b) or II, such State being free to withdraw the reservation at any time thereafter.

3. Until a Contracting State withdraws its reservation made under paragraph 2 of this Article, such a State shall be treated as non-contracting State by other Contracting States with respect to trade in the species named in the reservation.

ARTICLE XIX

Denunciation

Any Contracting State may denounce this Convention by written notification to the Depositary Government. The denunciation shall take effect twelve months after the Depositary Government has received the notification.

C

ARTICLE XIX

Reservations

The provisions of this Convention shall not permit of reservations, except that a Contracting State may reserve as to any species listed in Appendices I or II. Such reservation may be withdrawn at any time. Until a Contracting State withdraws its reservation, it shall be treated as a non-Contracting State by other Contracting States with respect to trade in the species concerned.

ARTICLE XX

Denunciation

Any Contracting State may denounce this Convention by written notification to the Depositary Government. The denunciation shall take effect twelve months after the Depositary Government has received the notification.

ARTICLE XXI

Depositary

1. The original of this Convention, in the English and French languages, each version being equally authentic, shall be deposited with the Depositary Government, which shall transmit duly certified copies thereof to all Contracting States.

2. In addition to other depositary functions specifically set forth herein, the Depositary Government shall inform all signatory and acceding States of signatures, deposits of instruments of ratification or accession, entry into force of the Convention, notifications of denunciation, dates of entry into force of amendments of the Appendices, and the names and addresses of the Authorities designated by Contracting States pursuant to Article VI.

3. As soon as this Convention enters into force, a certified, true copy thereof shall be transmitted by the Depositary Government to the Secretariat of the United Nations for registration and publication in accordance with Article 102 of the Charter of the United Nations.

In witness whereof the undersigned, being duly authorized to that effect, have signed this Convention.

ARTICLE XX

Depositary

1. The original of this Convention, in the English, French, Spanish, Russian, and Chinese languages, each version being equally authentic, shall be deposited with the Depositary Government, which shall transmit duly certified copies thereof to all Contracting States.

2. In addition to other depositary functions specifically set forth herein, the Depositary Government shall inform all signatory and acceding States of signatures, deposits of instruments of ratification or accession, entry into force of the Convention, notifications of denunciation, dates of entry into force of amendments of the Appendices, and the names and addresses of the Authorities designated by Contracting States pursuant to Article VI.

3. As soon as this Convention enters into force, a certified, true copy thereof shall be transmitted by the Depositary Government to the Secretariat of the United Nations for registration and publication in accordance with Article 102 of the Charter of the United Nations.

In witness whereof the undersigned, being duly authorized to that effect, have signed this Convention. Done at this day of 1972.

ARTICLE XXI

Depositary

1. The original of this Convention, in the English, French and Spanish languages, each version being equally authentic, shall be deposited with the Depositary Government, which shall transmit duly certified copies thereof to all Contracting States.

2. In addition to other depositary functions specifically set forth herein, the Depositary Government shall inform all signatory and acceding States of signatures, deposits of instruments of ratification or accession, entry into force of the Convention, notifications of denunciation, dates of entry into force of amendments of the Appendices, and the names and addresses of the Authorities designated by Contracting States pursuant to Article VI.

3. As soon as this Convention enters into force, a certified, true copy thereof shall be transmitted by the Depositary Government to the Secretariat of the United Nations for registration and publication in accordance with Article 102 of the Charter of the United Nations.

In witness whereof the undersigned, being duly authorized to that effect, have signed this Convention. Done at this day of 1972.

U.S. DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D.C., September 22, 1972.

DEAR SENATOR SPONG: Attached are answers to the questions on the Endangered Species Conservation Act of 1972 which were furnished following the hearing on August 4. A copy is being sent to the Minority Counsel for his information.

We would be pleased to furnish any additional information the Committee might require in their consideration of this important legislative proposal.

Sincerely yours,

CURTIS BOHLEN,

Acting Assistant Secretary of the Interior.

Enclosure

Question 1. There appears to be no provision in S. 3199 which would allow the taking of an animal presently threatened with extinction in the case of an emergency involving human health or safety. Would you have any objection to including such a provision? If not, please provide language.

Answer. We do not believe that threats to human health or safety, which could be posed by endangered species, are of sufficient concern that a loophole should be written into the bill, such as was done in subsection 7(c)(2) of S. 3818. If threats are in fact posed by fish or wildlife likely to become threatened with extinction, then the Secretary could make such an exception by regulation under authority provided by subsection 5(b) of S. 3199.

Question 2. What specific criteria do you use to determine that a species is endangered and how do these differ from criteria used to determine species likely in the foreseeable future to become endangered?

Answer. The Endangered Species Conservation Act of 1969 defines an "endangered species" generally as any species or subspecies of vertebrate, mollusk, or crustacean which is threatened with extinction either within the territory of the United States or worldwide. While low populations could be sufficient reason to so classify an animal, it is not a prerequisite to such classification. Many animals which still exist in significant numbers, such as the brown pelican or the sperm whale, may be so threatened by environmental degradation or overexploitation as to be considered "endangered," while other animals which exist naturally only in low numbers may face no known threat to their continued existence and would not be considered an "endangered species." Population decline or numbers, then, is only one indication that a species is threatened. There could be known imminent threats to a healthy population that would entitle it to be considered "endangered." There also could be situations where the habitat of a species is such that the animals are so concentrated that they are extremely vulnerable, and therefore might be considered "endangered."

Whether a species would be considered "endangered" or "likely within the foreseeable future to become endangered" would be a matter of degree. The same general criteria would be applicable to either classification. The distinguishing factor would be the severity and imminence of the threat they face.

The existence of two categories would be a very valuable addition to the safety of the process of "delisting" a species. As pointed out earlier in our testimony, this could be compared to the process followed by a hospital in which a patient is removed from the "critical list" or from the "intensive care unit" and placed in the general ward until he is ready to be discharged. As a species responds to the benefits it receives from being listed as "endangered," it could be reclassified as "likely to become endangered" and managed appropriately. Thus, the Secretary may, at his discretion, permit a limited harvest if it is shown this would be in the best interest of the species.

In general, the decision to add or delete a species or subspecies to or from the endangered species list would be made only after seeking the opinion and advice of as many knowledgeable persons as possible. An outline of the procedure followed in adding an animal to the List of Endangered *Native* Fish and Wildlife (or in deleting one) is illustrated by the chart that follows. A similar procedure, using different references, is followed for foreign species. Essentially the same procedure will be followed if the proposed legislation is enacted.

Question 3. As I understand it, a species could be declared endangered over part of its range and not endangered in other parts. Is this correct? If so, how do you plan to enforce it? Specifically, how would you deal with a commercial species which is endangered in part of its range and abundant elsewhere?

Answer. That is correct.

Although man's present ability to rapidly and drastically alter the environment makes it possible for a species or subspecies to be forced from a secure status to a hazardous one almost overnight, such happenings are the exception rather than the rule. Usually it becomes apparent to scientists that a species is heading for trouble long before it reaches the point at which it is threatened with extinction. It is when such indicators—unregulated commercial, or other over-exploitation; significant reductions in population; significant loss or threatened loss of habitat, etc.—are detected that an animal would become a candidate for the Endangered Species List.

Quite commonly an animal's status does not deteriorate at the same rate throughout its range. This is especially true for those whose range extends into two or more nations, States, or other political subdivisions. This is so since the well-being of most wildlife now is dependent upon the management and other considerations it receives—or, just as importantly, *fails* to receive—from the people and governments who control the land upon which it lives.

To more directly answer your question, let's assume a hypothetical situation involving a commercially valuable animal which occurs in three countries. Let's assume, after the appropriate reviews, consultations, etc., that it is determined that

—in country "A"—a good management program exists; adequate un-threatened habitat is present; the population is healthy and produces a surplus which is harvested under a carefully regulated system,

—in country "B"—the animal largely is ignored and neither receives special management or protective attention nor is it overexploited,

—in Country "C"—no management program exists and the animal is being heavily overexploited.

Thus, this animal would be considered to be in good shape over part of its range (country "A"), holding its own in a second portion (country "B"), and in trouble in a third.

Under our present authority, no assistance could be given this animal since it is not "threatened with extinction." However, it is obvious that unless something acts on behalf of the animal, its extirpation in country "C" is imminent. Once that occurs, the same forces likely would shift their attention to the animal in country "B", thus making the species' continued existence dependent on the welfare of the remanent population in country "A".

This is a "textbook example" of our concept of a candidate for the "likely to become threatened with extinction" category.

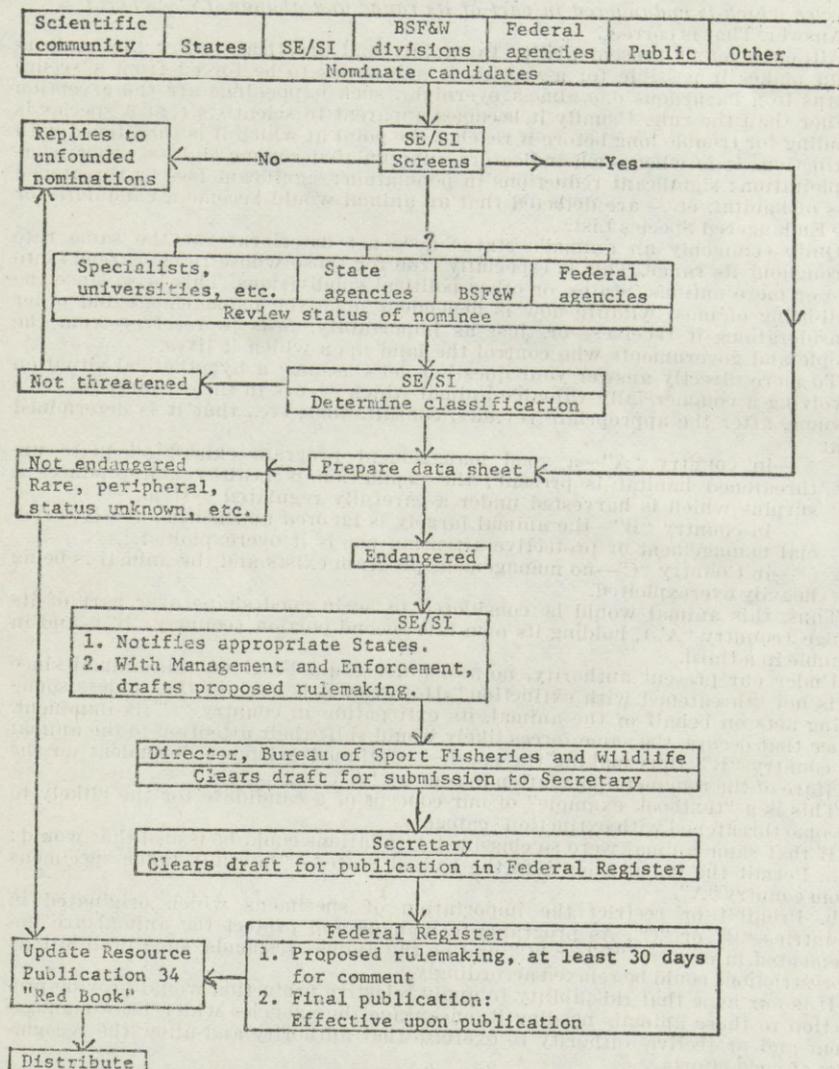
If that same animal were so classified, regulations could be issued that would:

a. Permit the importation into the United States of lawfully taken specimens from country "A".

b. Prohibit or restrict the importation of specimens which originated in countries "B" or "C". As programs to manage and protect the animal are implemented in country "B" or "C" and as the animal responds, such prohibitions or restrictions could be relaxed accordingly.

It is our hope that this ability to apply selective protection would provide protection to those animals needing it, encourage the agencies which have management and protective authority to exercise that authority and allow the recognition of such efforts.

LISTING PROCEDURE - NATIVE SPECIES



NOTE: SE/SI = Office of Endangered Species and International Activities, Bureau of Sport Fisheries & Wildlife, USDI
BSP&W = Bureau of Sport Fisheries and Wildlife, USDI

Question 4. If either S. 3199 or S. 3818 passes, what would be the effect on the holder of a grazing permit who violates the "Endangered Species Conservation Act of 1972"?

Answer. A grazing permittee or licensee who violated the "Endangered Species Conservation Act of 1972" would be subject to the same civil and criminal penalties as any other person who violated the Act (see § 7 of S. 3199; § 9 of S. 3818).

The Department of the Interior has published as proposed rulemaking an amendment to its regulations governing domestic livestock grazing which would

provide that the violation of any Federal or State law or regulation concerning the conservation or protection of natural resources or the environment may result in the cancellation or reduction of a lease, license or permit where grazing land administered by the Bureau of Land Management is involved or affected, and such violation or failure to comply is related to a grazing use authorized by a lease, license or permit. Laws or regulations relating to the conservation or protection of natural resources or the environment would include, but not be limited to, those relating to air and water pollution, protection of fish and wildlife, and the use of pesticides. (37 FR 4262-4263, March 1, 1972.)

A copy of the proposed rulemaking follows:

PROPOSED RULE MAKING
DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

[43 CFR Part 1720]

PROGRAM POLICY

Placement of Chemical Toxicants on Public Lands

Notice is hereby given that pursuant to the authority contained in R.S. 453, as amended (43 U.S.C. sec. 2) ; R.S. 2478, as amended (43 U.S.C. sec. 1201), the National Environmental Policy Act of 1969 (42 U.S.C. 4321, 4331-4335) ; and pursuant to Executive Order 11643 (37 F.R. 2875), it is proposed that Subpart 1725 of Title 43, Code of Federal Regulations, be amended by adding § 1725.3-4.

The purpose of this amendment is to restrict the use on public lands of chemical toxicants for the purpose of killing predatory mammals or birds and to restrict the use on such lands of chemical toxicants which cause any secondary poisoning effects for the purpose of killing other mammals, birds or reptiles.

In accordance with the Department's policy on public participation in rule making (36 F.R. 8336), interested parties may submit written comments, suggestions, or objections with respect to the proposed rules to the Director (210), Bureau of Land Management, Washington, D.C. 20240, until May 1, 1972.

Copies of comments, suggestions, or objections made pursuant to this notice will be available for public inspection in the Office of Information, Bureau of Land Management, Room 5643, Interior Bldg., Washington, D.C., during regular business hours (7:45 a.m.-4:15 p.m.).

Part 1720 of Chapter II, Title 43, Code of Federal Regulations, is amended by adding § 1725.3-4 to read as follows:

§ 1725.3-4 Use of chemical toxicants on public lands.

(a) Except as hereafter provided, the field use of any chemical toxicant which may cause the death of any predatory mammal or bird, or the field use of any chemical toxicant which may cause any secondary poisoning effect to any mammal, bird, or reptile is prohibited on public lands administered by the Bureau of Land Management.

(b) Exceptions: The Secretary may authorize the emergency use of a chemical toxicant for the purpose of killing predatory mammals or birds, or of a chemical toxicant which may cause a secondary poisoning effect to any mammal, bird, or reptile, if in each specific case the Secretary makes a written finding, following consultation with the Secretaries of Agriculture and Health, Education, and Welfare, and the Administrator of the Environmental Protection Agency, that an emergency exists that cannot be dealt with by means which do not involve use of chemical toxicants, and that such use is essential (1) to the protection of the health or safety of human life; (2) to the preservation of one or more wildlife species threatened with extinction, or likely within the foreseeable future to become so threatened; or (3) to the prevention of substantial irretrievable damage to nationally significant natural resources.

(c) Definitions: As used herein the term "field use" means use on any public land except use immediately adjacent to, or inside, occupied buildings; the term "chemical toxicant" means any chemical substance which, when ingested, inhaled, or absorbed, or when applied to or injected into the body, in relatively small amounts, by its chemical action may cause significant bodily malfunction, injury, illness, or death, to animals or man; the term "predatory mammal or bird" means

any mammal or bird which habitually preys upon other animals or birds; and the term "secondary poisoning effect" means the result attributable to a chemical toxicant which, after being ingested, inhaled, or absorbed, or when applied to or injected into, a mammal, bird, or reptile, is retained in its tissue, or otherwise retained in such a manner and quantity that the tissue itself or retaining part if thereafter ingested by man, mammal, bird, or reptile, may cause significant bodily malfunction, injury, illness, or death.

MITCHELL MELICH,
Acting Secretary of the Interior.

February 25, 1972.

[FR Doc.72-3061 Filed 2-29-72; 8:52 am]

[43 CFR Parts 4110, 4120, 4130]

CONSERVATION OR PROTECTION OF NATURAL RESOURCES OR THE ENVIRONMENT
PROPOSED LICENSE, PERMIT, AND LEASING PROCEDURES; REQUIREMENTS AND CONDITIONS

Notice is hereby given that pursuant to the authority contained in the Act of June 28, 1934 (43 U.S.C. 315a, 315m); the Act of March 4, 1927 (43 U.S.C. 316n); the Act of August 28, 1937 (43 U.S.C. 1181d); the Act of September 1, 1936 (50 Stat. 902); and the National Environmental Policy Act of 1969 (42 U.S.C. 4321, 4331-4335) it is proposed to amend Parts 4110, 4120, and 4130 of Chapter II, Title 43 of the Code of Federal Regulations.

The purpose of this amendment is to make grazing privileges subject to cancellation where a grazer has violated or failed to comply with any Federal or State law or regulation concerning the conservation or protection of natural resources or the environment and (1) grazing land administered by the Bureau of Land Management is involved or affected; and (2) such violation or failure to comply is related to a grazing use authorized by said lease, license, or permit.

In accordance with the Department's policy on public participation in rule making (36 F.R. 8336), interested parties may submit written comments, suggestions, or objections with respect to the proposed rules to the Director (210), Bureau of Land Management, Washington, D.C. 20240 until May 1, 1972.

Copies of comments, suggestions, or objections made pursuant to this notice will be available for public inspection in the Office of Information, Bureau of Land Management, Room 5643, Interior Building, Washington, D.C. during regular business hours (7:45 a.m.-4:15 p.m.). Parts 4110, 4120, 4130, of Subchapter D of Chapter II, Title 43 of the Code of Federal Regulations are amended as follows:

1. A new subparagraph (15) is added to § 4115.2-1(e) of Part 4110 to read as follows:

§ 4115.2-1 License and permit procedures; requirements and conditions.

* * * * *
(e) * * *

(15) The violation of, or failure to comply with, any Federal or State law or regulation concerning the conservation or protection of natural resources or the environment may result in the cancellation or reduction of a license or permit where (i) grazing land administered by the Bureau of Land Management is involved or affected, and (ii) such violation or failure to comply is related to a grazing use authorized by said license or permit. Laws or regulations relating to the conservation or protection of natural resources or the environment include, but are not limited to, those relating to air and water pollution, protection of wildlife and fish, and the use of pesticides.

* * * * *
2. A new subparagraph (12) is added to § 4125.1-1(i) of Part 4120 to read as follows:

§ 4125.1-1 Leasing procedures; requirements and conditions.

* * * * *
(i) * * *

(12) The violation of, or failure to comply with any Federal or State law or regulation concerning the conservation or protection of natural resources or

the environment may result in the cancellation or reduction of a lease where (i) grazing land administered by the Bureau of Land Management is involved or affected, and (ii) such violation or failure to comply is related to a grazing use authorized by said lease. Laws or regulations relating to the conservation or protection of natural resources or the environment include, but are not limited to, those relating to air and water pollution, protection of wildlife and fish, and the use of pesticides.

* * * * *
 3. Paragraph (f) of § 4131.2-7 of Part 4230 is amended by adding a new subparagraph to read as follows:

§ 4131.2-7 Lease.

* * * * *
 (f) *Restrictions.* * * *

The violation of, or failure to comply with, any Federal or State law or regulation concerning the conservation or protection of natural resources or the environment may result in the cancellation or reduction of a lease where (i) grazing land administered by the Bureau of Land Management is involved or affected, and (ii) such violation or failure to comply is related to a grazing use authorized by said lease. Laws or regulations relating to the conservation or protection of natural resources or the environment include, but are not limited to, those relating to air and water pollution, protection of wildlife and fish, and the use of pesticides.

* * * * *
 MITCHELL MELICH,
Acting Secretary of the Interior.

FEBRUARY 25, 1972.

[FR Doc. 72-3060 Filed 2-29-72 ; 8:52 am]

[43 CFR Parts 4110, 4120, 4130]

USE OF CHEMICALS TOXIC TO PREDATORY ANIMALS ON GRAZING LANDS
 PROPOSED LICENSE, PERMIT, AND LEASING PROCEDURES;
 REQUIREMENTS AND CONDITIONS

Notice is hereby given that pursuant to the authority contained in the Act of June 28, 1934 (43 U.S.C. 315a, 315m); the Act of March 4, 1927 (as amended) (43 U.S.C. Sec. 316n); the Act of August 28, 1937 (43 U.S.C. 1181d); the Act of September 1, 1937 (50 Stat. 902); and the National Environmental Policy Act of 1969 (42 U.S.C. 4321, 4331-4335); and pursuant to Executive Order 11643 (37 F.R. 2875), it is proposed to amend Parts 4110, 4120, and 4130 of Chapter II, Title 43 of the Code of Federal Regulations as follows:

The purpose of this amendment is to restrict on public lands administered by the Bureau of Land Management and subject to domestic livestock grazing the use of chemicals toxic to predatory mammals or birds, or toxic to other mammals, birds, and reptiles if such chemical toxicants may cause secondary poisoning effects; and to authorize the cancellation or reduction of grazing privileges for the unauthorized use of such chemicals.

In accordance with the Department's policy on public participation in rule making (36 F.R. 8336) interested parties may submit written comments, suggestions, or objections with respect to the proposed rules to the Director (210), Bureau of Land Management, Washington, D.C. 20240 until May 1, 1972.

Copies of comments, suggestions, or objections made pursuant to this notice will be available for public inspection in the Office of Information, Bureau of Land Management, Room 5643, Interior Building, Washington, D.C., during regular business hours (7:45 a.m.-4:15 p.m.).

Parts 4110, 4120, 4130 of Subchapter D of Chapter II, Title 43 of the Code of Federal Regulations are amended as follows:

1. A new subparagraph (16) is added to § 4115.2-1(e) of Part 4110 to read as follows:

§4115.2-1 License and permit procedures; requirements and conditions.

* * * * *
 (e) * * *

(16) (i) Except as authorized in writing by the Secretary, no licensee or permittee, or the agent or employee of any licensee or permittee, shall make field use

on the public lands of any chemical toxicant which may cause the death of any predatory mammal or bird, or the field use of any chemical toxicant which may cause any secondary poisoning effects to any mammal, bird, or reptile. Any unauthorized use may result in the cancellation or reduction of the grazing use.

(ii) As used herein, the term "field use" means use on any public land except use immediately adjacent to, or inside, occupied buildings; the term "chemical toxicant" means any chemical substance which, when ingested, inhaled, or absorbed, or when applied to or injected into the body, in relatively small amounts, by its chemical action may cause significant bodily malfunction, injury, illness, or death, to animals or man; the term "predatory mammal or bird" means any mammal or bird which habitually preys upon other animals or birds; and the term "secondary poisoning effect" means the result attributable to a chemical toxicant which, after being ingested, inhaled, or absorbed, or when applied to or injected into, a mammal, bird, or reptile, is retained in its tissue, or otherwise retained in such a manner and quantity that the tissue itself or retaining part if thereafter ingested by man, mammal, bird, or reptile, may cause significant bodily malfunction, injury, illness or death.

* * * * *

2. A new subparagraph (13) is added to § 4125.1-1(i) of Part 4120 to read as follows:

§ 4125.1-1 Leasing procedures; requirements and conditions.

* * * * *

(i) * * *

(13) Except as authorized in writing by the Secretary, no lessee or the agent or employee of any lessee shall make field use on the public lands of any chemical toxicant which may cause the death of any predatory mammal or bird, or the field use of any chemical toxicant which may cause any secondary poisoning effects to any mammal, bird, or reptile. Any unauthorized use may result in the cancellation or reduction of the grazing use. For definitions of the terms "field use," "chemical toxicant," "predatory mammal or birds," and "secondary poisoning effect," see § 4115.2-1(e) (16) (ii) of this chapter.

* * * * *

3. Paragraph (f) of § 4131.2-7 of Part 4130 as amended by adding a new subparagraph to read as follows:

§ 4131.2-7 Leases.

* * * * *

(f) *Restrictions.* * * *

Except as authorized in writing by the Secretary, no lessee or the agent or employee of any lessee shall make field use on the public lands of any chemical toxicant which may cause the death of any predatory mammal or bird, or the field use of any chemical toxicant which may cause any secondary poisoning effects to any mammal, bird, or reptile. Any unauthorized use may result in the cancellation or reduction of the grazing use. For definitions of the terms "field use," "chemical toxicant," "predatory mammal or bird," and "secondary poisoning effect," see § 4115.2-1(e) (16) (ii) of this chapter.

* * * * *

MITCHELL MELICH,
Acting Secretary of the Interior.

FEBRUARY 25, 1972.

[FR Doc. 72-3059 Filed 2-29-72;8:52 am]

Question 5. Do you favor extending the protections offered by S. 3199 to all species of animals?

Answer. We have no objection to extending the protections afforded by S. 3199 to other animals in addition to the vertebrates, mollusks, and crustaceans now covered. As our knowledge of the environment increases, the important ecological roles played by the invertebrates become more and more evident.

Bright, colorful sand dollars, sponges, and sea anemones filter the water and convert decaying material or pests upon which they prey into more desirable forms of life. Other beautiful shelled animals, such as the brachiopods, which are not mollusks or crustaceans should be protected. In addition, there is some concern among the scientific community that the continued existence of members of some groups—notably the corals and brachiopods—may now be in jeopardy.

Authorizing official recognition of all endangered animals would be a significant step toward rational husbandry of the total ecosystem.

Question 6. Section 8(a) of S. 3818 would delete "zoological" and "educational" users from importing under that exception. Do you agree?

Answer. We do not agree. We would prefer that the Secretary continue to be authorized to permit the importation or taking of endangered species for educational, or zoological, as well as scientific, or propagational purposes. It should be borne in mind that the provisions of this Act will apply to animals already in captivity as well as those in the wild.

We are encouraging zoos to pool their stocks of endangered species into cooperative breeding projects in the hope of providing some of the legitimate zoo and research needs for these species from captive stock, rather than from the wild populations. A statutory prohibition against importation for zoological purposes would hamper this program.

We fully agree that permits to import or take endangered species for zoological or educational purposes should be screened carefully, and granted only when it can be shown that such importation or taking "will not adversely affect the regenerative capacity of such species in a significant portion of its range or otherwise affect the survival of the wild population," as provided by subsection 6(a) of S. 3199.

Question 7. We have heard quite a bit about the Tule Elk. In fact, one of the other witnesses at this hearing represents an organization devoted to the preservation of this animal. Why is it not now on the Endangered Species List?

Answer. Although this elk exists in relatively low numbers, the prognosis for its survival is excellent. The California Department of Fish and Game is acutely aware of the Tule Elk, monitors its status closely, and provides such protection as is needed. The habitat upon which many of the Tule Elk exist is protected as a State park. The existing population is healthy, reproducing and increasing in numbers. For these reasons, we do not consider this animal to be "threatened with extinction." Enough of a threat may be found, however, to qualify the Tule Elk as a candidate for the "likely to become threatened with extinction" category contemplated by S. 3199.

Question 8. Senator Cranston's bill, S. 249, contains a provision which would outlaw bounties on species listed in the annex to the Convention on Nature Protection and Wildlife Preservation. What is your reaction to such a provision to apply to animals on the Endangered Species List?

Answer. The bounty long has been recognized by professional wildlife managers as an expensive and ineffective method of attempting to control wildlife populations. We do not favor bounties in general and certainly feel that no bounty should be levied on any endangered species by anyone.

S. 3199 would prohibit the "taking" of any "endangered species" regardless of State law unless the Secretary had delegated to the State the authority to regulate the taking of such animals pursuant to section 6(b). Such delegation would occur only when the State has demonstrated to the Secretary's satisfaction that an effective State program for the protection and management of that animal existed.

The payment of a bounty, the authorization of the payment of a bounty, or any other action by a State or any subdivision thereof which would cause the payment of a bounty on an endangered species would demonstrate the lack of an effective program for the protection and management of that species or subspecies and would preclude the delegation to that State of the authority to regulate the taking of that endangered species.

Question 9. Would you supply a list of those endangered species which are taken or likely to be taken by Indians or Eskimos and would thus be exempt from the Act?

Answer. Listed below are those animals presently on our List of Endangered Native Species which occur on Indian lands and possibly would be subject to being taken by Indians for their own consumption or ritual purposes pursuant to treaty, Executive Order, or Federal statute.

MAMMALS

Indiana bat, Eastern timber wolf, Red wolf, San Joaquin kit fox, Black-footed ferret, Florida panther, Columbian white-tailed deer, and Sonoran pronghorn.

BIRDS

Florida Everglade kite (Florida snail kite), Southern bald eagle, American peregrine falcon, Arctic peregrine falcon, Masked bobwhite, Whopping crane, Yuma clapper rail, California black rail, Eskimo curlew, Red-cockaded woodpecker, American ivory-billed woodpecker, Bachman's warbler, and Kirtland's warbler.

REPTILES AND AMPHIBIANS

American alligator.

FISHES

Longjaw cisco, Lahontan cutthroat trout, Arizona (Apache) trout, Humpback chub, Colorado River squawfish, Cui-ui, and Blue pike.

Question 10. How does this bill relate to the Marine Mammal legislation which has now been passed by both Houses of Congress and is almost certain to become law this year? Specifically, which Act would take precedence with regard to endangered species and with regard to those species which are likely in the foreseeable future to become endangered? Is there any conflict between the two Acts? If so, how would you recommend that we resolve it?

Answer. There is no conflict between the Marine Mammal legislation as it passed the Senate on July 26, 1972, (S. 2871) and the Endangered Species Act as to the division of responsibility over marine mammals between the Departments of the Interior and Commerce since both bills divide the jurisdiction over marine mammals on the basis of Reorganization Plan Number 4. That Reorganization Plan gives Interior jurisdiction over sea otters, polar bears, walrus and manatees, and the Department of Commerce jurisdiction over whales, porpoises, dolphins, seals and sea lions. The reason for retaining this jurisdiction is to avoid duplication of existing capabilities and facilities.

Question 11. Please provide five-year cost estimates for both S. 3199 and S. 3818.

Answer. The cost estimate with respect to either bill for the Department of the Interior is \$90.2 million, including land acquisition, for the first five years.

(Recess.)

Senator SPONG. Senator CRANSTON, we are delighted to have you with us this morning. We got off to an early start here, and I went on and proceeded with as many witnesses as I could.

STATEMENT OF HON. ALAN CRANSTON, U.S. SENATOR FROM CALIFORNIA

Senator CRANSTON. Thank you for giving me this opportunity to appear. I ask my entire statement be admitted for the record.

Senator SPONG and Senator STEVENS, I am delighted to have an opportunity to testify this morning on the merits of proposed legislation to protect and preserve rare and endangered animal species.

As the author of the Nature Protection Act, S. 249, H.R. 3844, which I also introduced in the 91st Congress as S. 3888, I was extremely pleased to note that President NIXON included in his Environmental Message a proposal for the protection and preservation of endangered animal species. This proposal is pending before this committee as S. 3199, the "Endangered Species Conservation Act of 1972."

In the course of my brief remarks this morning, I will comment on the general problem of endangered species—why they are endangered, and why they must be protected and preserved. I will also suggest what I feel are the essential provisions to be included in any protective legislation that this committee may consider and report.

Early in 1969, soon after taking office, I became interested in the fact that some States were offering and paying bounties for the killing of animals listed as rare and endangered.

I asked the Library of Congress to prepare a study of all State bounty laws and also to look into the question of whether the Federal Government had the constitutional authority to repeal those State bounty laws on species which the Federal Government had designated as rare or endangered. I have an updated version of that study with me this morning for inclusion in the record, Mr. Chairman.¹

In the course of this study, the Library of Congress researchers found that in October, 1940, the United States became a signatory to the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere.

Article V of this treaty provides that the contracting parties agree to adopt suitable laws and regulations for the protection and preservation of flora and fauna within their national boundaries. The contracting parties also agreed in article VII to adopt appropriate measures to protect migratory birds or to prevent the threatened extinction of any given species.

Article VIII provides for an annex to the convention in which would be mentioned species of flora or fauna, including migratory birds, the protection of which is of special urgency and importance.

Species included in the annex are to be protected as completely as possible, and their hunting, killing, capturing, or taking are prohibited except under special circumstances, and with special permission. The lists are considered flexible and subject to revision as necessary.

The discovery of this treaty led me to the realization that the Federal Government does have authority, through its treaty obligation, to protect and preserve endangered flora and fauna. Consequently, the bill I wrote evolved out of that authority.

My bill has two major provisions: (1) it prohibits the hunting, capturing, killing, taking, transporting, selling, or purchasing of any protected animals; and (2) it prohibits the payment of any bounty for the killing of a protected animal.

Mr. Chairman, I would like to turn now to the question of why this Nation of seemingly infinite resource abundance is today faced with the threat of extinction of some 145 separate animal species.

The answer to that question lies in the unfortunate marriage of man's technological know-how with his ecological myopia. Man knows all too well how to dam a wild river, but he seems ignorant of and insensitive to the adverse ecological impact of that dam.

We have only recently discovered, for example, that damming and channeling rivers has stopped the flow of sediment that once replenished the sandy beaches of the Pacific coast. Much of the sand on our once magnificent beaches now must be carried there by trucks. It seems that, ecologically speaking, man's superior intelligence has not yet yielded him ecological wisdom.

The primary reason for the threat of extinction of so many species on earth is direct human alteration of the environment. In our scramble after "infinite progress," we have scarred and mutilated the face of the earth.

¹ See p. 275.

Our wild animals developed through natural selective processes. Predators and prey participated in a continual evolutionary race, which developed in each species, unique characteristics that have enabled it to survive. These special attributes fitted each species for specific niches in an eco-system, and when an adverse change occurred in the conditions for which a species was fitted, it faced but two alternatives: adapt or perish.

Prior to man, species disappeared because climatic changes, glacial advances, or inundation by ancient seas eliminated or drastically altered their environment. Some species lost out as a result of intense competition from other species.

But there was an essential balance in this natural process—as one species disappeared, another evolved. Equilibrium and diversity were maintained.

Man has upset that balance. Because of man's destructive technology and his manipulation of animal species, old species are disappearing faster than new ones are evolving.

Agriculture, logging, dam-building, channelization, and hundreds of other forms of direct human encroachment into natural habitat threaten the survival of many species. The cultivation and irrigation of vast tracts of land, for example, have destroyed the habitat of the San Joaquin Kit Fox, and the Northern Greater Prairie Chicken.

Excessive hunting and fishing comprise a major threat to wildlife. Animals are killed for food, for sports, and for their skins, or because they are considered pests. The American ivory-billed woodpecker, the American alligator, and the Florida panther are three examples of animals threatened with extinction because of excessive hunting.

Man's use of pesticides, herbicides, and other poisons has also caused the decline of species. Sometimes the poisoning of predators is intentional. Sometimes the wrong animals get killed, like the innocent coyotes that eat the rabbits farmers poison to protect their crops.

Certainly, the most difficult task before this committee is to determine the best means for protecting and preserving our threatened animal species. Rather than commenting on any one bill, I will discuss what I believe to be the essential provisions of any legislation this committee may report.

(1) There must be an immediate repeal of all State laws providing bounties for the killing of any animal considered rare or endangered.

(2) There must be a prohibition on the hunting, capturing, killing, taking, transporting, selling, or purchasing of any rare or endangered animal. Exceptions to this prohibition must be kept to an absolute minimum. Exemptions to avoid economic hardship to those currently exploiting our rare and endangered species are not acceptable. Acceptable exemptions might be made for (a) specifically designated animals taken by Indian tribes for religious or traditional purposes; (b) animals taken for scientific, educational, or zoological purposes; (c) animals that are diseased; (d) game animals raised in captivity specifically for use as game animals; (e) animals already in captivity on the effective date of any law enacted to protect endangered species.

(3) The bill must provide authority for the purchase of land where necessary to provide a protected range of adequate size to insure the propagation of such species until there are sufficient numbers to assure its continued survival.

(4) Authority for administration of the bill should be placed under the Department of the Interior. Proposed legislation before this committee would split this authority between two government agencies: The Department of Commerce and the Department of the Interior. I am convinced that this is undesirable. The Department of Interior has traditionally been entrusted by the American people with protection of our wildlife and has built up considerable expertise in the field of wildlife conservation. I believe that the administrative discretion allowed by each of the various bills before this committee should be exercised by the Secretary of the Interior rather than the Secretary of Commerce, whose orientation is naturally more toward the commercial use than toward wildlife conservation.

(5) There must be a provision in the bill stating clearly that the power of the several States to enact more restrictive legislation for the protection and conservation of wildlife is not limited or superseded by this Federal legislation.

I want to make just one specific comment on the administration bill, S. 3199. Section 6(b) of this bill provides that the secretary may delegate to a State the authority to regulate the taking of an endangered species if he determines that the State has an "active program to manage and protect endangered species."

If such a delegation of authority is allowed by this committee, I believe certain minimum criteria must be established as to what constitutes an "active program to manage and protect endangered species."

Two provisions would seem to be essential: (1) the State should have no law paying bounties on endangered animals, and (2) the State should adhere to the practice of using predators as biological controls on primary feeders.

If we undertake measures that will insure the preservation of other life forms, we will also insure the survival of man. As we take steps to preserve the environment of endangered fish and wildlife in some liveable form—to clean the air, purify the water and preserve open spaces and wilderness, we will in the process, preserve at least some of our own environment in a condition where we and our children can survive.

Senator Spong. Senator Cranston, we thank you very much for your testimony, and for the very constructive suggestions you have made with regard to this legislation.

I have no questions.

Senator Stevens?

Senator STEVENS. I have just two, Senator Cranston.

I am delighted you took the time to come before the committee. Would you believe this bill ought to, in effect, repeal and replace the ocean mammals bill over which we just had a slight battle on the floor?

Senator CRANSTON. No. I think that is a task you have to undertake in the committee, to correlate the two, and see if there is conflict. However, the ocean mammals bill is designed to provide protection before such mammals become endangered. In that sense these two bills do not conflict at all.

Senator STEVENS. I find it very interesting, because the principle I fought for with the ocean mammals legislation seems to be acceptable in this bill that being a species by species concept in terms of taking jurisdiction away from the States.

The basic principle in all the bills before us today is that only on the basis of scientific evidence, should we take the jurisdiction away from the States, and only in the event that a species is threatened to become endangered. That basic principle of this bill was defeated on the floor.

I am inclined to think I would not mind seeing the repeal of the ocean mammals bill, because that would restore the State of Alaska's jurisdiction in that respect.

You have very limited exemptions in your bill. Exemptions are limited in the administration bill and the other bill before us with regard to the Natives and Indians.

I understand that you believe we should have exemptions only in the event that they are taken for religious or traditional purposes, is that correct?

Senator CRANSTON. Yes.

Senator STEVENS. My good friend, I would say to you, respectfully, that if people cannot hunt to eat then they cannot live to pray. I hope you would agree that the exemption permitting the Natives, particularly of Alaska, to take food for subsistence purposes, without regard to religious or traditional purposes should persist in this bill as it did in the ocean mammals bill.

Did you have any objection to the language in the ocean mammals bill with regard to the Alaska natives?

Senator CRANSTON. I question whether a species that is endangered should be taken for food purposes, at least for any substantial time. Perhaps a period of adjustment is necessary.

Senator STEVENS. I agree with you. These are species threatened with becoming endangered. However, by taking food away from people, are we not actually threatening their existence?

Senator CRANSTON. Yes. In that instance, where survival in terms of food is involved, I think we should take a look at that.

Senator STEVENS. Thank you very much.

Senator CRANSTON. Thank you very much.

Senator SPONG. Thank you very much, Senator Cranston.

I would like to see this bill replace the ocean mammals bill where we gave the authority to the Department of Interior.

Senator CRANSTON. Godspeed to this committee.

(The statement follows:)

STATEMENT OF HON. ALAN CRANSTON, U.S. SENATOR FROM CALIFORNIA

Mr. Chairman, I am delighted to have an opportunity to testify this morning on the merits of proposed legislation to protect and preserve rare and endangered animal species.

As the author of the Nature Protection Act. (S. 249, H.R. 3844), which I also introduced in the 91st Congress as S. 3888, I was extremely pleased to note that President Nixon included in his Environmental Message a proposal for the protection and preservation of endangered animal species. This proposal is pending before this Committee as S. 3199, the "Endangered Species Conservation Act of 1972."

In the course of my brief remarks this morning, I will comment on the general problem of endangered species—why they are endangered and why they must be protected and preserved. I will also suggest what I feel are the essential provisions to be included in any protective legislation that this Committee may consider and report.

Early in 1969, soon after taking office, I became interested in the fact that some states were offering and paying bounties for the killing of animals listed as rare and endangered. I asked the Library of Congress to prepare a study of all state bounty laws and also to look into the question of whether the federal government had the Constitutional authority to repeal those state bounty laws on species which the federal government had designated as rare or endangered. I have an updated version of that study with me this morning for inclusion in the record, Mr. Chairman.

In the course of this study, the Library of Congress researchers found that in October, 1940, the United States became a signatory to the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere. Article V of this treaty provides that the contracting parties agree to adopt suitable laws and regulations for the protection and preservation of flora and fauna within their national boundaries. The contracting parties also agreed in Article VII to adopt appropriate measures to protect migratory birds or to prevent the threatened extinction of any given species.

Article VIII provides for an annex to the convention in which would be mentioned species of flora or fauna, including migratory birds, the protection of which is of special urgency and importance. Species included in the annex are to be protected as completely as possible, and their hunting, killing, capturing or taking are prohibited except under special circumstances and with special permission. The lists are considered flexible and subject to revision as necessary.

The discovery of this treaty led me to the realization that the federal government does have authority, through its treaty obligation, to protect and preserve endangered flora and fauna. Consequently, the bill I wrote evolved out of that authority. My bill has two major provisions:

- (1) it prohibits the hunting, capturing, killing, taking, transporting, selling or purchasing of any protected animals; and
- (2) it prohibits the payment of any bounty for the killing of a protected animal.

Mr. Chairman, when I reintroduced the Nature Protection Act in January 26, 1971, I made some lengthy remarks in the Senate on the subject of rare and endangered species. I have a copy of this statement with me this morning for inclusion in the hearing record. I would like to point out that, in addition to an analysis of my bill, this document also contains three lists of endangered species:

- (1) the present (1967) Annex to the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere,
- (2) species listed in "Rare and Endangered Fish and Wildlife of the United States" but not listed in the 1967 Annex to the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere, and
- (3) a list of extinct wildlife—species, where found and date extinct.

Mr. Chairman, I'd like to turn now to the question of why this nation of seemingly infinite resource abundance is today faced with the threat of extinction of some 145 separate animal species. The answer to that question lies in the unfortunate marriage of man's technological know-how with his ecological myopia. Man knows all too well how to dam a wild river. But he seems ignorant of and insensitive to the adverse ecological impact of that dam. We have only recently discovered, for example, that damming and channeling rivers has stopped the flow of sediment that once replenished the sandy beaches of the Pacific Coast. Much of the sand on our once magnificent beaches now must be carried there by trucks! It seems that, ecologically speaking, man's superior intelligence has not yet yielded him ecological wisdom.

The primary reason for the threat of extinction of so many species on earth is direct human alteration of the environment. In our scramble after "infinite progress", we have scarred and mutilated the face of the earth.

Our wild animals developed through natural selective processes. Predators and prey participated in a continual evolutionary race, which developed in each species unique characteristics that have enabled it to survive. These special attributes fitted each species for specific niches in an ecosystem, and when an adverse change occurred in the conditions for which a species was fitted, it faced but two alternatives: Adapt or perish.

Prior to man, species disappeared because climatic changes, glacial advances or inundation by ancient seas eliminated or drastically altered their environment. Some species lost out as a result of intense competition from other species. But there was an essential balance in this natural process—as one species disappeared, another evolved. Equilibrium and diversity were maintained.

Man has upset that balance. Because of man's destructive technology and his manipulation of animal species, old species are disappearing faster than new ones are evolving.

Agriculture, logging, dam-building, channelization and hundreds of other forms of direct human encroachment into natural habitat threaten the survival of many species. The cultivation and irrigation of vast tracts of land, for example, have destroyed the habitat of the San Joaquin kit fox and the northern greater prairie chicken.

Excessive hunting and fishing comprise a major threat to wildlife. Animals are killed for food, for sports and for their skins, or because they are considered pests. The American ivory-billed woodpecker, the American alligator and the Florida panther are three examples of animals threatened with extinction because of excessive hunting.

Man's use of pesticides, herbicides and other poisons has also caused the decline of species. Sometimes the poisoning of predators is intentional. Sometimes the wrong animals get killed, like the innocent coyotes that eat the rabbits farmers poison to protect their crops.

But why should we be concerned about the extinction or threat of extinction of animal species? Shouldn't we here in Congress be directing our attentions and energies to more pressing human problems? Just what difference will it make if the California condor and the Texas blind salamander disappear forever from the face of the earth?

The answer to this question, Mr. Chairman, is that the survival of man himself may ultimately depend on the survival of a diversity of flora and fauna. To explain this assumption, I will briefly discuss two important concepts.

First, it is essential to grasp the full meaning of the concept of the ecosystem: the environmental system of which all living things are subsidiary, interdependent parts. The perpetuation of life on earth, according to Barry Commoner, is based on the "reciprocal interdependence of one life process on another; the mutual interconnected development of the earth's life system and the nonliving constituents of the environment; the repeated transformations of the materials of life in great cycles, driven by the energy of the sun."

In this view, each species is suited to its particular environmental niche, and each, through its life processes, affects its immediate environment. Each species also is linked in countless ways to many others. For example, deer depend on plants for food; the plants depend on soil bacteria for their nutrients; the bacteria, in turn, live on organic wastes dropped on the soil by animals. At the same time, the deer is food for the mountain lion. All of this, multiplied many times and organized species by species in intricate, precise relationships, makes up the vast network of life on earth.

The point is that realizing the multiplicity of ways in which species are interconnected with other life forms leads to the conclusion that we may be risking a great deal if we permit a single animal species to disappear. Each species, in the words of one scientist, is an "irreplaceable genetic reservoir."

Closely related to this is the concept of diversity. In the words of Dr. Kenneth E. F. Watt of the University of California, "diversity is more than the spice of life . . . it is an essential element of survival." As we learn more and more about ecology, one principle seems to stand out: complex and diversified ecosystems are generally more stable and have more compensatory resources to resist invasion of outside plants and animals. Thus, when we replace a complex ecosystem with a simple one (e.g., cut down a forest to plant a crop), we have created a life system where survival is less secure and extinction a greater threat. Preserving a diversity of flora and fauna is thus of the highest priority. If we fail to maintain our native fish and wildlife as viable life forms, then we will close the door on the possibility of restoring the natural and complex ecosystems which future knowledge may dictate as essential for human survival.

Having placed the issue of endangered species within the broadest possible context, the question now becomes one of how rather than why. Certainly, the most difficult task before this Committee is to determine the best means for protecting and preserving our threatened animal species. Rather than commenting on any one bill, I will discuss what I believe to be the essential provisions of any legislation this Committee may report.

(1) There must be an immediate repeal of all state laws providing bounties for the killing of any animal considered rare or endangered.

(2) There must be a prohibition on the hunting, capturing, killing, taking, transporting, selling or purchasing of any rare or endangered animal. Exceptions to this prohibition must be kept to an absolute minimum. Exemptions to avoid economic hardship to those currently exploiting our rare and endangered species are *not* acceptable. Acceptable exemptions might be made for:

- (a) Specifically designated animals taken by Indian tribes for religious or traditional purposes.
- (b) Animals taken for scientific, educational or zoological purposes.
- (c) Animals that are diseased.
- (d) Game animals raised in captivity specifically for use as game animals.
- (e) Animals already in captivity on the effective date of any law enacted to protect endangered species.

(3) The bill must provide authority for the purchase of land where necessary to provide a protected range of adequate size to insure the propagation of such species until there are sufficient numbers to assure its continued survival.

(4) Authority for administration of the bill should be placed under the Department of the Interior. Proposed legislation before this Committee would split this authority between two government agencies; the Department of Commerce and the Department of the Interior. I am convinced that this is undesirable. The Department of the Interior has traditionally been entrusted by the American people with protection of our wildlife and has built up considerable expertise in the field of wildlife conservation. I believe that the administrative discretion allowed by each of the various bills before this Committee should be exercised by the Secretary of the Interior rather than the Secretary of Commerce, whose orientation is naturally more toward the commercial use than toward wildlife conservation.

(5) There must be a provision in the bill stating clearly that the power of the several States to enact more restrictive legislation for the protection and conservation of wildlife is not limited or superseded by this Federal legislation.

I want to make just one specific comment on the Administration bill, S. 3199. Section 6(b) of this bill provides that the Secretary may delegate to a State the authority to regulate the taking of an endangered species if he determines that the State has an "active program to manage and protect endangered species."

If such a delegation of authority is allowed by this Committee, I believe certain minimum criteria must be established as to what constitutes an "active program to manage and protect endangered species." Two provisions would seem to be essential:

- (1) the State should have no law paying bounties on endangered animals and
- (2) the State should adhere to the practice of using predators as biological controls on primary feeders.

A situation in Alaska was recently brought to my attention as an example of a State abusing its authority under a new Federal law (P.L. 92-159) prohibiting airborne hunting except "to administer or protect or aid in the administration or protection of land, water, wildlife, livestock, domesticated animals, human life, or crops . . ." According to the March newsletter of the Canadian and America Wolf Defenders, the Alaska Department of Fish and Game continued to issue permits for the aerial hunting of wolves without any proof that the wolf population was adversely affecting land, water, wildlife, livestock, domestic animals, human life or crops. It is this kind of indiscriminate killing of predators which must be stopped.

In closing, Mr. Chairman, I'd like to suggest that in addition to his concern about his own survival, man has an ethical and moral responsibility to protect other life forms.

Dr. Albert Schweitzer said of this question:

The great fault of all ethics hitherto has been that they believed themselves to have to deal only with the relations of man to man. In reality, however, the question is what is his attitude to the world and all life that comes within his reach. A man is ethical only when life, as such, is sacred to him, that of plants and animals as that of his fellow man, . . . Only the universal ethic of the feeling of responsibility in an ever-widening sphere for all that lives—only that ethic can be founded in thought. The ethic of the relation of man to man is not something apart by itself: it is only a particular relation which results from the universal one.

In pondering this ethic, it is important to distinguish between the death of an individual animal and the death of an entire species. Nature undergoes no basic change when an individual animal dies, and, in fact, when a wolf kills, he is but an agent in the continuous cycle of life and death. But the death of an entire species is profound. It means that nature has lost one of its components, which played a role in the interrelationship of life on earth. It creates a void which fundamentally alters the relationships of other life forms. Thus, the prevention of this extinction must be among man's basic moral tenet. Indeed, I can think of nothing more appropriate to correct the ills of modern man than the ethic of reverence for all life.

If we undertake measures that will insure the preservation of other life forms, we will also insure the survival of man. As we take steps to preserve the environment of endangered fish and wildlife in some liveable form—to clean the air, purify the water and preserve open spaces and wilderness, we will in the process preserve at least some of our own environment in a condition where we and our children can survive.



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S. 249—INTRODUCTION OF THE NATURE PROTECTION ACT

Mr. CRANSTON, Mr. President, I introduce, for appropriate reference, the Nature Protection Act. This legislation will prohibit the hunting, capturing, killing, taking, transporting, selling, or purchasing of any species of fish or wildlife which is in danger of becoming extinct in the United States of America. In addition, the act will prohibit States or their political subdivisions from paying bounties on species whose survival is in jeopardy.

I introduced this bill in the 91st Congress as S. 3888. The response among conservation groups and people interested in protecting our Nation's wildlife was overwhelming. I feel there is substantial public support for this proposal, and I am extremely hopeful that we can have hearings in both Houses on the bill early in this Congress.

I would like to explain the purpose and philosophy of the act.

Mr. President, the sallow air of our cities, the blackened sands of our seashores, our lakes and harbors reeking of sewage and depleted of oxygen are but a part of the sad legacy of the idea that nature can be treated as a servant, blindly obedient to every want, whim or pleasure of man.

In his quest to conquer nature, man has been the only animal to remove himself from his natural ecosystem, and to try to survive in an environment changed and shaped to suit his own convenience. The whole earth has been altered in the process.

For generations, our civilization thought the battle was won. Our sole vision was of a shining road ever ascending in the infinite progress and perfectability of man and his society. Only in the past few years have we begun to realize that our vision has been inverted—that in fact we have been descending into a sewer where air, earth, and water threaten to smother us in our own excrements.

Only recently have we begun to understand that we are and have been transmitting the world ecosystem—upon which all life depends—without even the

most elemental ecological knowledge to direct our actions.

Only now we are beginning to perceive that we are involved in a grim struggle to maintain the way of life our people demand, without at the same time making our natural environment hostile to all forms of life, including our own.

Indeed, other life forms find their struggle for existence increasingly difficult because of man's environmental irresponsibility.

The coral reefs of the Pacific are threatened by man's tampering with the marine ecosystem. Almost 50 percent of the ponderosa and jeffrey pine trees in the San Bernardino National Forest are damaged because our air pollution interferes with nature's process of photosynthesis. Our sewage nurtures excessive plant growth in our lakes which depletes the oxygen supply and changes the ecosystem so that the only organisms which can survive are those which do not need air to live.

Among the higher life forms, the toll has been even greater. Some species are already extinct. Others are rare or endangered.

Direct human alteration of the environment is the leading reason species are threatened. Farmers cultivated and irrigated land and destroyed the habitat of many species like the San Joaquin kit fox and the northern greater prairie chicken. Agriculture, pollution, logging, and dozens of other forms of direct human encroachment into natural habitats have threatened the survival of many species.

Excessive hunting and fishing are the second largest threat to animals. Species have been killed for food, skins, sport or as pests. Animals threatened with extinction because of excessive hunting and fishing range from the American ivory-billed woodpecker to the American alligator to the Florida panther.

A number of species—especially birds—have declined because of disease made possible by man. In Hawaii, for example, man introduced mosquitoes, and avian malaria ravaged the islands' bird population.

Man's use of pesticides and other poisons is another reason for decline. In

some cases, one species will be killed by eating poison left for another. However, more serious is the indirect destruction of animals by pesticides. The predator accumulates pesticide poisons from the tissue of its prey and is either killed outright or prevented from reproducing. In California the eggs of the peregrine falcon and the brown pelican have become soft shelled and so easily destroyed that the species is seriously threatened. In addition, nonpredators are taking large doses of pesticides and the effect on them—like the effect on man—is not completely known.

And finally, species have declined because of excessive killings by, or competition from, other animals—often animals introduced by man. Feral rabbits introduced by man in the Hawaiian Islands destroyed vegetation; the laysan duck was unable to compete and was nearly wiped out. Also in Hawaii, the Hawaiian dark-rumped petrel was decimated by rats, cats and mongooses. Even fish are threatened by man's introduction of other species. The gila topminnow, to name one, has been badly damaged by exotics.

But, so what? There are far more serious problems confronting the Nation and the world. What difference will it make if the black-footed ferret or the California condor are no longer with us? There are several answers to this question—some simple and some complicated.

The various species and subspecies are a part of the diversity of nature which we should preserve for the education and enjoyment of future generations of man. Animals are fun to see and to experience. Our kids ought to have the same opportunity that our parents had to know and love wildlife and nature. In addition, taxonomists and other specialists within the biological sciences will obviously benefit if we preserve as many life forms as possible.

These reasons, I believe, would most probably be cited by the average person who would like to prevent the extinction of any more species. However, there are more compelling issues at stake here in

which make the preservation of various life forms a more serious problem than the need to educate our children or to satisfy our scientific or idle curiosity.

Ecology is still a young and growing science. Much remains unknown. In the next decades ecologists will learn more and more about the interrelationships of life forms in our earth's ecosystem. This new knowledge in turn will teach us how man himself must interrelate with his environment in order to survive. It will also teach us how to attain and maintain an environment where survival is both possible and worthwhile.

While we are only on the threshold of ecological understanding, there is at least one major ecological finding which can guide our present policies.

Ecologists have learned that complex and diversified ecosystems are generally stabler and have more compensatory resources to resist invasion from outside plants and animals. Conversely, simple systems or systems with only a few dominant species are more subject to destructive population variations and more vulnerable to invasion by foreign life forms.

When we destroy a complex ecosystem and in its place create a simple one, we have made a life system where survival is less secure and extinction a greater threat. Yet that is what we did when we leveled and fenced the prairies and planted our crops. When we tear down a forest to plant an orchard, we change from a complex to a simple system. Thus, mixed forests are generally less prone to outbreaks of pests than are orchards or even pure stands of trees which may occur naturally.

Another example of man's substitution of a simple system for a complex one is the elimination of a diversity of primary consumers such as elk, deer, and other graze and browse animals—and along with them the secondary consumers such as predators and scavengers.

In its place we substitute a single primary consumer, the cow, who is eaten solely by man, the secondary consumer.

Once these vulnerable simple systems are threatened by invasions, we do not attempt to restore the stronger diverse systems. Just the opposite, we spray the fields with pesticides to kill all the insects, including the predators who might eat the invaders. Thus the system becomes even simpler, and even more vulnerable.

We cannot know where this process will end. Speculation on the question quickly leads into the fancies of science fiction.

But one thing should be obvious: diversity of life forms may be among our most precious natural resources. It follows that we should act now to preserve this diversity for that future day when we have mastered the science of ecology well enough to do sound environmental planning.

If we fail to do this, if we let our native fish and wildlife become extinct, then we will close the door on restoring the natural and complex ecosystems which future knowledge may dictate as essential for the survival of the biosphere, and man himself.

If we kill all the predators, we will be unable to reestablish a natural system. The extinction of the large herbivores will have the same consequence. Yet it is the predators and the large herbivores who are and have been in the greatest trouble because they are least able to survive the onslaught of man's environmental destructiveness.

In the face of our uncertainty about our future environmental needs, it is quintessence of folly to allow any species to disappear.

The Wilderness Act is one excellent method to conserve diversity in nature. I believe the bill I introduce today is another essential step.

Not only will my proposal make it illegal to kill an animal threatened by extinction but it will encourage State game management officials to take steps to provide habitats where rare and endangered species can survive, as I shall explain later.

Time is growing short for many forms of life. Here on just the threshold of understanding the need for diversity in nature, we can see species after species slipping away. This list of American animals which have become extinct within the last years is alarmingly long. Yet with such new compilation the Department of the Interior's list of rare and endangered species grows longer and longer.

A second area where I believe the extinction of species has serious implications has nothing directly to do with the science of the economics of survival, but rather concerns the ethics of man's relationship with other life forms and with nature.

Does man's moral responsibility extend to other life forms?

Animals kill other animals as part of the natural system—and they did so long before man appeared on earth. The foxes, owls, bobcats, snakes, and other predators are an indispensable part of the ecosystem. When they are eliminated, as man has often unwisely done, the populations of their prey, such as rabbits or deer, often explode, with disastrous consequences to the plant life they feed on. Under these circumstances, the human hunter becomes a substitute predator, fulfilling a role in the ecosystem. In turn, we have game laws to make sure he does not overplay the part.

Furthermore, animals became extinct, species vanished for a variety of reasons, and new species appeared, long before man, another new species, walked the planet.

But none of this, it seems to me, in any way justifies or gives us any moral right to ignore the consequences of our tampering with the environment, particularly when such tampering dooms a distinct life form to extinction. We seem to have the attitude that because it is not convenient or economically profitable for us to make the effort to save endangered animals, we are justified in letting them die.

One of the most profound thinkers of our age, Dr. Albert Schweitzer, said of this question:

At the same time the man who has become a thinking being feels a compulsion to give to every will-to-live the same rever-

ence for a life that he gives to his own. He experiences that other life in his own. He accepts as being good: to preserve life, to promote life, to raise to its highest value life which is capable of development; and as being evil: to destroy life, to injure life, to repress life which is capable of development. This is the absolute, fundamental principle of the moral, and it is a necessity of thought.

The great fault of all ethics hitherto has been that they believed themselves to have to deal only with the relations of man to man. In reality, however, the question is what is his attitude to the world and all life that comes within his reach. A man is ethical only when life, as such, is sacred to him, that of plants and animals as that of his fellow-man, and when he develops himself helpfully to all life that is in need of help. Only the universal ethic of the feeling of responsibility in an ever-widening sphere for all that lives—only that ethic can be founded in thought. The ethic of the relation of man to man is not something apart by itself: it is only a particular relation which results from the universal one.

I can think of no ethic which is more appropriate to the ills of our age than Dr. Schweitzer's ethic of reverence for life, be it human life or the animal and plant life about us.

But you may say, the wolf kills and so indeed must man if he is to survive. What then of this ethic?

And I must agree, thinking back to last evening's prime rib or rack of lamb, that while I might wish no killing were necessary, our society's institutions will continue to include the slaughterhouse. However, when the wolf kills, he is but an agent in the continuing cycle of life and death. His act, if performed in nature, is part of the ecosystem which enables both the wolf and the deer to survive. Nature undergoes no basic change when an individual animal dies.

But the death of a species is profound, for it means nature has lost one of its components, which played a role in the interrelationship of life on earth.

Here the cycle of birth and death ends. Here there is no life, no chance to begin again—simply a void.

To cause the extinction of a species, whether by commission or omission, is unqualifiedly evil. The prevention of this extinction, thus, must be a tenet among man's moral responsibilities.

Furthermore, in obedience to the pragmatism of our age, I suspect that the acceptance of the ethic of reverence for life may be crucial in terms of our own survival.

Lynn White, Jr., in an article entitled "The Historical Roots of Our Ecologic Crisis," suggested that Western man needs to revise the Judeo-Christian credo of man's domination over nature and nature's subservience to man's purposes.

What we do about ecology depends on our ideas of the man-nature relationship. More science and more technology are not going to get us out of the present ecologic crisis until we find a new religion, or rethink our old one.

As a model for this new ethic, White suggests that we review the teachings of St. Francis of Assisi:

The greatest spiritual revolutionary in Western history, Saint Francis, proposed what he thought was an alternative Christian view of nature and man's relation to it: he tried to substitute the idea of man's

limitless rule of creation. . . . Since the roots of our trouble are so largely religious, the remedy must also be essentially religious, whether we call it that or not. We must rethink and refeed our nature and destiny. The profoundly religious, but heretical, sense of the primitive Franciscans for the spiritual autonomy of all parts of nature may point a direction. I propose Francis as a patron saint for ecologists.

Thus, I suggest that Dr. Schweitzer's ethic of Reverence for Life may be the ethic for mankind's survival.

My final contention about the preservation of rare and endangered species deals with neither science nor ethics—but is ultimately practical. Simply put, man's own survival is at stake; the actions he must take to assure the animals' survival will also be his own salvation.

As the environment deteriorates, man must find more and more ways to protect himself from it. We in the Senate are able to work in our offices, travel to the Capitol, speak in this Chamber, and even visit the other body without ever inhaling the unfiltered air outside our halls. Unless we choose to go out, we can remain in an enclosed environment for most of the time. If air pollution is not reversed, life in our cities will require even more stringent controls which will enable us to avoid completely any contact with the great outdoors.

So it is with other forms of environmental pollution. We can keep the poisons away from us by building structures to encase all our activities from bubbles over our baseball diamonds to underground shopping malls.

But improved techniques to protect us from pollution are dangerous for two reasons. First, they lull us into the belief that man is capable of surviving in a totally artificial environment. Biologists who study genetic evolution have begun to question this assumption. Second, they fail to alert us to what lies at the end of this process—that our habitats will become mechanized tombs where life won't be worth living.

We cannot preserve wildlife and fish by protecting them from their environment. Instead, we must preserve their environment in a liveable form and we must keep our contaminants from degrading their ecosystems. And in the process, we will preserve at least some of our environment in a condition where we know that we and our children can survive.

These are my reasons for believing that the preservation of our rare and endangered species should be given high priority in our national system of values.

Unfortunately, a prohibition on killing or capturing will not guarantee that any species will survive. As I pointed out earlier, man's act of excessive hunting or intentional poisoning in wildlife control programs is only one of a number of threats to the survival of fish and wildlife. Some of the greatest dangers to develop from human actions where the adverse effects on wildlife are entirely unintended.

Other steps need to be taken. We made good progress in 1966 with the passage of the Endangered Species Preservation Act and last year with the passage of the Endangered Species Conservation Act.

However, a prohibition on killing, or

capturing of rare and endangered species will have three positive consequences which will mean substantial progress in wildlife preservation.

First, the bill will protect individual members of a species when the species is near its minimal survival population. The death of the last passenger pigeon in 1914 marked the end of the species, but its extinction had become inevitable years before when the population dropped below the point where its breeding and other survival abilities were capable of reversing the decline in its number. This minimal population point varies from species to species, and is probably not subject to any precise mathematical determination. In addition, man's intervention can sometimes work miracles, as we hope is the case with the whooping crane.

Nevertheless, we should not be as concerned about the death of the final grizzly bear as we are about the next one which may die at the hand of man.

Even if the animal is being challenged by one of the unintentional human acts such as the introduction into its ecosystem of a foreign species, the fact that the animal is rare or endangered means that it has reached the point where every individual member of the species may be critical to the species survival. Thus I believe members of rare and endangered species should be protected.

In addition, some States have laws which provide bounties for animals listed as rare or endangered. While I doubt that these bounty laws provide substantial economic incentive in many areas of our Nation, they do encourage the attitude that wild animals, particularly predators, are varmints to be shot on sight as a matter of commonsense.

We should be penalizing anyone who kills a rare animal, not rewarding him. Therefore, I propose that States be prohibited from paying such bounties.

Second, for those animals threatened by man's encroachment on their range, the illegalizing of their slaughter, will make it mandatory for local, State, and Federal agencies to find and provide new range land as well as to protect existing range at least until herd size grows to the point where the species is removed from the rare list.

The California Tule elk, which has been listed as both rare and endangered, is a good example of a species which would benefit. Once this little elk roamed the hills and valleys of Central California in the tens of thousands. Today the only remaining wild herd is in the Owens Valley, east of the Sierra Nevadas, an area where they are not indigenous.

The Tule elk is protected under California law. However, the California Fish and Game Commission has determined that the available range will support a herd of only 250 elk—the area also supports 15,000 to 40,000 cattle at various times during the year. Thus, hunters are given special permission to come in and shoot the surplus. Last year the State of California permitted private sportsmen to kill about 80 Tule elk, an animal the Department of the Interior lists as rare.

I think it is obvious that if we are seriously concerned with saving such species,

we must expand their herds and extend their range. I have introduced separate legislation (S. 3028) to authorize a study of new range sites for the Tule elk in the Southwestern United States, and I am hopeful that we can establish new wild and unfenced range areas for the Tule elk in California, particularly at Point Reyes.

But the Tule elk situation serves to emphasize the point that we cannot depend on the States to make available the land necessary to preserve our rare species so long as they can maintain that hunting is a sound wildlife management technique for such rare and endangered species.

To authorize hunting of rare or endangered animals is bad for another reason. The sportsman seeking a trophy will naturally go for the biggest and best of the herd, not the weakest runts who can contribute the least to the species survival. If it is necessary to limit an endangered species population, it should be done by scientists who will cull out the weak and the aged, not by private hunters who will do just the opposite.

The States should be setting aside more lands in wildlife refuges. The States should also be preventing further encroachments of human society into existing wildlife habitats. By outlawing the killing of rare and endangered species, we will encourage State and local actions in both areas.

Finally, the enunciation of a national policy which makes illegal such killing would require a rethinking of our traditional attitudes toward wild animals, particularly predators. If we say to the rancher who has lost a sheep to a timber wolf that it is illegal for him to kill the wolf because it is endangered, then we will need to develop a procedure for reimbursing the rancher for his loss, and of convincing him that the benefits man derives from predators are worth the inconvenience of an occasional dead sheep. This would also benefit other predators, such as the coyote, who is not rare or endangered and is more apt to be the villain in the case of the lost sheep. Animals not yet rare or endangered might also be helped to avoid those unhappy categories, if this legislation makes us reconsider the indiscriminate broadcasting of poisons to kill "pests" especially in the Western States.

All considered, I believe this bill is essential to saving our rare and endangered species.

Moreover, the United States is under treaty obligation to protect rare and endangered species.

At the eighth International Conference of American States various resolutions were adopted. Pursuant to the 13th resolution of December 23, 1938, the Pan American Union established the Inter-American Committee of Experts on Nature Protection and Wildlife Preservation. This Committee consisted of one member-representative from each American republic. The U.S. representative was Dr. Alexander Wetmore who was then Assistant Secretary of the Smithsonian Institution. The draft of the Convention on Nature Protection and Wildlife Preservation in the Western Hemi-

sphere was unanimously approved on May 16, 1940, by the Committee. On October 12, 1940, the treaty was signed in Washington by the respective plenipotentiaries of the United States, Bolivia, Cuba, the Dominican Republic, Ecuador, El Salvador, Nicaragua, Peru, and Venezuela. Subsequently it was signed on behalf of Costa Rica on October 24, 1940, Mexico on November 20, 1940, Uruguay on December 9, 1940, and Brazil on December 27, 1940.

Secretary of State Cordell Hull officially conveyed the treaty to President Franklin D. Roosevelt on February 13, 1941. In the letter which accompanied the treaty, Secretary Hull informed the President that the animals listed in the annex to the Convention "shall be protected as completely as possible." The list was described by Secretary Hull as flexible and subject to modification as changes in conditions might warrant.

The Convention was transmitted by President Roosevelt to the Senate on February 14, 1941, for advice and consent to ratification. The treaty was ratified by the Senate on April 7, 1941, ratified by the President on April 14, 1941, deposited with the Pan American Union at Washington on April 28, 1942, and proclaimed by the President on April 30, 1942.

The first list of species included by the United States in the annex to the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere consisted of:

Woodlands caribou, sea otter, manatee, trumpeter swan, California condor, whooping crane, Eskimo curlew, Hudsonian godwit, Puerto Rican parrot, Ivory-billed woodpecker.

The annex list was revised on September 1, 1967. This list is much more extensive than the original annex of the 1940's. As ecological conditions change and scientific knowledge advances, further revisions of the annex can be made.

It is article VIII of the treaty which requires the protection of the animals list in the annex.

Protection of the species mentioned in the annex to the present Convention, is declared to be of special urgency and importance. Species included therein shall be protected as completely as possible, and their hunting, killing, capturing, or taking, shall be allowed only with the permission of the appropriate government authorities in the country. Such permission shall be granted only under special circumstances, in order to further scientific purposes, or when essential for the administration of the area in which the animal or plant is found.

The article requires that these animals be protected as completely as possible. The hunting, killing, capturing or taking of these animals is strictly forbidden. However, the governments are permitted to grant exemptions to this prohibition, but only for scientific purposes or when such an exemption is essential to the proper administration of the area in which the animal is found.

These prohibition requirements became law in the 1940's and under international law they have been fully binding on the United States ever since. However, our domestic law distinguishes between "self-executing" and "non-self-

executing" treaties. This treaty is of the "non-self-executing" type. That means that before the prohibitions and requirements of article VIII can be enforced in our domestic courts, Congress must enact enabling legislation.

During the 1940's, when this country was fighting World War II, Congress neglected to enact the necessary legislation. Nor has any attempt been made since the 1940's to fulfill our international legal responsibilities under article VIII of the treaty. It is my intention that this bill shall fulfill that obligation.

The present annex to the treaty, submitted in 1967, includes the following species.

(See exhibit 1.)

The "Rare and Endangered Fish and Wildlife of the United States," contains the following species which should be added to the annex at its next revision.

(See exhibit 2.)

These then are the species which my proposal would attempt to save. In this context, I would like to direct the Senate's attention to those animals we cannot save. Following is a list of those species which have already become extinct in the United States:

(See exhibit 3.)

The bill I have proposed contains the following provisions.

