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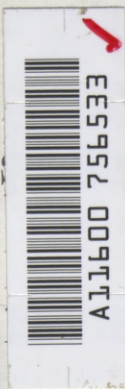
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FISH AND WILDLIFE CONSERVATION ACT OF 1980  
AND  
AUTHORIZATIONS FOR WILDLIFE REFUGES

DOCUMENTS

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HEARING

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BEFORE THE

COMMITTEE ON RESOURCE PROTECTION

OF THE

COMMITTEE ON

ENVIRONMENT AND PUBLIC WORKS

UNITED STATES SENATE

NINETY-SIXTH CONGRESS

SECOND SESSION

ON

S. 2181

A BILL TO ASSIST THE STATES IN DEVELOPING FISH AND  
WILDLIFE CONSERVATION PLANS AND ACTIONS, AND FOR  
OTHER PURPOSES

145

FEBRUARY 4, 1980

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# FISH AND WILDLIFE CONSERVATION ACT OF 1980 AND AUTHORIZATIONS FOR WILDLIFE REFUGES

MONDAY, FEBRUARY 4, 1980

U.S. SENATE,  
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,  
SUBCOMMITTEE ON RESOURCE PROTECTION,  
*Washington D.C.*

The subcommittee, met, pursuant to notice, at 9:05 a.m., in room 4200, Dirksen Senate Office Building, Hon. John H. Chafee (chairman of the subcommittee) presiding.

Present: Senators Chafee and Burdick.

## OPENING STATEMENT OF HON. JOHN H. CHAFEE, U.S. SENATOR FROM THE STATE OF RHODE ISLAND

Senator CHAFEE. Good morning. I thank each of you for coming. The hearing this morning will deal with both the Fish and Wildlife Conservation Act of 1980, the so-called nongame bill, and authorization for a number of new Federal wildlife refuges. We have quite a few witnesses and considerable subject matter to cover so I urge those testifying to remember that brevity and conciseness will be much appreciated.

In reviewing the subjects for the hearing it seemed to me that a nongame program and wildlife refuges are somewhat of an "odd couple." It troubled me a little at first, but on further consideration some thoughts occurred to me that I'd like to take a moment to share with you.

In one sense the topics of the hearing are indeed related. Both the refuges and the nongame legislation should be basic tools for stewardship of this Nation's wildlife. Setting aside certain lands as refuges is a tried and tested method for preserving and enjoying wildlife. On the other hand, managing nongame wildlife is a new concept. We hope the legislation before us today will enable the States to make this new wildlife management approach as valuable and successful a tool as some of the more conventional game management techniques. It is our further hope that nongame management will, through this legislation, take its place alongside traditional game management and move the country toward the ultimate goal of true ecosystem protection and management. This is a lofty goal I know, but I am sure it can be achieved through the hard work of dedicated professionals and an interested and understanding citizenry. If this unified approach to wildlife management is adopted then all those interested in this country's wildlife, no matter what their persuasion will ultimately benefit.

Since nongame management is a relatively new legislative concept it should be understood that the subcommittee is not wedded to any specific provision of S. 2181 and in fact seeks and welcomes the thoughts and suggestions of today's witnesses concerning the bill. I am particularly looking forward to your thoughts on the approach to funding taken in the bill. Secure and adequate funding of wildlife programs has traditionally been a problem. Many have suggested that an excise tax such as that contained in S. 2181 is the best answer to this difficulty, but more information is needed to substantiate this fact. I hope today's hearing will get this information both pro and con before the committee.

I am also keenly interested in hearing from the witnesses about the types of programs they envision being developed through this legislation and whether there are States which have such programs past the planning stage and ready for implementation. Hopefully, today's panels can shed some much needed light on these areas of concern.

I look forward to hearing from Mr. Greenwalt about the wildlife refuge proposals which the administration is considering. As I have said before the refuge system is an important part of our overall wildlife management strategy and this committee is always glad to hear of ways that it can be expanded and improved.

Before we get to the witnesses, I would like to place two items in the record. The first is a paragraph from the section dealing with wildlife excerpted from the President's environmental program of 1977 and the second is an editorial from the Washington Post dated October 7, 1976.

[The material referred to follows:]

[From the President's Environmental Program, 1977]

#### WILDLIFE

When explorers and settlers from Europe first came to America, they were astonished at the richness and variety of wildlife in our lands and waters. Faced with such abundance, for years most Americans have valued only game species of wildlife. Our allocation of federal funds for wildlife research and management still reflects this outdated view. Ninety-seven out of every hundred federal wildlife dollars are devoted to the less than one percent of vertebrate species that are hunted or fished for commerce or sport. To the rest, little attention has been given, even though they are part of the biological system that sustains us. To correct this imbalance, I am directing the Secretary of the Interior (1) to encourage states to apply existing federal-aid funds to the management of all species of wildlife, and (2) to propose other measures to improve the conservation of nongame wildlife.

[From the Washington Post, Oct. 7, 1976]

#### POLICY ON WILDLIFE

Changes in public policy are often so gradual that years pass before it is realized that a new direction has been taken. We have in mind some recent calls for change in the government's approach to wildlife conservation. A recent three-day conference on "Wildlife and America," sponsored by the federal Council on Environmental Quality, provided a forum for views once dismissed as the illusions of environmentalists. Russell W. Peterson, the retiring chairman of CEQ, said that "in speaking of wilderness and wildlife we aren't talking about the endangered elk, the snowshoe rabbit, the desert pupfish or any other isolated species of nature. We are, rather, speaking of an entire system of relations beginning with bacteria in the ground and extending to the loftiest Douglas fir. Many of these systematic

relationships affect man. We don't know enough about most ecosystems to predict the effects of disrupting them."

The disruptions—from excessive dredging, strip mining and forest mismanagement to illegal hunting—are not going to stop because of speeches. But the philosophy of disruption is surely challenged when the administrator of the Environmental Protection Agency, Russell Train, laments that 97 per cent of federal money for wildlife management "goes to less than three percent of the species—the ones used for hunting, trapping and fishing." The narrowness is obvious. Arguing against definitions of wildlife that are "too restrictive," Mr. Train said that "state and federal officials can no longer be content with only satisfying the traditional constituency of hunters and other sportsmen . . . we must move as rapidly as we can, at both state and federal levels, to redirect and redesign our wildlife activities so that they reflect . . . a definition that embraces all living animal life, both vertebrate and invertebrate, from butterfly to moose. (This) definition implies that, while some species may be more important than others at different times, at different places for different reasons, each is an integral part of the wildlife resources we are responsible for maintaining."

It is possible that some elements of the hunting and gun community will attack Mr. Train for his views, but with one-third of the nation's land managed by the federal government, the concerns of special interest groups on that land are secondary. The conservation ethic advanced at the conference is based on the sound notion that, if public lands belong to all the people, then the government ought to be broadly involved in protecting the wildlife on those lands.

If we understand Mr. Train and Mr. Peterson, the time has come when our role as exploiters, destroyers or even masters of wildlife is no longer justified. We are called now to be stewards who must honor a trust. If such thinking represents a change in public policy, then credit is owed to the CEQ for providing the forum.

Senator CHAFEE. We have a full morning and we look forward to getting started. I will ask the first panel to come up. That consists of Mr. Dunstan from the National Audubon Society, the regional representative.

You are in the Pennsylvania region?

Mr. DUNSTAN. Yes; I cover six States. My office is in Pennsylvania.

Senator CHAFEE. Ms. Perkins, who is the legislative associate for the Humane Society of the United States. I guess she is not here. Dr. Michael Berger, assistant director, Resources Defense Division of the National Wildlife Federation. We are throwing everybody off stride by starting on time here today. Dan Poole from the Wildlife Management Institute, Mrs. Christine Stevens, secretary, Society for Animal Protection Legislation, and Dr. Geis, who is chairman of the urban affairs and regional planning of the Wildlife Society.

Here is Marguerite Perkins.

Let's see, Ms. Perkins, why don't you sit right there and get your breath. Why don't we just take them in the order—Mr. Dunstan, why don't you go first? We will go in the order as we listed them. You have a statement, I think.

**STATEMENT OF FRANK DUNSTAN, REGIONAL REPRESENTATIVE,  
NATIONAL AUDUBON SOCIETY, HARRISBURG, PA.**

Mr. DUNSTAN. Yes; thank you, Mr. Chairman. We appreciate this opportunity to testify before you today. My name is Frank Dunstan, Mid-Atlantic regional representative of the National Audubon Society. Since we have provided the subcommittee with our written testimony and have testified at various other hearings concerning similar bills over the past 3 years, I will briefly summarize our statement. I ask that our written statement be included in the hearing record. (See p. 135.)

I think, Mr. Chairman, the need for an expanded fish and wildlife program, federally financed, planned, and implemented at the State level, has not diminished but intensified during these past 3 years.

One of the significant provisions in the proposed legislation is the development of fish and wildlife conservation plans. It creates a mechanism that is needed for developing information on fish and wildlife at the State level.

We believe inventory and assessment is a very important aspect of this bill. It begins a process that can be refined over time. We think it will be important in lessening environmental/developer conflicts and lead to wiser land-use decisions in the future.

I would like to just briefly talk about or give you a few examples of what the National Audubon Society has done over the past 75 years, as I attempt to illustrate some of the projects we believe the States could begin doing if this legislation were passed and if funding was provided for the conservation action part of the legislation.

One example which is illustrative, is Project Puffin. It is nothing less than the recreation of an abandoned seabird colony. Nearly a century ago the Atlantic puffin nested on offshore islands along the coast of New England. However, man's activities caused this species to abandon these traditional nesting islands. Today, 71 percent of what is left of the Atlantic North American Puffin population breeds on an island, 1-mile long and ½-mile wide, in Witless Bay, Newfoundland. Many of the human activities of the last century which forced the birds to leave their U.S. islands have ceased, but natural recolonization by puffins has not occurred. One of the prime reasons is the homing instinct of seabirds, which brings them back to breed on the island where they fledged.

In this Audubon experiment we are relocating young chicks from the island off Newfoundland to an island off the coast of Maine. There we created artificial burrows in which we raise the young birds until they can fly. They are then released to the wild.

A young puffin takes about 5 years before it reaches breeding maturity. They remain at sea during this period. So it is a long-term investment of time and money. We must release a sufficient number of these young birds to insure adequate numbers surviving the adolescent period. We believe the surviving adults will return to Eastern Egg Rock in Maine to breed thereby reestablishing a nesting colony.

Senator CHAFEE. What is the name of that island?

Mr. DUNSTAN. Eastern Egg Rock off the coast of Maine, the Allen Cruickshank Sanctuary of the National Audubon Society.

In another project, we are cooperating with the Government of Bermuda in trying to establish a yellow-crowned night heron population there. It seems they have a land crab which burrows and this crab has become overpopulated. Their burrowing activity is accelerating the rate of erosion on the islands.

The yellow-crowned night heron is a crab eater. We feel by reintroducing this heron species we can introduce an efficient predator which will control the land crab population. Initial results of this project show that it is successful. Some of the released birds are staying there and are feeding on the land crab. On one small island, we found that the land crab population was significantly reduced. This is a good example of what can be achieved through conservation action.

Mr. Chairman, we are pleased with the way the bill is written and and we found no major areas in the planning or in the conservation action portion which we feel need to be changed at this time. Of major importance, to the success of any nongame program is the recognition in S. 2181 that a viable program must include two components, planning and action. Unfortunately in the House-passed bill, action was excluded. We urge the committee to opt for a complete bill that includes conservation planning and implementation. Both are important and both are needed now.

I would like to briefly comment on the excise tax vehicle for funding the implementation portion of this act. As the chairman is probably aware, the National Audubon Society suggested an excise tax method for funding back when the first nongame legislation was introduced.

At that time we suggested an excise tax on a variety of items that nonconsumptive users of wildlife purchase to pursue their hobbies. We also suggested birdseed and in the last 3 years, we have had an opportunity to sample our membership, to get their reaction to this type of a tax. This is why we feel confident that people who feed birds would be willing to support this tax.

The second item we would just briefly mention is that as the bill is now written, we recommend that "a mixture of" and "primarily" be deleted from the wording of section 12(a)(1). It then would read "seeds for use in the feeding of wild birds." We feel this is necessary in order to have the tax be applied to all seeds that are fed to wild birds or at least packaged for wild bird consumption.

Senator CHAFEE. You said take out the word "mixture"?

Mr. DUNSTAN. Yes; in essence, that would tax sunflower seed that was packaged for consumption by wild birds. Mr. Chairman, I put in additional information in our written testimony. We believe that an 11-percent excise tax on all birdseed, birdhouses, and feeders would generate \$16 to \$25 million per year.

Senator CHAFEE. Do you think it would generate that much?

Mr. DUNSTAN. Yes.

Senator CHAFEE. All right.

Mr. DUNSTAN. Thank you, Mr. Chairman, for the opportunity to testify.

Senator CHAFEE. Thank you very much. Let's move on to Ms. Perkins from the Humane Society.

**STATEMENT OF MARGUERITE PERKINS, LEGISLATIVE ASSOCIATE,  
HUMANE SOCIETY OF THE UNITED STATES, WASHINGTON, D.C.**

Ms. PERKINS. Good morning, Mr. Chairman. Thank you for this opportunity to testify at this hearing on the Fish and Wildlife Conservation Act of 1980, S. 2181.

I am Marguerite Perkins, legislative associate of the Humane Society of the United States. We are a national nonprofit animal welfare organization with a constituency of a little over 120,000. Our members are largely nonhunting and have displayed increasing interest in the conservation of nongame species, and in appropriate Federal legislation to encourage management and recovery programs. We would like to thank you, Senator Chafee, for your longstanding support and previous cosponsorship of this legislative concept; and for your sponsorship of S. 2181.

Initially we feel it is necessary to stress the fact that S. 2181 is not an endangered species bill. The two issues are of course interrelated because prompt attention to the health of nongame populations could and can avert the lengthening of the exclusive endangered species list. It is true that a majority of the species now listed were nongame species at the time of their listing. This should be perceived by those with whom the restrictions of the Endangered Species Act are not popular, as a warning rather than a threat. Unless some comprehensive program for the specific benefit of nongame fish and wildlife is established and implemented, it is estimated that by 1990 an additional 450 nongame species will be added to the endangered list, 120 of which may be eligible within the next 5 years. These figures should and must encourage support for S. 2181.

It is an accepted fact that more than 80 percent of all fish and wildlife in this country has been neglected. State conservation programs which have received Federal funding since 1937 from excise taxes paid by hunters and fishermen, have tended to concentrate on the management of game species. In a study conducted by the Wildlife Management Institute for the Council on Environmental Quality and the Department of the Interior in 1974,<sup>1</sup> it was found that nongame wildlife receives only 3 out of every 100 Federal dollars spent on wildlife. In some cases nongame wildlife does of course benefit peripherally from single species management. Management by design is far preferable, however, than management by chance.

Our increasing awareness of the integrity and fragility of the biological systems which support us has created a new constituency for wildlife, a nongame constituency. A recently released study by Dr. Stephen R. Kellert, of Yale University, contains data which indicates that this constituency is willing to pay for nongame programs.<sup>2</sup>

Section 12 of S. 2181 would amend the Internal Revenue Code to allow the collection and dispersal of an excise tax for nongame funding purposes. We support this provision, however we think that an 11 percent tax on wild bird seed and related items is a bit too steep a tax on too narrow a base.

Our members are willing to pay some tax, and in fact would welcome an opportunity to help fund nongame integrated management programs; however, the HSUS believes that those on fixed incomes, such as the elderly, who regularly feed wild birds, would be hampered by an 11 percent tax. The end result might be to the detriment of the birds. We would support a lower tax more readily.

We also suspect that the revenues even from an 11 percent tax levied on packaged bird seed, feeders, and houses would not be adequate to fund necessary comprehensive nongame programs. Studies conducted by DeGraff and Payne in 1975<sup>3</sup> estimated that 20 percent of all U.S. households fed birds, and purchased an average of 60 pounds of seed per year.

Senator CHAFEE. I found that very difficult to believe. Do you believe that?

<sup>1</sup> An excerpt from this study may be found at p. 261.

<sup>2</sup> An excerpt from this study may be found at p. 274.

<sup>3</sup> See p. 283.

Ms. PERKINS. I think I do. From reading the study——

Senator CHAFEE. Twenty percent, one out of every five households, I wonder what a household is. Take those apartments in New York, apartment after apartment.

Ms. PERKINS. Probably there are areas, as with everything, where there is a much more heavy concentration of bird feeders, probably in high-rise apartments there is not as heavy a concentration as there is in single-family dwellings.

Senator CHAFEE. You have to have an awful lot to make up for that—in any event——

Ms. PERKINS. We have been hearing this figure since about 1974 and I have never heard anyone dispute it, but I agree with you it does sound like——

Senator CHAFEE. One columnist says something and they all repeat it.

Ms. PERKINS. At any rate, we can probably safely say——

Senator CHAFEE. A lot of bird feed is given out.

Ms. PERKINS. A significant segment of the American population. Actually, from Audubon's testimony I fear they may have lowered their estimate of the annual sales of bird seed in 1979 which I based my figures on. But if this figure is true, the one that was put forward in 1974 based on the price of bird seed at that time it would total about \$170 million in total sales.

Last year in hearings before the House Subcommittee on Fisheries, Wildlife Conservation and the Environment, a spokesman for the National Audubon Society estimated that total sales of just bird seed in 1979 would be \$400 million. That is also hard to believe. We have no reason to doubt it is a true reflection, although it would be interesting to hear from the seed producers.

If this is true, it would reflect an increased sale of 130 percent in 6 years.

Revenues from Pittman-Robertson excise tax which taxes hunting equipment and firearms were \$86 million in 1979, which is incidentally an increase of 72.6 percent since 1974. The \$28.5 million produced in 1979 from the Dingell-Johnson tax on fishing related equipment reflected an 83.8 percent increase in the same 6-year period. Even factoring in the rate of inflation which was 5.8 percent in 1976, and between 7 and 8 percent in 1974 and 1975, these increased figures make a strong case for excise taxes not negatively affecting the sales of taxable items.

The total combined amount of Federal tax dollars designated for the States conservation programs produced by excise tax in 1979 was \$114.5 million. This amount went primarily into programs for the management of game species, which account for less than 20 percent of all vertebrate North American wildlife.

If an 11-percent excise tax on birdseed existed, the revenue produced in 1979 would have been—based on the National Audubon Society's estimated total sales figure—\$44 million. If that has been deescalated to between 16 and 20, that is OK, too. This is not nearly enough to fund the urgently needed programs for the remaining 83 percent of North America's wildlife.

In Dr. Kellert's survey, he explored some other funding mechanisms and ascertained a sampling of public opinion on them. Of those surveyed, 71 percent would approve a sales tax on off-the-road vehicles such as snowmobiles and dune buggies. Of the same group, 75 percent would approve entrance fees to wildlife refuges and other wildlife areas. Only 54 percent of those surveyed approved an excise tax on bird-watching equipment and supplies.

According to Dr. Kellert, this figure includes birdseed and related products. It is our assumption that many people feel that birdseed and feeding equipment already contribute to the maintenance of urban and nonurban nongame wildlife. Therefore, we are further convinced that it would be preferable to explore the potential for developing additional revenue sources from these and other non-hunting-and-fishing and yet potentially consumptive products and activities.

Two additional points upon which we would like to comment on are:

One. In regard to section 4(a)(8) of S. 2181, we think that program review is as critical as plan review to insure that plans conform in substance as well as design to the excellent integrated management concept put forth by this bill.

Two. Since municipalities are holders of significant amounts of undeveloped parcels of land which are suitable habitat for nongame fish and wildlife, we would like to suggest that they be included in the consultation process as specified by section 4(a)(10).

Just in closing I would like to say even with the five Federal funding mechanisms which come into State fish and game agencies, many States have really taken the initiative in the nongame area, and my testimony is only based on Federal funding mechanisms and not on the States like Colorado, Missouri, California, who have really gone ahead and instituted their own nongame programing.

I thank you for this opportunity to present our views.

Senator CHAFEE. Thank you, Ms. Perkins. I think the points you make are all good. I think the point involving the municipalities is important because I think an awful lot of this land, as you say, is going to be within the municipalities and under their aegis.

Now Dr. Berger from the National Wildlife Federation.

**STATEMENT OF MICHAEL BERGER, ASSISTANT DIRECTOR, RESOURCES DEFENSE DIVISION, NATIONAL WILDLIFE FEDERATION, WASHINGTON, D.C.**

Mr. BERGER. Good morning, Mr. Chairman. I am Michael Berger, assistant director of Resources Defense, National Wildlife Federation. We appreciate the opportunity to come here and testify in support of S. 2181. Since we have testified on this matter several times before in both the House and the Senate, I will just summarize the important parts of my statement.

Senator CHAFEE. I am not sure I got the difference between all these organizations. What is the difference between you and the Wildlife Society?

Mr. BERGER. The National Wildlife Federation is a nonprofit citizens organization of conservationists. The Wildlife Society is the professional society of wildlife biologists.

Senator CHAFEE. I see. And the Wildlife Management Institute?

Mr. BERGER. Mr. Poole will be testifying next. I will let him explain his organization. The three organizations you referred to are distinct and separate.

Senator CHAFEE. And what?

Mr. BERGER. And separate.

Our country's concern for the protection of and restoration of fish and wildlife continues to expand. A recent study at Cornell University said that urban and suburban residents in New York felt that wildlife sightings were an important component of their total outdoor recreational experience. So fish and wildlife are a great educational, cultural, esthetic, and economic value to the Nation and nongame concerns should be an integral part of wildlife management.

Just briefly on the excise tax approach, the federation has long felt that the levy of an excise tax is a very successful concept and it is the most appropriate way to assure the availability and consistency of nongame funds for the States. In 1976, the federation adopted a resolution to this effect which I have attached to the testimony and we are very pleased that you have seen fit to include this excise tax approach as part of this legislative proposal.

In support of that, Dr. William Shaw, of the University of Arizona, initiated a study on the nonconsumptive values of wildlife at selected locations in southern Arizona.<sup>4</sup> His survey showed that more than half of the respondents considered nongame to be neglected by government wildlife agencies and nearly two-thirds of the people he spoke to felt hunters should not be responsible for providing major funding for nongame conservation programs.