Section 2 of the bill is a brief statement of the need to protect endangered and rare animals and of our international obligation to enact a bill to provide this form of protection.

Section 3 defines various terms which are used in the bill.

Section 4 specifies what acts will be prohibited. Subsection (a) forbids the hunting, capturing, killing, taking, transporting, selling, or purchasing of any protected animals. Subsection (b) prohibits the payment of any bounty for the killing of a protected animal. The species and subspecies of animals protected by this bill are those species or subspecies which are listed in the annex to the convention.

Section 5 provides for a few limited exceptions to section 4(a). There are no exemptions from a bounty prohibition of section 4(b). Under section 5, the Secretary of the Interior may grant an exemption for scientific purposes, for the display of animals in zoos, for the administration of the area in which an animal is found, for the propagation of protected animals or the relocation of animals in new natural habitats. A general exemption from the prohibition of section 4(a) is provided for in various situations. The most important there being the exemptions for animals already in captivity on the effective date of this act, individual diseased animals, animals which have been raised and released as game animals, and animals used by the Indians for religious purposes.

Section 6 provides for the updating of the list of animals enumerated in the annex to the Convention. The treaty's annex is subject to revision as circumstances warrant. When the annex is updated, all those animals which have been found to be either rare or endangered

under the Endangered Species Act will be included in the annex.

Section 7 provides that both Federal and State officers may enforce the provisions of this bill.

Section 8 is the penalty clause. It prescribes that violations of section 4(a) constitute a misdemeanor.

Section 9 has two subsections. The first affirms the power and right of the States to provide for the protection and scientific management of animals. The second subsection authorizes the Secretary of the Interior to consult with the Governors of the several States concerning the policy and provisions of the bill. It is my intention to make it perfectly clear by this section that the Secretary of the Interior will not be empowered by this legislation to regulate hunting and fishing; nor will he be authorized to control, in any manner, the issuance of State hunting or fishing licenses. I do not have any intention to interfere in any way with the hunting or fishing of the many sportsmen of our Nation, except in the case of animals facing extinction.

Section 10 is a separability clause. Mr. President, I ask unanimous consent that the text of the bill be printed at this point in the Record.

The VICE PRESIDENT. The bill will be received and appropriately referred; and, without objection, the bill will be printed in the Record.

The bill (S. 249) to implement the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere (56 Stat. 1354; amend Public Law 89-569 (October 15, 1966); and for other purposes, introduced by Mr. CRANSTON, was received, read twice by its title, referred to the Committee on Commerce, and ordered to be printed in the Record, as follows:

S. 249

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Nature Protection Act".

SEC. 2. Congress finds that—

(1) the animals of our Nation represent an invaluable natural resource; that in the past inadequate protection and changing conditions have resulted in the extinction of many species with ecological, historical, educational, scientific, and recreational values; and that we cannot afford to allow the disappearance of these assets;

(2) there is an overriding need to preserve representatives of all animal species in their natural habitat in sufficient numbers and over extensive enough areas to protect animals from extinction; and

(3) pursuant to our treaty obligations under article VIII and other provisions of the Convention on Nature Protection and Wildlife Preservation, it is the responsibility of Congress to protect animal species and subspecies threatened with extinction.

DEFINITIONS

SEC. 3. For the purposes of this Act—

(a) the term "fish" means any fish or any part, products, egg, or offspring thereof, or the dead body or parts thereof whether or not included in a manufactured product;

(b) the term "wildlife" means any wild mammal, wild bird, amphibian, reptile, mollusk, or crustacean, or any part, product, egg, or offspring thereof, or the dead body or parts thereof whether or not included in a manufactured product;

(c) the term "Convention" means the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere (56 Stat. 1354);

(d) the term "annex" refers to that portion of the annex to the Convention which contains the list of species submitted by the United States of America; and

(e) the term "State" means any of the several States of the United States, the District of Columbia, the Commonwealth of Puerto Rico, and the territories and possessions of the United States.

PROHIBITED ACTS

SEC. 4. (a) Except as provided in section 5 of this Act, no person within any State, or within any place subject to the jurisdiction of the United States, shall hunt, capture, kill, take, transport, sell, or purchase any fish or wildlife the species or subspecies of which is listed in the annex to the Convention.

(b) No person or State (or political subdivision thereof) shall pay or offer to pay any form of bounty for any fish or wildlife the species or subspecies of which is listed in the annex to the Convention.

EXEMPTIONS

SEC. 5. (a) If the Secretary of the Interior determines that it will not endanger the preservation or health of the species or subspecies protected by this Act, he may grant an exemption to any person from the prohibitions of section 4(a) of this Act. Such exemptions shall only be granted in order to further scientific purposes; provide for the display of fish or wildlife in public zoos; administer the area in which the fish or wildlife are found; provide for the propagation in captivity of a species or subspecies with the intention of later release of the fish or wildlife in their natural habitat; or transplant the fish or wildlife to a new natural habitat.

(b) Section 4(a) of this Act shall not apply to the following fish or wildlife:

(1) the Tufted White-fronted Goose (anser albifrons gambelii);

(2) American alligators (alligator mississippiensis) found on private property and transported, without harm to the animal, to its natural habitat for release in the wild;

(3) fish or wildlife in captivity on the effective date of this Act;

(4) fish or wildlife raised and kept entirely in captivity;

(5) fish or wildlife released as game animals after having been raised in captivity specifically for that purpose;

(6) fish or wildlife taken for the religious purposes of Indian tribes; and

(7) individual fish or wildlife which are infected with the plague, rabies, tularemia, or other dangerous disease.

LISTING OF ANIMALS IN THE ANNEX

SEC. 6. When appropriate the Secretary of State shall transmit to the Pan American Union the list of species of fish and wildlife to be included as part of the annex. This list shall include, but not be limited to, all species of fish and wildlife found by the Secretary of the Interior, pursuant to the provisions and standards of Public Law 89-669 (Oct. 15, 1966), to be rare or endangered.

ARREST, ENFORCEMENT, SEARCHES, AND SEIZURES

SEC. 7. Any employee of the Department of the Interior authorized by the Secretary of the Interior; any Coast Guard officer; and any United States marshal or deputy marshal; any customs officer; and any civil officer having authority to apprehend offenders under the laws of a State; and any other person authorized to enforce this Act shall have the power to: (1) arrest without warrant or other process any person committing in his view or presence a violation of this Act; (2) take any person arrested for violation of this Act for examination or trial before any officer or court of competent juris-

diction; and (3) with a search warrant search any place where he may have reason to believe that a violation of this Act has been committed.

PENALTY

SEC. 8. Any person that violates any provision of section 4(a) of this Act shall be deemed guilty of a misdemeanor and upon conviction thereof shall pay all costs of the proceedings and be fined not more than \$5,000 or imprisoned not more than six months, or both.

STATE LAWS AND REGULATIONS

SEC. 9. (a) Except to the extent otherwise specifically provided in the Convention or this Act, nothing in this Act shall be construed so as to (1) abridge the presently existing responsibility of any State for the protection, preservation, and scientific management of fish and wildlife; or (2) abridge or deprive any such State of its power and right to make and enforce laws and regulations for the protection, preservation, and scientific management of fish and wildlife.

(b) The Secretary of the Interior, in carrying out his duties under this Act, is authorized from time to time, to consult with the Governors of the several States and the Commissioner of the District of Columbia.

SEPARABILITY

SEC. 10. If any provisions of this Act or the application of such provisions to any circumstances or persons shall be held invalid, the validity of the remainder of the Act and the applicability of such provisions to other circumstances or persons shall not be affected thereby.

EXHIBIT 1

SPECIES AND WHERE FOUND

FISH

Endangered

Atlantic Sturgeon: Atlantic.
Lake Sturgeon: Great Lakes, Alabama, Missouri, Nebraska, Kansas.
Shortnose Sturgeon: New York.
Longjaw Cisco: Michigan.
Arctic Grayling: Montana, Utah, Wyoming, Washington, Colorado.
Atlantic Salmon: Maine.
Apache Trout: Arizona.
Gila Trout: New Mexico.
Greenback Cutthroat Trout: Colorado.
Lahontan Cutthroat Trout: Nevada, California.
Montana Westslope Cutthroat Trout: Montana.
Piute Cutthroat Trout: California.
Rio Grande Cutthroat Trout: New Mexico.
Colorado River Squawfish: Arizona.
Desert Dace: Nevada.
Humpback Chub: Arizona, Utah, Wyoming.
Little Colorado Spinedace: Arizona.
Cui-UI: Nevada.
Comanche Springs Pupfish: Texas.
Devil's Hole Pupfish: Nevada.
Owens Valley Pupfish: California.
Fahrup Killifish: Nevada.
Clear Creek Gambusia: Texas.
Gila Topminnow: Arizona.
Blue Pike: Lake Erie and Ontario.

Rare

Blackfish Cisco: Lake Michigan and Huron.
Deepwater Cisco: Unknown.
Blueback Trout: Maine.
Sunapee Trout: New Hampshire.
Olympic Mudminnow: Washington.
Moxus Dace: Nevada.
Big Bend Gambusia: Texas.
Ozark Cavefish: Missouri.
Savannah Bass: Florida.
Maryland Darter: Maryland.
Nangua Darter: Missouri.
Sharphead Darter: Tennessee.
Spring Darter: Unknown.
Trispot Darter: Alabama.

Peripheral

Mexican Stoneweller: Texas, Arizona.
Sonora Chub: Arizona.
Chihuahua Shiner: Texas.
Rio Grande Darter: Texas.

Rare

AMPHIBIANS
Endangered
Texas Blind Salamander: Texas.
Black Toad: California.

Pine Barrens Tree Frog: New Jersey, North Carolina, Georgia.

REPTILES

Endangered
American Alligator: North Carolina, Texas, Mississippi, Arkansas, Oklahoma.

Rare

Bog Turtle: North Carolina.
Peripheral
American Crocodile: Florida.
Green Turtle: U.S. coasts.

BIRDS

Endangered

Florida Great White Heron: Florida.
Aleutian Canada Goose: Alaska.
Laysan Hawaiian Duck: Hawaii.
Main Islands Hawaiian Duck: Hawaii.
Mexican Duck: Arizona, New Mexico, Texas.

Nene (Hawaiian Goose): Hawaii.
California Condor: California.
Florida Everglade Kite: Florida.
Hawaiian Hawk: Hawaii.

Attwater's Greater Prairie: Texas.
Masked Bobwhite: Mexico.
Whooping Crane: Texas.

Hawaiian Common Gallinule: Hawaii.
Yuma Clapper Rail: Arizona.

Eskimo Curlew: Alaska.
Puerto Rican Parrot: Puerto Rico.

American Ivory-Billed Woodpecker: Texas, Louisiana, Florida, Georgia, South Carolina.

Hawaiian Crow (Alala): Hawaii.
Fuschi (Small Kaula Thrush): Hawaii.

Nihou Millerbird: Hawaii.
Kauai OO (OOA): Hawaii.

Katapoluanu: Hawaii.
Crested Honey-Creeper (Akohekohe): Hawaii.

Kauai Akiakoa: Hawaii.
Laysan Finch-Bill: Hawaii.

Maul Parrotbill: Hawaii.
Nihou Finch-Bill: Hawaii.

OU: Hawaii.
Fallia: Hawaii.

Bechnina's Warbler: Virginia, South Carolina.

Kirtland's Warbler: Michigan.

Cape Sable Sparrow: Florida.
Dusky Seaside Sparrow: Florida.

Rare

Hawaiian Dark-Rumped Petrel: Hawaii.
Newell's Manx Shearwater: Hawaii.

Hawaiian Harcour's Petrel: Hawaii.
Trumpeter Swan: Alaska.

Tule White-fronted Goose: Alaska.
Northern Short-Tailed Hawk: Florida.

Southern Bald Eagle: Atlantic and Gulf coasts.

American Peregrine Falcon: Alaska, Washington, Oregon, California, Arizona, Texas, Colorado.

Lesser Prairie Chicken: Kansas, Colorado, New Mexico, Texas, Oklahoma.

Northern Greater Prairie Chicken: central U.S.

Florida Sandhill Crane: Florida.
Hawaiian Stilt: Hawaii.

Puerto Rican Whip-Poor-Will: Puerto Rico.
Black-Capped Vireo: Mexico.

Golden-Cheeked Warbler: Texas.
Ipswich Sparrow: Atlantic coast.

Peripheral

Green-Throated Arctic Loon: Alaska.
Least Grebe: Texas.

Red-Faced Cormorant: Alaska.

Roseate Spoonbill: Texas Louisiana, Florida.

Northern Black-Bellied Tree Duck: Arizona, Texas.

Masked Duck: Texas, Puerto Rico.

Zone-Tailed Hawk: Arizona, New Mexico, Texas.

Gray Hawk: Arizona, New Mexico, Texas. Northern Black Hawk: Arizona, New Mexico, Texas.

Northern Aplomado Falcon: Arizona, New Mexico, Texas.

Northern Chachalaca: Texas. Richardson's Blue Grouse: Idaho, Montana. Merritt's Harlequin Quail: Mexico.

Northern Jacana: Texas. Rufous-Necked Sandpiper: Alaska.

Atlantic Sooty Tern: Texas, Louisiana, Florida.

Atlantic Noddy Tern: Florida. Xantus' Murrelet: California.

Whiskered Auklet: Alaska. Northern Red-Billed Pigeon: Texas.

Northern White-Fronted Dove: Texas. Florida Mangrove Cuckoo: Florida.

Northern Groove-Billed Ani: Texas. Northern Whiskered Owl: Mexico.

Northern Ferruginous Owl: Arizona, Texas. Merrill's Pauraque: Mexico.

West Indian Nighthawk: Florida, Puerto Rico.

Blue-Throated Hummingbird: Arizona, Texas.

Northern Rivoli Hummingbird: Mexico. Bun-Bellied Hummingbird: Texas.

Northern Violet-Crowned Hummingbird: Arizona.

Broad-Billed Hummingbird: Mexico. Coppery-Tailed Elegant Trogon: Arizona.

New Mexico. Northeastern Elegant Trogon: Texas.

Northeastern Green Kingfisher: Texas. Northwestern Green Kingfisher: Texas.

Northern Arizona Woodpecker: Arizona. Northwestern Rose-Throated Becard: Arizona.

Northeastern Rose-Throated Becard: Texas. Northeastern Tropical Kingbird: Texas.

Northern Thick-Billed Kingbird: Arizona. Northern Kiskadee Flycatcher: Mexico.

Northern Sulphur-Bellied Flycatcher: Mexico. Northern Olivaceous Flycatcher: Mexico.

Northern Buff-Bellied Flycatcher: Arizona. Northern Beardless Flycatcher: Texas.

Northwestern Cave Swallow: New Mexico, Texas.

Couch's Mexican Jay: Texas. Northern Green Jay: Texas.

Cascade Boreal Chickadee: Washington. Sennett's Long-Billed Thrasher: Mexico.

Azure Eastern Bluebird: Arizona.

Peripheral
Red-Spotted Bluethroat: Alaska.

Cuban Black-Whiskered Vireo: Florida. Cuban Yellow Warbler: Florida.

Northern Olive-Backed Warbler: Texas. Arizona Olive Warbler: Arizona.

Aita Mira Lichtenstein's Oriole: Texas. Audubon's Black-Headed Oriole: Texas.

Southeastern Pine Grosbeak: New England.

Dickey's Varied Bunting: Arizona. Northern White-Collared Seedeater: Texas.

Northern Olive Sparrow: Texas. Northern Rufous-Winged Sparrow: Arizona.

Northwestern Botteri's Sparrow: Arizona. Northeastern Botteri's Sparrow: Texas.

MAMMALS
Delmarva Peninsula Fox Squirrel: Maryland.

Atlantic Right Whale: Atlantic. Bowhead Whale: Atlantic.

Pacific Right Whale: Pacific. Nevada Kit Fox: Nevada.

Red Wolf: Texas.

Timber Wolf: Michigan, Minnesota, New York.

Grizzly Bear: Wyoming, Montana, Idaho. Black-Footed Ferret: North and South Dakota, Montana, Texas, New Mexico.

Florida Panther: Florida. Guadalupe Fur Seal: California.

Caribbean Monk Seal: Florida. Florida Manatee or Sea Cow: Florida.

Columbia White Tailed Deer: Oregon. White-Tailed Deer: Oregon.

Key Deer: Florida. Sonoran Pronghorn Antelope: Arizona.

Rare
Spotted at: Montana, Idaho.

Kalbar Squirrel: Arizona. Utah Prairie Dog: Utah.

Beach Meadow Vole: Massachusetts. Block Island Meadow Vole: Rhode Island.

Gray Whale: Pacific. Blue Whale: Atlantic and Pacific.

Glacier Bear: Alaska. Southern Sea Otter: Pacific coast.

Hawaiian Monk Seal: Hawaii. Ribbon Seal: Alaska.

Tule or Dwarf Elk: California.

Peripheral
Coati: Arizona, New Mexico, Texas.

Jaguar: Texas. Jaguarundi: Texas.

Ocelot: Texas. Margay: Texas.

Woodland Caribou: Northern Great Lakes states.

Mountain Caribou: Pacific Northwest U.S.

Musk Ox: Alaska. Steller's Sea Cow: Mexico.

EXHIBIT 2
SPECIES LISTED IN "RARE AND ENDANGERED

FISH AND WILDLIFE OF THE UNITED STATES" BUT NOT LISTED IN THE ANNEX TO THE CONVENTION ON NATURE PROTECTION AND WILDLIFE PRESERVATION IN THE WESTERN HEMISPHERE

AMPHIBIANS AND REPTILES
Endangered

Blunt-Nosed Leopard Lizard: California. San Francisco Garter Snake: California.

Puerto Rican Boa: Puerto Rico. Santa Cruz Long-Toed Salamander: California.

Limestone Salamander: California.

Peripheral
Houston Toad: Texas.

Vegas Valley Leopard Frog: Nevada. St. Croix Ground Lizard: Minnesota.

BIRDS
Endangered

California Least Tern: California. Light-Footed Clapper Rail: California.

Hawaiian Coot: Hawaii. Puerto Rican Plain Pigeon: Puerto Rico.

Northern Red-Cockaded Woodpecker: Missouri, Kentucky, Virginia, Florida.

Southern Red-Cockaded Woodpecker: Florida.

Large Kauai Thrush (Kauai Omaso): Hawaii.

Molokai Creeper (Kakawahi): Hawaii. Maui Nukupuu: Hawaii.

Rare
California Black Rail: California.

Short-Tailed Hawk: Florida. Prairie Falcon: California, Texas.

Greater Sandhill Crane: California, Nevada, Utah Wyoming, Minnesota, Wisconsin, Michigan.

Peripheral
Eastern Reddish Egret: Texas, Florida.

Wood Ibis: Texas, Florida. Sennetts White-Tailed Ptarmigan: Montana.

Gould's Turkey: New Mexico. Eastern Blue-Throated Hummingbird: Texas.

Western Blue-Throated Hummingbird: Arizona, New Mexico.

Collins Warbler: Texas. Arizona Grasshopper Sparrow: Arizona.

MAMMALS
Endangered

Indiana Bat: Mid-West and Eastern U.S. Humpback Whale: Pacific and Atlantic.

San Joaquin Kit Fox: California. Columbian White-Tailed Deer: Washington, Oregon.

Rare
California Bighorn: Oregon, Nevada, California.

Peninsular Bighorn: California.

EXHIBIT 3
EXTINCT WILDLIFE—SPECIES, WHERE FOUND, AND DATE EXTINCT

MAMMALS
Gull Island Vole: New York, 1898.

Amarosa Meadow Vole: California, 1917. Plains Wolf: Great Plains 1926.

Sea Mink: New England coast, 1890. Eastern Cougar: Eastern U.S., 1899.

Steller's Sea Cow: North Pacific, 1768. Eastern Elk: U.S. east of Great Plains, 1880.

Meriam Elk: Arizona, 1900. Baddlands Bighorn: North and South Dakota, 1910.

BIRDS
Labrador Duck: Northeastern U.S., 1875.

Heath Hen: Eastern U.S., 1923. Laysan Rail: Hawaii, 1926.

Sandwich Rail (Moho): Hawaii, 1893. Great Auk: North Atlantic, 1844.

Passenger Pigeon: U.S., 1914. Culebra Puerto Rican Parrot: Puerto Rico, 1899.

Mauge's Parakeet: Puerto Rico, 1892. Carolina Parakeet: Southeastern U.S., 1920.

Louisiana Parakeet: South central U.S., 1912. Oahu Thrush: Hawaii, 1825.

Lanai Thrush: Hawaii, 1931. Molokai Thrush: Hawaii, 1936.

Laysan Millerbird: Hawaii, 1904-1923. Kioea: Hawaii, 1859.

Oahu Co: Hawaii, 1937. Molokai Co: Hawaii, 1915.

Hawaii Co: Hawaii, 1934. Laysan Apapane: Hawaii, 1923.

Mamo: Hawaii, 1896. Perkin's Mammo or Black Mammo: Hawaii, 1907.

Oahu Akiakoa: Hawaii, 1837. Lanai Akiakoa: Hawaii, 1894.

Hawaii Akiakoa: Hawaii, 1895. Oahu Nukupuu: Hawaii, 1860.

Oahu Akepa: Hawaii, 1895. Greater Amakihi: Hawaii, 1900.

Ua-au-hawane: Hawaii, 1892. Greater Koafinch: Hawaii, 1896.

Lesser of Yellow-Headed Koafinch: Hawaii, 1891.

Groesbeekfinch or Konafinch: Hawaii, 1894.

FISH
San Geronio Trout: California, 1935.

Pahrangat Spinedace: Nevada 1938-1959. Big Spring Spinedace: Nevada, 1938-1959.

Harelip Sucker: Mississippi, Ohio, Georgia, Arkansas, 1900.

Leon Springs Pupfish: Texas, 1938. Ash Meadows Killifish: Nevada, 1942.

Senator STEVENS. (presiding). At the request of Senator Spong, we are going to continue the hearing in his absence on the Foreign Relations Committee.

The next witnesses are Mr. Wallace, Administrator of Marine Resources of NOAA, and the gentlemen who accompany him.

STATEMENT OF DAVID H. WALLACE, ASSOCIATE ADMINISTRATOR FOR MARINE RESOURCES, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, U.S. DEPARTMENT OF COMMERCE; ACCOMPANIED BY JAMES BRENNAN, ACTING GENERAL COUNSEL; JOHN S. GOTTSCHALK, ASSISTANT TO THE DIRECTOR FOR SPORT FISHERIES; AND WILLIAM TERRY, DIRECTOR OF THE OFFICE OF INTERNATIONAL AFFAIRS

Mr. WALLACE. Mr. Chairman, my name is David Wallace. I am the Associate Administrator for Marine Resources. I have with me today Mr. James Brennan on my right, who is the Deputy General Counsel of NOAA; and to his right, Mr. William Terry, who is the Director of our Office of International Affairs; and to my left, Mr. John Gottschalk, Assistant to the Director of the National Marine Fisheries Service.

Mr. Chairman, I am pleased to be here today to discuss with you the President's initiative with regard to the protection, conservation, and propagation of endangered species.

As the President stated in his environmental message of February 8, 1972, we have already found that the present Endangered Species Act, which dates only from 1969, simply does not provide the kind of management tools needed to act early enough to save a vanishing species. In particular, existing laws do not generally allow the Federal Government to control shooting, trapping, or other taking of endangered species.

S. 3199 is a significant step forward in the conservation field. It will fill major gaps in existing law and will more effectively bring to bear upon the problem of endangered species, the expertise and facilities of the two Federal agencies, the Department of Commerce and the Department of the Interior, most knowledgeable and best prepared to conserve and protect fish and wildlife.

Briefly, it will provide earlier identification of endangered species and authorize protective measures to be undertaken before a species is so depleted that its renewal is difficult or impossible. Moreover, it will make the taking of endangered species a Federal offense, and it will expand the prohibitions against trafficking in such species. In short, this bill will provide the muscle to vigorously expand our continuing efforts in behalf of threatened forms of fish and wildlife.

Unquestionably, S. 3199 has long been needed to reinforce our conservation activities. We in NOAA welcome this bill and strongly support its enactment. Its aims are fully in accord with ours. We have long been concerned about all aspects of the marine environment and the species which inhabit it. We are daily involved in conservation activities to protect many of these species. I can assure the committee that the new tools this bill will place in our hands are necessary and will be put to good use.

I would like now to discuss in more detail some of the important changes which will be wrought by this bill. The existing Endangered Species Act divides fish and wildlife into "native fish and wildlife" and "other fish and wildlife." For the present law to have any effect on native species of fish and wildlife, they must be found to be actually "threatened with extinction."

In the case of "other fish and wildlife," one must find that a species is "threatened with worldwide extinction." Once these determinations are made, the Secretary of Interior is given various powers to acquire lands and use funds to conserve, protect, and restore the species. However, his powers to place restrictions on the taking of such species or any trafficking therein are minimal. All that is required by the present law with respect to endangered species of native fish and wildlife is that the Federal agencies, in carrying out their activities, seek to protect such species to the extent practicable.

As to the other species of fish and wildlife, the Secretary's power is limited to forbidding imports. Clearly this authority is far too limited. Moreover, such authority as is given cannot be brought into play until the species or subspecies is pushed to the brink. This is obviously unsatisfactory in view of the fact that once reduced to very low numbers, it may be impossible for a species to recover, and extinction may occur regardless of any protective measures man may take.

§. 3199 is in sharp contrast with existing law. First, it wipes out the artificial distinction between "native" and "other" fish and wildlife so that maximum protection measures can be applied to both to the extent that the United States can exercise jurisdiction. This clarifies the status of large numbers of species that move in and out of the waters along our coasts. Secondly, while retaining the existing category of animals which are presently "threatened with extinction," the bill adds a new category of animals which "will likely within the foreseeable future become threatened with extinction."

Moreover, it provides that action may be taken if either condition exists with a significant portion of the animal's range and does not require a finding of worldwide endangerment. This last modification recognizes the fact that a species or subspecies may be threatened because of events taking place in a very small but significant part of its range. Thus, if a species' breeding area is being threatened, with the result that its future is in doubt, the species could be placed upon the endangered list, regardless of the fact that the breeding ground is geographically small relative to the whole range of the species.

The foregoing proposed modifications are advantageous in other respects. As to a species or subspecies which is presently threatened with extinction, section 5(a) provides for a ban upon its importation into or export from the United States. It also bans the taking of such species or subspecies and prohibits trafficking therein in interstate commerce by persons subject to U.S. jurisdiction. Most of these prohibitions are possible under present law. At the same time, the bill is not wholly inflexible since it contains appropriate exceptions to permit taking for scientific purposes and taking by native people such as Indians, Aleuts, and Eskimos, provided that certain criteria are met.

Section 5(b) of the bill is equally important. It authorizes the Secretaries to issue regulations for the conservation, protection, restoration, and propagation of a species or subspecies likely within the foreseeable future to become threatened with extinction. This section gives

the Secretaries full authority to issue whatever regulations may be needed to conserve and protect a species. And most importantly, it will permit this to be done at an early stage before any adverse trends have become irreversible. Where controls on taking are indicated, they can be applied. Where a moratorium or ban is preferable, it can be imposed. Once again I emphasize that none of the foregoing authority is presently available under the existing Endangered Species Act.

We recognize that the new authorities sought will to some extent remove from the States certain powers over fish and wildlife which they now exercise. However, we believe that the protection of endangered species cannot be effective without a uniform approach which is only possible at the Federal level. At the same time it is clear that the States do have a legitimate interest in protecting fish and wildlife within their borders. We believe that for full and effective enforcement of regulations under the proposed bill, the full cooperation of the States will be needed—and I might add I consider it essential. Thus section 4 requires the Secretaries to cooperate with the States to the maximum extent practicable in carrying out the program envisioned by the bill and provides for agreements with the States for the administration and management of any area established for the conservation, protection, restoration, and propagation of endangered species.

Mr. Chairman, let me now turn to the final major modification which the new bill would make in existing law. I refer to the provision in the bill placing authority under the amended Endangered Species Act in the Department of Commerce for the protection of those species of fish and wildlife which are subject to the jurisdiction of NOAA. Thus, we would have responsibilities under the bill to protect marine fish and shellfish, members of the order Cetacea, and members other than walruses of the order Pennipedia. This assignment logically follows the marine fisheries responsibility of the Department of Commerce pursuant to the provisions of Reorganization Plan No. 4 of 1970.

Carrying out the goals of the expanded endangered species program for ocean species requires the availability of—

(1) Scientific and technical experts and laboratory and ocean-based facilities to identify which species are endangered, the causes, and proposed solutions;

(2) A substantial experienced management capability to effectively administer a program for the conservation and protection of the endangered ocean species;

(3) Experienced personnel to deal on the international level if the ocean species to be conserved are subject to multinational pressures; and

(4) Enforcement capabilities to protect the endangered ocean species.

NOAA is qualified to administer the revised Endangered Species Act on all these counts with respect to those species under its jurisdiction. But among all Federal agencies, it is uniquely qualified with respect to the first criterion. At the present time, NOAA has 17 laboratories, 17 large fisheries vessels, and approximately 900 personnel engaged in research on fish, shellfish, and marine mammals. Virtually all of the U.S. Government's civil scientific capability with respect to the living organisms of the marine environment resides in NOAA.

The laboratory network covers the east, west, and gulf coasts, as well as Alaska and Hawaii. The scientific work carried on spans an immense range of subjects which are pertinent to both the identification and management of endangered species. Breeding, nursery, and feeding requirements for many species are under investigation. Both natural and man-caused changes in the environment which affect various species are being examined. Food chains, population dynamics, and numerous other aspects of marine biology are also the subject of our research.

Much of this activity is of long standing, but with the formation of NOAA, new programs with direct applicability to endangered species have been initiated. Some will be essential to their assessment. Our new marine resources monitoring, assessment, and prediction program (MARMAP) provides for a comprehensive continuing investigation of the distribution and abundance of all types of marine species together with an analysis of the factors controlling such distribution and abundance.

Thus, this program will help to identify endangered species and seek to determine the agents causing their decline. It will also supply an indispensable data base for international negotiations aimed at conserving the species. Initially the program is being conducted over the continental shelf, both Pacific and Atlantic, of the North American Continent north of the southern boundary of Mexico. It will also be conducted across the breadth of the Atlantic through international collaboration, and will eventually seek to cover all of the world's oceans.

We are presently initiating a new marine ecosystem analysis program (MESA). This program is designed specifically to gather ecological baseline data on the marine organisms of estuarine and near-shore waters and to determine the effects on such organisms of all forms of manmade and natural pollution. This program recognizes that virtually no other area of the oceans is more prolific than the waters of the coastal zone and the estuaries. We are planning field investigations in five coastal areas of great importance beginning with the New York Bight. The plans are to examine, in addition, Puget Sound, Delaware Bay, the coast of southeast Florida, and Prince William Sound. Eventually it is hoped that other U.S. coastal waters will be included. The relevance of such a program to endangered nearshore species is obvious.

Let me turn now to the question of management capabilities. NOAA personnel have been engaged for years in applying management and conservation techniques to a variety of ocean species. The North Pacific fur seal, the yellow fin tuna, the Pacific salmon, and many other species are among the animals for which NOAA is responsible on a continuing basis. In addition to existing laws and treaties, however, NOAA is working in cooperation with the States in developing a State-Federal partnership to deal with the conservation, protection, restoration, and propagation of the fishing resources that migrate through our territorial waters and the contiguous fisheries zone. These national arrangements would supplement international arrangements, thereby providing a framework for a comprehensive management scheme for the conservation of the resources.

Each general category of species presents its own unique problems of management. Thus when dealing with an endangered species found on the high seas which is therefore subject to taking by the citizens of a nation, international agreements providing for protection and conservation are a necessity. NOAA is now prominently involved in the administration of approximately 18 international agreements with respect to marine fish and wildlife. It possesses a cadre of personnel skilled in the negotiation and implementation of international fishing agreements. Most existing international agreements on fisheries provide for a commission to implement and supervise their provisions.

In each case, with only minor exceptions, NOAA personnel constitute the representatives of the Federal Government in these commissions. Thus, in addition to its general international expertise, NOAA is the logical means of access to many international fisheries organizations, and can most efficiently assure that policies aimed at protecting species will be effectively carried out.

The National Marine Fisheries Service also possesses experience in the enforcement of ocean conservation measures. Our fisheries enforcement officers are carried aboard Coast Guard ships and aircraft on fisheries surveillance missions. We also have experience in cooperative enforcement arrangements with certain States. NOAA's enforcement cadre provides an important existing body of experts who can be used to carry out endangered species regulations at a minimum of extra expense. These men, backed by the scientific expertise of the NOAA scientists, can significantly add to the enforcement activities of other arms of the Federal Government, such as Customs and Coast Guard.

Above all, Mr. Chairman, aside from the fact that NOAA has existing facilities and personnel, we have the will to vigorously undertake the role assigned in S. 3199. NOAA is deeply committed to the conservation of marine environment and its fish and wildlife resources.

As scientists, we are vitally interested in conserving and studying marine species for the benefit of present and future generations. The personnel who staff our laboratories know the complex interdependence of all marine species and the need to protect these chains of life. They also know the importance to man of expanding his knowledge of the oceans and their living things and the tremendous satisfaction and esthetic pleasure which one can derive from the observation of the seas' creatures. But neither knowledge nor pleasure can be derived from a species which has been heedlessly forced into extinction. Nor can the substantive economic benefits which the oceans offer be obtained.

As regulators, we in NOAA are aware of the many pressures on marine species. We know that the best interests of both the sport fishermen and the commercial fisheries are best served by conservation methods such as those proposed in this legislation.

Nevertheless, because of our regulatory experience, we know that occasions arise when private groups fail to heed the downward trend of a species. In these cases particularly, the Government must step in to assure that conservation measures are applied in the interests of all parties. Since its inception, NOAA has vigorously espoused this approach. We are deeply committed to conservation. We recognize it to be both a duty and an obligation to future generations and a necessity if the real benefits from the seas are to be obtained. I assure you that our organization will continue its commitment in this regard.

I would like to discuss briefly S. 3818, a bill recently introduced as a possible alternative to S. 3199. This bill follows S. 3199 in some parts, and is identical in many parts. There is, however, one significant difference in that flora, which we note is not defined in the bill, would be included within the scope of the endangered species program along with fish and wildlife. We strongly support a measure designed to preserve the many species of plant life which are found in our country and elsewhere in the world. Obviously flora make up a very critical part of our total ecosystem and are important not only from their own value, but also as one of the major components of the habitat for fish and wildlife on land as well as in the ocean. We believe, however, on the basis of discussions we have had with the Departments of Agriculture and Interior, that inclusion of flora in this bill by simply calling for it to be considered in the same conservation program as fish and wildlife would not be the most appropriate way to solve the problem. The issues involving flora are quite distinct from those involving fish and wildlife. In our opinion, it would be most appropriate to develop separate legislation for the preservation of flora. We would defer to the Department of Agriculture for the development of such legislation, but we would be pleased to assist them in any way possible.

After comparing the two bills, we believe that S. 3199 is the better bill, for our purposes.

I would also like to discuss S. 249, a bill that would implement the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere and amend the original 1966 Endangered Species Act. The bill would prohibit any person within any place subject to the jurisdiction of the United States from hunting, capturing, killing, taking, transporting, selling, or purchasing any fish or wildlife listed in the annex to the convention. The bill also provides that in submitting the list of species for the annex, the Secretary of the Interior shall include the species found by him to be rare or endangered under the terms of the 1966 Endangered Species Act. We note that the bill does not take into account the fact that the 1966 act was amended in 1969, nor does the bill recognize the fact that the Secretary of Commerce, through NOAA, is now responsible for Federal programs concerning certain living aquatic resources. We note that our Government is attempting to negotiate a new international agreement on endangered species with a worldwide scope.

Mr. Chairman, we feel this bill is incomplete and does not provide the fundamental new approach to the subject found in the administration's bill. Therefore, Mr. Chairman, I urge you and your committee to act promptly on S. 3199 so that this new initiative for the protection of endangered species can be put into force without delay.

Thank you, Mr. Chairman.

Senator STEVENS. Is inclusion of flora the only objection to S. 3818, or do you have other objections?

Mr. WALLACE. I must say, Mr. Chairman, that is one of the items which we feel is of major importance.

Senator STEVENS. Mr. Wallace, in the interests of time, I am going to follow the chairman's pattern and submit to you a series of questions. I will have some others myself after the staff provides me with a copy of the ones prepared for Senator Spong's submission to you.

If you would agree, we will have the questions and answers appear in the record. Would you identify to whom we should address any questions concerning clarification of the answers.

Mr. WALLACE. We would be happy to cooperate in answering the questions which you submit to us. I think it would be more appropriate to have these directed to Mr. Brennan, who is our general counsel.

Senator STEVENS. We appreciate that.

I obviously won't get my questions prepared today, but we will get them to you as early as possible next week. We thank you for your interesting proposal. I have one personal question to ask you. In view of the fact that you have endorsed this approach on the endangered species, why didn't you endorse the approach on ocean mammals, regarding individual species?

Mr. WALLACE. I think there are two different concepts here.

Senator STEVENS. This is precisely where we got the amendment we offered on the floor—from the concept of species that are likely to become threatened species.

Do you agree that if we pass this bill, the State would maintain the jurisdiction over resident species so long as they were not found to be endangered?

Mr. WALLACE. I am not sure, Senator, that I get the meaning of the question.

Senator STEVENS. It is my concept that that is what the bill says, and that Federal jurisdiction should be asserted.

Mr. WALLACE. Yes; that is correct.

Senator STEVENS. I fail to find any justification for a different approach in the ocean mammals field, particularly in States where we have such capability to deal with species within our jurisdiction in terms of ocean mammals.

The chairman is back, and I will yield to him. I can ask my dirty questions better from the other chair.

Mr. WALLACE. You do it quite effectively, Senator. [Laughter.]

Senator STEVENS. I suggested to Mr. Wallace that we will submit questions next week, and that way we can go ahead and hear Mr. Wise from the Agriculture Department.

Senator SPONG. (Presiding) Thank you, Mr. Wallace. I was called over to an executive session in Foreign Relations. You do understand that we are submitting questions to you, and I look forward to your replies.

Mr. WALLACE. We will respond promptly.

Senator SPONG. Thank you very much.

(The questions and answers thereto follow:)

U.S. DEPARTMENT OF COMMERCE,
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION,
Rockville, Md., September 26, 1972.

HON. WILLIAM B. SPONG, JR.,
U.S. Senate,
Washington, D.C.

DEAR SENATOR SPONG: This is in reply to your letter of August 7 requesting the Department of Commerce to respond to various questions concerning endangered species legislation.

A paper containing the questions you raised and our responses thereto is enclosed.

We trust that you will find this information both useful and informative. If we can be of any further assistance in answering any additional questions which may arise, please contact us.

Sincerely,

HOWARD W. POLLOCK,
Deputy Administrator.

Enclosure.

QUESTIONS AND ANSWERS CONCERNING ENDANGERED SPECIES LEGISLATION

Question. 1. What criteria would you use to determine whether a marine animal is endangered or likely in the foreseeable future to become endangered? Would the fact that the species might be commercially valuable be a part of your judgment?

Answer. Evidence available as to population trends would serve as a basis for determining endangerment. An animal may be determined to be endangered when its breeding population drops to levels so low as to suggest the possibility that the species may not be able to reproduce successfully. This would include consideration of the spatial distribution of the animals at breeding time. Absolute numbers of animals required for successful breeding and maintenance of the species will depend upon characteristics of the species and will vary for different animals from place to place and time to time.

A species might be judged to be likely in the foreseeable future to become endangered in those circumstances where continued exploitation or habitat destruction at a given rate would result in its becoming endangered in a period of up to 10 years, depending on the animals' breeding characteristics in relation to population size.

Commercial harvesting and recreational usage could be causes of endangerment. The fact that a species might be commercially valuable makes it all the more imperative that efforts be made to perpetuate the species at a level which is well above the point at which a species could be considered endangered within the terms of the bill.

Question. 2. Which animals on the current endangered species list would come under your jurisdiction?

Some concern has been expressed that you might delist some species of whales. What are your plans regarding those species of whales presently on the endangered species list?

Answer. The following eight species of whales on the current endangered species list would come under the Department of Commerce jurisdiction: blue, gray, humpback, bowhead, finback, sei, sperm, and the right whales. Whales currently on the endangered species list will continue to be listed in the first category ("threatened with extinction") if the Administration's bill passes. In this regard it should be noted that Dr. White, Administrator of NOAA, supported a 10-year moratorium on all whaling, with no qualification, at the Stockholm Conference on the Environment. Although the objective scientific data which support the endangered species listing of finback, sei, or sperm whales is limited we feel that full protection is needed at this time because of the inadequacy of the whale management programs.

Question. 3. You said in your testimony that the interests of sports and commercial fishermen are best served by conservation methods such as those proposed here. Do you see your main responsibility in this area to be to the fishermen or to the animals? If there is a conflict how would you resolve it?

Answer. Under the Fish and Wildlife Act of 1956, as amended, it is our legal responsibility to take such steps as may be required for the development, conservation and protection of our fishery resources for the nation's benefit. We also have an existing responsibility to assure maximum sustainable production of fish and fishery products. We see no conflict of responsibilities to the animals and to the fishermen. Where fishery stocks are maintained at or near a level of maximum sustainable yield, they can never be considered "endangered." On the other hand, a fishery resource would reach a level making it uneconomical to harvest long before it becomes threatened with extinction or likely to become so in the foreseeable future. Therefore, the ultimate objectives of the fishing industry and the conservationists converge since actions to protect and conserve the resource are in the interests of both. While there can be no conflict between the long-term interests of the fishermen or the animals, in the short-term NOAA might place restrictions or even a total ban on the harvesting of some species notwithstanding possible objections from both commercial and recreational fishermen.

The aim of NOAA would be to restore the species. In the long run this would be to the advantage of the fishermen as well as the animal. At all times we would work toward the establishment of management plans which would restore and maintain the commercially or recreationally harvested species at levels well above endangerment.

Question. 4. Do you have any objection to the inclusion of all animals under the protection of this bill? This would extend coverage to such animals as the sponges.

Answer. We believe that all marine animals should be covered by the Endangered Species Bill.

Question. 5. If the Congress decides that the Endangered Species Bill should include plants, do you think that Agriculture or NOAA would be better suited to administer marine aquatic plants?

Answer. Agriculture has little expertise in dealing with marine aquatic plants. NOAA does have expertise in this area and already has some responsibility for marine plant life under the so-called "Bartlett Act," 16 U.S.C. 1081 *et seq.* NOAA should be given the full responsibility to administer management and protection of marine aquatic plants. The Smithsonian Institution should also be given responsibilities to provide scientific data and probably should be mentioned specifically in the Bill as a consultant. Since there has been inadequate opportunity for those parties interested in problems of protection of plants to thoroughly consider the kind of legislation which will best accomplish the objective it might be preferable to have a separate bill covering the protection of endangered plants.

Question. 6. Do you have any objection to the provision of S. 3818 which would allow the States to adopt stricter measures to protect endangered species?

Answer. We would support a provision permitting the States to adopt stricter measures on taking within the State to protect any locally resident species regardless of whether such species is endangered. We do not see that permitting a patchwork system of inconsistent State laws governing the sale or transportation of species taken in accordance with the law of the State where taken and with the provisions of the Endangered Species Act (to the extent it may apply) is desirable.

Question. 7. Will administrative costs increase if jurisdiction is divided between you and the Department of the Interior?

Answer. We believe that if jurisdiction is divided between the Department of Commerce and the Department of the Interior, costs necessary to perform the requirements of the Endangered Species Conservation Act would not be increased. To the contrary, it is our view that costs may be significantly reduced by assigning administrative authority to the agency in which appropriate program responsibilities are vested. The reasons for this are cited below.

The Government's scientific, managerial, and international expertise in marine fisheries resides in the Department of Commerce by virtue of the creation of NOAA in Reorganization Plan No. 4 of 1970. This Department would be required to utilize this expertise in fisheries and other marine programs under existing laws regardless of whether an animal is listed as an endangered species. NOAA is presently charged with the responsibility for all commercial species of fish and certain marine mammals. It also is responsible for all Federal research programs with respect to marine sport fisheries. As part of these various functions, NOAA already engages in numerous activities which seek to conserve and protect marine life. Its protective function in this regard is specifically recognized in the President's message accompanying Reorganization Plan No. 4 which reads in part:

"Drawing these activities together into a single agency would make possible a balanced Federal program to improve our understanding of the resources of the sea and permit their development and use while guarding against the sort of thoughtless exploitation that in the past laid waste to so many of our precious natural assets."

At the present time NOAA has 17 laboratories, 17 ships over 65 feet in length, and approximately 900 personnel engaged in research on fish and marine mammals. The laboratory network covers the east, west and Gulf coasts, as well as Alaska and Hawaii. The scientific work carried on spans an immense range of subjects from shellfish to mammals which are pertinent to both the identification and management of endangered species.

In addition to the many longstanding NOAA research programs which are applicable to endangered species, NOAA has recently initiated two new projects of fundamental importance in this area—MARMAP and MESA. MARMAP (Marine Resources Monitoring, Assessment, and Prediction) commenced in FY 1970 and, to our knowledge, is the only program of its kind and scope in existence anywhere. It provides for the phased development of a comprehensive continuing investigation of the distribution and abundance of all types of marine creatures, both commercial and noncommercial species, together with an analysis of the factors controlling such distribution and abundance. Thus, this program will both identify endangered species and seek to determine the agents causing their decline. It will also supply an indispensable data base for international negotiations aimed at conserving the species. Initially the program is being conducted over the continental shelf (both Pacific and Atlantic) of the North American Continent north of the southern boundary of Mexico. It is also being conducted across the breadth of the Atlantic through international collaboration, and will eventually seek to cover all of the world's oceans. Ichthyoplankton, groundfish and pelagic fish are included, as well as marine mammals.

The MESA program (Marine Ecosystem Analysis) is a more specialized program, designed specifically to gather ecological baseline data on the marine organisms of estuarine and nearshore waters and to determine the effects on such organisms of all forms of manmade and natural pollution. The program commenced in FY 1972. Initially it covers five coastal areas of great importance, namely, the New York Bight, and detailed plans to move into Puget Sound, Delaware Bay, the coast of southeast Florida, and Prince William Sound are underway. Eventually it will cover virtually all U.S. coastal waters. The obvious relevance of such a program to endangered nearshore species needs no comment.

In addition to other reasons for granting jurisdiction to both the Department of Commerce and the Department of the Interior, it should be pointed out that if the responsibility were placed only within the Department of the Interior, a formal mechanism for cooperation with the Department of Commerce would be required in order to allow Department of the Interior to utilize Commerce's expertise, facilities and personnel. This would add an unnecessary layer of administration and make the system of protection more complex and more costly to administer.

With the proposed revision of the existing Act, a seaborne capability with trained enforcement experts will become mandatory. For the Department of the Interior (which has no such capability for working in the marine environment) to create its own force for this purpose would be duplicative and wasteful. Placing the NOAA force at the disposal of Interior is equally inefficient, since the men must be available to carry out NOAA's other responsibilities under other laws as well as be in close contact with the NOAA scientific experts. Adding another layer of administrative direction from Interior can only lead to unnecessary complications, inefficiency and increased expenses.

In those instances where the particular endangered species has little or no relation to commercial varieties, NOAA is equally interested in its preservation. This is so because of NOAA's extensive involvement in basic marine research and all aspects of the marine ecosystem which, of necessity, requires that we seek to protect its continuing existence. Moreover, no other agency is more fully aware than NOAA of the complex interdependence of organisms in the marine ecosystem.

Finally, consideration should be given to the fact that NOAA would have similar responsibilities under the Marine Mammal Conservation Act should that bill become law. The same kind of scientific, managerial, and enforcement capabilities and expertise will be necessary to implement both pieces of legislation.

Question 8. Do you consider the International Union for the Conservation of Nature (IUCN) to be "the best scientific evidence available" on endangered species? If so, why?

Answer. The Secretary makes determinations of endangerment based on the best scientific data available to him. We certainly have more scientific data available to use than IUCN in those areas of our special expertise.

IUCN has the most comprehensive general material available on endangered species. IUCN, however, does not necessarily have the most up-to-date information on a particular species and depends upon contributions by scientific experts to provide them with needed data. Of course, we will use whatever data is available from IUCN in arriving at decisions which, under the Act, must be based on "the best scientific evidence available."

Question 9. As I understand it, a species could be declared endangered over part of its range and not endangered in other parts. Is this correct? If so, how do you plan to enforce it? Specifically, how would you deal with a commercial species of fish which is endangered in part of its range and abundant elsewhere?

Answer. Where a species is presently threatened with extinction over a significant part of its range, the Secretary will enact measures which, for example, would control the time of taking, the manner of taking, catch limitations, or areas where taking would be prohibited. Specifically with reference to a commercial species of fish which is threatened with extinction or is likely to become threatened with extinction only in a significant portion of its range, the Secretary could prohibit fishing activities in that part of its range and also prohibit importation of fish taken from areas where fishing had been prohibited. Such a system would require that where the taking is done in an area where the species is abundant, the person involved would have to establish to the satisfaction of the Secretary that the taking did not violate the prohibition. Restrictions of this type would permit the species to return to abundance in the affected part of its range. In cases where the action contemplated might result in increased pressure in other areas, appropriate restrictions would also be applied in those areas to assure that they did not become subject to undue fishing pressure. In addition, where the affected area is outside the jurisdiction of the United States, the Secretary could negotiate international arrangements to restrict the taking by citizens of all countries. In the event that he was successful in negotiating such an agreement, he would have authority under existing law to institute procedure looking toward banning of the importation of all fishery products from a nation which continues to fish in the area in violation of the international conservation scheme.

Question 10. How does this bill relate to the Marine Mammal legislation which has now been passed by both Houses of Congress and is almost certain to become law this year? Specifically, which Act would take precedence with regard to endangered species and with regard to those species which are likely in the foreseeable future to become endangered? Is there any conflict between the two Acts? If so, how would you recommend that we resolve it?

Answer. The policies and programs of the proposed Marine Mammal Conservation Act and the proposed Endangered Species Act complement each other and there is no conflict between the two Acts. Clearly, whichever Act under the particular circumstances would impose the more severe restrictions on the taking of an animal will control. In any event, to take an "endangered" marine mammal, one would have to comply with the provisions of the Marine Mammal Conservation Act. This is another reason why efficient administration of the Endangered Species Act requires that the responsibility for administration track that of the marine mammal bill. The expertise and knowledge required to implement these Acts are identical, that is, almost the same type of scientists, enforcement agents, etc., will be needed under both Acts. When both Acts are in effect, they will provide a continuum of protection for marine mammals regardless of the condition of species or stock, and will provide greatly expanded protection for other types of endangered species. It should be emphasized that one of the objectives of the Marine Mammal Conservation Act is to assure that no more marine mammals suffer such declines as to become subject to the Endangered Species Act.

Question 11. Please provide a five year estimate of the cost to the Department of Commerce both of S. 3199 and S. 3818.

Answer. Since the major difference between S. 3199 and 3818 is that S. 3818 includes flora, which, with the possible exception of aquatic marine flora, would be handled by the Department of Agriculture, we believe there would be no significant difference in costs to the Department of Commerce under the two bills. The estimated additional costs to this Department for NOAA's National Marine Fisheries Service programs would be the same under either S. 3199 or S. 3818 for the five year period.

The anticipated cost to the Department of Commerce for carrying out either S. 3199 or S. 3818 will fall into two categories: (1) management, including enforcement and surveillance; and (2) research. The estimated additional costs for enforcement and surveillance would range from 0 in the first fiscal year (1973) to approximately \$600,000 in the fifth year. The estimated personnel needs for enforcement and surveillance would range from 0 in the first year to approximately 17 people by the fifth year. The estimated costs for research

would range from approximately \$30,000 in the first year to approximately \$1,400,000 in the fifth year. The estimated personnel needs for research would range from one person in the first year to approximately eight people by the fifth year.

The cost figures and personnel requirements for enforcement and surveillance represent increases over the existing budget for those activities which are presently related to domestic fisheries regulations and international agreements. These estimated figures have been based on the anticipated needs in relation to whales, the only species of marine animals under the jurisdiction of the Department of Commerce which are presently on the Endangered Species List, and the addition of a limited number of other species. These monies would be used to supplement personnel and to provide them with additional specialized scientific training necessary to cope with enforcement problems unique to endangered species. Staff and training would be added to the National Marine Fisheries Service enforcement organization located in its five Regional Offices to supplement their present enforcement capabilities. Obviously, these figures are subject to possible modification depending on the results of scientific investigations for other species and a determination that a substantial number of additional species should be added to the list of Endangered Species. It should be noted that no other agency possesses an experienced marine fisheries enforcement staff; therefore, the amount required would be considerably higher and enforcement would be significantly less effective.

The figures for research reflect increases over the present program level for marine mammals on the existing "endangered" list (and anticipate a greatly expanded information and research program on whales which NOAA already has under consideration). It also includes a projected increase over the next few years to develop needed information on other marine mammal species of concern. If the new bill were enacted, we would review these plans for further needed work.

NOAA presently has authority to obtain data for other living marine resources to ascertain abundance and population trends incident to determining their status as "threatened with extinction" or "likely to become threatened with extinction in the foreseeable future." It is already proceeding with a wide variety of ongoing marine resources surveys, biological investigations, and ecological investigations which will provide the requisite baseline data for numerous species, whether or not endangered within the meaning of the bill. More intensive studies will be required in two areas should the bill become law: (1) special studies to determine actual status of stocks of fish and marine animals other than mammals presumed to be endangered; and (2) special studies to document data on life history and environmental factors critical to the survival of the species. It is not possible at this time to project costs for these more intensive additional studies which we would plan to undertake, and such costs are not included in the above figures.

If such research were to be conducted by an agency not presently responsible for management of marine resources (including endangered species) then the amounts required to undertake the required research would be considerably higher.

However, if land acquisition did become necessary to protect spawning areas for species which may become endangered at some future date, we would, of course, request specific funds for that purpose.

The foregoing budget estimates do not include funds for land acquisition or grants to states under cooperative agreements entered into pursuant to the bill. These amounts may far exceed amounts for administration and research.

Senator Spong. Dr. G. H. Wise. Good morning.

**STATEMENT OF DR. G. H. WISE, ASSOCIATE ADMINISTRATOR,
ANIMAL AND PLANT HEALTH PROGRAM, ANIMAL AND PLANT
HEALTH INSPECTION SERVICE, DEPARTMENT OF AGRICULTURE;
ACCOMPANIED BY DR. JOHN CREECH, AGRICULTURAL
RESEARCH SERVICE**

Dr. WISE. Good morning.

Mr. Chairman, Senator Stevens, I am Gilbert Wise, Associate Administrator, Department of Agriculture, and with me is Dr. John Creech, botanist, Agriculture Research Service.

We do appreciate this opportunity to appear before your committee, to express the views of the Department concerning S. 249, S. 3199, and S. 3818.

I would like to clarify our position on the first two of these bills. With regard to S. 249 and S. 3199, the Department recommends the enactment of S. 3199 in lieu of S. 249. S. 3199 implements recommendations contained in the President's Special Message on the Environment which was submitted to the Congress on February 8, 1972, and provides the needed tools to strengthen programs for the protection of endangered species.

Under S. 3199 and under the existing animal quarantine laws, the Department of Agriculture is responsible for preventing the introduction into and the dissemination within this country of livestock and poultry diseases through the movement in interstate and foreign commerce of animals, including poultry.

We have a force at ports of entry conducting agricultural quarantine inspection in order to protect the Nation's livestock and poultry against destructive foreign animal diseases and pests.

Within this established framework, we work closely with the Department of the Interior in the enforcement of the present statute concerning endangered species of fish and wildlife. The issuance by the Department of the Interior of import permits for wildlife is conditioned upon compliance with applicable laws and regulations of USDA.

By the same token, USDA issues no import permits involving an endangered animal species without approval from the Department of the Interior. These regulatory activities complement each other in that they are generally prohibitory, with provision for exceptions if needed to preserve representatives of endangered species.

We shall continue this working arrangement under the provisions of S. 3199.

With regard to S. 3818, the Department agrees completely that there are plant species, particularly those that are the ancestors of crop plants, which are seriously threatened by inroads of civilization into the regions of their origin and diversity.

Agricultural progress in plant breeding depends heavily on the beneficial characters from the world pool of ancestral species of crop plants and the wild species which are the parents or relatives of our food, feed, fiber, forest, and ornamental plants.

These irreplaceable resources are being seriously eroded and the base of variability essential to agricultural improvement is being seriously diminished at a time when the threat of disaster from pests and diseases is increasing.

We are concerned that centers of origin of wild relatives of our crops, such as cereals, root crops, food legumes, and other basic foods, are being eliminated inadvertently by massive development of roads, dams, and urban spread in developing countries.

Likewise, the increasing shift in these countries to highly advanced uniform crop varieties is diminishing the local ancestral species important to our plant breeders.

The United States, along with all nations, has urged that high priority be given by nations and international bodies to programs to collect and conserve these genetic resources for future use. Indeed, one of the major conclusions of the recent U.N. Conference on the Human Environment, is that there is a need to preserve the world's

genetic resources, and the Department of Agriculture is sympathetic to the problem of identifying priorities for collection, assembly, and exchange of these plant materials.

We have appointed experts from the Forest Service, the Agricultural Research Service, and the Animal and Plant Health Inspection Service, to work with the Department of the Interior and also with the Department of Commerce, on the problems related to the conservation, protection, restoration, or propagation of plant species.

Significant to the United States is the fact that of the major crops that feed and clothe the world's population, only one, the sunflower, is native to the continental United States. In terms of important natural reserves of genetic diversity of crop plants, we are literally a have-not nation.

S. 3818 would include plant species within a generally prohibitory-type regulatory system similar to that provided for animals under S. 3199. However, we believe that the method of how to deal with plant species needs to be different than that for animals.

Considering the problems involved, it is our opinion that S. 3818 would not provide an effective system for the protection of plant species and that because of the uniqueness of the problem it should be handled separately. For example, prohibiting the movement of plant species will not curtail the depletion of the wild relatives of our crop plants. Their movement for propagation in some instances may be the only means to insure their continued existence.

In summation then, we recommend that S. 3199 be enacted and that consideration of legislation dealing with endangered plants be deferred pending the completion of some of the research that is presently being conducted.

Mr. Chairman, we will be pleased to respond to any questions you or members of the committee may have.

Senator SPONG. Thank you very much, Dr. Wise. Would the Department of Agriculture have the capability to enforce the provisions of this bill relating to plants if it were passed? I am speaking of S. 3818.

Dr. WISE. From a regulatory standpoint, I believe that we would have. Our position on S. 3818 is not that we are opposing the premise or that we are not recognizing the value of addressing the problem of endangered plant species. We believe, however, that the problem is unique as related to wildlife and fisheries. The substantial interest and concern for protecting plant species throughout the world should be thoroughly evaluated and included along with some of the approaches in S. 3818 in a package which is comprehensive in approaching this problem.

Senator SPONG. Under the Convention on the Conservation of Nature in the Western Hemisphere, the United States may submit names of endangered species for inclusion in the annex to that treaty.

Has the Department of Agriculture recommended any plants for inclusion in the annex?

Dr. WISE. I am not personally familiar with that, Dr. Creech?

Dr. CREECH. We have not recommended any plant species for inclusion in this particular convention. We have made known to other organizations our concern over the loss of the progenitors of our crop plants.

Senator SPONG. Do you feel you should make any recommendations?

Dr. CREECH. If this particular convention relates to the progenitors of our crop plants, yes; there are those which we should be concerned with.

Senator SPONG. Does the research currently being done by your department include the listing of endangered species of plants?

Dr. CREECH. As they relate to the economic crops of the world, yes, sir.

Senator SPONG. Would an amendment to S. 3818 providing for the movement of plant species for purposes of propagation remove your objections to this bill?

Dr. WISE. We recommend that legislation to protect flora be deferred until the total question is considered, which involves not only the movement of plants but the protection of the environment in which plant species live in other countries. The conventions tend to do this.

The reason I bring this point up, Mr. Chairman, is that while I can't speak with exactness on each point that might come up, in talking with scientists like Dr. Creech and others, they feel the question is much bigger than just the movement of plants. To approach one aspect of the problem, and particularly before the other activities are completed, might lead to actions which could interfere or inhibit some of the other things that need to be done.

Senator SPONG. Dr. Wise, that buzzer indicates another vote on the floor. I have here approximately five more questions which we will submit to you, and Senator Stevens also will have the privilege of submitting to you in writing some questions which he may have.

I apologize for leaving like this, and I appreciate very much your appearance and that of Dr. Creech here this morning.

Dr. WISE. We will be pleased to respond, thank you.

Senator SPONG. We will recess for 10 or 15 minutes. The next witness is Dr. Raymond Fosberg.

Recess.

Senator SPONG. The hearing will come to order.

Dr. Raymond Fosberg?

STATEMENT OF DR. RAYMOND FOSBERG, NATURE CONSERVANCY

Dr. FOSBERG. Mr. Chairman, and members of the committee, my name is F. Raymond Fosberg.

I am representing the Nature Conservancy, as well as appearing as an individual.

I am curator of botany at the National Museum of Natural History at the Smithsonian Institution. I appreciate the opportunity to testify before your subcommittee today.

My comments on the legislation are based on my more than 40 years experience as a botanist, specializing in plant species, where they occur, and their relationship to man. It should be made clear that these views are my own as a scientist, and that I do not speak officially for the Smithsonian Institution.

I understand that a letter from the Secretary of the Smithsonian, S. Dillon Ripley, is on its way to the committee expressing the Smith-

sonian's formal endorsement of legislation to protect endangered and threatened species.

Most attention to endangered species in the past, including the existing laws for their protection, has focussed on birds and large mammals. This bill is the first to come to my attention that mentions protection for threatened plant species. Furthermore, it has the unique and highly commendable feature of providing protection for species that are likely to be threatened with extinction in the foreseeable future. This remarkable provision gives us a basis for intelligent ecological planning.

Because they attract attention, the endangered species of birds and large mammals are relatively well-known and documented. On the other hand, we at present, do not even know how many plants have already disappeared, even in historic times; let alone how many are now threatened with extinction.

These facts are very hard to obtain in reliable documented form. Most interested people have felt they must give their efforts to protecting habitats known to harbor rare plants, certainly a sound approach. Only in a few places, such as California, are projects being started to locate, list, and document threatened plant species, and to try to understand the causes of their decline. It is my hope that this bill will encourage these efforts and aid them in cooperating in a national program to tackle this problem.

Why protect endangered plant species? This is a legitimate question, though to some of us, the answer is almost too obvious to be easily put into words. We feel that the world would be a poorer place without them. As well, ask why care for beauty?

From an immediate practical point of view, we do not yet know the properties and potential uses of more than a very few of the world's plant species. For example, the common Madagascar periwinkle, of southern gardens has been known for over 200 years, but its remarkable array of medical properties has only been uncovered during the last 10 years.

Modern plant breeding methods have been applied to only a few of the potential wild food plants. In a more and more crowded world, we can scarcely afford to close out any of the options open to our descendants to improve their health and food resources.

From an ecological viewpoint, possibly even more important in the long run than practical utility, it is essential to preserve the diversity in the ecosystems in which we live. This is what protects a system against deterioration and maintains its stability. This internal functioning of checks, and balances in our environment is vital to our well-being though we are only beginning to understand it and the roles of living things in it.

It is infinitely complex and difficult to grasp. We do not fully understand the role of any species in the working of nature. Therefore, we cannot afford to let any of them be lost.

What are some of these endangered plants? One good example is found in my own State of Virginia. The "marsh-ladies-tresses," is a wild white orchid with a delicious fragrance.

It was known from the marsh fringing Dyke Swamp, below Alexandria on the Potomac, before the National Park Service traded this marshland off to a local sand and gravel company to be dredged.

The plant has only been found in a few other estuarine marshes along the Atlantic coast, such as the James River, but has seldom been seen and its present status is doubtful, as estuaries are being altered everywhere. Rare species mostly occur in such restricted habitats.

We have inherited a wonderful world—beautiful, interesting, and superbly capable of supplying the normal requirements of man. We have reached the point where we must decide whether we will keep it this way, or modify it beyond the point of no return; to where we will have to adapt to an environment wholly different from what we now know.

This bill represents a step toward keeping the world to which we are accustomed, in which we evolved, and to which we are adapted. The provision in this bill to protect endangered plant species, is a new departure in a very desirable direction.

It should be strongly supported.

Thank you for your attention.

Finally, I would like to insert that I am totally puzzled by Mr. Reed's and other witnesses' hesitation to include endangered plants in the legislation.

Thank you for your attention.

Senator SPONG. Thank you, Dr. Fosberg.

I am afraid the call of duty is on the clock again, and I must go. I have questions I will submit to you.¹ I know the wild white orchid of which you speak, being from Virginia, myself. I am appreciative of your being here.

We will recess for another 10 minutes.

(The statement follows:)

STATEMENT OF DR. F. RAYMOND FOSBERG, SMITHSONIAN INSTITUTION

Mr. Chairman and members of the Subcommittee, my name is F. R. Fosberg; I am Curator of Botany at the National Museum of Natural History at the Smithsonian Institution. I appreciate the opportunity to testify before your Subcommittee today. My comments on the legislation are based on my more than 40 years experience as a botanist, specializing in plant species, where they occur and their relationship to man. It should be made clear that these views are my own as a scientist and that I do not speak officially for the Smithsonian Institution. I understand that a letter from the Secretary of the Smithsonian, S. Dillon Ripley, is on its way to the Committee expressing the Smithsonian's formal endorsement of legislation to protect endangered and threatened species.

It gives me a feeling of encouragement and satisfaction to be able to urge the passage of a bill which provides for the conservation and protection, not only of presently endangered species of plants, but of any likely, within the foreseeable future, to become threatened with extinction.

This last is a remarkable statement to be embodied in a seriously considered bill before the U.S. Senate. As one who has been for many years concerned with the question of the disappearance of the natural phenomena that provide enjoyment in life, I can fully appreciate the enormous advance that this bill represents over the attitude common only a few years ago.

Ecology and concern for the quality of our environment have in the last few years suddenly received major attention not just from a few scientists and nature lovers, but from the average citizen. One can now read in the newspapers and popular magazines about ecosystems, food-chains, heavy-metal pollution, and other ideas that ten years ago were ecological jargon as intelligible to the average newspaper reader, as classical Latin, and of about as much interest.

¹ See p. 157.

What changed the picture was, of course, fear. Some of the consequences of our treatment of our environment began coming home to roost, and with the help of the mass media, gave our people a good healthy scare. Much of both the current concern about environmental matters and the popular interest in ecology are the direct results of this scare. The laws that are beginning to help us control pollution, protect our environment, and promote environmental quality, show this very well. No sane person could fail to support them.

However, this bill, S.3818, is different. It represents a major advance from the fear motivation that brought the Environmental Protection Act into being. The endangered species legislation, and in particular the provision in the bill under discussion here to conserve and protect species that are likely to be threatened within the foreseeable future, are giant steps in the direction of national planning for the maintenance of an environment not only fit to live in, but that will give us pleasure and satisfaction. It is not too much, in my opinion, to say that these are giant steps in the direction of civilization in the true, more than material sense of the word.

Here and there in the bill "flora" is mentioned in the same phrase with "fish" and "wildlife." I was invited to testify as one who has some knowledge of "flora," in the sense of plant species. Plant species have been one of my principal preoccupations for over 40 years as a professional botanist and ecologist. One reason I am here is that I want to commend the writers of this bill on their inclusion of plants as worthy of our efforts to save them from extinction.

Much attention has been focussed on the large mammals and the birds that have disappeared or are endangered as the result of man's intensified occupation and exploitation of the earth. Books have been written on the extinct and threatened birds and mammals, and their numbers and status are known in great detail. At the same time, we do not even know how many plants have vanished, even in historic time, let alone how many are threatened. It seems certain that the number is far greater than that of large mammals and birds. It is, of course, much more difficult to know if a plant has completely disappeared than that the passenger pigeon or the dodo became extinct, or that the southern red wolf may disappear within a decade. The people interested in rare plants have for years devoted their efforts to placing some of the notable habitats of rare species under protection, certainly a sound approach. Only very recently, and in few areas are efforts being started to locate and list the rare and endangered plants and to try to understand the causes of their decline. It is my hope that the provisions of this bill will be so construed that such inexpensive but very important local starts toward study of this problem will be given some encouragement. Perhaps these can be broadened into a national effort that will give the basis for remedial action on a country-wide scale.

It must be understood that a species need not be reduced to small numbers to be threatened. The American chestnut was endangered as soon as the blight was brought to America, while the chestnut was still one of our commonest hardwood trees. The suggestion of a dam across the Amazon River to flood the entire lowland of central Brazil, if taken seriously, threatens thousands of species, many of them very common, or even abundant. Anticipating such threats, though very difficult, is essential in long-range ecological planning. The bill would give a framework for such thinking and planning.

If we can achieve substantial progress toward saving our own endangered plant species, it will become far easier to extend the effort into the international field, as is also provided in the bill. Actually, some European countries are already far ahead of us in this field. On my first visit to the Netherlands, in 1948 I was stopped by a policeman even from making botanical specimens of some of the common sand dune plants. In many countries, however, the idea of protecting plant, or even animal, species has not even been thought of.

Why should we protect endangered plant species? This is a legitimate question, even though to some of us the answer is almost too obvious to be put in words. We feel that the world would be a poorer place without them. This is a truth that is as self-evident, but as difficult to formulate, as is a justification for beauty. It is intangible as are most aesthetic considerations.

From an ecological viewpoint, diversity in the ecosystem in which we live is a protection against its deterioration. This role of diversity in promoting stability is one of the basic principles that has been developed by the science

of ecology. This internal system of checks and balances in our environment is vital to our well-being and as yet we are only beginning to understand it and to grasp the roles played by its different living components. Its intricacy and complexity are such that not even a satisfactory methodology is yet available for studying it. In the interests of those who will come after us, we should preserve all the components of this system, at least until their functions are fully understood.

From an immediate practical point of view, it would seem best to leave open as many options as possible. Admitting that we do not yet know everything, it is obvious that we had better give ourselves time to discover what all plants are good for. The common Madagascar periwinkle (*Catharanthus roseus*) of warm climate gardens has been known for over 200 years, but only in the last ten years have its remarkable array of medicinal properties begun to be appreciated. *Ephedra chinensis* has been an ingredient of Chinese herb medicine for a long time, but only relatively recently has the valuable drug, ephedrine, been found in it. *Dioscorea composita*, now being harvested in great quantities from a limited area in tropical Mexico to produce cortisone, was just another obscure forest creeper until the value of cortisone was discovered. If the area of tropical forest where it occurs had been entirely cleared for agriculture we would never have even known what we had lost.

The principles of modern plant breeding have never been tried out on most of the potential wild food plants. We have no idea what the results might be. If we allow these plant "raw-materials" to disappear before they can even be tested, we may deprive our children of important and essential food and vitamin resources.

What are some of these rare and endangered plants? Where and in what sorts of places do they occur? Are there many or few of them?

A good example is found in my own state of Virginia. It is a small white wild orchid with a delicious fragrance called "marsh ladies-tresses" (*Spiranthes odoratam*). It was known from the marshy fringes of Dyke Swamp, on the Potomac estuary just below Alexandria until the National Park Service made a land trade with a local sand and gravel company, allowing this marsh to be dredged and destroyed. The plant has been found in a few other estuarine marshes along the Atlantic and Gulf coasts, such as in the James River, but has seldom been seen and its current status is doubtful. Its estuarine habitat is becoming more and more restricted, with drainage and filling, flooding for duck management and mosquito control, and pollution.

As with this one, rare species are mostly those adapted to special and restricted habitats such as estuaries, islands, marshes, bogs, desert springs, desert mountain ranges, serpentine outcrops, gypsum deposits, sand barrens, and other sites that require special adaptations or that have been isolated for a long time.