Let me just speak briefly about some of the types of projects that we feel would be ongoing should this program become effective. Current State involvement in nongame programs has primarily entailed factfinding rather than management. Until research provides better background information, any projection of future program needs must be considered preliminary, and I am certain you will hear more from the States on this in a moment.

However, several States have now completed their plans and are in the need of additional funding to implement their programs. The most commonly mentioned future program need is to determine population status, habitat requirements, and distribution of individual nongame fish and wildlife populations. The status and condition of many species of nongame has not as yet been determined.

Colorado has initiated a select species program which utilizes about 200 species as environmental barometers, if you will, to indicate the condition of many other wildlife species and since over 83 percent of all song bird species are considered nongame, their role in such a program is vital.

Both Colorado and Wisconsin have sponsored reintroduction programs of river otters and pine martens, respectively. Wisconsin after launching a successful program was forced to discontinue it because of insufficient funds.

Most States are involved to some extent with endangered species, environmental education, control of nuisance animals, and law en-

<sup>4</sup> See p. 291.

forcement activities which are unrelated to hunting and fishing. All indicate a need to enhance and upgrade these programs and establish new programs in nongame management.

Wildlife management can and should go for all types of wildlife and for the benefit of people who care about our natural resources.

Although the National Wildlife Federation has many sportsman members, we also have many members whose primary interest is in nongame. Over 1,600 of these members have been recognized by the federation for their efforts to improve their properties to benefit wildlife. These individuals and many other citizens who enjoy the outdoors in a variety of ways will benefit directly from the habitat improvements and other conservation programs stimulated by this bill and I feel confident that these people, these federation members and others who feed and would benefit from this program would be most willing to pay a tax to support the program.

Further, incorporation of nongame into the already existing wildlife management framework I believe will broaden the base of public support and enhance the effectiveness of wildlife conservation overall.

In general, I foresee that the passage of this bill will result in States not only gathering more knowledge about nongame species but also disseminating and applying that knowledge for the benefit of their citizens. Let me give you just a few examples here.

Nongame management could in some cases be applied to urban wildlife habitats, such as city parks or green belts. Other management programs may concern State parks or other State lands. Of course, this would be in a more rural setting. The point is that assistance to landowners, whether rural or urban, for improving their properties for wildlife can be provided if this legislation is approved. This would be through extension education or educational programs in the classroom providing information about nongame and wildlife management in general.

Senator CHAFEE. You must have an awful lot of information gathered on the correct way to proceed in this. In other words, you mentioned the 1,600 of your members who have recieved some type of award for, I take it, planting their land in such a fashion with the types of feed that the birds enjoy and getting proper cover, plus doing things for the vertebrates.

Mr. BERGER. We have a backyard habitat program which tries to encourage individuals to provide a place for wildlife in a home setting for them to enjoy. Many people have done so and, in addition to providing feed, they have also landscaped their property to improve habitat overall for wildlife. Those people who have engaged in a significant amount of this work have been recognized by the federation for their effort.

Senator CHAFEE. What do you say about the points Ms. Perkins was making. One, the people who buy bird feed and feeders are already doing their part. Seed is pretty expensive. So, therefore, why make them carry more of a burden because they already are assisting the nongame bird population to a considerable extent.

Second, that if you put a tax on, you might discourage some of this and she mentioned particularly, the elderly who are on a fixed income who are being walloped from every direction now by inflation and thus they might just drop out.

Mr. BERGER. Well, food is only one portion of wildlife habitat. Wildlife habitat is food, water, and cover. Providing food alone will not provide the total habitat that is necessary for nongame. The other components are necessary as well.

This money would go to providing those other components and improving the other components of habitat for the nongame wildlife. So I think that the additional contribution beyond food is justified. I think most of this seed is purchased in grocery stores. I believe that an increase of 10 or 11 cents on the dollar would go just about unnoticed in the present economic situation. Plus, I do not think many people would stop feeding birds because of a 10 cent a bag increase in the price of seed.

Ms. PERKINS. If you will permit me, I wanted to say we didn't say we didn't approve of some tax on these items. We just felt perhaps 11 percent was a little too high for particularly elderly people. However, we would support that if it remains in the bill.

Senator CHAFEE. You mean you would rather have some tax than no tax?

Ms. PERKINS. Yes; I didn't mean to indicate we didn't support the excise tax concept on bird seed and equipment.

Senator CHAFEE. We will get adequate testimony from the other side in the future panels.

Mr. BERGER. Two other final brief items. I think the enactment of this program and getting it operating will do two other things. I think it will help slow the list of additions to the Endangered Species Act by helping to identify species before they get in such critical condition that they need the protection afforded by the act. Also, I think with an increased knowledge base it will help us to reduce the number of conflicts that seem to occur now between wildlife, our natural resources and development projects. I think with this increased base we will have knowledge early in the process, and thereby can get wildlife brought into the early planning stage—

Senator CHAFEE. By development, you mean housing developments?

Mr. BERGER. I mean developments of all kinds. Primarily those in transportation and water development projects.

Senator CHAFEE. Hopefully that would occur. Thank you very much.

Mr. BERGER. Thank you.

Senator CHAFEE. Now Mr. Poole, from the Wildlife Management Institute.

#### **STATEMENT OF DANIEL POOLE, PRESIDENT, WILDLIFE MANAGEMENT INSTITUTE**

Mr. POOLE. Good morning, Mr. Chairman, I am Daniel Poole, president of the Wildlife Management Institute. We appreciate the invitation to comment on the proposed Fish and Wildlife Conservation Act of 1980.

We appreciate, also, your personal interest in the subject.

Senate bill 2181, which would initiate a national program to benefit what we refer to as nongame, is, in our opinion, the most important wildlife legislation before this Congress. We urge the subcommittee to report it favorably at the earliest opportunity and to work closely with the House for enactment, including an excise tax provision.

Some ask why a separate effort is needed for nongame fish and wildlife. Why not use current programs, they ask. One must have a historical perspective and fundamental understanding of wildlife conservation in this country to fully comprehend the reasoning for not using current programs.

The State wildlife agencies are the logical administrators of the program because they have the most knowledge, the most people, and are in the best position nearest the ground to do the work.

The Federal aid and restoration program, commonly known as the P-R program after which S. 2181 is designed, is the most successful single legislation ever enacted for wildlife. It utilizes the strengths of both Federal and State Governments in an unmatched cooperative effort and is a major reason why the United States is an undisputed world leader in wildlife conservation.

That program is financed almost entirely by taxes and license fees paid by recreational hunters. But the pressures of a growing society on wildlife, as well as inflation, render these moneys inadequate for needed game management activities. Little would be gained by building a new program, a new nongame program, by impairing another, the successful Pittman-Robertson program. Especially so, since the P-R program and license funds do offer significant benefits to the nongame resource.

To those of us involved professionally with wildlife, the word nongame is used merely as a term of convenience. It has little, if any ecological ramifications. Certain game and nongame species prefer the same habitats. A marsh developed for ducks is no less attractive to herons or ibis. And it is no less attractive to a birdwatcher or sight-seer or fisherman than it is to a duck hunter.

State agencies and the P-R program, therefore, are doing something for nongame, nongame interests, and for other outdoor recreationists.

I won't bother to elaborate the paragraphs of my statement which give the statistical figures to bear that out. But the States are not taking credit for this as they should. An excellent example of what is being done for nongame is reported in the December 1979 Iowa Conservationist. In that issue is quite a lengthy article titled "Iowa's Living Resources: Aiding Nongame Wildlife." That piece is outstanding, Mr. Chairman.

This article, I think, will answer the questions, some of the criticism or suggested implied criticism you heard this morning that the States are doing little or nothing for nongame wildlife.

Game species and nongame species largely use the same habitats. A State cannot acquire, develop, or maintain a property for a game species of wildlife without benefiting a considerable number of so-called nongame species. These animals all use the same habitat. And this article goes into detail to identify, by project in Iowa, the species of nongame wildlife that are benefiting from the State wildlife program.

I must say I am not saying this defensively; I am saying it proudly and Iowa is also determined, I know, to do more.

I would, Mr. Chairman, be pleased to submit this for the record.

Senator CHAFEE. We will put it in the record. (See p. 322.)

Mr. POOLE. There are two primary reasons why the P-R program has been so successful. And these, of course, are the same reasons why an excise tax program in support of a so-called nongame fish and wild-

life conservation program would be equally successful. The first reason is it provides a cooperative effort by State and Federal Governments, each providing unique services and each bringing largely separate and unique talents to the subject.

Second, funding for the program is assured through the tax approach with a built-in inflation compensator and also a built-in growth factor. And, of course, the excise tax would be earmarked for the program and increase with the sales and price of the materials.

With respect to S. 2181, we endorse the excise tax on wildlife bird-feed, feeders, houses, and baths to fund the program. Wild bird species constitute a large part of the Nation's nongame resource. They are the most utilized segment of the resource by far. And the wild bird enthusiasts are the major and most identifiable component of the overall user group.

We know from experience, after some 40-plus years of experience, that the excise tax route is the best way to fund a nongame program. But at the same time, we have no intention that such a funding mechanism cause economic distress to the industries involved. We encourage and expect, of course, the subcommittee to gather all the information available from the industry in order to make a reasonable evaluation. Included in that would be the thought that there may be items, other than those named in the bill, that possibly should be included. We know from long experience that there will be objection. We worked with the archery industry in getting the excise tax approach expanded to archery equipment to have that income also applied to the Federal aid and wildlife restoration program.

The same thing was accomplished in 1970, I believe it was, with the existing tax on handguns.

Senator CHAFEE. When did the archery tax pass?

Mr. POOLE. In 1973.

Senator CHAFEE. I take it the industry was not very enthusiastic.

Mr. POOLE. There wasn't great enthusiasm for it. This is a traditional thing for industry when something new is brought along. Today the sporting firearms and archery industry are the strongest supporters the wildlife restoration program has. Back over the years, to the best of my recollection, there were two or three efforts or actions to abolish excise taxes on sporting arms and ammunition. The industry was among those down here urging that the tax be retained. These industries support the Federal aid and wildlife restoration program because it is an investment in their future. And I firmly believe without question that the wild bird supply industry in time, if they have any reservations now about the program, will be one of its staunchest defenders.

Mr. Chairman, if I may, just take an extra minute. Late last year the institute canvassed a number of universities and colleges around the country to determine where we could get some people qualified to undertake an evaluation of the bird product industry, to determine what is the wholesale value of the bird product industry.

As a result, we ended up at Penn State University with Dr. John L. George, who is known to people in the wildlife and ancillary fields. We entered into a contract with Dr. George to determine this information along with a bird feeding and wildlife study that he is doing

with his associates for the State of Pennsylvania. And he was very pleased to undertake this as a part of his investigation because the information he could develop nationally and from the industry then would fit back in and give him and his associates an opportunity to compare it and contrast it with the results they are finding from their surveys in Pennsylvania. We have with us this morning two of Dr. George's research assistants, Arlene Schnider and Gloria Hanley. They have given me this preliminary statement that Dr. George and they prepared on the study. If you would permit, I think you might find it interesting. It is quite brief. Penn State has been involved in several urban wildlife studies including work on attitudes of people toward wildlife and bird feeding preference.

As Dr. George explains, he was approached by the Wildlife Management Institute to study the national expenditures on wild bird related products as an extension of their ongoing studies in the State of Pennsylvania. The findings presented are our tentative findings on the subject of this proposed tax to date. We offer them in the hope they will be useful to you in your deliberations on this bill. Final results will be reported to the Institute within the next few months and we will be pleased, Mr. Chairman, to make that further information available to the committee.

I have, by the way, the full statement here from Penn State with some appendixes. But Dr. George addresses three major points that he believes are pertinent to the consideration of S. 2181. One, the industry estimates of the value of wild bird products, two, an analysis of the industry estimates and, three, a summary of manufacturers' concerns with the excise tax.

On the subject of industry estimates of the value of wild bird products, Dr. George and his associates compiled a list of 68 companies, they are listed in the appendix 1 to this statement, that are involved in the wild bird products business and interviewed 10 of the companies in an effort to determine the total value of the industry for this preliminary report. Based on these interviews, they derived estimates which ranged between \$29 and \$81 million at the wholesale level—

Senator CHAFEE. Between what?

Mr. POOLE. Between \$29 and \$81 million.

Senator CHAFEE. That is a large spread.

Mr. POOLE. Yes, it is, but the average industry estimate is between \$50 to \$55 million and the details of how the estimates are derived are given in this statement. I won't go into that.

In the analysis of the industry estimates, Dr. George said, "We compared the industry estimates with four other surveys on bird feeding values. In all cases, we feel that the data indicate that the highest industry estimate is the correct one, that is the one toward the upper end of the range, the \$81 million." And finally, a summary of the manufacturers' concerns with the excise tax, those they contacted were very concerned about the possible loss of their market resulting from increased taxes after imposition of the excise tax. Their major concerns are summarized in appendix 3 of this report.

Although these manufacturers' concerns are certainly understandable, they may be unwarranted, Dr. George says. We feel that a nongame program would stimulate further interest in feeding birds and therefore increase industry sales. That, Mr. Chairman, concludes

my testimony. I would ask, though, this statement from Penn State University be included in the hearing record.

Senator CHAFEE. Fine. (See p. 155.)

When is that study going to be completed? You said in a few months.

Mr. POOLE. Yes; I expect early in this year.

Senator CHAFEE. In other words, it would be helpful to us. Press them along, would you, as much as you can.

Mr. POOLE. Dr. George's two associates sitting back here heard that, Senator. And we will.

Senator CHAFEE. Fine, because it would be helpful to us. Thank you very much, Mr. Poole. We are pleased to welcome Mrs. Stevens here. I am delighted you came.

#### STATEMENT OF CHRISTINE STEVENS, SECRETARY, SOCIETY FOR ANIMAL PROTECTION LEGISLATION, WASHINGTON, D.C.

Mrs. STEVENS. Thank you very much, Mr. Chairman. May I put my statement in the record.

Senator CHAFEE. You certainly can. (See p. 168.)

Mrs. STEVENS. I would like to start with one of the points that hasn't been made at all, that is the Society for Animal Protection Legislation is very much concerned with the restrictive nature of section 5(a)(4) which says "the Secretary may not disapprove a conservation plan, in whole or in part," and then I skip, "unless" and I skip again, it would actually "threaten the natural stability and continued viability of the plan species concerned."

In earlier versions of this bill, there was nothing that restrictive. We hope very much that that language would be removed and that it could go back to language which allows the Secretary to have useful input rather than just being told, well, if the States decide to make some particular species extinct, he can say, OK, no money from the Federal Government. But that obviously is the last gasp. There should be good Federal-State planning.

Senator CHAFEE. I think that is a good point. In other words, it seems under this—and I agree with you, I was looking this over this morning—that it is pretty hard for them to turn down a plan. They can submit almost anything and it has got to be really bad—the answer to that is I guess the plan has to conform with the 10 points that are made under section 4.

Mrs. STEVENS. Yes; those are very good, excellent, which we very much support.

Senator CHAFEE. I guess the thinking was those points must be in it and if they are not included he could turn it down, although I must say I think the point you make is a very good one.

Mrs. STEVENS. It is just worrisome language.

Senator CHAFEE. I think you are right. We will take another look at that and appreciate your views.

Mrs. STEVENS. The discussion about how the bill should be funded has already been extremely interesting and I don't want to repeat the material that has already been submitted. However, one of the suggestions, if it was a suggestion, maybe a tax on off-road vehicles would be a very appropriate way to get some money because they do

consume wildlife; they destroy a lot of wildlife. Anyone who can buy an off-the-road vehicle obviously has the money to pay a tax, whereas very poor people can buy birdseed and it does make a difference to them. That is why we prefer to see the tax on birdseed be small enough so it wouldn't make a significant difference, be reduced, in other words, and then bring in some other means of providing the obviously needed funds.

We have suggested it should be people who are planning to develop the land, to take away some necessary part of the habitat, who should have to pay the tax.

Senator CHAFEE. I agree with you there. I think we would have a tough time getting that crowd, though.

Mrs. STEVENS. Difficult; yes. That is why maybe the off-road vehicle people would be easier since they are going out presumably to enjoy nature, but they are destroying substantial parts of nongame wildlife. I think it is very fair the sportsmen are paying for something they are getting back. That is perfectly fair. I don't think the analogy with birdseed feeders—it is not a true analogy.

Another point that I think is very important—

Senator CHAFEE. In summary, would you say make it a lower tax or not have a tax on the birdfeeders and the feed?

Mrs. STEVENS. I don't want to say something that would be harmful to getting this important piece of legislation passed. It may be that you want to keep a low tax. We would not have an objection to a low tax, but we believe there should be other taxes in there from people more able to pay. I just noticed in the current issue of Fur-Fish-Game another bill that would help sports fishermen; the boating industry fears that a 3-percent excise tax would put them at a sales disadvantage compared to the rest of the sport or leisure-time industry. You know, people who can afford to buy a boat are certainly not at the poverty level. That is only a 3-percent tax the boating industry is getting all excited about. I just feel there has to be a little bit more balance here. I don't wish to be the person, I am not sufficiently expert to say how we do it; we draw your attention to these points.

Senator CHAFEE. If we propose a tax on the off-road vehicles, we really would have a full attendance here in this room. I suppose off-road vehicles would include snowmobiles as well as the four-wheel-drive vehicles, dune buggies and so forth. That is a good thought. It certainly would bring in a lot of money, wouldn't it?

Mrs. STEVENS. Yes; it would, enormous.

Of course, Colorado has been mentioned several times, but actually if every State gave as much as Colorado did just by signing off voluntarily, the individual people as they pay their tax, you would get apparently about as much as you would get from an 11-percent tax on birdseed. It's in the same general category. In other words, I figure you would get about \$12.5 million if each State gives as much as Colorado.

Obviously some States would give more because they have a larger population. You certainly would get a lot from residents of New York, for example. That is a huge population which is—as you pointed out very correctly, they simply don't buy birdseed because who is going to eat it? In an apartment building it is rather hopeless.

I would like to emphasize I do think this is really broader, also. In other words, everybody has an interest in preserving species. I just read this book of Norman Meyers, "The Sinking Ark." I put several quotations from it in my testimony, so I won't read more than just a few words, "\* \* \* species are being depleted more rapidly than the Earth's mineral deposits." I don't think that is something that is generally realized, nor is the value of the species realized. That is why we feel that general taxation is also entirely appropriate for something of this kind because it is of value to every single member of the public regardless of whether they even have any interest or are aware of the tremendous diversity and value of the species we still have.

We realize that we are suddenly destroying species at a tremendous rate when, if you took all of evolution and called it 1 year then man-induced extinctions would take only 3 seconds out of that entire year. And yet the extinctions are going faster than ever before, so that really means this is a very serious subject. Mr. Chairman, I know you consider it to be so, but I don't think it is widely enough considered to be so, and that is why we are dealing with this tiny group of birdfeeders. It is not a tiny group. There are a lot of people who feed birds, and I am sure they would like to contribute in some way, but the money is so tiny as contrasted with the need.

Senator CHAFEE. I think you are right except I don't think we should be discouraged. Certainly it is a challenge. The money that we would get from this isn't the only effort that is being made in the field. I think we have got to look on the Federal funds, not only the Dingell-Johnson and the Pittman-Robertson but the whole series of other funds—in the latter part of the hearing we will be getting into refuges. That is feed money going into other areas. I certainly agree with what you are saying and I think the example you quoted from "The Sinking Ark"—taking a year as time, man came along just about 4 minutes before midnight, didn't he? And he is having all this wreckage in the last few seconds of the year; it is of tremendous concern.

If we can get started in this, and I don't want to scare the bird-feeder manufacturers by saying get started, next year we will raise the excise tax because that isn't the objection. Frankly, that hasn't been done under Dingell-Johnson or Robertson-Pittman. Did that start with a lower rate?

Mr. POOLE. No; it started at the same rate. I think it went up 1 percent one time. Let's say it is within 1 percent of where it started. That would be a more accurate way of saying it.

Senator CHAFEE. I suppose if you go from 10 percent to 11 percent, that is not a 1-percent increase, that is a 10-percent increase. Nonetheless, at least it hasn't run berserk.

Mr. POOLE. No.

Senator CHAFEE. I think our experience with these things, don't you think, Mrs. Stevens, is if we can get something started and then the States, hopefully pick up, people get interested, it gets greater support. Like Dingell-Johnson, Robertson-Pittman is getting starred—there are a whole variety of people in there. Plus there is so much that has been done in this area through the Audubon Society

and the wildlife groups, and so forth, that I think if we had some money getting out the word you could make tremendous steps, far more than the modest amount that is involved.

Mrs. STEVENS. We certainly feel the bill should be passed as broadly as possible.

Senator CHAFEE. Sure.

Mrs. STEVENS. We leave that to your discretion. I quoted some material on medical values of species which I will not read into the record. I think it is very important because there are undoubtedly a great many significant discoveries that can be made if the species are not wiped out before anybody has had the opportunity to discover what they may have to contribute. And that is a reason why all citizens should be interested and quite willing to contribute tax money for a program of this kind.

I would also refer to the fact when Colorado was doing it they had only \$125,000 which meant \$160 per species. Obviously, that makes it plain that with very small amounts of money it is quite impossible. No program for a species could even start without substantially more money.

Another point is that a great deal of money can now be made from living animals. For example, whales have been shown to be much more valuable, from the commercial standpoint, alive than dead and that is because people go on whale-watching trips and buy books and records, visit oceanariums. So there is a wide area of potential taxation which I think could be considered. And I would also make one more point in addition to Marguerite Perkins' good comments on Dr. Kellert's study—the fact that it shows that a majority of the public are willing to protect wildlife habitat at the expense of human benefits. That is really quite important and, I think, unexpected until the study was carried out.

Also, the majority of the public approve of hunting only if the meat is eaten. They oppose trophy hunting by a very large percentage and they want to protect nongame animals. The public also heavily opposes the use of the steel jaw leg trap (the exact figures are 79 percent of informed people and 70 percent of uninformed) which is the main implement used to catch fur-bearers in the United States. These and other findings of the Kellert study demonstrate widespread support for the concept expressed in S. 2181. So we do urge that you give a favorable report to the bill with the suggested alterations, and I would add also that certainly the sportsmen are contributing to some extent to the nongame wildlife but it would be possible to liberalize the use of those funds somewhat since many sportsmen tell me of the enjoyment they have of being out seeing other creatures, seeing the shore birds, for example, when they are hoping to shoot a duck. So, therefore, it is perfectly legitimate if you are going to tax people that are buying bird seed, there is nothing unfair about extending the tax into the hunter's purview because he, too, is receiving esthetic enjoyment from the other creatures.