One of the most beautiful, though not especially showy plants I have seen is the Funeral Mountains sage (*Salvia funerea*), known only from a few dry canyons bordering Death Valley. A native snapdragon, *Maurandya gilmani*, too rare even to have an English name, is known from less than a score of plants in one side canyon in these same Death Valley mountains. Shortly after it was discovered a National Park Service engineer had to be, with difficulty, persuaded not to build a road up this canyon right through the one tiny colony of this remarkable species. California, with perhaps the greatest local diversity of all the states, has well over 400 plant species classed as endangered. These are being located and documented by a committee of the California Botanical Society.

Islands characteristically have more than their share of very local plant species, and these are perhaps the most vulnerable of all to changes, both man-induced and natural. A number of these, including the famous island ironwood tree (*Lyonothamnus floribundus*), are found on the California islands. Hawaii, however, is the state that has far and away the most plant species whose status is precarious. The latest reliable estimate of the number of kinds of indigenous plants in Hawaii is about 1750. Of these about 95% are found nowhere else in the world. The great majority of these are either in immediate or longer term danger of disappearance. This is one of the most interesting assemblages of plants in the world, but has suffered grievously at the hands of man. Now only determined and well-directed efforts can save any significant part of it.

We have inherited a wonderful world—beautiful, interesting, and superbly capable of supplying the normal requirements of man. We have reached the point where we must decide whether we are going to keep it this way, or whether we

will modify it beyond the point of no return, to where we will have to adapt to a totally different set of environmental conditions, or ourselves disappear. This bill represents a necessary step toward maintaining the world in the state to which we are accustomed, in which we evolved, and to which we are adapted. The provision of the bill protecting endangered plant species is a new departure in a very desirable direction. It should be strongly supported.

[Reprint from The Bulletin of the Pacific Tropical Botanical Garden, July 1971]

THE CONTINUING CHALLENGE OF ENDANGERED SPECIES

The Pacific Tropical Botanical Garden was one of the sponsors when a group of specialists gathered at the Smithsonian Institution in Washington a year ago for a colloquium on "The Endangered Species of Hawaii—Plant and Animal". Late in December a second program presented by local scientists in conjunction with the Western Society of Naturalists took place at the University of Hawaii. It was chaired by our scientific director and was a more on-the-spot review of specific problems facing endemic plants, birds and insects and specific suggestions on cooperative methods of meeting them. After the Scientific Advisory Committee activities here in April, members of the Hawaiian Botanic Garden Foundation and the Hawaii Botanical Society filled the hall in Honolulu for a joint meeting at which our executive director, Mateo Lettunich, introduced Dr. F. R. Fosberg who delivered the following address.

ENDANGERED ISLAND PLANTS

INTRODUCTION

Concern about endangered species is not a new thing. To those born with a special feeling for nature, the growing scarcity of some of the remarkable creatures that share the earth with us has been one of the haunting tragedies of life. But these people have been few indeed. They have been so few that the whole idea has for a long time seemed hopeless.

Now, suddenly, within two or three years, the term "endangered species" has come to be heard in ordinary conversation, to be seen in newspapers. Like the words "ecology" and "ecosystem", even congressmen use it. Laws have been passed aimed at saving endangered species. And this really without being scared into it, as is the case with sudden interest in "ecology."

What do we mean by endangered species? Quite simply any species, plant or animal, that for any reason at all is likely to disappear from the earth, or from any significant part of its range.

The possible cause may be entirely natural, or more likely, it may be the result of activities of man.

It is too often asked, "What difference does one or two species more or less make? Why worry about them?" I would like to try to answer this, at least briefly.

We will skip the obvious clichés about valuable gene pools, potential medicinal and other economic plants that must be preserved, essential and true as these are. We may also ignore the ethical or philosophical question of the right of other species than man to continue to exist, though man must face this, and soon.

I will emphasize two considerations, both involving the matter of diversity in our environment. One is the matter of the relation between diversity and ecosystem stability. If ecology has arrived at any general principles, one certainly is that there is a direct relationship between diversity and stability of an ecosystem. And much of the essential complexity of any ecosystem rests in the assortment of species that make it up. This applies to the most important ecosystem of all, the world ecosystem in which man lives and plays a dominant role. Stability of this is essential to man's future, and man can scarcely afford to sacrifice any of its diversity that can possibly be saved.

The other consideration is that of aesthetic and intellectual satisfaction. There are people to whom a world without a giraffe, a *Welwitschia*, or a Mariposa Tulip or Lily, would be as satisfactory as one with such marvels. If they are fully developed normal intellects, their failure to appreciate can only be because they have had their sense of wonder dulled, because they have lost their capacity to respond to and enjoy fully the quality of the world they live in. To lose a species, any species, is to lessen the quality of our environment, to impoverish, by that much, the habitat of man. To lose any unique creation, be it natural or the handiwork of man, is a cause for sadness. To lose a product of a million years of evolution is a tragedy.

What is at stake, basically, is the preservation of an environment suitable in all ways, for human beings to *live* in, not merely one where they can continue to exist. This is, in all possibility, the idea toward which the person who is not a trained naturalist is groping when he is concerned about endangered species. This is not usually a reasoned concern, rather it is a matter of intuition. It is a concern for what is ultimately good for man.

This question is really broader than the species which are obviously endangered and on the way out. If the trend toward destruction of habitats continues much longer, nearly all of them will become endangered, some more seriously than others. Saving a species *before* it has almost disappeared is far more satisfactory. Hopefully we will not always wait till our house is on fire.

THE GENERAL PROBLEM

It has recently been pointed out, as though it were a new idea, that extinction is a natural phenomenon. This is obviously true, since it has been going on since long before man existed. What this "discovery" does not do is to excuse man for causing, or even permitting, the extinction of any species, now that he is the dominant organism.

What we have been seeing in the last few thousands of years is *accelerated extinction* — analogous to accelerated erosion. Extinction has been going on as a normal part of and concomitant to the process of evolution, just as erosion has been one of the prime agents of geomorphology. It is man's stepping up these processes that has been a disaster.

This suggests that there may be naturally endangered species, as well as artificially endangered ones. A species, such as *Hibiscadelphus giffardianus*, which was reduced to a few, or even one individual by the encroachment of lava flows, was seriously endangered without the influence of man. *Scaevola kilaueae* is another such example that has not had so much publicity. Volcanism is perhaps the most spectacular, but a change in climate, a new disease, the decline of a host or prey species, even the progress of vegetational or environmental succession, or any of a number of other natural causes may place species in danger without man's help. Man, however, has proven far more destructive of the products of evolution than any natural agent.

Considering how man accomplishes this elimination of his competitors, symbionts, and companion species, it should be noted that his influence may be either direct or indirect. He may directly hunt, cut down, or kill with "pesticides" until a species population has been reduced past the point of no return. Some species of whales may most likely go this way, as did the Great Auk, the Passenger Pigeon, and apparently many victims of the much-discussed "overkill" by primitive man in the post Pleistocene. Some of the showy tropical orchids have been, or are being, lost in this way, though certain of them may survive for awhile in cultivation.

Far more important as causes for decline and extinction of species are the *indirect* effects of many human activities. If *all* of the rich prairie lands, or of the lowland tropical rain forest are placed under cultivation, all of the species of plants and animals that are restricted to these habitats will disappear, as surely as though they were directly hunted as food or trophies or exploited for any other purpose. Any species must have a suitable habitat, or it will disappear. This is equally true of man, himself, of course.

The introduction of dogs on Mauritius brought about the extinction of the Dodo, as did the bringing of rabbits to Laysan account for the loss of the *Pritchardia*, the sandalwood, the rail and other species confined to this small island. Far more species have been eliminated by man's goats, sheep, and cattle and by the exotic weeds, starlings, and diseases that he has carried from place to place, than he has ever directly hunted to extinction.

It follows that protective laws, desirable as they may be, are futile if we fail to preserve an adequate portion of the habitat of the plant or animal being protected. We are not likely to continue to have marsh wrens or swamp orchids if we drain all the marshes and swamps. No matter how rigidly we protect egrets from plume hunters, we will not continue to enjoy them if we persist in loading their food chains with insecticides.

SPECIAL CASE OF ISLANDS

Species that are restricted to islands, of which there are many, are far more vulnerable than are most continental ones. Although all oceanic, and even most

continental islands, except some small, flat coral islands, have "endemics", plants (and animals) found nowhere else than on a particular island or group of islands. This is true at all the lower taxonomic levels. We have insular endemic varieties, species, genera, and even families. The Lactoridaceae, of Juan Fernandez, the Medusagynaceae of the Seychelles, and the Degeneriaceae of Fiji are plant families endemic on oceanic islands. *Argyroxiphium*, the silversword, *Pritchardia*, the fan palm, and *Hillebrandia*, the Hawaiian begonia, are familiar endemic island plant genera.

Some of the reasons for the vulnerability of island species are:

1. The inherent limitation in area of islands. It does not take long for goats or man to completely modify an island of only a few square miles extent.

2. Along with limited areas are the very small population sizes of many insular species. Only one wild individual each of *Clermontia haleakalensis* and *Hibiscadelphus giffardeanus* have ever been found, though more may have been destroyed by cattle or goats.

3. Evolution in the absence of most natural enemies has allowed most island endemics to persist without natural defenses until man came. One only has to remember that in the native Hawaiian flora there are only about three prickly or spiny species, all of which brought their prickles to Hawaii with them when they came. Stinging hairs are absent even on native species of such a nettle genus as *Ureau*, called *mala mujer* (bad woman) or *pringa moza* (prickly girl) elsewhere because of its effective defenses. Known poisonous species are few in the Hawaiian flora.

4. A special case of this is the susceptibility of most species of volcanic island plants to trampling by hooved animals. These species were evolved in the complete absence of large quadrupeds.

5. Many island species have very reduced means of dispersal. Species of genera elsewhere equipped with dispersal mechanisms such as barbed awns (*Bidens*) are awnless or almost so in Hawaii. In birds and insects flightlessness is more common on islands than elsewhere.

6. Adaptive radiation, the evolution of forms specialized for particular habitats, often very restricted and requiring great specialization, is a striking phenomenon on islands. It has been most studied in bird groups such as the Galapageian Darwin Finches and the Hawaiian Honey Creepers, but is very widespread in many island plant groups. These micro-habitats are very easily destroyed and with them their specialized plants and animals.

7. Not much emphasized previously is the fact that the isolating factors that separate island species and favor their differentiation are largely geographic and ecological. This results in the swamping out of species in great hybrid swarms when the isolation is broken down by disturbance or the carrying of plants from one island or separate area to another. In the long run this may accelerate evolution, but the immediate result is the loss of very interesting, locally evolved species and varieties. This is, of course, a natural process that has been stepped-up by man till it is destructive in its short-term effects.

Over the millions of years of the biological history of islands, even with flora (and faunas) derived from small numbers of more or less randomly assorted colonists, functioning biotic communities have evolved. Adaptive radiation has produced forms capable of rather full utilization of the resources of the many habitats found on islands. Where these communities become well-integrated and structurally closed, it is increasingly difficult for new immigrant species to become established. Only in pioneer or early successional plant communities are open habitats available for easy establishment of natural colonists or of exotics brought by man. On active or dormant volcanic islands such areas are naturally prevalent. Where man has been active, disturbance produces abundant open or partially open habitats.

Island ecosystems are characterized by limited floras (and faunas), as well as limited assortments of ecological niches and limited extents of habitats. As pointed out above, stability of ecosystems is related to diversity. This limited diversity in island ecosystems result in relative instability . . . lack of resilience, often called fragility.

Disturbance in such ecosystems, more than elsewhere, results in accelerated invasion by exotics, aided even more by the lack of their natural enemies. This, of course, is merely another aspect of low diversity. This successful invasion by exotics, in habitats of limited extent, results in severe competition for space. Reproduction of the native species is greatly lessened by a dense ground cover

of Molasses Grass (*Melinis*), Kikuyu Grass (*Pennisetum clandestinum*) or seedlings of Koa Haole (*Lecaena*). An example of this is the condition in the Auwahi Forest, a small remnant of the almost vanished Hawaiian dryland forest, very rich in rare tree species. An invasion of Kikuyu Grass has taken place in the last ten years, forming a carpet so dense that the future of the rare native species persisting there is doubtful, indeed. This, in less spectacular form, is one of the great problems in practically all habitats of Hawaiian (and other island) plants. The other intractable problem, of course, is that of increasing demand for the limited land surface for various human uses incompatible with the survival of native plants. Agriculture, grazing, "forestry" and especially "development" are in turn taking up larger and larger areas, squeezing the native flora more and more.

These things are controllable if we want badly enough to control them. We can preserve adequate examples of most natural habitats if it is important enough to us. We can even restore some very reduced or lost ones, if we are willing to work on it. As a last resort, we can postpone the disappearance of some species by bringing them into cultivation in botanic gardens. This is at best a temporary measure, but may tide some rarities over until preserved habitats for them may be assured. Also, this may be the means of bringing new, attractive ornamentals and potential useful plants into general cultivation and give us a chance to understand rare species and their roles in their natural ecosystems.

SOME HAWAIIAN GENERA WITH THREATENED OR EXTINCT SPECIES AND VARIETIES

Marattiaceae.....	Marattia.
Ophioglossaceae.....	Botrychium.
Polypodiaceae.....	Diellia, Schizostegia.
Marsileaceae.....	Marsilea.
Gramineae.....	Panicum.
Palmae.....	Pritchardia.
Flagellariaceae.....	Joinvillea.
Orchidaceae.....	Odontochilus, Habenaria, Liparis.
Urticaceae.....	Hesperocnide, Neraudia, Touchardia, Urera.
Santalaceae.....	Exocarpus, Santalum.
Amaranthaceae.....	Achyranthes, Aerva, Charpentiera, Nototrichium.
Nyctaginaceae.....	Pisonia.
Phytolaccaceae.....	Phytolacca.
Portulacaceae.....	Portulaca.
Caryophyllaceae.....	Sagina, Schiedea, Silene.
Lauraceae.....	Cryptocarya.
Capparidaceae.....	Capparis.
Cruciferae.....	Lepidium.
Pittosporaceae.....	Pittosporum.
Leguminosae.....	Canavalia, Mezoneurum, Sesbania, Vicia, Vigna.
Geraniaceae.....	Geranium.
Rutaceae.....	Pelea, Platydesma, Zanthoxylum.
Euphorbiaceae.....	Antidesma, Drypetes, Euphorbia.
Sapindaceae.....	Alectryon.
Rhamnaceae.....	Alphitonia, Colubrina, Gouania.
Malvaceae.....	Abutilon, Gossypium, Hibiscadelphus, Hibiscus, Kokia.
Sterculia.....	Waltheria.
Violaceae.....	Isodendrion, Viola.
Flacourtiaceae.....	Xylosma.
Cucurbitaceae.....	Sicyos.
Haloragaceae.....	Gunnera.
Araliaceae.....	Reynoldsia, Tetraplasandra.
Umbelliferae.....	Daucus, Peucedanum, Spermelepis.
Primulaceae.....	Lysimachia.
Myrsinaceae.....	Embellia, Myrsine.
Sapotaceae.....	Nesoluma, Pouteria.
Loganiaceae.....	Labordia.
Gentianaceae.....	Centaurium.
Apocynaceae.....	Ochrosia, Pteralyxia, Rauwolfia.
Convolvulaceae.....	Breweria, Cuscuta.

SOME HAWAIIAN GENERA WITH THREATENED OR EXTINCT
SPECIES AND VARIETIES—Continued

Hydrophyllaceae.....	Nama.
Boraginaceae.....	Heliotropium.
Labiatae.....	Haplostachys, Lepechinia, Phyllostegia, Stenogyne.
Solanaceae.....	Nothoecstrum, Solanum.
Gesneriaceae.....	Cyrtandra.
Plantaginaceae.....	Plantago.
Rubiaceae.....	Bobeia, Coprosma, Gouldia, Hedyotis, Morinda, Psychotria.
Campanulaceae.....	Brighamia, Clermontia, Cyanea, Delissea, Lobelia, Rollandia.
Goodeniaceae.....	Scaevola.
Compositae.....	Argyroxiphium, Artemisia, Aster, Bidens, Dubautia, Hesperomannia, Lipochaeta, Remya, Tetramolopium, Wilkesia.

F. R. FOSBERG.

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HAWAIIAN BIRDS 1972

(By Andrew J. Berger)

The only remaining, extensive mamani (*Sophora chrysophylla*) and naio (*Myoporum sandwicense*) ecosystem is found on Mauna Kea on the island of Hawaii. This endemic ecosystem provides the only known habitat for the endangered Palila, and it is the only habitat in which the even rarer Akiapolaau has been seen fairly regularly in recent years.

The mamani-naio forest is part of some 82,000 acres on Mauna Kea that are owned by the State of Hawaii. Of the total acreage, only about 30,000 acres are now forested, however; scattered tropical subalpine and alpine plants are found above the tree line, but the highest part of the mountain consists primarily of barren lava and cinder. Classified as a forest reserve for about 50 years, this land was turned over to the Division of Fish and Game in the early 1950s and was redesignated the Mauna Kea Forest Reserve and Game Management Area. Late in 1971, the Division of Forestry erected a large sign, announcing anew that this was the Mauna Kea Forest Reserve; yet still is a game management area, as well. What actual value has been placed on this unique ecosystem by the Divisions of Forestry and Fish and Game?

1. The Division of Forestry has never conducted any significant research on either mamani or naio. Mamani seeds form a large part of the diet of the Palila.

2. Tree line of this dying forest once extended to about 10,000 feet. It now is found much lower, and continues to recede because of the overpopulation of both sheep and pigs. Except within exclosures, regeneration of mamani is virtually nonexistent because the seedlings are eaten by the sheep and rooted out by the pigs. Hunters in Hawaii have so much political power, however, that on several occasions they have forced the Division of Fish and Game to close or shorten the sheep-hunting season in order to allow the population to increase even more (Kramer, 1968). Consequently, no effort is being made to eradicate the feral sheep or even to reduce the herd to a reasonable size—carrying capacity of the range is a concept not considered in Hawaii. At the same time, great pressures are constantly being exerted to introduce the axis deer to this habitat. The influence of hunters upon these decisions seems remarkable in view of their small number, only 10,134 licensed hunters in Hawaii in 1970, according to a recent report by the Wildlife Management Institute.

3. The Kaohae Game Management Area (contiguous with the Mauna Kea Game Management Area) is open for archery hunting only, even though it contains a great overpopulation of both pigs and sheep. State personnel estimate that a fluctuating population between 500 and 1,000 sheep occupy this fenced area of approximately 6,500 acres. One would have to search far, indeed, to find more stark examples of "browse lines" than on trees in this dying forest. Moreover, more than 150,000 acres are open only to archery hunters on the island of Hawaii.

Richard E. Warner (1960) called attention to some of these problems more than a decade ago.

II. IF YOU HAVE SEEN ONE ENDEMIC TREE, YOU'VE SEEN THEM ALL!

The ohia (*Metrosideros collina* ssp. *polymorpha*) is the dominant tree in most of the Hawaiian rain forests, and tree ferns (*Cibotium* spp.) are the most conspicuous element in the understory. The ohia-tree fern ecosystem is the most important habitat for the majority of the surviving endemic forest birds. Koa (*Acacia koa*), a valuable endemic tree, was important for certain species of honeycreepers in the past, but there are few, if any, virgin koa ecosystems remaining. Sandalwood (*Santalum* spp.) was once a valuable native tree, but the commercial supply became exhausted in the 1830s. The importance to certain endemic birds of the unique mamani-naio ecosystem was mentioned earlier.

How do State and Federal employes view these endemic ecosystems?

A. C. S. Judd, then the Superintendent of Forestry for the Territory of Hawaii, wrote in 1918 that "the destruction of the Hawaiian forest in the past was deplorable, but that it should continue in the present . . . seems inexcusable." He added that the prime value of Hawaiian forests was "in their ability to serve as a protection to watersheds," and, therefore, that foresters should be "chiefly concerned with forest protection." In 1972 he wrote that it was time to conduct research on "some of the ecological problems" in Hawaii. Unfortunately, Mr. Judd's successors did not follow his recommendations.

In 1957 the State Division of Forestry initiated a cooperative agreement with the U.S. Forestry Service to conduct a forest survey and the necessary research aimed at developing a timber industry in Hawaii. Since that time, the Institute of Pacific Islands Forestry, Pacific Southwest Forest and Range Experiment Station, Forest Service, U.S.D.A., in Honolulu has given guidance to the State foresters. The board-foot-oriented Federal foresters repeatedly refer to the endemic Hawaiian ecosystems as "decadent forests" and as consisting of "unproductive forest land," and they have developed an "effective and efficient technique for eliminating cull" ohia trees—by "injecting undiluted herbicides into tree trunks."

More than 46,000 acres have been cleared and planted with exotic trees, most of which do not have even a potential commercial value. More importantly, much of the planting effort has been concentrated on already-forested land. This has caused the utter destruction of near-virgin native forests: for example, along the Kulani Prison road on Hawaii. More than 1,500 acres were "reforested" within so-called forest reserves during fiscal year 1969-1970.

U.S. Forestry personnel in Hawaii finally decided in late 1970 that some research on koa should be considered, and in 1971, they voiced concern about ohia. There can be little doubt but that this belated interest in some of the endemic trees resulted partly because of the constant prodding of conservationists in Hawaii, although another event undoubtedly was important. On May 13, 1970, Norman Carlson, the highly respected manager of the Bernice P. Bishop Estate agricultural and forest lands, addressed a forestry conference on Maui. Carlson recommended that the foresters de-emphasize exotic tree species and concentrate on the endemic koa and ohia. He said: "I know now that I should have studied koa when I first got involved in forest management. It is a native tree, adapted to our soils, and valuable as wood. So is ohia. . . . We had basic data on exotics—growth rates, survival, soil types and tests [on wood properties] by Madison [Wisconsin]. From these we thought we knew the answer to our forest renewal [in Hawaii]. . . . Koa is a beautiful wood, distinctive and native to Hawaii. . . . It has evolved over the years and should be better adapted to Hawaii than any of the exotics. Ohia is another native we have casually dismissed, and someday we will rue this. . . . Now that we are beginning to value koa, we must work toward the problems of koa forest management." He then gave a list of questions about koa for which the State and Federal foresters did not have answers.

Nevertheless, the 1972-1976, 5-year Forest Planting Plan of the State Division of Forestry does not mention koa, ohia, mamani, naio, sandalwood, or tree fern, but calls for the planting of 6,092 acres of public lands with 17 species of exotic trees at a cost of 1.3 millions of dollars. This despite Carlson's recommendations and despite the fact that there is not a viable timber industry in Hawaii, and some scientists believe that there never will be, nor should be.

George B. Harpole stated in his "Opportunities for Marketing Hawaii Timber Products" that "the introduction of plywood production, and the expansion of lumber production in Hawaii are presently technically and logistically feasible. Fiberboard or particleboard production could also be started. Mill residues may not provide a sufficient supply of wood chips, but additional volumes of raw materials could be developed from noncommercial stands of Hawaii's present timber supply, and from the State's other agricultural resources."

Harpole included maps of eight of the Hawaiian Islands to show the "major forest types in Hawaii." *The areas classified as suitable for commercial forestry include virtually all of the remaining ohia-koa-tree fern forests on the windward slopes of both Mauna Kea and Mauna Loa and on the Kona slope of Mauna Loa.* This view of the native ecosystems' presumably is justified because "native forests in Hawaii are essentially static in terms of annual increases. In the unmanaged native forests, trees must fall from the damage of termites or rot, be blown over, or be harvested before new growth can appear."

Harpole's study was published in 1970 as U.S.D.A. Forest Service Research Paper PSW-61. This is an excellent example of the kind of "leadership" given by Federal foresters in Hawaii, and it demonstrates why conservationists have such a difficult time in their efforts to preserve what little remains of the endemic ecosystems.

Despite Harpole's statement about plywood production, "a plywood plant with a 5 million square foot capacity sits idle on the Big Island. Locally-produced craftwood is less and less able to compete with imports. More Christmas trees may soon be produced in Hawaii than can be sold. [In fact, this happened in December 1971, when high-priced locally grown trees did not sell well.] We must determine the standards which Hawaii's products must meet to compete in the marketplace, locally or as exports to Pacific Basin outlets. And the market potential of several timber species now being planted should be evaluated before they reach merchantable size" ("Forest Conservation Research Plan for the Seventies," Department of Land and Natural Resources, Honolulu, 1971).

According to the "Honolulu Advertiser" of 2 April 1971, Senator Hiram L. Fong reported that he and R. Keith Arnold, deputy chief of research of the U.S. Forest Service, would request the U.S. Congress to allocate \$250,000 to Hawaii in order to start a southern pine timber industry. Congress was sympathetic, and actually allocated \$414,000 to State and Federal foresters in Hawaii. To be sure, not all of these monies will be used for planting pine trees, nor, we have been assured locally, for destroying native ecosystems.

One of the "nice" things about Federal funds is that they are "free" to the states! It seems a little late in history, however, for one branch of the Federal Government to provide monies to destroy native ecosystems while at the same time another branch is providing funds for the acquisition of lands to preserve flora and fauna and to conduct research on rare and endangered species. Two Federal biologists of the rare and endangered species program are assigned to full-time study in Hawaii.

B. The Division of Forestry is not making any concerted effort to eradicate any of several introduced plant weed-species, some of which present a real threat to near-virgin forest areas, including the Alakai Swamp region of Kauai, which is the habitat for more endemic forest birds than can be found on any other island.

To be sure, the Division finally has become concerned about the serious infestation of banana poka (*Passiflora mixta*) on the Hamakua Coast of Hawaii. The Division's present solutions, however, appear to be either to cut down the forest or to open it to cattle grazing!

C. Conservationists in Hawaii were elated when the Governor finally appointed the Commissioners for a newly created Natural Area Reserve System. During its first year, however, the State Division of Forestry effectively blocked all significant action by the Commission.

D. During 1969 and 1970, the Division of Fish and Game bulldozed (or, as they say, "selectively treated") some 400 acres of prime mamani-naio forest in order to "open it up" in the hopes that it would serve as better habitat for exotic pheasants. Further "habitat improvement" is planned for the future.

E. The State Department of Land and Natural Resources has established a very high standard for coining euphemisms. The Department announced in 1971 that it had "approved the experimental harvesting of ohia and koa trees on 500 acres zoned for conservation at Laupahoehoe on the Big Island." When translated, this means that the Department agreed to let a private individual destroy 500 acres of the Laupahoehoe Forest Reserve in order to get more wood to make bowls and other souvenirs for tourists! Actually, it was time by 1971 to approve this "experimental harvest": the wood-carving company began bulldozing the road through the forest reserve to the harvest area in 1969!

The Laupahoehoe Forest Reserve consists of some of the finest near-virgin ohia-koa-tree fern forests on the island of Hawaii, and there are very few such

forests remaining in Hawaii. Such continuing rape and destruction of the little that remains of Hawaii's unique ecosystems demonstrate clearly the true value placed on those ecosystems by State and Federal personnel who manage the Hawaiian biota.

F. During 1971, the Bernice P. Bishop Estate applied for permission to harvest tree ferns from 3,000 acres of the Kilauea Forest Reserve, which is not only a conservation district but also is equal to the Laupahoehoe Forest Reserve as a remnant of this rain forest ecosystem. The tree fern logs, or hapuu, are harvested by bulldozers, which completely destroy the understory and, eventually, the forest. Nursery owners need hapuu logs as the substrate for growing orchids and other flowers! Perhaps some day, the Division of Forestry will investigate the feasibility of growing tree ferns in nurseries, rather than destroying endemic ecosystems to obtain the ferns.

(The following information was referred to on p. 147.)

FALLS CHURCH, VA.,
August 22, 1972.

HON. WILLIAM B. SPONG, JR.,
U.S. Senate,
Washington, D.C.

DEAR SENATOR SPONG: Thank you for your kind letter of August 8. I am happy to provide the following answers to your questions. I would emphasize again, as I stated in my testimony to the Commerce Committee, that these thoughts are offered in my capacity as a botanist and that I am not speaking for the Smithsonian Institution as a whole.

1. So far as I know there is really no national effort to establish a list of endangered plants, though I have just been informed that the National Parks and Conservation Association has some plans in this direction. Certainly this has not yet got under way and I doubt very much if it is within their capability.

Internationally, the International Union for the Conservation of Nature has a project of this sort for the World. At their present rate I would estimate it will take about 200 years. What they have accomplished, however, is very informative, but only on a very few plant species.

I have been, for a number of years, working with an international committee of the Pacific Science Association to compile such a list for the Pacific Basin, but volunteer committees work very slowly and we have no more than made a good dent in the task. Some Pacific Coast U.S. plants are listed. I will continue this, but it is essentially a one-man enterprise and I have a full-time job that allows very little attention to endangered species work.

Locally, in California the California Botanical Society has an excellent project to list and document the endangered species in California. This seems dormant now, because the man who was doing the work lost his job in one of Governor Reagan's economy moves, and has had to devote his time to looking for a new job. I am not sure of the current status of the project.

There have been various inquiries from people interested in having such a list, but mostly they wanted me to provide them with a list.

2. I do not think the Department of Agriculture is the best agency to administer an endangered plant program. Their testimony at the hearing amply demonstrated this. They seemed, both in their testimony and in conversation, to be totally unable to think except in terms of wild relatives of food plants, which, of course, is their mission. That is only a small part of the endangered species problem, and not the part of most concern within the U.S., as most of our food plants are of Old World or Latin American origin and affinities.

3. In general, the provisions in S. 3818 would accomplish the purely protective functions, though they should be modified somewhat so as not to unnecessarily impede scientific work (museums and herbaria are constantly sending specimens back and forth, and this should not be prevented, nor should legitimate scientific collecting and field study). The thing I would most suggest is greater emphasis on the protection of areas of the habitats where rare or threatened plants grow. This is the only basically sound approach. The method of prohibiting shipment of material, living or preserved, is only a "brush-fire" approach, suitable for large animals, birds, etc., but really not useful in plants, except for orchids and similar spectacular plants that are subjects of an actual commerce. Most plants are threatened because of destruction or restriction of their habitats.

I do hope that a bill, such as S. 3818, that specifically includes plants, can be reported to the floor this session, though it is getting very late. I thank you very much for the opportunity to express my ideas on this subject in a place where they may do some good.

Very respectfully,

F. R. FOSBERG.

(Recess.)

Senator STEVENS. Gentlemen, could I start again, for the chairman? Is Dr. Ralph MacMullan here?

Dr. MACMULLAN. Yes, sir.

Senator STEVENS. I know, Dr. MacMullan, that Senators Hart and Griffin are sorry they cannot be here. As you can tell, there are conflicting things going on.

We appreciate your being here.

You are president of the International Association of Game, Fish, and Conservation Commissioners. We will be happy to have your statement.

STATEMENT OF DR. RALPH MACMULLAN, PRESIDENT, INTERNATIONAL ASSOCIATION OF GAME, FISH & CONSERVATION COMMISSIONERS; ACCOMPANIED BY RUSSELL NEUGEBAUER

Dr. MACMULLAN. I would like to introduce Russell Neugebauer, who is 4 months old with our organization. Our organization is about 75 years old. He brings about 30 years of expertise to the job.

Senator STEVENS. Could you spell the name?

Mr. MACMULLAN. N-e-u-g-e-b-a-u-e-r.

I appreciate this opportunity to testify in connection with S. 3199 and S. 3818 on behalf of the international association which numbers among its government members, the wildlife agencies of all 50 States, the Commonwealth of Puerto Rico, and five Canadian provinces.

It is the association's purpose to coordinate efforts of public agencies responsible for protection and management of the wildlife of North America.

The association has, for several years, been deeply concerned with the problems of saving our native fauna from extinction. In 1964, Les Voight, of Wisconsin, then president of the association, appointed a committee on rare and endangered species which has since been active.

The association has vigorously supported Federal legislation in 1966 and 1969 relating to national programs on endangered species, and importation and interstate transportation of species taken in violation of State law.

Of the 47 mammals, birds, and fishes known to have disappeared during the 250-year period from 1700 to 1950, 25 or approximately one-half have been lost during the last 50 years.

There is little doubt that aside from inevitable extinction of animals genetically unable to adapt to a changing world, by far, the gravest danger to such species is from man's abuse of the environment and resultant habitat losses. Although habitat preservation or acquisition is not the panacea for declining wildlife, it is a major influencing factor.

Loss of critical habitat areas through the encroachments of modern civilization continues to cause the decline of too many species.

Mr. Chairman, two basic requirements in restoring endangered species are the preservation or restoration of essential habitat and protection afforded by effective law enforcement. We do not have confidence in a program for native endangered species which merely provides protection in the narrow sense. Protection must be accompanied by research, continuing inventories to determine condition of particular species, and habitat acquisition and development.

My comments will be directed to S. 3818 which we look upon as a progression from the administration proposal, S. 3199. We support the expansion of the concept of endangerment to include a species or subspecies which will likely, within the foreseeable future, become threatened with extinction throughout all or a significant portion of its range, as set forth in section 4 (a).

As the drafters recognize, the Secretary must have authority to act before a species is at the brink of extinction.

The problems of mounting an effective program for protection and management of endangered species are immense. Protection by legislative fiat, is, of course, ineffectual because protection alone is not enough and because other legislative fiats exist which are and will be in conflict.

For example, despite protests by the State of Alaska, the Cannikin hydrogen bomb test, last November, resulted in the killing of as many as 1,000 sea otters on Amchitka Island, according to Alaska sea otter biologists.

While the sea otter is not considered an endangered species in Alaska, this incident points up the need to require other Federal agencies to exercise their programs so as to further the protection of endangered species.

In order to fulfill the basic requirements for habitat preservation or restoration and protection afforded by effective law enforcement, maximum cooperation is necessary between the Federal Government and the wildlife agencies of the several States.

State wildlife agencies possess a pool of trained wildlife specialists and employ over 5,800 enforcement officers nationwide. In any Federal program, relating to endangered species, the traditional role of the several States relating to primary authority over fish and resident wildlife found within State borders should be recognized. Additionally, the State pool of wildlife specialists and enforcement officers should be tapped.

At present, formal endangered species' programs are being implemented in 30 States. By formal programs, we include those involving designation of endangered species, inventories to determine status, habitat acquisition, and development, and positive management programs.

In many of the remaining States, proposals are pending in State legislatures which will provide authority for formal endangered species programs. All States, of course, take steps to protect fish and wildlife species deemed to be in jeopardy by providing protection through closed seasons.

States have been concerned with endangered species long before the phrase was coined. With respect to endangered species, however, the problem of the State wildlife agency has not been a lack of authority,

but rather a lack of funds. Typically, funds available to State wildlife agencies are derived from sale of hunting, fishing, and trapping licenses, and from Federal excise taxes on certain sporting equipment.

These funds have not been adequate to enable the States to finance necessary research and management programs on nongame wildlife and endangered species. It is now recognized that funding must come from sources in addition to those available at present.

In this connection, the International Association of Game, Fish, and Conservation Commissioners, in conjunction with the Wildlife Society, has prepared a model law for States in the area of nongame wildlife and endangered species. This model law would provide for financial assistance from State general funds to supplement revenues derived from existing sources.

I have attached to my testimony a copy of the model law for the subcommittee's consideration.

We believe that many States will favorably consider such legislation in the near future.

Because of the national interest in the subject of endangered species, we believe that Federal assistance is also desirable.

In this connection we support the provisions of section 6(f) which calls upon the Secretary to investigate the functions and responsibilities which the States should have with respect to management and protection of endangered species as well as the extent to which the Federal Government should assist the States in implementing endangered species' programs.

On behalf of the association, I wish to state that we would be willing to assist the Secretary in undertaking the study called for in section 6(f). Cooperation can result so long as Federal authority is exercised to complement and assist, rather than preempt State programs.

We are proud of the programs which State wildlife agencies have undertaken within the limits of available funding.

A substantial weakness of S. 3199 and S. 3818 is the divided responsibility between the Departments of Interior and Commerce. We believe that the Department of the Interior, with its long background and experience in fish and wildlife matters, should be the Federal agency to carry forward with this program.

Since it would appear that the President's proposal for a Department of Natural Resources is making little progress, it seems undesirable to continue to enact programs such as this with bifurcated authority within two Federal agencies on the assumption that the bifurcation is a temporary matter which will soon be composed by approval of a Department of Natural Resources.

In summary, Mr. Chairman, the State wildlife agencies have traditionally managed fish and resident wildlife found within State boundaries. State wildlife agencies must look for additional funding for expanding nongame wildlife programs and Federal assistance would be desirable to supplement existing sources.

State agencies possess a pool of trained wildlife specialists as well as extensive law enforcement personnel. We believe that the traditional role of the States should be recognized and that this pool of talent should be brought into a cooperative endeavor with the Federal Government to provide improved programs for endangered species.

In this endeavor, we are ready to assist.

Mr. Chairman, S. 249 attempts to accomplish a purpose similar to S. 3818, but we oppose it because S. 249 is preemptive of State authority and S. 3818 is much more efficient legislation.

In conclusion, Mr. Chairman, despite the few suggestions I have made for bettering this bill, I want to reaffirm that we think it is a good bill as it now stands. We are particularly pleased to say that, in the course of testimony on this, and similar bills in the House, the concerns of the International have been heard and have been almost completely recognized.

We do believe responsibilities should be assigned to one department, and that is the Department of Interior.

Mr. Chairman, that concludes my testimony this morning. There are two other things that have come to my attention this morning that I would like to mention in the record, and perhaps someone else may comment on them.

I have not had time to study it out, but in Senate bill 3818, on page 25, section 11(a), there is some language which was put in, I understand, to reassure the States that this act would in no way, be construed to authorize Federal control or regulation of hunting and fishing beyond the recognized division between the State and Federal Governments.

I look at the language and do not understand it, and would like to have the reservation that we have a chance to study and perhaps comment in a written manner.

Senator SPONG. We would welcome your comment. I might say to you that I introduced this bill because it encompassed House actions, and I merely thought it should be before this committee at the time of these hearings. It is not an effort of authorship on my part. It is merely so that the committee would have before it the benefit of everything that has been suggested, and we very much welcome any comments you have on that section or any other.

(The article follows:)

[From the Congressional Record, July 20, 1972]

Mr. SPONG. Mr. President, on August 4 the Commerce Subcommittee on the Environment plans to hold hearings on endangered species legislation. In order that the subcommittee may have before it a range of proposals, I introduce today a bill containing the ideas of several persons who have given serious thought to how best to protect endangered animals and plants. I do not at this time take a position on this bill. My purpose is to see that the ideas it contains are considered by the subcommittee.

The problem of preserving those species which are presently threatened with extinction—some 400 animals and an intold number of plants—is one which is of great concern to me the loss of a species is an irreparable loss to us and to all future generations. Present laws have proven to be inadequate. This year we have a chance to improve them. Time is growing short for some species, and prompt action by the Congress is necessary.

Dr. MACMULLAN. We are delighted, and we appreciate the consideration you have shown us. There is one other item on page 10 of S. 3818. That is section 6-E. This is another problem which continually arises and I think needs another look at, perhaps. I think that most of us in this room would want to allow the States to restrict further than a Federal bill might go, and specifically as to retail sales within a State. Yet I understand there are a lot of thorns you can get into

by getting involved with interstate commerce, which we would certainly want to avoid, but this language should be looked at from that standpoint.

States should be allowed to prohibit sales as they deem proper regardless of interstate commerce regulations.

Thank you very much, Mr. Chairman.

Senator SPONG. Based on your past experience, do you foresee any problems in establishing cooperation between State and Federal wildlife agencies?

Dr. MACMULLAN. No, sir, as long as we get the bills written right. We have had extremely good cooperation. I think this has been a problem in the past, and I think it has been very well taken care of recently. I see no troubles.

Senator SPONG. You mention Federal assistance for expanded wildlife programs. Would you envision direct payments to the States by methods similar to that in the proposed predator control bill?

Dr. MACMULLAN. Yes, that would be one way. I think in general principle, any program is best when it becomes a matching program with the usual accoutrements of a sort of performance bond; the States have to perform to certain standards if they are to be reimbursed.

Senator SPONG. Is it your understanding of S. 3818 that the Secretary could withdraw approval from the States if he found they were not living up to expectations?

Dr. MACMULLAN. I would say, no, this is not provided, and I would have to say that this becomes a sensitive problem, but the responsibility for management of resident species has to remain with the State. In the hypothetical situation where a State was not properly managing a resident species, even though there might be an impulse for the Federal Government to step in, I think that I would have to object, I certainly would have to object to that on the basis that it would be a matter for the State to handle, and I think that we can guarantee with almost 100 percent certainty that we can police ourselves so this would never happen.

But we see a very real danger here in getting off this very delicate but quite accurate balance we are on now, where the State and the Federal Government each plays its proper role.

Senator SPONG. Of course, I would like for you to look at S. 3818, if you will—you don't have to do it here this morning—and see if you think that under the bill the Secretary could withdraw permission, because I believe it was Mr. Reed's opinion that he could when he testified earlier.

If you care to comment further than your answer this morning, we would be glad to hear from you.

Dr. MACMULLAN. We will be glad to go over it. We thought we had checked for this, but I will look at it again.

Senator SPONG. All right. I was not aware that so many States were planning endangered species programs. If all these programs were to come into being in the next few years, do you think Federal legislation in this area would be necessary?

Dr. MACMULLAN. I am tempted to say that I think if we did everything the way we thought we ought to, the answer would be "No," but

I am enough of a realist to think we still need some Federal control on this. I think, though the principle that we have developed over recent years to a pretty good point, where the Federal Government is responsible, even where the State government is responsible for a lesser government, to set standards, and from then on, the States have to live up to the standards.

If they don't, they should be severely penalized so that they do. But nonetheless, I think it is an essential part of our form of government that the States have the responsibility for managing the resident species, and I am not talking about migratory species.

The States should have this responsibility, because as I mentioned before, they are the ones that really have the capability for enforcement and management. The Federal Government does not insure that they can handle it. We have two Federal enforcement people in Michigan.

They serve a very worthwhile function, but it has to be our enforcement people that are in the grassroots and seeing to it that the program is maintained.

Senator SPONG. Thank you very much.

Senator STEVENS?

Senator STEVENS. Could you give us the figures? You say you have two Federal enforcement people. How many State enforcement people do you have?

Dr. MACMULLAN. At the present time, 200 full-time conservation officers, and 200 other people who work on a part-time basis. We have 83 counties. We have an average of something over two full-time conservation officers per county, plus a number of other peace officers to enforce our laws.

We enforce the Federal laws with respect to migratory birds, ducks, and so on. We are the enforcement agency. This is no disparagement on the Federal forces. We have had cooperation. They are responsible for the education and the overall quality of our enforcement. We perform the legwork, and this is true across the nation.

Senator STEVENS. But if the Federal Government assumes the right to manage a particular species on the finding that the species is likely to become endangered, do you think your State legislature is going to appropriate the money for you to enforce the Federal law when they have taken away the management from you?

Dr. MACMULLAN. No, they would not feel like doing it, but from a practical standpoint they probably would, because our people are out there, and we enforce all Federal laws under our purview. I wouldn't say this would stop our enforcement of it. But still it is our responsibility, and I would have to say that we would still probably enforce the law, because if the Federal Government said the species were endangered, I am sure we would respect it.

Senator STEVENS. I am referring to the funding problem. What I am worried about is that I don't think the Federal Government is prepared to assume the financial responsibilities involved in a Federal determination that a particular species is endangered. I think that there ought to be, along with that, some commitment of funds to the States to enforce that finding.

Dr. MACMULLAN. Yes; I understand. Yes; I agree with that. The International Association has gone on record on this matter. We think that Federal funding would be good, but in no way are we saying that we won't do it until we get the Federal funding.

Senator STEVENS. The funding has not been from general revenues, as witnessed by the return of monies from sportsmen in your State finances. It has been from specific revenues within Michigan, or Alaska, or Virginia.

If we are to do this, I think it involves a commitment of Federal funding for the States to enforce this type of law. Would you agree with that?

Dr. MACMULLAN. Yes, sir; very much.

Senator STEVENS. Thank you very much. That is a model law for States that you have attached to your statement?

Dr. MACMULLAN. Yes. This is worked out in conjunction with the Wildlife Society and the International Association of Game, Fish & Conservation Commissioners.

It has been very well received and I think it is professionally about as good as could be done, and we are pushing it very hard.

It is very new, so that we can't point to a lot of states that have taken it up already.

Senator STEVENS. I will put it into the record so that it will come to the attention of a lot more State legislators. Thank you.

(The information follows:)

INTERNATIONAL ASSOCIATION OF GAME, FISH &
CONSERVATION COMMISSIONERS,
Washington, D.C.

This is in response to your request concerning Model State Legislation Relating to Funding and Authorization for Improved Nongame and Endangered Species Programs. A copy of the Model Law is enclosed.

The International Association believes that all State Wildlife or Natural Resource Agencies should develop an active program of concern, and include in its fish and wildlife management projects those measures which will enhance and protect habitat for non-game wildlife. Funding for this part of any project should come from State General Funds or special funds, not Hunting and Fishing License Fees.

The Model Law has been endorsed by the Executive Committee of the International Association of Game, Fish & Conservation Commissioners and by the Council of Wildlife Society.

Sincerely,

RUSS J. NEUGEBAUER,
Executive Vice President.

Enclosure

MODEL STATE LEGISLATION RELATING TO FUNDING AND AUTHORIZATION FOR
IMPROVED NONGAME AND ENDANGERED SPECIES PROGRAMS

Recent years have witnessed growing public awareness of the need to conserve natural resources including wildlife. Wildlife is the common property of all, title to which is held by the State in trust for the benefit of all its people. Traditionally, wildlife management programs conducted by State agencies have been supported primarily by revenues derived from license holders—the hunter, fisherman and trapper. However, of hundreds of species of wild birds in a given State only a relative handful are classified as game birds and most wild mammals are also classified as nongame species. The same is true of reptiles, amphibia and fish. Due to lack of funds, many states are unable to provide adequate management programs for nongame wildlife. Yet nongame wildlife is valuable for human enjoyment, for scientific purposes, and as members of ecosystems, and its continued survival must be assured.

Programs involving nongame wildlife conducted by State agencies have to date been made possible largely by revenues derived from license sales and excise taxes on hunting and fishing equipment. The fact is that these funds are not adequate to finance necessary nongame research and management. Moreover, it is increasingly necessary for State wildlife agencies to determine impact of proposed federal and state construction programs on fish and wildlife resources, relating the effects of manipulation of a given environment to all wildlife. To accomplish such appraisals on a sounder basis, additional funding is urgently needed to attain greater biological knowledge of nongame wildlife and all components of the biotic community.

In addition, the States must assume greater responsibility for preserving and protecting species of fish and wildlife which may be endangered since the fate of many such species rests ultimately with the States. Some peripheral species may be endangered in one State and abundant in an adjacent State.

The suggested act which follows is designed to accomplish the following purposes: (1) authorization of programs to develop greater information on nongame wildlife and to provide for management of nongame wildlife; (2) identification and management of species and subspecies of fish and wildlife indigenous to a State which are threatened with extinction within the State; and (3) authorization of general fund money for nongame and endangered species programs.

The model legislation which follows has been endorsed by the Executive Committee of the International Association of Game, Fish and Conservation Commissioners and the Council of the Wildlife Society.

SUGGESTED LEGISLATION

Title should conform to individual State requirements. The following is suggested: An act to amend the Fish and Game Code to provide for the conservation, management, enhancement and protection of nongame fish and wildlife and species threatened with extinction, and to provide enforcement authority and penalties for violations of this chapter.

Section 1. *Short Title.* This chapter shall be known and may be cited as "The Nongame and Endangered Species Conservation Act."

Section 2. *Definitions.* For the purposes of this chapter, the term—

(a) "Department" means the primary agency within the State that has statutory authority to manage wildlife populations;

(b) "Director/Commission" means the Director [the Commission] of the state agency that has statutory authority to manage wildlife populations;

(c) "Ecosystem" means a system of living organisms and their environment, each influencing the existence of the other and both necessary for the maintenance of life;

(d) "Endangered species" means any species or subspecies of wildlife whose prospects of survival or recruitment within the State are in jeopardy or are likely within the foreseeable future to become so due to any of the following factors:

(1) the destruction, drastic modification, or severe curtailment of its habitat, or (2) its overutilization for scientific, commercial or sporting purposes, or (3) the effect on it of disease, pollution, or predation, or (4) other natural or man-made factors affecting its prospects of survival or recruitment within the State, or (5) any combination of the foregoing factors. The term shall also be deemed to include any species or subspecies of fish and wildlife appearing on the United States' List of Endangered Native Fish and Wildlife as it appears on the effective date of this Chapter (Part 17 of Title 50 of the Code of Federal Regulations, Appendix D) as well as any species or subspecies of fish and wildlife appearing on the United States' List of Endangered Foreign Fish and Wildlife (Part 17 of Title 50 of the Code of Federal Regulations, Appendix A), as such List may be modified hereafter;

(e) "management" means the collection and application of biological information for the purposes of increasing the number of individuals within species and populations of wildlife up to the optimum carrying capacity of their habitat and maintaining such levels. The term includes the entire range of activities that constitute a modern scientific resource program including, but not limited to, research, census, law enforcement, habitat acquisition and improvement, and education. Also included within the term, when and where appropriate, is

the periodic or total protection of species or populations as well as regulated taking;

(f) "nongame species" means any wild mammal, bird, amphibian, reptile, fish, mollusk, crustacean or other wild animal not otherwise legally classified by statute or regulation of this State;

(g) "optimum carrying capacity" means that point at which a given habitat can support healthy populations of wildlife species, having regard to the total ecosystem, without diminishing the ability of the habitat to continue that function;

(h) "Person" means any individual, firm, corporation, association or partnership;

(i) "take" means to harass, hunt, capture, or kill or attempt to harass, hunt, capture, or kill, wildlife;

(j) "wildlife" means any wild mammal, bird, reptile, amphibian, fish, mollusk, crustacean or other wild animal or any part, product, egg or offspring or the dead body or parts thereof.

Section 3. *Findings and Declarations.* The Legislature finds and declares all of the following:

(a) That it is the policy of this State to manage certain nongame wildlife for human enjoyment, for scientific purposes, and to insure their perpetuation as members of ecosystems;

(b) That species or subspecies of wildlife indigenous to this State which may be found to be endangered within the State should be accorded protection in order to maintain and to the extent possible enhance their numbers;

(c) That the State should assist in the protection of species or subspecies of wildlife which are deemed to be endangered elsewhere by prohibiting the taking, possession, transportation, exportation, processing, sale or offer for sale or shipment within this State of species or subspecies of wildlife listed on the United States' Lists of Endangered Fish and Wildlife as set forth herein unless such actions will assist in preserving or propagating the species or subspecies; and

(d) That adequate funding be made available to the Department annually by appropriations from the General Fund or from other sources separate and apart from the Game and Fish Fund for management of nongame and endangered species.

Section 4. *Nongame Species.* (a) The Director/Commission shall conduct investigations on nongame wildlife in order to develop information relating to population, distribution, habitat needs, limiting factors, and other biological and ecological data to determine management measures necessary for their continued ability to sustain themselves successfully. On the basis of such determinations the Director/Commission shall issue proposed regulations not later than one year from the effective date of this chapter and develop management programs, designed to insure the continued ability of nongame wildlife to perpetuate themselves successfully. Such proposed regulations shall set forth species or subspecies of nongame wildlife which the Director/Commission deems in need of management pursuant to this section, giving their common and scientific names by species and subspecies. The Director/Commission shall conduct ongoing investigations of nongame wildlife and may from time to time amend such regulations by adding or deleting therefrom species or subspecies of nongame wildlife.

(b) The Director/Commission shall by such regulations establish proposed limitations relating to taking, possession, transportation, exportation, processing, sale or offer for sale, or shipment as may be deemed necessary to manage such nongame wildlife. Such regulation shall become effective sixty days after being proposed during which period public comment shall be solicited and received. The Director/Commission may hold a public hearing if deemed appropriate. On the basis of public comments received or the testimony at any such hearing the Director/Commission may make such changes in the proposed regulation as are consistent with effective management of nongame wildlife.

(c) Except as provided in regulations issued by the Director/Commission, it shall be unlawful for any person to take, possess, transport, export, possess, sell or offer for sale or ship nongame wildlife deemed by the Director/Commission to be in need of management pursuant to this section. Subject to the same exception, it shall further be unlawful for any common or contract carrier knowingly to transport or receive for shipment nongame wildlife deemed by the Director/Commission to be in need of management pursuant to this section.

Section 5. *Endangered Species.* (a) On the basis of investigations on nongame wildlife provided for in section 4 and other available scientific and commercial data, and after consultation with other State wildlife agencies, appropriate federal agencies, and other interested persons and organizations, but not later than one year after the effective date of this chapter, the Director/Commission shall by regulation propose a list of those species and subspecies of wildlife indigenous to the State which are determined to be endangered within this State, giving their common and scientific names by species and subspecies. Such regulation shall become effective sixty days after being proposed during which period public comment shall be solicited and received. The Director/Commission may hold a public hearing if deemed appropriate. On the basis of public comments received or the testimony at any such hearing, the Director/Commission may add to such proposed list additional species or subspecies which are determined to be endangered within the State or delete therefrom such species or subspecies which are determined not to be endangered within the State.

(b) The Director/Commission shall conduct a review of the State list of endangered species within not more than two years from its effective date and every two years thereafter and may amend the list by such additions or deletions as are deemed appropriate. The Director/Commission shall submit to the Governor a summary report of the data used in support of all amendments to the State list during the preceding biennium.

(c) Excepted as otherwise provided in this chapter, it shall be unlawful for any person to take, possess, transport, export, process, sell or offer for sale or ship, and for any common or contract carrier knowingly to transport or receive for shipment any species or subspecies of wildlife appearing on any of the following lists: (1) the list of wildlife indigenous to the State determined to be endangered within the State pursuant to subsection (a); (2) the United States' List of Endangered Native Fish and Wildlife as it appears on the effective date of this chapter (Part 17 of Title 50, Code of Federal Regulations, Appendix D); and (3) the United States' List of Endangered Foreign Fish and Wildlife (Part 17 of Title 50, Code of Federal Regulations, Appendix A), as such list may be modified hereafter; *Provided, that* any species or subspecies of wildlife appearing on any of the foregoing lists which enters the State from another State or from a point outside the territorial limits of the United States and which is transported across the State destined for a point beyond the State may be so entered and transported without restriction in accordance with the terms of any federal permit or permit issued under the laws or regulations of another State.

(d) In the event the United States' List of Endangered Native Fish and Wildlife is modified subsequent to the effective date of this chapter by additions or deletions, such modifications whether or not involving species or subspecies indigenous to the State may be accepted as binding under subsection (c) if, after the type of scientific determination described in subsection (a), the Director/Commission by regulation accepts such modification for the State. Any such regulation shall be effective upon promulgation.

Section 6. *Management Programs.* (a) The Director/Commission shall establish such programs, including acquisition of land or aquatic habitat, as are deemed necessary for management of nongame and endangered wildlife. The Director/Commission shall utilize all authority vested in the Department to carry out the purpose of this section.

(b) In carrying out programs authorized by this section, the Director/Commission may enter into agreements with federal agencies, political subdivisions of the State, or with private persons for administration and management of any area established under this section or utilized for management of nongame or endangered wildlife.

(c) The Governor shall review other programs administered by him and, to the extent practicable, utilize such programs in furtherance of the purposes of this section. The Governor shall also encourage other state and federal agencies to utilize their authorities in furtherance of the purposes of this section.

(d) The Director/Commission may permit, under such terms and conditions as may be prescribed by regulation, the taking, possession, transportation, exportation or shipment of species or subspecies of wildlife which appear on the State list of endangered species, on the United States' List of Endangered Native Fish and Wildlife, as amended and accepted in accordance with subsection (d) of section 5, or on the United States' List of Endangered Foreign Fish and Wildlife, as such list may be modified hereafter, for scientific, zoological, or educational purposes, for propagation in captivity of such wildlife, or for other special purposes.

(e) Upon good cause shown, and where necessary to alleviate damage to property or to protect human health, endangered species may be removed, captured or destroyed but only pursuant to permit issued by the Director/Commission and, where possible, by or under the supervision of an agent of the Department; *Provided, that* endangered species may be removed, captured or destroyed without permit by any person in emergency situations involving an immediate threat to human life. Provisions for removal, capture or destruction of nongame wildlife for the purposes set forth above shall be set forth in regulations issued by the Director/Commission pursuant to subsection (a) of section 4.

Section 7. *Regulations.* The Director/Commission shall issue such regulations as are necessary to carry out the purposes of this chapter.

Section 8. *Enforcement.* (a) Any person who violates the provisions of subsection (c) of section 4, or any regulations issued under section 4 or whoever fails to procure or violates the terms of any permit issued thereunder shall be fined not more than \$500 or be imprisoned not more than six months, or both.

(b) Any person who violates the provisions of subsection (c) of section 5, or any regulations issued pursuant thereto or whoever fails to procure or violates the terms of any permit issued under subsections (d) and (e) of section 6 shall be fined \$1,000 or be imprisoned not more than one year, or both.

(c) Any officer employed and authorized by the Director/Commission or any police officer of the State or of any municipality or county within the State shall have authority to conduct warrantless searches as provided by law, and to execute a warrant to search for and seize any equipment, business records, merchandise or wildlife taken, used, or possessed in connection with a violation of any section of this chapter. Any such officer or agent may, without warrant, arrest any person who such officer or agent has probable cause to believe is violating, in his presence or view, any such section, or any regulation or permit provided for by this chapter. An officer or agent who has made an arrest of a person in connection with any such violation may search such person or business records at the time of arrest and seize any wildlife, records, or property taken, or used in connection with any such violation.

(d) Equipment, merchandise, wildlife, or records seized under the provisions of subsection (c) of this section shall be held by an officer or agent of the Department pending disposition of court proceedings, and thereafter be forfeited to the State for destruction or disposition as the Director/Commission may deem appropriate; *Provided that*, prior to forfeiture, the Director/Commission may direct the transfer of wildlife so seized to a qualified zoological, education, or scientific institution for safekeeping, costs thereof to be assessable to the defendant. The Director/Commission is authorized to issue regulations to implement this subsection.

Section 9. *Miscellaneous.* (a) None of the provisions of this chapter shall be construed to apply retroactively or to prohibit importation into the State of wildlife which may be lawfully imported into the United States or lawfully taken or removed from another State or to prohibit entry into the State or possession, transportation, exportation, processing, sale or offer for sale or shipment of any wildlife whose species or subspecies is deemed to be threatened with statewide extinction in this State but not in the State where originally taken if the person engaging therein demonstrates by substantial evidence that such wildlife was lawfully taken or removed from such State; *Provided, that* this subsection shall not be construed to permit the possession, transportation, exportation, processing, sale or offer for sale or shipment within this State or wildlife on the United States' List of Endangered Native Fish and Wildlife, as amended and accepted in accordance with subsection (d) of section 5, except as permitted in the proviso by subsection (c) of section 5 and subsection (d) of section 6.

(b) If any provision of this chapter or the application thereof to any person or circumstance is held invalid, the remainder of this chapter, and the application of such provision to other persons or circumstances, shall not be affected thereby.

Section 10. *Funding.* The cost of programs established under this chapter shall be borne by the General Fund or other sources separate and apart from the Game and Fish Fund to the extent of annual appropriations equal in amounts of— per centum of the amount of revenues raised in the preceding fiscal period from the sale of hunting, fish and trapping licenses, but not less than \$_____.

Senator Spong. Mrs. Beula Edmiston.

STATEMENT OF BEULA EDMINSTON, COMMITTEE FOR THE PRESERVATION OF THE TULE ELK, LOS ANGELES, CALIF.

Mrs. EDMINSTON. I think our whole Nation has a way to go in the matter of wildlife protection. It is a privilege to be here and to testify at this meeting.

Only yesterday I received a copy of S. 3818, so my prepared remarks are not quite as complete as I wish they were. If you will permit, I may add a little.

I am Beula Edmiston, speaking for the Committee for the Preservation of the Tule Elk, a national organization dedicated to the preservation of the Tule Elk and all rare and endangered wildlife.

Charles Beebe, naturalist, declared that the death of any species brings all life, including man, "a step closer to that final patch of darkness."

It is our hope that this committee and this Congress will enact the provisions of S. 249, strengthened, expanded, and reinforced by certain provisions of S. 3199 and S. 3818 in order to halt the grim march toward "that final patch of darkness" and to restore our vanishing wildlife.

Ten years ago the First World Conference on National Parks met in Seattle, Wash.

It urged the Pan American countries which had not done so to implement the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere (Washington, D.C. 1940).

It further urged an international celebration of Yellowstone National Park's centennial in 1972.

Its final recommendation was that every plant and animal species threatened with extinction be given a natural habitat area in a national park, wildlife refuge, wilderness area or equivalent reserve to maintain an adequate breeding population; takes the view that any such species not so protected proclaims the failure of the Government concerned to recognize its responsibility.

I am certainly glad to see that S. 3818 recognizes the need of plant preservation, as well as wildlife.

Next month, when the Second World Conference on National Parks meets in Yellowstone to celebrate with us its centennial, we hope that the United States' oversight in implementing our treaty obligations, entered into in 1940, will have been corrected by the enactment of the provisions of S. 249, The Nature Protection Act. The treaty and its updated annex of 1968 would protect rare and endangered species from being hunted, captured, killed, taken, transported, sold, or purchased. It would prohibit all bounties for rare and endangered species.

To many of us, the name of the bill to be reported by this committee is not important, it is the preservation of our precious natural resources that is important.

Since many rare and endangered species are victims of predator control, we urge serious consideration of the program of reimbursing ranchers for losses to predatory animals rather than to continue any form of the cruel, costly, ecologically unsound predator control programs. Rare and endangered species are still taken by bounty, which is a ridiculous thing. S. 249's provision to prohibit bounties on rare and endangered species should be built into the bill brought out of this committee.

It is vital that S. 249 calls for the preservation of rare and endangered species in a natural habitat. Looking at S. 3199 and S. 3818, we are delighted to see that they spell out authority for the Secretary of the Interior to acquire habitat through certain designated funds. We feel this specific land acquisition authority reinforces the natural habitat provision of S. 249.

In regard to natural habitat, Richard Fitter, in his "Vanishing Wild Animals of the World" points to the White Rhino of Africa and the Tule Elk of California, United States of America as prime examples of failure to provide sufficient natural habitat. When the United States provides the Owens Valley National Wildlife Refuge to restore the Tule Elk, it will at the same time benefit 22 additional rare, endangered, or depleted animal species and rare and endangered plants, as well. The importance of natural habitats for flora and fauna, both, cannot be overestimated. It must be provided soon, before it is gone.

We believe in the main, provisions of the three bills before the committee reinforce each other. We are strongly in favor of meeting the treaty obligations, the prohibition of bounty on endangered species, and the philosophy on which S. 249 is based—including vesting full responsibility with the Secretary of the Interior.

In addition, we feel there are certain provisions of the other bills that are imperative. First, S. 3199 and S. 3818 specify the procedure for acquiring habitat.

Second, we feel that changing the wording of treaties to include not only the rare and endangered, but those in danger of becoming endangered is very practical. It is very sensible. It is very urgent.

As has been said before this morning, to wait until they are at the vanishing point is not very good business. The quickening pace of destruction requires taking positive action, and we certainly commend and salute the language which says not only those on the rare and endangered lists, but those in danger of becoming in that danger must be protected.

Third, since penalties for taking rare and endangered species are considered a status symbol by some and only a small inconvenience by many who profit from the traffic in rare and endangered creatures, we believe the stiffer penalties provided for in S. 3199 should be adopted, or that the still stiffer penalties of S. 3818, should be imposed. I am not an expert in that field, and my group isn't, but provisions to make it unprofitable and unstatus symbol to take or in anyway destroy the rare and endangered species should be enacted into law.

There are a number of features in S. 3199 and S. 3818, however, that provide loopholes that could lead to abuses we urge this committee to reject.

1. The authority to issue permits for taking (killing), transporting in interstate commerce (exploitation), and for propagating in captivity, opens the door to many problems. To tamper with the natural biota by these propagation programs might be to kill the goose that lays the golden egg. We feel we should take a very close look at these artificial propagation programs, where nature is having a struggle for survival. Giving full attention to sufficient protected habitat and every possible protection would be more helpful because we don't know every answer.

Where the margin of life is already thin, propagation programs could be dangerous. We commend the wisdom of the message announcing the endangered species stamps: "Let them live. Let them alone!"

2. Since the protection of rare and endangered species is a national responsibility, the provision for possible delegation to the States with an active program could lead to divergencies and fragmentation.

We feel that since this is a national heritage, a national responsibility with national legislation, we would like to see the Secretary of Interior instructed to work cooperatively with the States, to upgrade the programs that some States may wish to have, to better the program.

S. 3818 spells out something very important, very valuable; that the national legislation will be a floor, a foundation, not the ceiling. We would like to see incentives for States that want to do something bigger and better in the preservation of our environment, but not to delegate the basic responsibility to the States even with guidelines. But should it be done, let us hope those guidelines are very strong, well-anchored, and thoroughly enforced.

I shuddered a bit when a witness this morning said, "We think that there would be almost 100 percent compliance." We haven't room for any "we think," or "almost" compliance. We must really get with this thing and restore our wild heritage.

3. In the matter of ports of entry, we would hope that both the designated ports of entry and nonports of entry, would be systematically inspected. I live near Los Angeles Airport, and I am aware of the tons of wildlife that rots in the crates. I have been in the city council when the animal regulation authority has testified, "There is nothing we can do, this is Interstate Commerce."

Yes; we see the crates, including rare and endangered species rotting there at the airport, and it is a very serious problem. We would believe that all ports of entry and all nonports of entry should be thoroughly inspected all of the time to see that this sort of thing does not happen. We believe that rigorous control is very, very imperative, in cooperation with the Department of the Interior.

The Second World Conference on National Parks will meet in Yellowstone next month to celebrate with us the centennial of the first National Park.

We hope the conference can be informed that the United States, by enactment of the provisions of S. 249, has implemented its treaty obligation to endangered species including the strengthening provisions we have noted in S. 3199 and S. 3818 plus the two further provisions of S. 3818:

1. To include plants as well as animals. (The setting aside of sufficient natural areas is the urgent need for saving both.) 2. The authority to protect animal species that may be easily confused with those that are rare or endangered.

In the matter of jurisdiction, I would like to say that my organization is not at all afraid of the Department of the Interior. It is our traditional protector of the natural resources. I wouldn't say we have fear of commerce. Commerce is necessary, but commerce is not really the issue with our rare and endangered species, or those threatened. We would put our faith in the Department of the Interior, requiring commerces' cooperation in inspection.

After all, the agencies do work with each other. We feel the central authority is well vested in the Department of the Interior. It should require and expect the cooperation of the other agencies. Likewise, the cooperation of the State agencies, but if there be delegation to the States, we would urge not only guidelines, but firm and fast positive requirements in order to fulfill our national commitment to rare and endangered species. The Tule elk, which is unique to my State, is not only the heritage of my State, it is the heritage of my Nation, and the total heritage must be protected.

We urge the strong protective provisions of the three measures be written into a bill, and loopholes plugged, to really give us a rich and diversified living heritage for many, many years to come.

The accelerating pressure of bulldozer, cement mixer poison, trap, and gun requires the enactment of the provisions of S. 249, strengthened and reinforced by the three noted provisions of S. 3199 and S. 3818—to protect rare and endangered wildlife, indeed, all life, from “that final patch of darkness,” plus the two additional provisions of S. 3818.

(1) The protection of rare and endangered plants—we urge it be accomplished by the establishment of adequate natural reserves.

(2) To authorize the protection of wildlife species that could be easily confused with rare and endangered species is a giant stride toward practical protection—the key to survival. This provision could tip the uneasy balance toward life for a number of species. It is good judgment: “When in doubt—conserve!”

Mr. Chairman, it is our privilege to report that both the Desert Protective Council and the Federation of Western Outdoor Clubs have passed resolutions in support of the provisions of S. 249—The Nature Protection Act.”

In support of protecting habitat for both flora and fauna, we attach from *Owens Valley—Home of the Tule Elk* brief essays by the eminent biologists Mildred E. Mathias and Kenneth S. Norris.

Thank you.

Senator SPONG. I thank you very much, Mrs. Edmiston, for your excellent testimony here this morning, and I am most appreciative for it. If you have additional comments for the record that you may wish to make with regard to S. 3818, the committee would welcome hearing from you.

The record will be open for some time.

Mrs. EDMISTON. Thank you so much. I would like to mention, too, two additional organizations which asked me to put their full support here, and they have made resolutions which they will send me to send you as additions to this testimony, in support of the provisions of S. 249.

Again, none of us are wedded to a number, but the concept. I would like to say, let us have the provisions of S. 249 and the protective and strengthening provisions of the additional bills which would give us more and better protection.

Thank you so much.

Senator SPONG. Thank you very much. The chairman wants to apologize to the witnesses who have not yet been called for the fact that he had to leave the hearing so many times this morning. We have had

three or four rollcall votes, and the Foreign Relations Committee, of which I am a member, has been in executive session over the SALT agreements which are presently before the Senate.

For these reasons, we have not proceeded as far this morning as I had hoped. The committee naturally wants to hear from everyone who has asked to testify. We will not be able to go today beyond the testimony that we have already heard.

I would like to say that we will receive statements for the record from any of you who are here to testify, but those of you who would prefer to appear in person on another occasion, I will have to have the staff set another morning aside during which we can finish these hearings.

I regret that I was not able to hear from all of you this morning despite the fact that we submitted questions rather than asking them on many occasions, and so I leave the option with each of you who have not been called to submit a statement or to advise our staff that you wish to appear in person, and if you do, I will see that these hearings continue another day, on which we hope to complete testimony on these bills.

Thank you very much. The hearing will recess until the call of the Chair.

(The material referred to follows:)

THE DESERT PROTECTIVE COUNCIL, INC.,
Banning, Calif.

Whereas, dwindling wildlife and the wildlands necessary to sustain it necessitates the adoption of a positive plan for the protection and preservation of rare and endangered species:

Be it resolved, That the Desert Protective Council wholeheartedly supports and commends the proposals set forth in "The Nature Protection Act"—S. 249, and calls upon the President, the Secretary of the Interior, the Congress, and the people of the United States to bring it to early fruition.

FEDERATION OF WESTERN OUTDOOR CLUBS
ENDANGERED SPECIES

The Federation of Western Outdoor Clubs is concerned about threats to the continued existence of various species of fish, birds, and mammals. Many of these are threatened by excessive use of poisons and other chemicals by federal and state agencies in pursuit of agricultural activities. Commercial industries threaten the diversity of wildlife through the use of rare mammals for pet food and clothing. It appears that many species will become extinct unless steps are taken beyond the foreseeable administrative action. Also, the federal government by treaty proclaimed in 1942, became obligated to protect certain species. Congress has failed to enact enabling legislation to fulfill that obligation, but *THE NATURE PROTECTION ACT* introduced by Senator Alan Cranston would go a long way toward resolving these threats.

Therefore, The Federation of Western Outdoor Clubs resolves that it supports *THE NATURE PROTECTION ACT*.



OWENS VALLEY

HOME of the TULE ELK

Published by the Committee for the Preservation of the Tule Elk, 5502 Markland Dr., Los Angeles, California 90022

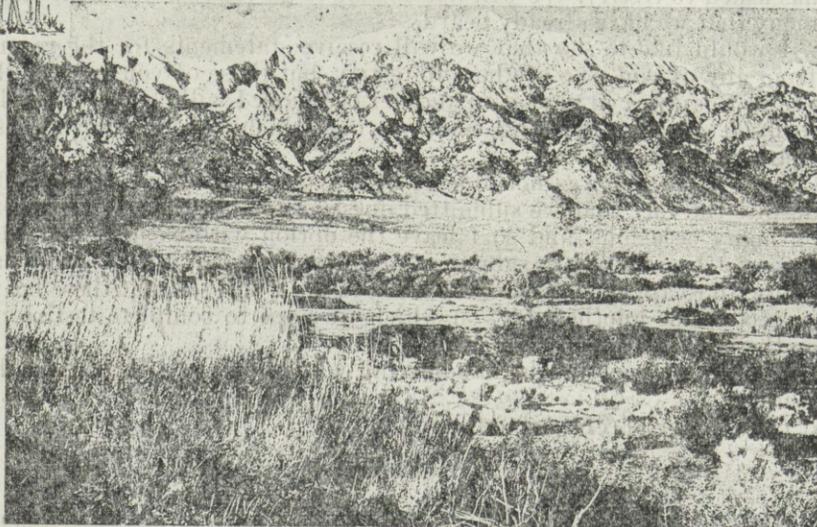


Photo by Gerhard Bakker

East of the Sierra

by DR. MILDRED E. MATHIAS

Professor of Botany, University of California at Los Angeles

East of the Sierra and west of the desert ranges of White and Inyo lies Mary Austin's "Land of Little Rain," the deep valley of the Owen's River, a valley where the mountains meet the desert and where the eye can move from the glistening white salt flats of Owen's Lake to the glistening snow of the highest of the Sierra. It is a land of diversity in form which has produced a diversity in the living plants and animals which inhabit it.

Here is a tapestry of vegetation woven through time from threads of many ages and many origins. This tapestry has worn well through the thousands of years in formation, new threads replacing old as the mountains have risen higher and the rain-

fall and temperature become lower. The central pattern is the sagebrush scrub of low-growing desert shrubs, interwoven with shadscale scrub and replaced along streambanks by willows, poplars, and other moisture loving plants. On the salt flats and the alkaline sinks in the bottom of the valley low scattered fleshy plants resistant to salty soils are able to survive adding a gray-white tone to the carpet. Threading green into the pattern are streams bordered by oaks and pines extending an invitation to the rich vegetation of the mountains above. It is an ever-changing tapestry with the design determined by water, soil, elevation, and the season of the year—white, gray, and brown

with dark green edges of pine in the winter, a kaleidoscope of color in spring, summer, and fall with creamy desert dandelion, blue and lavender lupine, rose-pink desert peach and golden yellow rabbit brush providing accents of color.

Man's footprints are now showing on this priceless tapestry, the threads are being cut, the edges are becoming ravelled, and large holes are appearing in it. This irreplaceable heritage must be protected as a work for future generations to admire, to enjoy, and to use with care.

Here many a surprise awaits the searcher for plants; a close look under the streamside bushes may reveal the giant stream orchid with its purple and reddish flowers; on a walk along the sandy or gravelly flats one may find the unique little saucer plant and many related buckwheats prized for dry floral arrangements; on a summer evening one may see the large rose-purple flowers in the

sprawling mats of giant four-o'clock; or one can enjoy the variety of desert shrubs—pale yellow flowers of bitterbrush, fragrant pink desert peach favorite of bees, the amazingly deep blue-purple flowers of indigo bush, white-woolly spiny cotton thorn, the rosy fruits of spiny hopsage, woolly lamb's tail—each adding to the pattern of the tapestry its own unique form and color, bright with flowers and fruit in the summer, returning to a brown or gray winter dress.

From the shadscale and creosote bush scrub in the bottom of deepest valley the vegetation changes rapidly with elevation and the traveller moves through sagebrush scrub into pinyon-juniper woodland in a few miles as he approaches the pine and fir forest of the mountains. It is a short dramatic trip from salt flat to mountain meadow passing through a range of vegetation unequalled in variety.

(Whereupon, at 12:55 p.m., the committee recessed subject to call of the Chair.)

Whitson, at 12 1/2, the committee research subject, to all
of the (State)

ENDANGERED SPECIES AND CONSERVATION ACT OF 1972

THURSDAY, AUGUST 10, 1972

U.S. SENATE,
COMMITTEE ON COMMERCE,
SUBCOMMITTEE ON THE ENVIRONMENT,
Washington, D.C.

The subcommittee met at 8:30 a.m. in room 5110, New Senate Office Building, Hon. William B. Spong, Jr., presiding.

Present: Senators Spong and Stevens.

Senator SPONG. The hearing will come to order. Mr. Regenstein? I feel like we are in Kennedy Stadium.

Good morning.

STATEMENT OF LEWIS G. REGENSTEIN, NATIONAL DIRECTOR, FUND FOR ANIMALS, INC.

Mr. REGENSTEIN. Good Morning. Thank you, Mr. Chairman.

Mr. Chairman, my name is Lewis Regenstein, and I am a national director of the Fund for Animals. We very much appreciate the opportunity to appear here. Because my statement is somewhat lengthy, I will summarize it to some extent.

Senator SPONG. We will receive your statement in its entirety, and you may testify from it as you wish.

Mr. REGENSTEIN. My name is Lewis Regenstein and I am the national director for the Fund for Animals, Inc., a New York-based humane and conservation group headed by Mr. Cleveland Amory, that attempts to conserve wildlife, save endangered species, and promote humane treatment for all animals.

We very much appreciate the opportunity to appear before this distinguished committee to express our views on the vital legislation now being considered to amend and strengthen the Endangered Species Conservation Act of 1969.

Mr. Chairman, I will confine my remarks to the major bills under consideration, S. 3199 (introduced by Senator Hatfield) and S. 3818 (introduced by Senator Spong) to provide for the conservation, protection, and propagation of species or subspecies of fish and wildlife that are threatened with extinction or likely within the foreseeable future to become threatened with extinction.

The Fund for Animals enthusiastically endorses the general principles and provisions of these bills. We feel that they are urgently needed if we are to save for future generations what little remains of our wildlife heritage. We commend and thank the authors of this extremely important piece of legislation.

However, we do feel that these bills would be greatly strengthened if several changes were made which I will suggest and discuss. First of all, Mr. Chairman, we respectfully request that the following addition be made to the facts determining if an animal is endangered, those species whose numbers are so greatly diminished, or whose numbers have decreased to the point at which, its status cannot be accurately determined.

When we do not know how many members of a depleted species remain, the safe thing to do is protect it, at least until such time as its recovery has become assured. We feel that such an addition is necessary because the status of most truly—if not officially designated—endangered animals, such as the eastern cougar, and the polar bear, is considered by the Department of the Interior to be “unknown” or “indeterminate.”

May I also add that we are delighted that the phrase “worldwide extinction” does not appear in this section. This term was a major factor in weakening the Endangered Species Conservation Act of 1969 and in preventing the listing of many threatened animals.

The emphasis in the proposed bill should be on preventing the extinction of wildlife, not just recognizing such a state when it approaches. By that time, it is usually too late for remedial measures to be effective in saving a species. We must, where possible, preserve animal populations in their natural habitat, in such numbers as to allow them to function as nature intended.

Once an animal reaches a point of being threatened with worldwide extinction, it has little chance of recovery, and no chance for filling its intended role in nature's balance.

We also recommend enactment of the Spong bill's provision which would provide for a public hearing when a legitimate request is made by a private or public group or individual that an animal be placed on the endangered species list.

This would bring public scrutiny to bear on the Secretary's actions and would make it more difficult for him to continue to cater to commercial exploiters and other vested interest groups at the expense of the public interest and the survival of an animal species.

The Department of the Interior opposed this provision recently in its testimony.

We urge that all major jurisdiction over endangered animals, mammals, including marine mammals, be vested with the Secretary of Interior and not the Secretary of Commerce. We do not object to responsibility for other endangered ocean life, such as the Atlantic salmon and the Pacific sardine, being vested with the Secretary of Commerce and its National Oceanic and Atmospheric Administration (NOAA).

We are, by the way, favorably impressed with some recent actions taken by the new Secretary of Commerce, Peter Peterson, and the Administrator of NOAA, Dr. Robert White. However, that agency's National Marine Fisheries Service—MMFS, formerly known as the Bureau of Commercial Fisheries—is still dominated by the same pro-industry attitude of maximum sustainable yield, and I would submit for the record, Mr. Chairman, a couple of pages of examples of this attitude.

To cite one, the head of the National Fisheries Service, Mr. Philip M. Roedel, as of early summer was still sending out form letters to

people describing this baby seal kill in Canada as efficient and humane.

I think if they consider this particular kill to be efficient and humane, it is difficult to consider conditions they would consider inhumane. I am aware that you know some of the problems regarding marine mammals. We did feel most of the jurisdiction should be under the Interior Department.

We feel this is particularly important as regarding endangered species.

We oppose the provision which permits the import of an endangered species and/or its products for up to 1 year, and during this 1-year period, the race to obtain an endangered species or its product could easily cause the species to be entirely wiped out or reduced to such numbers as to cause or make more probable its extinction.

Such language appears in the Endangered Species Conservation Act of 1969, and was used to allow the import of millions of tons of whale meat and oil during the 1-year period after Secretary of Interior Hickel placed the sei, sperm, and finback whales on the endangered species list.

There can be no true "economic hardship" when it comes to endangered species. This fact was legally established on November 30, 1970, when New York District Judge Walter R. Mansfield upheld the State's Mason Art, and in ruling against Palladio, Inc., a Massachusetts shoe manufacturer, Judge Mansfield eloquently held that Palladio (and I quote),

has no property right in the wildlife of foreign countries, and the mere loss of profits is not a basis for declaring the State laws unconstitutional. Since 1600 the world has destroyed for all time 130 animal species and 228 sub-species. Extinct animals, like lost time, can never be brought back. They are gone forever.

The fact that this proposed bill contains a Federal penalty for the taking of an endangered species is a great improvement over the present law. Such enforcement cannot be left to the States. As an example of the attitude of some States toward such animals, may I point out that several Western States have made requests from time to time for blanket permits for the killing of eagles.

In Alaska, until 1951, there was a bounty on bald eagles, our national symbol; and during the years in which bounty payments were made, some 100,000 bald eagles are estimated to have been killed. For this reason, we oppose those provisions which permit the Secretary to delegate to a State the authority to regulate the taking by any person of an endangered species.

Louisiana is about to open up a season on the alligator. The effect will be to threaten the alligator, because once you have legally taken skins, you are going to encourage poaching in Georgia, Florida, and South Carolina, where the alligator is in a precarious position.

So the action on the part of Louisiana, the anticipated action, will have a very detrimental effect on the population of alligators in the other States.

Mr. Chairman, we are aware that this subcommittee is under considerable pressure to allow the continued hunting of endangered species and the import of such trophies. An example is the Interior Department's press release of March 30, 1972, which unequivocally states that:

The new endangered species legislation now before Congress will provide if passed, a (more permanent) permit system for the sportsman.

We urge you to resist these pressures. When an animal species reaches a certain level of depletion, hunting can eliminate the few that remain or destroy enough to further threaten the species' future survival. Hunting, and hunting alone, is driving the magnificent polar bear to extinction.

In the last decade or two, during which time tigers have been hunted in India, their numbers have decreased by a factor of over 90 percent.

Arguments by such big game hunters as Randall Eaton, of the University of Georgia, that hunting helps conserve wildlife does not apply to threatened species, and his allegations cannot be considered unbiased and appear to be largely invalid. Tourism and photography safaris should provide sufficient economic incentive for other countries to protect their wildlife.

Finally, Mr. Chairman, there are several provisions in Mr. Spong's bill which are particularly valuable and should by all means be included in the final bill reported out by this committee. The provision allowing States to enact more restrictive legislation, as New York and California for example, have already done, is excellent and completely consistent with the important but much abused concept of States rights.

The provisions allowing the Secretary to designate ports of entry for fish and wildlife importations and requiring animal importers to register and keep certain records is also essential to an effective bill, which can be enforced.

And under the penalties section of both bills, we urge that the Secretary be instructed to deny Federal grazing permits to anyone who illegally takes an endangered species. Since western sheep and cattle ranchers are among the prime offenders in killing such endangered species as eagles, such a provision would have a strong deterrent effect.

It is my understanding that at the present time, the Secretary does not have such powers; and the Wyoming rancher who has been charged in killing of several hundred eagles still grazes his sheep on public lands.

Mr. Chairman, before I conclude I would like to say a few words about a project in which our Washington coordinator, Mrs. Marian Newman, has been involved for over a year; an attempt to persuade the Interior Department to place the kangaroo on its endangered species list. Our experience on this matter clearly shows why we need a new law of the type this committee is now considering.

Available scientific evidence, almost without exception, indicates that the larger species of kangaroo are being wiped out at a rate which will soon bring about the extinction of these unique animals. According to H. J. Frith, a leading kangaroo expert in Australia " * * * in southwest New South Wales 75 percent of the population disappeared between 1960-63. In far west New South Wales * * * the number fell by 65 percent between 1964-66."

Frith concludes that in this state, "the supply (of kangaroos) has almost been exhausted."

Another well-known expert, A. E. Newsome, states that the kangaroo hunters have reduced the once numerous herds to rarity and even local extinction in the past decade.

And according to Derryn Hinch, writing in the *New York Times*, "where once there were 15 species of kangaroo in the state of Victoria, there are now only seven."

Mr. Chairman, our country shares a large portion of the blame for this tragedy. By annually importing between 500,000 and a million kangaroo pelts, the United States has created a tremendous incentive for the slaughter of these gentle, defenseless creatures.

These pelts are processed by just two U.S. companies: William Amer of Philadelphia, and Zeigal Eisman of Rahway, N.J. The processed pelts are then converted into riding boots, shoes, furniture upholstery, whips and other such frivolous commodities. Millions of dollars worth of kangaroo products are brought back by American tourists; and the American "sportsman" visiting Australia is permitted to shoot the kangaroo in almost unlimited numbers. One U.S.-based company, Mars, Inc., manufacturer of Kal Kan pet food, canned 400,000 pounds of Kangaroo meat in Australia for "experimental reasons."

The Secretary of Interior has so far refused to add the kangaroo to his Department's endangered species list, which would ban further imports and give an immediate respite to these hard-pressed animals. The Interior Department's endangered species program seems more oriented toward protecting commercial interest groups than saving wildlife; and Assistant Secretary of Interior Nathaniel Reed has described Australia's kangaroo elimination campaign as "an enlightened wildlife management program." I will submit for the record several articles giving a detailed account of this matter.¹

Mr. Chairman, because of the Interior Department's indolence on this and other matters, the new law must make it absolutely clear that the responsible Secretary must take action to protect animal species before they reach the point of extinction, while there are still a few of the animals left to save.

Our country's record in the field of wildlife conservation is not a pretty one. Not only have we rendered extinct many domestic animals, but we have also contributed to causing the virtual extinction of many other species of wildlife in foreign lands and on the high seas.

By accounting in the past for one-third of the world's consumption of whale products, we have generated the demand that has caused the near-extinction of eight species of whales.

Between 1968 and 1970, according to the Department of the Interior figures, the U.S. furriers imported 18,000 leopard skins from Africa, as well as 31,000 jaguar pelts, and 249,000 ocelot skins from South America.

As the world's richest country, we have been able to afford the luxuries that have so decimated the world's wildlife. Because of our past record, it is incumbent upon the United States to take the lead in adopting strong, effective laws which would bring an end to the slaughter, suffering and eventual extinction man is visiting upon so many of his fellow creatures.

I would be happy to answer any questions you have. Again, thank you very much for the opportunity of appearing here today.

¹ See p. 186.

Senator SPONG. Thank you for being here so bright and early in the morning. We have a series of questions, Mr. Regenstein, that I am going to submit to you. We will keep the record of these hearings open for approximately 2 more weeks, and that should give you ample opportunity to supply the answers, but in the interests of time this morning, I will have the staff submit them to you.¹

I very much appreciate having your testimony here. The provision about the grazing plan is in the bald eagle bill, as I recall. That is a matter that will be discussed in executive session of the committee this morning.

Mr. REGENSTEIN. I am glad to hear that, Mr. Chairman. We are worried, of course, about other animals than the eagle. If the mountain lion were added to the list, it would be helpful.

Senator SPONG. Thank you very much.

Mr. REGENSTEIN. Thank you very much.

(The statement and articles follow :)

STATEMENT OF LEWIS REGENSTEIN, NATIONAL DIRECTOR, THE FUND FOR ANIMALS

Mr. Chairman and Members of the Subcommittee: My name is Lewis Regenstein and I am the National Director for The Fund For Animals, a New York based humane and conservation group headed by Mr. Cleveland Amory, that attempts to conserve wildlife, save endangered species, and promote humane treatment for all animals. We very much appreciate the opportunity to appear before this distinguished Committee to express our views on the vital legislation now being considered to amend and strengthen the Endangered Species Conservation Act of 1969.

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The Fund For Animals enthusiastically endorses the general principles and provisions of these bills. We feel that they are urgently needed if we are to save for future generations what little remains of our wildlife heritage. We commend and thank the authors of this extremely important piece of legislation.

However, we do feel that these bills would be greatly strengthened if several changes were made which I will suggest and discuss. First of all, Mr. Chairman, we respectfully request that the following addition be made to the factors determining if an animal is endangered: those species whose numbers are so greatly diminished, or whose numbers have decreased to the point at which, its status cannot be accurately determined. When we do not know how many members of a depleted species remain, the safe thing to do is protect it, at least until such time as its recovery has become assured. We feel that such an addition is necessary because the status of most truly (if not officially designated) endangered animals, such as the eastern cougar, and the polar bear, is considered by the United States Department of Interior to be "unknown" or "indeterminate." Until recently, this was also the status of the spotted cats. Because these solitary, nocturnal animals were seldom ever seen, the Interior Department's Office of Endangered Species claimed that it was impossible to determine population levels. As a result of this ludicrous situation, such obviously threatened animals as the Siberian Tiger (probably numbering no more than 200 worldwide), the Bengal Tiger, the Snow Leopard, and the African Leopard and Cheetah did not appear on the Federal list and could theoretically have been imported into this country in unlimited numbers. In fact, between 1968-1970, according to Department of Interior figures, United States furriers imported 18,456 leopard skins from Africa, as well as 31,105 jaguar pelts, and, incredibly, 249,680 ocelot skins from South America. The fact that most of these animals were killed illegally did not prevent their being imported. Mr. Chairman, I will submit for the record a detailed account of the situation which prevailed until last March. The language we suggest be added to the proposed legislation would effectively prevent such a situation from re-occurring.

¹ See p. 199.

May I also add that we are delighted that the phrase "worldwide extinction" does not appear in this section. This term was a major factor in weakening the Endangered Species Conservation Act of 1969 and in preventing the listing of many threatened animals. The emphasis in the proposed bill should be on *preventing* the extinction of wildlife, not just recognizing such a state when it approaches. By that time, it is usually too late for remedial measures to be effective in saving a species. We must, where possible preserve animal populations in their natural habitat, in such numbers as to allow them to function as nature intended. Once an animal reaches a point of being threatened with worldwide extinction, it has little chance for recovery, and no chance for filling its intended role in nature's balance.

Furthermore, Mr. Chairman, when a subspecies of wildlife becomes rare, depleted, or endangered and this sub-species cannot be readily differentiated from the other sub-species of the race, the entire species should be given protection. Otherwise, the law would to some extent be unenforceable. For example, one cannot tell the difference between a pelt from a Bengal tiger and one from a Siberian Tiger, nor can one differentiate between sub-species of leopard, kangaroo, or even between some species of animals such as spotted cats. It is impossible for the most part, to identify an animal's race according to the pelt fragments found in such fashion products as coats, purses, and wallets. In such cases, the only way to effectively protect the sub-species is to protect the entire species. For this reason we endorse Section 7, paragraph d of Mr. Spong's bill which allows the Secretary such discretion.

We also recommend enactment of the Spong Bill's provision which would provide for a public hearing when a legitimate request is made by a private or public group or individual that an animal be placed on the Endangered Species List. This would bring public scrutiny to bear on the Secretary's actions and would make it more difficult for him to continue to cater to commercial exploiters and other vested interest groups at the expense of the public interest and the survival of an animal species.

We urge that all major jurisdiction over endangered mammals, including marine mammals, be vested with the Secretary of Interior and not the Secretary of Commerce. We do not object to responsibility for other endangered ocean life, such as the Atlantic salmon and the Pacific sardine, being vested with the Secretary of Commerce and its National Oceanic and Atmospheric Administration (NOAA). We are, by the way, favorably impressed with some recent actions taken by the new Secretary of Commerce, Peter Peterson, and the Administrator of NOAA, Dr. Robert White. However, that agency's National Marine Fisheries Service (NMFS, formerly known as the Bureau of Commercial Fisheries) is still dominated by the same pro-industry attitude of maximum sustainable yield. In the words of a recent *New York Times* editorial (copy enclosed), "... the oceanic administration in Commerce is the former Bureau of Commercial Fisheries with a new name but the same old exploitative, pro-industry attitudes." Some examples of this attitude are enclosed:

Although we did not oppose the non-wasteful hunting of marine mammals by native peoples in earlier testimony, we cannot condone such killing of endangered species. Eskimos with high-powered rifles and snowmobiles cannot be considered to be hunting in a traditional manner. The facts clearly show that not only is native hunting for bowhead whales, for example, extremely wasteful, it is also killing the species off at a rate exceeding the annual recruitment of the gravely threatened mammal. Moreover, a large majority of bowhead whales killed by Eskimos sink and are not recovered in time for the meat to be edible. Under recently enacted legislation, the Alaskan natives are made first class citizens. Let us begin to treat them as such. We should not give them special short-term privileges concerning endangered species which could eliminate an animal race and act to the natives' long term detriment. To cite just one example, the natives of Greenland have apparently eliminated completely the local bowhead whale population which used to move north every summer into the Davis Strait, but now are seen no more.

We oppose the provision which permits the import of an endangered species and/or its products for up to one year. During this one year period, the race to obtain an endangered species or its product could easily cause the species to be entirely wiped out or reduced to such numbers as to cause or make more probable its extinction. Such language appears in the Endangered Species Conservation Act of 1969, and was used to allow the import of millions of tons of whale meat and oil during the one year period after Secretary of Interior Hickel placed the sei, sperm, and finback whales on the Endangered Species List.

There can be no true "economic hardship" when it comes to endangered species. This fact was legally established on November 30, 1970 when New York District Judge Walter R. Mansfield upheld the State's Mason Act. In ruling against Palladio, Inc., a Massachusetts shoe manufacturer, Judge Mansfield eloquently held that Palladio (and I quote) "has no property right in the wildlife of foreign countries, and the mere loss of profits is not a basis for declaring the states laws unconstitutional. Since 1600 the world has destroyed for all time 130 animal species and 228 sub-species. Extinct animals, like lost time, can never be brought back. They are gone forever."

We also recommend that the phrase "to avoid unnecessary harm to affected United States industries" be deleted from Section 10 of Mr. Spong's bill.

We believe that the provision allowing for the import of endangered species for zoological, educational, and scientific purposes should be eliminated or considerably tightened. We ask that any such permits issued by the Secretary be made absolutely minimal and subject to the most rigorous scrutiny and controls.

Zoos, for example, have played significant roles in the depletion or actual extinction of such animals as the Great Auk, and the Orangutan. We must not allow such situations to repeat themselves. I am enclosing, for inclusion in the record, part of a letter from the Associate Director of the San Diego Zoo, reputedly the best zoo in the country, defending the continuation of the practice of obtaining young Orangutans by killing the mother. This has traditionally been virtually the only way of obtaining Orangutan and walrus which can survive in captivity. In the words of Clyde Hill, Associate Curator of the San Diego Zoo, "*The manner of capturing wildlife which involves the killing of females to secure infants bothers most of us in the business.* However, with present techniques this method, for some species, seems to be the only way of obtaining them. For example, walruses. The capture of a sub-adult walrus is practically impossible, and when possible, extremely expensive. Adapting subadults and adults to a captive diet is almost impossible. However, newborn are now able to be raised successfully in captivity. Much research is being done on these hard to adapt animals right now. *Perhaps in 10 or 20 years we will be able to eliminate this problem voluntarily.*" (Emphasis added)

Concerning the exemption for scientific purposes, may I refer to the testimony last September of Mr. Howard Pollack, Deputy Administrator of the Commerce Department's NOAA before the House Subcommittee on Fish and Wildlife Conservation. During this discussion the fact was brought out that the NMFS had over the last few years issued several hundred "scientific" permits for the killing of gray whales, protected by law since 1936, and sperm whales, which are now officially designated as an endangered species. After these whales were killed, they were turned over to the Del Monte Whaling Company to be used in dog and cat food. This was a commercial operation carried out in the name of science. Page 237 of the September 1971 marine mammal hearings before the House subcommittee describes this matter, and with the Chairman's permission I would like to submit this for the record. Similarly, when the National Marine Fisheries Service (now under NOAA), was under the Interior Department it killed literally hundreds of thousands of female seals, most of which were pregnant or nursing pups. These seals were killed in the early 1960's, not for use in sealskin coats, but rather for "scientific" research in such areas as "population dynamics." May I also submit for the record an account of this situation as it appears on pages 281-284 of the House Marine Mammal hearings in September 1971.

Mr. Chairman, we urge you to include language in this new bill which would preclude such situations from arising. For example, whenever an "endangered" animal is "taken" for a legitimate scientific reason (and we hope such instances will be extremely rare), there should be no commercial use whatsoever permitted to be made of the animal or its products. This will remove much of the real motivation behind this often senseless killing. Furthermore, science can learn much more by studying endangered animals in the wild than through dead or captured ones, as exemplified by Dr. Roger Payne's fascinating recording of the "Songs" of the humpback whale.

The fact that this proposed bill contains a federal penalty for the taking of an endangered species is a great improvement over the present law. Such enforcement cannot be left to the states. As an example of the attitude of some states towards such animals, may I point out that several western states have made requests from time to time for blanket permits for the killing of eagles. In Alaska, until 1951, there was a bounty on bald eagles, our national symbol; and

during the years in which bounty payments were made, some 100,000 bald eagles are estimated to have been killed. For this reason, we oppose those provisions which permit the Secretary to delegate to a State the authority to regulate the taking by any person of an endangered species.

We also suggest that under the penalties and enforcement sections, the phrase be amended to read "Any person who violates *knowingly or with willful or malicious negligence* any provision of section 5 or 6 of this Act, shall upon conviction be fined. . . ." The need for such modification is clearly shown by the May 1971 incident in Wyoming in which about 50 dead bald and golden eagles were found, half of which had been poisoned with thallium. Although a Wyoming rancher, Van Irvine, admitted to poisoning antelope carcasses and placing them in the eagles' flight paths, it could not be proven that he "knowingly" or intentionally meant to kill the eagles, which would have been a violation of Federal law. If the Bald Eagle Protection Act had contained language referring to willful or malicious negligence, Irvine could have been prosecuted for killing eagles instead of hunting out of season.

Mr. Chairman, we are aware that this subcommittee is under considerable pressure to allow the continued hunting of endangered species and the import of such trophies. An example is the Interior Department's press release of 30 March 1972 which unequivocally states that "the new endangered species legislation now before Congress will provide if passed, a (more permanent) permit system for the sportsman." We urge you to resist these pressures. When an animal species reaches a certain level of depletion, hunting can eliminate the few that remain or destroy enough to further threaten the species' future survival. Hunting, and hunting alone, is driving the magnificent bear to extinction. In the last decade or two, during which time tigers have been hunted in India, their numbers have decreased by a factor of over 90%. According to a brochure published and distributed by the United States Department of Interior (which I will submit for the record), the following animals have become extinct due in part to killing by hunters: the Eastern elk, the Carolina Parakeet, the Passenger Pigeon, (formerly one of the most abundant species in the world), the Timber Wolf, the Heath Hen; all of which once inhabited the Eastern United States in large numbers, but which now have been hunted into extinction. Arguments by such big game hunters as Randall Eaton, of the University of Georgia, that hunting helps conserve wildlife does not apply to threatened species. His allegations cannot be considered unbiased and appear to be largely invalid. Tourism and photography safaris should provide sufficient economic incentive for other countries to protect their wildlife.

Finally, Mr. Chairman, there are several provisions in Mr. Spong's Bill which are particularly valuable and should by all means be included in the final bill reported out by this committee. The provision allowing states to enact more restrictive legislation, as New York and California for example, have already done, is excellent and completely consistent with the important but much abused concept of state's rights. The provisions allowing the Secretary to designate ports of entry for fish and wildlife importations and requiring animal importers to register and keep certain records is also essential to an effective bill. However, we would also suggest that exotic animal dealers be required to keep close records of illness and mortality of their animals; and where sickness or mortality significantly exceeds that which might be expected under natural conditions, these dealers should be denied licenses under which to operate.

Also in Mr. Spong's bill, we suggest that the phrase allowing the Secretary to permit the taking of an endangered species when such taking "will not damage the population" be changed to read "will be to the benefit of the population."

And under the penalties section of both bills, we urge that the Secretary be instructed to deny Federal grazing permits to anyone who illegally takes an endangered species. Since western sheep and cattle ranchers are among the prime offenders in killing such endangered species as eagles, such a provision would have a strong deterrent effect. It is my understanding that at the present time, the Secretary does not have such powers; and the Wyoming rancher who has been charged in the killing a several hundred eagles still grazes his sheep on public lands.

Mr. Chairman, before I conclude, I would like to say a few words about a project in which our Washington Coordinator, Mrs. Marian Newman, has been involved for over a year: an attempt to persuade the Interior Department to place the kangaroo on its endangered species list. Our experience on this matter clearly shows why we need a new law of the type this committee is now considering.

Available scientific evidence, almost without exception, indicates that the larger species of kangaroo are being wiped out at a rate which will soon bring about the extinction of these unique animals. According to H. J. Frith, a leading kangaroo expert in Australia, "... in southwest New South Wales, 75 percent of the population disappeared between 1960-63. In far west New South Wales ... the number fell by 65 percent between 1964-66." Frith concludes that in this state, "the supply (of kangaroos) has almost been exhausted." Another well known expert, A. E. Newsome, states that the kangaroo hunters "have reduced the once numerous herds to rarity and even local extinction in the past decade." And according to Derryn Hinch, writing in the *New York Times*, "where there once were fifteen species of kangaroo in the state of Victoria, there are now only seven."

Mr. Chairman, our country shares a large portion of the blame for this tragedy. By annually importing between 500,000 and a million kangaroo pelts, the U.S. has created a tremendous incentive for the slaughter of these gentle, defenseless creatures. These pelts are processed by just two U.S. companies: William Amer of Philadelphia, and Ziegal Eisman of Rahway, New Jersey. The processed pelts are then converted into riding boots, shoes, furniture upholstery, whips and other such frivolous commodities. Millions of dollars worth of kangaroo products are brought back by American tourists; and the American "sportsman" visiting Australia is permitted to shoot the kangaroo in almost unlimited numbers. One U.S.-based company, Mars, Inc., manufacturer of Kal Kan pet food, canned 400,-000 pounds of kangaroo meat in Australia for "experimental reasons."

The Secretary of Interior has so far refused to add the kangaroo to his Department's endangered species list, which would ban further imports and give an immediate respite to these hard-pressed animals. The Interior Department's endangered species program seems more oriented toward protecting commercial interest groups than saving wildlife; and Assistant Secretary of Interior Nathaniel Reed has described Australia's kangaroo elimination campaign as "an enlightened wildlife management program." (I will submit for the record several articles giving a detailed account of this matter.)

Mr. Chairman, because of the Interior Department's indolence on this and other matters, the new law must make it absolutely clear that the responsible secretary must take action to protect animal species *before* they reach the point of extinction, while there are still a few of the animals left to save.

Our country's record in the field of wildlife conservation is not a pretty one. Not only have we rendered extinct many domestic animals, but we have also contributed to causing the virtual extinction of many other species of wildlife in foreign lands and on the high seas. By accounting in the past for one-third of the world's consumption of whale products, we have generated the demand that has caused the near-extinction of eight species of whales. It was the American fur market, in part, which almost caused the extinction of the sea otter and the Alaskan fur seal, and did in fact help bring about the extinction of the sea mink. The United States market, until last March, provided the primary incentive for the continuing destruction of various species of tigers, leopards, and other spotted cats throughout the world. United States hunters in Alaska are helping to bring about the extinction of the migratory polar bear, which has been protected in the Soviet Union since 1957.

As the world's richest country, we have been able to afford and even demand the luxuries that have so decimated the world's wildlife.

Because of our past record, it is incumbent upon the United States to take the lead in adopting strong, effective laws which will bring an end to the slaughter, suffering, and eventual extinction man is visiting upon so many of his fellow creatures.

That concludes my testimony, Mr. Chairman. I would at this time be most happy to answer any questions you might have; and again, thank you very much for the opportunity to appear here today on behalf of The Fund For Animals.

[From the *New York Times*, Apr. 12, 1972]

THE GREAT SLAUGHTER OF THE 'ROO

By Derryn Hinch

Some people shoot them for the meat, some for the skin, some for the fur, and some for the hell of it.

The target is the Australian kangaroo.

And the way things are going, this unique creature, Australia's national emblem, will soon be extinct along with his brother, the wallaby.

These strange, heavy-haunched mammals, who ruled the island continent before the black or white men came, are being slaughtered at the rate of more than one million a year to reappear in stores (from King's Cross to New York) as toys, rugs, souvenirs, coats, tennis shoes, soups and pet food.

There are no known figures as to how many kangaroos and wallabies are left in Australia. Some Government officials dispute that the breed faces extinction.

However, as conservationist Vincent Serventy said recently, "The average Australian will not be satisfied by figures which say there are still kangaroos in the bush. As far as he is concerned they are gone."

Where once there were fifteen species of kangaroo in the state of Victoria there are now only seven. Deep in New South Wales there was a ratio of about one kangaroo to forty acres in 1960. Three years later the estimate was one in 150 acres. And in sparse regions of Central Australia the count was one kangaroo in more than 400 acres.

Queensland, in the north, is often referred to by conservationists as the "slaughter state." It has an "open season" on kangaroos and wallabies that lasts all year. During the nineteen-sixties a dwindling kangaroo crop and stringent laws in other states sent a flood of professional hunters into Queensland. The number of registered hunters rose to more than two thousand in 1965 and the state's recorded kill doubled that year to more than 1,140,000 salable carcasses.

You don't have to be a good shot to kill kangaroos.

All you need is a four-wheel-drive car, a high-powered rifle, a strong searchlight and equally strong stomach.

The method used is similar to the one banned in many trout-fishing countries: mesmerize your prey with the light beam, then kill it.

Besides such "sport," the kangaroo's future has been clouded by a combination of events. The boom in kangaroo meat for export coincided with the great drought of the nineteen-sixties. In 1965, when western Queensland was parched, a sheep was worth fifty cents but a kangaroo (meat and hide) was worth \$4.50.

And during any drought the mortality rate of infant kangaroos ("joeys") is above 80 percent.

One stark example of where the blame lies is the condoned ritual of a Tasmanian sporting club which each year disposes of more than one thousand wallabies in a single day of carnage known as "The Avoca Football Club's Annual Wallaby Shoot."

On that day of bloodshed 300 members of the club pay a two-dollar fee for the privilege of 'roo shooting.

By the time night falls and the footballers are huddled around the beer kegs for a barbecue cooked by their wives, more than one thousand carcasses of Australia's trademark are strewn through the bush—each once-proud beast full of shells, its throat slit, and tail tip hacked off for the tally clerk who awards a box of bullets to the man who kills the most.

That "social event" has taken place for ten consecutive years even though the local S.P.C.A. spokesman says each year that "the people of Tasmania should hang their heads in shame."

It was Rudyard Kipling who called the kangaroo the "different animal" and had him dancing in the middle of Australia saying: "Make me different from all other animals, make me popular and wonderfully run after by five this afternoon."

The kangaroo IS being run after today and every afternoon—by men with guns.

Derryn Hinch is New York correspondent for The Sydney Morning Herald.

[From the Sunday Star, Washington, D.C., May 28, 1972]

KILLING THE KANGAROO FOR U.S. DOLLARS

(By Marian Newman)

Much as America is wiping out its own national symbol, the bald eagle, Australia is killing off its state emblem, the kangaroo, at a rate which could soon bring about the extinction of this unique and fascinating animal.

As with so many other species of wildlife, the United States is playing a significant role in the extermination of these animals.

Australia is the only area in the world to which kangaroos are indigenous, and this makes their plight even more urgent. Australia law makes it extremely difficult to export live kangaroos to other countries for breeding or zoological display.

Thus when the kangaroo has been eliminated from Australia, the species will practically cease to exist.

CRUEL EPISODES OF KILLING

Each of the six Australian states has its own laws which are supposed to regulate the killing of kangaroos. These laws are not only lenient but are seldom enforced, resulting in episodes of killing which are so cruel as to defy one's imagination.

Moreover, the kangaroo's gentle and defenseless nature has facilitated their massive slaughter. Illegal spotlights, guns with telescopic sights, traps, and poison 1080 (the same chemical which until recently was used by U.S. Interior Department agents and Western livestock ranchers to poison coyotes, eagles, and other predatory animals found in the western United States) are the main methods used for killing the adults.

The joeys (baby kangaroos) are either decapitated or thrown against the nearest object. Those joeys "fortunate" enough to escape are left orphaned to face an uncertain fate.

In an attempt to escape man's relentless pursuit, kangaroos have even adopted the habits of nocturnal creatures. But still the slaughter goes on, even at night.

Shooters aim for the hip so as not to damage the pelt, and many times the wounded animals are left dying until daybreak, when the gutting and skinning is begun. Frequently the dying animals will make large holes in the ground with their front paws in order to escape the morning light, and there have been many cases of wounded animals being left to suffer for days and even weeks at a time.

Australian sheep ranchers want to eliminate the kangaroo for many of the same reasons American ranching and livestock interests have attempted to rid the West of eagles, wolves, coyotes, mountain lions, and even wild horses. They fear that these animals compete with sheep and cattle and are generally harmful to agricultural activities.

For example, Australian sheepmen claim that kangaroos feed on the same forage as their sheep; but the facts dispute this. H. J. Frith, a leading Australian scientist, states that "the red kangaroo could best be preserved on grazing land in co-existence with sheep and cattle."

Scientists have recently concluded that not only do most species of kangaroo eat different types of grass from sheep, they also consume far less. While sheep dig up the pastures with their hooves, kangaroos hop lightly along on flat feet and in so doing barely disturb the vegetation needed for grazing.

Another myth commonly used by commercial interests is that kangaroos are becoming over-abundant because they are "prolific breeders." This is nonsense. When you kill one female of breeding age you are in fact killing four; the adult female, the dormant embryo, the infant in the pouch, and the baby which has left the pouch but will remain at its mother's feet for almost a year.

American commercial interests also provide a major economic incentive for the killing of the kangaroo. In 1970 the United States imported between 500,000 and 1 million kangaroo pelts at a value in excess of \$1.2 million. This was twice as much as the second largest importing country, West Germany, and totaled more than the other seven importing countries combined.

The processed pelts are converted into such items as athletic shoes, whips, saddles, ski clothes, furniture upholstery, riding boots, golf and tennis covers, hat bands, and other such frivolous commodities.

American tourists in Australia bring back millions of dollars worth of kangaroo products in the form of toy koalas, kangaroo paw can-openers, adult or baby stuffed heads, gloves, rugs, and suede jackets.

To the visiting American "sportsman," no trip to Australia is complete without a kangaroo safari; and only a small sum will entitle him to a four-day hunt in Australia's famous outback, where he can shoot kangaroos to his heart's delight.

Another significant threat to the species is posed by food companies. One Australian subsidiary of an American company—perhaps foreseeing the extinction of the whale, which is a primary source of meat for it—canned 2,000 tons of kangaroo meat for "experimental reasons."

In recent years, the kangaroo population has so diminished that the value of the pelts has greatly increased in value. Companies are now sending hunters into the few remaining unmolested parts of the continent, for kangaroos can no longer be found in areas where they were once abundant.

For instance, there are only seven species of kangaroo left in the state of Victoria, where at one time there were 15. Between 1965 and 1967, about 75 percent of the kangaroo population was killed off in Southern New South Wales, while the population fell by 65 percent in Western New South Wales.

During this same time, research workers estimated that 70 percent of the total population was killed in Central Australia. In 1970, close to one million kangaroos were killed in Queensland, often referred to as the "slaughter state" because of its year-round open season on kangaroos and wallabies.

Each year the situation becomes more desperate; and the end of the kangaroo is now in sight. Among those species whose existence is most seriously jeopardized is the red kangaroo (*Megeleia rufa*), which is considered by many to be the most beautiful of all the kangaroos. The female is so striking in appearance that it is called the blue flier because of its magnificent azure colored pelt.

It is easy to understand why this marsupial became Australia's national symbol. The kangaroo is among the most interesting and appealing of all of nature's creatures. Carrying its young in a pouch, traveling about with a strange hopping motion, this animal has captured the imagination of people around the world.

Kangaroos have existed for over 4 million years, during which time they have adapted to an almost waterless climate. Only measuring an inch at birth and weighing a few ounces, the infant rarely leaves the mother's pouch during the first year of life.

Within one 48-hour period, an amazing phenomenon takes place: the adult female gives birth to a joey, becomes reimpregnated to form the dormant embryo, and the baby in her pouch leaves to stay at foot, while the baby at foot leaves its mother permanently.

During periods of famine and drought, kangaroos regulate their numbers by cessation of breeding and migration to areas where more favorable conditions exist. The only phenomenon to which the kangaroo has not been able to adjust has been man.

Available scientific evidence, almost without exception, indicates that these animals are rapidly approaching extinction. Secretary of Interior Rogers C. B. Morton could immediately remove a major economic incentive for the killing of these animals by placing them on the United States Foreign Endangered Species list, which would ban further imports of kangaroo products and pelts.

The state of California has already placed the kangaroo on its Endangered Species List; and in the 1920s, President Hoover's administration banned koala imports from Australia in order to save this animal from extinction.

INTERIOR DEPARTMENT NEGLECTS ITS DUTY

But Secretary Morton, so far, has not shown any inclination to take such action, and has therefore not fulfilled his responsibility under the Endangered Species Conservation Act of 1969. Under the terms of this law, the Interior Department is required to "encourage foreign countries to provide protection to wildlife threatened with extinction" and to take measures to *prevent* the extinction of any animal. The act further specifies that no pelt or by-product of an endangered species may be imported into the United States. Many concerned citizens as well as humane and conservation organizations have written to the Secretary of the Interior asking that immediate action be taken.

However, the Interior Department's Endangered Species program seems more oriented towards protecting commercial interest groups than saving wildlife.

Concerning the kangaroo, all present indications are particularly discouraging. The Interior Department, in response to pressure from conservationists, has sent an agent to Australia to get information first hand.

But Assistant Secretary of the Interior Nathaniel Reed has already indicated the department's decision will be strongly influenced by the recommendations of the Australian government, whose policies toward the kangaroo are dominated by the same commercial interests which are seeking to eliminate the kangaroo. Reed has also described Australia's kangaroo elimination campaign as "an enlightened wildlife management program."

As far back as 1967, the extinction of the kangaroo was predicted by John Pelger, a British journalist: "The kangaroo is dying. In the land where he began many thousands of years ago, in the nation of which he is today the emblem, his grave is dug deep. Soon, like the forgotten dodo, he will disappear and people will wonder if such a strange creature ever existed."

How ironic it is, that the United States, after having wiped out so many species of wildlife, is now helping bring about the extinction of Australia's national symbol.

Marian Newman is the Washington coordinator for the Fund for Animals, an organization that works to conserve wildlife, save endangered species and promote humane treatment for all animals.

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NOT MAN APART—KANGAROOS AS PET FOOD

(By Marian Newman)

The kangaroo is one of the most unique and fascinating members of the animal world. Carrying its young in a pouch, travelling around with an unusual hopping motion, this animal has captured the imagination of people around the world. The kangaroo has existed for more than 4 million years in Australia, the only area of the world where it is found, and has adapted to extremes of drought and heat, and to major climatic changes. Yet these gentle, harmless creatures may soon succumb to one of the most relentless dangers faced by wildlife: man, and his exploitation of any animal from which profit can be made, and elimination of those which compete with him in any way. Ironically it is the United States market which is largely responsible for the destruction of Australia's national symbol, the kangaroo. Last year the United States imported between 500,000 and 1,000,000 kangaroo pelts at a value in excess of \$1,200,000. This was twice as many as the second largest importing country, West Germany, and more than the other 7 importing countries—Japan, France, Italy, Canada, Great Britain, and Hong Kong—combined.

The William Amer Company of Philadelphia, Pennsylvania, and the Ziegler Eisman Company of Rahway, New Jersey, are the two American firms which buy up most of the kangaroo pelts to be processed. The processed pelts are then converted into athletic shoes, whips, saddles, ski clothes, furniture upholstery, riding boots, golf club and tennis racquet covers, hat bands, and other such frivolous commodities. American tourists in Australia bring back millions of dollars worth of kangaroo products in the form of toy koalas, kangaroo paw can-openers, stuffed kangaroo heads, gloves, rugs, and suede jackets. To the visiting "American sportsman," a worthwhile trip means a kangaroo safari, and a small sum will entitle him to 4 days of hunting in Australia's famous outback, where he can shoot kangaroos in almost unlimited numbers. Another significant threat is the pet food industry. One American-based pet food company, Mars (manufacturers of Kal-Kan, the sponsor for Bill Burrud's popular conservation-oriented television series "Animal World"), canned 400,000 pounds of kangaroo meat Australia for "experimental reasons."

Each of the six Australian states has separate laws which are supposed to regulate the killing of kangaroos. The laws are not only lenient, they are seldom enforced, resulting in cruel episodes of killing which defy the imagination. Hunting with illegal spotlights, telescopic sights, poison 1080, and traps eliminate most of the adults, while the joeys (baby kangaroos) are either decapitated or thrown against the nearest object. In an attempt to escape man's relentless hunting, kangaroos have adopted habits of nocturnal creatures. But still the hunting goes on, even at night. Shooters aim for the hip so as not to damage the pelts, and many times the wounded animals are left dying until daybreak when the gutting and skinning is begun. Usually the dying animals will make large holes in the ground with their front paws in order to escape the morning light. Many cases have been reported where wounded animals have been left to suffer for days and even weeks.

Myths surrounding the kangaroo are used by profiteers to justify the slaughter. As with America's symbol, the bald eagle, sheepmen and government officials have unjustly regarded the kangaroo as a "pest" and have greatly contributed to its now depleted state. However, H. J. Frith, a leading Australian scientist, states that "The red kangaroo could best be preserved on grazing land in coexistence with sheep and cattle." In fact, scientists have recently observed that not only do most species of kangaroos eat different grasses than sheep, but they also eat less than sheep. While sheep dig up the pastures with their hooves, kangaroos hop lightly along with their flat feet and in so doing barely disturb the vegetation needed for grazing. Another myth commonly used by commercial interests is that kangaroos are "prolific breeders." What isn't taken into account is that when you kill one adult female, you are in fact killing four kangaroos: the adult, the baby at foot, the infant in the pouch, and the dormant embryo.

Companies are now sending hunters into the few remaining unmolested parts of the continent, for kangaroos can no longer be found in areas where they were once abundant. For instance, there are only 7 species of kangaroos left in the state of Victoria where at one time there were 15. Between 1965 and 1967, about 75% of the kangaroo population disappeared in southern New South Wales, while the population fell by 65% in western New South Wales. During this same time, research workers estimated that 70% of the total population was killed in Central Australia. In 1970 nearly 1 million kangaroos were killed in Queensland, often referred to as the "slaughter state" because of its season on kangaroos and wallabies which lasts all year. Scientists are fearful that even the most beautiful of all the species, the red kangaroo, will soon join the ranks of the other extinct species.

It is easy to understand why Australians chose this marsupial as their national symbol. They have existed for over 4 million years, during which time they have adapted to an almost waterless climate. Measuring only an inch at birth and weighing a few ounces, the infant rarely leaves the mother's pouch during the first year of life. It seems unbelievable, but within 24 hours an adult female can become reimpregnated to form a dormant embryo, give birth, while the baby in her pouch leaves to stay at foot, and the baby at foot will leave its mother permanently! In most species the female will reach a weight of about 50 pounds while the male will reach a weight of about 130 pounds. During drought they regulate their own numbers by cessation of breeding and migration to more comfortable conditions. However, much is still to be learned about their unique breeding and feeding habits.

America can reverse itself and take the lead in saving this legendary creature. Under the terms of the Endangered Species Conservation Act of 1969, the Interior Department is required to "encourage foreign countries to provide protection to wildlife threatened with extinction and to take measures to prevent the extinction of any animal." The act further specifies that "no pelt or by-product of an endangered specie may be imported into the United States." By placing the kangaroo on the endangered species list, the Interior Department could immediately remove a major economic incentive for the killing of these animals. Many concerned citizens as well as humane organizations are writing to the Secretary of the Interior, Rogers C. B. Morton, asking that such action be taken. But so far the Department has shown no inclination to do so. How ironic it is that the United States, after having wiped out so many species of domestic wildlife, is now helping bring about the extinction of Australia's national symbol.

CALIFORNIA STATE SENATE, March 22, 1972.

Mr. EARL BAYSINGER,
Office of Endangered Species
Department of the Interior, Washington, D.C.

DEAR MR. BAYSINGER: It is becoming increasingly obvious to conservationists that certain species of the kangaroo are declining at truly alarming rates and may soon be endangered if not already so. The species most frequently mentioned are *Megaleia rufa*, *Petrogale xanthopus*, and *Macropus giganteus*.

I was the author of legislation last year which prohibits the sale or possession for sale of the dead bodies or parts thereof of various species of wildlife including kangaroos. I have enclosed a copy of the bill for your files.

Because the kangaroo is not on the federal endangered list yet and because there is considerable trade in kangaroo meat for dog food and skins for novelty items, we have received innumerable requests for exemption of the kangaroo from our law. Some of these requests are accompanied by Australian government reports purporting to show all is well.

At the same time we are continuing to receive a steady stream of letters and reports from kangaroo preservation groups in both the U.S. and Australia who claim the official reports are a whitewash. I am persuaded that at least some species of the kangaroo are endangered and should be protected. I urge you to give every consideration to exploring the possibility of extending the protection of federal endangered species legislation to the kangaroo.

Sincerely,

ANTHONY C. BELLENSON,
State Senator.

JANUARY 23, 1972.

Hon. ROBERTS C. B. MORTON,
 Secretary of the Interior,
 U.S. Department of the Interior, Washington, D.C.

DEAR SECRETARY MORTON: The purpose of this letter is to advise you that at least 2 species and 1 sub species of kangaroo are threatened with worldwide extinction and should be immediately included on your department's endangered species list. After extensive research on this subject, I have concluded that the red kangaroo (*Megaleia rufa*), the yellow-footed rock wallaby (*Petrogale wanthropus*), and a sub species of the great grey kangaroo, the Tasmanian Forester (*Macropus giganteus tasmaniensis*) have practically disappeared from most areas of their natural habitat. (Scientists are unable to agree whether the latter is a species or sub species). Hunting for commercial and agricultural reasons, severe periods of drought, and destruction of their habitat, have brought their numbers to a point at which the survival of these animals has become doubtful.

Due to the vastness of Australia and the newly formed nocturnal habits of the kangaroo, no scientist has ever been able to assess the exact number of kangaroos that once existed. However, from periodic observations and statistics on the number of animals killed each year, most knowledgeable scientists and coconservationists have come to the conclusion that 90% of the red kangaroos, yellow-footed rock wallabies, and Tasmanian Foresters have been killed. Evidence on their status is listed on the enclosed sheets.

The Endangered Species Conservation Act of 1969, is designed to prevent the extinction of any species and to "encourage foreign countries to provide protection to wildlife threatened with extinction." I'm aware that the Australian government has taken a very unrealistic approach to this problem, and while you're required to consult with the government, your final decision should be based on the best evidence available.

It is no exaggeration to state that there is little time left to save these animals. A primary reason for their decline is the United States market, which last year imported over 515,000 kangaroo skins from Australia. I urge you to take action that would remove much of the economic pressure for the killing of kangaroos by adding *Megaleia rufa*, *Petrogale wanthropus*, and *Macropus giganteus tasmaniensis*, to the endangered species list at the earliest possible date. I realize that accurate data is hard to come by, but all available evidence indicates that these animals are, at the present time, threatened with worldwide extinction. If you have any valid information to the contrary, I would be very interested in reviewing it.

A reply to this letter, at your earliest convenience, would be greatly appreciated. I would, of course, be most happy to provide you with any additional information or documentation which may facilitate your resolving this matter.

Thank you for your consideration.

Respectfully,

MARIAN NEWMAN,
 Research Assistant, Friends of the Earth,
 Committee For Humane Legislation.

Enclosure.

EVIDENCE ON THE RED KANGAROO

"*Furred Animals of Australia*" (1967). Ellis Troughton

"The value of kangaroo pelts and fencing of vast holds undoubtedly threatens the ultimate survival of several beautiful species of kangaroo."

"*Kangaroos*" (1968). H. J. Frith

"The number of red kangaroos is only a small fraction of what is commonly supposed."

"Where drought and shooting occur together there seems to be a real chance that the species could be reduced so it could not recover."

"Red kangaroos are not as abundant as before. They are subject to great and sudden decline in numbers due to overshooting and drought."

"Careful stocktaking of red kangaroo populations would show that complete protection is now needed for some years in some states to permit the population to recover from recent exploitation and drought."

"*Controlled Harvesting of Kangaroos*" (April 1968). H. J. Frith

"Originally the meat trade was supported by red kangaroos, but as its numbers declined the grey kangaroos became important."

"Numbers of red kangaroos have been determined by counting the animals in sample strips in large areas from low-flying aircraft. The results show that the numbers of kangaroos are not nearly so great as is sometimes thought."

"In Central Australia research workers estimated that 70% of the population was shot in 1961 alone. In a study of 1,000 square miles in south-western New South Wales where the animals were regularly counted from low-flying aircraft, 75% of the population disappeared between 1960 and 1963. In far western New South Wales in a study area of 4,000 square miles, the number fell by 65% between 1964 and 1966. These events leave no doubt that harvesting was deeply involved in the decline of the red kangaroo."

"*Australian Academy of Science, Canberra ("Age" 1967)*"

"A field party went from Canberra to Tibooburra in the northwest of New South Wales, a distance of 800 miles through kangaroo country. The object was to catch 300 does. The party saw 11 kangaroos and returned with NOTHING. A second party was sent out and also returned with NOTHING. To Canberra scientists, this highlighted the willful destruction of the kangaroo to the stage where it is in great danger of becoming extinct. The red kangaroo, the most beautiful of the six species is now rare, and could soon join the ranks of the Toomarche Wallaby, and the Gaimards Rat Kangaroo, which have ceased to exist."

Interview with Mrs. Les McQueen, a Field Officer with the New South Wales Protection Panels, Sydney "Daily Telegraph"

"He found the sprawling plains of the West almost devoid of the red kangaroo, with shooting and meat-taking more to blame than the drought."

"Two years ago the shooting was confined to full grown animals, but now, having no red kangaroos to kill, trappers are shooting the rare euro, totally protected by the Act."

"*Conservation of Kangaroos (Australian Conservation Foundation), Canberra, August, 1967*"

"No reliable information is available to provide a measure of the effect of harvesting on the numbers of Grey Kangaroos, but air surveys and counts of Red Kangaroos have been carried out in several regions. These have revealed a very serious reduction in the numbers of these animals; and where commercial shooting has been followed up by control action on the part of landholders, exploiting the vulnerability of drought-concentrations of the survivors, numbers have been reduced to a very low level indeed. It is quite clear that the Red Kangaroo population cannot support indefinitely the present intensity of hunting, especially when allowance has to be made for the effects of drought on the survival and productivity of the breeding stock."

"The Red Kangaroo could be saved from the risk of extinction by the provision of reserves, but because of its nomadic habits and low average density they would have to be of great size and would also be inconveniently remote. The conservation of the species can only be achieved, satisfactorily and in practice, by ensuring its survival in adequate numbers of grazing land. Over much of the Red Kangaroo's range the need for this is urgent. A thorough stocktaking of the present situation, which is a top priority requirement, is more than likely to reveal that the species should be given complete protection for a year or two in some States."

Extract: "C.S.I.R.O. Wildlife Research." 1966-1968

"Numbers of red kangaroos (*Megeleia rufa*) have declined. The drought in north-western New South Wales which became severe in 1965, continued into 1966 and the early part of 1967; the decline in kangaroo numbers which started in 1965, continued into 1966 and the early part of 1967. The numbers were so low in 1967 that population sampling which had been done regularly at Mt. Murchison Station since 1959, had to be suspended."

"*Hunting Must Change In Australia (Australian Out-Doors) April, 1967. Nick Harvey*"

"Indiscriminate shooting in New South Wales over the past few years has resulted in the threat of the red kangaroo facing early extinction. Even the hardier grey forester is being systematically wiped out. It is butchery, and I should know, as I have shot as many as 2,000 roos in three weeks, while making a living as a pro' shooter for the meat-works at Gooniwindi in Queensland."

"My observations would confirm the opinion of the wild-life experts, that the red roo is well on the way to becoming extinct, unless protection is given now. Correspondence from other pro' shooters, spread over the entire breadth and width of the out-back confirms that the big red is getting scarcer and scarcer all the time. As the big red roo is undoubtedly the most striking member of the roo family, the thought of him and his "blue flier" mate dying out, will be abhorrent to the majority of Australians. The red is a soft animal, confined to its habitat on the plains and the drier areas. If it is to survive, it is essential that TOTAL PROTECTION be given and never relaxed, until their numbers have increased sufficiently to warrant thinning out."

"*The Ecology of Red Kangaroos*" (*Kangaroos and Men*) 1971. A. E. Newsome

"Thus, kangaroos are extremely vulnerable in central Australia during drought; the dense expanse of mulga woodlands protect them after rain. Elsewhere, the distribution of woodlands and open plains is more mixed. For this reason, red kangaroos are vulnerable to persistent shooting over most of Australia at almost any time which is why shooters reduced the once numerous herds of kangaroos to rarity and even local extinction in the past decade. It was this intense slaughter that brought about the public outcry."

EVIDENCE ON THE YELLOW-FOOTED ROCK WALLABY

"*The Current Status of Australian Macropodidae*" (*Kangaroos and Men*) J. H. Calaby

"The yellow-footed rock-wallaby (*Petrogale xanthopus*) formerly occurred in the Gawler, Andamooka, and Flinders Ranges, and the hills north of Olary. in South Australia (Aitken 1969), and in the ranges in north-western New South Wales and south-western Queensland. It has disappeared from parts of its former range and has decreased greatly in numbers. Most of its range is in sheep country, and at one time large numbers were killed for their beautiful pelts. Its current distribution and status in South Australia can be summarized as follows: uncommon in the Flinders Ranges north of Mambray Creek and in parts of the Grawler Ranges, an outlying colony on Carappee Hill, near Darke Peak on Eyre's Peninsula, rare in the Olary hills."

EVIDENCE ON THE TASMANIAN FORESTER

"*The Kangaroo Situation*," G. B. Sharmon and H. J. Frith, 1964

"The forester or Tasmanian great grey kangaroo which has been rigidly protected for many years is in some danger of becoming extinct. This is because the forester lives or lived in the areas most suitable for farming and is even now further threatened because agricultural pursuits are extending into the last stronghold in the north-east of the island."

"*Kangaroo Protection Committee*," Mrs. F. Jones, Research Officer

"The Tasmanian Forester, a totally protected animal, is in danger of becoming extinct because its habitat is threatened by the wood chip industry."

"*The Current Status of Australian Macropodidae*," J. H. Calaby (*Kangaroos and Men*)

"The Tasmanian forester apparently always had a limited distribution and is now very much reduced in range."

MARCH 9, 1972.

Dr. JOHN PARADISO,
Bird and Mammal Laboratories,
National Museum of Natural History, Washington, D.C.

DEAR DR. PARADISO: Thank you for your letter of February 10, 1972 concerning the rapidly disappearing kangaroos of Australia. As you requested, I am enclosing additional information which has just become available to me, further confirming that the kangaroo, particularly the red kangaroo (*Megaleia rufa*), is being killed off at a rate which will soon cause the extinction of the species.

This additional information that the United States is a major cause for the killing of these animals, makes it imperative that we close off the market, thus removing a major incentive for the vast slaughter. I urge you to list the species *Megaleia rufa*, *Petrogale xanthopus*, and the sub species *Macropus giganteus*, at the earliest possible date.

I have discussed this matter with several of the humane and environmental groups such as Friends of Animals, Humane Society of the United States, and Friends of the Earth, and they share my concern for the fate of the kangaroo. They are particularly anxious that the Department of Interior take action on this matter.

Respectfully,

MARIAN NEWMAN.

Enclosure.

ADDITIONAL EVIDENCE ON THE RED KANGAROO

"The Age" September 10, 1971

"As long as American pressure continues for high quality leather skins and the fur trade uses kangaroo to replace skins of animals in other counties which are becoming increasingly protected, this demand for the kangaroo will not slacken."

"Environment" January 2, 1970, Alan Catford (Vice President of the Wildlife Preservation Society of Australia)

"State Governments continue to pit the survival of the red kangaroo against that of the pet food industry and the fur trade, and once again their condonation is made easy by the difficulty of obtaining absolute proof of danger to the species. The burden of proof always seems to fall on the prospective losers—you and I. It is time this state of affairs was reversed, and the sacred cow of industry put in its proper place. No private industry or ambitious government has the right to stake its hope for quick profits against the future well-being of Man and the rest of the living world."

"Learning to Live With Kangaroos." Dr. H. J. Frith and Mr. J. H. Calaby

"There have clearly been great changes in both the abundance and distribution pattern of some of the large kangaroo species. Red kangaroo numbers have declined close to townships and settled areas. Populations declined severely in many inland areas over the period 1959-1966 because of drought and shooting for meat on a scale that in some areas threatened their survival."

"Closer settlement with its associated network of roads and fences and intensive control of 'vermin', including kangaroos, and indeed the whole process of husbandry—has eliminated much of the native fauna from vast tracts of country.

"The red kangaroo could be saved from extinction by the provision of reserves. However, because of the animal's nomadic habits and low average densities, such reserves would need to be of great size and so remote as to remove the main reason for their existence—the continued presence of kangaroos in the inland countryside. The Commonwealth Scientific Industrial Research Organization wildlife researchers believe that the species could best be preserved on grazing land in coexistence with sheep and cattle."

"Controlled Harvesting of Kangaroos" (April 1968). H. J. Frith

"One of the disturbing things is that during the last five years, as the Red Kangaroo population has been declining, in every area where they have been studied the gross export of meat from the Commonwealth has been rapidly increasing—from two million pounds in 1961-1962 to five million in 1963-1964, and eleven million in 1965-1966. This is explained partly by an increase in the number of Grey Kangaroos in the take, and partly by a definite migration of parts of the industry from New South Wales, where the supply was almost exhausted, to relatively unexploited areas in Queensland and other States. One striking case is that of a chiller in western New South Wales which processed kangaroos mainly from the local area: the numbers of local animals declined from 2,000 a month to about 500, but in the same period the number brought overland some distance from South Australia rose from 30 to 2,344. The industry does seem to be in some danger of shooting itself out of business if that kind of thing goes on."

"No Room For The Roo." Alan Morehead, 1964. Animals

"The sheep and cattle and another wholly unexpected thing, the demand for pet food, has spelled the doom for the Kangaroo. For a few years he may be able to run free, though at his own peril. One day, the Australian coat of arms, which shows the Kangaroo proudly supporting his country's shield, will not be so much a memorial to the dead, as a tribute to one of the most graceful, inoffensive animals on the earth's surface."

"Austrian Outdoors" August 1968

"This unique marsupial, our national emblem, is today being hunted on a scale that must eventually lead to a serious depletion of the species—if not its extinction. Formerly hunted for their pelts, the limited season available for good quality skins would in itself not have been sufficient to decimate the herds to any great extent. But, now that their flesh has developed into a flourishing pet food industry, they are being ruthlessly slaughtered throughout the entire year."

London Daily Mirror, December 7, 1967. John Pelger (Britain's "Journalists of the year")

"The kangaroo is dying. In the land where he began many thousands of years ago, in the nation of which he is today the emblem, his grave is dug deep. Soon, like the forgotten dodo, he will disappear and people will wonder if such a strange creature ever existed.

New South Wales Government "Wildlife Service"

"It is quite clear that the red kangaroo populations cannot support indefinitely the present intensity of hunting."

"Humane Society of the United States News," January 1972

"Australians are killing their national emblem, the kangaroo, in such large numbers that some species are now in danger of extinction."

"Origin," March 1971. Dr. Jim Cairns

"The Federal Government should combine with the States to see that every species of kangaroo is preserved and all cruelty to them stopped."

"A number of species are in great danger of extinction, although some so-called experts say there is no real danger."

World Federation For The Protection of Animals News No. 11 Spring, 1971

"Some say the Big Red Kangaroo is in danger of extinction. Its numbers have been reduced by 75% in the last 10 years. Some fear the extinction of all kangaroos."

"Australian Zoologist," 1971. W. D. L. Ride, Western Australian Museum

"It is the business of the palaeontologist to discover of his chosen group its origin, its growth in diversity, the sudden adaptive explosion which has meant success, and its eventual decline through maladjustment to its possible ultimate disappearance. The kangaroos are the last of the great Australian marsupials to survive, and if we are not cautious in our employment of the continental environment, we may be called upon to document their end."

Mrs. F. Jones, The Kangaroo Protection Committee. 1971

"The late Francis Ratcliffe recommended last year that the obvious and urgent need was to cut back the commercial shooting to a fraction of its present potential. He said it meant putting the industry in a straitjacket to prevent it committing suicide."

New York Times, March 22, 1970

"A 1960 aerial survey estimate was 10 million. Since that time Australian officials say that there has been a very serious reduction in the kangaroo populations."

Australian Museum's 1971 leaflet on Kangaroos

"It would be a tragedy of enormous magnitude were the populations of kangaroos to become reduced to the pitiful level that obtains at present among the great whales, whose decline is directly attributable to human stupidity and greed."

Australian Wildlife Protection Council, February 15, 1972. Mr. Arthur Queripel, President

"The kangaroo and wildlife slaughter does not get any better, in many respects it continues to go from vile to worse. Materialism has definitely gone mad and most people in Australia will do almost anything and in any way to make money. In this wild stampede they are urged on by Foreign Pet food, Fur & Hide dealers, Pastoral, Mining, Gun, Chemical and other companies. Most of our major political parties are heavily financed by these Foreign companies and they will not, or cannot do anything which would effect their terrific appetite for more and more monetary profits."

"The Age" September 10, 1970, Editorial

"Until then, because of the lack of pet food and fur outlets, the only real demand came from the United States, which used kangaroo hide for high-quality leatherwork in shoe uppers, wallets and baseball mitts."

"The picture that emerges from both sides of the kangaroo trade is that while demand for meat is falling because of external health regulations and profit level concern within the trade here, the demand for the hide is increasing."

"The Ecology of Red Kangaroos" A. E. Newsome, CSIRO, Division of Wildlife Research.

"Although the Red Kangaroo is capable of producing 3 young in 2 years IT RARELY DOES. It was found that only after good rains fell did all females breed and only when good times lasted for 8 months did all young survive to leave the pouch. Half the females ceased to breed after 3-5 months of dry weather. There was very little chance of a run of 8 good months in inland Australia. The real test of the effectiveness of breeding is the number that survive to become living young-at-foot. Clearly, without the pressure of shooting, the rate of annual increase was most probably not even replacing the accelerated death rate due to deterioration of the environment in dry conditions. It was obvious that if shooting were allowed to continue at the present rate the Red Kangaroo species would be in danger of extinction in New South Wales."

Extract from letter from Mr. T. L. Lewis, Minister For Lands, May 1, 1967.

"Evidence available to the Wildlife Service shows that populations of Kangaroos (particularly Red Kangaroos in the far west and north-west) have diminished very significantly since 1959-60 due to the effects of the Kangaroo meat and skin industry and later the severe drought. The position now is that the industry has almost completely collapsed and some operators are surviving by importing animals from Queensland and South Australia."

J. W. Winter, 1970.

"The status of the red kangaroo is uncertain due to widespread drought and shooters seeking higher skin prices. Hunting pressure is much greater on Reds, particularly on the Female Blue Flyer, with the most valuable skin."

"It was revealed at the 1965 Australian Fauna Authorities Conference that the Red Kangaroo population fell by at least 2/3 in only 2-3 years in the areas studied in the Northern Territory and New South Wales, also that there was sufficient evidence to show that market shooting accounted for the major if not the whole part of the reduction."

Dr. H. J. Frith, 1971.

"If any large species of the kangaroo is endangered, it is the Red Kangaroo. Its ecology is against it in the present regime of intensive Kangaroo exploitation."

"There are many cases of reserves failing to serve their main purpose in the long term because of inadequate knowledge of the animals and lack of management. Red Kangaroos DEPEND ON SHORT GREEN PASTURE, that is not a permanent feature of the ungrazed inland plains."

"The inland races of the two Grey Kangaroos are in a stronger position than the Red Kangaroos. Similar game management principles are becoming essential to ensure their survival as reasonably common animals. If the meat industry continues to concentrate on these animals the NEED FOR A POSITIVE PROGRAMME OF MANAGEMENT COULD SOON BECOME URGENT."

Australian Shooters' Journal, Greg Mathews.

"It has become shockingly clear that the Red Kangaroo cannot tolerate indefinitely this intensity of shooting, especially when allowance is made for the effects of drought conditions, which have persisted in varying degrees in the west for the past 10 years as nearly all breeding activity is suspended during drought conditions."

Red Kangaroo in New South Wales, 1970 (Fox)

"Serious drought causes unemployment and loss of income in pastoral areas. Kangaroo prices are high because of their scarcity, and more people take up Kangaroo shooting. Drought causes concentrations of Kangaroos at watering points where they are most vulnerable to spotlight shooting."

THE FUND FOR ANIMALS, INC.,
New York, N.Y., July 21, 1972.

Mr. E. U. CURTIS BOHLEN,
Deputy Assistant Secretary of the Interior, U.S. Department of the Interior,
Washington, D.C.

DEAR MR. BOHLEN: Thank you for your kind letter of 18 July concerning your Department's interest in the status of the kangaroo. It was most thoughtful of you to take the time to write me on this subject.

I would like to reiterate my strong feeling that unless *all* species of kangaroo, including the Red and the Gray, are banned from commercial import into the United States, there will be little hope of saving these creatures from extinction or, at the very least, severe depletion and local extinction in most or all of its habitat. The listing of only those species which cannot stand further pressure from commercial of sport "harvesting" will not significantly ameliorate the situation. It seems to me that either I am right and that all kangaroo species should be listed; or I am wrong and none should be added. There would not appear to be a middle ground on this issue.

Interior's recent action in listing all whales and spotted cats which were being commercially exploited, although some of these species might not have met some people's strict, legalistic definition of "endangered," gives me great hope that you will soon take a similar course of action on the kangaroo.

Thank you for your interest in this matter.

Sincerely,

MARIAN NEWMAN,
Washington Coordinator.

[For Release March 30, 1972]

DEPARTMENT OF THE INTERIOR, OFFICE OF THE SECRETARY

EIGHT SPECIES OF BIG CATS ADDED TO INTERIOR'S LIST OF ENDANGERED FOREIGN WILDLIFE

Secretary of the Interior Rogers C. B. Morton today announced he has signed a final order placing eight species of wild cats on the list of endangered foreign wildlife. The action prohibits the further importation of these animals and their parts or products into the United States.

The cats—cheetah, leopard, tiger, snow leopard, jaguar, ocelot, margay and tiger cat—were proposed for the endangered foreign species list February 3, 1972, by notice in the Federal Register. Interested persons were invited to submit their views, data or arguments regarding the proposal to the Director of the U.S. Fish and Wildlife Service. All comments submitted were considered and it was determined that the animals should be listed now to give them protection without further delay.

The responses from foreign governments and from within the U.S. were overwhelmingly in favor of listing all eight species. Some correspondents agreed with the need to protect the cats from commercial exploitation but urged that hunters be allowed to bring back their individual trophies. In fact, it is the illegal poaching of cats for sale in the fur salons of Europe and the United States, rather than controlled hunting, that has caused the drastic reduction of cat populations. Secretary Morton's final order is worded so as to close the U.S. market to poaches and not to cut off the economic benefit accruing to African and South American countries from legitimate hunting safaris.

Under the economic "hardship clause" in the Endangered Species Conservation Act of 1969 the Fish and Wildlife Service may issue special permits for the next 12 months to importers who had valid contracts in being before a given species was placed under the protection of the Act.