Senator CHAFEE. Thank you very much, Mrs. Stevens. As always, you give very thoughtful testimony and we are delighted to have you here again. We appreciate the remarks you had to make.

Mrs. STEVENS. Thank you, Mr. Chairman.

Senator CHAFEE. Now we will go to Dr. Geis from the Wildlife Society.

STATEMENT OF AELRED D. GEIS, CHAIRMAN, URBAN AFFAIRS AND  
REGIONAL PLANNING COMMITTEE, THE WILDLIFE SOCIETY,  
WASHINGTON, D.C.

DR. GEIS. Mr. Chairman, I welcome the opportunity to discuss this important legislation on behalf of the Wildlife Society, the organization representing professional wildlife biologists throughout the United States.

My name is Aelred Geis. I am chairman of the Wildlife Society's Urban Affairs and Regional Planning Committee. I have been asked to mention that my comments are as a representative of the Society and do not necessarily reflect the views of my employer, which is the U.S. Fish and Wildlife Service.

It is our hope that this legislation will be enacted in order to begin to correct a serious void that currently exists in the wildlife management field. The experience that I have gained conducting research on wildlife in urban and urbanizing areas emphasizes the tremendous benefits that might be derived by increasing our wildlife management efforts for nongame species, especially in urban areas. The social, economic, and environmental benefits stimulated by this legislation would be far broader than many suspect.

This program could yield benefits in environmental quality and in environmental education opportunities for most of the citizens of the United States, including those, particularly, in urban areas who, for reasons of background, lack of opportunity, et cetera, currently do not perceive the significance or even the existence of wildlife. This legislation does not relate to just a small segment of society. It has an impact on most of our citizens.

By facilitating the occurrence of wildlife and its habitat in close proximity to people the public will better understand important natural phenomena upon which our existence depends.

Also, and I think this is very important, there is evidence that contact with wildlife and the habitat that supports it has a beneficial effect on children by enhancing physical, intellectual, and social competence.

SENATOR CHAFEE. I don't think anybody would argue with that one.

DR. GEIS. It has been pointed out that children raised in dreary homogeneous environments are not quite as capable as those reared in a more stimulating environment. I see this legislation as helping to improve the quality of life for our cities. Broad social benefits could be stimulated by this legislation; there are also important economic and environmental benefits. Wildlife habitats projects, for example, ameliorate many of the adverse environmental effects of urbanization by improving air quality, slowing storm water discharge rates, et cetera.

Economic benefits would include increased property values and reduced open space maintenance costs. For example, if as little as 10 percent of the maintained lawns in the United States were converted to natural wildlife habitat, the savings could conservatively be estimated at least \$300 million.

I think the wording of the legislation is generally excellent, however I suggest a few editorial changes. Due to the wide-ranging benefits resulting from the programs it would stimulate, it is suggested that

on page 2, line 8, the words "recreational and other" be deleted. Also, page 18, lines 19 through 24, the allocation of funds might logically be changed to give greater emphasis to population. Perhaps a one-fifth proportion based on area versus four-fifth influenced by population would be better.

My greatest concern about this highly desirable legislation relates to its funding source and I should emphasize it is more important to enact this legislation and get the program started perhaps than it is to be completely logical. However, in view of the far-reaching benefits potentially accruing from the legislation, it might be better to support it in a manner that would distribute the costs more widely than would be the case with an excise tax on birdseed mixes, birdhouses, et cetera.

I have been conducting research on the effectiveness of various wild bird foods and have found that it is impossible to feed birds efficiently with mixes of seeds. As the bird feeding public becomes increasingly aware of this, and there is some evidence they have, the sale of mixes will decline.

Senator CHAFEE. I think that is the point that was made, take the word "mix" out.

Dr. GEIS. That is certainly true. Also, a significant number of birdhouses are made in home workshops where it is neither desirable nor logical to attempt to tax them. It would be better if a very small excise tax could be placed on an item used by a large segment of society such as gasoline, soft drinks, or perhaps the money should come from the general fund.

However, despite these comments I have made, it is highly desirable that this legislation be enacted even if we are not completely satisfied initially with its funding source. I might add, I also share concern about whether the proposed sources would be adequate in view of the widespread need. We warmly commend the committee for introducing this legislation that could materially help fill an important void in the resource management field.

Thank you, Mr. Chairman.

Senator CHAFEE. Thank you very much, Dr. Geis. I think we recognize the revenue we have got wouldn't be adequate to deal with the problem properly. I must say when you mention getting into a tax on gasoline and soft drinks, you are opening the doors a little wider than I think we are prepared to charge in.

Thank you all very much for testifying. We appreciate each of you coming.

The next panel will be a State panel with Mr. Torres, from Colorado, Mr. Hawkes, from Rhode Island, Mr. Doig, from New York and Mrs. Lumbard, from Iowa, plus Dr. Gottschalk, from the International Association of Fish and Wildlife Agencies.

Why don't we take the witnesses right in order. To outline what we are going to do timewise here, I would see this group finishing at no later than 5 past 11. Then the birdseed manufacturers would have 45 minutes. At 12 we start on the refuges.

Why don't we go along, Mr. Torres. We welcome you here. Senator Hart expressed his regrets that he was unable to be here to personally introduce you but he is deeply interested in what you are doing and what this bill does.

STATEMENT OF JOHN TORRES, CHIEF, NONGAME WILDLIFE PROGRAM, COLORADO DEPARTMENT OF WILDLIFE, DENVER, COLO.

Mr. TORRES. Thank you, Mr. Chairman, subcommittee members. I am John Torres, nongame program manager for the State of Colorado. I appreciate the opportunity to appear before you today.

Colorado is pleased to lend its complete support for S. 2181, a bill which will provide badly needed funding for research and management of its nongame wildlife resources. As Senator Hart would have attested, Colorado has been blessed with a diversity of fish and wildlife and habitat that ranges from prairie to alpine tundra. The Colorado Wildlife Commission recognizes 748 species of nongame wildlife of which 27 are classified as threatened or endangered. The division of wildlife has not received legislative management authority for the management of plant species. Consequently, we cannot recover some 40 species believed to be in some degree of endangerment in the State.

Colorado's nongame wildlife program efforts have given attention to three major areas. First, the recovery of threatened and endangered species has received primary consideration. The high demands of the public, the biological needs of the species and the availability of Federal funds have influenced major program emphasis toward these imperiled wildlife.

The second most important need of the program relates to the inventory of all other nongame species to form a foundation for their preservation and enhancement. Colorado, again, is blessed with a diversity of wildlife species, both game and nongame. This very diversity, however, poses a major management problem. Any preservation or enhancement program for a species must be based on two things: First, a continuing detailed knowledge of the distribution and abundance of the species and, second, a comprehensive understanding of the species biology and ecology with special emphasis on those features which limit its population.

Realistically, in terms of resources available to the Colorado Division of Wildlife, now and probably in the future, it is not feasible to obtain detailed biological information on each of the 748 species of nongame wildlife. But there is an alternative. On a broad scale, we can determine the distribution and relative abundance of all species by studying those species with the most restricted ecological needs. We can determine which species potentially can respond to various management methods. Then we can study the latter species to develop specific management guidelines for major habitat types.

Consequently, it is in this area in which we are weakest in our efforts to assist the nongame resource. Similarly, it is also this area where we need the greatest financial assistance if our objectives are to be achieved. And last, our third priority relates to the subprogram for nonconsumptive uses of wildlife. With the increasing trend toward city dwelling, people are less exposed to wildlife in their daily lives. Seeing and having the opportunity to observe wildlife in their natural habitats is becoming a unique experience for increasing numbers of people. More and more people have an awakening interest in wildlife and nonconsumptive uses of wildlife.

Senator CHAFEE. Mr. Torres, I am mixed up here on the statement you submitted. You are reading from something different.

Mr. TORRES. Yes, I am. I have prepared a written statement (see pp. 176 and 256) which I would like to go into the record. As I was coming in on the airplane, I prepared something else which I felt was more pertinent. So I would like both hopefully to go into the record.

Senator CHAFEE. We will do that. Go ahead.

Mr. TORRES. Colorado's goal is to provide greater opportunities for people to see wildlife and to provide information on how to better observe and understand wildlife species. Some of our nonconsumptive wildlife projects which we hope to implement if this bill is passed and some of these projects, of course, we currently have underway, relate to the publishing of wildlife observation and interpretation guides. We would like to inform the public of wildlife observation use opportunities through the use of the mass media. And we want to accelerate our nonconsumptive wildlife programs in and near urban areas, management of available parks and natural areas to improve wildlife habitats and facilitate nonconsumptive public use.

We want to assist public and private landowners to develop and protect suitable habitats for wildlife observation, study and photography.

Lastly, we want to improve and develop habitats on State-owned and controlled lands.

Colorado has prepared a public attitude survey to determine what the attitudes of the general public were toward wildlife management. (See p. 328.) The primarily public demand for nongame wildlife is from people who do not want any species to become extinct in Colorado. And from the survey, about 85 percent of the public feel that public tax money should be used to preserve species when populations are very low.

About 68 percent of Coloradans feel that public tax money should be used to establish wildlife observation areas and 61 percent feel that public tax moneys should be used to develop educational brochures for wildlife.

Some 56 percent desire the State to use public tax money to inventory the numbers of animals in the State. Going on, about 1,800,000 Colorado citizens 10 years or older go into the field and participate in some kind of wildlife activity other than hunting, fishing, and trapping. Many people participate in more than one of these activities. The table shows the percent of Colorado residents, 10 years of age and older, who participate in various nonconsumptive activities. This indicates the many types of nonconsumptive use demand, and I won't go through the table but if you will see the second item is feeding and observing wildlife in their own yard. About 50 percent of the citizens in the State of Colorado participate in this activity. Thus, I consider it extremely important as it relates to the excise tax on birdseed, feeders and the other items that are mentioned in the bill.

Senator BURDICK. Mr. Chairman?

Senator CHAFEE. Yes.

Senator BURDICK. I don't like to interrupt your train of thought but I am curious: Based upon these polls in your State of Colorado and the interest of the people, has the legislature in Colorado responded to those polls in any way?

Mr. TORRES. Yes; they have, Senator Burdick. We are currently receiving \$117,000 from the general fund which, of course, is appro-

priated by the State legislature. We are unique, I think, in the State of Colorado in that we passed a checkoff-box bill in 1977. It was effective in 1978. So I truly believe this is a direct response of the information that was provided by that public attitude survey.

Senator CHAFEE. Could you briefly describe that? You have a checkoff, thus that becomes the credit and you deduct it from your tax. What happens?

Mr. TORRES. The checkoff is comparable to the one that is used for a Presidential campaign. The only difference is instead of it being an income tax return, it is an income tax refund. That is the money that is coming back to the Colorado taxpayer.

In a sense, this person contributes the money, he or she donates the money to the nongame programs. So it is like taking money out of your pocket and giving it directly to the Colorado Division of Wildlife for nongame purposes.

Senator CHAFEE. I am not sure I understand. Let's say you have a tax; you owe on your Colorado income tax, \$100. You have a box you can check off. Does that mean that of the \$100 you are paying, they will then take \$5 and send it to this fund, the government will, the State government?

Mr. TORRES. The \$100 has to be a refund, that is money that is coming back, that they have coming back from their income tax.

Senator CHAFEE. So then you check off and then what happens, they send you \$95 and send the other \$5 to what?

Mr. TORRES. I know the way the bill is written now, it provides citizens the opportunity to contribute \$1, \$5, \$10, or more to the nongame program. If they have \$100 and would like to contribute the full \$100 they have coming back, they can check off and indicate that the \$100 should go to the nongame program.

Senator CHAFEE. The individual is paying for it.

Mr. TORRES. That is exactly correct. That is the difference between the State effort and the Federal effort.

Senator CHAFEE. Would he then get a deduction the next year for that \$100 contribution?

Mr. TORRES. Yes; it is tax deductible.

Senator CHAFEE. That \$100 goes to a State agency?

Mr. TORRES. It goes to the Colorado Division of Wildlife. It is appropriated, of course, by the legislature. The money has to be appropriated before we can spend it, but it becomes a special fund for nongame and cannot be used for any other purpose.

Senator CHAFEE. Is this the \$170 million you are talking about, is that part of it, or extra?

Mr. TORRES. \$117,000 is separate and apart. This is general fund revenues that are appropriated to the nongame program.

Senator CHAFEE. How much do you get from the checkoff box?

Mr. TORRES. The checkoff box program has been in progress for 2 years. The first year we generated \$350,000. The second year, which was last year, we generated \$501,000, slightly over half a million dollars and we expect more this year. There is tremendous widespread concern for nongame wildlife resources across the country.

Senator BURDICK. How much of that money, \$300,000 or \$500,000, is lost in tax concessions—

Mr. TORRES. I am not understanding your question.

Senator BURDICK. You say if you pay \$100 you get a tax credit back. How much do you lose of that by the tax credits?

Mr. TORRES. I am not sure I can answer that question primarily because I still don't clearly understand your question.

Senator BURDICK. If you give \$100, next year can you take a tax credit for that amount. That lowers the amount of taxes you pay to the State of Colorado. How much do you lose in taxes by virtue of that contribution?

Mr. TORRES. It wouldn't be until the following year. I would imagine it would be close to 20 percent, something in that order.

Senator CHAFEE. That is right. But it is a deduction; it's not a credit.

Mr. TORRES. Thank you.

Senator BURDICK. Next year you would lose at least \$20 of that.

Senator CHAFEE. Yes.

Mr. TORRES. That is probably close; yes.

Senator CHAFEE. I also wonder if the legislature sees the people being generous and contributing to this fund, which is say half a million dollars and next year is going to be more you say, whether they don't, in turn, turn around and reduce their appropriation.

Mr. TORRES. That is a risk I must admit. But fortunately the majority of our legislators in the State of Colorado see this as a public interest item, tremendous support for nongame wildlife that they feel they should contribute to appropriate general revenues. And this has happened. We have not lost any general revenues.

Senator CHAFEE. We have got to move along and we have half an hour and we have four others. Are you through?

Mr. TORRES. Yes; I am through.

Senator CHAFEE. I thank you. Colorado has done the best job, unquestionably, of any of the States, on a program and I commend what you have done here.

Mr. TORRES. Thank you, sir.

Senator CHAFEE. Mr. Hawkes, we welcome you here, Mr. Hawkes.

**STATEMENT OF ALFRED L. HAWKES, EXECUTIVE DIRECTOR, THE  
AUDUBON SOCIETY OF RHODE ISLAND, PROVIDENCE, R.I.**

Mr. HAWKES. Thank you for the opportunity to testify. My name is Alfred L. Hawkes, executive director of the Audubon Society of Rhode Island. I am here to speak in favor of S. 2181. My work brings me into daily contact with many people who will be affected by the funding mechanism of this legislation. These same people will, along with most other citizens of the Nation, also benefit directly from enactment of this law. These benefits will accrue over time in the form of a healthier, more diversified, stable, productive, useful, and interesting natural environment. It is my opinion that the vast majority of the people I contact from day to day are much in favor of the provisions of S. 2181.

In support of my position I would like to suggest some of the ways in which we in Rhode Island would like to see these funds put to use.

First. Inventory of nongame wildlife species found in Rhode Island.

Second. Baseline population studies on selected species of nongame wildlife whose numbers have direct impact on other animal populations, which are sensitive enough to be used as general environmental

quality indicators, and/or which are declining but not necessarily endangered.

Third. Research on the life histories and niche requirements of declining but not endangered species.

Fourth. Acquisition, management and/or protection of habitat of value to selected nongame species or of high value to a wide spectrum of nongame species.

Fifth. Species management and protection for selected declining species.

Sixth. Enforcement of laws pertaining to nongame wildlife.

Seventh. Development of public educational programs and training programs for professional wildlife managers relating to nongame wildlife.

Eighth. Development of urban wildlife management programs.

With respect to the funding mechanisms of S. 2181, we fully endorse the 11 percent manufacturers' tax on wild bird food and other devices for attracting birds. However, this Nation's wildlife has a high enough value to the welfare of all citizens and the Nation as a whole that we believe funding from general tax revenue is fully justified and should be the ultimate goal for financing of all wildlife programs.

Feeding and attracting birds is a recreational activity done first and foremost for the enjoyment of the person or persons involved. While there is some debate about the long-range impacts of artificial bird feeding, there is little evidence to indicate that it is significantly harmful to any species or group of species. Only a relatively few species of birds are affected by feeding programs. Few or no species of birds actually need to be fed artificially. The amount of energy required to sustain this form of recreation is certainly no more, and probably far less, than that required to sustain many other still accepted forms of recreation which are not only more wasteful of energy but demonstrably harmful to the environment and public health. It is my opinion that few people who put out food for wildlife will object to the small additional cost added to that activity by the proposed funding method. We have several other suggestions and comments on S. 2181.

The limitation on the States to provide not over 10 percent of matching funds from hunting and fishing license fees should be removed. We believe that most State wildlife agencies are competent to judge such matters for themselves and should be given the freedom to do so. Just as nongame wildlife often benefits indirectly from habitat manipulation for game management, so game species will frequently benefit from programs of nongame management. Federal directives on how States may spend their own funds for wildlife management would seem to be somewhat unnecessary, undesirable, and presumptive.

Senator CHAFEE. I think that was put in there so we wouldn't scare off the game people by thinking we are going to dip into their Robertson-Pittman funds.

Mr. HAWKES. I suspect that probably was the case. Again I fully believe most game managers are professional enough so they wouldn't seriously jeopardize their game programs with a nongame program. I think they should be allowed to judge for themselves how much of that money should be available.

There is some ambiguity in the wording of the limitation of not more than 25 percent of the State's allotment being spent on enforcement and information-education programs as to whether the limitation is 25 percent to each program or 25 percent for both programs together.

In States such as Rhode Island, where total budget expenditures for fish and wildlife management are likely to be less than the deficits incurred by similar programs in large States, the importance of in-kind contributions in lieu of matching funds is vital. We suggest that an amount larger than 10 percent be allowed for in-kind contributions for at least the first few years of the program. In-kind contributions of 100 percent might be allowed the first few years and this amount reduced by 10 percent or so annually until a more realistic figure is reached.

There is some question in our minds as to the length of time available to the States to plan for and commit the annual appropriations from this program. We suggest that period be not less than 2 years before the funds are withheld.

Wording of the section on funds reverted to the program when not properly committed by the State is not clear as to redistribution of those funds. We suggest that funds available to but unused by individual States be redistributed on a proportional basis for use by those States carrying on active programs of nongame management and research.

In conclusion, I strongly urge passage of S. 2181 as one of the most enlightened programs of wildlife management yet to be proposed in this Nation.

Senator CHAFEE. Thank you very much, Mr. Hawkes. I think all of those suggestions are good ones. I have always been leery of in-kind contributions by States. I find that they really don't do anything more. They say they have done something but really haven't. I am skeptical of in-kind contributions, maybe because I participated—

Mr. HAWKES. I am speaking for Rhode Island and we don't do that sort of thing.

Senator CHAFEE. Times have changed since I was Governor.

Mr. HAWKES. I would like to add that I carried with me the endorsements of the Vermont Institute of Natural Science and the Central Vermont Audubon Society for the legislation. They would like to be put on record as endorsing S. 2181. (See pp. 226-227.)

Senator CHAFEE. I am sure Senator Stafford would appreciate it. I will remind him of it. Thank you very much, Mr. Hawkes, those are all good thoughts. Of course, when we get into a program like this, in the study they would be tremendously dependent for assistance on the Audubon Society and on the other wildlife groups who have done so much on this but need some money to help get it all in the proper order.

Mr. Doig from New York. Senator Moynihan who is a member of this committee regrets he could not personally be here to welcome you. I know he is interested in what you have to say.

STATEMENT OF HERBERT E. DOIG, ASSISTANT COMMISSIONER,  
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSER-  
VATION, ALBANY, N.Y.

Mr. DOIG. Thank you. Good morning. I am Herbert Doig, assistant commissioner for natural resources with the New York State Department of Environmental Conservation. I have a statement I have submitted for the record. (See p. 178.) I would like to summarize parts of that statement and demonstrate specifically need. My testimony here will focus primarily on need.

Fish and wildlife programs generally across the United States and within New York State specifically have depended almost entirely on the sale of hunting and fishing licenses and returns from penalties and fines paid as a result of violation of laws. This kind of dependence has been supplemented somewhat by general fund revenues in some States but in more recent years those revenues have eroded to the point where most fish and wildlife agencies again are depending exclusively on the sale of licenses for hunting and fishing recreation.

Senator CHAFEE. Do the funds decrease or they are not increased?

Mr. DOIG. I think I can show in just a moment with a bar graph what has actually been happening. We have had a decline in revenues as a result in declining license sales. We have also had a decline in buying power as a result of inflation.

Society demands at the same time have become ever more pressing on resource agencies. The conveniences that people are demanding in the form of new highways, shopping centers, the pressures of the economy, people wanting lower taxes, reluctance to buy licenses, demands for social programs in government, are taking away from resource programs.

Demands for energy which more recently have focused on alternative fuel supplies such as wood may have a significant impact on wildlife resources and the quality of life being demanded by people. At the same time this is all going on, funding and buying power have been diminishing.

John, could you?

Mr. GOTTSCHALK. Senator, we have some charts. May I come up here where we can see them better.

Senator CHAFEE. Sure. I missed what you said about wood, the increased demand for wood for fire stoves were you saying?

Mr. DOIG. That is right.

Senator CHAFEE. Is that creating havoc with the habitat?

Mr. DOIG. It has potential for causing very significant environmental change. As a result of removing deadwood, you remove food supplies and sources of homes for wildlife in wood lots. We don't really know the true significance of this at this time. We don't know how extensive the wood for energy programs are going to be, and we really need to do a great deal more research to determine the impact of these kinds of activities on the resident wildlife.

Senator CHAFEE. Go ahead, John.