Sportsmen who had firm safari reservations before February 3, 1972, can avail themselves of this provision in order to bring their trophies into the United States, if the animal was taken in accordance with the laws of its country of origin.

The new endangered species legislation now before Congress will provide, if passed, a more permanent permit system for the sportsmen. The hardship clause does not apply to cat subspecies previously on the endangered list.

Under existing law, the Secretary of the Interior can issue special permits for the importation of these cats for scientific, educational, zoological or propagation purposes.

The order became effective upon publication in the Federal Register.
The cats will be officially listed as follows:

Common and scientific names:	<i>Where found</i>
Cheetah (<i>Acinonyx jubatus</i>)-----	Africa, Asia Minor, India
Leopard (<i>Panthera pardus</i>)-----	Africa, Asia Minor, India, Southeast Asia, Korea
Tiger (<i>Panthera tigris</i>)-----	Central Asia, China and Korea, to India, Indonesia and Malaysia
Snow leopard (<i>Panthera uncia</i>)---	Central Asia
Jaguar (<i>Panthera onca</i>)-----	Central and South America
Ocelot (<i>Felis pardalis</i>)-----	Central and South America
Margay (<i>Felis wiedii</i>)-----	Central and South America
Tiger cat (<i>Felis tigrina</i>)-----	Costa Rica to northern South America

(The following information was subsequently received for the record):

THE FUND FOR ANIMALS, INC.,
New York, N.Y., August 15, 1972.

Hon. WILLIAM B. SPONG, JR.,
Committee on Commerce,
U.S. Senate, Washington, D.C.

DEAR SENATOR SPONG: Thank you for your letter of 10 August concerning the endangered species legislation now pending before your Committee. It was indeed a pleasure to have appeared before this distinguished Committee to present our views, and we are very grateful to have had this opportunity.

The answers to the questions that you have posed are as follows:

1. We believe that the Interior Department rather than Commerce is the logical agency to have jurisdiction over marine mammals, particularly the responsibility for deciding which animals should be added to the endangered list. While the past records of both agencies leave much to be desired in the field of wildlife conservation, Interior's tradition has been a little less exploitative than that of Commerce. The inter-agency conflict over whether or not the great whales should be added to the endangered list is a recent and compelling example of the point I am trying to make. Indeed, the very purpose of a Commerce Department is to be responsive to the interests of economic and commercial groups; and such a mandate must, from time to time, conflict with the interests of threatened or endangered species, and other wildlife. This is particularly true in the case of the marine mammals, intelligent, highly-evolved animals that need to be protected as much as possible from commercial exploitation. We do not, of course, object to commercial exploitation of other marine life such as fish, which are necessary for human life and welfare. That is why we would not oppose Commerce having jurisdiction over endangered fish species and other ocean life which are the proper object of commercial "harvesting."

We are, by the way, favorably impressed with some recent actions taken by the new Secretary of Commerce, Peter Peterson, and the Administrator of NOAA, Dr. Robert White. We are particularly grateful for the recent actions by Dr. White and other officials of NOAA, such as Dr. William Aron and Mr. David Wallace, in attempting to secure a ten year moratorium on commercial whaling.

However, NOAA's National Marine Fisheries Service is still dominated by the same pro-industry attitude of maximum sustainable yield. In the words of a recent *New York Times* editorial (copy enclosed), "... the oceanic administration in Commerce is the former Bureau of Commercial Fisheries with a new name but the same old exploitative, pro-industry attitudes." Some examples of this attitude as follows:

(1) Mr. Philip Roedel, head of NOAA's National Marine Fisheries Service (NMFS), still sends out form letters to members of Congress and the general public implicitly endorsing Canada's annual slaughter of hundreds of thousands of seals, most of which are nursing pups. His letter describes this baby seal kill as "efficient and humane."

(2) In order to keep the Richmond, California whaling station in business, between 1967-1970 NMFS issued hundreds (documents indicate that the exact number appears to be 650) of "scientific" permits for the "taking" of gray and sperm whales. (Gray whales have been protected from commercial killing by law since 1936.) After the whales killed were "studied," they were turned over to the Del Monte Whaling Company and made into cat and dog food. ("The whales

are collected by the Del Monte Fishing Company of Richmond, California. After the scientific information has been obtained, the whales are then processed by that company." NMFS fact sheet.) This was, thus, a commercial operation carried out in the name of science.

(3) One reason given by NMFS for the killing of these whales was to help them study the feasibility of beginning "commercial harvesting of gray whales."

(4) After promising to close down the Richmond whaling station in March 1971, Maurice Stans, then Secretary of Commerce (NOAA's parent agency), gave the company a one year extension to continue killing finback, sei, and sperm whales, even though these animals had been placed on the Interior Department's endangered species list.

(5) In testimony before the House of Representatives, Howard Pollock, Deputy Administrator of NOAA, endorsed the same marine mammal "protection" bill (H.R. 10420) that was supported by the fur industry and other commercial groups that were profiting from the killing of marine mammals. Pollock also offered weakening amendments to the bill. In the Senate hearings, Pollock opposed the passage of any legislation designed to protect marine mammals, preferring to rely on an Administration Endangered Species Act which had not even had hearings yet in the Senate. ("It is our firm belief that this administration proposal, if enacted in its present form, would obviate the need for legislation aimed only at the protection of marine mammals.")

(6) NOAA and NMFS continually emphasize in their literature that only "surplus bachelor male" seals are harvested by them in the Pribilof Islands. Such a statement was made by former Commerce Secretary Maurice Stans on the back cover of *Commerce Today* and by Howard Pollock, then acting Administrator of NOAA, in a letter published in the *New York Times*.

In fact, during the last decade, some 250,000 female seals, along with their nursing or embryonic pups, have been killed by NMFS in the Pribilof Islands. In 1961-63, for example, in excess of 43,000 female seals of breeding age were "harvested" each year. As late as 1968, exactly 13,335 females were butchered, along with their pups which either starved to death or died in the womb if they were not yet born. I have spoken with eyewitnesses who have watched the nursing mothers being killed and have seen the young, infant seals chasing after their mothers which were being herded for slaughter. Deprived of their mothers' milk and attention, they, of course, starved to death. Attachment "I" gives a year-by-year breakdown of the numbers of females killed, along with an explanation of why tens of thousands of these seals were killed, discarded into the ocean, and wasted (p. 284). Also enclosed is a discussion of NOAA's funding of the Fouke Fur Company's advertising of sealskin coats.

(7) On 11 January 1972, NOAA issued a press release (through Commerce Secretary Stans) giving the impression that new tuna nets and fishing techniques being studied by NOAA and NMFS were able to reduce dolphin mortality by 75 percent. These conclusions, however, were based on an extremely small number of samplings (25 in all) aboard a chartered tuna vessel operating under tightly controlled conditions. In fact, the new nets do not appear to significantly ameliorate the problem; but the press release did have the intended effect of calming public opinion and getting the tuna industry "off the hook."

(8) The day before the House marine mammal hearings began, NOAA called a press conference and presented several veterinarians who endorsed the Pribilof seal kill and stated that clubbing the seals to death was the most "humane" way of "harvesting" them. (At issue is not how the seals are killed but rather whether they should be slaughtered for sealskin coats.) * * *

[From the *New York Times*, Tuesday, May 30, 1972]

TO PROTECT DOLPHINS

The Senate Commerce Committee is nearing a decision on the Marine Mammal Protection Act. As passed by the House, this bill had serious defects which reflected more concern for the profits and convenience of the commercial tuna fishing industry than for the welfare of the highly intelligent dolphins and other ocean mammals threatened with extinction.

In the Senate version, there is some significant added protection but it has also some weakening provisions. For example, at the behest of a small segment of the fur industry, the bill would permit the import of skins from seals more than one month old. That would mean the clubbing to death of baby seals, which horrified the American public when it was shown on television, would continue to have a commercial justification.

The bill establishes a fifteen-year moratorium on the killing of marine mammals by American citizens. The tuna industry, which inadvertently and needlessly slaughters thousands of dolphins every year, receives a special two-year exemption which could be renewed annually at the discretion of the Secretary of Commerce. The bill provides ample research funds to encourage the tuna industry to develop less deadly fishing methods but there is no firm cutoff date beyond which it would have to stop its current cruel practices.

Two amendments are indispensable if the Senate bill is to represent any improvement over the House version. First, Senator Humphrey, Democrat of Minnesota, has proposed that the special exemption for the tuna industry be limited to one year with no possibility of renewal. Secondly, Senator Hart, Democrat of Michigan, seeks to transfer all authority under the bill the Commerce Department to the Interior Department, which now shares a small piece of the power. This change is highly desirable. Interior has a strong conservationist tradition while the oceanic administration in Commerce is the former Bureau of Commercial Fisheries with a new name but the same old exploitative, pro-industry attitudes.

2. We do not see any inherent conflict in our position of supporting the provision in S. 3818 which states that the states are not pre-empted from enacting stricter legislation, while opposing giving the states the authority to regulate the "taking" of endangered species. It should be obvious that the purpose of our position is to give wild animals the maximum protection under the law. Both New York and Illinois, for example, have enacted legislation which is, in some ways, more stringent than the federal act, particularly in banning the possession, sale, or import of the products of certain animals. The various states should have the right to do this and can certainly enforce such laws with the cooperation of the Federal Government.

However, no state should have the right to open up a hunting season on endangered species under the guise of "regulating the taking" of such animals. Louisiana, for example, plans to allow the commercial hunting of alligators in the very near future. Whether or not the alligator is abundant enough in Louisiana to withstand some commercial killing, there is little doubt that Louisiana's action will threaten its future existence throughout its range and will significantly affect the alligator populations of Georgia, Florida, and South Carolina. With the availability of "legal" alligator pelts again in interstate commerce, the demand for such products will increase, as will the illegal poaching in the states where the alligator is still gravely threatened.

Moreover, many species are endangered or are becoming so because of the actions of individual states. Some western states still make requests to the Secretary of Interior for the issuance of general or blanket permits for the killing of golden eagles during the season when young sheep or cattle are being born or nursed. The state of Alaska paid a bounty on bald eagles—our national symbol—until 1951, and approximately 100,000 eagles are estimated to have been shot during this period. Alaska still permits the "regulated taking" of such endangered species as the polar bear and the bowhead whale. Western states which are controlled or heavily influenced by ranching interests will undoubtedly want to continue killing such predators as mountain lions, even if it is determined that these animals are threatened with extinction. We must anticipate such situations, and prevent them from occurring.

Since endangered species are, by definition, animals which are or are becoming threatened with extinction, it does not seem reasonable to grant any state the authority to "regulate the taking" of such animals. The purpose of this legislation is to protect such animals, not grant individual states the right to kill them.

(Enclosed is a description of Illinois' new endangered species act, which provides protection to several animals not covered by the Federal act, such as the clouded leopard. Also enclosed is a letter from the Louisiana Wildlife and Fisheries Commission indicating an intention to open a hunting season on alligators.)

[From the Chicago Sun-Times, Tuesday, Aug. 8, 1972]

ILLINOIS BANNING FURS TO SAVE RARE SPECIES

(By Bruce Ingersoll)

Take warning, you traders in the skins and furs of endangered species of wildlife.

On Jan. 1, Illinois will take dead aim at alligator poachers, tiger hunters and all those callous enough to prey on creatures that are threatened with extinction.

The importation, sale and possession of several endangered species—dead or alive, intact or skinned and beheaded—will be forbidden in this state as of the New Year.

Gov. Ogilvie signed into law Monday the Endangered Species Protection Act, a measure designed to dry up the Illinois market for such products as vicuna coats and alligator bags and shoes.

The signing took place at a press conference at the Field Museum of Natural History to the applause of several naturalists and conservationists, including State Rep. George Burditt (R-LaGrange) and State Sen. Terry Bruce (D-Olney), sponsors of the legislation.

(On the protected list are the vicuna, leopard, snow leopard, clouded leopard, tiger, cheetah, polar bear, red wolf, gray wolf, mountain lion, jaguar, ocelot, margay desert kit fox, swift fox, Pacific Ridley turtle and green turtle, as well as the alligators, caiman and crocodiles.)

Also protected are those species already on the Federal list of endangered animals.

The act was hailed by William Beecher, director of the Chicago Academy of Sciences, as an encouraging sign that at least the people of Illinois are willing to recognize that there are other "passengers on the planet" besides human beings.

Under the new law, anyone swathed in leopard skins or trotting around in alligator shoes will need a permit to do so from the Illinois Department of Conservation.

The permit would be issued at no cost, providing the applicant could prove he acquired the leopard-skin coat or alligator shoes prior to Jan. 1.

James R. Phelps, an attorney, who helped draft the measure, said it was not aimed at the consumer, the woman who now wears the fur of some vanishing animal. It does specify, however, declare that the purchase and possession of any protected animal or product thereof will be permitted only for zoological, educational and scientific purposes. The governor will appoint six naturalists and three representatives of the fur and leather industry to an Endangered Species Protection Board, which will hear recommendations for additions to the protected list.

LOUISIANA WILD LIFE AND FISHERIES COMMISSION,
New Orleans, La., April 7, 1972.

Hon. ROGERS C. B. MORTON,
Secretary, U.S. Department of the Interior,
Washington, D.C.

DEAR MR. MORTON: Attached herewith you will find copy of a resolution adopted by the Louisiana Wild Life and Fisheries Commission at its regular public meeting held in New Orleans, Louisiana, on March 28, 1972. In essence, this resolution requests that the Department of the Interior remove the American Alligator from its endangered species list at the earliest possible moment.

Populations of these reptiles have been restored to carrying capacity levels in many parts of this State, and we feel that their status is secure.

If there are questions in need of answers, we will be happy to meet with any representative you may wish to send to Louisiana to examine the alligator populations at this time.

Your favorable consideration will be appreciated.

Sincerely yours,

CLARK M. HOFFPAUER, Director.

3. We believe that a Federal endangered species act should be enforced by the Federal Government and specifically by the Department of Interior. However, such enforcement would logically be carried out with the cooperation of state agencies. We would thus have no objection to language in the final bill allowing the Secretary to coordinate with the states in enforcing the act. However, the immediate and ultimate enforcement responsibility should rest with the Federal Government as is normally done with other Federal laws.

4. We see absolutely no conflict between the proposed endangered species act and the marine mammal protection act. Indeed, we consider both bills to be important and vital to the future survival of our wildlife heritage; and we

hope that both will be enacted into law during this session of Congress. We certainly agree with the concept of the marine mammal bill that certain animals should be given protection *before* they reach the point of being threatened or endangered.

If there are specific instances in which these bills are alleged to be inconflignt, we would be happy to address ourselves to such arguments.

5. Although we do not oppose non-wasteful hunting of non-endangered species by native peoples, we cannot condone such killing of animals which are threatened or are becoming threatened with extinction.

We are extremely sympathetic towards the plight of the American Indian, whose record of reverence for nature and respect for wildlife is a far better one than that of the white man. No other race or ethnic group has been subjected to as much persecution and hatred as the American Indian. However, we do not feel that any group should be given exemptions to continue to kill endangered species.

Moreover, we are not aware of any instances in which American Indians would benefit to any significant extent from the "taking" of such animals. Part of traditional Indian culture consists of using eagle feathers as headdress and for ceremonial purposes. Yet, Indians are not given an exemption to take eagles under the terms of the bald eagle protection act.

May I reiterate that most endangered species are in that state because of the actions of the white man, for the Indian has been far more enlightened in his attitude towards nature than has our supposedly more "civilized" society.

(Enclosed is a list of endangered species that may be found on Indian lands.)

SPECIES THAT MAY BE ENDANGERED ON INDIAN LANDS ¹

Listed below are native American species which could appear on our lists, and which may occur in lands that are controlled by American Indians.

MAMMALS

Indiana bat, spotted bat, Utah prairie dog, Northern Rocky Mountain wolf, Eastern timber wolf, red wolf, San Joaquin kit fox, grizzly bear, black-footed ferret, Florida panther, Eastern cougar, Columbian white-tailed deer, Sonoran pronghorn, California bighorn, peninsular bighorn, Arizona prairie dog, big-eared kangaroo rat, Florida water rat or round-tailed muskrat, northern swift fox, pine marten, Sierra red fox, fisher, Everglades mink, wolverine, and Canada lynx.

BIRDS

Eastern brown pelican, Florida great white heron, tule white-fronted goose, Florida Everglade kite (Florida snail kite), southern bald eagle, prairie falcon, American peregrine falcon, Arctic peregrine falcon, northern greater prairie chicken, masked bobwhite, whooping crane, Florida sandhill crane, spotted owl, Yuma clapper rail, California black rail, Eskimo curlew, red-cockaded woodpecker, American ivory-billed woodpecker, Bachman's warbler, Kirtland's warbler, wood ibis, white-face ibis, red-bellied red-shouldered hawk, ferruginous hawk, American osprey, Audubon's caracara, Northern Aplomado falcon, prairie pigeon hawk, eastern pigeon hawk, columbian sharp-tailed grouse, western snowy plover, mountain plover, northern long-billed curlew, Alaskan short-billed dowitcher, Florida burrowing owl, western burrowing owl, black-capped vireo, and Florida grasshopper sparrow.

REPTILES AND AMPHIBIANS

American alligator, Jamez mountain salamander, American crocodile, key blacksnake, eastern foxsnake, Arizona ridge-nosed rattlesnake, and Gila monster.

FISHES

Lake sturgeon, longjaw cisco, deepwater cisco, blackfin cisco, lahontan cutthroat trout, Arizona (Apache) trout, humpback chub, little Colorado spinedace, Colorado squawfish, cui-ui gila topminnow, blue pike, Utah cutthroat trout, Yaqui chub, Lost River sucker, shortnose sucker, humpback sucker, Sacramento perch, Tuckasegee darter, tangerine darter, and olive darter.

¹ Source: U.S. Department of the Interior.

I hope that the above information will be helpful; and if you have any further questions, we would be most happy to try to answer them.

Thank you for considering our views on this important matter.

Respectfully,

LEWIS REGENSTEIN,
Washington, D.C.

THE EXTINCTION OF THE SPOTTED CATS

(By Lewis Regenstein)

(Mr. Regenstein is a free-lance writer residing in Arlington, Virginia. He is Washington coordinator for the Committee for Humane Legislation.)

The U.S. Government—in flagrant violation of the law—is encouraging the destruction of tigers, leopards, and other species of spotted cats throughout the world.

This is being accomplished through the Department of Interior's policy of refusing to include these animals on its Endangered Species List, thereby permitting the import and sale of their pelts in the United States. The Endangered Species Conservation Act, passed by Congress in 1969, is designed to prevent the extinction of any species and to "encourage foreign countries to provide protection to wildlife threatened with extinction." The Act specifies that no fur or other by-product of any endangered species may be imported into this country.

This law, however, has several weaknesses. It permits the Interior Department to determine which species can be designated as "endangered" and does not allow for a public hearing when a request is made that an animal be added to the list. The Act also authorizes Interior to exclude animals which are not "threatened with world-wide extinction." In other words, if leopards were disappearing everywhere except one country where they might still be plentiful, leopards would not be given protection from commercial exploitation and their pelts could still be imported into the United States. These loopholes have allowed the Interior Department to effectively frustrate the intent of this legislation.

Interior's list of endangered foreign wildlife is quite impressive and appears at first glance to include most of the world's rapidly disappearing species. This is not quite the case. For example, the list includes the Bali tiger (which appears to be already extinct) and the Javan Sumatran, and Caspian tigers, the combined world wide total of which is probably less than thirty. These are, of course, subspecies of the tiger. The tiger itself (*Panthera tigris*) is not listed. Thus, the following types of tigers do not appear on the endangered list and their pelts may be freely imported into the United States: the Siberian (numbering about 200 worldwide), and the Bengal, Amur, and Chinese tigers. All of these latter subspecies of tigers are listed by the *Red Data Book* of endangered species, a publication compiled by the International Union for the Conservation of Nature and Natural Resources (IUCN), which is generally recognized as an authoritative (and quite conservative) source.

A similar situation prevails with the leopard (*Panthera pardus*). Interior lists the Formosan clouded, Sinai, Barbary, and Anatolian leopards, but omits the most commercially exploited species—the African leopard—as well as the South Arabian and Amur leopards.

A recent symposium on the world's cats attended by practically all of the top scientific experts on this subject passed a unanimous resolution declaring that all spotted cats were becoming endangered by the U.S. market. Among those cats included in this category, most of which appear in the *Red Data Book* but which Interior obstinately refuses to recognize, are the following: snow leopards and clouded leopards (which are not, strictly speaking, true leopards); African cheetahs; and such smaller cats as ocelots, jaguars, margays, servals, Geoffroy's cat, and marbled cats of Nepal and Borneo.

While the Interior Department looks the other way, all of these creatures are being driven into extinction by the American fur industry. The situation in Brazil, for example, has become so desperate that the country has reportedly banned commercial hunting of spotted cats. According to zoologist Jose Carvalho, Assistant to the President of the Brazilian Institute of Forestry Development, hunters last year killed more than 17,000 spotted cats, including 856 jaguars, in one state alone. The majority of the jaguar and other spotted cat pelts—worth

some \$423,000 in unprocessed form—was imported into the United States. Brazil's ban on hunting, however, is not expected to be effective, for as long as there is a demand from the U.S. fur industry for these pelts, poaching and smuggling will continue.

According to World Wildlife Fund's staff biologist, Steve Seater, it is extremely difficult to determine exact figures or even make estimates of the number remaining of a wild species. This is particularly true of feline predators, which are secretive, solitary beasts that often hunt at night. In many areas of Asia and Africa, these once-plentiful cats are just not seen anymore; but to prove that they are down to the last 50 or 100—as the Interior Department demands—is impossible. Furthermore, when the breeding population of a species reaches certain point of depletion, disease and natural mortality can wipe out the few that remain. Most biologists feel that when an animal population is reduced to 10 percent of its natural size, its future survival becomes doubtful.

The Interior Department stresses the fact that wild cats are rarely seen because of their nocturnal habits, unfairly using this point to dispute legitimate evidence that some species are rapidly disappearing or have been completely eliminated from an area. While it is true that little is known about the abundance of many of these creatures, it is the consensus of those experts familiar with this subject that all of these animals are rapidly approaching extinction.

The problem of which subspecies are endangered and which are not is more serious than it first appears. For example, ocelot pelts can pass for margay, and vice versa; nor is it possible to distinguish the pelt of a Bengal tiger, which is not on Interior's list, from that of a Javan tiger, which is. It is almost impossible to identify an animal's race according to the pelt fragments found in such fashion products as coats, purses, and wallets. The result is that the fur industry is continuing to hire hunters to kill various forms of tigers and leopards, and other spotted cats, knowing that the pelts can be imported to the U.S. without undue difficulty, no matter what animal species is the source.

Furthermore, tigers and leopards "poached" illegally in one country can be smuggled into a neighboring country and thence shipped "legally" into the United States. Thus, the U.S. is making it even more difficult for countries which are trying to protect their spotted cats, such as India and Kenya. According to the *Statesman* of New Delhi, the illicit trade in spotted cats in India is so profitable that very young tigers and leopards and even cubs are being poisoned *en masse* in the jungles. The price for a cub's pelt is only a few dollars less than for that of an adult. One merchant told the author of the *Statesman* article that he could provide her with over two hundred fresh leopard skins a month. Moreover, Perez Olindo, Director of the National Parks of Kenya has pleaded with the United States to enact legislation restricting the sale of skins of leopards, cheetahs, and crocodilians in order to help curb the illegal poaching which takes such an enormous toll of Kenya's wildlife. His plea has fallen on deaf ears. Obviously, these exotic and very expensive fur products are not being ultimately purchased by Indians and Kenyans: it is the U.S. market that is in large part creating this demand.

It is not as if the Interior Department were unaware of the situation. At the 1963 meeting of the IUCN, a warning was issued: "The present fashion of spotted cats is a threat to the continued existence of these kinds of animals." Yet, according to the Interior Department's own figures, over 18,000 leopard skins from Africa alone were imported into this country between 1968-70. In 1969 alone, the wholesale trade in the U.S. was worth \$2,105,228 for leopard, \$1,672,043 for jaguar, \$6,549,537 for ocelot, and \$252,697 for cheetah. Interior stresses and takes credit for the fact that in 1970, the import of raw cat pelts began to decline. This is not due, however, to the Department's policies or enforcement activities but rather to the fact that the number remaining of these animals, particularly cheetahs, has declined substantially. Furthermore, the major New York furriers union now refuses to process raw pelts of endangered cats. Hence, instead of raw skins entering the country, finished products, such as coats and furs, are now being imported.

The Interior Department responds to such evidence with arguments that, upon examination, do not make much sense. Officials of Interior's Office of Endangered Species insist that a market for these pelts must be maintained as an economic incentive to preserving these cat species, particularly since they often become "a nuisance" to human residents of their habitat. Actually, just the

opposite is the case. The U.S. market is making it almost impossible for protection to be provided to these animals and is directly contributing to—not preventing—their now imminent extinction. Furthermore, when these wild cats do “become a nuisance” and interfere with man’s activities, they are killed, not tolerated as a national economic resource.

Unfortunately, it appears that by the time the argument is settled over which animals are and are not in imminent danger, many species of spotted cats and other animals will have passed the point of no return. Polar bears and mountain lions—which are in an equally precarious state—have also been excluded from the endangered list. Interior’s policy remains one of refusing to take remedial measures *before* a species reaches extinction, despite the Endangered Species Act’s clear intent to prevent such conditions. The result of present policies is that by the time a species is reduced to such small numbers as to warrant recognition on Interior’s list, its future survival has already become doubtful.

Eley Denson, former staff assistant for Interior’s Office of Endangered Species, exemplifies the attitude of those in the Department who are responsible for the preservation of these animals. In an interview with *The Washington Post’s* fashion reporter Margaret Crimmins, in June 1970, Denson stated that leopards were “regarded as vermin to get rid of in some areas.” He scoffed at the then usually cited estimate of Bengal tigers remaining in India by saying, “You could find that many in zoos.” Denson added that he would buy his wife a leopard skin coat, if he could afford one.

The outlook for these animals is dim. The Interior Department’s callous policy was reiterated last month, when Assistant Secretary for Wildlife Nathaniel Reed responded to the resolution passed unanimously at the international symposium on the world’s cats asking that wild cat pelts be banned from import into the United States. Reed stated that spotted cats would not be placed on the endangered list since such an action would, among other things, do unnecessary “mischief” to the fur industry’s “legitimate enterprise.”

Unless Reed or Secretary of Interior Morton can be persuaded to recognize spotted cats as being in imminent danger of extinction, these magnificent creatures will soon disappear forever.

EXAMPLES OF THE “EXPLOITATIVE, PRO-INDUSTRY ATTITUDES OF NOAA’S NATIONAL MARINE FISHERIES SERVICE, OF THE U.S. DEPARTMENT OF COMMERCE

(1) Mr. Philip Roedel, head of NOAA’s National Marine Fisheries Service (NMFS), still sends out form letters to members of Congress and the general public implicitly endorsing Canada’s annual slaughter of hundreds of thousands of seals, most of which are nursing pups. His letter describes this baby seal kill as “efficient and humane.” (Copy enclosed, attachment “A”)

(2) In order to keep the Richmond, California whaling station in business, between 1967–70 NMFS issued hundreds (enclosed documents indicate that the exact number appears to be 650) of “scientific” permits for the “taking” of gray and sperm whales. (Gray whales have been protected from commercial killing by law since 1936.) After the whales killed were “studied,” they were turned over to the Del Monte Whaling Company and made into cat and dog food. (“The whales are collected by the Del Monte Fishing Company of Richmond, California. After the scientific information has been obtained, the whales are then processed by that company.” NMFS fact sheet, attachment “B”.) This was, thus, a commercial operation carried out in the name of science.

(3) One reason given by NMFS for the killing of these whales was to help them study the feasibility of beginning “commercial harvesting of gray whales” (attachment “C”).

(4) After promising to close down the Richmond whaling station in March 1971, Maurice Stans, then Secretary of Commerce (NOAA’s parent agency), gave the company a one-year extension to continue killing finback, sei, and sperm whales, even though these animals had been placed on the Interior Department’s endangered species list. (Attachments “D” and “E.”)

(5) In testimony before the House of Representatives, Howard Pollock, Deputy Administrator of NOAA, endorsed the same marine mammal “protection” bill (H.R. 10420) that was supported by the fur industry and other commercial groups that were profiting from the killing of marine mammals. Pollock also offered weakening amendments to the bill. In the Senate hearings, Pollock opposed the passage of *any* legislation designed to protect marine mammals,

preferring to rely on an Administration Endangered Species Act which had not even had hearings yet in the Senate. ("It is our firm belief that this administration proposal, if enacted in its present form, would obviate the need for legislation aimed only at the protection of marine mammals." Attachment "F.")

(6) NOAA and NMFS continually emphasize in their literature that only "surplus bachelor male" seals are harvested by them in the Pribilof Islands. Such a statement was made by former Commerce Secretary Maurice Stans on the back cover of *Commerce Today* (attachment "G") and by Howard Pollock, then acting Administrator of NOAA, in a letter published in the *New York Times* (attachment "H"). In fact, during the last decade, some 250,000 female seals, along with their nursing or embryonic pups, have been killed by NMFS in the Pribilof Islands. In 1961-63, for example, in excess of 43,000 female seals of breeding age were "harvested" each year. As late as 1968, exactly 13,335 females were butchered, along with their pups which either starved to death or died in the womb if they were not yet born. I have spoken with eyewitnesses who have watched the nursing mothers being killed and have seen the young, infant seals chasing after their mothers which were being herded for slaughter. Deprived of their mothers' milk and attention, they, of course, starved to death. Attachment "I" gives a year-by-year breakdown of the numbers of females killed, along with an explanation of why tens of thousands of these seals were killed, discarded into the ocean, and wasted (p. 284). Also enclosed is a discussion of NOAA's funding of the Fouke Fur Company's advertising of sealskin coats.

(7) On 11 January 1972, NOAA issued a press release (through Commerce Secretary Stans) giving the impression that new tuna nets and fishing techniques being studied by NOAA and NMFS were able to reduce dolphin mortality by 75 percent. These conclusions, however, were based on an extremely small number of samplings (25 in all) aboard a chartered tuna vessel operating under tightly controlled conditions. In fact, the new nets do not appear to significantly ameliorate the problem; but the press release did have the intended effect of calming public opinion and getting the tuna industry "off the hook."

(8) The day before the House marine mammal hearings began, NOAA called a press conference and presented several veterinarians who endorsed the Pribilof seal kill and stated that clubbing the seals to death was the most "humane" way of "harvesting" them. (At issue is not how the seals are killed but rather whether they should be slaughtered for sealskin coats.) The effect was to undercut some of the momentum that had been built up for a strong, protective marine mammal bill.

U.S. DEPARTMENT OF COMMERCE,
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION,
NATIONAL MARINE FISHERIES SERVICE,
Washington, D.C., March 24, 1971.

HON. JOEL T. BROYHILL,
House of Representatives,
Washington, D.C.

DEAR MR. BROYHILL: This is in reply to your letter on behalf of _____ who expressed concern about the harvest of harp seals by Canada in the Gulf of St. Lawrence.

The United States has no jurisdiction over Canadian sealing operations which take place off Canada. United States citizens do not take part in the harvest. Several years ago Canada, becoming fearful that the seals were being over-harvested, asked an international organization, the International Commission for the Northwest Atlantic Fisheries (ICNAF), to undertake the coordination of international cooperative measures for the management of these seal stocks. Steps have been taken to improve both humane and conservation practices.

At the June 1970 ICNAF meeting, that organization recommended to the member governments that no more than 245,000 seals be taken during the 1971 season. Both Canada and Norway have accepted this recommendation and it will be in effect for this year's sealing. This limit is somewhat lower than the average number of seals which normally have been taken in this sealing. The Panel on Seals which made the above recommendation to the Commission stated that regulations which previously have been introduced in close cooperation with international organizations for the protection of animals to ensure the efficient and humane killing of seals will be retained.

We appreciate your concern about this matter.

Sincerely,

PHILIP M. ROEDEL, *Director.*

U. S. DEPARTMENT OF COMMERCE,
 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION,
 NATIONAL MARINE FISHERIES SERVICE,
 Washington, D.C., April 27, 1972.

HON. JOEL T. BROYHILL,
 House of Representatives,
 Washington, D.C.

DEAR MR. BROYHILL: This is in reply to your request for information for a constituent, Mr. David A. Johnson, regarding a *Washington Post* article entitled "The Slaughter of the Baby Seals."

The Department of Commerce has neither defended nor condemned the harvest of harp seals off Canada since United States citizens do not take part in the harvest nor does the United States have any jurisdiction over these seal stocks. Because of this we have done no direct research on the status of the harp seal population nor on the harvesting methods.

However, because of the many inquiries we have received from the public we have reported the facts about this harvest as we understand them through our association in the International Commission for the Northwest Atlantic Fisheries (ICNAF), published material, and personal communication with Canadian authorities. Enclosed is a form which we have been mailing to the public in answer to inquiries. This form is updated from time to time as changes are made in the management program.

The article in the *Washington Post*, referred to by Mr. Johnson, does not even quote our mailing forms correctly. The article states "Philip Roedel, head of the Commerce Department's National Marine Fisheries Service, in response to inquiries from Congress and the public, sends out form letters describing the Canadian hunt as "efficient and humane". You will note our form states "Proposals have been made to improve both the humane and conservation practices," referring to ICNAF. To the best of my knowledge we have never used the terminology to describe the harp seal hunt ascribed to us in the article.

Improvements in the hunt have been made during the past few years. As stated in our form in 1971, Norway and Canada decreased the number of harp seals taken to less than 245,000 based on recommendations of scientists on the Seal Panel within ICNAF. In 1972 Canada and Norway reached agreement and reduced this year's take to about 150,000 animals. It is our understanding that the humaneness of the hunt has also been improved during this time. This has been accomplished through a greatly increased enforcement effort by the two countries to ensure that the hunters rigidly follow the prescribed killing methods as recommended by various government and independent groups.

There are no harp seals taken in Alaska since they are restricted to the North Atlantic and adjacent waters.

If further information is desired we would be pleased to supply it.

Sincerely,

PHILIP M. ROEDEL, *Director*.

Enclosure.

SEALING, NORTHWEST ATLANTIC

The United States has no jurisdiction over this sealing, which takes place primarily in international waters in the Atlantic Ocean off Canada. United States citizens do not take part in the harvest. Several years ago Canada, becoming fearful that the seals were being overharvested, asked an international organization, the International Commission for the Northwest Atlantic Fisheries (ICNAF), to undertake the coordination of international cooperative measures for the management of these seal stocks. The rules of this organization were amended in 1966 so that it could consider sealing questions. Proposals have been made to improve both the humane and conservation practices.

At the June 1970 ICNAF meeting, that organization recommended to the member governments that no more than 245,000 seals be taken during the 1971 season. Both Canada and Norway accepted this recommendation and placed it in effect for this year's sealing. This limit is somewhat lower than the average number of seals which normally have been taken in this sealing. Further reductions in sealing were considered at the June 1971 ICNAF annual meeting, and it was agreed that the quota for 1972 should be established by agreement between the countries concerned. The Panel on Seals which made the above recommendation to the Commission stated that regulations which previously have been introduced in close cooperation with international organizations for the protection of animals to insure the efficient and humane killing of seals will be retained.

[From the New York Times, Wednesday, Aug. 18, 1971]

HARVESTING SEALS IN ALASKA

To the Editor:

In his July 23 letter to The Times ("Save Ocean Mammals") Harold E. Carter conveniently ignores all but one point in Secretary Maurice Stans' statement on the seal harvest in Alaska.

Mr. Carter takes issue with the economic factors involved. But however easily he may dismiss the livelihood of 635 Aleuts, it would serve his interest in the seals if he would recognize other points in the Secretary's statement.

The reason Mr. Stans went to Alaska was to review the practices involved. He did so in the company of numerous representatives of private groups with humane interests, including six members of the American Veterinarian Medical Association, and he has pledged that if they can recommend any improvements in present slaughtering methods, those improvements will be adopted.

Mr. Carter implies that the seal harvest is endangering the species, when in fact the opposite is true. The herd was reduced to some 200,000 animals in 1911 through uncontrolled hunting on the high seas, when an international agreement on their conservation and management was reached to protect them from extinction. Today that population has risen to approximately 1.3 million, which is about optimum size. A much larger herd would result in overpopulation and death from starvation and disease.

Further, Secretary Stans' statement makes clear that baby seals, the pups, are not the victims of harvesting. As a rule, bachelor males not associated with the breeding are harvested.

Mr. Carter's last-sentence attempt to link seals and whales indicates his apparent unawareness that Secretary Stans had denied a license to the last whaling firm in the United States because of the fact that whales are an endangered species. Seals are not. The Secretary's action in the whaling matter has been widely commended.

Incidentally, the picture used with Mr. Carter's letter was not taken in the Pribilofs, but in eastern Canada. The picture is of a harp seal being killed on the ice. The Pribilof fur seals are never harvested on the ice but rather on the grassy meadows where suitable animals are selected from the bachelor herds. Although the harp seal pups are taken in eastern Canada, they are never harvested in the Pribilofs under our management practices.

HOWARD W. POLLOCK,

Acting Administrator,

National Oceanic and Atmospheric Administration.

[From the New York Times, Friday, July 23, 1971]

SAVE OCEAN MAMMALS

To the Editor:

Secretary of Commerce Maurice H. Stans is quoted (news story July 11) in his defense of the killing of seas in Alaska as stating:

"Cessation of the seal harvest would force them [635 Aleuts] to become wards of the Government, depriving them of the dignity of gainful employment and self-reliance." The article further stated that Mr. Stans may be a key witness before the Senate Commerce Committee on a bill sponsored by Senator Fred R. Harris of Oklahoma that would prohibit the killing of sea mammals.

The Harris-Pryor Ocean Mammal Protection Act of 1971, as this bill is called, is one of the most progressive pieces of legislation in process to end the needless and barbaric killing of seals and other ocean mammals for the minor economic gains that result from these slaughters. It is aimed at the preservation of animals which, at the present rate of alarming reduction, are being seriously depleted from the world environment.

It is beyond my comprehension that the Secretary of Commerce would base his defense of the seal "harvest"—how we do euphemize slaughter these days—on its giving a few hundred hunters the "dignity of gainful employment and self-reliance" While Mr. Stans is elaborating upon the dignity derived from the slaughter of seals, the Senate Commerce Committee would do well to hear of the indignities (from an authoritative source like Friends of Animals, Inc., or the Committee for Humane Legislation) which necessitated the introduction of the Harris-Pryor bill in the first place.

Furthermore, if it is logical to defend the seal slaughter on the grounds of economic need of the hunters, it is equally logical to continue or even encourage organized crime on the grounds that its abolition would create some hardships and employment problems for criminals.

Will Mr. Stans and other officials of the Government please be reminded of their responsibility to citizens who are committed to and responsible for the preservation of wildlife not only for now, but also for future citizens of future generations? Besides, if we can save the seals and whales, over which we have dominion, we may even be able, ultimately to save ourselves.

HAROLD E. CARTER.

SLAUGHTER OF SEA MAMMALS

To the Editor:

The August 4 letter of Howard W. Pollock, Acting Administrator of the National Oceanic and Atmospheric Administration, is so misleading and inaccurate as to require a clarifying response.

Mr. Pollock states that if the present seal slaughtering method (beating on the head with clubs) can be improved, it will be. At issue is not the method by which the seals are killed (brutal as it is) but the fact that there is no justification for killing these intelligent, highly evolved mammals. Sealskin coats are hardly necessary to our society.

His next point is that the seal population of the Pribilof Islands "has risen (from 200,000 in 1911) to approximately 1.3 million, which is about optimum size. A much larger herd would result in overpopulation and death from starvation and disease." This is nonsense. According to Government figures, the natural size of the herd (before the seals were being hunted) was over five million. As late as 1950 it numbered about four million and was in a quite healthy state. This herd is now a pitiful remnant of its former size; it has decreased—not increased—by a factor of almost 80 percent.

Mr. Pollock goes on to quote Commerce Secretary Stans' statement that baby seals are not victims of the "harvesting," and he states that "as a rule, bachelor males are harvested." But according to Victor Scheffer, the Interior Department biologist who used to help run the seal kill, "In a recent decade, 250,000 females of breeding age were killed on the Pribilofs . . . the comparable kill now is fewer than 300 a year." In 1968 alone, over 11,000 mother seals were "taken." Hence, as a rule, seal pups are the victims, since a nursing baby seal dies from starvation when its mother is killed.

The assertion by Mr. Pollock that Secretary Stans "had denied a license to the last whaling firm in the U.S." and was widely condemned for doing so is false. The license, originally denied to the Del Monte Whaling Company in California, was reinstated by Secretary Stans, and the company is now free to continue killing whales until the end of the year.

Finally, Mr. Pollock says that "suitable animals are selected from the bachelor herds" to be killed. This does not mean that the old, the weak and the lame are chosen, but rather the largest, strongest and healthiest seals, those whose pelts are most "suitable" for processing into sealskin coats.

LEWIS REGENSTEIN,
*Washington Coordinator,
Committee for Humane Legislation.*

THE PRIBILOF ISLAND SEALS

There is growing national interest in the Pribilof Island seals, and through NOAA's National Marine Fisheries Service the Commerce Department has a fundamental responsibility for the seals program.

On a recent visit to Alaska I reviewed the harvesting practice there.

It may best be described as a triumph of wildlife management—a classic conservation success story—but we are looking ahead, nevertheless, to determine whether improvements are possible.

HARVESTING

The program, unfortunately, has been subjected to some gross inaccuracies, half-truths, and falsehoods. These have led thousands of concerned Americans to misunderstand completely the government's position and its careful management of this renewable resource.

The time has come to set the record straight.

Early in this century, after years of indiscriminate killing, the Pribilof seals faced extinction. But an international agreement governing the taking of seals was reached in 1911, and since that time our scientific conservation measures have been so successful that the herd now stands at 1.3 million—near their maximum productive level.

Widely circulated stories to the effect that the government is decimating the herd, and that it slaughters baby seals, have no basis in fact. *Only surplus bachelor seals are harvested*, and these within rigidly prescribed limits.

Except for the fact that the operation takes place in the open, the method of harvesting is very similar to that which takes place in a meatpacking plant. It involves, all within about one minute, a quick blow to the head, immediate bleeding, and the skinning of the dead animal.

The method used is fully consistent with the Humane Slaughter Act. It is the most humane and the quickest way known to anyone. Numerous alternatives have been tried experimentally, but no better methods have yet been found.

REVIEW

Nevertheless, we are continuing our quest for improved means of harvesting seals, if better methods can be found or developed.

My review of the harvest was conducted with representatives of the American Humane Association, the International Society for the Protection of Animals, and the Humane Society of the United States, as well as six veterinarians named by the American Veterinary Medical Association to study the methods employed in fur seal harvesting.

I have asked their veterinarians to make any recommendations for a more humane method of harvesting.

If their studies and their report indicate that a better method is practicable, it will be adopted.

ECONOMICS

The fur seal harvest also is the dominating economic interest in the Pribilof Islands. In the major Aleut community there, the harvest is the main source of gainful employment, and it provides for educational programs, housing, village facilities and other benefits.

To deprive the Aleuts of the seal harvest would deprive them of the dignity of gainful employment and make them totally dependent upon the Government.

I repeat, if and when more humane methods of harvesting are found and satisfactorily tested, they will be adopted. In the meantime, their fur seal management program continues to be one of the most effective conservation and management programs in history.

MAURICE H. STANS.

Senator SPONG. Miss Appel? Good morning.

STATEMENT OF DEBORAH APPEL, ASSISTANT TO THE DIRECTOR FOR PUBLIC INFORMATION, NATIONAL AUDUBON SOCIETY

Miss APPEL. Good morning, Senator Spong. We appreciate your setting aside this busy time so that all groups can present their viewpoint. Our statement is directed to S. 3199. Therefore, let me say we also support S. 3818. It contains most of the provisions which we suggest adding to S. 3199.

We also endorse S. 249 in principle. We have always felt there should be legislation implementing the Convention on Nature Protection and Wildlife Protection in the Western Hemisphere.

The National Audubon Society endorses enthusiastically the principles and purposes of S. 3199 as a needed strengthening of the Endangered Species Act of 1969, but we urge the following amendments:

1. The words "conserving, protecting, restoring, and propagating" or "conservation, protection, restoration, and propagation" appear in lines 12 and 14-15 on page 2; in line 25 on page 5; in lines 7-8 and lines

14-15 on page 6, in lines 7-8 on page 9, and in lines 21-22 on page 16. In each instance the word "or" should be substituted for "and."

Otherwise this act would become a directive to the Department of Interior to attempt the artificial, captive propagation of every species designated or certified by the Secretary as endangered. Many species because of inherent wildness and other characteristics do not lend themselves to captive propagation, and others cannot be so propagated without destroying their wildness and foreclosing the possibilities of their reintroduction into a wild and natural habitat.

Moreover, the capture of specimens for experiments in captive propagation may in itself endanger the chances of some rare species for survival in the wild.

This act must not be so worded as to be capable of interpretation as requiring such attempts at propagation. Whether or not to try propagation should be an option open to the Secretary upon the advice of competent scientific authorities.

2. Similarly, the word "and" in line 3 and on page 10 should also be changed to "or" in both places. I would like to note here that S. 3818 does make these changes.

3. We urge the addition of the following subsection to section 8, following line 6 on page 18:

(d) Nothing in this Act, or any amendment made by this Act, shall be construed as superseding or limiting the power of any state to enact legislation more restrictive than the provisions of this Act for the protection and conservation of wildlife, including the regulation or prohibition of the retail sale of specimens or of products processed or manufactured from the specimens of wildlife, whether such specimens are alive or dead.

I am sure the committee realizes that we are here thinking about the New York State "Mason Act" and other tough State legislation concerning endangered species. We were concerned to hear witnesses from the Department of the Interior at a hearing on the companion House bill indicate that the act as written could preempt the Mason Act, although that was not its intent.

At the very least, the confusion this would cause should be avoided and the act's intent made clear.

Although stricter State regulations may be a nuisance to lawyers and bureaucrats, we believe that they better serve the overall purpose of this legislation—preserving and protecting endangered wildlife. Again, let me say that this also appears in S. 3818.

4. We strongly urge that responsibility for endangered species be vested solely in the Department of the Interior, not split between Interior and the Commerce Department. We continue to feel that placing the Bureau of Commercial Fisheries in Commerce was a mistake.

We feel that not only is it entirely illogical and inefficient to split the endangered species program between two Federal agencies, but more important it is not in the best interest of the species since by its very nature the Department of Commerce's mission is exploitation.

And endangered species should certainly not be exploited.

The precarious fate of these species should not be further jeopardized by agency empire-building.

Mr. Chairman, with the amendments here recommended we respectfully urge an early and favorable report on S. 3199.

Thank you.

Senator SPONG. Thank you, Miss Appel. We have some questions that we will submit to you, and we would appreciate a reply at the earliest convenience.

I do have one question here which I would like to direct to you and to Mr. Regenstein as well. Are you familiar with any species which is in imminent danger of extinction that would be saved by the bills under consideration, but not by existing law?

Miss APPEL. I myself am not completely aware of such things, but we can prepare a report for you and submit this for the record.

Senator SPONG. Mr. Regenstein?

Mr. REGENSTEIN. The phrase "imminent danger of extinction," Mr. Chairman, is a term hard to define, but we feel the new legislation would not only permit but would require the listing of animals such as the polar bear, some species of kangaroo, and there are some species of wolf not now on the danger list.

We feel this legislation would require the Secretary to list these animals. Under the present law, he could list them, but he is not doing so, and he is using the loopholes and weaknesses in the 1969 act to justify not listing them. We feel under the new law if it came out more or less as the bill is written now with the amendments we have suggested that the Secretary would have to put these animals on either the list of already threatened or becoming threatened.

That is why we urge that this session of Congress take action on this. Senator SPONG. Thank you very much.

Miss Appel, thank you for testimony. We will look forward to your replies to the questions we have submitted.

Miss APPEL. Thank you, Mr. Chairman.

(The questions and the answers thereto follow:)

NATIONAL AUDUBON SOCIETY,
NATIONAL CAPITAL OFFICE,
Washington, D.C., August 21, 1972.

Senator WILLIAM B. SPONG,
Senate Commerce Committee
Washington, D.C.

DEAR SENATOR SPONG: In response to your questions to Miss Deborah Appel of our staff concerning the endangered species legislation (S. 3199 and S. 3818), we offer the following comments:

Question: Many of the suggestions you have made for improvement of S. 3199 are incorporated in S. 3818. How do you react to it?

Answer: In general, we consider S. 3818 an improvement over S. 3199. It includes some amendments that we suggested during the House hearings (concerning propagation and stricter state laws). It also includes several other good points, among them: the exemption for Indians, Aleuts and Eskimos is deleted; penalties are increased; various technical changes appear to tighten procedures in the bill.

S. 3818 would also include flora. We certainly agree that our government should undertake an effort to conserve and protect endangered flora, as it has done with wildlife. However, if the addition of flora at this late stage would delay passage of the bill, we would rather wait until the next Congress for such legislation to be considered.

We have two concerns about S. 3818, but these are the subject of your questions 3 and 4 and are answered below.

Question: Are you familiar with any species which is in imminent danger of extinction which would be saved by the bills under consideration but not by existing law?

Answer: We assume by "imminent danger of extinction" you mean "wildlife presently threatened with extinction" as used in the bill. As you know, present

law protects only wildlife "threatened with worldwide extinction." This definition is a narrow one which excludes a number of species which, while they may not be presently threatened with extinction, are, nonetheless, likely to become threatened with extinction in the foreseeable future.

We would hope that a number of species which are not protected by present law would be classified in the "likely to be threatened . . ." category and thus be protected for the first time. The change from "worldwide extinction" to "throughout all or a significant portion of its habitat or range" will presumably also protect some species heretofore not protected. The Department of Interior has prepared a list of potential candidates for the two categories, which is attached.* We understand this list is incomplete and should be regarded as preliminary.

In addition to increasing the number of species that will be protected, the proposed legislation would for the first time prohibit taking of native species which are endangered. As the Committee knows, present law only controls the interstate commerce of endangered species and unless the species is protected by state law, it is legal to kill it within that state. (This applies to resident species.) A glaring example of this problem is the upcoming season on alligators in Louisiana. This legislation would make such taking illegal, which we feel is a tremendous step forward.

Question: Could you elaborate on the reasons for your fear that the Commerce Department will exploit rather than protect endangered species?

Answer: As we indicated in our testimony, we strongly oppose splitting jurisdiction for the endangered species program between the Commerce and Interior Departments. Not only is it poor administrative practice, but it is also illogical. As noted in the House hearings on these bills, Reorganization Plan Number 4 of 1970 did not transfer responsibility for endangered species to the Commerce Department. (see pp. 147-148) That program remained in the Interior Department, so there is no legal or bureaucratic reason why part of it should now be shifted to Commerce. Further, the attitude of the Commerce Department towards endangered species is highly questionable. That Department's opposition to placing certain whales on the endangered species list is well known. Then-Commerce Secretary Stans' arguments against placing these whales on the endangered species list were based on commercial considerations, and his suggestion that the best avenue was to work through the International Whaling Commission is insulting to anyone familiar with the miserable record of that body. The efforts to dissuade Secretary Hickel having failed, the Commerce Department permitted the taking of whales for one year *after* they were placed on the endangered species list. (See House hearings, pp. 147-149)

We have no reason to believe that the Commerce Department has changed its mission-orientation from exploitation to conservation, nor that the pressure groups to which it is responsive have changed. Further, there is no logical explanation of why the Administration would propose putting part of the endangered species program in Commerce, when in its own reorganization plan, NOAA would become part of the proposed Department of Natural Resources.

It seems clear that political—not ecological—considerations are responsible for the Administration's decision to split the endangered species program. We hope that the Congress will rise above these political motivations and give proper consideration to the need for a strong, workable endangered species program.

Question: Would you have any objection to a provision which would allow the taking of an endangered species in an emergency involving human health or safety?

Answer: Section 7(c) of S. 3818 includes a provision which permits the taking of a "likely to be threatened . . ." species (1) when it can be clearly shown that such taking will not damage the population, or (2) in emergency cases involving human health and safety. The bill does not make these exceptions for species "presently threatened . . ." and we assume your question relates to this category.

We do not object to the second exception for emergencies involving human health and safety, but we do have qualms about it. We would certainly agree that if an endangered species was genuinely imperiling human health and safety

*List being sent under separate cover by the Interior's Office of Endangered Species.

(for example, a rabid animal), then it would have to be destroyed. However, what is to prevent a person from claiming that he was in mortal danger from a grizzly bear and thus had to shoot it? We would certainly hope that the Secretary would promulgate tight regulations to prevent this exception from being abused.

We are somewhat troubled by the first exception which would permit taking "when it can be clearly shown that such taking will not damage the population." We do not object to it if applied only to "likely to be threatened" species, but we feel that it is a loophole which could lead to abuse. We assume this exception is to permit trophy hunting. It is conceivable that with certain "likely to be threatened" species, it would be possible to permit limited taking without damaging the population, but such taking should be tightly controlled and only allowed if there is overwhelming scientific evidence that the taking will not damage the population. We are concerned that the taking of such species will make enforcement more difficult, since there would be some legal traffic in the skins of these animals which might be difficult to distinguish from skins of animals taken illegally.

Although we do not believe it is the Committee's intent to extend this exception to species "presently threatened with extinction," we wish to make it clear for the record that we would adamantly oppose such an exception.

We appreciate your interest in our views, and hope the Committee will be able to report this legislation promptly.

Sincerely,

CYNTHIA E. WILSON,
Washington Representative.

Senator SPONG. Dr. Grandy?

STATEMENT OF DR. JOHN W. GRANDY, ADMINISTRATIVE ASSISTANT FOR WILDLIFE, NATIONAL PARKS AND CONSERVATION ASSOCIATION

DR. GRANDY. Good morning, Mr. Chairman.

Senator SPONG. Good morning.

DR. GRANDY. My name is John W. Grandy. I am administrative assistant for Wildlife at the National Parks and Conservation Association, 1701 18th Street NW., Washington, D.C. 20009.

I appreciate the invitation of the committee to testify in these hearings.

The National Parks and Conservation Association is the leading national conservation organization concerned primarily with the protection of the national park system. We are also concerned with other major environmental subjects such as wildlife and forestry.

The NPCA is an independent, private, nonprofit membership institution, educational and scientific in character, with over 50,000 members throughout the United States and abroad, all of whom receive the monthly National Parks and Conservation magazine: the Environmental Journal.

Mr. Chairman, it is indeed a pleasure for me to appear before the subcommittee which has done so much for the cause of wildlife conservation, management and protection. In total, the bill is commendable and particularly at this point I am addressing myself to your bill, 3818, and the bill contains many new, positive, and beneficial features, particularly those concerning protection of flora and invertebrate fauna.

However, I feel that the bill could be measurably improved by changing some provisions. Our detailed, suggested revisions are attached for your consideration.

For now, the basic concepts and ideas of our proposals are presented as follows:

1. The definition of "species" need to be broadened.

In that regard, we suggest that a species include "any species, subspecies, race, or substantially ecologically or reproductively isolated population segment."

The reason for this is to insure the survival of ethetically and ecologically desirable populations regardless of their taxonomic status.

Taxonomy is a science—splitters and lumpers come and go and classifications vary accordingly. What we want, I believe, is to protect populations of animals or plants—regardless of varying classifications systems developed by taxonomists.

The excellent new concept, already contained in your legislation, of protecting an organism when endangered in a "significant portion of its range" is still much needed. We believe that a broadening of the definition of species, as we have suggested, will assure full implementation of the intent of the new concept.

2. We believe that the definition of "endangered" should be stated.

Presently the definition seems to be "threatened with extinction or likely to become threatened." We submit that this definition should be clarified by adding the definition developed by the National Parks and Conservation Association:

"Endangered" shall denote the status of any species (as defined in (1) above) the ecological vitality of which is becoming threatened due to any one or combination of the following factors: Commercial exploitation; loss of habitat; hunting; pollution; other adverse environmental influences. "Endangered" shall include "rare." Among the criteria to be considered in determining the status of an animal are the following: significant population decline; significant decrease in recruitment; significant modification of age distribution within the subject species. All species covered by this legislation shall conform to this definition.

I should point out that the word "significant" as applied to this definition means significance in a biological sense—not necessarily in a statistical sense. The reason is that animal populations may exhibit declines or inclines which are statistically significant but biologically normal.

Some may question the reasons for including rare organisms as endangered. Rare animals, by definition, are those whose density, or number per unit area, is extremely low. Such low density suggests that by decimating a few individuals, a rare species may become extirpated over a large area.

Therefore, in this time of rapid environmental change, rare animals or plants are always in danger of extinction over a substantial portion of their ranges.

Thus, "rare" organisms should be classified as "endangered."

3. The conditions under which the Secretary of Interior shall grant a public hearing (pursuant to section 4(b) of the current bill) on additions (or deletions) to (or from) the list needs to be more objective.

In the definition of "endangered" above, I mentioned certain criteria which should be examined in determining whether a species is endangered (that is, a significant decrease in recruitment).

Certain factors such as overexploitation of the subject species and habitat destruction are mentioned in section 4(a) of the current bill. We suggest that the Secretary of the Interior be required to grant a

public hearing whenever a person can demonstrate that one of these criteria (or factors) has recently occurred, is occurring, or is likely to occur.

In addition, we recommend that the Secretary of the Interior be required to publish his reasons for granting (or not granting) such a hearing. This provision would help insure increased knowledge and involvement on the part of the public.

4. The definition of "take" should be expanded.

The present definitions are admirable but are directed only toward legal or illegal exploitation for commercial, sporting, or botanical purposes.

"Taking" should also be defined, for both plants and animals, as any activity which causes either directly or indirectly harm to an endangered species.

In that regard, the destruction or threatened destruction of habitat, and pollution by substances such as pesticides, also constitute "taking" in a very real sense.

I cannot overemphasize the importance of this concept. The public has demanded we believe, the preservation of endangered species. If we are to make a serious national commitment to preserve endangered species, we must prohibit, or control, all forms of "taking."

Therefore, the Secretary should be empowered to promulgate rules regarding permitted activities, including land use, and chemical use, in addition to his powers governing exploitation, in cases where the well-being of an endangered species may be affected.

Only if we allow the Secretary these powers in regard to endangered species will we have a reasonable chance to preserve such species.

The above are the major strengthening provisions which the NPCA believes are necessary. Other minor suggestions, such as tightening the provisions under which a "threatened" organism may be taken (section 8) among others, are detailed in the attached "Suggested Revisions."

Notwithstanding my suggestions, Senator Spong, I compliment you on your fine proposals in S. 3818 and on your other efforts in behalf of the environment. I specifically commend you for the proposal that the Federal Government regulate domestic endangered species.

The National Parks and Conservation Association believes that the Federal Government must recognize, in this manner, the overriding interest of all Americans in endangered species. We believe, however, that restoration programs should be conducted cooperatively with the interested States.

Again, thank you for the opportunity to present our views. I will be happy to work with you and your staff in developing the fine points of our proposals. I will be glad to answer any questions you may have.

Senator SPONG. Thank you very much, Dr. Grandy, for your appearance here this morning and for your testimony. We have questions that we will be submitting to you, and will look forward to your replies; and we are most appreciative for the suggestions you have made to the legislation before us.

Thank you.

Dr. GRANDY. Thank you, sir.

(The questions and answers thereto follow:)

NATIONAL PARKS AND CONSERVATION ASSOCIATION,
Washington, D.C., August 22, 1972.

Senator WILLIAM B. SPONG, Jr.,
Committee on Commerce,
U.S. Senate, Washington, D.C.

DEAR SENATOR SPONG: Thank you for your kind letter regarding my recent testimony on the Endangered Species Conservation Act before the Subcommittee on the Environment, and the opportunity to respond in writing to your questions.

Below, I shall list each question individually, followed by my response thereto:

Question: Please elaborate on why you believe the definition of "taking" must be broadened.

Answer: Your excellent legislation (S. 3818) endeavors to protect both flora and fauna, yet the definition of "take" is directed only toward halting presently illegal or legal exploitation for commercial, sporting, or botanical purposes. The fact is, however, that most species of animals or plants are not presently endangered due to the kind of "taking" noted above. I believe that Assistant Secretary of the Interior, Nathaniel P. Reed realized this when he noted, in his testimony before your subcommittee, "We (U.S.D.I.) recognize that the taking of animals by licensed hunters is not the principal cause of the decline of some of these species."

The cause, then, of the decline and endangered status of many species is other forms of "taking" such as habitat destruction and either advertent or inadvertent poisoning with physical and chemical substances. Thus, if we wish to save endangered species, we must allow the Secretary to prohibit all kinds of taking of such species.

Question: Do you think the sentence in Section 5(d) of S. 3818 (pp.7-8) which requires Federal departments and agencies to utilize their authorities in furtherance of this Act, adequately provides for consideration of endangered species before government actions are taken?

Answer: To adequately answer the question, I had better drop back briefly to a discussion of the intent of the legislation.

The legislation is designed to prevent organisms from becoming extinct. Further, the legislation presumably is intended to contain the framework to move plants and animals from the "threatened" category to the "likely to become" category and thence off the lists entirely. To accomplish this purpose, the legislation allows "threatened" organisms to be taken only when it will further the restoration of the species, and allows "likely to become" organisms to be taken only when it will not be detrimental to populations or in emergencies involving human health and safety.

From the above paragraph, the coordination and responsibilities of Secretaries as contained in Section 5(d) are inadequate. No Secretary should be normally permitted to conduct, authorize, regulate, and administer a program which will be contrary to the basic provisions of this act, as discussed above. In addition, all Secretaries should be required to publish in the *Federal Register*, or otherwise make a publication available through notice in the *Federal Register*, their consideration of the potential effect of any action they take on the vitality of an endangered species. Presumably, such consideration can be contained in the current procedure of filing an environmental impact statement.

Question: Do you have any problem with including a provision in the bill to provide for taking an endangered species in an emergency involving human health or safety?

Answer: No, sir, none whatsoever.

Senator Spong, thank you again for this opportunity to present our views. I hope we have been of help to you. If I may be of any further assistance in this or other matters of mutual concern, please do not hesitate to contact me.

Sincerely,

JOHN W. GRANDY IV, Ph. D.,
Administrative Assistant, Wildlife.

Senator SPONG. Robert Hughes?
Good morning, Mr. Hughes.

STATEMENT OF ROBERT C. HUGHES, CHAIRMAN, NATIONAL
WILDLIFE COMMITTEE, SIERRA CLUB

Mr. HUGHES. Good morning. I am Robert Hughes, chairman of the Sierra Club's National Wildlife Committee, and it is a pleasure to be here before you again this morning.

Our primary concern is that endangered species be protected. We believe that your bill, S. 3818 is, of the ones under consideration, by far the best. The key provisions in the bill which extend the term "endangered" to include species and subspecies, not only threatened with extinction, but also to species and subspecies that will likely, within the foreseeable future become threatened with extinction. This is logical and necessary.

As in previous testimony, we along with most of the other environmental organizations, do object to the definition of the secretary, to have it include the Secretary of Commerce and I want to expand on that.

Section 36 of S. 3818 defines "take" in the usual terminology. You have heard, on numerous previous occasions, Friends of the Earth suggesting that the definition be expanded to include incidental killing as a result of commercial, reclamational, and other activities.

Wildlife destroyed by pollution and habitat destruction should be included in the definition of "take." If the addition of flora stays in this legislation, this becomes even more important, and we will submit to you later, a couple of papers dealing with the effects of pollution on plants.

We would like to see the definition of "take" amended to include the Friends of the Earth's position.

The secretary is required to publish a list of endangered species under the legislation, and it has been customary in the past for those of us interested in this matter to be told that we do not have enough data to make a determination that this species is indeed endangered.

We believe that lack of adequate information should be evidence of an endangerment until such time as someone can prove otherwise. We think it is very unwise to wait for the proof to come in, because the proof may come in too late.

Your bill included provisions for public hearings when legitimate requests are received. The Interior Department objected to this provision as being too costly and time-consuming. We think that this provision, and you mentioned the Marine Mammal bill, is excellent, necessary and vital.

I am sure that if the Secretary sets up adequate rules and regulations, he can keep these hearings from becoming either costly or time-consuming.

Your bill provides for Federal-State cooperation, but here, I think we may be going a little too far. We would like to see section 6(c) deleted. This is the authority to regulate the taking of endangered species or subspecies by the States.

Any taking of endangered species, if it must be done, should be under regulations of the Secretary of the Interior, under his direct control. Fairly few endangered species are resident in only one state. Most are found in several states. Some are continuously crossing State

lines. We have seen in California, which is one of the more enlightened States in their wildlife matters, mismanagement of the Tule elk, and this species, which will almost be certainly included on the new list, would not receive protection.

We can imagine what would happen if the States were allowed to take the red wolf. We also object to the taking of these species for any reason that will not be beneficial to the population.

We have heard some testimony that taking for propagation purposes with the intent of future release is not good, that we should let the wildlife alone and it should take care of itself. That is a little bit too broad. Some species, most certainly, should be left alone. Some species may require human intervention to prevent their ultimate extinction, but this is a decision that must be taken very carefully and only after a great deal of thought and planning.

Any species that the secretary sees fit to list as endangered, or threatened, in the foreseeable future should not be a substitute of trophy hunting. Trophy hunting is generally aimed at the prime specimens, and removing the prime specimens from a declining population, a threatened population, is not going to do that population any good.

In fact, we see no real justification for the hunting of any species that is listed as endangered.

We can control such activities in this country. We cannot control them in other countries, of course, but we can refuse to allow results of such hunting to come into the country.

We are very pleased that your new law has some teeth in it, that there are enforcement provisions. I am sure we are all aware of what happened in Wyoming with the Bald Eagle, when the Bald Eagle Act could not be enforced.

We would like to see wording in their legislation that would remove that possibility in the future.

We testified at the Marine Mammal hearing that any taking must be to the benefit of the species. We would suggest that section 7(c) (1) of S. 3818 be changed from a negative tone to a more positive tone. Instead of allowing taking that will not damage the population, worded in such a manner that it would allow taking only if it will benefit the population, and place the burden of proof upon the taker.

Section 9, dealing with land acquisition is a major factor, and we support that very strongly. Section 7(d) which allows the secretary to list the species that are not endangered but cannot be separated from endangered species is excellent. Allowing the States to enact more stringent legislation is another excellent conclusion.

We believe that perhaps 8-B contains the seeds of abuse, the 1-year waiver could lead to very heavy exploitation of endangered wildlife until that year of grace has ended.

We support the passage of S. 3818 with the amendments we have suggested, and I wish to commend you, Senator, for introducing it.

Senator SPONG. Thank you very much, Mr. Hughes, for your testimony here this morning.

We will, in all probability submit some questions to you, based on this morning's testimony. Thank you very much for appearing here and giving us the benefit of your views.

Mr. HUGHES. Thank you.

(The statement follows:)

STATEMENT OF ROBERT C. HUGHES, CHAIRMAN, SIERRA CLUB,
NATIONAL WILDLIFE COMMITTEE

Mr. Chairman and members of the Committee, I am Robert C. Hughes, Chairman of the Sierra Club's National Wildlife Committee. It is a pleasure for me to present this statement to you.

The Sierra Club is a national environmental organization with over 140,000 members founded in 1892 " * * * to explore, enjoy and preserve the Nation's forests, waters, wildlife and wilderness * * * " The Sierra Club's membership is dedicated to the preservation and restoration of the quality of man's environment and integrity of the earth's ecosystems.

Our concern at this time involves the three bills, S. 3818, S. 3199, and S. 249, endangered species legislation. We recognize as you do that current legislation is inadequate. We will direct the bulk of our testimony toward S. 3818 which is the best of the three bills before you.

The Sierra Club supports all legislation that will help in the preservation and restoration of species and subspecies of endangered flora and fauna.

Key provisions of S. 3818 and S. 3199 extend the term "endangered" to include species and subspecies not only "threatened with extinction" but also to species and subspecies that "will likely within the foreseeable future become threatened with extinction." This is logical and necessary. The removal of "worldwide" as a requirement is equally important.

As we have in other statements, we object to inclusion of the Secretary of Commerce in wildlife legislation. This division of responsibility is not good and the mandates of Commerce are such that their main thrust is not towards resource conservation. NOAA has many excellent, dedicated scientists and administrators. It may be that NOAA does not belong in Commerce, but that is a question for another time and place. In any case, Interior has had the historical role of wildlife conservation. Interior is best equipped for the role today.

Section 3(6) of S. 3818 defines "take" in the usual terminology. On previous occasions, Friends of the Earth has suggested that the definition be expanded to include incidental killing as the result of commercial, recreational and other activities. Wildlife destroyed by pollution and habitat destruction is just as dead as that killed by any other method. With the inclusion of flora in this bill, this factor becomes even more acute because of the great loss of plant life caused by pollution and habitat destruction. Unlike animals and birds, plants cannot move out of danger areas. You have heard from Dr. F. R. Fosberg in these hearings. We commend him for his very fine statement on the flora aspects of this legislation. We urge you to amend the definition of "take" to include the factors discussed.

The Secretary would be required to publish a list of species and subspecies endangered based on the best scientific and commercial data available and after proper consultations. In this provision is a major weakness. Too often, we are informed that the data on which to base a determination is inadequate. More research is needed. In most cases the money for the needed research is not available and the research is not conducted. The Sierra Club strongly believes that inability to obtain sufficient data on which to make a determination should be regarded as evidence of endangerment and that the concerned species or subspecies should be immediately placed on the list. To await the evidence which may be years away could lead to a tragic loss of the species or subspecies. It is far better in these instances to over-protect than to under-protect. Therefore, whenever the Secretary receives a request for inclusion on the list and he cannot obtain adequate evidence either for or against inclusion, the law should mandate inclusion.

S. 3818 includes provision for public hearings when legitimate requests are received from concerned organizations or individuals. Interior has objected to this provision as too costly and too time consuming. This provision was approved by the Senate in the Marine Mammal Protection Act a short time ago on Mr. Spong's amendment. It is equally important in this legislation. Interior's reaction is the typical reaction to citizen participation. If the Secretary writes adequate regulations the hearing provision can be handled quickly and at little expense. The Sierra Club considers this provision a must.

S. 3818 provides for Federal-State cooperation but goes too far. Section 6(c) must be deleted. The authority to regulate the taking of endangered species or subspecies must not be delegated by the Secretary. Such delegation of authority would lead to a patchwork of differing standards within the various states. It

should be remembered that very few endangered species are confined to one state. Many cross back and forth over state lines and many are resident in several states. California is one of the more enlightened states in matters of wildlife conservation, but their management of the tule elk has been inadequate. This endangered species has not been allowed to reach an optimum sustainable population. It should not be hard to imagine the regulations that would affect the red wolf if states are given authority. Taking of endangered species can be justified only in very rare and special circumstances.

Live taking for propagation purposes with the intention of future release of the resulting offspring into the wild may be justified and, in some cases, vital. Those who would argue that endangered species should be left alone are making a judgment that is much too generalized. Any taking of an endangered species for scientific purposes should be restricted to those scientific activities necessary to restoration of the species. The hunting of a species presently threatened with extinction cannot be justified. Should control of an individual be necessary, live capture and transplant should be the first consideration. Destruction of the animal must be the last resort only. Trophy hunting of endangered species should be outlawed. Trophy hunting is aimed at the prime specimens. Such removal of prime animals can only result in degradation of the species. In this country there is no justification for hunting of species that will likely within the foreseeable future become threatened with extinction. We cannot control such activities in other nations beyond the refusal to admit the results of such hunting into the country.

We are pleased that the Endangered Species Act of 1972 will have teeth. Teeth are very much needed to enforce the protective measures. We would like to suggest somewhat stronger teeth based on experience with the bald eagle act. You are all aware of the inability of the Federal authorities to act in the Wyoming bald eagle kill because the result of death was claimed to be unintentional. Wording is needed in this legislation to prevent such a situation from arising. Any person's act which is deliberate and results in the destruction of endangered species must be provided for. It was suggested that the term, "knowingly or with willful or malicious negligence" would cover this situation. If so, we urge the inclusion of the wording in the bill.

We testified in the marine mammal hearings that any taking should be of benefit to the species. Section 7(c) (1) of S. 3818 should be changed from a negative tone to a positive tone. Instead of allowing taking that will not damage the population, if taking must be allowed, provide that it will benefit the population and place the burden of proof on the taker.

S. 3199 contains a provision for exceptions for Indians, Aleuts and Eskimos. We believe this exception should not be allowed. We did not oppose the taking of marine mammals by the Indians, Aleuts and Eskimos at the marine mammal hearings, but did oppose the taking by them of any endangered or declining species.

Section 5 dealing with land acquisition will be very beneficial. Habitat acquisition is a major factor in aiding endangered wildlife.

Section 7(d) is another major step forward. When it is not possible to separate endangered species from non-endangered species protection of the non-endangered species may be necessary.

Section 8(b) contains the seeds of abuse. Heavy exploitation of endangered species and subspecies could take place during the year of grace.

The Sierra Club urges passage of S. 3818 with the amendments suggested.

(The questions and answers thereto follow:)

SIERRA CLUB,
NATIONAL WILDLIFE COMMITTEE,
Trenton, N.J., August 23, 1972.

HON. WILLIAM B. SPONG, JR.,
U.S. Senate, Committee on Commerce,
Washington, D.C. 20510

DEAR SENATOR SPONG: As usual it was a pleasure to appear before you on a matter of great importance in wildlife conservation, the Endangered Species Act of 1972. I appreciate the opportunity to answer for the record the questions in your letter of August 11.

Question. Are you familiar with any species which is in imminent danger of extinction which would be saved by the bills under consideration but not by existing law?

Response: The key word in the question is "imminent" which the dictionary defines as, "about to occur." The existing endangered species act has no enforcement provisions. This fact alone makes the status of many species listed as endangered highly critical. The bills under consideration would give teeth to those who have the responsibility to enforce the law.

Every species not currently on the list but which cannot be separated from a species on the list when in some stage of manufacture, or in raw skin form will gain protection if the Secretary exercises options available to him under the pending legislation. We can think of the kangaroos and the crocodilians.

The crocodilians are not on the Federal protected list because they have not yet reached the basket-case stage. Under current legislation the species must near the point-of-no-return before being protected. We consider 70 whooping cranes or 50 monkey-eating eagles or 40 California condors endangered. Rightly so. But what about species that can still be counted in the thousands or millions? Why should some of them not be considered as endangered or threatened with extinction within the foreseeable future? There are millions of crocodilians. But crocodilians are killed by the millions per year for hides. The rate of kill far exceeds the replacement rate. According to Dr. Wayne King of the New York Zoological Society Brazil exported over 5 million crocodilian hides in one year. We would hope the new legislation would close a major market to such over-exploitation.

There can be no doubt that some species of kangaroo are endangered even under the provisions of current law. Kangaroos are killed each year by the millions. We must be aware of the probable depressing effect this heavy kill will have on the populations. We must also realize that once dead and skinned there is no way to separate a relatively common kangaroo from a highly endangered one. We are a major market for kangaroo products.

I cite the above two cases because it is in just such instances the new legislation can help. Protection can be granted to entire classes of wildlife until we know enough to make decisions based on sound scientific information and before the species reaches the point of being a basket-case.

Question. Could you elaborate on the reasons for your fear that the Commerce Department will exploit rather than protect endangered species?

Response: Only a few years ago in my own state of New Jersey the commerce and environmental agencies were one department. It became obvious that the department could not hope to serve two masters and was indeed a two-headed monster with each head pulling in opposite directions most of the time. Money being a major lever usually the commercial exploiters won the various tugs-of-war. Finally wise heads prevailed and the two functions were divided and two separate departments were created.

There is no reason to believe that the situation will be any different at the Federal level. Whenever commercial interests conflict with wildlife protection we can expect very strong pressure on the Secretary of Commerce to favor exploitation. Except in basket-cases we would expect him to decide in favor of exploitation. To do otherwise would be unnatural. The various men appointed as Secretary of Commerce do little to inspire confidence otherwise. As Secretary in the traditional sense, they usually do quite well.

Actually NOAA should not be in Commerce. It is not intended to be an exploitation agency. Traditionally, the men interested in wildlife conservation have gone into Interior. Traditionally, Interior has had the responsibility for wildlife conservation and although it has many instances of failure its history is for the most part very good. It seems rather silly to single out a few species of animals and remove them from Interior's protection. This is the same as saying the citizens of Washington will be protected by the police except for a few groups who will be protected by the Chamber of Commerce. If needed talent is in NOAA let those people be transferred to Interior. Split responsibility can only lead to trouble.

This is one of the areas where the wildlife management organizations, the wildlife protection organizations and the general environmental organizations are in general agreement. There is almost no support for the current arrangement evident.

Actually, I am not sure wildlife measures belong in the Commerce Committee. They would be more logical in Interior. Unfortunately, however, tradition has placed them in Commerce and any change now would mean that able Senators

such as yourself would be lost unless committee assignments were changed. The Executive branch needs a comprehensive environmental agency at cabinet level and each house of Congress needs a committee to handle environmental affairs. There is too much division of interest and responsibility.

Question. Would you have an objection to a provision which would allow the taking of an endangered species in an emergency involving human health or safety?

Response. Yes. Those in the medical profession who argue that they need endangered species for research have not proven their point. It has not been demonstrated that alternate research subjects exist. It has not been demonstrated that they are incapable of breeding research animals in captivity. Such breeding would be more expensive and this is probably a major reason for the various statements of the medical profession. It is quite cheap to take wild animals compared to breeding and raising them.

We cannot conceive of any human health emergency that would require the taking of endangered species of wildlife.

We do recognize, however, that wild animals sometimes do become a serious danger to human populations on an individual basis. From time to time we read of man-eaters in Asia or Africa. We do not oppose the control of these specific offending individual animals. Such control whenever possible should consist of live trapping and relocation. Most cases of wildlife-human confrontation in this country result from human ignorance or intentional acts. Even though it may be necessary to remove the offending animal, action should be taken to control the offending humans also so that further instances will not occur.

We will be happy to answer any additional questions or provide any information available to us. We hope that we will see the passage of a strong endangered species act of 1972 along the lines of S. 3818 incorporating our suggestions and those of Friends of the Earth.

Sincerely,

ROBERT C. HUGHES, *Chairman.*

Senator Spong. Mrs. Christine Stevens?

STATEMENT OF CHRISTINE STEVENS, SECRETARY, SOCIETY FOR ANIMAL PROTECTIVE LEGISLATION

Mrs. STEVENS. Senator Spong, we are appreciative of your holding the early morning hearings. I would like to submit my testimony for the record in order to save time and just emphasize one or two points.

Senator Spong. We will receive your statement in its entirety. You may testify from it as you wish. We have here, three or four questions based upon the statement that you submitted prior to the hearing, and we will look forward to your reply to these.

But you may testify this morning in any way that you wish.

Mrs. STEVENS. Thank you, Mr. Chairman.

First, we are strongly in support of the bill you have introduced, S. 3818, with one major exception which you have heard, I think, from all conservation groups, namely that we believe the legislation should remain as it now is in the jurisdiction of the Secretary of the Interior.

He has done an excellent job, and seems to be doing a better one as time goes on.

There is the growing experience there that should not now be suddenly broken up and fragmented. So that we consider that absolutely vital, even to the point that if we had the choice of all these excellent strengthening amendments which S. 3818 provides, or keeping the existing law with the Secretary of Interior, we would say, "Let us not pass anything more if it means that it has to be divided with Commerce."

That is a very hard decision in view of the fact that a very important matter, such as eliminating the requirements for worldwide endangerment is involved, but nevertheless, we feel terribly concerned in particular about the matter. In the House hearings, I am sure you are aware of the correspondence between Secretary Hickle and Secretary Stans is given.

Also Dr. White's testimony, which we find extremely disturbing, and some of which I quoted in my testimony, because it suggests, among other news, when Dr. White was questioned about whether commercial extinction would mean that—that is, the threat of commercial extinction—would mean that an animal should be placed on the list, he stated, "By itself, it should not."

"In other words, in almost all cases, you will reach the point of commercial extinction before you reach the point of biological extinction * * *" and so forth.

Getting down to the point of biological extinction, it is already very, very much too far. In other words, those animals can no longer play an important part in the ecosystem, and I believe that is the intention of this legislation, to do just that, to keep them as they have been, really playing a role.

Now, another important aspect of the problem of dividing jurisdiction is that you could have a whole duplicate set of regulations, a whole second list which certainly would cause tremendous administrative difficulties.

The Endangered Species Acts are difficult enough to administer as they are. Certainly we do not want to have administrative problems which could lead to abuses that are already very hard to keep track of.

We would also urge that there should be more powers of enforcement by the Department of Interior. While I realize that is not a part of this legislation, we do think it is very important, and want to keep that thought in mind.

Now, I have a list of seven points which we think are excellent in S. 3818, but in the interest of time, I will not detail those. But I would mention that we hope the word "control" can be dropped in section 10(c). That is a lengthy section in which there are several versions.

I think that is a dangerous word. We would like to see rare animals included for the reasons that you have already heard testimony to, this morning.

The antibounty provision in S. 249 should be included, and, I believe, it would not be difficult to do that. Certainly, there should be no State bounty on some animal that is on the endangered species list.

Mr. Chairman, I think that concludes my statement. I would ask you to let me give this article, from the Washington Post, to place in the record.

It emphasizes again, the good work of the Department of Interior.

Senator SPONG. Thank you, Mrs. Stevens, we will be pleased to submit the article for the record, along with your statement.

As I said earlier, we have questions here that will be submitted to you, and the record will be open at least 2 more weeks, and we look forward to your reply.

Senator Stevens is with us this morning, and I might say to all of you who have testified previously; Mr. Regenstein, and Miss Appel,

Dr. Grandy, and Mr. Hughes, that Senator Stevens may well be submitting questions to you, based upon your testimony this morning as well, and I have so advised him; that we were running through this early morning session rather rapidly in the interest of other duties that the Commerce Committee has this morning.

You may well be hearing from Senator Stevens as well.

Thank you very much.

(The statement and article follows:)

STATEMENT OF CHRISTINE STEVENS, SECRETARY, SOCIETY FOR ANIMAL
PROTECTIVE LEGISLATION

My name is Christine Stevens. I represent the Society for Animal Protective Legislation which has worked actively to obtain legal protection for rare and endangered species in the past. We welcome the opportunity to comment on the bills pending before the Subcommittee on the Environment. We deeply appreciate your concern for endangered animals, Senator Spong, and hope that all the broadening and strengthening features of S. 3818, which you have introduced, will be included in the bill reported to the Senate.

We strongly support the provision in your bill and in S. 3199 to make it the policy of Congress that all Federal departments and agencies shall seek to protect species or subspecies threatened with extinction or likely within the foreseeable future to become threatened with extinction. It is essential to prevent species and subspecies from reaching a level of population so low that it is almost impossible for them to recover. Measures must be taken to preserve them while they still play a significant role in the ecological system of which they are a part. They must never be allowed to reach the brink of biological extinction.

Provision in S. 3818 and S. 3199 for listing a species threatened "throughout all or a significant portion of its range" is a badly needed improvement over the provision in P.L. 91-135 which requires that it be threatened with worldwide extinction before it can be listed. We hope the new language will be adopted.

We cannot agree, however, with the definition of "Secretary" in Section 3 (5) of S. 3818 and Section 2 (d) (5) of S. 3199 which would divide authority between the Secretary of the Interior, where the jurisdiction of this legislation properly belongs, and the Secretary of Commerce whose concern necessarily must be with commercial undertakings. It is such undertakings, whether in the capture and killing of endangered wildlife, or in the reduction of needed habitat through other commercial enterprises, which has been to a great extent responsible for the need for endangered species legislation. The United States must move forwards, not backwards, in holding the line for rare and endangered creatures. To place their fate in the Department of Commerce would be a retrograde step of such magnitude that it seems inconceivable that it could be taken in a free country. It would be a disaster to place endangered species legislation in the hands of those whose primary responsibility is to commerce.

To give the Department of the Interior authority over all endangered species of the United States is wise, for the Department has demonstrated its vigorous interest in studying, documenting and then acting to list such species. The Department of Commerce, on the contrary, has opposed needed listings. Its record with respect to endangered species does not justify in any way whatsoever supplanting the Department of the Interior.

During the course of hearings on similar bills before the Subcommittee on Fisheries and Wildlife Conservation in the House of Representatives, the Administrator of the National Oceanic and Atmospheric Administration, Department of Commerce, adopted the standard argument of all commercial interests, namely that it is to their own self-interest to prevent animals from becoming endangered and that, therefore, they will not continue exploitation to the point of endangerment. On page 220, Dr. White volunteered the following: "I think that one of the points that ought to be made is that the commercial fisheries have the strongest kind of motivation to support the provisions of this act, because they are interested in making sure that there are adequate stocks. They are motivated by the strongest kinds of desires to make sure that species are

protected and that we do have a healthy system." This is the argument that the whaling nations made for years as they continued to kill the blue whale, year after year, voting behind closed doors against all reason and logic. Finally, when these magnificent creatures, like the right whales before them, reached the point at which no significant numbers could any longer be caught, the International Whaling Commission instructed its members to stop killing them!

Not only did the Administrator of NOAA use the discredited "enlightened self-interest" argument, but in answer to a direct question, he indicated that commercial extinction would not justify placing an animal on the endangered species list. On page 220 Mr. Sharood asks, ". . . could a commercial fish stock be considered threatened with extinction because it is so overexploited that it will no longer be a viable commercial fish, or does it have to be threatened with extinction in absolute terms . . . ? Would the fact that it is on the verge of no longer being a viable economic product, justify placing it on the list?"

Dr. White replied, "By itself, it should not. In other words, in almost all cases you will reach the point of, so to speak, and I am using a descriptive phrase, commercial extinction before you reach the point of biological extinction. You may have a viable population in the sense that it is able to perpetuate itself, and and one would have to deal with that on a species-by-species basis."

With respect to the great whales, all commercially hunted species of which Secretary of the Interior Hickel placed on the Endangered Species list over the protest of Secretary of Commerce Stans, Dr. White stated (p. 218), "The Species that Secretary Stans indicated were not fully documented scientifically as being endangered at that time, are the same species that the international union also agrees may not be endangered at this time. Now there is room for differences of view. I will defend Secretary Hickel's actions in placing the whales on the endangered species list. He had that responsibility. The Secretary of Commerce also had the responsibility of bringing to the attention of Secretary Hickel the best scientific evidence that was available, since his agency was responsible for the conservation of whales."

Clearly, had the Secretary of Commerce been in charge of whales under the existing Endangered Species Act, they would not have been placed on the Endangered Species List. Further, Dr. White's answers make clear that his personal views of "the best scientific evidence" was that of pro-whaling scientists. No mention is made of the distinguished scientists to whose wise counsel Secretary Hickel listened when he listed the fin, sei and sperm whales.

Mr. Chairman, a single list of endangered species is required under all of the bills before this subcommittee. A single Secretary should issue that list. That Secretary should be the one whose agency is oriented toward animals as animals, not as potential sources of commercial gain. We deeply fear a "de-listing" of the whales if the Department of Commerce is given jurisdiction over them. Scientific opinion is split and, to use a phrase from the legislation itself, will continue to be split in the foreseeable future.

Strongly though we favor other needed provisions of S. 3818 and S. 3199, we could not support their enactment unless Interior continues to be the enforcement agency. It would be like firing the players on a winning team and replacing them with the losers. The real losers, in this case, would be the rare wildlife and the public.

It is the earnest hope of humanitarians and conservationists that a bill combining the best features of S. 3818 and S. 3199 will be enacted. The enforcement provisions clarify and strengthen those of the present Endangered Species Acts. The amendment provided in Section 9 of S. 3199 and Section 11 of S. 3818 which makes resident endangered species the responsibility of the federal government is highly desirable since violators would be subject to federal penalties. The Department of the Interior could more effectively achieve the goal of the legislation: to prevent the disappearance of species and to keep them as a viable part of our natural surroundings.

By making it a federal offense not only to import but to export, receive, take, ship or carry an endangered species or cause any of these things to be done, the law would be effectively tightened. There are three exceptions which we believe should not be allowed. In Section 5 (a) (2) in S. 3199 Indians, Aleuts and Eskimos would be allowed to take endangered species. In Section 6 (a) endangered species could be taken for zoological or educational purposes. We hope these exemptions from the provisions of the bill will be stricken. S. 3818 does not contain these exemptions.

Wherever the bills refer to "species or subspecies" this should be changed to "species, subspecies or populations" in order to prevent the wiping out of established populations of animals.

We endorse the suggestion made by The Sierra Club (p. 575 House hearings). "The burden of proof must rest with the taker. Before any species is taken or removed from the list of threatened or endangered wildlife, absolute proof that such action will benefit the species should be required. The frequent plea that not enough is known to make a decision should be proof that the species is in such short supply that it must be considered threatened or endangered. Too frequently, we require proof that, when it arrives, finds the species on the brink of extinction."

There are several features of your bill, Senator Spong, which we consider to be superior, and I would list these in the hope that they will be included in the bill reported by the subcommittee.

Sec. 2 (a) Uses the words "conservation, protection, restoration or propagation of such species" rather than "and propagating" as in S. 3199. This is important in order to avoid mandatory propagation, which ought to be the last resort. Rare and endangered animals should be protected in their natural habitat to the greatest extent possible.

Sec. 6 (e) specifically permits States to enact more restrictive State laws.

Sec. 7 (d) permits the Secretary to extend the Act's protection when he deems it advisable to species which so closely resemble endangered species that enforcement becomes difficult.

Sec. 9 (b) provides for fines up to \$20,000 for a willful violation of the Act.

Sec. 9 (g) requires registration and record keeping by importers of fish and wildlife, and requires them to afford the Secretary's representative access to their places of business.

Sec. 10 (2) directs the Secretary through the Secretary of State to seek the convening of an international ministerial meeting on fish and wildlife prior to November 1, 1972.

With respect to Sec. 10(c), we favor the use of all available resources to protect endangered species, and this provision would bring in assistance available to the Secretary of Agriculture. However, the use of the word "control" with respect to endangered species might be misconstrued. Livestock owners have been "controlling" the red wolf to the brink of extinction. If the word "control" which appears twice in this section were omitted, we believe a possible loophole would be eliminated.

We welcome the inclusion of endangered plants in the bill if this major broadening bill will not in any way weaken the enforcement of the law with respect to animals. The 1966 and 1969 Endangered Species Acts were limited to "any wild mammal, fish, wild bird, amphibian, reptile, mollusk, or crustacean, or any part, products, egg or offspring thereof, of the dead body or parts thereof." The problem of scholarly learning for law enforcement officials grows enormously if all forms of life are included, and from a pragmatic standpoint the Society for Animal Protective Legislation would not wish to urge so great an expansion of enforcement duties as to reduce the level of enforcement for those species currently covered. The major purpose of this organization is to protect animals from cruelty and suffering. Among the animals, the vertebrates, because we know their capacity for suffering to be so great, are our prime concern. Under no circumstances would we wish to dilute the protection they now receive under existing endangered species legislation. However, animals, including man, need plants. It is obvious that invertebrate animals, whose populations and varieties so greatly outnumber the vertebrates, are a vital part of the earth which supports us all. If funds can be made available to include all forms of life in the new endangered species legislation, an important forward step will have been taken. If sufficient funds are not available, we would prefer to see the vertebrates, of which homo sapiens is one, receive the priorities.

The Nature Protection Act, S. 249, introduced by Senator Cranston January 26, 1971, is based on the obligations of the United States with respect to the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere. It includes important features which could be integrated with the other bills pending before this distinguished subcommittee. First, it considers rare animals as well as those threatened in either the immediate or foreseeable future with extinction. We believe rare animals should be included in the new legislation, even if they have been rare for a long time.

The United States ought not to encourage killing or live shipment of rare species, and the best way to discourage such activities is to refuse to buy them. The exclusion of rare species should be included in the Committee bill.

S. 249's anti-bounty provision should certainly be included. It states, Section 4(b) "No person or State (or political subdivision thereof) shall pay or offer to pay any form of bounty for any fish or wildlife the species or subspecies of which is listed in the annex to the Convention." All national conservation organizations oppose the bounty system even when it does not apply to endangered species. It is an embarrassing antique, and it is startling to read (pp. 549-558) in the House hearings entitled "Predatory Mammals and Endangered Species," March 20, 21, April 10 and 11, 1972, before the Subcommittee on Fisheries and Wildlife Conservation of the Committee on Merchant Marine and Fisheries, the extent to which states are still paying bounties, ranging from 5 cents to 50 dollars. The Nineteenth Century was the heyday of the bounty, and even then it was a bonanza for those who did not hesitate to fleece the government. As a method of wildlife management it is a complete failure, but it does inspire people to kill animals. There should be no more killing of endangered species for any reason, neither for sport, for commerce, nor for the petty dole of the bounty.

Mr. Chairman, to sum up, I would like to submit the front-page story, "Africa's Vanishing Heritage," (*Washington Post*, March 19, 1972) which shows one of the animals listed this year by the Department of the Interior despite the outcry of commercial interests—the leopard. Seated comfortably and calmly in the fork of a large tree, this magnificent spotted cat, for whose coat so many women are prepared to pay poachers' prices, relaxes in the relative security of the Serengeti sanctuary. The many pressures additional to poaching are described in the article. Clearly, only the most effective endangered species legislation with enforcement by the least commercially oriented department can be accepted in 1972. The American public knows the plight of the animals and it wants the government to do all in its power to prevent their extinction.

[From the *Washington Post*, Sunday, March 19, 1972]

AFRICA'S VANISHING HERITAGE

(By Jim Hoagland)

SERENGETI, TANZANIA.—The vast green plains held a timeless silence in mid-morning, ruffled only by the whispers of a wind rising far away and the low hum of a few tsetse flies. White clouds shaped like anvils billowed across a pristine blue sky.

A solitary leopard perched on a low limb on the shady side of a tree and waited placidly for prey. Africa's most beautiful grasslands, the Serengeti plains in northern Tanzania, seemed for a moment to have eluded the great human incursions that have devastated other such areas across the world.

The snap of a fallen branch caught under the wheels of a minibus and the sound of excited voices speaking in German as heads popped up through the vehicle's sunroof ended the illusion, however, and firmly fixed the moment in the final third of the 20th century.

The wheels of the minibus cut through the long grass, yellow-green in the current rainy season, as it moved to a better camera angle in front of the leopard. The track of crushed grass extended behind the vehicle in a line miles long.

It will take one month for the grass to recover. If another vehicle uses the same track, as is highly likely, the scar will remain for three months. A third time, and the track is probably permanent, and the ecology of that particular area will be changed, conservationists fear.

The arrival of tourists in even remote parts of the 5,600-square mile plain area, and the accompanying destruction of grassland, is an increasingly frequent occurrence today. It underscores the fact that Serengeti and the other natural wildlife sanctuaries in East Africa have been swept by man-made change more in the past two decades than in unnumbered centuries past.

DRASTIC CHANGES FEARED

Concerned conservationists fear that unless present trends are altered the next five to ten years could bring even more drastic—and more devastating—changes to the sanctuaries, considered by many experts and laymen to be the most magnificent still in existence.

The dangers that confront the giant ecological systems that are the habitat of million of wild animals in this region cover a broad spectrum. But two motivating forces seem to stand out as the needs of nature and the desires of man come increasingly into conflict:

The necessity of the recently independent African governments to deliver some proof of economic prosperity and modernization of life to their rapidly growing populations, even if this has to be at the expense of the animals, forests, rivers and other features of nature that outsiders say must be preserved as international assets.

Individual examples of human greed that collectively form a threat to nature. This is especially true of well organized and financed poaching rings, which sometimes involve high-level government officials of the countries involved.

For purposes noble and selfish, immediate and longterm, an area that resembles in some ways a forgotten corner of Eden is being merchandised into the modern world as East Africa faces the challenge of "developing" its resources.

Political leaders are responding to constituents by taking land from animals and giving it to men. Tour operators are jamming more and more visitors in without thinking of the consequences to the unique ecological systems here. And many of the errors that affluent countries are now trying to undo in industrialization and urbanization are being repeated here.

WILDLIFE ISSUE

The wildlife issue is the one that has attracted most of the outside attention, but it is also one of the most complex.

In many of the struggles being shaped on the question of the use of resources across Africa, it is not always a conflict of survival between animals and people. Rather, it is sometimes the survival of governments and local political forces that is at stake.

There is little if any internal political pressure on African governments to preserve nature, just as there was little in America before the consequences of the depletion of animal species and the pollution of the environment began to be debated.

In the traditional African view, the animal is either a danger, threatening crops and cattle, or a much-needed source of food. For the 80 to 90 per cent of the continent's population that live as peasants, it is absurd to talk about a rhinoceros as a natural asset.

Additionally, few educated Africans have shown much interest in becoming professional conservationists, since desk and government office work are the main status symbols here.

There have been a few outstanding exceptions to this in Africa's brief time of independence, but even they have often been caught up in the local political pressures that surround decision-making on conservation issues.

CONFLICTING DEMANDS

As a result, it is usually predominantly white international organizations—American and European based—that are cast in the role of defending nature against black governments, which must respond to demand for food and jobs.

This in turn creates new problems, however far removed they may be from the original dilemma, in a country like Tanzania which is highly defensive about alleged Western interference in its affairs.

"We have to be extremely careful in presenting a conservation viewpoint," said one foreigner deeply involved in wildlife preservation in Tanzania. "Otherwise, it tends to be counterproductive, and the government just digs its heels in more, no matter what the costs."

Conservationists who have studied East Africa's growing problems in the race between the need to conserve and the need to develop in poverty stricken countries generally list three crucial facets of the content:

●Probably the most important and most dangerous in the long run is the question of land use—that is, should traditional habitats and migration routes of animals be left undisturbed, or should they be turned over to humans for farming, ranching or other productive purposes? Or is it possible to combine the two?

This question is especially explosive in Tanzania, where a controversy over allowing settlement around and in Serengeti and the Ngorongoro area is still raging

inside the government. The pattern in this dispute and throughout East Africa clearly is that long-term needs of nature will be subordinated to immediate needs of man.

●Pollution is seen as an "emerging problem" in the words of a Kenya government report on the environment, done for the United Nations. Key water supplies or animals are being affected.

●The most recent phenomenon to attract the attention of conservationists is "visitor impact." With more than half a million tourists pouring into East Africa's game sanctuaries each year—a tenfold increase over the past decade—scientists are beginning to become concerned about the lack of control and planning being shown in some areas.

It is generally accepted that the days of wild animals living outside game sanctuaries are numbered in East Africa. Herds of elephants, rhino, antelope and other beasts are driven into the parks, and new studies are being launched on the conditions inside the sanctuaries.

TOURISM PROBLEM

Visitor impact presents governments here with some of their hardest choices.

The flood of foreign visitors has brought in its wake badly needed foreign currency and has greatly stimulated the hard pressed local economies across East Africa. Tourism provides Kenya with more than \$50 million a year in foreign exchange, second as a money spinner only to the country's coffee exports.

New hotels are sprouting in Nairobi, along the Indian Ocean coast, and throughout the game parks. Package tour operators from America, West Germany and Britain are filling them almost as soon as they open.

In neighboring Tanzania, the number of visitors to national parks has risen from 2,585 in 1961 to around 125,000 a decade later. Recently, tourism has been the only major foreign exchange earner that shows an upward trend.

In an open bid to get tourists to bypass Kenya and go directly to Tanzanian parks, the government financed and recently opened a \$10 million airport near Mount Kilimanjaro. Although it still has not attracted a single major airline, the government insists the airport will be needed for the large number of tourists expected here in the near future.

AFRICAN ENVY

The rest of Africa has looked on with envy at the experiences of these two countries in wildlife-centered tourism, and to a lesser extent at similar experiences in Uganda, Ethiopia, Zambia and Rhodesia. Countries are diverse as poverty stricken Chad and mineral rich Gabon see similar possibilities for themselves.

Here, however, conservationists are beginning to feel that there can be too much of a good thing, and hope to stimulate thinking about ways to limit the number of visitors or at least to control their activities more closely.

How this will be received by governments eager to build up their treasuries as rapidly as possible remains to be seen.

"You can't manage wildlife unless you manage the activities of people first," says Dr. Hugh Lamprey, director of the Serengeti Research Institute.

The institute, widely respected for a decade of study of wildlife in the Serengeti plains, will soon begin controlled experiments designed to measure the impact of the rising number of visitors to the parks.

Since the large number of wild predatory animals in the parks makes it impossible for visitors to walk in them, motor vehicles like the minibus that was full of tourists in Serengeti shuttle back and forth in the parks. The experiments will test the strong impression that it takes a very few trips across a given piece of land to create a permanent track, which alters the ecology of the area.

"The grasslands are extremely delicate," Dr. Lamprey noted. "The vehicle tracks become gullies in the rainy season. This alters the normal water distribution which takes place gradually and slowly. The country downhill from a vehicle track may be deprived of the water it needs.

OLD ECOLOGICAL SYSTEM

"Animals make tracks too, of course, but these don't tend to gully. And the animals have a relatively stable population that is part of the whole setting. You're dealing with a very old ecological system."

Dr. Lamprey says that four game sanctuaries in East Africa are especially affected by visitor impact because their relatively flat and gentle topography makes it possible for tourists to leave the main roads in the park and drive across the grasslands.

They are Serengeti and the Ngorongoro Crater in Tanzania, and the Nairobi National Park and Amboseli in Kenya.

Serengeti's vast area received 35,000 visitors last year. But most of them were concentrated along a small area known as the Sereonera Valley, where the game-watching is best.

Conservation experts estimate that in the neighboring Ngorongoro Crater, which has 70 square miles of prime grasslands on the floor of the crater, at least 1 percent of the grass area has been destroyed by tourist vehicles in the last 10 years.

Another one-fifth of the area is estimated to have suffered at least a 50 percent loss in productivity as a result of the vehicle traffic of the crater's 20,000 annual visitors.

This means not only that there is significantly less food for grazing animals, but also that the entire environment is affected in a number of subtle but important ways.

Scientists have also begun to study the effect of nearly continuous observation by tourists of some animals in parks on the habits of the animals. Although the results are still tentative, it is clear that change is being forced on many animals, especially the lions, cheetahs, leopards and other predators that visitors to Africa are so eager to see.

In the 44-square-mile Nairobi National Park, which is located only a 10-minute drive from the capital and which drew 43,000 vehicles last year, it is usual to see in late afternoon a circle of cars and mini-buses around a pride of lions, who stare with boredom back at the gamewatchers.

Most lions begin their hunt about 4 p.m., wildlife experts say. Yet there have been increasing instances of cars actually blocking the movements of the lions. There have also been cases of vehicles chasing along with predators during a hunt and preventing them from making or eating a kill.

"An animal may not be able to compensate for such interruptions," says Dr. Lamprey. "The cumulative effect may be that such animals will not be able to get enough food."

Adds Albert Mongi, Tanzania's assistant director of national parks and a man rated by experts as one of Africa's best conservationists: "Very subjectively you can tell there are changes and signs of stress in animal behavior because of visitor impact. We must avoid having the parks degenerate to the level of an open zoo."

Another target of tour buses is the ostrich nest. At times, the bus drives close enough to the nest to frighten the male ostrich, who tends the eggs during the day, away from the nest, which is almost certain then to stay abandoned forever.

Te large hotels and lodges that are springing up in game parks require permanent staffs, meaning that increasingly large human settlements are taking root. In Serengeti, there is a regular bus service across the national park now.

"Soon the animals will have to listen for the cars, line up and come out dancing with a big smile if they want to survive," says George Dove, a thickly built man with a bushy beard. He was a professional hunter in East Africa for 30 years before opening up a game lodge at Ndutu, near Serengeti, three years ago.

Dove's answer has been to keep his lodge small and locate it well away from the main tourist routes. At night, guests in the tented camp can hear lions roaring nearby.

Tanzanian officials say that because their parks are larger than those of Kenya, they can direct the tourist flow more evenly by spacing new hotels and camps far apart.

But scientists think that even more drastic steps may be needed to avoid damage. Game parks throughout East Africa are certain within a few years to impose ceilings on the number of visitors who can go into the parks daily. Busy spots like Nairobi National Park may require advance bookings for cars entering the park.

Some conservationists foresee in a few years the need to forbid travelers leaving the main roads of the park—which will greatly lessen the attraction of the parks, of course.

Alternatively, private vehicle traffic may be banned and everyone piled into eight-wheeled buses that would spread the weight load across a wider area, minimizing destruction to the grassy plains.

While viewing visitor impact with increasing concern, conservationists are also deeply thankful that tourists have taken such an interest in African wildlife.

This has convinced some African governments that the animals and open land must be preserved, since in a real sense a zebra is worth more to Kenya as a tourist attraction than as meat. This is the theme of campaigns Kenya is using to try to emphasize to villagers to refrain from killing off wild animals.

Conservationists seem convinced that they can find a reasonable balance in regulating visitor impact while governments continue to draw economic benefits from moderate increases in tourism. They are, however, much less optimistic about the other long-term dangers confronting wildlife in East Africa.

(The questions and answers thereto follow:)

SOCIETY FOR ANIMAL PROTECTION LEGISLATION,

Washington, D.C., August 21, 1972.

Hon. WILLIAM B. SPONG, Jr.,
Senate Office Building,
Washington, D.C.

DEAR SENATOR SPONG: Thank you for your letter of August eleventh asking three questions.

In answer to the first, I believe it would be preferable for the Secretary of the Interior to list plants as well as animals. While I do not see as great a conflict of interest with respect to Agriculture and plants as with Commerce and whales, nevertheless, the testimony from Agriculture had a strong economic emphasis dwelling mainly on crops and the need to preserve a gene pool of wild relatives of crop plants. Further, the relationship between endangered animals and endangered plants and the importance of habitat preservation suggests that a single agency could grasp the total picture with less possible confusion. Therefore, we would recommend that all endangered forms of life, covered by the bill be listed by the Secretary of the Interior.

In answer to your second question, I do not believe that enforcement problems with regard to a species threatened in only a portion of its range would be insurmountable, although the opportunity for dishonesty is much greater where the animal, plant or product is not totally banned from import, and where documentation must provide the basis for the legitimacy of the entry. The principle of preserving species throughout their range is important. The fact that enforcement is not easy should not deter enactment of this provision. Even if enforcement is not 100% successful the possibility of being caught and the size of the fine will provide considerable protection. Adequate funds for enforcement are essential so that smuggling and use of forged papers are prevented to the greatest extent possible.

In answer to the third question, I am not aware of any difficulties which have encountered with the 1966 and 1969 Endangered Species Acts with respect to danger to human health or safety. The chances of being attacked by an animal on the Endangered Species List are miniscule; on the other hand, a provision specifically exempting a person from the consequences of killing endangered animals could provide a loophole to be exploited by unscrupulous hunters.

May I take this opportunity to say how much your conscientious work on this legislation is appreciated. Future generations will thank you, too, if an effective new endangered species act adequately funded for enforcement is passed.

Sincerely,

CHRISTINE STEVENS, *Secretary.*

Senator SPONG. Mr. Thomas Garrett?

STATEMENT OF THOMAS GARRETT, FRIENDS OF THE EARTH AND DEFENDERS OF WILDLIFE

Mr. GARRETT. Mr. Chairman, I am Tom Garrett. Thank you for this opportunity to testify. I am testifying today on behalf of the 26,000 members of Friends of the Earth, and the 38,000 members of Defenders of Wildlife.

Friends of the Earth is an international organization, with branches in approximately 20 countries, dedicated to the preservation and rational use of the environment. Defenders of Wildlife is a national organization active in the defense of wildlife and wildlife habitat. Mary Hazel Harris is executive director, and editor of Defenders of Wildlife News.

Defenders of Wildlife and Friends of the Earth strongly endorse the basic features of S. 3818 and S. 3199. These bills remedy a salient defect of the Endangered Species Act of 1969, which contained no provisions for protecting domestic endangered species. They have also eschewed the egregious concept of "world wide extinction," which further crippled the 1969 act.

Of the two major bills now under consideration, the Spong bill is clearly superior. It embodies many of the suggestions made by conservationists before the House committee. We commend and thank Senator Spong for his initiative in developing this improved bill. With the exception of section 6 and particularly (c) to which we are unalterably opposed, and urge this committee to delete, we endorse the changes written into Mr. Spong's version.

We are particularly pleased at the inclusion of plants within this protection. Aside from the intrinsic worth of given plants, the survival of animal species is frequently contingent upon their availability. For example, the saguaro cactus is now threatened in the United States. If the saguaro disappears, the survival of the elf owl becomes problematical. Other living forms directly or indirectly dependent upon the saguaro will disappear.

We are also delighted with section 6 (e) guaranteeing the States the privilege of enacting and enforcing stronger legislation, and with the much needed section placing rather onerous recordkeeping burdens on importers.

We welcome the emphasis on land acquisition in the bills before this committee. We especially wish to thank Senator Cranston for his appreciation of the need to acquire and preserve habitat, and to commend him for his laudable and valuable contribution to the hearings.

It should be obvious to any of us that if we do not preserve the habitat of species, and the integrity of biotic communities, whether or not plants or animals are protected from deliberate molestation becomes, eventually, academic. If the Congress is genuinely serious in its determination to protect hard-pressed species, it must not only provide authority to purchase lands, but provide ample appropriations. The agencies involved in purchasing must move promptly to insure the habitat now, before vested commercial interests, or competing State of Federal agencies staked a claim.

Mr. Chairman, while we find a great deal to praise in the bills before you, we find some common deficiencies.

1. The definition of "take" is inadequate. An animal, or plant, is just as dead if it is killed by some concomitant of "progress" such as industrial poisoning, suburban or recreational development, inundation, or desiccation, as though it were deliberately shot. In a sense it is perhaps "deader," since associated living components of its local habitat will also have been affected, and the opportunity for its kind to re-establish itself in the place may be irrevocably lost. This legislation

will be immeasurably strengthened by explicitly broadening the definition of take to include all forms of molestation, whether deliberate or incidental to commercial, recreational, or other activities.

2. A citizens suit provision should be added. This will stimulate proper enforcement, and strengthen the act.

3. We are pleased with section 7(d), permitting the listing of nonendangered species indistinguishable from endangered species. However, we wonder if section 4 provides enough protection to certain isolated population stocks of major species, which may be gravely endangered although the species generally is not in severe difficulty. It seems to us, that unless and until an appropriately enforced international agreement is in effect which meets the problem of transshipment smuggling, evidence that a major population stock has become depleted should result in the listing of the species.

Under the 1969 act, efforts to achieve listing of an animal have often been frustrated by assertions that the status of an animal was "unknown." If the status of an animal is unknown, this may be taken as prima facie evidence of its rarity. The safe course is to list the animal, with the burden of proof regarding its status thereafter resting with those who may wish to molest the animal, or remove it from the list. We hope that language to this effect will be specifically included in the legislation. We feel that "rare" animals, regardless of previous or current exploitation, should qualify for listing.

We have reservations over section 8 of S. 3818. We would be much more comfortable if language were included making it clear that no endangered species would be used in medical research, or in any other research which was not expressly designed to benefit the species itself. The only possible justification for killing an endangered species for "scientific purposes, would be to examine it for disease, or to secure controls in the monitoring of pollutant concentrations. We must guard against sanctioning of the sort of "special scientific permits" issued by the International Whaling Commission for the killing, and of course, commercial processing, of ostensible protected species.

We are adamantly opposed to the automatic granting of 1-year hardship permits, as occurred under the Act of 1969. We request language in section 8(b) which makes the issuance of such a hardship permit contingent upon the findings of a public hearing, and which permits the Secretary discretion to set a phaseout quota only if it can be demonstrated that such a quota will not have a deleterious effect on the species or stocks being listed.

A commercial operation based on products taken from endangered species is obviously quite deliberately self-effacing. The willingness of such people to take short-term profit through trafficking in such endangered and vanishing species is a major factor in their disappearance. Why is it necessary to defer to such irresponsible behavior?

We oppose the granting of jurisdiction over endangered species to the Department of Commerce. The Bureau of Sport Fisheries and Wildlife has shown an increased sensitivity to the need to protect and conserve wildlife, and appears comparatively insensitive to commercial pressures. We have no extremely strong objections for the transfer of responsibility of commercially exploitable fish to NOAA, but we feel very strongly that marine mammals should remain under Interior jurisdiction. The Commerce Department's proposed amend-

ments to marine mammal bill would have virtually destroyed the legislation. We are encouraged, but by no means sufficiently reassured by recent indications that NOAA—under the leadership of Dr. White, Mr. Wallace and others—may be developing a more acceptable philosophy.

While we understand that State policies are often more enlightened than Federal policies, we fear that (a) and (b) of Section 6 might jeopardize, rather than enhance, the setting aside of sanctuaries. Many states are dominated in these matters by hunting oriented commercial bureaucracies, which are far more interested in selling hunting licenses than in perpetuating endangered species, and would be loath to remove habitat areas from their jurisdiction. An example which immediately comes to mind is the hostility of the California Game and Fish Commission to the Owens Valley elk sanctuary. Paragraph (c) is an invitation to major abuse and we wish to repeat our resolute opposition.

In closing, Mr. Chairman, I would like to emphasize again that it is ultimately quite immaterial whether a species is deliberately molested or not, if its habitat is not preserved.

We appear caught up today in a metastasizing biological disaster. The precipitous decline of our fellow living creatures throughout the planet mirrors our own chance of avoiding a prodigious calamity. If we cannot contain the proliferation of our own kind, if we will not restrain our nihilistic and randomly destructive technology, the animals which we are here striving to save will not survive, and our own harvest will surely be at hand.

Thank you again for this opportunity to testify. We shall submit specific proposals for amendments, and in support of points which we have raised. We shall submit some specific proposals.

Senator SPONG. Thank you very much, Mr. Garrett, for your testimony. We do have questions here which we are submitting to you and look forward to your answers for the record.

Senator STEVENS, do you have some questions?

Senator STEVENS. No; although I may have some later.

Senator SPONG. Thank you very much.

I would again like to thank all of you for coming at 8:30 in the morning to allow us to complete the record of these hearings. I wish that the demands of our committee would allow us to take more time with the hearings than we have, but I believe we have a rather complete record, and once you have replied to our inquiries, I think we will be in a position to give consideration to this legislation.

Thank you very much. This hearing is adjourned.

(Whereupon, at 9:30 a.m., the hearing was adjourned, subject to the call of the Chair.)

ADDITIONAL ARTICLES, LETTERS, AND STATEMENTS

STATEMENT OF HON. FRANK E. MOSS, U.S. SENATOR FROM UTAH

SUBJECT—OPENING REMARKS FOR HEARINGS ON PREDATOR CONTROL LEGISLATION,
H.R. 13152

Today begins the first of two days of hearings by the Subcommittee on the Environment on H.R. 13152, the Federal Animal Damage Control Act of 1972. This bill was introduced at the request of the Administration and was passed in an amended form by the House of Representatives July 17, 1972 by a vote of 277-74.

As you well know, this bill is an attempt to transform President Nixon's ban on the use of poisons for predator control into statutory language. It would also create a grant-in-aid program for States who wish to manage their own predator control programs, as long as chemical toxicants are not part of that program. The bill would repeal the Act of 1931, which calls for eradication programs for predators. It would establish research programs and allow the Secretary of Interior to conduct operational programs to assist States where he deems this to be necessary.

The House Committee on Merchant Marine and Fisheries made a number of changes in the bill, the most important one being the allowance of chemical toxicants when such use is ". . . essential to the prevention in specific areas of major damage to livestock."

I believe it would be useful for the record to include at this point the Executive Order of the President issued February 8, 1972, H.R. 13152 as originally introduced, and finally H.R. 13152 as passed by the House.

The broadscale and sometimes careless use of poisons to kill animals suspected of predatory activities can no longer be tolerated. As our society has grown more populated, it has come to place a higher value on wild animals. Though accurate scientific information is very difficult to obtain on these matters, it is clear that we must lean emphatically toward preservation as opposed to extermination.

The Cain Commission, composed of many of the most eminent wildlife scientists in the country, concluded that chemical toxicants were not vital to programs designed to protect livestock from predators, and recommended that these programs be replaced with other means such as trapping, hunting, calling, and aerial shooting.

Yet many livestockmen claim that their industry will be devastated if poisons remain banned. These are honest, hard-working men who have lived on the range and know their country well. The disparity in viewpoint could not be more clearly drawn.

Dr. Frederic H. Wagner, one of the members of the Cain Commission and a man who spent over 14 years in field wildlife management and research experience with State and Federal agencies before becoming a professor and Associate Dean of the College of Natural Resources, Utah State University, provided some insight into the conflicting viewpoints in a recent Honors lecture at USU. I would like to quote from that speech.

"One cannot meet with stockmen's groups on the subject of predator control without hearing a number of these sincere and forthright men attest to heavy predator losses. Yet the growing evidence seems to point in many cases to the conclusion that such losses, on the average, are relatively light. This seeming paradox can perhaps be resolved by a look at the frequency distribution of the losses. . . . The majority of ranchers in Nielson's and Curle's sample experienced *relatively light losses*: 80 percent of this sample sustained losses of 50 ewes and lambs per 1,000 ewes or less But the number of sheepmen in Utah must approximate 300 to 400. Twenty percent of that total is 60 to 80, and in any group there will always be a number of individuals who have had sizeable losses."

The rest of Dr. Wagner's speech is an exercise in explaining the tremendous difficulty in establishing firm evidence for the discussion of damage caused by

predators. Yet he does tentatively conclude that ". . . the evidence on total sheep losses shows little, if any, correlation with coyote population density and the use of control measures which reduce that density."

Dr. Wagner's lecture "Coyotes and Sheep" is a very useful document, and in the absence of any objection, I include it as an appendix in this hearing record.

STATEMENT OF HON. HARRISON A. WILLIAMS, JR., U.S. SENATOR FROM NEW JERSEY

I am pleased to have this opportunity to comment upon the legislation now being considered by the Environment Subcommittee of the Senate Commerce Committee for the preservation of our endangered species of wildlife.

As the author of the Marine Mammal Protection Act, which recently passed the Senate, I am very much aware of the need for positive action in this area. My study of the status of the various species of wildlife in our nation and around the world has been at the same time enlightening and disheartening; for man's capacity and willingness to annihilate the wild creatures which inhabit the earth appears almost limitless.

In the United States alone, 101 species of wildlife are now threatened with extinction. These include such formerly common animals and birds as the Black Footed Ferret, the Eastern Timber Wolf, the Red Wolf, the Peregrine Falcon, the Whooping Crane, and the Ivory Billed Woodpecker. Still others, which are not included on the Endangered Species List, are either declining and in danger of extinction or classified as very rare.

There are varied and complicated reasons for this devastation. One of the primary causes is the destruction of their natural habitat. As civilization spreads and more and more open spaces are cleared to make way for urbanization, the areas available for wildlife propagation dwindle accordingly. Undoubtedly, however, the principle reason is the direct killing or capture of these animals by man, whether it be for food, clothing or commercial use, the protection of livestock or purely for sport. Man's ability to completely destroy a species is unbelievable. Perhaps the most classic example of this is the fate of the passenger pigeon. According to some accounts, in the early 1800's the numbers of these birds were estimated to be in the thousands of millions. It is difficult to comprehend that from these vast numbers, not one single passenger pigeon exists today. Tragic though it may be, it is nevertheless true. The last survivor of the species died in the Cincinnati Zoological Gardens in 1914 and is today on public display at the Smithsonian Institution to serve as a constant reminder of the thoughtlessness of man.

Another case in point is the Kodiak bear. Until the late 1900's this bear flourished in the island of Kodiak, which lies between Alaska and the far Northwest of the American continent. It now has the dubious distinction of being the rarest bear in the world. Unfortunately, it was discovered by the American game hunter and consequently within thirty years it was rapidly approaching extinction. And despite securing the protection of the U.S. government in 1926, the population still remains perilously close to extinction.

In 1938, the only known survivors of the American Whooping Crane were 10 adult birds and 4 chicks. At that time, the Department of the Interior set about the task of saving this bird from extinction. These efforts are still going on. The Whooping Crane still suffers from the danger of being shot during migration from their wintering area in Texas to the breeding grounds in Canada, for there are still those who will shoot them if given the opportunity.

Another example of the way in which indiscriminate slaughter can reduce a species of animal to the verge of extinction is the American buffalo. It has been estimated that when the first settlers arrived in the American West, there were at least sixty million of these animals. By the end of the 1800's, however, the buffalo had all but ceased to exist. Fortunately, a few isolated groups escaped destruction and the species was eventually revived. Today the total world population may be around 10 million.

The indiscriminate destruction of wildlife such as I have described cannot and must not be allowed to continue. Fortunately for us all, most of these species were rescued from extinction and during the last century increasing efforts have been made on the part of State and Federal governments, conservation groups and private citizens to halt the alarming rate at which our wildlife has been disappearing. However, more comprehensive measures must be taken in order to assure that no more species of wildlife are allowed to vanish from the

face of the earth, or be brought to the verge of extinction. Obviously, there is no simple solution to their preservation. However, I believe that the bills now before the Committee, S. 3199 and S. 3818, represent a definite beginning. The efforts of those individuals who have worked untiringly for the continued survival of our wildlife, long before it became a popular cause and in the face of considerable opposition from commercial interest groups, have been recognized and rewarded by the introduction of this legislation.

Unless specifically protected by Federal or State law, threatened or endangered species of animals, birds and fish are left completely to the mercy of man. The Endangered Species Act of 1969 gives no enforcement powers to the Federal government with regard to prohibiting the killing of animals on the endangered list. The only legal authority provided by this Act is that animals listed on the foreign endangered list may not be imported without a permit. It is imperative that the deficiencies in the present law be corrected.

I believe that the legislation now being considered will accomplish this by enlarging the definition of endangered species in the 1969 Act to include those animals presently endangered and those likely to become endangered because of foreseeable actions. A species of wildlife must not be allowed to diminish to the point where its survival is questionable or hopeless before the killing of it is prohibited. These bills would make the taking of an endangered species a Federal offense by giving the Federal government the authority to prohibit the unauthorized import, export, taking and interstate transportation by any person of any species listed as threatened with extinction. They would also authorize the Secretary to acquire lands for the purpose of protecting and restoring those species of wildlife that have been listed as endangered species and provide that funds made available under the Land and Water Conservation Fund Act may be used for the purpose of acquiring lands, waters or interests therein which are needed for the purpose of protecting those species which he lists pursuant to the provisions of the bill.

I believe that these bills provide the necessary tools with which to save our vanishing species of wildlife and they have my wholehearted support.

STATEMENT OF BERNARD FENSTERWALD, JR., COMMITTEE FOR HUMANE LEGISLATION, INC.

The Committee on Humane Legislation wishes to thank the Subcommittee and its distinguished Chairman for taking up these bills in this very busy Session of Congress and at this busy time of the year. We also wish to express our thanks for the opportunity to be heard briefly in favor of the legislation.

The bills before the Subcommittee are very similar and we would strongly support either of them. We do, however, prefer S. 3818 somewhat to S. 3199. We believe that in certain respects it is stronger, more complete, and more precise in its drafting.

We have only a single serious criticism of the two bills, and this runs to the provision in each on the matter of delegation of authority to the States. There are identical provisions in Sec. 4(b) of S. 3199 and Sec. 6(b) of S. 3818. We believe very strongly that authority for endangered species should remain with the Federal Government and should not be delegated to the States. If the States wish to have more restrictive laws than the Federal Government, that is fine; but administration of the federal law should remain with the Federal Government where it can be enforced strictly and uniformly.

Before making detailed comments on the Senate bills, we would like to caution against inclusion in the final bill of any exception for "trophy hunters". There is no such provision in either bill at the moment; however, there has been much discussion of such an exception in the deliberations of the House of Representatives. It is likely that the House bill will include such a loophole. We urge most strongly that this needless and negative exception be kept out of the Senate bill and rejected in a Senate-House Conference.

Our detailed comments on the two Senate bills are as follows:

We believe that the "Definitions" contained in Sec. 3 of S. 3818 are somewhat more complete and precise than those in S. 3199, with one exception. That exception is the definition of "person" which should include "firm, corporation, association, or partnership" as well as "private person or entity".

In Sec. 3(c) of S. 3199, and Sec. 4(a) of S. 3818, we would advocate a decision as to endangered based on scientific data alone and not on "scientific and commercial data." Commercial data from commercial sources may often be far from objective and, not infrequently, very unscientific.

Section 4(b) of S. 3818 contains one very useful feature omitted in S. 3199, e.g., "review, on the record, after opportunity for agency hearing . . ."

In Sec. 5(d) of S. 3818 we like the last clause, "or result in destruction or modification of critical habitat of such species," which is not contained in S. 3199. We also very much like the inclusion of the provision in Sec. 5(f) of S. 3818 for a mandate to the Secretary of State to negotiate with other countries. This provision, which is missing from S. 3199, is central to an effective program to save endangered species. It is axiomatic that very few species can be saved by U.S. action alone.

Section 6(e) of S. 3818, for which there is no counterpart in S. 3199, is excellent, in that it permits more restrictive state laws, but not vice versa. States with strong conservationist legislatures should not be foreclosed from taking stronger protectionist action than may be possible at the federal or international level.

The precautions contained in Sec. 7(c) and (d) of S. 3818, which are not found in S. 3199, are most wise, and we advocate their inclusions in the final Act.

We prefer the Exemption section 8(a) in S. 3818 to the similar provision in S. 3199, primarily because it is more restrictive. Specifically, we prefer a permit for "scientific purposes" only, and not the broader "zoological, educational, and scientific purposes" in S. 3199. If a species is endangered, its taking should be extremely narrowly circumscribed, *if any exceptions whatever are permitted*. Candidly, we would prefer no exception section at all.

Section 5(a) (2) of S. 3199 contains an exception for American Indians, Aleuts, and Eskimos which we consider very bad and equally needless. There is no valid reason for this exception and none is contained in S. 3818. A good example of the folly of this emotionally attractive section is the bowl head whale of the Arctic. The natives have killed almost the last of these magnificent creatures. Permitting them to kill those few remaining will help neither the whales nor the natives. We believe that, on reflection, this exception will be dropped from the final Act.

Section 10(a) (2) of S. 3818 calls for the convening of a worldwide meeting at an early date to agree on binding international conventions on the conservation of endangered species. The provision, which is missing from S. 3199, is most important. Likewise we are in favor of Sec. 10(c) re: the Secretary of Agriculture's role in preserving endangered species. Equally, we like Sec. 10(d) of S. 3818 which would leave Section 527 of the Tariff Act of 1930 intact.

* * * * *

As these bills are very similar and as either would be extremely useful, we hope that the Senate will act upon them swiftly, so that a strong Endangered Species Act can be completed by the 92nd Congress and signed by the President without delay.

For some species, the hour is late. For them, time is indeed of the essence.

STATEMENT OF DANIEL A. POOLE, WILDLIFE MANAGEMENT INSTITUTE

Mr. Chairman:

I am Daniel A. Poole, president of the Wildlife Management Institute, with headquarters in Washington, D.C. The Institute's program has been devoted to the restoration and improved management of renewable natural resources in the public interest for more than sixty years.

The Institute endorses the objective of the bills under consideration. We do not support any of them, however, because we believe they are inadequate and unresponsive. Strong and coordinated effort is needed at international, national and state levels to identify and aid threatened and endangered species of wildlife and plants.

None of the bills provides this necessary authority. We find all of them lacking for the following reasons:

1. S. 249 is limited to the Western Hemisphere, but the problem is worldwide.
2. The bills are overly optimistic in expectation of good results from one poorly financed and undermanned federal agency, the Bureau of Sport Fisheries and Wildlife.
3. The bills propose a direct and unnecessary extension of federal authority into an area of historic state responsibility. As such, their approval would create further dissension and confusion.
4. The bills ignore the good that can be accomplished by working with and through the 50 state conservation agencies that have legal responsibilities to care for resident fish and wildlife resources.

We question whether an all-federal program of the magnitude required to assist endangered wildlife, at home and around the world, can be assured of budgetary and appropriations support. Although the bills authorize no specific appropriations, this new federal authority, if it is to succeed, will require considerable expansion of the research, management, and enforcement staffs of the Bureau of Sport Fisheries and Wildlife.

The Bureau currently lacks adequate personnel and financing to enforce fully the laws and to implement programs for which it already is responsible. This is not said in criticism. We are vitally concerned about the Bureau and its program. But we are not aware of any relaxation of budget and manpower ceilings that will permit expansion of the agency's law enforcement and scientific staffs to anywhere near the capability required to respond to the authority that would be granted under S. 3199 and S. 3818.

This is made evident by examination of the implications of these bills in terms of law enforcement, a most important activity in any successful fish and wildlife program, and of great importance with species sought for commercial purposes. Commercialization, of course, is one of the major threats to many of the world's wildlife. The second major threat is habitat contamination and destruction. Law enforcement can help control illegal commercialization of wildlife. It can do relatively little about habitat destruction.

The Bureau of Sport Fisheries and Wildlife has funding in this fiscal year for 155 law enforcement agents. These men operate throughout the United States, including Hawaii and Alaska. To put this small number of federal wildlife enforcement officers into national perspective, I refer to an authoritative study of state wildlife law enforcement recently completed by William B. Morse, the Institute's western field representative (copy attached). According to Morse's data, any one of 10 states has more wildlife law enforcement officers than has the Federal Government for the whole country. In the 50 state wildlife agencies, there are more than 5800 full-time law enforcement agents. They comprise 32.3 percent of all employees in state fish and wildlife agencies. Slightly more than 27 percent of the state agencies' budget outlays is devoted to wildlife enforcement and more than \$72 million was invested in this work in the most recent year record. In contrast, the Federal Government, through the Bureau of Sport Fisheries and Wildlife invested less than \$5.5 million in enforcement in fiscal year 1972.

The Bureau is budgeted for 3958 total employees—scientific, enforcement, clerical, etc.—during the current fiscal year. State wildlife agencies have more than 5400 biologists and managers in the field, more than 5800 law enforcement agents, and almost 18,000 employees overall. The total appropriated funds allotted the Bureau this year amounted to \$92.8 million. An additional \$47.8 million will be collected from the manufacturer's excise taxes on items of hunting and fishing equipment. But most of this goes to the states under the long-standing federal aid fish and wildlife restoration programs. For this year, the states have available \$208.5 million from license receipts alone, not including any monies appropriated from general revenues or federal aid.

Approximately 30 states already are conducting programs to identify and collect information about threatened resident wildlife and to design programs for their protection. Others also are expanding their programs to include all species of wildlife. Through the International Association of Game, Fish and Conservation Commissioners, the States have developed a Model Law for enactment by State Legislatures. A copy of the Model Law was submitted for the record by Dr. MacMullan, president of the International Association. We expect that many states will adopt the Model Law this coming year.

In Sec. 11(a) of S. 3818 and Sec. 9(a) of S. 3199, the Secretary would be given authority to manage resident fish and wildlife classified as endangered or likely to be endangered everywhere in a state, regardless of land ownership. The bills would do this by amending the second sentence of Subsection 4(c) of the Act of October 15, 1966 to read: "With the exception of endangered species listed by the Secretary pursuant to section 4 of the Endangered Species Conservation Act of 1972, nothing in this Act shall be construed to authorize the Secretary to control or regulate hunting and fishing of resident fish and wildlife on lands not within the system."

The sentence the proposed amendment would supplant, clearly upholds and sustains the authority of the states to manage resident fish and wildlife, including designated endangered species thereof, on all lands within the state

other than those in federal refuges and similar areas. Should this amendment be adopted, and we hope that it will not be adopted, the Congress will have authorized an unwarranted federal intrusion into an area of historic state responsibility.

Those who favor a strong federal move into this area can argue that the states will be given an opportunity to cooperate. The bills contemplate this, of course. But the history of federal-state relations makes clear that states cooperate more readily and helpfully when they are given responsibility and a mission. As presently written, S. 3199 and S. 3818 primarily could divest the states of authority they now have and have had since the founding of this nation. After having their bat and ball taken away from them under the pending bills, the states would be invited to begin a new game on their own field. That does not appear to be the best way to protect the wildlife resource. Further, we are not encouraged when we hear that a federal wildlife agency, with less than one-fourth the employees and about one-half the money of state agencies, is seeking primary responsibility in this area.

We urge that the committee view the opportunities inherent in this subject from the standpoint of creating a forcing action on the states, a procedure that has been followed many times on matters of national concern. It enables the Federal Government to alert the states and to give them an opportunity to respond—if they have not already done so. The forcing action procedure assures more efficient and effective use of federal and state funds and manpower, both of which are not unlimited at either level.

We strongly believe that a sound and productive endangered species program, a program making the most efficient and effective use of available funds and manpower, should involve the Bureau of Sport Fisheries and Wildlife and the state conservation agencies in a cooperative program.

Such a cooperative undertaking should:

1. Recognize the necessity for the scientific handling of the subject, i.e., reject emotionalism.
2. Recognize and build on the traditional responsibilities of both the federal and state governments for wildlife.
3. Set federal standards to be achieved by the states.
4. Provide federal financial assistance on a cost-sharing basis and link acceptance of the assistance with overall federal program coordination.
5. Provide for federal assumption of responsibility to protect designated endangered fish and wildlife in those states either (a) refusing to participate in the program or (b) failing to live up to the national standards set for the program.

This is the basic structure of the Federal Aid in Wildlife Restoration Act of 1937 and the Federal Aid in Sport Fish Restoration Act of 1950. We note also that this same plan is included in H.R. 13152, the predator control program proposal, approved by the House and now before the Senate Committee on Commerce. The House Committee, after public hearings, amended H.R. 13152 to pattern the proposed predator program along the lines of the two successful Acts, both of which are based on a federal-state cooperative program.

We believe the forcing-action procedure is the only sensible approach to follow with the endangered species proposal. In fact, we firmly believe that only with strong action at the state level through state wildlife and fish agencies, with the Federal Government working in interstate and international areas, and with good communications and cooperative agreements between the two levels, can the American people be assured of a strong national attack on the problem of endangered and threatened wildlife.

A final point I wish to emphasize, Mr. Chairman, is that the history of American wildlife restoration has been one of rescuing many species of wildlife from extinction. There is nothing new nor unique about the "likely to be threatened" concept of the pending bills. The state and wildlife agencies have been involved in such work since the very beginning. The problem is somewhat more urgent today, and it will be in the years ahead, because of man's increasing contamination and occupation of wildlife and fish habitat. Among the many rescued species are some that are regarded as common today—deer, elk and pronghorn antelope to name a few. Big horn sheep and mountain goats have been restored to areas where they once were hunted ruthlessly by our pioneer forefathers. Sea otters have been re-introduced in areas of historic range. The fur seal is well out of danger, and wild turkeys now occupy more of North America than they did in the colonial times.

Wildlife restoration in the United States has been a success story. The job is not finished, because expanding human population and related development continue to destroy natural habitat. Wildlife restoration has succeeded because of the individual and cooperative programs of federal and state wildlife agencies. No other nation in the world possesses the depth of professional wildlife management talent and organization as does the United States. The best way to guarantee success for the objective of the proposal before the Committee, in our view, is to build upon this competence. We urge the Committee to take advantage of existing federal-state capability to restore and protect wildlife. Full partnership between federal and state wildlife authorities will assure the success of this urgently needed program. This can be accomplished by amending the proposal in the way we suggest.

STATEMENT OF LOUIS S. CLAPPER ON BEHALF OF THE NATIONAL
WILDLIFE FEDERATION

Mr. Chairman: I am Louis S. Clapper, Conservation Director for the National Wildlife Federation, which has national headquarters at 1412 Sixteenth Street, N.W., here in Washington, D.C.

Ours is a private organization which seeks to attain conservation goals through educational means. The Federation has independent affiliates in all 50 States, Guam, Puerto Rico and the Virgin Islands. These affiliates, in turn, are composed of local groups and individuals who, when combined with associate members and other supporters of the National Wildlife Federation, number an estimated 3,000,000 persons.

We are pleased to have this invitation and opportunity to comment upon S. 3199, S. 3818, and S. 249, relating to endangered species of wildlife.

Mr. Chairman, the National Wildlife Federation long has been intensely concerned about the preservation of endangered species of wildlife. Years ago, we made this the theme of an observance of National Wildlife Week. We have written extensively on the problem in all of our publications. We have issued press and radio-TV releases on the need to preserve fish and wildlife that are threatened with extinction. We vigorously supported the basic legislation establishing the Endangered Species Act in 1966 and 1969. In short, our interest in preserving endangered wildlife is well established. With this background, we find provisions which are both good and bad in these bills.

Commenting on S. 3199, we are in agreement with the basic goals of this legislation, as expressed in Section 2 (a) and (b). We also are firm in the belief that determinations of endangered species should be made on the basis of scientific data. However, in all candor, it seems that the proposed Section 2(c) (1) must be approaching some sort of a record for consolidation of ideas into one involved and extended sentence!

We see good points in authorizing the acquisition of lands for the conservation, protection, restoration, and propagation of those species which are determined to be endangered. And, we think well of the proviso that other Federal agencies carry out programs for the protection of endangered species. Further, we like the proposal to encourage foreign countries in providing protection for species threatened with extinction. Most certainly, the extensions and consolidations in this bill would be consistent with the mounting public concern about preserving, restoring, and maintaining fish, mammals, birds, and other species of wildlife which are endangered.

On the other hand, we fear that the bill has bad points as well.

For one thing, the bill pre-empts, for the Federal Government, the traditional state authority and responsibility for regulating and managing resident species of wildlife. If the Secretary of the Interior or Commerce so sees fit, he may delegate to a state the authority to regulate the taking, by any person of an endangered species when he determines, in his discretion, that the state maintains an active program to manage and protect such endangered species in accordance with criteria issued by him. Now, we believe the Bureau of Sport Fisheries and Wildlife, and possibly the Department of Commerce, would be required to expand its staff greatly if the Federal Government is to assume all of these responsibilities for management, research, and law enforcement. And, frankly, in view of present limitations on personnel and budgets, we wonder how much of a new effort the Federal Government can make if given these responsibilities exclusively. It is our recommendation that the states be given an opportunity to respond and work

with the Federal Government on protecting endangered species in a cooperative or joint effort. In this way, all of the Nation's professional competence and expertise can be marshalled in the effort. This bill could set out national policies and objectives, authorize broad guidelines, and then provide for federal implementation if the states do not assume the responsibilities within a given period of time.

Another bad provision relates to fragmentation of federal authority. We believe it would be unwise to split the responsibility for endangered species between the Commerce and Interior Departments. Endangered species must be protected and we are not convinced that they will receive this protection under jurisdiction of the Commerce Department.

The same adverse criticisms, Mr. Chairman, can be made of S. 3818 and S. 249. The exception outlined in Sec. 9 of S. 249 clearly points out that the Federal Government is pre-empting or abridging state responsibilities in the area of wildlife management relating to creatures threatened with extinction.

The National Wildlife Federation, Mr. Chairman, in June sponsored a symposium "Uniting Nations for BioSurvival" in Stockholm, Sweden, in connection with the United Nations Conference on the Environment. This symposium was sponsored for the purpose of focusing attention of nongovernmental organizations on international environmental problems. We hope to begin work on methods of monitoring global movements of plants and animals in danger of becoming extinct, to prepare treaties, and to develop enforcement procedures. A copy of the "Declaration on the Environment" developed in the symposium is attached. Also attached is a resolution relating to trade in endangered plants and animals. It urges the U.S. Government to seek an effective international treaty to control the trade in endangered wildlife and plants.

If amended as indicated earlier, we recommend the enactment of either S. 3199 or S. 3818.

Thank you again for the opportunity of appearing here today.

NATIONAL WILDLIFE FEDERATION—36TH ANNUAL CONVENTION, MEXICO CITY,

MEXICO, MARCH 9-12, 1972, RESOLUTION NO. 6

CONTROL OF TRADE IN ENDANGERED PLANTS AND ANIMALS

Whereas, commercialized world trade is one of the most serious causes of depletion of many wild species of wild plants and animals; and

Whereas, the world trade in wild creatures and plants or their products frequently fails to consider their conservation; and

Whereas, many of the species involved in world trade are on official lists of endangered species; and

Whereas, the International Union for the Conservation of Nature and Natural Resources, in its continuing efforts to regulate international trade of wild plants and animals and their products, has developed a draft international treaty which would control operations relating to endangered wildlife and plants; and

Whereas, the U.S. Government has consented to host an international plenipotentiary conference in Washington, D.C., in April 1972, for the purpose of negotiating a widely-acceptable international agreement, with the IUCN draft treaty as a beginning: Now, therefore, be it

Resolved, That the National Wildlife Federation, in annual convention assembled March 10-12, 1972, in Mexico City, Mexico, hereby endorses the concept of an international treaty for the control of trade in endangered wildlife and plants, and urges the Secretary of State to use the influence of his office in the pursuance of an effective international treaty to which the U.S. would become signatory.

DECLARATION ON THE ENVIRONMENT

Recognizing the rapidly accelerating pressure which the human population is placing on the natural resources of the world . . .

Therefore, the participants in the International Symposium, "Uniting Nations for BioSurvival," sponsored in Stockholm by the National Wildlife Federation of the USA, make the following recommendations:

1. The only hope for future generations to enjoy a satisfactory quality of life is to limit human population.

2. Furthermore, it is imperative that people in all parts of the world should manage and utilize our renewable natural resources—the air, water, soil, plant and animal life—in such a way as to avoid their depletion. We should use only the yield of our earth, and not draw upon its capital.

3. Effective steps must be taken to prevent the pollution of the air, water, soil and landscape.

4. Urgent measures should be taken to find methods of maximizing food production which avoid the adverse ecological effects inherent in the use of persistent pesticides, heavy use of chemical fertilizers, and reduction of species diversity by excessive monocrop culture, and other limiting factors.

5. We must maintain suitable habitats for all forms of wild plants and animals in order to keep options open for future generations, and because a human life support system based on a small number of species is unstable and insecure.

6. Summing up: Man's highest priority must be to ensure that the ecological diversity and potential of our earth be maintained unimpaired.

STATEMENT OF JOHN W. MCKEAN, WESTERN ASSOCIATION OF STATE
GAME AND FISH COMMISSIONERS

Mr. Chairman, I am John W. McKean, Director of the Oregon State Game Commission testifying in support of H.R. 13152 on behalf of the Western Association of State Game and Fish Commissioners. The Western Association is a regional forum including the fish and wildlife agencies of 13 western states and 2 Canadian provinces.

Our support of this legislation is based on the following:

H.R. 13152

1. Recognizes that management of resident wildlife is a state function and that there is a national interest in state wildlife management programs.

2. Provides modest federal assistance to the states for performance of services formerly provided through the Federal Animal Damage Control Act of 1931.

3. Stipulates that matching state funds for animal damage control programs will not create a substantial diversion of dedicated wildlife funds by establishing a 10 percent limitation of revenue derived from sale of hunting, fishing and trapping licenses to be used for state matching money.

4. Provides that federal assistance will be contingent upon designation of a state wildlife agency as the organization responsible for program administration.

5. Provides for primary management by the states and cooperation between state and federal agencies in research, planning and implementation of animal damage control programs.

The western states have an abundance and variety of wildlife including many species that frequently conflict with other resources or land uses. The wildlife management problems and programs in western states are substantially different than in other states because of the large amount of relatively wild land and the fact that approximately 45 percent of land in the 11 contiguous western states is in federal ownership. Timber and livestock production are important enterprises in western states, including the Federal lands, and some control of resource losses to predators and rodents is essential to achieve production goals.

Following the President's Executive Order 11643 of February 8, 1972, the implementation order of the Secretary of Interior dated February 10, the decision by the Environmental Protection Agency to stop shipment of certain pesticides, and the announced intent of the Secretary of Interior to seek repeal of the Federal Animal Damage Control Act of 1931, the states began formulation of alternate programs for consideration by the respective state legislatures. A draft of Oregon's preliminary plan is enclosed for reference by the subcommittee. State plans cannot be completed until the intentions of Congress are made known through H.R. 13152 or some similar legislation. It is therefore urgent that Congress act upon the matter this session so that state legislatures which meet on a biennial basis can make necessary adjustments of state laws and budgets during the 1973 session.