Mr. DOIG. Fish and wildlife programs generally are beneficial to the people of the State, both economically and recreationally. In New York State, we derive over \$28 million alone in sales taxes as a result of license buyers activities. In hunting and fishing programs we derive an economic benefit to the State of New York that exceeds \$1 billion and this focuses only on the recreational pursuits of hunting, fishing, and trapping. The benefits of wildlife to people other than that have not been satisfactorily tabulated. So fish and wildlife programs are, in fact, big business.

Senator CHAFEE. What did you say about \$1 billion?

Mr. DOIG. Over \$1 billion is contributed to the New York economy by sportsmen as a result of their activities of hunting, fishing, and trapping.

Senator CHAFEE. How many deer are shot in New York?

Mr. DOIG. Between 80,000 and 100,000 a year.

Senator CHAFEE. How many in Pennsylvania?

Mr. DOIG. They exceed that amount—

Senator CHAFEE. I hear there are more deer killed in Pennsylvania than any State in the Nation, is that true?

Mr. DOIG. Yes; that is true. Those of us in New York are reluctant to admit it.

Senator CHAFEE. If it is contributing \$1 billion, you would think the legislature somehow would get more money for the program to keep the thing going.

Mr. DOIG. We in New York have been more fortunate than most. We have had support from the legislature to the tune of almost \$8 million in some years for programs for fish and wildlife from the general tax fund. It is both in the form of land acquisition money as well as funding for matching existing grants for modernization, expansion of fish hatcheries; those kinds of things. As we approach the less traditional programs, programs that benefit nongame wildlife, we find less support because of it being a new program area. In this chart we see immediately the kind of programs that are supported by the conservation fund.

In the current year, about 25 percent of the moneys in the conservation fund are going to support programs that benefit nongame fish and wildlife. Two years ago we undertook an assessment of the status of the conservation fund because we had witnessed since 1970 a deterioration in the availability of funds for fish and wildlife programs. The general fund support that was enjoyed in the late 1960's began to erode.

At the same time, we realized that license buyers were less likely to buy—licenses probably a response to a license fee increase. We never did gain back the number of license buyers we had previously.

As a result of this erosion of our funding base, we had a loss in our capability to meet the demand for fish and wildlife management I mentioned earlier. The primary problem, however, has been inflation. In our analysis, we identified that since 1967, we have had an inflation rate averaging about 7 percent. Since 1971 when we had our peak of program funds, we have experienced approximately 8 percent inflation. This rise in cost to do business has not been offset by increases in license fund revenues. Inflation nationwide in the past decade has doubled the cost of doing business. Back in 1967, \$100

worth of program today would cost us \$200. In recognition of this, we took a look at our funding sources and we realized since 1967, we have not doubled our available funding and therefore our programs have had to suffer.

In this chart, we compared the inflationary trend to the availability of funding. The dark brown is the available funds showing two license fee increases during the period. Notice that when license fees are increased we bring revenues almost to the level of inflation, but quickly drop behind. The yellow bars indicate the inflationary costs based on the 1967 program levels.

As we project further into the next decade, we realize if this inflation continues at 7 percent, by 1989, we in New York will need \$17 million more to run the programs that existed in 1978. This allows for no expansion, no resource development and no moving into new program areas. This additional cost must be absorbed or new revenues must be found if we are going to continue programs at 1978 levels.

On the other hand, we can expect a reasonable growth in license sales and we projected a 3-percent growth in revenues over that period. We still find ourselves \$12 million short in 1989 to conduct the programs that existed in 1978. This is at a 7-percent inflationary rate and we all know last year it was almost double that.

We in New York have developed an aggressive program to meet this new challenge. The program includes continuing the established tradition of having license fees support the basic program of the Fish and Wildlife Division. We are looking to outside funds, new funds, to support expansion and changes in direction in the programs that we have and it is a combination of these two strategies that will help us meet the financial needs of fish and wildlife programs in the future.

The needs in the nongame program area are basically laid out in four categories, (1) reliable funding base that we can depend on to maintain programs once they are initiated, (2) start-up money that will make sure the program gets off the ground, (3) planning that will assure the right decisions in the kinds of things we do, and (4) citizens' participation to assure that all of the citizens that are interested and concerned with these resources can participate in the planning and development of programs. It has been demonstrated that there is a great motivation for citizens to participate directly. We must provide opportunities for them to participate.

There is much to be done. Our planning up-to-date has been primarily for game species. We must undertake more comprehensive planning to include all species in an ecological approach to management of our fish and wildlife resources.

The Hudson River has been the subject of much interest because of stripped bass. Lake Ontario has been identified as an area of concern because of salmon. The Adirondacks has been identified as important for camping recreation as well as a place for hunters and fishermen to participate in their sports.

There are also substantial nongame values that must be protected. Land acquisition programs have been developed with a primary focus on game species. We must now move to put into public ownership those areas of high wildlife value that cannot be protected in any other way.

Urban park development is a major thrust we must undertake to bring wildlife to the people. With energy demands being what they are and supplies faltering, we must bring wildlife to people rather than be assured of taking people to wildlife. Our public information must be brought to the people so we can develop a reasonable and responsible ecological ethic among all our citizens especially those who have less contact with the land and the more rural environment, specifically, those people in our urban centers.

Lastly, we must have research that will give us the answers so we can make the right decisions on management of various species and their role in the ecosystem. We must know their status and must be able to develop effective management alternatives that will improve and enhance these resources.

In conclusion, then, we have identified that our programs are faltering. Even though we have a stable funding source in most wildlife agencies, the existing funds are inadequate and will become more inadequate as time goes on. Public demand is increasing, both in terms of use of the resource and use of the environment which supports the resource. We have a very substantial resource need. If we are going to be able to meet the demands of the future, funding is essential. We look to S. 2181 as a good approach to meeting the demands that I have identified.

If we are to recognize wildlife as the "hallmark of quality," we must certainly support it with adequate funding to make these programs a reality.

Thank you.

[Charts accompanying Mr. Doig's statement follow:]

# DIY. FISH & WILDLIFE BENEFITS TO N.Y.S.

- AESTHETICS - PERPETUATION OF RESOURCE • ACCESS
- PROTECTION - \$2.0 MILLION IN LABOR • NUISANCE CONTROL
- RECREATION - 35-40 MILLION DAYS FISHING/HUNTING
- ECONOMY - \$700 MILLION ANNUAL EXPENDITURES  
\$23 MILLION SALES TAX - JOBS.

**WE MANAGE A VITAL INDUSTRY.....**

## *the* **PROBLEM**

- DECLINE IN ACTUAL REVENUE, AND SEVERE DECLINE OF PURCHASING POWER OF THE CONSERVATION FUND

## *the* **RESULT**

- REDUCED CAPABILITY IN FISH AND WILDLIFE MGT.

## 1977-78 Non-Traditional Programs

ENVIRONMENTAL PROTECTION	...\$1,519,029	17.0 %
ENDANGERED SPECIES	.....160,838	1.8 %
NON-GAME	.....17,871	0.2 %
URBAN WILDLIFE	.....53,612	0.6 %
URBAN FISHING	.....107,226	1.2 %
	<u>\$1,858,576</u>	<u>20.8 %</u>

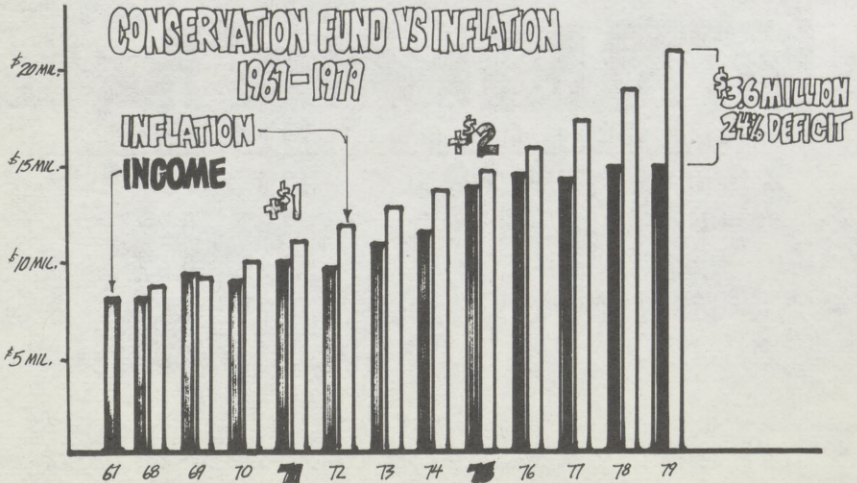
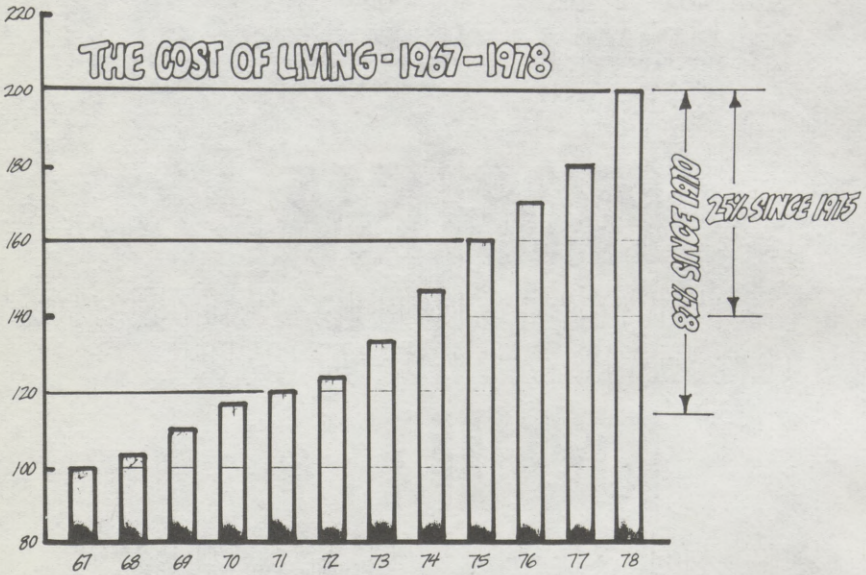
1979-80 PROJECTED \$2.5 MILLION 25%

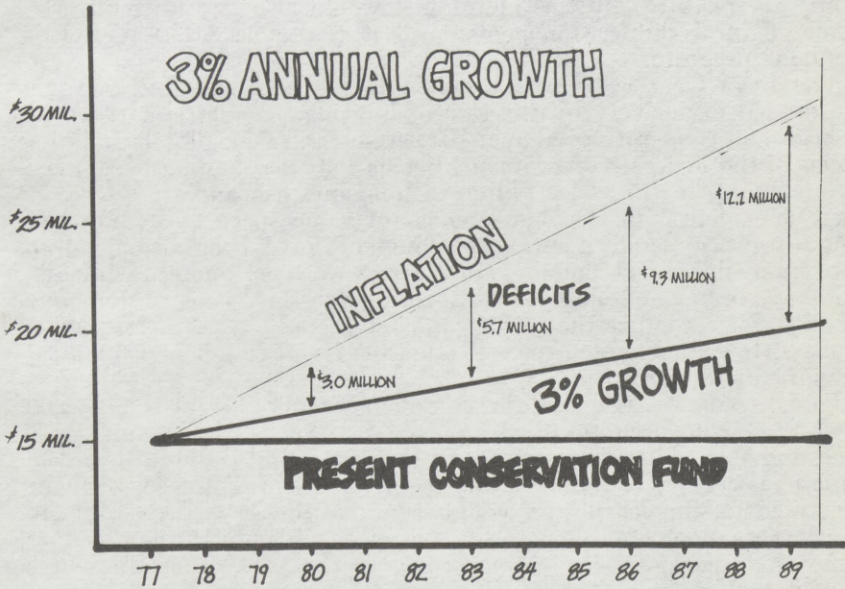
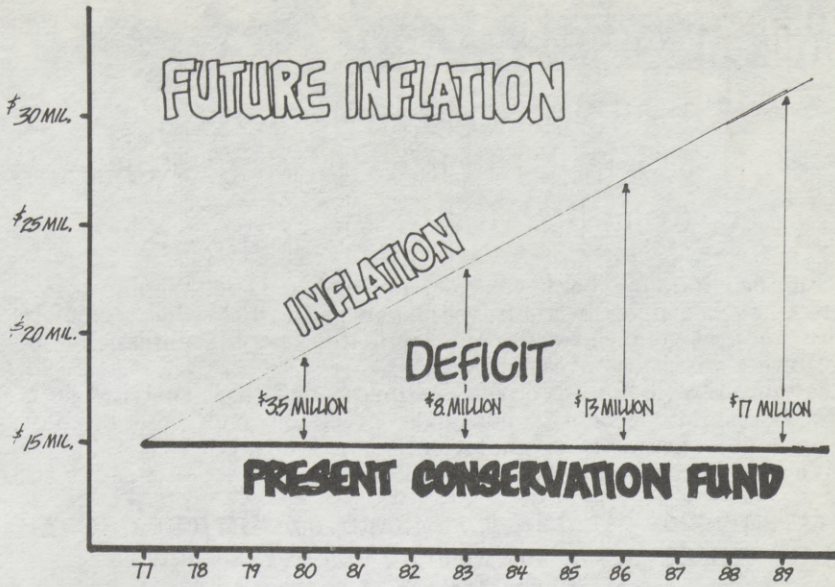
**PRIMARY FACTOR :**

# INFLATION

**8% ANNUALLY SINCE 1970**

**7% PROJECTED FOR FUTURE**





# Alternative General Strategies

- USER FEES SUPPORT PROGRAM
- OUTSIDE INCOME SUPPORTS PROGRAM
- COMBINATION OF ABOVE

Senator CHAFEE. Thank you very much, Mr. Doig. We appreciate that. I have a couple questions for the panel as a whole when we finish. Why don't we go ahead with Mrs. Lumbard, who is commissioner of the Iowa Conservation Commission.

As you know, Senator Culver is a member of this panel and he is sorry he cannot be here to personally greet you and sends his best wishes and is interested in what you have got to say.

Why don't you go ahead, Mrs. Lumbard?

## STATEMENT OF CAROLYN T. LUMBARD, COMMISSIONER, IOWA CONSERVATION COMMISSION, DES MOINES, IOWA

Mrs. LUMBARD. I appreciate your personal interest and the opportunity to speak to you this morning. I would also like to thank Mr. Poole, of the Wildlife Management Institute, for his praise of Iowa's nongame program.

The Iowa Conservation Commission's fish and wildlife programs are funded exclusively by the sale of hunting, fishing, and trapping licenses and cooperative Pittman-Robertson and Dingell-Johnson programs of the Federal Government. Because of this funding base, most of our efforts in the conservation of nongame fish and wildlife have been coincidental to the management of game species. Programs of land acquisition and habitat development have been beneficial to nongame wildlife but the nongame species were peripheral recipients. To date, we have one individual devoting one-third time to nongame wildlife. We recognize the ecological, educational, and esthetic importance of Iowa's nongame species, but thus far have not had financial support for this program.

I might add we as a State have not had support from the general fund. We have been totally supported by the fish and game trust fund and sale of licenses. Passage of S. 2181 would provide Iowa the impetus necessary to pursue an active nongame program. We feel the enactment of this legislation would stimulate the Iowa Legislature to appropriate money for nongame conservation and enhancement, something that has not been accomplished in the past other than in a coincidental manner.

There are approximately 400 different vertebrate species extant in Iowa. Of these, about 85 percent are species which meet the definition of nongame. It would be our intention to develop a well-rounded nongame program. To preserve biotic diversity and enrich human

existence, the objectives of the Iowa nongame program are: (1) To prevent the extirpation of any native species of animal or plant life from Iowa as a result of human actions; (2) to arrest the decrease in numbers of species currently exhibiting declining population trends; (3) to maintain and increase self-sustaining populations of native species in keeping with available resources and human needs; (4) to increase, restore, and preserve the habitats necessary to the continued existence in Iowa of its appreciatively used living resources; and (5) to provide a diversity of recreational and educational opportunities for nonconsumptive use of Iowa's living resources.

Before any effective attempt can be made to preserve or enhance the nongame resources of Iowa, much more must be known about their distribution, abundance, habitat requirements, and management sensitivities. Adequate data do not presently exist upon which to base management decisions for most nongame organisms. The nongame program will thus define species' habitats, particularly for species identified as requiring special concern, within the biogeographical strata which comprise Iowa. These generalized ecosystems have been refined and subdivided on the basis of climate and distribution of biota within landform regions of Iowa.

Senator CHAFEE. I would like to ask the other members of the panel, I take it that this is a common problem, as in that last paragraph of Ms. Lombard's statement, where she says, "Before any effective attempt can be made to preserve or enhance the nongame resources of Iowa, much more must be known about their distribution, abundance, habitat requirements, and management sensitivities." Of course, that is what this is all about. Do you agree with that, within your States that you need this advance study about the habitat and the distribution, so forth, do each of you agree with that?

Mr. HAWKES. Pretty much so; yes.

Mr. TORRES. Absolutely.

Senator CHAFEE. I would think scattered around there must be a lot of evidence. For instance, within the Audubon Society, you must have a lot of information about the habitat requirements of birds, don't you?

Mr. HAWKES. There is some local information available, but there is not enough to base a broad-scale management program for, let's say, all of the residents or nesting birds species in Rhode Island. A lot more work needs to be done. We can provide some input into that but not much more.

Senator CHAFEE. That would be true in each of your States? I suppose with the animals, the vertebrates, it would be even more difficult.

Mr. GOTTSCHALK. Mr. Chairman, may I just say in the report of our Nongame Committee of the International Association, which I will leave for the files, not for the record, there is a table that shows there are about 3,700 different kinds of vertebrate animals in the United States. Of that number 125 may have been legally taken. They are the ones who receive the bulk of the study so we have something like 3,500 other species of birds, mammals, fish, reptiles, and amphibians which really only get academic study at the university level rather than by the management agencies.

Senator CHAFEE. Thank you. Please proceed, Mrs. Lumbard.

Mrs. LUMBARD. I would certainly say the bird species are certainly the most obvious and we are presently doing studies on box turtles and hog-nose snakes. I don't think there is a lot of interest or societies following these species.

Knowledge gained from the assessment program and other sources will be used primarily in recovery programs. Scientific expertise will be garnered and developed into management activities carried out primarily by other operating divisions of the conservation commission and cooperating agencies. Biologists who formerly managed by intuition to provide for the needs of uncommon or declining species will now have somewhere to turn for direction.

Appreciative uses of natural environments, including wildlife in particular, are rapidly increasing. Increasing urbanization and education are swelling the ranks of nonconsumptive users, and educational programs which acquaint the public with opportunities to enjoy appreciative uses may also further increase use. Unfortunately, planning for wildlife values has been most pronounced for wildland situations in which Iowa is lacking and has been largely ignored in the rural and small metropolitan situations which characterize Iowa. Many Iowans who feel economically compelled to farm in ways detrimental to wildlife still appreciate wildlife. This program should provide the psychic, legal, or financial inducements for private citizens to manage for living resources, if only around city homes and rural farmsteads. It should also provide urban dwellers an opportunity to view prairies and wintering eagles, outside their workaday world. Through consultation and collaboration with designers and planners, not only wildlife but whole ecosystem concepts can be brought to the people for their appreciation.

Initially the research efforts would concentrate in the following five areas with the stated goals of determining population status and habitat requirements:

The first effort would be to conduct a statewide survey of nongame fishes. This would be a 3-year study requiring \$300,000.

Senator CHAFEE. Total \$300,000 per year or total?

Mrs. LUMBARD. Total. Second, to conduct a statewide survey of reptile and amphibian species and complete detail studies on two reptilian and two amphibian species. Five-year study, total of \$800,000.

Third, to conduct indepth research of six species of native birds other than raptors. This would be a 5-year program with a cost of \$175,000.

Fourth, to conduct a statewide survey of summer and winter raptor numbers and complete indepth research on four species, a 5-year program with the cost of \$125,000.

Fifth, to conduct detail research on 10 species of nongame mammals, 5 years at \$300,000.

The results of these investigations would provide the basis for habitat acquisition and development, management, and public information and education aspects of the nongame program.

After the initial 5 years, the program would be a better balance of research, habitat acquisition and management, and public education. This program would entail biologists assigned to nongame fish, birds,

mammals, and an urban wildlife specialist. Except for the urban wildlife specialist portion of this program, most activities will involve surveys of distribution and abundance, estimates of populations of each species, delineation of habitat requirements, location of critical habitats, recommendations for habitat acquisition and management, and habitat management coordination. The urban wildlife program would be heavy on education, public speaking, and development of urban wildlife habitat.

Planning and implementation of some portions of this program could begin immediately. Within 2 to 3 years, the programs could be brought up to speed. The initial thrust of the program outlined earlier is designed to provide valuable data needed in the nongame planning process. However, this same data would allow the program to also bridge into the implementation phase.

We urge the committee to proceed vigorously toward enactment of this important and long overdue piece of legislation. Thank you for your attention in this significant matter.

Thank you.

Senator CHAFEE. Thank you. Tell me, as a commissioner, you are appointed by whom, the Governor?

Mrs. LUMBARD. Yes.

Senator CHAFEE. And you serve for how many years?

Mrs. LUMBARD. For a 6-year term.

Senator CHAFEE. Is it a nonpaying job, volunteer job?

Mrs. LUMBARD. Yes; it is a volunteer job.

Senator CHAFEE. Nonpaying?

Mrs. LUMBARD. Right.

Senator CHAFEE. You are great to come out. This is a very thorough analysis you have done. I appreciate it. You have gotten right down into the potential expenses as you see them and what the program would be in your State. It is obvious Iowa has a good conservation commission.

Mrs. LUMBARD. Thank you.

Senator CHAFEE. Mr. Gottschalk?

Mr. Gottschalk, we welcome you.

**STATEMENT OF JOHN S. GOTTSCHALK, LEGISLATIVE COUNSEL, INTERNATIONAL ASSOCIATION OF FISH AND WILDLIFE AGENCIES, WASHINGTON, D.C.**

Mr. GOTTSCHALK. Mr. Chairman, in the interest of time and in the interest of providing you an opportunity of questioning the rest of the panel, I would cheerfully waive a condensation of my prepared remarks and leave them for the record, if that is satisfactory for you.

Senator CHAFEE. Why don't you say a couple of words.

Mr. GOTTSCHALK. The thing I would like to get across is to tell you something that will be no surprise to you, that is, the State wildlife agencies are unanimously in support of S. 2181. The Association of Fish and Wildlife Agencies has been concerned about the total nongame wildlife conservation problem for more than 15 years.