H.R. 13152 provides for Federal assistance to the states and stipulates that state matching funds may contain not to exceed 10 percent of revenue obtained from sales of hunting, fishing and trapping licenses. This is an important stipulation. Control of predators and depredating animals is primarily an agricultural service program and it is not proper to place the financial burden selec-

tively upon licensed hunters, anglers and trappers. The proposed Federal assistance and the provision for evaluation within five years after enactment are desirable features of H.R. 13152.

The requirement that states place responsibility for animal damage control in the wildlife agency is an important provision. At present the states are in the process of broadening the missions of their wildlife agencies to assure maintenance of all indigenous species of fish, mammals, birds, amphibians and reptiles, including rare and endangered species. This movement is encouraged by the International Association and Regional Associations of Game, Fish and Conservation Commissioners. They have collectively developed a "Model State Law" as an aid to the states in making needed adjustments of state wildlife laws. Coyotes, bobcats, foxes, rodents and other species, which are often in conflict with other land uses, are a part of the natural fauna and should be managed as an integral part of the wildlife resource by the wildlife agency of the state. This fragmentation of state wildlife programs does not provide an efficient vehicle for coordinated wildlife management.

The Western Association does question the intent and potential impact of the language in Sections 4(c) and (d). In Section 4(c) the Secretary is directed to continue to conduct operational programs that he deems necessary. Although we believe the intent of this subsection is to provide continuity of the operational program until the states assume control, the present language does permit a dual program. We believe this section could be clarified by inserting "at the request of a state" after "The Secretary shall . . ." in line one of Section 4(c). Section 4(d) provides for the conduct of state animal damage control programs on Federal lands, but allows the administrator of the public lands to impose the terms and conditions of such programs. The Western Association realizes that this provision is consistent with the rights of all landowners. However, the negative language in Section 4(d) is not in keeping with the tenor of Federal-State cooperation expressed in other portions of the bill such as establishment of research objectives, inventory of predatory animals, dissemination of research findings, demonstration of control methods, emergency use of toxicants and implementation of programs. It is suggested that Section 4(d) be amended as follows:

"The head of a Federal department, agency, or establishment shall cooperate with a state in the conduct of a mutually acceptable program for the control of predatory and depredating animals on lands subject to his jurisdiction."

Mr. Chairman, I appreciate the opportunity to present the views of the Western Association on this important legislation. At their annual meeting, July 19, 1972, member states of the Association endorsed H.R. 13152 and strongly urged its passage during the current Congressional session. We urge your prompt and favorable action upon this measure.

WESTERN ASSOCIATION OF STATE GAME AND FISH COMMISSIONERS

RESOLUTION NO. 28.—ANIMAL DAMAGE CONTROL

Whereas, proposed legislation contained in H.R. 13152, entitled "Federal Animal Damage Control Act of 1972," outlines procedures for conduct of an animal damage control program through cooperative state and Federal efforts, reaffirms authority for management of resident wildlife by the states, provides for continuous Federal funding assistance, stipulates that state cost-sharing funds contain a maximum of 10 percent of hunting, fishing and trapping license revenues and provides the Federal funding assistance be contingent upon designation of the State Wildlife Agency as the organization responsible for program administration: Now, therefore, be it

Resolved, That the Western Association of State Game and Fish Commissioners hereby endorses and supports H.R. 13152, as passed by the House of Representatives, with the exception of Section 4(d) which it feels should be deleted or amended to provide for full cooperation of Federal administrators in the conduct of an operation program within a state; and be it further

Resolved, That this resolution be sent to the Chairman of the Senate Committee on Interior and Insular Affairs and to the Secretary of the Interior.

Adopted July 19, 1972, Portland, Oreg.

A PREDATOR MANAGEMENT PLAN FOR OREGON

The President's February 8 Executive Order banning the use of chemical toxicants on federal lands; the EPA order of March 10 prohibiting the registration, manufacture and interstate shipment of 19 chemical pesticides and H.R. 13152

proposing repeal of the 1931 Federal Animal Damage Control Act and elimination of all direct federal participation in that activity make it appropriate for the State of Oregon to consider alternative methods of providing required Predator and Rodent Control Services for protection of the resources and people of Oregon.

This plan was developed after thorough review of the information presented in the Cain Committee Report "Predator Control—1971" and the history and status of predator and rodent problems and programs in Oregon and other states.

The plan is premised upon the following assumptions and observations:

1. That all indigenous wildlife has a value and place in Oregon's environment.
2. That all wildlife populations are to be managed in a manner that is compatible with primary uses of land and waters of the state.
3. That the existing federal restraints on chemical control will be applicable until research or experience proves their fallacy and that the Congress will eliminate direct federal participation in predator control services.
4. That there is need for a statewide predator damage prevention service for protection of domestic livestock, farm and forest crops and wildlife resources.
5. That part of the responsibility for protection of property from wildlife should be shared by landowners and the general public.
6. That the diversity of environments and variations of wildlife density by time and space require a flexible management program.
7. That there is need for regulation and supervision of wildlife damage prevention programs to assure that safe and humane practices will be employed.

The objectives of this plan are as follows:

1. To provide an equitable and reasonable wildlife damage prevention service for rural landowners throughout the state.
2. To maintain all native wildlife at optimum levels.
3. To promote public recreational use of wildlife populations that are in conflict with other resources.
4. To protect rare or endangered wildlife.
5. To aid in the control of wildlife hosted diseases such as rabies, bubonic plague, tularemia, etc.

Definition of terms used in this plan are as follows: "Wildlife"—all wild mammals, birds, amphibians, reptiles and game fish. "Predator"—any unprotected species of wildlife that causes damage to other resources.

THE PROBLEM

In 1971 a total of 1,277 complaints of damage by predators was serviced by the Division of Wildlife Services in 25 cooperating counties. Reported confirmed and unconfirmed losses included 14,427 sheep and goats, 474 calves, 7,195 turkeys, 3,372 chickens, 670 other poultry, 15 pigs and 6 colts having a farm sales value of \$436,415. Reported damage to agricultural field crops by predators was estimated at \$78,160.

In 1971 approximately 65 percent of the mule deer fawns and 80 percent of the antelope fawns were lost during the first five months of life. An undefined part of the mortality was to predators.

In addition to the services provided through the Cooperative Predator and Rodent Control Program, the Oregon Game Commission serviced 1,458 complaints of damage to property by protected wildlife and spent over \$100,000 on investigations, fences, panels, repellents and other services to alleviate those problems.

The seasonal and daily range of most species of wildlife precludes effective treatment of predation problems on an individual farm or animal basis and in the case of free-ranging sheep or protected wildlife there is some need for prophylactic population control over several ownerships frequently including public lands.

Variations of carnivore and prey densities create a need for a flexible management policy which permits protection of carnivores when high prey population densities make predation beneficial and vice-versa when prey populations are low and carnivores are dependent upon beneficial wild or domestic animals.

THE PROGRAM

It is recommended that the Oregon legislature delegate responsibility for management of predator populations to the Oregon Game Commission and provide general fund revenue for a modest statewide predator damage prevention service.

It is further recommended that the counties be authorized to supplement the state program when the local demand exceeds budgeted limits of the state program.

Recognizing the controversial nature of this program and the need for full consideration of all interests and values it is recommended that a broad-based citizen advisory committee be created to carefully review all problems and programs and develop recommendations for consideration by the Game Commission and other responsible agencies. It is also suggested that the enabling legislation require approval of the Department of Agriculture for any regulation that would prohibit the taking of predators.

The practices to be employed in preventing damage by predators are:

1. Promotion and guidance of public hunting and trapping of predators in problem areas.
2. Provide technical advice and assistance for control or prevention of damage to livestock, farm crops, forest resources or public health, including:
 - (a) Loan and placement of traps.
 - (b) Aerial hunting where selective removal is required.
 - (c) Distribution and application of repellents.
 - (d) Assistance in design and construction of fences and other mechanical protection.
3. Conduct research to evaluate employed practices and search for better methods of preventing damage.
4. In cooperation with the State Department of Agriculture, Department of Environmental Quality and Oregon State University, develop regulations and training programs for use of permitted chemical repellents, and safe, humane taking of problem animals.
5. Prescribe and regulate programs for the control of noxious rodents and birds.

IMPLEMENTATION

The predator management function can be integrated into the Game Commission's decentralized statewide management program by employing 22 wildlife damage control technicians to service the 22 existing wildlife management districts within the agency's 5 administrative regions.

The need for close supervision and discipline in this function will require one staff supervisor in each of the 5 regions and one staff member in the Portland office to plan and coordinate the operation in concert with other responsible agencies and organizations. It is recommended that counties desiring to supplement the state program be authorized to employ and supervise control agents in compliance with state and federal regulations relating to management of predators and rodents or enter into an agreement with the Game Commission for additional services to be provided with county funds.

The program will be coordinated with the State Department of Agriculture, Oregon State University Extension Service, the State Department of Forestry, the counties and other interested agencies. It is anticipated that much of the needed research for evaluation and development of control methods could be executed by Oregon State University and distributed to the interested public through the publications and offices of the Extension Service.

The Department of Agriculture's responsibility for registration and control of pesticides and pesticide applicators will aid in the regulation of control methods. Broadening of the existing pesticide clearing house to include extensive application of hazardous rodenticides by private landowners and surveillance of the manufacture and distribution of chemical toxicants are needed services that could be provided by the State Department of Agriculture.

It is planned that much of the aerial damage prevention service can be provided through off-season use of aerial fire control equipment of the State Department of Forestry.

The Extension Service would continue to provide a communication link between complainants and control technicians and distribute technical information relating to control methods to interested persons.

The Department of Forestry through the Forest Practices Act will supervise and regulate the use of rodenticides and insecticides on commercial forest lands.

PROGRAM COST

On the initial year an investment of about \$50,000 in traps, scare devices, radios and other equipment will be required. Maintenance of these items will require only a small expenditure of subsequent years. The program cost is estimated at approximately \$410,000 the first year and \$360,000 on subsequent years.

Estimated Program Cost

Salaries:	
22 Wildlife conservation technicians at \$7,128 per year-----	\$156, 800
5 Game biologist grade 2 at \$11,604 per year-----	58, 000
1 Game biologist grade 3 at \$13,452 per year-----	13, 450
Total salaries-----	<u>228, 250</u>
Supplies and services:	
Mileage (550,000 miles)-----	\$55, 000
Aircraft rental-----	45, 000
Traps, steel (300 dozen)-----	¹ 21, 600
Traps, live (300 small animal, 10 culvert type)-----	¹ 10, 000
Repellents and scare devices-----	8, 000
Radios (\$750 unit)-----	¹ 20, 500
Radio maintenance-----	1, 500
Travel and meals-----	7, 000
Office and supplies-----	5, 000
Other supplies-----	8, 150
Total supplies and services-----	<u>181, 750</u>
Total program-----	<u>410, 000</u>

¹ First year purchase only.

SOURCES OF REVENUE

In view of the fact that animal control is primarily an agricultural service program, it is not proper to place the financial burden selectively upon licensed hunters and anglers.

The program should be funded primarily from state and federal general fund revenues and it is anticipated that Congress will provide some level of assistance through H.R. 13152 or similar legislation.

NATIONAL AUDUBON SOCIETY, NEW YORK, N.Y.

The National Audubon Society endorses enthusiastically the principles and purposes of S. 3199 as a needed strengthening of the Endangered Species Act of 1969, but we urge the following amendments:

1. The words "conserving, protecting, restoring and propagating" or "conservation, protection, restoration and propagation" appear in lines 12 and 14-15 on page 2; in line 25 on page 5; lines 7-8 and lines 14-15 on page 6, in lines 7-8 on page 9, and in lines 21-22 on page 16. In each instance, the word "or" should be substituted for "and." Otherwise this Act would become a directive to the Department of Interior to attempt the artificial, captive propagation of every species designated or certified by the Secretary as endangered. Many species because of inherent wildness and other characteristics do not lend themselves to captive propagation, and others cannot be so propagated without destroying their wildness and foreclosing the possibilities of their reintroduction into a wild and natural habitat. Moreover, the capture of specimens for experiments in captive propagation may in itself endanger the chances of some rare species for survival in the wild. This Act must not be so worded as to be capable of interpretation as requiring such attempts at propagation. Whether or not to try propagation should be an option open to the Secretary upon the advice of competent scientific authorities.

2. Similarly, the word "and" in line 3 on page 10 should also be changed to "or" in both places.

3. We urge the addition of the following subsection to Section 8, following line 6 on page 18:

"(d) Nothing in this Act, or any amendment made by this Act, shall be construed as superseding or limiting the power of any State to enact legislation more restrictive than the provisions of this Act for the protection and conservation of wildlife, including the regulation or prohibition of the retail sale of specimens or of products processed or manufactured from the specimens of wildlife, whether such specimens are alive or dead."

I am sure the Committee realizes that we are here thinking about the New York State "Mason Act" and other tough State legislation concerning endangered species. We were concerned to hear witnesses from the Department of Interior at a hearing on the companion House bill indicate that the Act as written could pre-empt the Mason Act, although that was not its intent. At the very least, the confusion this would cause should be avoided and the Act's intent made clear.

Although stricter state regulations may be a nuisance to lawyers and bureaucrats, we believe that they better serve the overall purpose of this legislation—preserving and protecting endangered wildlife.

4. We strongly urge that responsibility for endangered species be vested solely in the Department of Interior, not split between Interior and the Commerce Department. We continue to feel that placing the Bureau of Commercial Fisheries in Commerce was a mistake. We feel that not only is it entirely illogical and inefficient to split the endangered species program between two federal agencies, but more important it is not in the best interest of the species since by its very nature the Department of Commerce's mission is exploitation. And endangered species should certainly not be exploited! The precarious fate of these species should not be further jeopardized by agency empire-building.

Mr. Chairman, with the amendments here recommended we respectfully urge an early and favorable report on S. 3199.

STATEMENT OF STANLEY A. MARCUS, CHAIRMAN, TECHNICAL ADVISORY COMMITTEE,
NORTH AMERICAN FALCONERS ASSOCIATION

The North American Falconers Association is an organization dedicated to promoting conservation of the birds of prey and an appreciation of their value in nature. We promote the scientific study of the raptorial species, their care, welfare and training; and attempt to establish traditions which will aid, perpetuate, and further the welfare of falconry and the raptors it employs.

Falconry involves the training of certain birds of prey to hunt in partnership with man. More precisely, it is the sport of hunting wild quarry in its natural state and habitat by means of a trained raptorial bird. Falconry is recognized by conservationists and professional in wildlife management throughout the nation as a legitimate field sport and a desirable recreational application of our wildlife resources.

All falconers have a deep, personal concern for endangered species legislation since one subspecies of falcon which was classically used in falconry is considered "endangered and threatened with extinction," and one or two others are "likely within the foreseeable future to become threatened with extinction." We are concerned for two reasons:

First and foremost, we are anxious that every effort be made to insure the continued existence of all wildlife species; secondly, we desire that the 4,000 year old sport of falconry not be unduly curtailed where it can be carried on in consonance with good and sound conservation practices.

We must oppose S. 249 on both counts. This measure would inflexibly single out an individual species, in this case the Tule White-fronted Goose, for exemption from the possible protection of this Act, and it would permit harvesting of endangered species for religious purposes. Either blanket exemption could result in acts having lasting, deleterious effects on species populations and thereby decrease their chances for survival. An extinct species will be forever unavailable for religious purposes; a protected one may at least recover to the point where it may again be harvested.

On the other hand, S. 249 makes no allowance for subspecial distinctions in Sec. 4 (a), and many cases are known where one subspecies is endangered while another exists in abundance and is apparently unthreatened. Of course, we are also concerned that no provision is made for falconry in the exemptions contained in Sec. 5 (a) where, however, a contingency is wisely provided that specified exemptions will not endanger the preservation or health of the species or subspecies.

Appended to this statement is a copy of a letter from the author of S. 249 to Mr. Roger Thacker, President of the Ohio Falconry Association, in which Senator Cranston indicates that it was not his intent to endanger falconry and that he has no objections to the exemption of falconry from the bill's provisions. He further suggests that an amendment could be drawn up for that purpose. In another letter to me, copy appended, Senator Cranston agrees with our position

on the need for subspecies distinction. He goes on to give an example regarding two different subspecies of the desert pupfish, one of which is endangered and the other in incipient over abundance. Furthermore, we are confident that the use of raptors in falconry can be specified so as to be completely compatible with the conservation of endangered species. The appended letter from Mr. Earl Baysinger, Chief, Office of Endangered Species and International Activities, explains the most advanced thinking regarding the management of endangered species as related to falconry. We are in full agreement with his comments on the matter.

Regarding the other two bills, we must speak in terms of their comparison. The more recent bill, S. 3818, appears to us to provide additional safeguards over and above S. 3199, the latter being identical to H.R. 13081 which we originally supported. The referred to additional features of S. 3818, which we fully support, are: (1) the increased fines for violations of the Act, (2) the authority to request the Attorney General to bring appropriate action to prevent threatened violations of the Act, (3) the registration of fish and wildlife importing businesses and associated records requirements, as well as the records and inventory inspection options authorized for the Secretary's representative, (4) the "no damage to population" contingency requirement in Sec. 7(c) on the taking of endangered species, and (5) the provision in Sec. 6(f) for a study of the States' functions and responsibilities toward management of endangered species with an ultimate goal of assisting them in establishing and implementing appropriate management programs. We are concerned over the lack of a provision for controls on exporting businesses analogous to those provided for importers. At least equal or greater concern for trade in our native species than in exotic species would seem more logical to us.

We further support S. 3818 in having omitted the exemptions contained in S. 3199 Sec. 5(a) (2) regarding American Indians, Aleuts, and Eskimos. If a species is truly endangered, blanket exemptions, i.e. without regulatory controls, could easily accelerate extinction. In this same respect we support the omission of an exemption for zoological and educational purposes as regards the taking of endangered species threatened with extinction.

There is, in fact, only one provision in S. 3818 which we oppose as written. I refer to Sec. 7(d), wherein the Secretary could extend the protection of the Act to species or subspecies which are not endangered because of difficulties in identification.

We believe that blanket prohibition is just as objectionable as blanket permissiveness, and therefore respectfully propose that this subsection be amended by the addition of wording along the following lines:

Such regulations as may be promulgated in accordance with the authority provided by this subsection shall not prohibit the taking of any species or subspecies of fish, or wildlife, or flora when, in the judgment of the Secretary, adequate proof is supplied that the individual specimen in question is not of any species or subspecies listed as an endangered species.

This amendment would simply encourage a more reasonable and flexible approach to the occasional problem of species or subspecies differentiation.

Lastly, we laud all three bills in their implied and explicit philosophy of management; a philosophy which has yielded and continues to yield more successful results in the conservation field than strict, inflexible protection. We sincerely believe that a management approach is the only one that has a reasonable chance to reverse the trend toward extinction of all too much of our wild heritage.

U.S. DEPARTMENT OF THE INTERIOR,
FISH AND WILDLIFE SERVICE,
BUREAU OF SPORT FISHERIES AND WILDLIFE,
Washington, D. C., July 2, 1971.

HON. LOUIS K. CRAMTON,
*Michigan House of Representatives,
Post Office Box 119, Lansing Mich.*

DEAR MR. CRAMTON: I am writing with reference to our telephone conversation concerning Michigan House Bill No. 4893, which amends "The game law of 1929" as amended, to authorize the director of conservation to issue permits to take hawks and owls for falconry purposes.

The sport of falconry has a long, distinguished history. As practiced by dedicated, competent falconers, this is probably the most "sportsmanlike" hunting method ever devised. The knowledge, skill, and devotion necessary to successfully train and hunt with a raptor far surpass those required of the gun or even bow hunter. Since very few animals are actually killed by the falconers' birds, the impact upon the populations of hunted species is negligible. Most of the falconer's gratification comes from his relationship with his bird and the thrill of the hunt rather than the size of the kill. In addition, the quarry is usually either cleanly killed or escapes uninjured—there is very little "crippling loss."

When properly and lawfully practiced by qualified individuals, our Bureau regards the sport of falconry as a desirable use of the wildlife resource.

Our main concern over falconry is the possible adverse effect upon raptor populations caused by removal of raptors from the wild for falconry purposes. With the possible exception of species which are both endangered and handicapped by low numbers, this concern is largely satisfied by legislation which only permits the taking of raptors for falconry purposes under a carefully managed permit system.

I feel Michigan House Bill No. 4893 meets this requirement.

Sincerely,

EARL B. BAYSINGER,

Acting Chief,

Office of Endangered Species and International Activities.

UNIVERSITY OF CALIFORNIA,

Davis, Calif., July 28, 1972.

CHAIRMAN,
Senate Commerce Committee,
Senate Office Building,
Washington, D.C.

DEAR SIR: In response to a recent telephone conversation, I can make the following statement about rare and endangered plant species of the State of California. As President of the California Native Plant Society, a position which I occupied until May of this year, I took active part in compiling a list of rare and endemic species of California. This list is a long one including nearly 500 items, and at present we do not have enough field data to determine the degree to which each of these species is endangered. I am now preparing an abbreviated list, including only those which have a strong probability of being in danger, and which are showy enough or of sufficient educational interest to attract the attention of other people besides botanists. This list will not be finalized until it has been discussed with all of the botanical authorities in our state, so that I expect it to be issued for public consumption in late October.

Meanwhile, I would like to inform you about the principal sources of danger to plant species and biotic communities. These are as follows:

1. Destruction of habitats by suburban or resort development, as well as highway building.
2. Destruction or degradation of habitats by mining or quarrying.
3. Destruction or degradation by agriculture and grazing.
4. Wanton destruction by motorcycles, dune buggies and other off highway vehicles.
5. Depletion of populations of plants by persons interested in collecting or transplanting the species. The major destruction of this kind is by commercial nurseries and their collectors: amateur and professional botanists do relatively little damage.

The problem of controlling these activities in such a way as to preserve our priceless and irreplaceable heritage of rare and beautiful natural phenomena is made particularly complicated in our state by the highly complex ownership pattern of land. As you are doubtless aware, large acreages of California land are not in private hands, but are controlled by various federal, state and regional authorities. Rare and endangered species occur on most if not all of the following land areas: National Forests, public lands controlled by BLM, Military Reservations, State Parks, State Forests, County and Regional Parks.

With the aid of the Nature Conservancy, the California Native Plant Society is actively engaged in acquiring and setting aside for preservation in perpetuity private lands that contain rare and endangered species. We are also cooperating with the Forest Service, BLM, and other agencies, to a large extent at their

request, and are finding them most cooperative and interested in conserving their natural rarities. They are, however, hampered to some extent by existing priorities, as well as by lack of financial resources by means of which to set aside and adequately patrol reserves that contain rare biota. I have purposely omitted from consideration the National Park Service, since they appear to have both the interest and the funds to protect the rare biota under their control.

In consideration of all of the above conditions, it seems to me that the Senate needs to direct its attention toward new or stronger legislation regarding the following matters.

1. Requirements that every public agency, and particularly the Department of Defense, before disposing of any of their lands to private individuals or other governmental agencies must conduct a careful environmental impact study of the land in question, and to hold public hearings at which both experts and private citizens could express their opinion upon the ecological, educational or aesthetic value of the land in question. All lands shown to contain rare species or biota should be kept in public hands and preserved, rather than sold to private agencies.

2. Modification of present statutes that give high priorities to mining and quarrying claims over other uses of the lands in question, particularly for ecological, educational and aesthetic purposes.

3. Requirements that public agencies such as the U. S. Forest Service and the Bureau of Land Management spend a specified and substantial proportion of their budget for establishing, preserving and patrolling areas of high ecological, educational and/or aesthetic value. Increased budgets for these agencies to make such action possible would be highly desirable.

These, then, are my thoughts about the problem of preserving rare and endangered species of plants and plant communities. I hope that they are useful to you.

Yours very sincerely,

G. LEDYARD STEBBINS,
Professor of Genetics.

TUCSON, ARIZ., August 2, 1972.

Re Senate bills 249, 3119, and 3818, endangered species.

CHAIRMAN, SUBCOMMITTEE ON THE ENVIRONMENT,
Senate Committee on Commerce, U.S. Senate,
Washington, D.C.

DEAR SIR: Legislation enacted to prevent the extinction of wildlife is certainly commendable. It appears to me that sufficient laws now exist, both at the federal and state level, to preserve our wildlife. It seems to me that additional legislation is unnecessary and might even be undesirable.

Present endangered wildlife statutes are already being used for purposes other than they were enacted. An example would be the use of present laws to curtail and eliminate the commercial use of many kinds of wildlife, even though they are not endangered or rare. Another example is that present federal endangered species statutes are subtly being used to dilute state's jurisdiction over wildlife under the pretext that the federal government is in a better position to manage wildlife—migratory or resident. A brief glance through the list of endangered "species", as published in the Federal Register, October 12, 1970, will show that the great bulk of the animals on the list are either already under federal jurisdiction or are in the endangered predicament because of actions by federal agencies, i.e. federal predator control programs, federal wetland drainage programs and river channelizations.

Present endangered wildlife legislation is also being used as an enforcement tool for the Lacey Act. It appears to me that many species not only on the North American endangered list but also the International endangered list, as compiled by the Secretary of the Interior, are put there primarily to stop commercialization and to aid in implementing the Lacey Act even though the animals on the list themselves are not endangered. This appears to be the main purpose behind the present legislation being considered.

I vigorously object to the inclusion of sub-species in the endangered species legislation—subspecies are subjective categories not at all natural. I am enclosing a paper given by me at the annual meeting of the Arizona-New Mexico Section of The Wildlife Society last February. This paper illustrates my point of view regarding subspecies.

I would appreciate it very much if the enclosed paper "A Critique of the Federal Endangered Species List," along with this letter can be read into the Hearing record. I would also like to receive a copy of the Hearing proceedings when they are available.

I certainly appreciate this opportunity of letting the Subcommittee on The Environment know my views regarding Senate Bills 249, 3199 and 3818.

Respectfully yours,

SEYMOUR H. LEVY.

Enclosures.

PAPER GIVEN AT THE ANNUAL MEETING OF THE ARIZONA-NEW MEXICO SECTION
OF THE WILDLIFE SOCIETY IN FLAGSTAFF, ARIZ. February 4, 1972.

(by Seymour H. Levy)

A CRITIQUE OF THE FEDERAL ENDANGERED SPECIES LIST

I am going to discuss with you my impressions of the Federal Endangered Species List. However, this topic is likely to be passe already. According to many "noted wildlife authorities," there will be no more rare and endangered species in a few years. What they mean is that not only will all of our rare and endangered species become extinct, but also all other kinds of wildlife as well. You don't believe it? Listen to what some of our leading "experts" have to say:

Roger Caras says: "He knows of the increasing difficulty in finding eagles, hawks, falcons and owls. He knows what it is like finding specimens to study, photograph and sketch, not only in America but in Asia and Africa too. It can be a sad and lonely life as the trips become longer and longer, more and more difficult. He is aware of the fact that he may be a member of the last generation of wildlife artists with live models."

Samuel Mines, in his book "The Last Days of Mankind: Ecological Survival or Extinction," says: "The United States government is still waging an extermination campaign against prairie dogs, coyotes, foxes, wolves, cougars, and hawks—all endangered species."

"Trained and experienced research scientists" with The Wildlife Guard organization state: "That wildlife populations are now reduced past the danger point in Arizona." They claim that vultures and ravens are almost nonexistent in the state.

"Experts" with The Fund for Animals advertise that there is hardly an animal left in the world that isn't in danger of extinction. And, the Tucson Audubon Society, in their latest annual census this past December, have found that the Gambel's Quail, Mourning Doves and Red-tailed Hawks are diminishing.

These pessimistic views are held by such other well known "wildlife biologists" as Stewart Udall, Joan Woodberry, Shirley McLaine, and Jack Parr.

Of course, we know that this is not true. As we glance about us every day we see no decrease in the number of Killdeers or Cliff Swallows, Abert's Squirrels or Coyotes, Diamond-backed Rattlesnakes or Gopher Snakes. The facts of the matter are—the great bulk of our wildlife is in excellent shape, and only a very few kinds are in jeopardy. All these pseudo-biologists and unexpert-experts are wrong. In most cases, they don't even know which end of a Mountain Lion the roar comes out of.

The people of the United States recognized the urgency of the problem of preserving those few kinds of wildlife that are in jeopardy by enacting the Rare and Endangered Species Conservation Act in 1966. Realize, of course, that this Act is neither the first nor is it the only statute dealing with the preservation of wildlife. Basically, all wildlife laws—federal, state and local, have as their primary goal the prevention of the extinction or the reduction of wildlife populations.

In 1969 the National Wildlife Federation started publishing a booklet entitled "The EQ Index," which was supposed to measure the national environmental quality. This booklet covers a range from air and water pollution to human overpopulation. One of the items covered is the wildlife quality trend. I took issue with their method of portraying the endangered species situation, pointing out that their graphs and pictorial method of illustrating this wildlife situation was misleading. Here's an example of how misleading it is: Recently a new bird species was discovered in Puerto Rico called the Elfin Woods Warbler.¹ It has a restricted range. The population probably does not exceed 300 pairs. It has been

recommended that this species be placed on the U.S. Department of Interior's Rare and Endangered List. This would increase the number of species on the list and would be so indicated in "The EQ Index." But, I ask you, is the discovery of a new species to be considered bad or good? "The EQ Index" and their present portrayal indicates the addition of an animal to the list is bad. The National Wildlife Federation has chosen to ignore my suggestions and have gone on their merry way continuing to portray a gloomy picture.

The endangered species list is the one that is published in The Congressional Record, and is not The Rare and Endangered Fish and Wildlife of the United States' Red Book.

My first comment deals with the listing of two or more geographic races or subspecies of the same species. This in itself gives the general public a false impression of the magnitude of the situation. Why not just list the species as endangered?

The Hawaiian Hoary Bat is first on the Federal List. It is merely a geographic race of a wide-spread abundant mammal. A few words about subspecies, geographic races, or what have you. This is where some confusion lies. Here is what Dr. Allan R. Phillips, noted avian taxonomist, says: "Individuals and species exist. All other grades of classification (subspecies, genus, family, etc.) are more or less subjective and are open to differing concepts."

Van Tyne and Berger² says: "A species is a structural unit of classification—the thing that actually exists." They go on: "It was not rare that, after examining essentially the same series of bird skins, two or more investigators proposed different series of subspecies, each of which possessed 'obvious' morphological characters, even though they often were not recognizable by other workers." Parkes and Clench³ assert: "... it appears quite likely to us that identification of some museum specimens may well have been made on the basis of geographic probability."

Mayr^{4,5} has pointed out the subjective nature of the subspecies, and he emphasizes again that the subspecies is not at all like the species. Wilson and Brown⁶ and D. F. Owen⁷ have even questioned the very use of the subspecies as a taxonomic category.

You have all heard of lumpers and splitters. An example of what can happen when we let this taxonomy run away with us is in the case of the Grizzly or Brown Bear. Some people (splitters) recognize over 30 different species in North America. What they're implying is that each of these "species" will not normally breed with each other. More enlightened taxonomists (lumpers) realize that all they are dealing with are family groups with individual characteristics. Essentially, geographic variation is of value to the taxonomist who understands its limitations. I think the Fish and Wildlife Service should give a long, hard look to excluding races of wide-spread and abundant species from the endangered list.

Public Law 89-669, known as the "Endangered Species Conservation Act" (1966), does not require that the U.S. Fish and Wildlife Service include subspecies on their list. In fact, House Resolution 9424, the proposed legislation which Public Law 89-669 was based on, included subspecies; however, Congress wisely chose to have the words "or subspecies" deleted from the proposed legislation, indicating to me that Congress was well aware of the unnecessary confusion that would be caused by including subspecies in the law.

As long as we are talking about bears, I would like to say a word about the Polar Bear. Game authorities in the United States and especially in Alaska have been catching the devil recently for having a regulated hunting season on Polar Bears. The anti-hunters and preservationists cite the conservation-minded Soviet Union for their closure of the polar bear season and chastise us. According to the International Union for the Conservation of Nature and Natural Resources, Polar Bears in the Soviet Arctic have been reduced since 1935 to near extinction. Only then was the season closed. The United States and Canada, under wise management, according to this International Union for Conservation, have generally the healthiest populations of Polar Bears. It would seem that the Soviets have won a diplomatic coup by convincing preservationists' groups that the United States is a blood-thirsty nation out to exterminate the Polar Bear, while they, being conservation minded, have closed the seasons, neglecting to add, of course, that they had already practically exterminated the Polar Bear from their lands.

There is an estimated half-million Indiana Bats. The species appears to be wide-spread and abundant. Apparently the reason for it being included on the endangered list is that, as far as is known, the bulk of these bats winter in four caves. However, efforts are being made to protect these bats in their wintering areas. A gate has been constructed across the entrance to Carter Cave in Kentucky where over one-hundred thousand are reported to winter. It would appear that the Indiana Bat should not be on the endangered list.

Nowadays, it is generally accepted to eliminate subspecific common names. In this regard, the Delmarva Peninsula Fox Squirrel should be referred to as "fox squirrel" that occurs on Delmarva Peninsula. Here again we are dealing with a geographic variation of a wide-spread and abundant mammal. Personally, I think we are confusing the issue and unduly frightening the people of the United States by including types like this on the endangered list. I am not saying that everything possible shouldn't be done to maintain fox squirrels in this area, but perhaps it should be a state function rather than a federal one.

The Morro Bay Kangaroo Rat is next on the list. It is merely a race of a wide-spread and abundant mammal that allegedly has a slightly darker back than its neighbors. Subspecies and geographic races are generally confusing to the layman. I know they confuse me. Geographic variation generally is determined by preservable, observable and measurable characteristics. Further, in many cases, geographic variation occurs in what taxonomists describe as a clinal change. That is, adjacent populations from one extreme of a given animal's range show no visible differences until you get to the opposite extremes where there is visible differences when compared with the examples from the other end. In other words, the variation is so gradual as to be unperceptible.

Dr. Lendall Cockrum, mammalogist at the University of Arizona, related an interesting study dealing with geographic variation. It seems that a student, Ross Dingman, had a research project on pocket gophers. Mr. Dingman collected a series of pocket gophers in the Yuma area. He compared these with a series of pocket gopher specimens taken, I believe, by representatives of the University of California at Berkeley some years previous at the same site, and compared those with examples preserved by members of the old U.S. Biological Survey taken in this same area. He found that there were more measurable differences between these three collections of pocket gophers taken in the same area, and therefore assumed to be the same geographic race, than there was between the extremes in the clinal differences in the whole of the species range. A research project such as this doesn't say much for including geographic races on the Endangered Species List. Let's cross the Morro Bay Kangaroo Rat.

The Salt-marsh Harvest Mouse is restricted to San Francisco Bay. The salt marshes there are being destroyed at an alarming rate. This mouse is apparently endangered. However, if our Federal Congress ever gets around to establishing the San Francisco Bay Wildlife Refuge, I think we can conceivably say that this animal will no longer be endangered because a portion of its habitat will be secure.

The Eastern Timber Wolf is a geographic variety of a wide-spread mammal and should not be on the list. The Red Wolf originally occurred in the southeast portion of the United States. Because of its conflict with livestock, it apparently has been eliminated from all of its original habitat except the wilder portions of the gulf coast of Texas. Relying on material printed in the Red Book, it appears that this species is truly endangered.

The San Joaquin Kit Fox is a taxonomist's dream of a different form of a wide-spread, and in many areas common species. Hall and Kelson⁹ intimate that they believe there is a distinct possibility that both the Kit Fox and the Swift Fox are conspecific. Their ranges do not overlap, and in some areas abutt against one another. One of the tests of a species is that they do not readily hybridize with closely related species. Since there is no overlap in their ranges, it would appear that they are not separate species.

The Black-footed Ferret is a shay, nocturnal, hard-to-study and hard-to-observe mammal. It should be kept on the endangered list until more information is gathered; although Dr. Fortenberry, who has conducted studies on this mammal for many years, related that in some prairie dog towns where he has seen ferret sign he has never seen a ferret, and, conversely, in other prairie dog towns where he has never found ferret sign he has seen ferrets. It appears the animal is so retiring that there is the possibility that it is far more wide-spread and common than now suspected. There are recent reports of them in northeastern Arizona from several localities. How valid these observations are is not known.

The Florida Panther is a southeastern form of a wide-spread and relatively common carnivore. That is to say, in areas in the west where it occurs their population and numbers are possibly regulated more by inter-specific stress rather than by any depressing effect caused by humans. Including the Florida Panther on the list is probably the reason why so many alarmists are going around saying the Mountain Lion is endangered, as has recently been published in the "High Sierra" volume of the American Wilderness Series of Time-Life books.

The Florida Manatee perhaps should be on the list because of its extremely reduced range. However, it is found in Everglades National Park, and according to some authorities may actually be more abundant than is believed at present due to the fact that it is one of the most difficult of all totally aquatic mammals to observe in the wild. The species as a whole is not endangered since it occurs in the West Indies and along the coast of central and northern South America. However, its limited range and vulnerability to habitat manipulation would indicate it should be continued on this list.

The Key Deer and Columbian White-tailed Deer are both races of a wide-spread and abundant animal. If we are going to include these, why not just say White-tailed Deer are endangered and count it as one, rather than to confuse the issue and use two races of the same species and count them as two? In either case, it seems ridiculous to include either one. The Key Deer has several refuges within its range and it is doubtful that anyone except an taxonomist could tell a Columbian White-tailed Deer from adjoining races, and even then not without calipers and a micrometer.

The National Audubon Society takes a different view: A few years ago the Atomic Energy Commission conducted their first underground nuclear test on Amchitka Island in the Aleutian Wildlife Refuge. Part of the argument that the National Audubon Society put forth opposing this test was that the test would jeopardize three endangered species—the Bald Eagle, Peregrine Falcon and Sea Otter. I brought to their attention the fact that the geographic races of these three species which occur on Amchitka were not considered threatened, nor were they so listed in the Fish and Wildlife Service's compilation. My letter was replied to by Mrs. Roxanna Sayre, Assistant Editor of the Audubon Leaders' Conservation Guide. The gist of her reply was that if any portion (i.e. race or subspecies) of a species is threatened or endangered, the whole of the species should be considered so. In the case of the Key Deer—it would be my interpretation of her remarks that the White-tailed Deer throughout the United States should be given the same status as the Key Deer. That's a bit far out, don't you think?

The Sonoran Pronghorn is not an endangered species as is so often publicized by the Arizona Game and Fish Department. It is merely a variety of a wide-spread and common species that occurs in the deserts of northern Sonora and southern Arizona.

The Sonoran Antelope was described by Goldman from a female specimen taken southwest of Hermosillo, Sonora. According to Paradiso and Nowak,⁹ the only other specimen of *Antilocapra americana sonoriensis* described in the literature was one taken at Crittenden or Old Fort Buchanan, Santa Cruz County, Arizona. This Santa Cruz County locality is now considered to be within the range of *A. a. mexicana*. The differences between the various subspecies of pronghorn antelope are slight variations in cranial measurements.

Dr. Lendell Cockrum believes that large mammals are so variable as to preclude identification of small numbers of individuals from a given population. He does not believe it is valid to identify as to race a large mammal on the basis of one or two specimens.

According to Paradiso and Nowak, there still are insufficient specimens to allow the complete appraisal of the taxonomic status of *sonoriensis*.

The Hawaiian Dark-rumped Petrel breeds on Hawaii and Maui in the Hawaiian Islands. According to the Rare and Endangered Red Book, there are more than 800 adults in Haleakala National Park, Maui. Warner¹⁰ suggests that introduced disease may be the cause for decline of this Petrel in the Hawaiian Islands. It has a closely related form breeding extensively in the Galapagos Islands.

According to some avian taxonomists, *Sterna albifrons browni* (California Least Tern) is indistinguishable from neighboring races and they do not recognize it. Burleigh and Lowery¹¹ stated: "We have not been able to discover a single character in *browni* which is sufficiently constant to distinguish it from *antillarum*." Allan Phillips (personal communication) tends to agree. This is

not to say that every effort should not be made to retain the Least Tern as a breeding bird in California,—a project that the California Fish and Game Department is undertaking with some success. I don't believe that it should be on the endangered list since the Least Tern is a wide-spread and common bird in many areas, and *browni* is not a recognized geographic race by many noted authorities.

Efforts to re-establish the Hawaiian Goose or Nene on the Island of Hawaii are now being undertaken. Perhaps in a few years this species can be deleted from the endangered list.

The Aleutian Canada Goose is merely a form of a wide-spread, common and extremely variable species. It apparently had been eliminated from many of its breeding grounds by predation from introduced Arctic Foxes. Successful predator control programs have been carried out on several islands on which it formerly bred. It would appear that the Aleutian Canada Goose should be deleted from the endangered list not only because it is merely a local form of a wide-spread species, but also because conservation measures have been conducted to insure its future nesting success and survival.

The Laysan Duck and the Hawaiian Duck appear to be endangered because of habitat destruction. Certain conservation measures are being carried out to insure their survival, and it is quite likely that both these species will be secure enough in the near future to be deleted from the endangered list.

Some authorities believe the Mexican Duck is merely a local variety of the common Mallard. The Arizona Game and Fish Department has recently established an area in the vicinity of Willcox, Arizona, to be managed primarily as a Mexican Duck breeding refuge, as has the Bureau of Land Management at the San Simon Cienega near Rodeo, New Mexico. If these projects are successful, perhaps we can look forward to the day when this "species" too will be deleted from the endangered list.

The Brown Pelican appears to be affected by DDT and other chlorinated hydrocarbons; and, although the bird is still abundant in many areas, only a few young seem to have been produced in recent years. Here is perhaps every reason to be concerned about the future of the Brown Pelican.¹² But, with efficient and forceful pesticide regulations, the Brown Pelican may in the future be considered a secure member of our avifauna.

The California Condor is one of our truly endangered species, but what to do about it. Its range and habitat are very restricted. One bright side to the condor picture is a new colony of some 40 individuals found in the Sierra San Pedro Martir in Baja California by representatives of the Mexican government and the Western Foundation of Vertebrate Zoology. The California population seems to be remaining static or decreasing slightly for the past 10 years. It is possible that this newly found Mexican breeding area has been re-established or repopulated by surplus individuals from the United States. It seems that the California Condor is to remain on the critical list unless some means is found to establish it as a breeding species in a much larger area.

The Everglade Kite, or Snail Kite, is a widely distributed species abundant over much of its range in Cuba, Mexico and South America. The kite habitat in southern Florida is just a small fraction of the total occupied area. To include it on the endangered list merely because it is slightly and vaguely different from neighboring populations is misleading to the average citizen. Perhaps it should be considered a peripheral species. At any rate, it appears to be in much better shape now than it was a few years ago when only a few birds were noted. Biologists studying the kite now estimate a few less than 100 individuals in Florida.

Certain population segments of the Bald Eagle and Peregrine Falcon are reported to be in critical condition, mostly attributed to the contamination of their food supply by chlorinated hydrocarbons which allegedly affect their reproductive abilities. If this is true, then both of these, in my opinion, should be retained on the endangered list as whole species and not merely subspecies. Since one segment of the population is susceptible to pesticide poisoning, it could be assumed that the entire population would be similarly affected.

Now, I don't wish to suggest in any way that pesticides are not the decimating factor of these two and other species, since there appears to be significant evidence suggesting that it is. However, I would like to suggest other possibilities. First, for years I have been attempting to show that powerline electrocutions of large birds do take a significant number of individuals. This is

from my own observations and reports from power company employees. Indeed, in the latest issue of the catalyst magazine (Vol. 2, No. 1), it is stated: "Recent reports from Colorado indicate a much higher loss from powerline electrocutions than there was previously suspected." This is referring to Golden and Bald Eagles.

Second, in the 1967 annual report of the Committee on Conservation of the American Ornithologist Union, it is stated: "The range of the Swallow-tailed Kite formerly extended across eastern North America from Minnesota to upper New York State, but over half a century ago its range was reduced to a coastal lowland belt from Florida to Texas. In recent decades, the breeding range has expanded northward across Georgia into South Carolina and probably farther north. About half a century ago the White-tailed Kite suffered such a nearly complete die-off in the United States that the Florida population disappeared completely, those in Texas were reduced to a small remnant, and there was fear that the somewhat larger California population would be exterminated. During the last 15 and particularly the last 5 years, California has witnessed a spectacular comeback at a time when both agriculture and urban pressures have increased manifold. The White-tailed Kite is once again nesting in Texas."

Both of these kite species declined at about the same time the Passenger Pigeon and Parakeets disappeared from North America. Is it possible that some introduced disease brought here by immigrants with their domestic pigeons and other barnyard fowl raised havoc with some of the more susceptible species?^{13 14} We know what introduced diseases have done to segments of the American Indian and Eskimo populations. We know what introduced diseases have done to our native White Pine trees, American Chestnut and American Elm. And, we know what introduced diseases can do to waterfowl and Mourning Dove populations, and we know what introduced diseases have done to endemic Hawaiian birds.¹⁰

The third possibility is that these two raptor species have disappeared in areas where much amateur and professional wildlife observation and investigation is taking place. Again, from my own experience, I know that Red-tailed, Harris, and Swainson Hawks are prone to nest desertion when disturbed early in the incubation period. This is borne out by other investigations.^{12 15 16 17} Robert Jantzen, Director of the Arizona Game and Fish Department, reports that some Bald Eagle nesting pairs in Arizona are disturbed to the point that they do not raise young (personal communication). Reese,¹⁸ studying nesting barn owls in Chesapeake Bay, found that flushed birds were easily and frequently attacked, and often times killed by ospreys in the areas.

I would like to suggest here that steps be taken by the appropriate agencies to protect our rarer wildlife during breeding seasons from the disturbing influences of bird photographers, bird watchers, bird painters, bird banders, etc., unless a valid scientific purpose is involved.¹² Can you imagine any self-respecting Peregrine Falcon successfully breeding in the northeastern United States when peering eyes disturb its activities almost 24 hours a day?

The Attwater's Greater Prairie Chicken is merely a race of the widespread but habitat-restricted Greater Prairie Chicken. Significant, although perhaps not sufficient, steps have been taken to acquire habitat for this particular race of the Greater Prairie Chicken along the gulf coast of Texas.

Everyone knows of the Heath Hen, but how many are aware that the Heath Hen was merely a geographical race of the Greater Prairie Chicken which occurred in the New England area?

The Masked Bobwhite Quail is a distinctive geographic race of the widespread and abundant Bobwhite Quail, that has been exterminated from the United States because of habitat destruction from overgrazing. Closely related and almost indistinguishable varieties occur in Mexico. Another confusing point about races and subspecies is illustrated by the fact that Arizona has one race of Scaled Quail, and in certain portions of southern Texas another variety of Scaled Quail occurs with a chestnut belly. The strange part of it is that I have collected Scaled Quail with chestnut bellies in southern Arizona. Applying this to the Bobwhite, there is a bird called the Tennessee Red Bobwhite that has a black head and rufous chest and belly very similar to the Masked Bobwhite Quail, but which is actually merely a mutant of the common Eastern Bobwhite. Confusing somewhat, heh?

The Whooping Crane is another truly endangered species requiring intensive management and vigilant protection. Even here the National Wildlife Federa-

tion's "EQ Index" could indicate that while it is still in jeopardy it is much better off than it was ten years ago and give people room for optimism rather than gloom.

Three races of Clapper Rail are listed on the Department of Interior's Endangered List. But they are merely vaguely different types of the widespread King-Clapper Rail complex which are now considered varieties of a single species—*Rallus longirostris*.¹⁹ According to biologists studying the Clapper Rails of Arizona and the west coast of Mexico, there is reason to doubt the validity of some of the races described from that area. If I could show you a series of the various races of the "Clapper" Rail, I doubt very much whether there is anyone in this room who would be aware that there is more than one kind represented, much less be able to designate which variety the specimen represents. I tried to do just that and requested a series of Clapper Rail specimens from the U.S. National Museum to be used to illustrate this point. My request was denied. Perhaps,—just perhaps, they saw the purpose of my request.

The Hawaiian Gallinule, Hawaiian Coot, and Hawaiian Stilt are all merely races of wide-spread and abundant species and, in my opinion, should not be on this list. However, every effort should be made to preserve them in the Hawaiian Islands.

The Eskimo Curlew is truly an endangered species and may well be extinct already, but this is nothing new. It has been in this condition for almost three-quarters of a century.

The Puerto Rican Plain Pigeon is a variety of a species occurring elsewhere in the West Indies, but its status everywhere is probably critical. However, here again we have room for optimism since up to about 1963 this pigeon was thought to be extinct. It is now estimated to number in the low hundreds.

The Puerto Rican Parrot is considered endangered because only a few, some 200, remain in Puerto Rico. However, the entire Luquillo Experimental Forest, administered by the U.S. Forest Service, including thousands of acres surrounding the area frequented by the parrots, is a State Game Refuge, and a cooperative predator control program has been developed. With this species there is room for some optimism also.

The Ivory-billed Woodpecker is very possibly already extinct, but it has been in this condition for 50 years. Its relative in Cuba is probably in a similar predicament. Our efforts should be directed toward these truly endangered species and not be diverted or diluted by dwelling on many of the other wildlife included on the list.

Reports I have are that the Red-Cockaded Woodpecker is not endangered, but that it is fairly common and easily found if you know where and what to look for.^{20, 21} Their nesting, however, is restricted to sites in old living pine trees infested with red-heart disease, and the current trend in forestry practice is to eliminate such trees, thereby decreasing suitable nesting niches for this bird.²² "If" is a big word, so if all such red-heart diseased trees were eliminated, the species quite possibly would also be eliminated, and here is where Dale Jones' (Chief, Branch of Wildlife Management, U.S. Forest Service, Southwestern Region) counterpart in the southeastern United States could earn his money.

Now comes a list of some 15 endemic Hawaiian birds that are endangered from habitat destruction and introduced diseases.²⁰ I have combined several listings in the Federal endangered list because I thought it was misrepresenting the facts to list two subspecies of the same species. Further, several of these Hawaiian birds are now on the list because they have been rediscovered, having been thought extinct previously. To my mind, increasing the number of birds on the endangered list by adding species previously extinct and now rediscovered is bettering our wildlife picture. The National Wildlife Federation's "EQ Index" does not take this into consideration, and just because there is an increase in the number of species on the list indicates to them that we are worse off than we have been in the past.

The last four bird species on the list are the Bachman's Warbler, Kirkland's Warbler, Dusky Seaside Sparrow, and the Cape Sable Sparrow. They appear to be extremely habitat restricted and limited in population. Until satisfactory management procedures are developed to stabilize their populations and habitat, I would continue to include them on the endangered list.

The American Alligator's former distribution was almost the entire southeastern portion of the United States west to the Rio Grande in Texas. Its present range is much restricted; however, this species occurs in many National Wildlife

Refuges and several National Parks where it is protected. Louisiana is estimated to have an alligator population at a minimum of 250,000, and they have recommended them to be removed from the endangered list. A recent alligator symposium recommended and initiated numerous management procedures to maintain and increase North American Alligator populations. It would seem to me that it is not appropriate to include the American Alligator in an endangered category.

The Blunt-nosed Leopard Lizard, the San Francisco Garter Snake, and the Santa Cruz Long-toed Salamander—are merely vague races of common and widespread animals and should be deleted from the Federal list.

The Puerto Rican Boa, decimated, it is said, by predation from introduced mongooses; the Texas Blind Salamander, in danger of total extinction because of destruction of very specialized habitat in Texas; and, the Houston Toad, endangered because of habitat destruction within its isolated range in south central Texas, should all be retained on the endangered species list.

There are 30 listings for fishes on the endangered list of the Department of Interior. I have eliminated three as merely local varieties of the wide-spread and common Cut-throat Trout. I have deleted the Bony-tail, *Gila robusta*, as merely representing a localized type of a wide-spread species. I have eliminated the Speckled Dace, *Rhinichthys osculus*, and the Unarmored Three-spine Stickleback for the same reasons, and I have deleted the Blue Pike because it is nothing more than a Great Lakes-run Walleyed Pike which is both wide-spread and abundant. I have combined the Gila Trout and the Apache Trout. Lowe and Miller²³ only recognize the one species *Salmo gilae*. I have combined two Pupfishes as simply races of *Cyprinodon nevadensis*.

The 21 remaining species of fishes on the endangered list are for the most part small and inconspicuous, occurring in either limited isolated habitats or in waters being made unsuitable for them by river and lake manipulations carried out by the U.S. Bureau of Reclamation and the Corps of Engineers.

There were 101 different kinds of animals on the U.S. Department of Interior's endangered species list published October 12, 1970. By combining subspecies of a given species, and by eliminating geographic races or subspecies of wide-spread common species, I have thus brought the list down from 101 to 66. At least seven of these have been recognized as endangered for many, many years. Fifteen are endemic Hawaiian species that are in this endangered predicament primarily because of an introduced disease. However, there is room for optimism since several of these Hawaiian species were considered extinct just a few years ago and now small populations have been rediscovered. Twenty-one are fishes and they aren't the kind caught by fishermen. Three bird species appear to be endangered because of the effect of chlorinated hydrocarbons on their reproductive capacity. Even here things may be looking bright since usage of these deadly chemicals is being restricted.

Dr. Ross E. McKinney, professor of civil engineering at the University of Kansas, where he heads the Department of Environmental Health Engineering, gave a speech recently to the Kansas Public Health Association. In his speech, and referring to the ecological situation and the environmental quality in the United States, he said: "The public is being conned into believing that things are getting worse and worse. Actually, just the opposite is true."—I don't know whether his observation is accurate or not in regard to environmental pollution of one type or another, but in closing I would like to use his quote in dealing with the wildlife situation in the United States:—"The public is being conned into believing that things are getting worse and worse, when actually just the opposite is true."²⁴

¹ Kepler and Parkes (1972), "A New Species of Warbler from Puerto Rico," *The Auk*, Vol. 89, No. 1, pp. 1-18.

² Van Tyne and Berger (1959), "Fundamentals of Ornithology," John Wiley and Sons, Inc., pp. 349-375.

³ Parkes and Clench (1972), "Recovery of a Pennsylvania Banded Blue-Gray Gnatcatcher in Western Mexico," *The Condor*, vol. 74, No. 2, p. 222.

⁴ Mayr (1942), "Systematics and The Origin of The Species," Columbia University Press, New York.

⁵ Mayr (1954), "Notes on Nomenclature and Classification," *Systematic Zoology*, 3: 86-89.

⁶ Wilson and Brown (1953), "The Subspecies Concept and Its Taxonomic Application," *Systematic Zoology*, 2:97-111.

⁷ Owen, D. F. (1963), "Variation in North American Screech Owls and The Subspecies Concept," *Systematic Zoology*, 12:8-14.

⁸ Hall and Kelson (1958), "The Mammals of North America," Ronald Press.

(See remainder of footnotes at bottom of next page.)

STATE OF ALASKA,
DEPARTMENT OF FISH AND GAME,
Juneau, Alaska, August 7, 1972.

Hon. TED STEVENS,
U.S. Senator,
U.S. Senate,
Washington, D.C.

DEAR TED: We appreciate the opportunity to comment on S. 3199, the Endangered Species Conservation Act of 1972. In the past, through our affiliation and participation in both the Western and International Associations of Game and Fish Conservation Commissioners, Alaska, has supported with recommended amendments, endangered species legislation under consideration in the House of Representatives (H.R. 13081). The basic concern of the several states is, again, the matter of federal encroachment and possible preemption of state jurisdiction over resident fish and wildlife species. The legislative recommendations, supported by the states, are meant to strengthen the endangered species legislation as well as to avoid federal encroachment upon state fish and wildlife jurisdiction.

I have enclosed a copy of the endangered species resolution which was adopted at the Western Association of Game and Fish Conservation Commissioners meeting in Portland, Oregon, July 16-19, 1972. The consensus of the Western States in this matter, (HR 13081) is certainly clarified.

Sincerely,

JAMES W. BROOKS,
Commissioner.

Enclosure.

RESOLUTION NO. 18, ENDANGERED SPECIES

Whereas, HR 13081 has been introduced in the 92nd Congress at the request of the Nixon Administration which would preempt state law with respect to fish and resident species of wildlife declared by the Secretary of the Interior and the Secretary of Commerce to be endangered; and

Whereas, The states have traditionally managed and protected fish and resident wildlife found within state borders; and

Whereas, States provide protection for fish and wildlife species deemed to be endangered; and

Whereas, The International Association of Game, Fish and Conservation Commissioners has proposed amendments to HR 13081 which would strengthen the measure as well as avoid federal encroachment upon state jurisdiction: Now, therefore, be it

⁹ Paradiso and Nowak (1971). "Taxonomic Status of the Sonoran Pronghorn," Journal of Mammalogy, vol. 52, No. 4, pp. 855-858.

¹⁰ Warner, Richard E. (1968). "The Role of Introduced Diseases in the Extinction of the Endemic Hawaiian Avifauna," The Condor, 70:101-120.

¹¹ Burleigh and Lowery (1942). "An Inland Race of *Sterna Albifrons*," Occasional Papers of the Museum of Zoology, Louisiana State University Press, Baton Rouge, La., No. 10, pp. 173-177.

¹² Schreiber and Risebrough (1972). "Studies of The Brown Pelican," The Wilson Bulletin, Vol. 84, No. 2, pp. 126-127.

¹³ Stensrude, Curt (1965). "Observations on a Pair of Gray Hawks in Southern Arizona," The Condor, vol. 67, No. 4, p. 321.

¹⁴ White, Clayton M. (1963). "Botulism and Myolysis as Mortality Factors in Falcons," The Condor, vol. No. 5, pp. 442-443.

¹⁵ Fitch, H. S., F. Swenson, and D. F. Tillotson (1946). "Behavior and Food Habits of the Red-tailed Hawk," The Condor, 48:205-237.

¹⁶ Luttich, S. D., L. B. Keith, and J. D. Stephenson (1971). "Population Dynamics of the Red-tailed Hawk (*Buteo jamaicensis*) at Rochester, Alberta," The Auk, 88:75-87.

¹⁷ Seldenticker and Reynolds (1971). "The Nesting, Reproductive Performance, and Chlorinated Hydrocarbon Residues in the Red-tailed Hawk and Great Horned Owl in South-Central Montana," The Wilson Bulletin, vol. 83, No. 4, p. 410.

¹⁸ Reese (1972). "A Chesapeake Bay Barn Owl Population," The Auk, vol. 89, No. 1, pp. 106-114.

¹⁹ Dickerman (1971). "Notes on Various Rails in Mexico," Wilson Bulletin, vol. 83, No. 1, pp. 49-56.

²⁰ LeGrand, Jr., Harry E. (1971). "Red-cockaded Woodpecker Nesting in Wake County, N.C.," The Chat, vol. 35, No. 2, p. 54.

²¹ Price, Jr., Richard E. (1971). "The Red-cockaded Woodpecker in Scotland County, N.C.," The Chat, vol. 35, No. 2, pp. 42-44.

²² Ligon, D. (1970). "Red-cockaded Woodpecker," The Auk, vol. 87, No. 2, pp. 255-278.

²³ Lowe and Miller (1964). "An Annotated Checklist of the Fishes of Arizona," The Vertebrates of Arizona, University of Arizona Press, p. 137.

²⁴ Phillips, Marshall and Monson (1964). "Birds of Arizona," University of Arizona Press, p. 39.

Resolved, That the Western Association of State Game and Fish Commissioners urges that Congress approve HR 13081 with amendments designed to avoid encroachment upon state jurisdiction over fish and resident wildlife, and be it further

Resolved, That this resolution be sent to the Director of the Bureau of Sport Fisheries and Wildlife.

[From *Life*, July 21, 1972]

(Editors' note)

ON THE TRAIL OF THE COY COYOTE

Photographer Stan Wayman has taken pictures of tigers in India from behind films blinds, and he once spent two months in a tent on the Arctic tundra of Baffin Island waiting for some rare and spectacular shots of white wolves (*Life*, June 2, 1967). But this week's story on coyotes, he says, scared him the most. Not out of fear for his life, but from the prospect of returning home empty-handed.

"I knew how shy coyotes were," he says. "You can't stalk them. Blinds and bait don't work because they never get used to you being around. Frankly, the coyote is one of the most difficult animals to photograph I've even seen." Wayman began his assignment last winter in Oregon by spending four nights in a blind at 22° below zero. The coyotes howled tauntingly all around him but never came close enough for a single picture. Wayman became steadily more pessimistic.

Then writer Don Jackson showed up, full of confidence. "His attitude was nonchalant, you might say," Wayman reports. Each of them had separately cased several western states, talking with biologists and state trappers, and ultimately they settled on the National Elk Refuge in Jackson Hole, Wyo. The coyotes there, it seemed, figured they had as much right to the amenities afforded by the refuge as the elk.

As Wayman tells it, "The first morning Jackson was up and talking about how nice it would be to have a picture of coyotes playing with field mice. Naturally I was skeptical. But we drove out in a jeep and before long there was a coyote tossing a mouse in the air like a toy. Jackson didn't seem much surprised. Next day he wanted a picture of coyotes howling. Again, no sooner had he started out than we came upon a bunch of coyotes howling like they were posing for the picture. Finally, on the last day, I said, 'O.K., you've produced just about every picture we need, how about one lone coyote standing on a rock?' Sure enough, we drove down the road and there it was. It got kind of spooky after a while."

Jackson admits they had unusually good fortune in the Elk Refuge. "Even the people who live out there have to be lucky to see one," he said. "A sheepman—and they are the coyotes' most earnest enemies—took me up in his plane to show me a desert supposedly rife with coyotes preying on livestock. We covered several hundred square miles in three or four hours and saw just one coyote. As he was quick to point out, however, it was indeed only 300 yards from one of his herds."

Jackson and Wayman both came back from the story with a curious respect for the animals. Wayman, who took most of his pictures over the side of the jeep through a 60-mm lens resting on a frog-shape beanbag, says he has always been "pro-predator." Jackson, who went so far as to trundle out of bed "one bloody cold night to tape-record the coyotes' howl," still speaks in awe of the howling coyotes Wayman photographed on page 72. "It was like a barbershop trio, three coyotes with canted heads howling in three-part harmony."

RALPH GRAVES, *Managing Editor*.

[From *Life*, July 21, 1972]

WILY VAGABOND WHO DEFIES THE ODDS

(By Donald Jackson)

On the roster of objectionable phenomena of the American West, the coyote has traditionally ranked somewhere between a prairie fire and a rattlesnake. His bearing, even the sight of him, is often enough to offend a westerner and cause

his trigger finger to commence itching. Furriers peddle coyote hide under an assumed name. Most high school football teams would sooner forfeit a game than sprint into action as "the Coyotes."

The coyote's manner has not helped his image. In a region where straight talk, directness and courage are counted primary virtues, the coyote is given to skulking about and doing his business obliquely. "He has a general slinking expression all over," Mark Twain wrote. "He is so spiritless and cowardly that even while his exposed teeth are pretending a threat, the rest of his face is apologizing for it . . ."

Only now, with the dawning of the Age of Ecology, has this wily vagabond of the range begun to sidle into a softer light. The coyote has lived long enough to see his enemies turn curiously respectful, and to suspect that new friends are being born daily. He has survived odds so formidable and pressures so great that his mere existence is a triumph. The suspicion grows that he will outlast us all.

On this record, an underdog further under is impossible to find. American males have pursued and persecuted coyotes with every weapon short of napalm: they have been chased with hounds, trapped, pumped full of buckshot and lead of all calibers, lured to destruction by "varmint callers," muzzled and burned, blinded by spotlight hunters, hounded by airborne sportsmen, gassed, and poisoned with murderous chemicals fresh from the laboratories of progress. The coyote has persevered on his wary way in spite of wolves, cougars, cowboys, eagles, hunters, bobcats, sheepmen, 14-year-old boys, bears, the United States government and every other predator. And he has lived to sing about it.

The "wonder dog," his admirers call him, and no wonder. The North American wolf has all but vanished. The grizzly has been pushed into the farthest forest. Eagle and cougar cling to existence with statutory help, and an outdoorsman is lucky to see one. But the coyote flourishes. He is fair game anywhere, anytime, but he has done more than simply survive, he has expanded his range. A hundred years ago the coyote bivouacked primarily on the prairie; now he forages from Point Barrow, Alaska on the north to Costa Rica on the south, and it would be no surprise to learn that a family of coyotes had swum the Panama Canal and set up housekeeping in the Southern Hemisphere. Coyotes have turned up in precincts as congested as Florida, Los Angeles and New Jersey.

The coyote has grit, a remarkable ability to adapt to whatever fortune flings his way, and an appetite that asks no questions other than how soon and how much. The coyote cheerfully gnaws away at everything from watermelons to insulating wires, and cries for more. Indeed, his appetite, not so much carnivorous as omnivorous, explains the calumny along with the grace of his extraordinary record. The coyote's lot has been rendered uncomfortable in precise proportion to his taste for entrees favored by man: beefsteak and veal, chicken, turkey and—most fiercely begrudged of all—lamb.

For generations the coyote's principal foe has been the sheepman. Coyotes like lamb and, given the opportunity, a coyote will dispatch a lamb with a swift and efficient slash at a woolly neck. Sheepmen have, in turn, inspired most of the elaborate warfare on coyotes pursued through the years by the government's Division of Wildlife Services. Sheepmen, with some reason, feel that they come closer to the official definition of an "endangered species" than coyotes do. "Sure it's a war," says a Utah sheepman ruefully, "and they're winning." The coyote's cry may thrill the naturalist and frighten the tourist, but the sheepman hears another message in that mournful call: "Ooo-ooooO, let's go get some sheep. Ooo-oooo, let's go get *all* those sheep."

Scientists grow quarrelsome when they try to explain the coyote's howl. It is certainly a form of communication. A cry from one coyote invariably brings an answer, then some commentary, then perhaps another long wail, then a clatter of yipping squawks. It has been described as a "prolonged howl which the animal let out and then ran after and bit into small pieces." But what is being discussed? Judging from the coyote's day-light preoccupation, food seems a likely answer. "They're talking about that rabbit they saw today and where to find it tomorrow," a westerner offers. Sex? "They seem to howl more in the winter, during the mating season," a scientist ventures. Territory? "They're saying, 'I'm over here, you stay over there,'" a naturalist says. Or perhaps simple unfettered *joie de vivre*: "I am positive," the great western chronicler J. Frank Dobie wrote, "that they sing for pleasure and out of sociable feelings as well as, sometimes, from feelings of loneliness." At least Dobie was positive.

Coyotes seem to enjoy. They frisk around together like so many long-toothed puppies, rolling over, snapping at each other, whirling in tiny circles. When he catches a rodent, a coyote is apt to toss it repeatedly into the air, roll over on it, pin it with his paw, release it and catch it again. Even his habitual gliding trot, somewhere between a brisk stride and a lope, has a jaunty quality about it. Head and ears up, all points like a Gothic church, bushy dark tail hanging low, he moves along with an air of assured purpose, a salesman headed for an easy score.

Coyotes have a gift for the avoidance of onerous toil. Free of pursuers, a coyote ascends a hill in a series of rest stops, pausing for frequent glances back at the valley, following the line of least resistance. On a straightaway he can glide like liquid sugar, attaining speeds as high as 40 mph. But his sense of smell is so sharp that a scent will nudge him off course as if he'd been hit by a sudden blast of wind.

The color, tawny red-brown tweeded with black and patches of light gray, permits them to blend invisibly into the range. "You can be looking at a spot, not taking your eyes from that spot," a westerner says, "and where there was no coyote there suddenly is a coyote. They just materialize."

Coyotes are tough ("I've had 'em come to life on me," a hunter testifies with eyebrows raised. "I mean they'll be *dead* and they'll *come back to life!*"), smart and infinitely adaptable to the workings of man. "They'll follow the tractor when I'm balin' hay," an Oregon cattleman says, "and when I lift the bale they'll get the mice that run out from under the hay." They have been known to make their dens under abandoned ranches, snatch food from a house dog's dish and feed from garbage dumps. They seem to fear pickup trucks but not tractors, and a halted vehicle more than a moving one.

Coyotes eat rabbits, rodents, squirrels, birds, eggs, berries, sheep, calves, carion of all kinds, fish, snakes, bats, house cats, canvas, rawhide, old calendars, computers, deer, luggage, furniture and anything else not poisoned or on fire at the moment. Rabbits seem to be a staple: the coyotes will generally work in a team, one running the hare in a circle while the other lies in ambush. They relay-hunt antelope, one team racing in pursuit until it tires, then another picking up the hunt from a forward position.

Hunters swear that a coyote can distinguish a man with a gun from one with peaceful intentions. "I've tested it," a former trapper declares. "I've come near 'em with a rifle and they'll spook and run like hell, then gone back unarmed and they'll just look at me and yawn." Others allege that coyotes possess precise data as to the range of a given weapon, and disport themselves in maddening openness just out of the rifle's range. "My scope was loose one time," an Oregon hunter recalls, "and I saw this coyote just on the other side of a fence. He wasn't more than 100 feet away. I started firing and I must have been missing by 20 feet. He didn't move. I wasn't even scaring him."

Their capacity for insulting their pursuers is legendary. Trappers report that coyotes will frequently locate a steel trap, dig it out and tip it over. Fish and Wildlife men have lost confidence in the pipe-mounted cyanide "coyote getter" because they believe the coyote can no longer be fooled by it. Dobie tells of a coyote in flight beside a moving train who jumped aboard a flatcar to make his getaway.

A secret of coyote survival is their preference for almost any alternative to a fight. An aroused ewe has only to turn and look miffed to frighten a coyote from a lamb, and a combative doe can similarly protect her fawn. One westerner saw an attacking coyote panic and flee when a flock of nesting geese raised their wings.

Coyotes mate in midwinter and the pups are born in early spring, usually between five and seven to a litter. Mother and father share the chores of rearing the young; both hunt and return to the den to regurgitate the food for the pups. The den is usually a shallow hole in a field or on a hillside, and the family has auxiliary dens where the pups are transported one by one in the mother's mouth if anything disturbs their tranquillity.

Some zoologists believe that coyotes mate for life, others think that the males drift off in the summer and new romances blossom the following winter. The pups stay with the mother for five or six months, then pad off to make their own way. The male-female bond is strong enough that a coyote will often linger near a trapped mate, sometimes sharing its food.

Americans have been killing coyotes—for their hides, for protection of their herds and for sport—ever since the two species first collided on the plains. The coyote was first identified as a species in 1823 in Nebraska; the first bounty for his scalp was posted two years later.

But earlier the Navaho Indians of the Southwest thought well enough of the

coyote to include him among their deities. The Navaho's coyote god shares many predilections with the animal itself; he is an opportunist, a cunning wanderer who is blessed with immortality, an impatient rogue who frequently gets in trouble because of an excess of guile.

Navaho sheepmen coexisted with the coyotes primarily because the Indians were never far from their flock. But the white man, with his enormous herds spread over the western vastness, is different. Sheepmen argue that coyotes often kill without eating their victim, and that lamb losses are so great that the industry itself is jeopardized—an argument they have been making for the last 80 years. "People have to choose whether they want us to raise sheep or coyotes," a Utah rancher contends.

For many years the government served the sheepmen, and beginning in the 19th century government agents spread poisoned bait across the range. More than 1.6 million coyotes were poisoned between 1915 and 1945. With the introduction 24 years ago of the potent sodium fluoroacetate, commonly known as 1080, the poisoning program was escalated.

But in the last few years a growing ecological sophistication, along with a new generation's interest in preserving our remaining wildlife, has given the coyote a political lobby for the first time in his long, lowly career. In response to conservationists' protests that the predator control program was responsible for indiscriminate poisoning fatal to many species, the federal government this year has banned poisoning on all federal lands and the Environmental Protection Agency blocked interstate shipment of predator poisons and ordered their recall. The new bans, of course, do nothing to prevent anyone from trapping or shooting coyotes, and in fact those forms of reprisal are increasing.