We have had a succession of committees who have looked at the problem. They recognize that by virtue of the traditional funding sources, the State agencies have been hamstrung in their efforts to do things for the myriad forms of wildlife that exist outside of the game categories. Their concern about this, as I indicated, has been reflected in the consistent support we have given to nongame programs. At our last meeting, we again reiterated the need to see this kind of stimulus to State programs come to pass at the Federal level. We think the bill that you are considering here, S. 2181, is unique in several respects. In the first place, it provides an opportunity for both planning and implementation, which the House bill does not do, as you are well aware.

We think this reflects the kind of interest that there is across the country in nongame wildlife. There are, in our opinion, general public welfare benefits from having a healthy wildlife population in the Nation's ecosystem that is of general benefit to everybody.

People may not always identify it as such, but I think there is no one who wouldn't support the idea, and we can quote Dr. Kellert's testimony.

Senator CHAFEE. You can accept that——

Mr. GOTTSCHALK. As given.

Senator CHAFEE. As given in this room. You don't have to prove that point.

Mr. GOTTSCHALK. The point I am trying to make is your legislation, with the \$8 million a year for 3 years for planning money coming out of the general fund of the United States, reflects that general interest. But the implementation part calls upon those who have a dedicated interest in and derive specific benefits from bird conservation to support the program through their paying of the 11 percent excise tax on bird feed, et cetera.

This, then, gives them an opportunity to demonstrate their personal interest. I think this combination of recognition of benefits and the application of the payment to those two different classes of beneficiaries is very unusual. It ought to be recognized across the board, that it is a special element of sophistication in legislation that I don't think we have ever seen before.

I think it is very unusual from that standpoint.

One of the factors that I do not touch upon in any detail in my written statement has to do with the problem that has been alluded to of, in effect, taxing the interest out of this class of people. Frankly, any good study of the character of the people who are interested in bird conservation indicates that they are not necessarily poor people. Poor people, generally speaking, represent a small number of the membership of the national conservation organizations. We are talking about the broad middle class, actually, that supports conservation programs.

These are the people who pay the taxes.

Senator CHAFEE. I am for the tax, as you know, because I put it in the bill. I suppose the opposition or the manufacturers are going to say that this tax is not on the membership of these organizations. This tax is on those who do the feeding of the birds. In other words, you say the membership of the organizations is made up of the middle class, if you want to call it that, not necessarily the poor.

I suppose the median income of the National Wildlife Federation is a good deal higher than the average median income in the United States. The question is, when we put the tax on the bird feed and the bird feeders, are we hitting a lower income group, possibly?

Mr. GOTTSCHALK. That was the point I was trying to make. I think even though I cannot support this with specific statistics, in my discussions of this question with the people in the organizations, it is generally recognized that the bulk of the feed is bought by people generally in the middle class and the poor people are really not going to be affected.

What I am leading up to is, I don't think, just from that standpoint, we are going to see any reduction in the sales of feed. Now, there is another aspect that I think needs to be brought out; that is, as has been indicated by some of the comments by the State representatives here, we think there is going to be a great stimulus to interest in birds and bird feeding and bird conservation generally. In a few years, if there is any effect on feed sales at all, it will be masked by an increased participation.

Senator CHAFEE. Through the education program.

Mr. GOTTSCHALK. Right.

Senator CHAFEE. Fine.

I have a deadline I am trying to meet here, Mr. Gottschalk. If it is all right with you, I thought I would ask some questions. You about covered the points you want to make?

Mr. GOTTSCHALK. The main points, I have covered. The other thing I think I should bring out, however, and this has been alluded to to some extent, but I will be more specific about it, we have all been accustomed in the last few years to seeing some very acrimonious debates by those interested in economic development and on the other side the protectionist or environmental elements of our country.

The most recent was a very severe problem for this committee, the Tellico Dam problem, in the TVA. If we had had a program like this that would have identified that snail darter, 10 or so years ago, I think it would have provided an avenue for a resolution of that problem before it ever existed.

One of the benefits of this program is that it is going to tell us where wildlife exists, where it is rare, where there needs to be some special concern for it, and in the process eliminate many of the kinds of problems that we have seen that have developed into national confrontations.

That is my last point.

Senator CHAFEE. That is a good point. Thank you, Mr. Gottschalk.

I would just like to ask Mr. Hawkes, and I was a bit facetious about the in-kind contribution. How would you envision the States making an in-kind contribution, through their fish and wildlife sections of their own biologists, and so forth?

Mr. HAWKES. Through the assignment of personnel, through the assignment of space, equipment, that sort of thing. I think the fact is, at least in Rhode Island, that the fish and game people try to carry on some nongame management now because they recognize its value and they recognize the need for it. It is sort of stolen from other programs

at times when it can be. This makes it very irregular and erratic in its effect.

For example, the Rhode Island Division of Fish & Wildlife has done some investigation of tern nesting sites, the number of which have been declining over many years. The Audubon Society of Rhode Island discovered the Coast Guard was about to tear down an old lighthouse station platform. We knew that this platform was a major tern nesting site in the State of Rhode Island only because the division of Fish and Wildlife over the last 2 or 3 years happened to keep a record of the number of nesting terns on that particular platform.

Senator CHAFEE. Could you stop the Coast Guard from doing it?

Mr. HAWKES. They fell over backwards cooperating with us.

Senator CHAFEE. Now there is a success story. I thought they would proceed full-speed and tear it down with regret.

Mr. HAWKES. That was the last thing in their minds, once they found out what the problem was. In fact, they are repairing the platform and leaving it specifically for use as a nesting site for the terns.

Senator CHAFEE. Some good things do happen once in awhile.

Mr. HAWKES. Once in awhile.

Senator CHAFEE. Mrs. Lumbard gave a good breakdown on expenses. Do the rest of you have any idea of how much money would be needed to adequately fund the program? I suppose to use the word "adequately fund" is such a big word because you could absorb all kinds of money under this program. But she had statistics at least dealing with the studies.

Do any of the rest of you have, for your own States, any estimates of what the studies might be?

I didn't ask you to come with that question but I was curious. For Iowa, she breaks it down to about \$1 million. That is over 5 years, some of it going 5 years.

Mr. DOIG. We in New York have done an analysis. Generally, we see a program starting around half a million dollars, building to \$5 million over the next 5 to 10 years. That is just as we identify it now. The planning process certainly will identify specifics and will enable us to obtain much more accurate projections of what the needs are.

Senator CHAFEE. Maybe I am wrong, and you people know much more about it than I do. I suspect once you get into this, you would find all kinds of studies have been done on such-and-such a species by some research graduate students somewhere. I think somebody mentioned about going to the universities. There must be a lot of material lying around, maybe it is not all up to date, but there must be a lot of statistics.

Mr. HAWKES. I think the first use for some of this money would be to do precisely that, conduct a literature search and find out what is available on important nongame species in each State. That is the beginning of any sensible research project.

Mr. DOIG. We are also dealing with a dynamic resource and environment. There have been a great many changes in the environment over the past two or three decades. With those changes, that means a lot of the earlier studies no longer are relevant to today's needs. Although it has been established over a long period of time, a bank of

knowledge, that does not necessarily mean it is all pertinent to today's issues.

Senator CHAFEE. I think that is very true.

Mr. HAWKES. I would like to suggest a rationale for nongame management which seems to me to be exceedingly important. The increase or decline in the numbers of certain species of animals, both vertebrates and invertebrates, may very well be the first indication to us that we are causing some problems in the environment we haven't even recognized. These are problems in many cases which may come back to have a direct impact on people. The EPA and Public Health Service, for example, for years have been looking for the organisms in salt water which could be used as the indicators of certain kinds of pollutants. As the indicator populations go up and down one literally monitors the presence or absence of a particular pollutant in that environment by looking at that indicator population's status. To do this requires a detailed and intimate knowledge of the species' needs and life system. If such animals can be found, they are going to be mostly if not entirely nongame species. We just haven't begun to investigate that aspect of nongame wildlife management.

Senator CHAFEE. I suppose one of the problems you are always confronted with is a consistent funding source. At least if we got this bill through, you would have something consistent to look forward to.

It may not be a great deal of money, but at least you would know it would be there, just as it has been in the Dingell-Johnson and Pittman-Robertson. I suppose something steady is important to you, is it not? Am I correct in my judgment there?

Mr. DORG. As an agency administrator, it is essential to establish a nucleus of a program with stable funds. You cannot build a reliable staff and recruit staff with expertise if you have a very unstable funding support. You can recruit additional funds from other less stable sources to supplement your basic nucleus of the program. It is an essential element that is very desirable.

Mr. GOTTSCHALK. Another aspect, Senator, is the excise tax approach provides the ability and a mechanism for accommodating the effect of inflation. In other words, as the cost goes up, the tax goes up automatically. So it increases in proportion to inflation and takes care of that problem.

Senator CHAFEE. Helps to take care of that problem?

Mr. GOTTSCHALK. Helps.

Senator CHAFEE. Thank you all very much.

We are going to have a 3-minute break.

The next panel, the birdseed manufacturers, can get ready to come up.

Thank you all very much for coming.

I know you have come long distances, all the way from Iowa, Mr. Torres, from Colorado. We appreciate each of you coming.

Mr. Diekman, Mr. Wagner, Mr. Heath, and Mr. Hyde, please come up.

[Brief recess.]

Senator CHAFEE. Ladies and gentlemen, if we could get started.

We will now hear from a panel made up of the birdseed manufacturers and the feeders as well.

Gentlemen, we welcome you here. I recognize some familiar equipment on the table and am delighted you each came.

Why don't we start with Mr. Diekman, who is from MGR Feed Co. in Hammond, Ind.

**STATEMENT OF FRANKLIN C. DIEKMAN, PRESIDENT, MGR  
FEED CO., HAMMOND, IND.**

Mr. DIEKMAN. Thank you for the opportunity. I am Franklin Diekman, president of the MGR Feed Co. of Hammond, Ind.

We are a small family-owned and operated manufacturing facility engaged in the production of mixed birdseed and lawn and garden equipment. Both of my sons work along with me in running the business.

I am speaking today as vice chairman of the Birdseed Committee of the Farm Seed Division of the American Seed Trade Association. The American Seed Trade Association is a national nonprofit group representing over 700 seed companies with production in over 40 States and distribution in all 50.

Our company, along with the other members of the birdseed committee, has always supported and continues to support nongame conservation and management programs. However, we are opposed to the imposition of an 11 percent tax on wild birdseed mixtures to fund the program. Such a tax would provide neither an adequate nor reliable source of funding with which to operate the proposed program.

Further, imposition of the tax would be disastrous in an already declining mixed birdseed industry and would be counterproductive to the goals of the nongame program sponsors by actually reducing the amount of birdseed purchased for backyard feeders.

At the outset, I would like to say that the birdseed industry has just recently sought to organize. The birdseed committee was formed last year among members of ASTA who have a commonality of interest in the processing, mixing, packaging, and selling of seed used for the feeding of wild birds.

Currently, the committee consists of 31 members from 13 States. Members representing the larger companies in the industry are also engaging in related activities such as growing, conditioning, and/or selling of farm, garden, and lawn seeds.

Beyond the top 10 or 12 producing companies, the birdseed mixing industry consists of a large number of farmers, grain elevator operators, and hardware store proprietors who, on a part-time basis, mix and sell small quantities of birdseed, frequently not in a formal package form. It is difficult, if not impossible, to determine the exact size and extent of the mixed birdseed industry.

We feel that we are already participating in an ongoing, informal conservation plan, by providing high-quality, reasonably priced wild birdseed to the public who buys it and makes it available to the birds and wildlife in hundreds of thousands of locations throughout the

country on a daily basis. Further, many industry members contribute directly to Federal and/or State wildlife and conservation programs as well as conducting promotional campaigns in which funds are contributed to these organizations and causes.

We feel that each and every American citizen would benefit from expanded and improved nongame conservation programs. Our objection to the program outlined in S. 2181 is the funding mechanism. We oppose the imposition of an 11 percent excise tax on the manufacturer of mixed wild birdseed, bird feeders, birdbaths, and birdhouses. If levied, the tax would yield only a small fraction of the funds required to finance the program.

In our recent research into the actual size of the industry, we found the most reliable total production figure to be approximately 400 million pounds of mixed wild birdseed per year. This figure does not include the sale of sunflower seeds or millets sold separately and therefore not subject to the tax.

The value of this seed at the producer's plant is about 9 cents per pound, or \$36 million. These figures are an average yearly production and in the case of this year would be substantially less, as the industry sales are off between 25 to 30 percent.

The industry sales are very weather and economy sensitive. This year, we had little or no cold weather or snow across part of the industry market area.

Our sales reflect this with stark immediacy and the proposed tax would not represent a stable source of income for the program.

Proponents of the excise tax have pointed to the 1975 Payne study as suggesting the mixed birdseed industry accounts for \$170 million per year.

The Payne study was conducted in States of high mixed birdfeed usage; therefore, the \$170 million is an inflated national figure.

Senator CHAFFEE. In other words, he took that figure from the high mixed birdfeed States and then extrapolated it and imposed it on the Nation as a whole?

Mr. DIEKMAN. For instance, Cleveland, St. Louis, and areas like that, that have a very high percentage of bird feeding.

This figure must be reduced to reflect the actual sales at the producer level which we believe is no more than half of retail. Further, the Payne study includes both mixed birdseeds as well as the sale of straight sunflower seeds, millet, or milo.

Industry sources suggest that sunflower seeds and millet account for nearly 40 percent of the seed fed to wild birds.

Accordingly, the Payne study, after proper adjustments, would reveal that the dollar volume at producer level for mixed birdseed is, as we have suggested, between \$30 and \$40 million.

This figure is also supported by a study conducted by the National Family Opinion Organization of 10,000 households in which it was reported that the bird food market is approximately 388 million pounds per year. This study, while several years old, absolutely reflects the size of the market.

The product that we produce—mixed wild bird seed—is not a sophisticated product. It is a mixture of wholesome grains and seeds in proportions that are readily accepted by birds.

Because the product is virtually naked, it is by its very nature competitive both to and in the marketplace.

The product cannot bear the cost of an 11-percent excise tax. Five cents of taxation at the producer's level become 8 to 9 cents at the retail level, and even more in a two- or three-step distribution system.

The imposition of an 11 percent tax would reflect into a market increase that could conceivably eliminate the sale of the product. A very large percentage of our total sales is made through grocery supermarkets, where we are in competition for the already declining discretionary food dollar. The consumer is very aware of the price of our products.

A very large part of our sales are made to people of advanced age and many on fixed incomes.

Senator CHAFEE. What is that recent study you are quoting? I was reading ahead.

Mr. DIEKMAN. This is not a formal study, but it is a study, conversational study made by manufacturers in the industry where we attempt to draw a profile of the type of customer we are serving.

In that we find that the age group is definitely above the 56—

Senator CHAFEE. A Senate study, I was looking at, suggests that 36 percent of those who purchase birdseed are over 55.

Mr. DIEKMAN. Yes; we had access to a number of studies and all answers are slightly different. The ones that we are interested in are the people mainly that are purchasing this—for instance, in the supermarkets, we find that the age group there is over 50.

Senator CHAFEE. Go ahead.

Mr. DIEKMAN. These people, many of whom, for one reason or another cannot keep an indoor pet, enjoy feeding and watching the birds. A price increase to these people would very likely preclude the possibility of their continued participation in backyard feeding.

Senator CHAFEE. Hold one second. I cut you off here. The point he was making before I cut him off was a recent study suggests up to 75 percent of those who purchase mixed birdseed for feeding backyard birds are over the age of 56. And I interrupted with a question before he could finish that point. So I want to make sure that is in the record.

Thank you. Keep going, please.

Mr. DIEKMAN. We are for the program of conservation of nongame birds, fish and wildlife. We are opposed, however, to the 11 percent excise tax on wild bird feed, feeders, houses, and baths. We think it is unfair and regressive in nature.

Alternative funding methods which may be considered are:

Serious consideration should be given to general appropriations funding. Since the nongame programs would benefit each and every American citizen, it is only fair that these funds for financing the program be derived from general revenues.

Or why not consider an 11-percent tax on the dues and income on all Federal and State wildlife and conservation societies and organizations? Just as we feel the 11-percent tax would destroy our industry, we believe the wildlife and conservation groups would balk at increasing their dues and thereby losing members to finance this program.

When all is said and done, it appears the program is clearly beneficial, but the taxing mechanism makes little sense. It represents an unfortunate attempt to circumvent the appropriations procedure.

Thank you for the opportunity to express my views.

Senator CHAFEE. Thank you very much, Mr. Diekman, for your presentation. We will certainly bear that in mind. You make some good points here.

Mr. Wagner, vice president, Wagner Bros. Feed Corp., Farmingdale, N. Y., out in Long Island.

**STATEMENT OF WILLIAM G. WAGNER, VICE PRESIDENT, WAGNER BROS. FEED CORP., FARMINGDALE, N. Y.**

Mr. WAGNER. Mr. Chairman, since my full statement is 11 pages long, I think I would, just for the sake of time, read a portion of the statement and have the full statement placed in the record. (See p. 196.)

Senator CHAFEE. Let me pose a question, if I might, to Mr. Diekman.

One of the suggestions that has been made—I know you are opposed to the tax anyway, so we will accept that as a preliminary here, but you talk about the problems of wild birdseed mixtures. Somebody else said—you were here, I believe, during the testimony before?

Mr. DIEKMAN. Yes.

Senator CHAFEE. Somebody said take the word "mix" out of the tax so we could cover the sunflower seed, the millet, and the other points you made.

Granting that you are against it anyway, does this make any sense?

Mr. DIEKMAN. Sir, I think the administration of such a tax would be just almost impossible, to differentiate wheat from wheat, millet from millet, or sunflower from sunflower, or milo from milo and require the identifiable producers and packagers of this to pay that 11-percent tax and allow a tremendous quantity of smaller producers, who do not label their products and, therefore, would not be subject to it and would be almost impossible.

Senator CHAFEE. Mr. Wagner, go to it.

Mr. WAGNER. Mr. Chairman, my name is William G. Wagner of Wagner Bros. Feed Corp., the largest producers of mixed birdseed in the United States.

While our company has always supported and continues to support nongame conservation and management programs, we are opposed to the imposition of an 11-percent excise tax on wild birdseed mixtures to fund the proposed nongame program.

We strongly believe that the 11-percent excise tax on wild birdseed mixtures and bird feeders will provide neither an adequate nor reliable source of funding. Further, the proposed excise tax would be inequitable and potentially disastrous to the wild birdseed industry.

Our reasons for opposing the imposition of the 11-percent excise tax on mixed birdseed to fund the nongame program are as follows:

One: The excise tax will not provide an adequate or reliable source of funding.

Two: We estimate that the mixed wild bird seed industry at the producer level would represent between \$30 to \$35 million per year. The 11-percent tax would therefore produce at most between \$3.3 to \$3.8 million per year.

Three: Sales of mixed birdseed are highly volatile based upon weather conditions and the price of ingredient commodities such as millet, milo, and sunflower seeds.

Four: Imposition of the tax will raise the retail price of mixed birdseed thereby reducing sales. This will weaken and possibly destroy a small and marginal industry.

Five: Imposition of the 11-percent excise tax will have an adverse effect on the farmers' sales of millet, milo, and sunflower seeds.

Six: Imposition of the excise tax would be inequitable to the mixed birdseed industry, would be difficult to collect, and would not benefit the industry.

Seven: The proposed nongame program would benefit all nongame species; seed-eating song birds fed by backyard feeders represent only a small percentage of song birds, which represent only a small fraction of nongame species. It would be unfair to fund the broad nongame program based on the purchases of a small number of backyard feeders.

Eight: The proposed excise tax on birdseed is different from the taxes imposed under the Dingle-Johnson and Pittman-Robertson acts.

Senator CHAFEE. Could you elaborate just a little bit on that point?

Mr. WAGNER. I think I cover that later.

Basically, the industries taxed benefit from their programs—

Senator CHAFEE. In other words, if there is more game, then more shells, more rifles, et cetera, will be sold.

Mr. WAGNER. They are paying their dues to hunt and fish, I would feel.

Senator CHAFEE. What you have done in the latter part is take the specific points and go into them more thoroughly.

Mr. WAGNER. I will speed it up here.

Senator CHAFEE. That is OK. I see what you have done here.

Mr. WAGNER. Senior citizens on fixed incomes are the largest purchasing group of mixed wild birdseed and therefore would be the hardest hit by the proposed excise tax.

The proposed excise tax would be highly inflationary.

The general public is the primary beneficiary of the proposed nongame program, not the backyard bird feeder. The proposed program should be funded out of general revenues.

General appropriation funding would also enable Congress to monitor the progress of the program and provide necessary oversight.

Senator CHAFEE. You say that the senior citizens on fixed incomes would be disproportionately taxed. You say most who purchase birdseed and feeders are over the age 56. Is there some study to substantiate that? What do you base that on?

Mr. WAGNER. That was done by a very large company in the Midwest.

Senator CHAFEE. I won't pin you down.

Mr. FRANK. It was a private study conducted by a firm in the Midwest.

Senator CHAFEE. Why don't you send in those statistics and the name of the study and a copy of the study if you have got it. Send it to me personally, would you? Mr. Wagner.

Proceed, if you would.

Mr. WAGNER. Sponsors and proponents of the nongame bill argue that an adequate and reliable source of funding is needed to enable the State agencies to estimate available funds from year to year. In response to a recent U.S. Fish and Wildlife Service survey, the States estimated their nongame related needs for the period 1978-83 to be nearly \$100 million or in excess of \$16 million per year. Other groups, including many represented at the hearing today, have suggested that over \$30 to \$50 million may be required per year to adequately fund State programs.

The proposed excise tax would apply only to mixed birdseed.

Senator CHAFEE. I take it now you are going into detail on the points you made previously, is that correct?

Mr. WAGNER. Sort of.

Senator CHAFEE. In other words, point 1 is the excise tax will not provide an adequately reliable source of funding. Now you are discussing that.

Mr. WAGNER. The reliability part is a factor, too. The market is as predictable as the weather.

Senator CHAFEE. I think we have got most of these points and I think you have made them in your summary.

You are saying a mild winter affects your sales?

Mr. WAGNER. Yes; the last 2 years our sales have been off industry-wide about 15 to 20 percent due to weather conditions and inflationary pressures in the marketplace.

Senator CHAFEE. And that goes to the consistency, the reliability which you are talking about?

Mr. WAGNER. Yes; and we are definitely affected by inflation because the product is bought in the supermarket and we are competing for the food dollar.

Mr. CHAFEE. That is the point Mr. Diekman was making, too.

That is very helpful. You have done a good job.

If there are any other points you wish to make now—I am sort of pressing along a little bit because we have three others.

Mr. WAGNER. The main point, if you stick to the mixed bird seed, taxing just mixed bird seed, it would seriously disrupt the whole industry because you would have substitutes of straight ingredients. Then if you taxed just straight ingredients, which would be almost impossible, because they have so many different uses, these commodities—

Senator CHAFEE. You couldn't tax them—

Mr. WAGNER. You couldn't tax them properly, equitably, plus you still would be discouraging backyard feeders because the tax would still apply no matter what.

Senator CHAFEE. Mr. Hyde, president, Hyde Inc., Waltham, Mass.

**STATEMENT OF DONALD B. HYDE, JR., PRESIDENT, HYDE INC.,  
WALTHAM, MASS.**

Mr. HYDE. Mr. Chairman, my name is Donald Hyde, Jr., president of Hyde, Inc., in Waltham, Mass.

I would like to depart from my prepared statement to answer a question you raised earlier in the day concerning this Payne-DeGraff report.

The Payne-DeGraff report, a survey of the Massachusetts residents, Massachusetts Audubon Society in 1974, found one-third of all households bought an average of 60 pounds of bird seed a year and you raised some doubt about that earlier in the day, and I would like to comment on that. This survey was conducted by the Massachusetts Audubon Society to ascertain the potential of members that they might have in the Commonwealth.

Alan Morgan was executive secretary of the society at the time that the survey was conducted and I called Alan doing some research for my comments today and I said, "That damn thing is crazy." He said, "You are right, it is misquoted." What the Massachusetts Audubon Society surveyed were single-family residences. This left out the famous Boston three-deckers, the apartments and the condominiums, and of those, one-third of the households fed something to birds, thrown out bread crumbs, suet, any number of things. But of those who bought seed, the average was 60 pounds a year. So to say that the survey of Massachusetts residents found one-third of households bought an average of 60 pounds of seeds is very inaccurate.

And it also points out discouragingly the Audubon Society found they were only tapping a tenth of their potential membership. Therefore, your comment when a member, executive secretary of an Audubon society speaks for his society, he is really speaking for only 10 percent of the people who may feed something to birds.

Hyde is a family owned and operated manufacturing business, employing between 20 and 45 people, depending on the season. The company is primarily a wood working operation engaged in making wild birdfeeders, planters, window boxes, and to a lesser degree, birdhouses and mixed suet and seed bird foods.

I am a supporter of nongame conservation and management programs. However, I strenuously object to the imposition of an 11 percent excise tax on birdfeeders, birdbaths, and birdhouses as a means of funding this program. I am convinced, No. 1, that the proposed tax will provide neither an adequate nor reliable source of funding for the program.

The 11 percent tax which will eventually be paid by the consumer exceeds the 8 percent anti-inflation guidelines. Further, the imposition of the excise tax will weaken my business as well as have an adverse effect on the seed-eating backyard song birds.

Let's divide the birdfeeder manufacturers into two groups based upon raw materials utilized. One group, including Hyde's, uses primarily forest products such as wood.

The second group makes their feeders primarily from plastic. The "industry"—if you can call it that—of wooden birdfeeder manufacturers is a classic example of a "cottage" industry except that the

products produced in the "cottage" are almost always marketed by the producer.

I live in Stow, Mass., a small town 25 miles northwest of Boston. There are two producers of wild-bird houses and feeders in Stow. The first has a large barn where he is the only laborer. The barn and adjacent yard are covered with birdhouses and feeders for sale.

The second is a larger operation conducted by a full-time fireman in his spare time and his family of four sons who work part time.

Each Monday, this entrepreneur will load his station wagon and supply a small number of lawn and garden and hardware stores with his previous week's production for cash. Every major market for birdfeeders and birdhouses, be it Rochester, N. Y., or Rockford, Ill., has a similar operation. This type of operation has a decided market advantage over the dozen or so small factory operations such as ours.

The cottage operator does not pay minimum wage, nor overhead other than additional electricity to run a table saw, and has no packaging costs. It will be difficult if not impossible for the Internal Revenue Service to identify these individuals and collect the tax. If the small operators are not taxed, the entire burden of the tax would be placed on the small manufacturers such as Hyde putting us at an even further competitive disadvantage.

I have not mentioned the Boy Scout troops, handicapped workshops, junior achievement groups, or wildlife organizations which also produce and sell a large number of birdfeeders and houses. It appears quite unlikely that the tax will be applied to these organizations.

In the past 12 years we have increased our retail prices far more than they were increased in the previous 25 years.

We have developed a history as to the effect of the price increase on our product sales. And, believe me, it is definitely a negative effect. According to our figures, if we raise the price of our product 10 percent, our unit sales will drop at least 10 percent. Accordingly, there is no doubt in my mind that an 11-percent tax will cause a substantial drop in sales.

The 1975 Payne report which has been bandied around at length, estimates that retail sales of birdfeeders and birdhouses is approximately \$11 million. I believe this figure is close to accurate. But remember this is at retail. The proposed 11-percent excise tax is proposed at the producer or manufacturer level which would result in a tax base well under \$10 million.

I believe the excise tax, if imposed, would be grossly unfair, particularly to elderly citizens on fixed incomes. We maintain a small retail operation adjacent to our office that sells "factory seconds" at half price.

The vast majority of our customers, probably 75 percent or greater, are over the age of 55. At least one-half of these, familiar local citizens, are retired and on fixed incomes. Based on this small sampling, the tax would be paid by a segment of the population least able to spare the income.

Our products are distributed in what economists refer to as "a three-step method"; manufacturer to wholesaler to dealer to consumer. The discount structures are clearly defined with the result that an item for which we receive \$3.80 is eventually sold to the consumer for \$10. The proposed 11-percent tax would add approximately 40

cents to our selling price but this would result in the consumer paying an additional \$1.10.

At this point I think we should try to establish who are the "bird-watchers" and who are the "birdfeeders." There are literally thousands of apartment and condominium dwellers who watch, but never feed, birds. On weekends or during spring migrations, many of these individuals grab their binoculars and set off "birding." My late mother was an avid birder, but because of her lifestyle, she did not choose to be tied down to the responsibility of feeding birds in her large, well-manicured, suburban yard. I would estimate that 60 percent of birdwatchers are also birdfeeders. Why should the birdfeeders be singled out to undertake the complete funding of the massive nongame program proposed in S. 2181?

Last week I conducted a simple phone poll of three friends who are recognized conservationists concerning those species which frequent birdfeeders, birdhouses, and birdbaths. The names and credentials are in my written statement but the net result was it appears a total of 59 or 60 species can be attracted to manmade devices. In the report accompanying the House version of this legislation (H.R. 3292), the U.S. Fish and Wildlife lists 608 nongame species of birds. Thus, a tax on products aimed at supporting 60 species is designed to support research for over 600 species of birds.

The bill is not limited to birds—it includes 3,700 species of birds, mammals, fish, reptiles, and amphibians, of which 2,900 are nongame.

The concept implied here is clearly unprecedented. In Pittman-Robertson and Dingell-Johnson, the funds went directly to support research on species that generated the funds.

In no way will a research program based on 2,900 species have any but the most minute effect on the 60 species that the payers of the proposed tax wish to attract to their backyards. This approach is grossly unfair. Clearly the general public is the primary beneficiary of any nongame program and should underwrite its expense.

I feel I should offer some alternatives:

What about a tax on containers—a Federal bottle or container bill, if you will—or a tax on pesticides? They are known to have an extremely detrimental effect to many nongame species.

Finally, and very seriously, what about an 11-percent excise tax on all dues paid to National and State wildlife and conservation groups?

I am a member of three groups—Massachusetts Audubon Society, National Audubon Society, and National Wildlife Federation. The dues collected by these three groups above amounts to at least \$16 million annually and there are many more such groups.

Senator CHAFEE. This seems to be an enthusiastic proposal.

Mr. HYDE. I sense that. I would support such a tax on my dues to pay for nongame.

However, I am sure the suggestion will be opposed because the conservation groups know what would happen to their revenues with an 11-percent increase just as sure as I know what will happen to my sales.

We are clearly already doing our part to support nongame conservation and management and object to being singled out as a proposed underwriter of legislative programs designed to benefit the general public.

I am fully aware of the problem of getting new revenues from general appropriations. It would mean a hard selling job, but if the program is worth it, the public would force the administration and the Congress to support the legislation.

If the proposed research on nongame wildlife will benefit every man, woman, and child in the United States to the extent that the proponents would have us believe, then every man, woman, and child should support the program.

I have four letters that I would like to enter for the record before the day is over, three from manufacturers and one from a wildlife editor, author, all objecting to the tax, but supporting the bill.

Thank you for the opportunity.

Senator CHAFEE. We are glad to have the support for the bill.

Who are they from? Maybe I have copies of them here.

Mr. HYDE. One is from Arthur Brown, manufacturer, in Rhode Island, one is from George Harrison, former editor, Wildlife Federation magazine, and now a roving editor, also author of "Backyard Bird Watcher," a new book. The other manufacturer is Bright Industries in Philadelphia, Crafty Ideals in Dallas, Tex.

Senator CHAFEE. I have copies of those. (See pp. 221-223, 259.)

Thank you very much, Mr. Hyde, for your forceful presentation.

Whose birdfeeder is that I see on the table?

Mr. HYDE. These are Hyde's.

Senator CHAFEE. I thought you just did wooden ones?

Mr. HYDE. Primarily wooden.

Senator CHAFEE. But you do plastic, too?

Mr. HYDE. Less than 10 percent.

Senator CHAFEE. You have to leave something for the good old Yankees, there.

Mr. HYDE. Amen.

Senator CHAFEE. Go to it, Mr. Heath.

#### STATEMENT OF DEAN HEATH, PRESIDENT, HEATH, INC., COOPERSVILLE, MICH.

Mr. HEATH. Mr. Chairman, my name is Dean Heath, president of Heath Manufacturing Co., a small manufacturing firm located in Coopersville, Mich.

Heath is a family owned and operated manufacturing facility producing birdfeeders, birdhouses, suet cakes, and employing between 50 and 70 people, depending upon the season.

Roughly 35 percent of our company's sales are for birdfeeders, birdhouses, and other such supplies.

I welcome this opportunity to appear before the Senate Subcommittee on Resource Protection to present my views, the views of a small middle-American businessman, on S. 2181. My company as well as my family have always been dedicated to assisting in any way possible to better the environment and habitat for game and nongame species of wildlife and fish.

In this regard, I support the intent and purpose of S. 2181 because it is designed to assist in nongame preservation and management.

I totally oppose, however, the imposition of an 11-percent excise tax on birdfeeders, birdbaths, and birdhouses as a means of funding this program. Such a tax would provide neither an adequate nor a

reliable source of funding for the proposed nongame program. Further, I am convinced that imposition of the proposed tax will hurt my small company as well as having an adverse effect on seed eating backyard song birds.

Our company is one of the largest manufacturers of birdfeeders in the Nation. We primarily produce birdfeeders made from wood and are one of two producers of metal birdfeeders. Our products sell at retail for an average price of about \$14. The birdfeeder industry is predominated by small family owned companies.

I have attached to my written submission general market information on wild bird supplies.

Birdfeeders and birdhouses are generally sold through what is known as a three-step method of distribution; manufacturer to wholesaler to retailer. The product sold by our company for 45 cents is generally sold by the retailer for \$1.

The proposed 11-percent excise tax on our product would be devastating to our business. In 1973, we sold 240,000 units of mixed feed feeders. We sold this product for an average price of \$3.37 and it was sold at retail for an average price of \$7.48. In 1973, the price of redwood, the principal component of our product, doubled.

Because of the rise in price of our raw materials, we were forced to raise the price of our product 28 percent. By 1975, because of the price increase, our sales of mixed feed feeders were reduced to 118,000 units. Since that time, our unit sales have slowly increased, but the price increase in 1973 suggests what would happen to our market if we were required to raise our prices by 11 percent.

Charts attached to my written statement demonstrate the extreme fluctuations in our year-to-year unit sales establishing that the excise tax would not provide a reliable source of funding.

While I agree with the estimates contained in the Payne report concerning the size of the bird feeder industry—\$15 million per year—it should be noted that recognized manufacturers only produce between 50 and 70 percent of the estimated total production.

Because the industry is so fragmented, it is impossible to develop accurate market data. The remainder is produced by part-time family operations, Boy Scout troops, senior citizen groups, and other "cottage"-type producers. It appears highly unlikely that the proposed tax is meant to apply to these groups which utilize their receipts as a means of funding their worthwhile activities. Failure to tax these groups, however, will adversely affect competition and further injure my small business.

I also object to the proposed excise tax because of its negative effect on senior citizens. Well over 50 percent of those who purchase bird feeders are elderly citizens, many of whom are on fixed incomes and feed the birds as a hobby. Our per capita sales of bird feeders are highest in Florida, a State with a large population of senior citizens. These individuals will be the hardest hit by the proposed excise tax and I am sure, in a number of instances, senior citizens will be prevented from pursuing this worthwhile hobby because of the tax.

It should also be noted that the tax on bird feeders is designed to fund nongame programs for 2,900 species of wildlife, fish, and birds. I fail to see how the nongame programs outlined in S. 2181 will benefit my company. For example, my State, Michigan, has identified no species of birds which require attention. Rather, the funds allocated

to Michigan would be primarily for fish endangered because of pollutants in the streams and lakes.

Finally, there is the question of whether and how this program should be funded. As I stated previously, my family and my company support nongame management and conservation.

Therefore, we strongly believe that a program similar to the one outlined in the House bill 3292 should be funded out of general revenues. Since every man, woman, and child in the United States will benefit from such a program, it only seems fair that it be funded out of general revenues. While I understand that it is difficult to obtain funding for new programs, if the nongame proposal is needed and will be beneficial, the American democratic system will prevail and Congress will be forced to appropriate the necessary funds.

Thank you for this opportunity to present my views.

[Attachments to Mr. Heath's statement follow:]

## General Market Information on Wild Bird Supplies

Prepared by Dean Heath, President/Heath Manufacturing Company

## Bird Feeders:

## (1) Wooden Feeders:

- A. Nationally marketed by three companies (Hyde, Heath, Northstates)
- B. Regionally market by 12 to 15 companies
- C. Locally in every major population center by from one or more individuals

Wooden feeders comprise 30 to 50% of the total bird feeder units sold in the country. Since production is generally limited, full automation of production is not economically possible, providing unlimited potential for competition to the established manufacturers by individuals and smaller companies with lower overhead.

## (2) Metal Feeders:

- A. Nationally marketed by two companies (Heath, Trio)

Generally limited market acceptance. Primary sales in areas where squirrels present a feeding problem. Represent 5% or less of total sales. Seldom made by cottage industry.

## (3) Plastic Feeders

- A. Most sales growth in past 10 years in this area.
- B. Nationally marketed by 10 or more companies
- C. Regionally marketed by another 5 or 6 companies.

Most wooden feeder manufacturers have one or more models of plastic feeders as well. Most popular models are made from standard plastic tubes and require little or no special tooling. Generally manufacturers are more assemblers or packagers than basic processors, with feeders actually being made at a job shop level and the manufacturer being more of a sale agent.

## (4) Bird Houses:

A. Generally made of wood, however have some plastic and metal products on the market.

B. Quantities are highest in the low priced wren and bluebird houses have a manufacturing price average of around \$2.00 and a retail price of \$4.45. Most feeder manufacturers make a limited quantity of these houses with sales representing 5 to 10% of the total dollar volume.

C. A more limited unit sale but much higher dollar volume is obtained through the sale of large colony type houses for Purple Martins. These houses range from \$16.00 to \$90.00 at manufactureres sell price; \$36.00 to \$200.00 at retail. Average sale price by manufacturer at around \$30.00

D. Sales of the martin houses are concentrated largely in two companies, Trio Mfg. and Heath Mfg. Heaths sales on martin houses represent about 27% of the company's wild bird sales.

## (5) Bird Baths:

A. Not generally made by the manufacturers of Wild bird feeders and houses. Most are cement or pottery and are made and sold within a 50 mile radius of their manufacturer. Heath does make a small quantity of aluminum bird baths and one or two companies make a plastic unit. Also sold for this purpose are landscape waterfill or pond units by several companies.



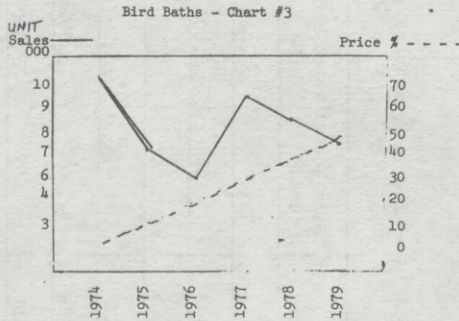
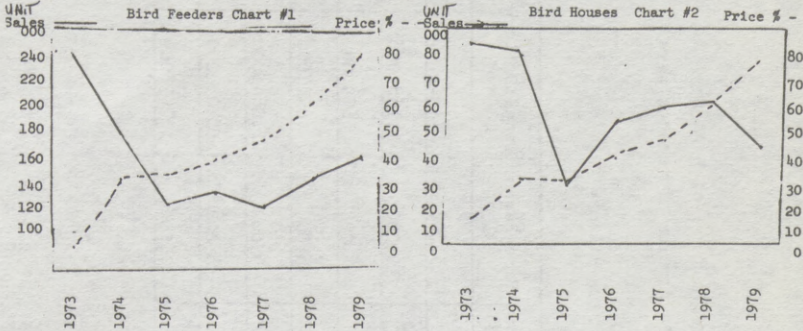
140 Mill Street  
Coopersville, Michigan 49404

Telephone  
Area 616 837-8181

Specialties for Home and Garden

Heath Manufacturing Company is a Michigan and Indiana Manufacturer of Bird Feeders, Bird Houses, Suet Cakes employing 50 to 70 people. This portion of the business is roughly 35% of the company's total sales.

Heath Mfg. Co. - 1973 to 1979 Sales & Price History



Heath Manufacturing Company is a Michigan and Indiana Manufacturer of Bird feeders, bird houses, suet cakes, employing 50 to 70 people. This portion of the business is roughly 35% of the company's total sales.

Heath Mfg. Co. - 1973 to 1979 Sales & Price History

Year	Total Unit Sales	Mixed Feed Feeders	Special Feed Feeders	Bird Houses (small)	Bird Houses (Martins)	Bird Baths	Total Dollars + .000	Avg. Sale Price	Avg. Retail
1973	335,000	240,000	-----	74,000	9,000	5,000	1,130,000	3.37	7.48
1974	275,000	177,000	-----	74,000	7,000	10,000	1,188,000	4.31	9.57
1975	156,000	118,000	-----	20,000	5,000	7,000	670,000	4.30	9.57
1976	209,000	121,000	25,000	44,000	6,000	6,000	831,000	4.45	9.88
1977	228,000	116,000	39,000	42,000	15,000	9,000	1,084,000	4.75	10.50
1978	255,000	127,000	51,000	43,000	17,000	8,000	1,423,000	5.59	12.40
1979	279,000	149,000	72,000	24,000	16,000	7,000	1,743,000	6.25	13.88

Senator CHAFEE. Thank you very much, Mr. Heath. I appreciate that. It is good testimony.

I am not sure that the decline, the precipitous drop, in your redwood birdhouses was solely due to increase in price. I suppose the increase in the sales of the plastic must have had something to do with that.

You note in the back your plastic feeders have had the most sales growth in the last 10 years.

Mr. HEATH. Yes, sir, there are many factors in that. However, I do feel price is the main factor.

Senator CHAFEE. I won't argue a bit on that.

Thank you.

You have some good statistics attached to your statement, which we will certainly look at. Those are all good points that have been made. I am very appreciative for each of you coming down and giving your testimony.

Are there any other points you would like to make?

Mr. DIEKMAN. I would briefly like to respond to your question.

On the proposed excise tax and birdseed from Dingell-Johnson and Pittman-Robertson, I see three fundamental differences: one, Dingell-Johnson and Pittman-Robertson would stimulate and encourage the sale of the tax items through improving the habitat for deer or improving the habitat for deer or improving lakes and reservoirs for fish. That would stimulate the sale of guns and ammunition and fishing rods.

The birdseed tax would not stimulate the sale of birdseed or birdhouses. The money from that would go to a program to identify species, to improve rivers and dams.

Second, Dingell-Johnson and Pittman-Robertson are both consumption taxes. Birdseed tax isn't a consumption tax at all. They are not consuming wildlife or fish. They are simply contributing to it for feeding.

Third, the funds generated by Dingell-Johnson, Pittman-Robertson would be used principally by those who contribute. That is why we are here today; the hunters have been very jealous, rightly so, of the funds they have contributed and very little gone to nongame. The funds generated from this tax today would not go to those who contribute but rather to the 2,900 species of nongame which would be protected.

Senator CHAFEE. Those are good points, and I think the testimony has been good. I have been helped by it. Yes, Mr. Hyde?

Mr. HYDE. Just to amplify what Frank Diekman said—you cannot tell sunflower seed from sunflower seed and milo seed from milo seed on the packages of single seeds. It has been a very valuable oil crop and identifying at producer level what is going to go to birdseed and what is going to oil production would be difficult.

A lot of sunflower seeds are used to feed indoor gerbils, or what have you. How can you identify that on the market shelf and tax the birdseed aspect of it? I think it would be impossible.

Mr. DIEKMAN. I am conveying a message from one small, very significant customer. Mrs. Love is 84 years old. She said if they pass this tax, they are biting the hands that feed them. One more message from a very young truck driver hired by me, who met me at the door of my office Saturday and understood that I was coming down here today to express my views relative to this legislation. He said the day

before he had made a delivery to a supermarket in Migigan and he said there were two very old people standing looking at a bag of sunflower seed, and discussing the price. He said, "Frank, they must have been at least 60 or 62 years old." That made me feel very good because I will be 60 years old on the 23d of this month.

The price of this commodity was \$5.95. The discussion took a long time and they finally decided because they enjoy and because they want to feed the wildlife now at a time when snow finally covered the ground, they would spend that money.