Two ideas seem to be favored by those who want to give the coyote some degree of protection and still help sheepmen. The first is the extension trapper program, where state trappers respond to complaints from individual stockmen and help a rancher trap particularly troublesome animals. This method is used in Kansas, Missouri and other midwestern states. The second idea is the inclusion of coyotes among game animals, which would put them under state control and regulate hunting. No state has as yet adopted this plan, and westerners can be expected to bridle at paying a fee to hunt an animal they have always killed for free.

But whatever the politicians and bureaucrats do it seems clear that they are merely acknowledging what the coyote already knows: hold on long enough and even your deadliest enemies will tire. The coyote has won by attrition.

"Here's an animal that has been shot at, trapped, poisoned, hounded and abused with every method man could devise," a western naturalist says, "and he's still got enough left to leave his calling card on the trapper's trap and the road builder's road." It is no longer a question of whether man or coyote will have the last laugh. If you listen closely you can hear the coyote laughing now.

ALLARD, SHELTON & O'CONNOR,
ATTORNEYS AT LAW,
Pomona, Calif., August 8, 1972.

HON. PHILIP A. HART,
Chairman, Subcommittee on Environment, Commerce Committee,
Senate Office Building, Washington, D.C.

DEAR SENATOR HART: For the record of the Hearing please note my support of S. 249 which was introduced by Senator Cranston, and which is referred to as the Nature Protection Act.

Some of our problems can be remedied later, if we don't attend to them at once. The preservation of rare and endangered species, however, cannot wait.

Yours truly,

L. A. SHELTON.

STATE OF ALASKA,
DEPARTMENT OF FISH AND GAME,
OFFICE OF THE COMMISSIONER,
Juneau, Alaska, August 8, 1972.

HON. TED STEVENS,
U.S. Senate,
Washington, D.C.

DEAR SENATOR STEVENS: Thank you for copies of S. 3818, S. 249 and the written testimony presented at the August 4, 1972 hearing on these bills before the Subcommittee on Environment of the Senate Committee on Commerce.

We have studied this legislation and conclude that S. 249 is objectionable. S. 3818 should meet the needs for implementing the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere while providing many other genuine benefits to these threatened resources. It would achieve these ends effectively and efficiently by providing for cooperation with the states. On the other hand, S. 249 seems to be little more than a vehicle to erode and interest and authority of the states.

We recommend that you oppose S. 249 but give your support to S. 3818.

Sincerely,

JAMES W. BROOKS,
Commissioner.

UNIVERSITY OF ALASKA,
College, Alaska, August 14, 1972.

Senator TED STEVENS,
U.S. Senate,
Washington, D.C.

DEAR SENATOR TED STEVENS: We have your letter of July 31, 1972 enclosing a copy of the Endangered Species Conservation Act of 1972, S. 3199.

We have reviewed the bill and believe it will provide greater flexibility than is now possible in management of endangered species.

We recognize that native peoples would be somewhat restricted for the provision in Sec. (5) (2) that provides for them to take such animals for their own consumption or for ritual purposes, but does not provide for barter or sale of objects made from parts of these animals. We do, however, recognize that there comes a point at which some sort of restriction on native use would be necessary in order to perpetuate a resource on which they themselves depend. We do, however, believe that any such restriction must be applied with care, only after careful study of the local condition of the endangered species in question and only after consultation with the native groups involved. For example, one situation distresses us greatly. The listing of the Bowhead whale as an endangered species completely disregards scientific observation over the past 50 years. Rather than being endangered, these whales have increased in population numbers in Alaskan waters at a steady rate. The application of world-wide whaling concerns to the Alaska situation is extremely dangerous without facts.

We appreciate you keeping us informed of the progress of this legislation.

Sincerely yours,

DAVID M. HICKOK,
Director.

ENVIRONMENTAL DEFENSE FUND,
East Setauket, N.Y., August 14, 1972.

Senator WARREN G. MAGNUSON,
Chairman, Committee on Commerce,
U.S. Senate, Washington, D.C.

DEAR SENATOR MAGNUSON: Your letter of August 1 to Mr. John Dienelt of our Washington, office, in which you requested our written testimony on three endangered species bills, has been referred to me for reply. I regret the delay in responding, due to my only just having received your request. I hope my comments can be received in time to receive your due consideration.

In regard to S. 3199, comments are as follows:

1. Section 3(a) page 5, line 20. Since land acquisition can serve to help protect and propagate only a few endangered species, it is suggested that the emphasis should be changed by substituting Section 3(d) on page 6 to become Section 3(a).

2. Section 3(b) page 6. To give the Secretary more authority to improve in a positive way the status of an endangered species, I suggest that Section 3(b) page 6, read as follows. "The Secretary shall initiate such steps as are deemed necessary to enable an endangered species to recover its regenerative capacities to the point where it can be no longer categorized in an endangered status." The following paragraphs should be re-lettered as (c) (d) and (e).

3. Section 5(a) (3) page 9, line 2: there is an ambiguity in the word "he," which might be applied to the "person" referred to on page 8, line 23. I suggest the substitution of "the Secretary."

4. Section 5(a)(3). It appears that a better solution to the problem of "undue economic hardship" as described in this section would be to establish a policy of financial reimbursement. I suggest, therefore, a sentence be added on page 9, line 2, as follows: "A more desirable alternative to alleviating a case of undue economic hardship, as described above, would be to establish a system of financial reimbursement, where the Secretary deems this to be appropriate."

In regard to S. 3818, comments are as follows:

5. Page 7, line 1. Since land acquisition is less important than agency compliance, I suggest this heading should read "Agency Compliance and Land Acquisition."

6. Section 5(a) page 7, line 2. Since land acquisition can serve to help protect and propagate only a few endangered species, it is suggested that the emphasis should be changed by substituting Section 5(d) in page 7, line 24 to become Section 5(a).

7. Section 5(b) page 7. Follow recommendation given in my paragraph (2) above.

8. Section 8(b) page 14, line 11. Follow recommendation given in my paragraph (3) above.

9. Section 8(b). Follow recommendation given in my paragraph (4) above.

A further comment on these two bills, as follows: we will be greatly interested in seeing the lists of endangered species, as they are published in the Federal Register. These lists are described in Section 2, page 4 of S. 3199 and Section 4(b), page 6 of S. 3818.

In regard to S. 249, we have no comments.

We greatly appreciate your courtesy and consideration in providing us with the opportunity to comment on these three bills. Again, please accept my apologies for the delay in transmitting these comments to you.

Sincerely yours,

DENNIS PULESTON,
Chairman, EDF Board of Trustees.

STATE OF ALASKA,
OFFICE OF THE GOVERNOR,
Juneau, Alaska, August 14, 1972.

Hon. TED STEVENS
U.S. Senate, Washington, D.C.

DEAR SENATOR STEVENS: I would like you to know my feelings concerning two bills, S. 3818 and S. 249, that are now being considered by the Senate Committee on Commerce. You are undoubtedly familiar with these bills and know that they could involve our interests in a serious way.

S. 249 purports to implement the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere (56 stat. 1354) but actually seems to have the purpose of divorcing all concern, responsibility and authority for threatened species from the states. The species involved are simply listed in an open-ended annex by the Secretary of the Interior without provision for outside review or comment. I hope that on behalf of all Alaskans you will oppose S. 249.

I am very favorably impressed, however, with S. 3818. This bill is excellent, enlightened legislation designed to truly assist in preserving and benefiting endangered or threatened species. It should serve to implement the Convention cited above while serving to remedy the shortcomings of earlier endangered species acts. I urge you to support this worthy bill which could do so much to avoid the tragic loss of additional fish and wildlife species.

Sincerely,

WILLIAM A. EGAN, *Governor.*

NEWS RELEASE FROM GOVERNOR WILLIAM A. EGAN, AUGUST 15, 1972

JUNEAU—Governor William A. Egan said today that he is urging the state's Congressional delegation to support pending legislation designed to protect endangered species of wildlife.

In seeking passage of Senate Bill 3818, Egan said that Alaska should be identified as being a leader in progressive efforts to protect and restore all endangered species.

"Alaska's experience with fur seals and sea otters demonstrates that appropriate measures can bring animals from the brink of extinction back to healthy and productive levels of abundance," Egan said.

He described S. 3818 as "excellent, enlightened legislation designed to truly assist in preserving and benefiting endangered or threatened species."

Egan, in letters to Senators Ted Stevens and Mike Gravel and Representative Nick Begich, called on them "to support this worthy bill which could do so much to avoid the tragic loss of additional fish and wildlife species."

NATIONAL FISHERIES INSTITUTE, INC.,
Washington, D.C., September 1, 1972.

HON. WARREN G. MAGNUSON,
Chairman, U.S. Senate, Commerce Committee,
Washington, D.C.

DEAR MR. CHAIRMAN: The National Fisheries Institute, a trade association of companies engaged in the production, processing and marketing of fish and seafood products, has comments on S. 3818 and S. 3199, proposed bills providing for protection of endangered species of fish, wildlife and flora.

The continuation of the commercial fish industry depends on perpetuation of fish resources. To harvest stocks at rates exceeding the maximum sustainable yield is not consistent with long-term objectives of maintaining supplies of food from the sea. Accordingly, the commercial fish industry agrees wholeheartedly with the objectives of S. 3818 and S. 3199.

The Institute, however, has a basic concern with the timing of the proposals, in light of current international Law of the Sea negotiations and the purported intent of the Administration to seek expanded fishery management authority. As applied to oceanic fish stocks, the proposed endangered species act would unilaterally extend U.S. authority far beyond that now recognized internationally.

For many years, the U.S. government has objected to unilateral extension of authority by other governments. The Institute believes that management of oceanic fish species, which must include protection of those threatened with extinction, is dependent upon international agreement as the jurisdiction over these species.

The United States has advanced a recommendation at the current Law of the Sea proceeding that would vest authority to regulate coastal and anadromous species with their associated state. High seas migratory species would be the responsibility of international organizations.

To us, it would be contradictory for the U.S. government to be negotiating internationally for fish stock jurisdiction and management as outlined above, and at the same time attempt to extend, on a unilateral basis, implied authority over all the fish in the seas of the world.

Similarly, it would appear that the question of fisheries' management responsibility in the present 12-mile zone should be approached directly rather than tangentially through the guise of endangered species protection.

Our recommendation is that the endangered species legislation as proposed exclude oceanic fish and shellfish. We further recommend that the requirement for protection of any endangered oceanic fish and shellfish be covered in broader fishery management legislation which would consider more carefully the implications of the Law of the Sea negotiations, and the respective role of federal and state jurisdiction.

Whether or not protection for endangered oceanic fish is covered as recommended in more comprehensive management legislation, or in separate legislation as proposed in S. 3818 and S. 3199, we believe several basic concepts must be included:

1. We believe authority to initially declare a species or subspecies of oceanic fish to be endangered, or likely to become endangered, must be limited to those species over which the United States has jurisdiction or, at the most, to those over which it seeks jurisdiction. Thus, the Secretary could declare endangered an anadromous species which spawns in United States territorial waters; a species which habitually spends its life cycle in waters adjacent to the United States, or a species of the United States Continental Shelf.

It would follow that the United States could protect those coastal and anadromous stocks of other nations *if* the government of those nations had instituted protective declarations. Likewise, those high seas migratory species that should be regulated by international organizations could be added to an endangered list at the request of such organizations.

2. Responsibility to administer endangered species authority as it pertains to oceanic fish and shellfish, including anadromous species, must be that of the

Secretary of Commerce. The Congress created the National Oceanic and Atmospheric Administration to coordinate the nations ocean resource activities. It is essential that the expertise and capabilities of NOAA be utilized in any endangered species program. NOAA's competence in this area cannot be matched by another agency. To duplicate efforts is wasteful, illogical and a disservice to all.

We believe the provisions of S. 3199 and S. 3818 recognize the need to maintain the authority of NOAA in all oceanic resource activities and endorse this intent.

3. The proposals as written provides opportunity for hearings on listing or delisting a particular species or subspecies. We believe this is an important safeguard against faulty action and should be included in any legislation. The ecological and economic consequences of any listing or nonlisting are such that the public should have opportunity for comment and public hearing.

4. Section 6(f) of S. 3818 calls for the Secretary of Interior to study the role of the states in management and protection of endangered species. We believe this study to be important, but believe that it should be conducted jointly by the Department of Interior and the Department of Commerce.

Earlier we endorsed the need for NOAA to maintain responsibility over all facets of this program relating to oceanic resources. State responsibility includes the oceans to the extent of the territorial sea. NOAA is already working with the states on fishery management matters. Logically, it follows that NOAA should conduct a study or investigation of state responsibility under the endangered species program for oceanic and anadromous fish resources.

Congress made a basic decision with the establishment of NOAA. Let us not negate the benefits of this decision by inconsistency in legislation such as this.

5. Section 7 of S. 3818 and Section 5 of S. 3199 describe prohibited acts. The definition of such acts must be clarified to indicate that taking, importing or transporting an endangered species is prohibited only in activities involving such species in the geographical area of endangerment. In the case of a species threatened with extinction on a worldwide basis, the prohibitions would be all encompassing, as now proposed. The basic concept of the bills, however, provides for definition of the range over which a species may be threatened. It follows that the prohibited acts also should be limited to the defined danger range.

Similarly the definition of prohibited acts relating to those species defined as likely to become threatened must be modified to include those acts of taking, importing or transporting species *contrary to protective regulations* established by the secretary.

We find the concept of Section 7(d) completely illogical and oppose it totally. The concept would allow restriction on harvest and importation of non-endangered species if they resemble one which is on the list to the extent that enforcement personnel have difficulty in enforcing the act. This concept is analogous to providing that no one can have an automobile because there is substantial difficulty in enforcing auto theft laws.

We accept the fact that many species are very similar and that there may be difficulty in determining which is on an endangered list. We believe, however, that a means of certifying origin and/or species must be developed to enable continued commerce in stocks that are not threatened.

6. Section 9(g) (1) and (2) of S. 3818 defines a concept of requiring importers of fish and wildlife to register with the Secretary of the Treasury and to keep records on importation of fish and wildlife. These records and the inventory are to be made accessible to the Secretary.

Trade in commercial shellfish and fish imports exceeds 2-billion pounds. The distribution pattern is complex. Product is very often further processed in this country. The concept outlined would impose a staggering record keeping obligation that would unduly burden the industry to further an undefined objective. Presently, all fish imports are passed through U.S. Customs where they are subject to examination by the U.S. Food and Drug Administration. The importers are known since paperwork is already filed at the port of entry.

The records of importers, and type of product must be readily available since the National Marine Fisheries Service already collects and publishes comprehensive statistics on the trade. We fail to see why additional paperwork must be imposed on the industry when an enforcement mechanism is already existing and functioning. We respectfully request deletion of the concept defined in the subject paragraph.

7. Both proposals add to the endangered species program prohibition of taking species on the list. This concept is correct, since earlier legislation covered imports only. It would seem that the prohibition of taking an endangered species

must be modified to exempt incidental catch by commercial fishermen. There is little likelihood that a commercial trawler or longliner would incidentally catch a whale. However, should other species found in commercial fishing areas be added to the list, one cannot expect a commercial fisherman to be responsible for the possibility that an endangered species would incidentally be caught in the trawl or take long line bait. Likewise, does one expect that a sportsfisherman would be responsible for the fact that an endangered species would take the bait while he's angling for a legal species? We request reasonable provisions for incidental catch in whatever legislation is adopted.

8. The extension of the endangered list to any commercially harvested stocks will cause certain hardship to the commercial industry. This is a necessity when perpetuation of the resource is at stake. We do envision, however, potential of unwarranted difficulties caused by unjust allocation of burden of proof. It is our belief that common justice should require the enforcement agency to bear the responsibility of burden of proof. It must show that an item in commerce is on the endangered list. It is contrary to our system of justice for a citizen to have to show that a product he handles is not on the endangered list. We ask that any legislation very specifically define that the burden of proof rests with the enforcing agency. Further, there should be some provision limiting detention authority during any time of dispute.

In summary the Institute believes the protection of endangered oceanic fish and shellfish should be provided for in broader legislation covering overall management responsibilities. We urge that authority to declare a species endangered be limited to those species over which jurisdiction has been defined. We believe any program must embody the concepts listed in items one (1) through eight (8) above.

Thank you for the opportunity to comment on this proposal.

Sincerely,

LEE J. WEDDIG,
Executive Director.

RED WOLVES

The red wolf is a true canine, intermediate in size between the coyote and the grey wolf. There has been some effort to depict *Canis rufus* as a subspecies. Taxonomists, notably Dr. Atkins of George Washington University and John Paradaiso of the Smithsonian, have pointed to primitive features of the skull and brain, leading to the conclusion that the red wolf was probably coeval with the dire wolf, and occupied the new world long before the coyote and grey wolf. He may have been driven gradually back into a restricted range when the more advanced canines crossed the land bridge.

The red wolf, in this century, has been extirpated from ten states, and probably twelve. He now exists in relict pockets in the extreme southeast Texas and southwest Louisiana. There is a scant possibility that a few may be left in Arkansas or Mississippi. Shaw and Russell report in Texas Parks and Wildlife, after conducting a careful survey in the marshes and coastal grasslands where the wolf still hangs on, that no more than 100 now remain in Texas, confined to pockets in Liberty, Chambers, and Jefferson counties. They note that the wolf "appears to have a very low reproductive rate, along with heavy hunting mortality and heavy parasitic burdens. . . . Red wolves are in critical danger because of habitat loss, hunting and trapping pressure, and possible hybridization. The animal is totally unprotected and its endangered status is not generally known to most Texans, even to those living within its remaining range."

The wolf clings to existence even more tenuously in Louisiana than in Texas. A small pocket of wolves thought to remain in Camaron parish, with occasional unconfirmed reports of wolves elsewhere. Ron Nowak, who has carefully studied the history of the red wolf in Louisiana, has put the total red wolf population in both Texas and Louisiana at between 100 and 200. Nowak stresses the continuing hybridization with coyotes and dogs, which he feels will submerge the wolf, even if effective protection against human molestation is established. John Paradaso has analyzed hundreds of skulls from the hybrid swarm occupying former red wolf ranges. He has prepared trays in which every gradation is present between the heavy flattened skull of the true red wolf, with its prominent post orbital ridge and sagittal crest, to the small, light, large brained, slightly domed skull of *Canis latrans*.

Mr. Chairman, the red wolf would not be in the dire, almost hopeless situation it is in today if it were not for the "control" activities of the Department of the Interior. The Biological Services undertook a campaign of extermination beginning in 1915. By 1938 DWS trapping and poisoning had largely eliminated the wolf from the Ozarks. By the mid 1950's, *Canis rufus* had been largely eliminated from Louisiana, where it had been quite common. By breaking down the social and territorial system of the wolf, this killing opened the way for an invasion by coyotes, and accelerated the hybridization process. Needless to say, the coyotes and coyote hybrids are more adaptable and destructive than the wolf ever was, and livestock owners in the regions affected are among the losers. As late as 1965, with the wolf in desperate straits, the "management experts" of the DWS were still "controlling" them. In 1963 the DWS reported 2771 red wolves killed, mostly misidentified, but some doubtlessly pure specimens. Since that time, at least 60 pure red wolves are known to have been killed from the Texas population by DWS trappers.

I would like to suggest that the DWS, having all but destroyed the red wolf, should now be obliged by Congress to engage in every possible effort to save it. We are told that the DWS is capable of better things than making war on American wildlife with every weapon it can lay its hands on, and that "management" means something other than mass killing with a context of bureaucratic self serving. Let the Service now prove to us that they are capable of management, and avoid the odium of having driven a unique canid species into extinction.

Conservationists close to the red wolf's situation have suggested that a "dingo proof" fence, such as has been used in Australia to keep out dingoes, be built around the remaining viable pure wolf populations, particularly those in Chambers county Texas. Such a fence would keep out coyotes, thus preventing miscegenation, and would delineate an area where intensive protection of the wolf could be practiced.

Mr. Chairman, with stern congressional instructions to save the wolf and the funding to implement them, the DWS can absolve itself of its senseless spree of killing. Mr. Reed has told me his agency will act vigorously if given such a mandate. The recent shake up in the Texas Game and Fish, in which political cronies and pensioners have been retrenched, enhances the probability of cooperation from the state.

What happens in this committee may well determine the fate of the oldest, the most primitive, and the least destructive of the true canines. We urge you to set aside funds specifically in the appropriation accompanying this bill for the preservation, through careful protective management, of this species. We shall be glad to provide documentation for what we have said, and concrete proposals based on the recommendations of those who have studied the animals. A number of the chief experts on the species live, in fact, in the Washington area, and we can easily arrange for these men to meet with, or appear before, members of the committee if this should be desired. The present time, with legislation being formed around improved concepts, is a perfect chance to move on behalf of this critically endangered animal. It is also, very probably, the last chance.

I would also like to strongly urge this committee to include in the legislation a specific stipulation that no further funds be applied toward the poisoning of the prairie dog for an indefinite period. The poisoning of the prairie dog has brought about the probable extinction of the black footed ferret. Secondary poisoning effects have probably jeopardized other endangered species, especially kit foxes. The scarcity of dog holes threatens the furrowing owl.

All apart from this, the prairie dog itself is becoming rare. It once existed in vast numbers, but it has now been extirpated over most of its natural range. The prairie dog does not have the reproductive potential of certain other rodents, and is extremely slow to extend its range. I can see no reason to expect that it can return as a significant competitor to domestic livestock for a very long time, even if left entirely alone.

Mr. Chairman, the coyote has withstood an appalling onslaught. We have done everything except to declare free bombing zones, and call in the B52s. Animals of lesser intelligence and adaptability have been decimated as incidental victims of the campaign. But the coyote lives on in the face of it all. He was on this continent before humans; he may, even yet, remain when we are gone.

We are fortunate. I think, that we have not destroyed him. In his tenacious insistence upon living and being, he has perhaps braked our tendency to put square pegs in round holes. The animal on whose behalf the attack has been launched is the sheep. I have been around sheep all my life. Each spring I used to lamb a band of sheep on open range at the foot of Laramie peak in southern Wyoming. My early observations of animal behavior were largely with sheep. I have had numerous pet sheep, toward whom I felt a real friendship. I understand sheep better than most men, and like them more. Toward this species, rendered virtually helpless by selective breeding for wool and tyrannized by man, I have often felt a great sense of pity. But I well understand that overgrazing by sheep turned grassland to desert throughout eastern and central Asia, while the entire Mediterranean area has been made barren by sheep and goats. Bourleirre has rightly said that the mid east nomad, with his flocks, was less the "son of the desert" than its father. Much of our western, and southwestern lands, are subject to similar degradation.

If the coyote, as accused, is indeed tipping the scales against marginal sheep operations in arid and semi arid regions, we should probably thank him for it. He is perhaps acting as a control system against the consummation of another human folly.

I hope that I shall always see coyotes. I have come to regard these indomitable little canines, living on in a time of overweening human tyranny and oppression against all things alive, as a kind of embodiment of what remains natural and free. I hope that I shall always, in my life, be able to ride up a sage slope in Wyoming, and see a coyote looking at me across the draw, and say again: "Well, little dog, you're a hard neighbor at times, but so am I. Go your way, and I'll go mine." And then ride on, under a blue, clean sky, with the scent of sage in the springtime.

MARINE MAMMALS ACT, H.R. 10420¹ AND THE ENDANGERED WILDLIFE BILLS,
S. 3818 AND S. 3199

1. H.R. 10420 (page 3) House definition of depletion: "The term 'depletion' or 'depleted' means any case in which the number of individuals within a species or population stock has declined to a significant degree over a period of years and, if that decline were to continue, would result in that species or population stock being threatened with extinction and therefore subject to the provisions of the Endangered Species Act of 1969."

H.R. 10420 (page 39) Senate definition of depletion: "The term 'depletion' or 'depleted' means any case in which the number of individuals within a species or population stock—(i) is at such a level that, in the determination of the Secretary, such species or stock is threatened with extinction, (ii) has declined to a significant degree over a period of years, and the Secretary determines that such decline is continuing or is likely to resume, and that as a result such species or stock is likely to become threatened with extinction within the foreseeable future."

S. 3818 etc. would authorize designation of an endangered species by the Secretary's determination "that the continued existence of such species or subspecies of fish or wildlife or flora, throughout all or a significant portion of its habitat or range, is either presently threatened with extinction or will likely within the foreseeable future become threatened with extinction. . ."

This authority need not comply with the "over a period of years" requirement in (ii) above. It would be a relaxation of the tests of depletion contained in the Senate's marine mammals bill.

The definition in S. 3818 also stipulates "throughout all of a significant portion of its habitat or range." It might be argued that the sea otter should be classified as endangered because large areas of its historic habitat or range are without animals because of the excesses of the fur trade. This same charge might be made about other marine mammals. None, in fact, are endangered today. The sea otter is being harvested in Alaska in some areas, and all animals subject to U.S. jurisdiction are (1) under sound protection or (2) in the case of most whales ruled out for U.S. taking.

¹ Page reference is the consolidated bill passed by the Senate July 27, 1972.

Also, S. 3818 refers to "species or subspecies" not to "species and population stocks" as does the Senate's marine mammals bill. It could be argued under S. 3818 that an entire species could be declared endangered when, in reality, only a population stock of that species may be in a depressed population condition. The thrust of S. 3818 as it might apply to marine mammals, particularly if the House's definition of depletion is accepted in H.R. 10420, would be to shift program emphasis from population stock management as contemplated by the Senate to a blanket moratorium type of management. Further, it is extremely doubtful that taxonomists would agree that subspecies of most fish and wildlife (including marine mammals) can be identified with any regularity or certainty.

2. In S. 3818 it should be noted that in Sec. 8(a) Exceptions (page 13) the Secretary may permit the importation, taking or transportation in "interstate" commerce. No mention is made of issuance of permits for intrastate purposes.

Adoption of the House definition of depletion in H.R. 10420, therefore, could, upon secretarial determination, throw operation of marine mammals into the Endangered Species program, negating exceptions in the Senate version of H.R. 10420 and making marine mammals subject to the very limited exceptions of S. 3818.

3. Section 11 (page 25) of S. 3818, entitled Conforming Amendments, would revise the second sentence of Subsection 4(c) of the Act of October 15, 1966 (the first endangered species Act) to read as follows: "With the exception of endangered species listed by the Secretary pursuant to Section 4 of the Endangered Species Conservation Act of 1972, nothing in this Act shall be construed to authorize the Secretary to control or regulate hunting or fishing of resident fish and wildlife on lands *not* within the System."

The sentence that would be replaced reads: "Nothing in the Act shall be construed to authorize the Secretary to control or regulate hunting or fishing of resident fish and wildlife, including endangered species thereof, on lands *not* within the System."

The thrust of the amendment would be to give the Secretary authority over *all* species of fish and wildlife designated as endangered on all lands within a state regardless of ownership. This same language is in the House Endangered Species Act now moving through the Merchant Marine and Fisheries Committee.

4. The House version of H.R. 10420 would, in its definition of depletion, make marine mammals "subject to the provisions of the Endangered Species Act of 1969 (full definition in Item 1 above).

S. 318, in section 12, seeks to repeal sections 1-3 of the 1966 Endangered Species Act and sections 1-6 of the 1969 Endangered Species Act. Should the House definition of depletion be accepted in H.R. 10420, and if S. 3818 or something equivalent is passed, the operable Act will be the Endangered Species Act of 1972 inasmuch as the operating sections of the earlier Acts will have been repealed.

Further, with the revised wording of subsection 4(c) as noted in Item 4 above, the Federal Government will have been given authority over all resident species of fish and wildlife—when declared endangered—including largely resident marine mammals without limitation in every state when it decides a species or subspecies (but not a population stock) is endangered or likely to be under the more liberal terms for making such finding should both the House's definition of depletion be adopted in H.R. 10420 and the Endangered Species Act of 1972 (S. 3818) be approved.

5. The question has been asked if both a Marine Mammals Act and a new Endangered Species Act are needed. The answer involves two considerations:

1. It would not be necessary to have a separate Marine Mammal Act, providing a proposal could be developed as a substitute for S. 3818 that would:

(a) authorize consideration of each species of animal on a species by species basis rather than a blanket moratorium.

(b) recognize the necessity for the scientific handling of the subject, i.e. reject emotionalism.

(c) recognize and build on the traditional responsibilities of both the federal and state governments for wildlife.

(d) set federal standards to be achieved by the states.

(e) provide federal financial assistance on a cost-sharing basis and link acceptance of this with overall federal program coordination and direction.

(f) provide for federal assumption of responsibility to protect designated endangered fish and wildlife in those states (1) either refusing to participate in the program or (2) failing to live up to the national standards set for the program.

2. The Senate's version of H.R. 10420 is a marine mammals *management* Act. The House's version essentially is *preservationist*. The Senate version is correct in seeking to authorize and initiate much-needed management of these animals at federal and state levels. The problem with marine mammals is the entirely inadequate attention given them in the past.

6. Recommendations: The Senate should insist on its definition of depleted in its version of H.R. 10420. It appears that the House group's interest in winning approval: of its definition (with the link-up to the Endangered Species Act of 1972, S. 3818) is to provide a medium for quickly shifting a marine mammal species to the authority of this latter Act. The Senate Commerce Committee should reject Section 11(a) (page 25) of S. 3818. As written, the language proposes a highly controversial and unacceptable extension of federal authority into an area of historic state responsibility.

7. It appears that members of the House committee are attempting to carefully orchestrate the Marine Mammals Act and the Endangered Species Act of 1972. The House group is insisting on its definition of depletion in H.R. 10420, because the language, in addition to being a definition, would authorize shifting a marine mammal species to the endangered species program.

The Senate Conference Committee should recognize and resist this effort. The marine mammals are not endangered, as the record clearly shows.

The Senate's version of H.R. 10420 is a marine mammal management Act, not an endangered species Act. If the Senate committee permits the House view to prevail, then it will not be long before the whole marine mammal program is shifted from a philosophy of management—and that is where it should remain—to endangered species, where it should not be.

(The following material was referred to on p. 117.)

THE LIBRARY OF CONGRESS, CONGRESSIONAL RESEARCH SERVICE

POWER OF CONGRESS TO PRESERVE WILDLIFE, IN RELATION TO STATE BOUNTIES ON KILLING SAME; TREATY POWER OF CONGRESS

I. STATE LAWS

1. *Alabama*.—No laws.

2. *Alaska*.—Statutes, 16.35.050. State bounty of \$15 per wolverine, \$50 per wolf, \$30 per coyote.

16.35.140 State bounty of \$3 per hair seal in inland and coastal waters of Alaska west of 159 degrees west longitude or north of 69 degrees north latitude, except waters south of 58 degrees north latitude.

In 1971 Alaska enacted legislation to establish a program for the continued conservation, protection, restoration and propagation of certain species and subspecies of fish and wildlife that are now and may be in the future threatened with extinction. The Commissioner of Fish and Game administers this program and is charged with the duty of determining which species of fish and wildlife are threatened with extinction and must then publish a list of such endangered species, subject to periodic review. No species or subspecies of fish or wildlife listed as endangered may be harvested, captured or propagated except under a special permit issued by the Commissioner for scientific or educational purposes, or for propagation in captivity for the purpose of preservation. Violations of this law are misdemeanors (1971 Session Laws of Alaska, Ch. 115; Statutes, 16.20.180 to 16.20.210). The term "fish and wildlife" includes birds.

The State bounty laws of Alaska have not been repealed or modified since the first list was compiled. However, these bounty laws must now be read in the light of the foregoing "endangered" species law.

3. *Arizona*.—Revised Statutes, 24-821. State bounty of up to \$100 per mountain lion, up to \$50 per lobo wolf, and up to \$3.50 per coyote.

11-260 authorizes county boards of supervisors to pay bounties of \$10 per lobo or timber wolf, mountain lion, puma, panther. \$2 per coyote; 25¢ per racoon; \$1 per lynx, wildcat; 5¢ per jackrabbit, gopher, prairie dog.

4. *Arkansas*.—Statutes, 78-1501 to 1504 empowers counties to pay bounty of 10¢ per gopher and male.

78-1505 empowers counties to pay bounty of 25¢ per hawk, crow.

78-1509, 1511 empowers counties to pay bounty of \$3 per bobcat, wildcat.

78-1515, 1516 empowers counties to pay bounty on wolves, and 1516 authorizes payment of bounty of up to \$15 per wolf and up to \$5 for each wolf under 6 months of age from State Game Protection Fund. Held, sec. 1516 is unconstitutional, *Arkansas Game and Fish Com. v. Edgmon*, 235 S.W. 2d 554.

5. *California*.—No laws.
6. *Colorado*.—Revised Statutes, 8-7-7, State bounty of \$1 per coyote, and \$2 per wolf.
7. *Connecticut*.—General Statutes, 7-132. Bounty on bobcat and lynx. (by town); bounty is \$5.
7-133 empowers towns to vote a bounty for fox, rattlesnake, copperhead snake (up to \$5), up to \$1 for weasel, woodchuck, wild Belgian or German hare, and 50¢ for porcupine.
8. *Delaware*.—Delaware has repealed its bounty law (Code, 7-741).
9. *Florida*.—Statutes, 125.301. Bounty of \$2.50 for rattlesnakes.
10. *Georgia*.—No laws.
11. *Hawaii*.—No laws.
12. *Idaho*.—Code, 36-123 creates a predatory animal fund to be used, in part, by the director of the Fish and Game Department to pay any bounties which he may deem necessary to be paid for the destruction of predatory animals and birds. 36-302A defines predatory animals and birds as mountain lion, wolf, coyote, lynx, bobcat, jack rabbit, skunk, weasel; the only predatory bird is starling.
13. *Illinois*.—Smith-Hurd Statutes, 8:117-122a2 empowers county boards to pay bounties, as they may deem reasonable, on crows, groundhogs, and foxes.
14. *Indiana*.—Burns Statutes, 26-1101 to 1104 empowers county commissioners to pay a bounty up to \$20 for wolves, up to \$10 for foxes (no more than \$3 for wolf under 6 months; no more than \$5 for fox under 6 months).
1101b. provides a bounty of \$3 for foxes to be paid from county treasury.
1102, 1103 provide bounties for woodchuck, owls, hawks (up to \$2), and crows (up to 10¢).
15. *Iowa*.—Code, 350.1 authorizes counties to pay bounties "for wild animals" killed in county. This apparently means wolf, lynx, fox, wildcat, gopher, crow, groundhog, rattlesnake.
16. *Kansas*.—Kansas repealed all of its bounty laws in 1970 [1970 Laws, Ch. 110].
17. *Kentucky*.—Baldwin's Revised Statutes, 249.240 empowers fiscal courts to pay bounty of up to 15¢ for crows.
18. *Louisiana*.—No laws.
19. *Maine*.—Revised Statutes, 12:2901, State bounty of \$15 for bobcat.
20. *Maryland*.—Code, Art. 25:2 empowers county commissioners to offer bounties for hawks, owls, crows, minks, foxes, wildcats, and similar harmful wild animals and birds.
However, Art. 66c:143 forbids the State Department of Game and Inland Fish to pay bounties for any wildlife "within the State at any time." (Enacted 1968). This still lowers possible county bounties.
21. *Massachusetts*.—General Laws, 131.75 forbids a city, town, county or private organization to pay a bounty for killing or taking any bird.
22. *Michigan*.—Compiled Laws, 433.205. State bounty of \$15 for male coyote, \$20 for female coyote.
433.251. Rat bounty by county, 10¢ each.
433.281. English sparrow bounty, 2¢ each.
433.301. Starling and crow bounty, optional by county (3¢ for starling; 10¢ for crow).
23. *Minnesota*.—Minnesota repealed its bounty on bears in 1971 [348.973 repealed by 1971 Laws, Ch. 354, § 6].
24. *Mississippi*.—Code, 4863-10. State bounty of up to \$2 for foxes in rabies areas.
2890.1 authorizes counties to pay bounty of up to \$4 for bobcats; 2890.2, same, as to beaver, nutria, bobcat, up to \$5.
25. *Missouri*.—Vernon's Statutes, 279.010 county bounty of \$15 for adult wolf or coyote, \$2.50 for wolf or coyote pups. \$5 or adult wildcat (\$3 for kitten). County may reduce amount of bounty. This bounty is mandatory; county must offer it.
279.060. Empowers counties to offer bounties on gophers, moles, ground squirrels, chipmunks; limits set.
26. *Montana*.—Revised codes 84-5216 to 5221. Authorizes county bounties not to exceed \$100 for wolves or mountain lions; \$20 for pups and kittens thereof; \$5 for coyote and \$2.50 for pups. These bounties may be offered upon petition of owners of 51% of livestock.

46-1901 to 1915 provide for State bounties on predatory animals, including wolf, wolverine, coyote, mountain lion, lynx, cougar, bobcat. The matter of counties is wholly "within the sound discretion" of the Montana Livestock Commission, including amounts.

27. *Nebraska*.—No.

28. *Nevada*.—No.

29. *New Hampshire*.—Revised Statutes, 470:2. Bounty of 50¢ for porcupines, offered by towns and cities; reimbursed by State.

470:5 \$15 bounty by State on bobcats.

30. *New Jersey*.—Statutes, 23:4-59. County bounty on fox (\$3 to \$10), woodchuck (any sum up to 50¢ as county board may set), payable by Board of Chosen Freeholders. Township committee may pay from \$2 to \$5 for each fox from township funds. Further bounty from county funds of 50¢ for each fox and 25¢ for each woodchuck.

31. *New Mexico*.—No.

32. *New York*.—McKinney's Consolidated Laws of New York, Conservation Law § 206 provides that it shall be unlawful, on and after July 1, 1971, for any department or division of the State, or any political subdivision thereof, to pay bounties on the taking of wildlife, except when the State Department of Health, or any local health authorities, determine that a given type or class of animals constitutes a health hazard as carriers or potential carriers of disease. The bounty on foxes, provided for by former § 206, was repealed by Laws, 1971, C. 913, effective June 25, 1971.

33. *North Carolina*.—No laws.

34. *North Dakota*.—Century Code, 20-14-01. State bounty of 15¢ for magpie, authorizes a State bounty on crows to be set between 10¢ and 25¢ per crow.

4-16-03 permits counties to offer a bounty on gophers, rabbits, crows, in an amount the county may set.

35. *Ohio*.—Page's Revised Code, 1533.25. County bounty for crows of 25¢ each.

957.01 County ground-hog bounty of 10¢ each.

957.11 County English-sparrow bounty of 20¢ per dozen.

1533.03 County bounty of from \$1 to \$5 for foxes (red or grey).

36. *Oklahoma*.—Statutes, 4:1. State bounty of 25¢ for hawks, 25¢ for crows.

4:11. Permits county bounty of up to 5¢ for each crow, English sparrow, hawks, rabbit, prairie dog, gopher, ground squirrel.

4:21. Permits counties to offer a bounty of up to \$5 for each gray wolf or coyote.

4:29.4 authorizes Game and Fish Commissioner to pay \$2.50 for each wolf, coyote, bobcat, fox killed in a county where the fox has been declared a predatory animal, and \$1 for each pup or kitten killed in the State.

Oklahoma Statutes Annotated, 4:29.4 has expired (bounty on wolf, coyote, bobcat, fox).

37. *Oregon*.—Revised Statutes, 610.205. Empowers the counties to offer bounties on coyotes, gray and black wolves, wildcats, gray and red foxes, and seals. The counties may set amount of bounties.

610.405. Empowers counties to offer bounties on gophers, moles, gray digger squirrels and other rodents destructive of crops and gardens. Counties may set amounts.

610.505 provides for county elections on question of paying bounty on jack-rabbits. County may set bounty amount, subject to approval of voters.

38. *Pennsylvania*.—Purdon's Statutes, 34:1311-1101. Authorized Pennsylvania Game Commission to pay bounties on Canada or Bay Lynx (up to \$15), fox (up to \$4), weasel (up to \$1), goshawk or other predatory bird (up to \$5).

16:1972 empowers counties of 16th, 7th or 8th class to pay bounties on rattlesnakes, copperheads (up to \$1 each), and porcupines (up to 50¢ each).

39. *Rhode Island*.—General Laws, 20-20-1. State bounty on star-fish; amounts prescribed.

40. *South Carolina*.—Code of Laws, 28-431 authorized Colleton County to offer bounties for foxes.

28-438 authorizes any county in Game Zone 1 to offer for foxes.

28-439 creates a bounty of \$2 per fox in Greenville and Laurens counties.

41. *South Dakota*.—Compiled Laws, 40-36-15. State bounty of \$5 for wildcats; \$2 for foxes; \$5 for coyotes.

40-36-34 empowers counties east of Missouri river, upon petition of $\frac{2}{3}$ of sheep owners, to pay bounties, as they decide, on wolves, coyotes, and foxes.

40-36-37 authorizes counties to pay a bounty to \$4 for each coyote and up to \$8 for each gray wolf.

42. *Tennessee*.—No laws.

43. *Texas*.—Since Texas law on bounties is so detailed, we enclose herewith a copy.

TEXAS

ART. 190A. BOUNTY FOR DESTRUCTION OF PREDATORY ANIMALS IN CERTAIN COUNTIES

It shall hereafter be lawful for the Commissioners Court of McCulloch, San Saba, Lampasas, Mills, Erath, Limestone, Jasper, Hood, Bastrop, Brazos, Grimes, Sterling, and Childress Counties to pay out of the General Fund of said Counties, bounties for the destruction of wolves, wild cats, and other predatory animals within said Counties as hereinafter provided.

On the petition of two hundred resident freeholders of any one of said Counties, being presented to the Commissioners Court of such County, the Commissioners Court may, by resolution entered upon its Minutes, provide for the destruction of such animals and the amount of bounty to be paid for the destruction of each of said predatory animals and the method of providing such destruction so as to entitle the person destroying such predatory animals to receive said bounty. Provided, that in the Counties of Sterling and Childress, the Commissioners Court is authorized to act upon a petition of as many as fifty (50) resident freeholders of said County.

The amounts paid as bounties for the destruction of predatory animals in said Counties shall be paid by warrant drawn upon the General Fund of the County by the Judge of such County on the filing with him of such proof as the Commissioners Court may require.

Acts 1925, 39th Leg., p. 179, ch. 44, §§ 1-3; Acts 1927, 40th Leg., p. 151, ch. 100 § 1; Acts 1929, 41st Leg., p. 208, ch. 90, § 1; Acts 1929, 41st Leg., 2nd C.S., p. 43, ch. 27, § 1; Acts 1930, 41st Leg., 4th C.S., p. 46, ch. 26, § 1; Acts 1941, 47th Leg., p. 1298, ch. 572, § 1.

Historical note

Additional counties were included in this article and the proviso in the second paragraph was added by the various amendments.

Cross references

Co-operation between state and federal authorities in destroying predatory animals and rodent pests, see art. 192b.

Notes of decisions

1. *Construction and application*.—In absence of legislative authorization, Commissioners' Court of county is not authorized to pay bounty for destruction of rabid wild foxes since state health officer is only person authorized to pay bounty of such nature in rabies infected area. Op. Atty. Gen. 1952, No. V-1404.

ART. 190A-1. BOUNTIES ON COYOTE SCALPS IN McMULLEN COUNTY

The Commissioners' Court of McMullen County, in order to preserve game, is hereby authorized to pay out of the general fund, bounties on the scalps of coyotes, in such sum as they deem necessary not to exceed Fifty (\$50.00) Dollars for each scalp. Said Commissioners' Court may require such proof and adopt such rules and regulations as are necessary in order to protect the interest of the County and make assurance that one coyote has been killed for each scalp paid for.

Acts 1939, 46th Leg., Spec. L., p. 515, § 1.

ART. 190A-2. BOUNTIES FOR DESTRUCTION OF WOLVES AND PREDATORY ANIMALS IN HENDERSON, ANGELINA AND TRINITY COUNTIES

It is hereafter lawful for the Commissioners Court of Henderson, Angelina and Trinity Counties to pay out of the General Fund of said Counties bounties for the destruction of wolves and predatory animals within said Counties as hereinafter provided.

The Commissioners Court may by Resolution entered upon its minutes provide for the destruction of such wolves and predatory animals and the amount of bounty to be paid for the destruction of such, and the method of providing such

destruction so as to entitle the person destroying same to receive said bounty. The amount paid as bounty for destruction of wolves and predatory animals in said Counties shall be paid by warrant drawn upon the General Fund of the County by the Judge of such County on the filing with them of such proof as the Commissioners Court may require.

Acts 1957, 55th Leg., p. 797, ch. 332, § 1.

ART. 190b. BOUNTIES FOR DESTRUCTION OF PREDATORY ANIMALS IN CERTAIN COUNTIES

Counties to which applicable

Section 1. It shall hereafter be lawful for the Commissioners' Court of Clay, Archer, Baylor, Young, Wise, Wilbarger, Wichita, Coryell, Callahan, Jackson, Eastland, Wharton, Taylor, and Brazos Counties to pay out of the General Fund of said counties, bounties for the destruction of wolves, wildcats and other predatory animals within said counties, as hereinafter provided.

Amount of bounty

Sec. 2. On petition of two hundred resident freeholders of any one of said counties, being presented to the Commissioners Court of such county, the Commissioners' Court may, by resolution entered upon its Minutes, provide that any person who shall kill or catch in any of the above counties any wolf, coyote, jack-rabbit, panther or wildcat shall be paid not to exceed \$5.00 for each panther, wolf or wildcat scalp, and not to exceed ten cents (10¢) for each jack-rabbit scalp.

Payment of bounty

Sec. 3. The amounts paid as bounties for the destruction of predatory animals in said counties shall be paid by warrant drawn upon the General Fund of the County Judge of such county on the filing with him of such proof as the Commissioners' Court may require.

Acts 1929, 41st Leg., p. 69, ch. 35.

Cross references

Wise county, see also, art. 190e.

ART. 190c. DESTRUCTION OF PREDATORY ANIMALS IN COUNTIES HAVING POPULATION OF 11,800 TO 12,000, BOUNTIES

Bounty authorized

Section 1. That from and after the passage of this Act it shall be lawful for the Commissioners' Court of any county in this State having a population of not less than 11,800 and not more than 12,000 according to the last 1920 Federal Census, to pay a bounty for the destruction of wolves, wildcats and other predatory animals within said County.

Payment of bounty

Sec. 2. That the payment of the Bounties herein authorized shall be made from a fund created by the levy of taxes which the Commissioners' Court of said county is hereby authorized to levy, at a rate of not to exceed one-fourth of one mill on the total assessed valuation of the county.

Acts 1929, 41st Leg., 1st C.S., p. 257, ch. 107.

Historical note

Section 3 of Acts 1929, 41st Leg., 1st C.S. p. 257, ch. 107, provides that it shall be cumulative of other acts relating to destruction of predatory animals and not as repeal thereof.

ART. 190d. WOLF BOUNTIES IN SHACKELFORD COUNTY

The Commissioners' Court of Shackelford County, in order to preserve game, is hereby authorized to pay out of the general fund, bounties on the scalps of wolves, in such sum as they deem necessary not to exceed Fifty (\$50.00) Dollars for each scalp. Said Commissioners' Court may require such proof and adopt such rules and regulations as are necessary in order to protect the interest of the County and make assurance that one wolf has been killed for each scalp paid for.

Acts 1930, 41st Leg., 5th C.S., p. 191, ch. 48, § 1.

ART. 190d.-1. WOLF BOUNTIES IN PANOLA COUNTY

The Commissioners Court of Panola County, in order to preserve game, is hereby authorized to pay out of the General County Fund bounties on wolves killed in the County at not to exceed Twenty-five Dollars (\$25) for each wolf killed. Said Commissioners Court may require such proof and adopt such rules and regulations as are necessary in order to protect the interest of the County and make assurance that one animal has been killed for each wolf paid for.

Act 1959, 56th Leg., p. 561, ch. 251, § 1, eff. May 26, 1959.

Historical note

Title of Act.—An Act granting the Commissioners Court of Panola County the privilege of paying bounties on wolves killed in the County at not to exceed Twenty-five Dollars (\$25) for each wolf; and declaring an emergency, Acts 1959, 56th Leg. p. 561, c. 251.

Library references

Agriculture key 9.
Bounties key 8.
C.J.S. Agriculture § 30 et seq.
C.J.S. Bounties § 13.

ART. 190e. BOUNTIES ON WOLF SCALPS IN JACK AND OTHER COUNTIES

In Wise, Jack and Young Counties the Commissioners' Court of the County, in order to preserve game, is hereby authorized to pay out of the General County Fund bounties on the scalps of wolves killed in the county, not to exceed Fifty Dollars for each scalp. Said Commissioners' Court may require such proof and adopt such rules and regulations as are necessary in order to protect the interest of the county and make assurance that one animal has been killed for each scalp paid for.

Acts 1930, 41st Leg., 4th C.S., p. 88, ch. 47, § 1.

Cross references

Wise county, see also, art. 100b.

ART. 190f. DESTRUCTION OF RAVENS AND PREDATORY ANIMALS IN CALLAHAN AND OTHER COUNTIES

It is hereafter lawful for the Commissioners Courts of Callahan, Eastland, and Taylor Counties to pay out of the General Fund of said Counties bounties for the destruction of ravens, rabbits, rattlesnakes, and other predatory animals within said Counties as hereinafter provided.

The Commissioners Courts may by resolution entered upon its minutes provide for the destruction of such ravens, rabbits, rattlesnakes, and other predatory animals and the amount of bounty to be paid for the destruction of such, and the method of providing such destruction so as to entitle the person destroying same to receive said bounty. The amount paid as bounty for destruction of ravens, rabbits, rattlesnakes, and other predatory animals in said Counties shall be paid by warrant drawn upon the General Fund of the Counties by the Judges of such Counties on the filing with them of such proof as the Commissioners Courts may require.

Acts 1937, 45th Leg., p. 500, ch. 251, § 1.

ART. 190g. BOUNTIES ON RATTLESNAKES AND PREDATORY ANIMALS IN BELL COUNTY

It is hereafter lawful for the Commissioners Court of Bell County to pay out of the General Fund of said County bounties for the destruction of rattlesnakes and predatory animals within said County as hereinafter provided.

The Commissioners Court may by resolution entered upon its minutes provide for the destruction of such rattlesnakes and predatory animals and the amount of bounty to be paid for the destruction of such, and the method of providing such destruction so as to entitle the person destroying same to receive said bounty. The amount paid as bounty for destruction of rattlesnakes and predatory animals in said County shall be paid by warrant drawn upon the General Fund of the County by the Judge of such County on the filing with them of such proof as the Commissioners Court may require.

Acts 1937, 45th Leg., 1st C.S., p. 1804, ch. 28 § 1.

ART. 190g-1. BOUNTIES ON RATTLESNAKES AND PREDATORY ANIMALS IN BURNET COUNTY

It is hereafter lawful for the Commissioners Court of Burnet County to pay out of the General Fund of said County bounties for the destruction of rattlesnakes and predatory animals within said County as hereinafter provided.

The Commissioners Court may by resolution entered upon its minutes provide for the destruction of such rattlesnakes and predatory animals and the amount of bounty to be paid for the destruction of such, and the method of providing such destruction so as to entitle the person destroying same to receive said bounty. The amount paid as bounty for destruction of rattlesnakes and predatory animals in said County shall be paid by warrant drawn upon the General Fund of the County by the Judge of such County on the filing with them of such proof as the Commissioners Court may require.

Act. 1941, 47th Leg., p. 6, ch. 23, § 1.

ART. 190g-2. BOUNTIES ON RATTLESNAKES AND PREDATORY ANIMALS IN CERTAIN COUNTIES

It is hereafter lawful for the Commissioners Courts of Crockett, Sutton, Menard, Mason, Kimble, Kerr, Bandera, Real, Edwards, Schleicher, Tom Green, Irion, Medina, Webb, and Zapata Counties to pay out of the General Fund of said Counties bounties for the destruction of rattlesnakes and predatory animals within said Counties as hereinafter provided.

The Commissioners Court in each County above named may by resolution entered upon its minutes provide for the destruction of such rattlesnakes and predatory animals and the amount of bounty to be paid for the destruction of such, and the methods of providing such destruction so as to entitle the person destroying same to receive said bounty. The amount paid as bounty for destruction of rattlesnakes and predatory animals in said Counties shall be paid by warrant drawn upon the General Fund by the Judge of such Counties on the filing with them of such proof as the Commissioners Court may require.

Acts 1941, 47th Leg., p. 671, ch. 413, § 1.

ART. 190g-3. BOUNTIES ON RATTLESNAKES AND PREDATORY ANIMALS IN WILLIAMSON COUNTY

It is hereafter lawful for the Commissioners Court of Williamson County to pay out of the General Fund of said County bounties for the destruction of rattlesnakes and predatory animals within said County as hereinafter provided.

The Commissioners Court may by Resolution entered upon its minutes provide for the destruction of such rattlesnakes and predatory animals and the amount of bounty to be paid for the destruction of such, and the method of providing such destruction so as to entitle the person destroying same to receive said bounty. The amount paid as bounty for destruction of rattlesnakes and predatory animals in said County shall be paid by warrant drawn upon the General Fund of the County by the Judge of such County on the filing with them of such proof as the Commissioners Court may require.

Acts 1945, 49th Leg., p. 47, ch. 29, § 1.

ART. 190g-4. BOUNTIES ON RATTLESNAKES AND PREDATORY ANIMALS IN CERTAIN COUNTIES

Section 1. The Commissioners Courts of San Patricio, Bee, Aransas, and Refugio Counties, Texas, in order to preserve game, and to protect the interest of livestock and poultry raisers of said Counties, is hereby authorized to pay out of the general fund of said Counties bounties for the destruction of rattlesnakes, wolves, coyotes, panthers, bobcats, and other predatory animals; said bounty to be set by the Commissioners Courts of San Patricio, Bee, Aransas, and Refugio Counties, Texas, at an amount not to exceed Five Dollars (\$5) per animal for wolves, coyotes, panthers and bobcats; Fifty (50) Cents for coons, skunks, opossum, and the like animals, and Ten (10) Cents for rattlesnakes; said Commissioners Courts, by resolution entered upon the minutes of the Commissioners Courts, to specify the amount of bounty to be paid for each of the said predatory animals and for rattlesnakes not to exceed the amounts as set forth above; and to prescribe such proof and regulations as are necessary in order to protect the interests of such Counties.

Sec. 2. Such bounties as may be prescribed by the Commissioners Courts of San Patricio, Bee, Aransas, and Refugio Counties, for the destruction of rattlesnakes and predatory animals, shall be paid upon warrant drawn by the County Judge on the general fund of said Counties.

Acts 1945, 49th Leg., p. 154, ch. 105.

ART. 190h. BOUNTIES ON PREDATORY ANIMALS AND RATTLESNAKES IN ALL COUNTIES

Section 1. From and after the effective date of this Act all County Commissioners Courts throughout the State of Texas may pay a bounty not to exceed Five Dollars (\$5) out of the General Fund of the County for the killing of all Jaguar, Cougar, Ocelot, Jaguarondi, Bob Cat, Gray Wolf, Red Wolf, Florida Wolf, Coyote, Javelina and Rattlesnake. The Commissioners Courts shall have authority to determine what animals are predatory within said County and said Court may further determine eligibility of persons to whom bounties will be paid.

Sec. 2. The amounts paid as bounties for the destruction of predatory animals in any county shall be paid by a warrant drawn upon the General Fund of the county by the Judge of said county upon the filing with him of such proof as the Commissioners Court may require. Acts, 1945, 49th Leg., p. 83, ch. 59.

ART. 190i. RABID FOXES AND OTHER WILD ANIMALS; BOUNTIES
STATE HEALTH OFFICER'S DUTIES

Section 1. It shall be the duty of the State Health Officer to determine and define the boundaries of all areas of the State in which foxes or other wild animals infected with rabies exist in sufficient numbers to be a menace to the health of that area. Such determinations shall be based upon a finding of fact by the State Health Officer; providing further that the State Health Officer shall cause to be published in a newspaper within each county within the defined area that a bounty exists in the county concerned.

Sec. 2. When the State Health Officer finds that the health of such area is menaced by rabies because of rabid foxes or other wild animals, and defines the area where such menace exists, he shall pay a bounty of Two Dollars (\$2) for each and every fox or other wild animal destroyed in the defined area. For purposes of such payments the Health Officer shall have the power to require such evidence as proof of the destruction of a fox or other wild animal as he shall deem necessary.

Sec. 3. When the number of rabid foxes or other wild animals in any defined area is reduced to the extent that the destruction of such foxes or other wild animals is no longer necessary then the State Health Officer shall cease payment of the bounties, and shall serve notice to the public in the area concerned through publication in at least one (1) newspaper in each county concerned.

Sec. 4. For purposes of administering the provisions of this Act and for payment of the bounties so provided, there is appropriated out of the General Revenue Fund from moneys, not otherwise appropriated, Fifteen Thousand Dollars (\$15,000) to the State Health Officer, any excess to be returned to the General Revenue Fund after eradication of rabid foxes or other wild animals. A budget for the appropriation herein made shall be submitted to and approved by the Legislative Audit Committee before any funds may be disbursed.

Sec. 5. It shall be lawful for any person to kill, take, hunt, catch or destroy wild foxes or other wild animals at any time in the affected area, as determined by the State Health Officer, and the hides and pelts of any wild foxes or other wild animals so taken within such defined area may be sold during the trapping season.

Sec. 6. All laws or parts of laws in conflict herewith are hereby specifically repealed.

Sec. 7. If it shall be held by any Court of competent jurisdiction that any section, sentence, or part of this Act is invalid, it is nevertheless declared to be the legislative intent that this Act would have been the same is hereby enacted regardless of any such invalidity of any part thereof.

Acts 1947, 50th Leg., p. 229, ch. 133.

ART. 190j. BOUNTIES ON RABBITS IN BORDEN COUNTY

The Commissioners Court of Borden County, in order to prevent property damage, is hereby authorized to pay out of the General County Fund bounties on wild rabbits killed in the County at not to exceed Ten Cents (10¢) for each wild rabbit killed. Said Commissioners Court may require such proof and adopt such rules

and regulations as are necessary in order to protect the interest of the County and make assurance that one (1) animal has been killed for each rabbit paid for. Acts 1959, 56th Leg., p. 580, ch. 263, § 1, eff. May 26, 1959.

Historical note

Title of Act.—An Act granting the Commissioners Court of Borden County the privilege of paying bounties on wild rabbits killed in the County at not to exceed Ten Cents (10¢) for each rabbit; and declaring an emergency. Acts 1959, 56th Leg., p. 580, ch. 263.

Library references

Agriculture ⇔ 9.

Bounties ⇔ 8.

C.J.S. Agriculture § 30 et seq.

C.J.S. Bounties § 13.

44. *Utah.*—Code, 4-6-4. State bounty on mountain lion or cougar, grey, black, or timber wolf, coyote, lynx, or bobcat (amount to be set by State Board of Agriculture).

45. *Vermont.*—Vermont has repealed all its animal bounty laws [10:5301-5304].

46. *Virginia.*—Code, 29-159 permits counties to pay bounty on sharp-skinned hawk (50¢); goshawk (50¢); Cooper's hawk (50¢); great horned owl (50¢); crows (15¢—only from April through September).

29-160 permits counties to pay bounty of up to 50¢ per skunk or groundhog.

15.1-521 permits counties to pay bounty of up to \$10 for wolf; up to \$3 for wildcat, catamount, grey or red fox, up to 50¢ for chicken hawk, crow, owl, except screech owl.

47. *Washington.*—Revised Code, 77.24.020. State bounty on cougar (up to \$100); lynx (up to \$25); bobcat (up to \$25); coyote (up to \$20); coyote pup (up to \$5); any other animal or bird classified by State Game Commission as predatory (up to \$5). Commission sets bounty amount.

75.16.040. State bounty of from \$3 to \$10 (Director of Fisheries sets amount) on seals and sea lions in State waters.

48. *West Virginia.*—Code, 7-4-2 empowers counties to offer "reasonable bounties" for destruction of "noxious animals, birds of prey."

49. *Wisconsin.*—Statutes, 29.61 empowers counties, towns, cities, villages to pay a bounty, as they may determine, on crow, sharp-skinned or Cooper's hawks, pocket or streaked gopher, black, brown, gray or Norway rat (house or barn rat), rattlesnake, ground hog or woodchuck, mole, red or grey fox, wolf or coyote, wildcat, lynx, weasel.

50. *Wyoming.*—Statutes, 11-84. State bounties on bobcat, coyote, grey or black wolf (\$2); mountain lion (\$15).

II. UNITED STATES LAW

(a) *Statutes.*—There are no Federal laws providing for the payment of bounties for animals or birds. However, it may be that bounty programs are actually conducted under such laws as 7 U.S.C. 426, which authorizes the Secretary of Agriculture to conduct campaigns for the destruction and control of such predatory animals as mountain lions, wolves, coyotes, bobcats, etc. on Federal, State and private lands, insofar as he is permitted to "cooperate with States, individuals, and public and private agencies, organizations, and institutions" in such campaigns. This could possibly include the payment of bounties to individuals.

III. TREATIES

1. Multilateral

(a) Convention between United States and other American Republics of October 12, 1940 (56 Stat. 1354; T.S. 981), for the purpose of protecting nature and wildlife, including migratory birds, both within national parks and preserves and elsewhere in the country (Art. V, wherein the contracting parties agree to adopt suitable laws and regulations for the protection and preservation of flora and fauna within their national boundaries." The contracting parties agree in Art. VII to adopt appropriate measures to protect migratory birds or to prevent the threatened extinction of any given species. Art. VIII refers to the list of threatened species of wildlife (contained in the Annex which comprises the lists of species transmitted by interested Governments to the Pan American Union, Washington, D.C.; these lists are printed in *Treaty Series 981*, pp. 27-77, and

are considered flexible rather than permanent, and may be altered from time to time by the respective Governments by the addition or removal of such species from the lists as changes and conditions may warrant), and provides that they shall be protected from hunting, killing, etc. as completely as possible, and permission to take or kill them shall be granted only under special circumstances, in order to further scientific purposes, or to better administer the area where the animal or plant is found.

(b) Convention on Fishing and Conservation of the Living Resources of the High Seas, April 29, 1958 (17 UST 140). This treaty, among other things, provides for the contracting parties to take measures for the conservation of the living resources of the high seas adjacent to their territories and would enable the United States to take such measures, superseding any contrary State laws.

(c) International Convention for the Northwest Atlantic Fisheries, February 8, 1949 (1 UST 478). This treaty has as its purpose the conservation of the fishery resources of the Northwest Atlantic Ocean, and is to investigate, protect and conserve those fisheries in order to make possible the maintenance of a maximum catch from those fisheries. This convention applies to mullusks as well as to finny fish, and to harp and hood seals, in the treaty area.

(d) Convention establishing the Inter-American Tropical Tuna Commission, May 31, 1949 (1 UST 230). The contracting parties express their concern with the preservation of yellow-fin and skipjack tuna in the eastern Pacific Ocean, and agree to take steps to conserve the population of these fish.

(e) International Convention for the High Seas Fisheries of the North Pacific Ocean, May 9, 1952 (4 UST 382). This treaty is for the conservation of fish in the area specified and named species are Halibut, herring, salmon, but the list is subject to amendment.

(f) Interim Convention on Conservation of North Pacific Fur Seals, February 9, 1957 (UST 2283), and Protocol thereto (15 UST 316). This convention is designed to conserve the fur seal resources of the North Pacific Ocean for purposes of bountiful annual harvests, and specifically (Art. X) empowers the contracting powers to enact such legislation as may be necessary to guaranty observance of the convention.

This convention was continued in force for eighteen years (from September 3, 1969) "and thereafter until the entry into force of a new or revised fur seal convention between the Parties, or until the expiration of one year after such period of eighteen years, whichever may be earlier . . ." September 3, 1969, 20 UST 2992, TIAS 6774.

(g) Convention for the Regulation of Whaling, September 24, 1931 (49 Stat. 3079). This convention to regulate whaling is designed to conserve the world supply thereof and applies only to baleens or whalebone whales. The contracting parties agree to enact appropriate laws and regulations to enforce the convention within their jurisdictions. The convention applies to the high seas and to national and territorial waters. (This convention is still in force, despite the conclusion of the whaling convention next below).

(h) International Convention for the Regulation of Whaling, December 2, 1946 (62 Stat. 1716). This convention has the same purpose as the convention listed in item "g" above, but applies to all whales in the waters of the world. Of particular interest to the present purpose is Art. IX, Sec. 2 which provides:

"No bonus or other remuneration calculated with relation to the results of their work shall be paid to the gunners and crews of whale catchers in respect of any whales the taking of which is forbidden by this Convention."

Thus, the convention would empower the United States to enact laws to abolish State bounties on whales, even if it did not otherwise have the constitutional power to do so. (Protocol thereto, November 19, 1956, to UST 952).

(i) (new matter) International Convention for the Conservation of Atlantic Tunas; done at Rio de Janeiro, May 14, 1966; Proclaimed by the President October 1, 1969, entered into force March 21, 1969; 20 UST 2887.

The contracting parties agree to take measures to conserve the populations of tuna and tuna-like fishes found in the Atlantic Ocean, recognizing their mutual interest in conserving this food supply. Art. IX provides that the contracting parties agree to "take all action necessary to ensure the enforcement of this Convention."

(j) Convention for the Conservation of Antarctic Seals, March 8, 1972. This convention is a multilateral one. It has not yet been submitted to the Senate for ratification. The text is at p. S3661 of the Congressional Record for March 8, 1972. Protected by this accord are specified species of seals found in the Antarctic.

Article 2 provides for implementation wherein each Contracting Party agrees to adopt for its nationals and vessels such laws, regulations and other measures, including a permit system as appropriate, as may be necessary to implement this Convention.

(k) Agreement Between the United States, Japan, and the Soviet Union on the regulation of North Pacific whaling (pursuant to the International Convention for the Regulation of Whaling of 1946—see previous list), signed at Tokyo July 30, 1971, entered into force July 30, 1971 (TIAS 7188). This agreement sets the open season for whaling operations for the pelagic baleen and the pelagic sperm whale for 1972 and sets the allocation of the total whale catch under the Convention among the signatory parties. This Agreement expires December 31, 1972.

2. *Bilateral*

(a) Convention between United States and Canada to regulate and conserve sockeye salmon in Fraser River system, May 26, 1930 (50 Stat. 1355).

(b) Convention between United States and Canada for the Preservation of the Halibut Fishery of the Northern Pacific Ocean and Bering Sea, March 2, 1953 (5 UST 5).

(c) Convention on Great Lakes Fisheries between United States and Canada, September 10, 1954 (6 UST 2836). This treaty provides, in Art. X, that local laws of the United States and Canada may apply so long as they do not interfere with the treaty. As is the usual case, the contracting parties agree to enact such legislation as may be necessary to carry out the treaty.

(d) Convention between United States and Great Britain for the Protection of Migratory Birds (applicable to Canada), August 16, 1916 (39 Stat. 1702). This treaty is designed to preserve various species of migratory birds which fly between United States and Canada. Pursuant to this treaty, the United States enacted legislation which became the subject of the *Holland* case, which see, and the discussion there presented.

(e) Convention between United States and Cuba for the Conservation of Shrimp, August 15, 1958 (10 UST 1703). This convention is aimed at conserving the supply of shrimp in waters of the Gulf of Mexico off the coast of Cuba and the Florida coast of the United States.

(f) The agreement between the United States and Japan of November 25, 1964 relating to King crab fishing in the eastern Bering Sea was replaced by an exchange of notes forming an agreement dated December 11, 1970 (21 UST 2742) covering fishing by the two countries for King crab and Tanner crab in this area. Since the two parties look toward the conservation of this food supply, one might expect enforcement measures from this agreement resulting in the protection of these crabs.

(g) Convention between United States and Mexico for the Protection of Migratory Birds and Game Mammals, February 7, 1936 (50 Stat. 1311). This is similar to the migratory bird treaty with Canada, and the contracting parties agree to enact laws and regulations to carry out the treaty's purpose of preserving migratory birds which live partly in each country. Despite its name, the convention apparently does not apply to any game mammals.

(h) (new matter) Migratory Bird Treaty (Japan), March 4, 1972. The text of this treaty is not at this time available to us; it has not been published in the Congressional Record and has not yet been submitted to the Senate. It may be obtained from the Department of State. It is presumed that it will be similar to other such treaties in that it will probably provide for enforcement by the Contracting parties.

(i) (new matter) Agreement Between the United States and the Soviet Union, signed at Washington February 12, 1971; TIAS (1971) 7044. This agreement specifies fishing rights for the King and Tanner Crab in the eastern Bering Sea and looks toward their conservation by prescribing the amounts and methods for taking such creatures.

(j) (new matter) Agreement Between the United States of America and the Soviet Union, signed at Washington, February 12, 1971 (TIAS 7046-1971); entered into force February 12, 1971. This Agreement covers certain fisheries problems in the North-eastern part of the Pacific Ocean off the coast of the United States, and includes all types of fish found in the area. Its principal aim is the conservation of fish stocks in the area.

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Article 2 provides for implementation wherein each Contracting Party agrees to take for its national and vessels such laws, regulations and other measures, including a permit system as appropriate, as may be necessary to implement this Convention.

(12) Agreement between the United States, Japan and the Soviet Union on the Regulation of North Pacific Whaling pursuant to the International Convention for the Regulation of Whaling of 1946-see previous item; signed at Tokyo July 30, 1947, entered into force July 30, 1947 (T.I.S. 1142). This agreement sets the open season for whaling operations for the pelagic baleen and fin whale sperm whales for 1947 and sets the allocation of the total whaling catch under the Convention among the Contracting Parties. This Agreement expires December 31, 1947.

(13) Convention between United States and Canada to regulate and conserve the salmon in the Fraser River system May 26, 1920 (50 Stat. 1427). This Convention between United States and Canada for the preservation of the Hudson Fishery of the Northern Pacific Ocean and Bering Sea, March 2, 1925 (42 Stat. 173).

(14) Convention on Great Lakes Fisheries between United States and Canada, signed at Detroit (U.S.T. 2282). This treaty provides in Article X that legislation of the United States and Canada, any state or province, do not interfere with the treaty. As far as the United States is concerned, the contracting parties agree to meet each other from time to time to carry out the treaty.

(15) Convention between United States and Great Britain for the Protection of Migratory Birds (applicable to Canada), June 16, 1916 (40 Stat. 1042). This treaty is designed to preserve various species of migratory birds which are found in United States and Canada. Pursuant to the treaty, the United States has agreed legislation which became the subject of the Wallace case, which see, and the same action there prescribed.

(16) Convention between United States and Cuba for the Conservation of Fishery, June 12, 1928 (46 U.S.T. 1703). This convention is aimed at conserving the marine life within the waters of the Gulf of Mexico off the coast of Cuba and the Florida coast of the United States.

(17) The agreement between the United States and Japan of November 25, 1947, relating to King crab fishing in the Bering Sea was signed by an exchange of notes. Pursuant to an agreement dated December 11, 1947 (42 U.S.T. 2713) covering fishing by the two countries for King crab and Tanner crab in the area, the two parties look toward the conservation of this food supply, and also expect arrangements from this agreement resulting in the proper management of the stocks.

(18) Convention between United States and Mexico for the Protection of Migratory Birds and Game Animals, February 7, 1916 (40 Stat. 1011). This treaty, signed by the migratory bird treaty with Canada, and the contracting parties agree to each laws and regulations to carry out the treaty's purpose of protecting migratory birds which live partly in each country. Despite its name, the convention apparently does not apply to any game animals.

(19) The Migratory Bird Treaty (Japan), March 4, 1917. The text of this treaty is not at this time available in any form. It has not been published in the Congressional Record and has not been submitted to the Senate. It may be obtained from the Department of State. It is presumed that it will be similar to other such treaties in that it will provide for enforcement by the Contracting parties.

(20) The new matter Agreement Between the United States and the Soviet Union signed at Washington February 12, 1947; T.I.S. (1947) 704. This agreement provides for the joint and Tanner crab in the eastern Bering Sea and looks toward their conservation by prescribing the amounts and methods for taking such crabs.

(21) The new matter Agreement between the United States of America and the Soviet Union signed at Washington February 12, 1947; T.I.S. 704B-704C. This agreement sets forth the joint and Tanner crab in the eastern Bering Sea and looks toward their conservation by prescribing the amounts and methods for taking such crabs.

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Division of Fisheries