I really believe, though, had there been an 11-percent increase of price at my level, that that sale would not have been made, and these people would have been denied that privilege.

Senator CHAFEE. Thank you all very much. I appreciate your coming down. We certainly will give every bit of consideration to the points you have made here, which have been good ones.

Thank you.

Senator CHAFEE. We will now hear from Mr. Boothby from the National Association of Conservation Districts and right after him, Mr. Lynn Greenwalt.

#### STATEMENT OF CHARLES BOOTHBY, EXECUTIVE SECRETARY, NATIONAL ASSOCIATION OF CONSERVATION DISTRICTS

Mr. BOOTHBY. Mr. Chairman, I am Charles Boothby, executive secretary, National Association of Conservation Districts. Our association represents the nearly 3,000 local conservation districts in all 50 States, Puerto Rico, and the Virgin Islands.

Conservation districts are responsible, under State laws, for developing and carrying out programs for the conservation, utilization, and development of the soil, water, and related resources within their boundaries.

Districts are managed by over 17,000 elected or appointed public officials and serve over 2½ million cooperating landowners.

I have included in my paper NACD's policy on fish and wildlife resources.

In the interest of time, I will skip over that. Basically, it is supportive of the legislation before you.

Based on this policy, NACD wishes to support the basic concepts of S. 2181. This bill provides the framework for the planning and ultimate improved management of the nongame fish and wildlife resources of the various States.

There are a few provisions of the bill, however, which we would like to bring to your attention, primarily for the purpose of clarification.

Section 3, paragraph 3, in the definition of conservation, does not include language which specifies habitat management. In our opinion, one of the most important activities in the management of wildlife species is the activity of habitat management. We believe this activity is much more important, and definitely more acceptable to the general public, than habitat acquisition.

Therefore, we recommend the inclusion of the term "habitat management" in the list of measures illustrating scientific resources management.

In section 4, conservation plans, over two-thirds of the land in this Nation is owned by private landowners. This private land is the habitat of most wildlife species, both game and nongame. In our opinion, the most effective way of managing the nongame species is to manage the habitat upon which the species depend. This will require working with the owners of this habitat, the private landowners.

We recommend that management plans should include plans for providing technical assistance to landowners to assist them in the management of habitat.

Senator CHAFEE. I think that is good.

I thought those were covered by implication. Obviously that is the objective of the bill, to include the private landholder.

Mr. BOOTHBY. We believe this should be a more important part of the bill. We believe this can be covered by including some language that would provide for assisting the private landowner with habitat management plans through conservation districts. We are already working with many thousands of landowners in providing this type of technical assistance to them.

And I believe, even though the appropriate agency for developing overall plans on nongame species should be the State wildlife agencies, there is a role for the conservation district in implementation of those plans.

Senator CHAFEE. No question about that.

Mr. BOOTHBY. To cover just a few of the other aspects of the bill, we would request that because of this ongoing work, line 17 on page 7 could be revised to read—this is on the consultation and development of the plans—to include State and local agencies.

Senator CHAFEE. Good point.

Mr. BOOTHBY. The reimbursement limitations on pages 12 through 16 appear to be extremely complicated. As I read this section, it appears that at least 90 percent of the State's portion of the cost of the implementation of a conservation plan must come from State general fund revenues, as opposed to license sales or fines.

Further, no more than 25 percent of the money spent for implementation can be used for law enforcement and educational purposes. Although we have no position on how much of the money should be spent on law enforcement, we believe the funds for extension and technical assistance should not be so limited.

Again, we believe that the key to accomplishment in this program is habitat management.

Section 6(4)(B), lines 5 through 8, gives the Secretary of the Interior authority over the qualifications of volunteers if the work of volunteers is to be counted as in-kind contribution. From my experience, one accepts volunteers from any source one can find them. Then you give them a job that they can handle. We cannot support this provision of the bill.

Senator CHAFEE. You mean you cannot support the provision that gives the Secretary the authority over the quality of the qualification?

Mr. BOOTHBY. Right.

Senator CHAFEE. We are concerned about running away with this in-kind provision.

Mr. BOOTHBY. Section 8, paragraphs 3(A) and 3(B), outlines the funding formula based on land area and population of people. It does

not relate to the productivity of the land to support wildlife species. We have no magic formula to suggest to accomplish this, however.

Senator CHAFEE. That is not fair. You raised the problem without the answer.

Mr. BOOTHBY. There are many persons who will have reservations about this because they will not want to authorize any new program which will give States additional reasons for acquiring additional lands. If this issue becomes evident as a result of this hearing, the matter could be addressed in section 6 by including the following language: "None of the funds allocated to the States under this act may be used for the purchase of land or interests therein."

This language would limit the use of Federal funds but would not preclude the use of State funds for that purpose.

Senator CHAFEE. Are you worried the people will be upset the Feds will come in and take more of their lands?

Mr. BOOTHBY. No; this program, as I understand it, would be State money and would be State acquisition of land so it is not a matter of Federal acquisition. It is a matter of public acquisition which many of our people are upset about, the amount of public acquisition.

Senator CHAFEE. You mean people are worried about public acquisition?

Mr. BOOTHBY. Very much so. Very recently GAO has published a report dealing with the Federal acquisition of lands in which they state—it was released this month—"The agencies buy more private land than is necessary, don't adequately consider alternatives to outright purchase, and have no coherent policy."

"They" is speaking of three agencies in the Department of Interior. This is just a related issue.

The authorizations of appropriations in section 11 calls for appropriations in 1980, 1981, and 1982. In light of the fact that fiscal year 1980 is already one-third gone, we recommend that the years listed on line 16, page 20, be changed to read 1981, 1982, and 1983.

Our association has no position on the proposed excise tax on wild bird supplies. However, I do wish to bring to your attention some problems which we foresee with this approach. Many feed mixtures for domestic poultry are a good substitute for commercial seed mixtures designed for feeding wild birds.

If the tax raises the price very much, many persons will switch to other sources of bird food. Additionally, many craftsmen produce small numbers of birdhouses and birdfeeders as a hobby and for incidental sales.

The collection of the tax, keeping records, and remitting the tax could become an onerous burden for these craftsmen. The result would be (a) ignore the law, or (b) go out of business. May we suggest that, if you feel that the tax is necessary, it be limited to those manufacturers of over 25 or 30 units per year.

Senator CHAFEE. Mr. Heath and Mr. Hyde were cheering you on until your last sentence there.

Mr. BOOTHBY. I guess our concern is with a small, incidental manufacturer and sale as a hobby and a cottage industry; well, not so much the cottage industry but more as a hobby.

Senator CHAFEE. Thank you very much for your testimony, Mr. Boothby. We appreciate your coming. Certainly you have a tremendous organization, a lot of people, and the points you made are good.

Mr. BOOTHBY. Thank you, sir.

Senator CHAFEE. We will next hear from Senator Cranston, the majority whip, who will testify on several refugees.

**STATEMENT OF HON. ALAN CRANSTON, A U.S. SENATOR FROM THE STATE OF CALIFORNIA**

Senator CRANSTON. Mr. Chairman, I deeply appreciate this.

Senator CHAFEE. We welcome you here and are delighted to hear testimony from such a distinguished member of our group.

Senator CRANSTON. Thank you for letting me interrupt your schedule.

I thank the gentleman at the table, also.

I wanted to comment very briefly in support of H.R. 4084, which would provide for a cooperative agreement between the Secretary of Interior and the State of California to improve and manage the Suisun Marsh in California.

The Suisun Marsh comprises 55,000 acres. It is the largest remaining brackish water wetland in California and a significant wintering ground for migrating waterfowl.

Millions of migratory birds visit the marsh each year. It is also a prime breeding ground for striped bass. These resources have long made the marsh important for hunting, fishing, and other recreational activities.

However, because of diversions of fresh water from the delta, salinity intrusion has become a problem threatening the environment of the marsh.

The State of California and the Interior Department have agreed on a plan to remedy the situation by constructing facilities to make better use of what water remains in the marsh after the project diversions.

The facilities were recommended in a report on the Suisun Marsh Interim Facilities prepared by the State of California, Bureau of Reclamation, and the Fish and Wildlife Service.

H.R. 4084 provides that the Federal Government participate in the mitigation efforts and pay 50 percent of the costs of the facilities, or \$2.5 million. I am aware that the Interior Department has recommended that the Federal Government pay only 30 percent of the costs, the State pay 23, and that upstream users who also make diversions pay the remaining 47 percent.

That is not a practical solution since it is difficult to identify all the upstream water users and assess them, and the State would end up paying 70 percent since the State has no mechanism to collect fees from the riparian users of water.

I believe the bill I have introduced, which is the same as the bill before you with the House number, is the only practical way to proceed.

I would like also to add a few words of support for H.R. 4887, to amend the authorization for the South San Francisco Bay National Wildlife Refuge.

This is a slight increase in authorization for land acquisition which I think is very important. As a sponsor of the legislation creating the San Francisco Bay National Wildlife Refuge, I am eager to see the original objectives realized.

The changes contained in H.R. 4887 are necessary to complete acquisition, and I urge you accept them also. I want to submit for the record some material from the State regarding the Suisun Marsh.

Again, I thank you very much for letting me interrupt your schedule. [Senator Cranston's prepared statement and the material referred to follow:]

STATEMENT BY SENATOR ALAN CRANSTON BEFORE THE RESOURCES  
PROTECTION SUBCOMMITTEE, SENATE ENVIRONMENT AND PUBLIC  
WORKS COMMITTEE, IN SUPPORT OF H.R. 4084 AND H.R. 4887

February 4, 1980

Mr. Chairman, I deeply appreciate having this opportunity to comment briefly in support of H.R. 4084 which would provide for a cooperative agreement between the Secretary of Interior and the State of California to improve and manage the Suisun Marsh in California.

The Suisun Marsh comprises 55,000 acres in the Sacramento-San Joaquin Delta estuarine system. It is the largest remaining brackish water wetland in California and a significant wintering ground for migrating waterfowl. Millions of migratory birds visit the Suisun Marsh each year.

In addition, the Suisun Marsh is prime breeding ground for striped bass. These resources have long made the marsh important for hunting, fishing, and other recreational activities.

However, because of diversions of fresh water from the Delta by the California Water Project and the federal Central Valley Project, salinity intrusion has become a problem, threatening to alter the environment of the marsh that support specific plants which attract and feed the migratory waterfowl. Fortunately the State of California and the Interior Department have agreed on a plan to remedy the situation by constructing facilities to make better use of what water remains in the marsh after the project diversions. The facilities were recommended in the

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May 1978 Report on the Suisun Marsh Interim Facilities prepared by the State of California, the Bureau of Reclamation, and the Fish and Wildlife Service.

H.R. 4084 provides that the federal government participate in the mitigation effort and pay 50 percent of the costs of the facilities, or \$2.5 million. The bill calls for equal funding since both the state and federal projects are responsible for the water quality problems in the Suisun Marsh and divert roughly the same amount of water from the Delta.

Mr. Chairman, I am aware that the Interior Department has recommended that the federal government pay only 30 percent of the costs, that the state pay 23 percent, and that upstream users who also make diversions pay the remaining 47 percent. This is not a practical solution since it is difficult to identify all the upstream users and assess them. The State of California would end up paying 70 percent since the state has no mechanism to collect fees from the riparian users of water.

I want to point out that while H.R. 4084 provides for a 50-50 split, the language in the bill permits a change in the cost sharing formula in the future if further studies indicate some other proper federal share. I believe that this is the only reasonable way to proceed to resolve the Suisun Marsh problems, and I hope that this Committee will look favorably on this legislation.

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Mr. Chairman, I would just like to add a few words of support for H.R. 4887 to amend the authorization for the South San Francisco Bay National Wildlife Refuge. Specifically the bill would increase the authorization for the land acquisition for the refuge by \$4.2 million to be available through September 1983 and provide that funds presently authorized for development remain available until expended. Finally the bill would permit the federal government to acquire tidal lands subject to the interests of the State of California. The acquisition of these tidelands has been delayed because of the possibility of retained state interests and the fact that Justice Department regulations do not permit title clearance when there is a possible state claim remaining.

As the Senate sponsor of the legislation creating the South San Francisco Bay National Wildlife Refuge, I'm eager to see our original objectives realized. The changes contained in H.R. 4887 are necessary to complete the acquisition of this important wildlife habitat, and the bill has my wholehearted support.

SUISUN MARSH PRESERVATION AND  
RESTORATION ACT OF 1979, HR-4084/S-1357<sup>1/</sup>

The California Departments of Fish and Game and Water Resources support HR-4084/S-1357, the "Suisun Marsh Preservation and Restoration Act of 1979."

Suisun Marsh is about 55,000 acres of brackish water marshland in the Sacramento-San Joaquin Estuary. It constitutes over 10% of the State's remaining wetland and provides important habitat for waterfowl using the Pacific Flyway. As many as a million waterfowl use it at one time. We consider its protection to be essential.

In 1977 the California Legislature passed the Suisun Marsh Preservation Act to insure that urban and industrial development does not encroach upon the Marsh. The Marsh, however, is still threatened by salinity encroachment from the ocean.

Salinity encroachment is important because the plants which provide most of the food for waterfowl cannot grow when salinities are too high. Thus excessive salinities would destroy the ability of the Marsh to support present waterfowl use. This was dramatized during the 1977 drought, when seed production of alkali bulrush, the most important waterfowl food plant, fell to about 20% of optimum levels.

Upstream water projects divert much of the historical freshwater flows and thus increase salinity intrusion from the ocean. The largest diversions are made by the Federal Central Valley Project and the

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<sup>1/</sup> Statement presented to the Senate Subcommittee on Resource Protection on behalf of the California Departments of Fish and Game and Water Resources by E. C. Fullerton and Ronald B. Robie, February 4, 1980.

State Water Project. The Department of Fish and Game has long maintained that these two projects have primary responsibility for mitigating the adverse effects of salinity intrusion on the Marsh. Their responsibility far exceeds the cost of the facilities provided for in this bill.

The California Water Resources Control Board, the State agency responsible for regulating water development, has recently issued a decision on water rights permits for the Central Valley Project and the State Water Project. That decision orders those projects to provide an alternative water supply for Suisun Marsh by October, 1984. The Board further ordered that initial components of the supply system be in operation by January 1, 1980.

The U. S. Water and Power Resources Service, in cooperation with the U. S. Fish and Wildlife Service, the U. S. Soil Conservation Service, and the State Departments of Water Resources and Fish and Game, has nearly completed plans for the overall facilities. Meanwhile, the Department of Water Resources has proceeded with the initial components of the plan and had them operational in October, 1979. Construction will be completed during 1980. The purpose of HR-4084 and S-1357 is primarily to authorize federal financial participation in these initial facilities.

The initial facilities will provide an improved water delivery system to some 5,000 acres of marshland now drawing water from the bays adjacent to the Marsh. These are the lands affected most by salinity intrusion because salinities are typically greater in the bays than in channels within the Marsh. The new supply will come from those interior Marsh channels.

These initial facilities are fully compatible with, and are to be an integral part of, the overall facilities to be completed in 1984.

The original versions of HR-4084 and S-1357 provide for equal apportioning of costs for the initial facilities and activities. As amended and passed by the House, HR-4084 now provides for retroactive application of the apportionment formula adopted when overall water supply system for the Marsh is authorized. This approach is acceptable to us, and it should resolve the concerns of the U. S. Water and Power Resources Service.

We urge you to support this effort to protect one of the nation's major wetland areas.

STATE OF CALIFORNIA

## STATE LANDS COMMISSION

KENNETH CORY, *Controller*  
 MIKE CURB, *Lieutenant Governor*  
 MARY ANN GRAVES, *Director of Finance*

EDMUND G. BROWN JR., *Governor*

EXECUTIVE OFFICE  
 1807 - 13th Street  
 Sacramento, California 95814

WILLIAM F. NORTHROP  
 Executive Officer

January 30, 1980

Honorable John C. Culver, Chairman  
 Senate Subcommittee on Resource Protection  
 4202 Dirksen Senate Office Building  
 Washington, D.C. 20510

Dear Chairman Culver:

Subject: H.R. 4887 (To authorize appropriations  
 for the San Francisco Bay National  
 Wildlife Refuge)

The State Lands Commission supports H.R. 4887 authorizing appropriations for the San Francisco Bay National Wildlife Refuge. The preservation of our wetlands and the guarding of our wetland heritage are strongly supported by the Commission. Wetlands are vital to fish and wildlife habitats as well as for recreational, educational, scientific, and aesthetic values.

The U.S. Fish and Wildlife Service, in its acquisition program in California, many times wants to acquire title within an area of historic marsh and sloughs. The title in these areas usually lies with the State which is reflected in title reports. Within these historic marsh and slough areas, the U.S. Fish and Wildlife Service many times plans for the construction of capital improvements such as an administrative headquarters and learning center, an interpretive center or an environmental center. These construction projects are normally part of the overall refuge project.

The Federal Justice Department has a policy which requires the Federal Government to have fee simple title as opposed to a leasehold or fee interest subject to reservations for property upon which substantial improvements are to be constructed. It is with this policy of the Justice Department that California has been concerned.

Because of a constitutional prohibition of the sale of tidelands, and because of the Public Trust doctrine, the State cannot relinquish its interest in the sovereign lands of the State, and that is why the Commission strongly supports this bill.

California's concerns over the exact language were resolved in the House. We believe this bill will remedy problems which have been facing both the State and the Fish and Wildlife Service. We respectfully request that the Senate take speedy action in passing this bill.

Sincerely,

WILLIAM F. NORTHROP  
 Executive Officer

Senator CHAFEE. I think the points you make are good ones. I personally think the amount involved is relatively small and we ought to get on with it.

If we delay trying to collect from the users, who maybe should pay, it may delay the whole thing so that nothing will be done.

Senator CRANSTON. Right.

Senator CHAFEE. Thank you very much.

Senator CRANSTON. Thank you, a great, great deal. Again, my thanks to you.

Senator CHAFEE. We are honored by having the presence of Representative Vic Fazio from California. Congressman Fazio will also present testimony on the same refugees as Senator Cranston.

**STATEMENT OF HON. VIC FAZIO, A REPRESENTATIVE IN CONGRESS  
FROM THE STATE OF CALIFORNIA**

Representative FAZIO. Thank you, Senator.

I think 1 minute will be adequate.

The Senator and I are both in agreement we ought to enact legislation to help bring additional high-quality water to the Suisun Marsh in the Sacramento-San Joaquin Delta.

I am happy to report this has bipartisan support. It also has north-south support in California. It is a practical way of doing what we can to help the millions of waterfowl who alight every year in the Suisun Marsh, which is 10 percent of the Pacific flyway.

I will be happy to answer any questions you might have.

Senator CHAFEE. I am intrigued they can do this. I have your statement right here before me.

I don't know what you do if you divert the fresh water so the salinity of the bay is increased. How do you decrease that salinity? What do you do?

Representative FAZIO. What we are trying to do is keep the fresh water that comes down the Sacramento River in the marsh for a longer period of time. We do that by building a series of levies, dikes, and other systems which really have the effect of making better use of the fresh water we do have available right now.

Senator CHAFEE. I see. I hope it works.

In other words, you get digging around in that marsh and building dikes and things. You may be counterproductive.

Representative FAZIO. We think, based on the people who have lived there and worked with the marsh for many years, this would be helpful.

You are right, the diversions of water by the Federal and State water projects have had an impact on the quality of the marsh. What we are trying to do is see if we can preserve what is left.

We think it is a significant effort.

Senator CHAFEE. Senator Cranston testified on his concern about the suggested funding; having the people upstream fund he thought was not really realistic. Do you touch on that here?

Representative FAZIO. Yes, I do. I share his concern. First of all, the effects on the marsh are almost totally related to the two major projects the State and Federal Government have developed.

Second, the upstream uses have historic riparian water rights. It is difficult to acquire any funds from them. Beyond that, I don't believe they have contributed to the denigration of the marsh. I think it would be inappropriate for us to require the State or Federal Government to apportion any costs to them. I think it is fair at this point to share the costs equally between the two large water projects.

Senator CHAFEE. Go on a 50-50—

Representative FAZIO. Yes, at the present time.

As we develop more information about the actual contribution that each project is making, we can be more explicit.

Language to that effect was taken in the House. We think it resolves the problems of the Federal Government.

Senator CHAFEE. Fine.

Thank you very much, Congressman, for coming over. We are grateful for your testimony.

Representative FAZIO. Thank you for interrupting your hearing so I could make an expeditious appearance.

[Mr. Fazio's prepared statement follows:]

STATEMENT OF THE HONORABLE VIC FAZIO ON H.R. 4084  
BEFORE THE SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,  
SUBCOMMITTEE ON RESOURCE PROTECTION,  
THE HONORABLE JOHN CULVER, CHAIRMAN

Mr. Chairman and members of the subcommittee, H.R. 4084 is a straightforward bill that would simply have the federal government pay its proper share of the costs of providing adequate water quality for the Suisun Marsh in California.

Located along the Sacramento River, downstream from the Sacramento San Joaquin Delta, the Marsh is the largest remaining wetland in California. It therefore plays a key role as a wintering ground for millions of waterfowl on the Pacific flyway, which stretches from the Arctic to Mexico.

The habitat value of the Marsh is now threatened, however. Diversion of fresh water by the State and Federal water projects from the Delta has meant considerably weaker flows past the Marsh to the ocean. Consequently, salt water from the ocean has pushed inland, and the increased salinity has made the Marsh inhospitable to waterfowl food plants.

This bill is to authorize a federal contribution of \$2.5 million for the construction of water management facilities in the Marsh. These facilities enable the more efficient use of the fresh water that the Marsh does have made available. These facilities have actually been completed by the State at a cost of \$5 million. They represent part of a total solution, which State and Federal water agencies are in the process of defining. On the need for these facilities as a first step, however, there is complete agreement.

The federal representatives at this hearing may suggest that the proper federal share of these facilities should only be 31 percent because only 31 percent of the total diversions from the Delta outflow are attributable to the Central Valley Project. By the same reasoning, the State should only pay 23 percent, and a collection of other watershed users: individuals, entities, and unknowns, would somehow be required to pick up the remaining 47 percent.

I would respectfully request that you reject this argument, as two committees in the House did. First, many of the upstream users have very old or even riparian rights to the water they consume. There never was a salinity intrusion problem as a result of their activities. The problem occurred when the State and Federal projects started pumping huge volumes of water out of the watershed.

Second, determining who these upstream people are is difficult. Further, deciding whether they as, for example, riparian users, should pay dollar for dollar the same as the water-exporting projects is at the least very debatable. I doubt whether it is appropriate at all. In any case, no mechanism even exists for collecting from these people. The state, which by federal reasoning should only pay 23 percent, would end up paying 70 percent.

Third, the House adopted language which says that future studies necessary for the overall solution should also study the above questions and recommend what the proper shares should be. In the event that anyone's share of the \$2.5 million is disproportionate, recompense should be made at the time of the final authorization. That should guarantee the administration that it will come out whole.

Thank you very much.

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Senator CHAFEE. Thank you for coming. Now, Lynn Greenwalt, who is the Director of the U.S. Fish and Wildlife Service.

Mr. Greenwalt is going to testify on S. 2181 and then get into the refugees. We welcome you, Mr. Greenwalt.

#### STATEMENT OF LYNN GREENWALT, DIRECTOR, FISH AND WILDLIFE SERVICE

Mr. GREENWALT. First, I would like to introduce the gentleman who has joined me. Mr. Terry Johnson is an associate from the Water and Power Resources Service who is here to assist me with any questions you may have relative to the Suisun Marsh project in California.

Let me, Mr. Chairman, very quickly respond to the bill, S. 2181, the first one today, and the one about which there has been so much discussion this morning. I think it would be inappropriate for me to attempt to elaborate upon the problems of nongame as my associates and friends in the profession and others have done so very effectively this morning.

There is a profound and very great interest in nongame species and the preservation thereof. And it is clear to everyone involved that something simply must be done. What is not so clear, nor so well defined, is precisely how to do it.

The message I bring to you from the administration is that we do very strongly support legislation to benefit nongame fish and wildlife. But we oppose the excise tax approach—not because, fundamentally, of the opposition that has been expressed here this morning but because it has a restriction on the flexibility of the budgetary process in general—a concept, that is to say, an excise tax proposed by the administration.

We would suggest the committee give serious consideration to considering H.R. 9232, which provided an authorization of \$19 million through fiscal 1982 for comprehensive planning, the result of which would perhaps be a much better basis upon which to make some later decisions about a followup program of implementation.

I would envision the only operational activities during the first 3 years under this scheme could be pilot projects at selected locations.

I will reiterate, Mr. Chairman: The concern about nongame is one that has been shared by professional fish and wildlife managers for a great many years, and the administration presently supports some reflection of that concern but cannot, in fact, support an excise tax approach to the funding of this program.

Senator CHAFEE. Thank you. I appreciate your testimony on S. 2181. If we didn't get it through the excise tax, would you be prepared to ask for the \$19 million from OMB?

Mr. GREENWALT. I certainly would be prepared to ask, Mr. Chairman. I have no guarantee of the consequences of that asking, although the folks at OMB have indicated that obviously the only alternative to an excise tax was a direct appropriation.

Senator CHAFEE. We are glad to have your support for this and thank you.

Mr. GREENWALT. If we care to turn to the refuge proposals, Mr. Chairman—have you a sequence?

Senator CHAFEE. No; are there about five of them? Why don't you just take them in the order you want. Why don't we do the California one first.

## SUISUN MARSH

Mr. GREENWALT. I think you understand, Mr. Chairman, the general concern about this marsh area, which is one of the last remaining natural marshes in the San Francisco Bay region; one of the difficulties that has been encountered over time is the intrusion of salt-water, the changing of the marsh. I believe the chairman and the committee understand the general thrust of this bill in that the marsh needs protection.

Senator CHAFEE. Is this all we are going to do? Just this diking, whatever you might call it, in order to reduce the salinity?

Mr. GREENWALT. The fundamental concern—

Senator CHAFEE. The marsh is protected already, I take it?

Mr. GREENWALT. The marsh is subject to protection. It is a mixture of private and Federal lands. The real concern, regardless of ownership, is the intrusion of salt water.

Without controlling this in some fashion, the value of these marshes to wildlife tend to deteriorate. The administration does support the legislation which would allow water and power resources service to participate in this program of protection.

With your permission, I would ask my associate to make any comment in this general regard.

Senator CHAFEE. I would be interested in whether he thinks it can work. I am for the effort if there is a chance of success.

#### STATEMENT OF TERRY JOHNSON, WATER AND POWER RESOURCES SERVICE

Mr. JOHNSON. The Water and Power Resources Service currently has a study underway which would provide for a long-term plan for the protection of the Suisun Marsh. The facilities that are being constructed by the State of California and which are the subject of this bill are a small portion of a much larger plan.

The plan itself is a system of channels and small retention reservoirs to channel the water into the marsh in these areas where the water has been degraded because of salt water intrusion.

Senator CHAFEE. It hasn't been degraded so much through salt water intrusion, as it is lack of fresh water through intrusion.

Mr. JOHNSON. That is true. The depletions that have come to pass because of various diversions upstream and from the Sacramento San Joaquin Delta have caused a lack of fresh water to flow through that area and thus salt water has intruded through the San Francisco Bay area.

Senator CHAFEE. What about the funding, Mr. Greenwalt? Do you want to comment on that?

Mr. GREENWALT. In terms of the share, the 50-50 share, this is a scheme that would permit a certain amount of mitigation of losses that might accrue as a result of the construction of facilities and as well provide for the commitment of upstream users to make available fresh water that would tend to reverse the situation that has gone on.

I am not completely familiar with all of the nuances of this, but it is my understanding the administration would be less concerned about the cost sharing by virtue of the proviso in the bill that would allow the retroactive adjustment of cost sharing.

This presupposes a certain understanding of costs into the future. I think that the basic question of cost sharing is one that has to be looked at in terms of what the benefits to the water users are likely to be, how one compensates for the question of riparian rights or uses, some people use the water and return it to the stream. And those concerns create a slightly different pattern of involvement in the use of this water. It is a very complicated thing and, again, in terms of that complication, I certainly defer to Mr. Johnson.

The basic position of the administration is support for the legislation in terms of the water and power resources participation and the question of the retroactivity of some of the cost sharing adjustments.

Senator CHAFFEE. Why don't we go on to the next one, the San Francisco one?

#### SAN FRANCISCO BAY NATIONAL WILDLIFE REFUGE

Mr. GREENWALT. Basically, the San Francisco Bay issue is one not of convincing anyone of the importance or value of San Francisco Bay as a refuge. It certainly has this. But to increase the authorization of appropriations for land acquisition and extend its availability so that we can, in fact, carry out the program as it has been previously authorized.

We support the enactment which would increase the authorization of appropriations for land acquisition by \$4.2 million to a total of \$13.2 million and extend its availability for 3 years, that is until September 30, 1983.

It would also provide that fund currently authorized for development remain available until expended. There is another provision that is extremely important to us in order to proceed with some speed with the acquisition of land, and that is that provision which would permit the Secretary to purchase lands for San Francisco Bay which are subject to the State's interest in that land.

I think the chairman and the committee may understand we have heretofore been something at a contretemps, because of the Department's reluctance, and I think a wise one. They feel we cannot under law take title to the State's interest when that interest is undefined and subject to a great deal of speculation as to its precise location in this area.

The provision for taking the land subject to the State's interest makes it possible for us properly to protect the land and to carry out the program that has been so long in the making and I think is a very appropriate and, indeed, imaginative way to solve this problem.

We feel there is a great future at San Francisco Bay which is somewhat akin to one of the other projects I want to talk about, Tinicum Environmental Center.

San Francisco Bay represents an extraordinary opportunity to preserve habitats and make available to the general public in that very large metropolitan area an opportunity to see and enjoy, begin to understand wild creatures in something akin to their natural habitat. I think this legislation, for purposes at hand, will be extraordinarily useful and indeed necessary for us to proceed with this program.

Senator CHAFEE. Are there any rights provided under the California constitution that would be incompatible with what we expect the use of the refuge to be?

Mr. GREENWALT. I am unaware of any. My understanding is we could overcome some of these difficulties by negotiating a long-term lease for those interests, something on the order of 60 or 70 years for a nominal fee.

I think aside from our being somewhat reluctant to spend money for facilities on land that is under lease, the future of which is somewhat uncertain, I see no conflict with what we intend to do, and the proposal that is envisioned here.

Senator CHAFEE. I suppose we would not tend to put many facilities there, anyway, would we?

Mr. GREENWALT. Not very many. We have two facilities presently on the ground and some others in the planning stage, but the land in question is not subject to development in any real sense, in any event.

Senator CHAFEE. Why don't we go to the Tinicum?

#### TINICUM NATIONAL ENVIRONMENTAL CENTER

Mr. GREENWALT. Very well, sir.

Tinicum, as the chairman knows, is an extraordinary unit of the National Wildlife Refuge System. Notwithstanding its name, Tinicum National and Environmental Center, it is in the very urban center, as it were, of the Philadelphia community and is one of those repositories among the very last marshlands in that part of the world, which at one time were very common.

We have had legislative authority for the Tinicum Center for a long time and at present we have 1,100 acres of land and we have an authorization which at present stands at about \$11 million for acquisition. We have transmitted proposed legislation which would authorize additional appropriation for Tinicum and would add \$4 million for the construction of an Environmental Education Center, and to provide for such other sums as might be necessary for other development projects, the latter phrase being one which causes some problem in many quarters because of the uncertainty about what the additional development might be.

The particular uncertainty centering around a sanitary landfill, called the Folcroft landfill which has been closed for some years and which has been completely covered over and made relatively stable. It is in private ownership at present and is subject to exploitation by the private owner, who is interested in making it an area for light industry.

Folcroft landfill poses a potential for some environmental degradation, perhaps a very real possibility that it will begin to produce contaminants, as many landfills have, and that the control of those contaminants is of an uncertain future because no one knows what they are or that they will, in fact, occur.

The Congress in the past has been concerned about our acquisition of this area because of the potential for degradation.

Senator CHAFEE. Is it liability on our part?

Mr. GREENWALT. I could be a liability on your part if we owned the landfill. At present it is a potential liability for the owner who had a study done. The study reveals there is at present no problem.

We remain somewhat uncertain about the adequacy of that study, but at the same time, we recognize that it is entirely pragmatic, I think, and appropriate to look at the landfill from this point of view; that if we do not own the landfill, and it becomes a problem, we are confronted with resolving it in some fashion.

It is almost certain that in some way the Federal Government will be stuck with a part of this bill. If the landfill poses no problem, it will have been developed if we do not buy it. I think in the matter of the public interest as a whole, it may be well to consider the acquisition of this landfill as an appropriate part of the Tinicum National Environmental Center with the recognition that it may pose a problem and a liability, if it is there, will occur no matter who owns it. And it may be entirely safe to assume that we might be able to forecast and better control any problem if the land is owned by the Federal Government as a part of the Environmental Center.

Senator CHAFEE. I am not exactly sure what you are asking us to do here today. You have already got authorization for—

Mr. GREENWALT. \$1 million for acquisition.

Senator CHAFEE. Is that right?

Mr. GREENWALT. I think I am correct. What we are asking in a nutshell, Mr. Chairman, is that authorization be rewritten to read \$11 million for acquisition, \$4 million for construction, and such sums as may be necessary for other development purposes in the future.

Senator CHAFEE. All this, of course, is just authorization.

Mr. GREENWALT. That is correct.

Senator CHAFEE. What would you do with the \$4 million, would you build an environmental educational facility?

Mr. GREENWALT. That is the \$4 million for construction, yes.

Senator CHAFEE. That is pretty good construction.

Mr. GREENWALT. That is very expensive construction. It also is the kind of facility that would be used, and I think it is fair to say based on my several observations of the area personally, it may even, a large, very useful one, may be overtaxed by the demands made upon it.

Senator CHAFEE. Really?

Mr. GREENWALT. It is already being heavily used by school groups and others. I envision the probability that there is no way we could possibly meet the demand imposed upon us by even the school groups in Philadelphia.

Senator CHAFEE. My philosophy always is, if something has to give, have the building give because you can get that some other time, but get the land, if you can.

Mr. GREENWALT. Absolutely.

Senator CHAFEE. Have you made up your mind to go for this Falcroft landfill?

Mr. GREENWALT. We would like to go for the landfill.

Senator CHAFEE. That is what the money is for.

Mr. GREENWALT. That is essentially what it is for, yes. It has been questioned in the past because of the uncertainty of the potential contamination emanating from the landfill.

Senator CHAFEE. Have you got enough money in here to get the Folcroft landfill? This fellow thinks he is going to build a development there.

Mr. GREENWALT. We believe the landfill might be as much as \$6 or \$7 million because of its potential use. I see my realty expert, who is very much up on the nuances——

Senator CHAFEE. I don't want to set a price at which this fellow should go to, but I am just curious if that is within the plan.

Mr. GREENWALT. That is our desire, our recommendation to include the Folcroft landfill in the plan. We presently have options on \$3.2 million worth of land in there.

Senator CHAFEE. Thank you.

Now let's go to the next one.

#### BOQUE CHITTO NATIONAL WILDLIFE REFUGE

Mr. GREENWALT. The next one on my list is Boque Chitto in Louisiana. Boque Chitto is a proposed refuge area in the southern part of Louisiana, at the confluence of the Boque Chitto and Pearl Rivers. It is one of the last bottom land hardwood areas of any size, that is to say, in this case, about 40,000 acres, remaining in the whole of the Mississippi, the lower Mississippi Delta country. There are one or two other areas, of which one is the Tensas, which I will discuss later, that remain as large contiguous areas of bottom land hardwood. The value and desirability of acquiring the Boque Chitto area has been recognized and was carried forward in the administration's 1980 budget, which included \$5.7 million to initiate acquisition of this area.

The Senate deleted this funding on the ground that refuge units of this size really ought to be considered in a legislative forum rather than in the administrative procedures that have heretofore been followed under the Secretary's authority to acquire land.

The administration is pleased to note this legislation has been introduced and is prepared to support it for the acquisition of Boque Chitto so that we can proceed then to request or reprogram funding or in some fashion gather together the land and water conservation funds necessary to acquire this land before it is converted to an alternative use.

Senator CHAFEE. Would you have to have an appropriation?

Mr. GREENWALT. We would have to have an authorization in order to use the land and water conservation fund which we then acquire through the appropriations process.

Senator CHAFEE. Can we do that here?

Mr. GREENWALT. No, sir.

Senator CHAFEE. You still have to go to the Appropriations Committee. You say you are prepared to support it. Do you support it?

Mr. GREENWALT. We support the legislation and we are prepared to make the representations before the Appropriations Committee.

Senator CHAFEE. All right. The trouble is I tend to be in favor of all these things. They all sound good to me.

Mr. GREENWALT. Mr. Chairman, let me suggest, then——

Senator CHAFEE. Bring me in a lemon sometime, will you, so I can——

## TENSAS RIVER NATIONAL WILDLIFE REFUGE

Mr. GREENWALT. Let me talk to you about another area also in Louisiana called Tensas, which represents a variation on the theme as far as the administration is concerned. This is an area very similar to Boque Chitto in its biological sense in that it is a very large, unbroken tract of bottom land hardwood.

These are habitat types that are disappearing at an alarming rate in the southern United States and which are incredibly valuable to migratory birds and other kinds of wildlife because of their biological characteristics. In a work, they flood frequently and they produce a wide variety of habitats for all manner of species, including migratory birds and resident species of a dizzying variety. The Boque Chitto proposal is for an area that would, again, encompass something on the order of 40,000 acres. It is in private ownership by a company which is in the business of land management and land utilization.

They also recognize there is a strong wildlife value in these lands and have indicated an interest in selling it. One of the problems has been just how to fund it because it is very expensive land. It might cost as much as \$50 million.

The administration is not at this moment prepared to make a financial commitment on that amount of money, which would come from the land and water conservation fund without some additional study and analysis of just how this might fit into the scheme of things.

It is less, in my judgment, a question of total opposition than it is uncertainty about just how this project might fit into the use of the land and water conservation fund as a whole. And based upon the legislation presently before us, the administration has indicated that it cannot make a commitment at this time.

I will say that the area in question is one of those that is growing unique even as we sit here because of changing, the alteration of the land in the area. It is the kind of area recognized by the administration as being vitally important.

The question, then, is one of how it is funded and whether it is funded.

The commitment asked of the administration by this bill is one that the administration cannot respond to affirmatively at this point in time.

Senator CHAFEE. So you are saying you are not ready to support it now?

Mr. GREENWALT. The administration will not support the commitment for funding right now, no, sir.

Senator CHAFEE. That works out to \$1,000 an acre.

Mr. GREENWALT. That is approximately correct yes. This is land which has two levels of value; one for the timber, which must be removed in order to convert it into farmland, and the other, or course, in its value as an agricultural land for largely soybeans.

Senator CHAFEE. Aren't we taking a risk if we don't do anything that the Chicago Mill will proceed?

Mr. GREENWALT. There is that risk, yes. I am quite certain they are not without potential buyers, even now. If it is delayed, it seems quite certain, based upon what has happened to other land in the area, that it will be sold and very likely cleared, and converted to cropland.

Senator CHAFEE. Have they indicated, Chicago Mill indicated to you, you have to fish or cut bait within a certain period of time?

Mr. GREENWALT. They have not indicated to me, but they have indicated to intermediaries. I have been told bullet-biting time is imminent.

Senator CHAFEE. What is our last one?

#### GREAT DISMAL SWAMP

Mr. GREENWALT. I think the last one is Great Dismal Swamp, Mr. Chairman, which is another area which was established by legislation by Public Law 93-403 in 1974. You will recall that one of the first actions in connection with this magnificent area was the acceptance of a donation from the Union Camp Corp. of about 50,000 acres. We presently estimate that it will be necessary to acquire a total of about 113,000 acres to insure the survival of this unique wooded wetland.

We have begun land acquisition, and at present, there is an appropriation of about \$5.3 million in fiscal year 1980.

We estimate a balance of approximately \$5.6 million would be sufficient to complete acquisition of the refuge. We are seeking the extension of the current authorization for 3 years until fiscal year 1983. The authorization currently on hand is \$15,750,000 for land acquisition and \$5,350,000 for development. This is all available through fiscal year 1980.

The fundamental question here, then, of course, is extending the authorization in order to make the authorization hold through 1983, at which time we think we will have some completed or be very close to completion of the acquisition of this area, assuming the funding is available concomitant with the authorization.

Senator CHAFEE. Thank you very much, Mr. Greenwalt.

[Mr. Greenwalt's prepared statements and responses to written questions follow:]

STATEMENT OF LYNN A. GREENWALT, DIRECTOR, U.S. FISH AND WILDLIFE SERVICE, BEFORE THE SENATE COMMITTEE ON PUBLIC WORKS, SUBCOMMITTEE ON RESOURCE PROTECTION, ON H.R. 4084, A BILL TO PROVIDE FOR A COOPERATIVE AGREEMENT BETWEEN THE SECRETARY OF THE INTERIOR AND THE STATE OF CALIFORNIA TO IMPROVE AND MANAGE THE SUISUN MARSH IN CALIFORNIA, FEBRUARY 4, 1980.

Mr. Chairman it is a pleasure to be here today to testify on H.R. 4084, a bill to provide for a cooperative agreement between the Secretary of the Interior and the State of California to improve and manage the Suisun Marsh in California.

The Suisun Marsh is the largest contiguous marsh in California and the largest remaining wetland in the San Francisco Bay area. It includes more than 10 percent of California's remaining wetlands. The brackish water of the Marsh is affected both by the freshwater drainage of the Central Valley and the tidal salt water of San Francisco Bay.

Although the abundance and diversity of the wetland vegetation of the Marsh supports more than 250 species of fish and wildlife, its prime importance is its value to migratory birds. California is the wintering ground for 60 percent of the waterfowl populations of the Pacific Flyway; Suisun Marsh harbors a substantial portion of these birds. The normal wintering population in the Marsh is in the order of several hundred thousand birds with peaks of over one million reached at certain times

The most numerous of the species that use the marsh are pintails, but a number of other species such as mallards, wigeon, shovelers, green winged teal and cackling and white fronted geese use the marsh as well. The Marsh is also valuable to species other than waterfowl. Among the endangered, rare or unique species of wildlife for which the Marsh provides habitat are the peregrine falcon, California clapper rail, golden eagle, and the salt marsh harvest mouse.

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The Suisun Marsh was built up over the millenia following the last ice age by silt deposits from overflow waters of Suisun Slough, Montezuma Slough and the Sacramento-San Joaquin River systems. Large portions of land were submerged daily by high tides and limited areas of higher ground were inundated periodically by higher tides. In the winter and spring fresh water covered most of the Marsh, often for extended periods of time, diluting the saline water in the estuary well into the year. These changes in the salinity of water supplied to the Marsh were certainly reflected in similar changes in the variety and quantity of marsh vegetation.

After the Gold Rush, however, widespread reclamation of California's wetlands--including the Suisun Marsh--shifted control of much of the Marsh habitat to man. Beginning in 1850, levees were built in the Suisun Marsh to reclaim the land for agricultural use and, by 1930 44,600 acres had been developed. But agricultural developments were largely unsuccessful because of poor drainage and the accumulation of salts in the soil. Although current agricultural practice includes cattle production and limited dry farming of grain crops where suitable soils exist, most of the reclaimed marshland has been converted to private duck clubs and State wildlife management areas, both of which use the levee systems developed for agriculture. Today the Marsh is almost a totally managed wetland.

While the Marsh has not suffered any major physical degradation in recent years and is now protected from land use changes by State law, water quality degradation caused by upstream users and large diversions from the delta threaten the Marsh's future. The reduction of freshwater inflow, particularly during the late winter and spring, causes an increase in salinity intrusion which affects the entire vegetative composition of the Marsh. Of particular

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concern is that the increased salinity stresses important waterfowl food plants to the extent that seed production becomes severely limited and the capacity of the Marsh to support wintering waterfowl becomes reduced.

This was recognized some time ago and in 1970 the U.S. Bureau of Reclamation, (now the Water and Power Resources Service), the California Department of Water Resources, the U.S. Fish and Wildlife Service, and the California Department of Fish and Game signed an interagency Memorandum of Agreement which recognized that the operation of the Central Valley Project, the State Water Project and other water users all contributed to the fish and wildlife problems in the Suisun Marsh. They agreed that future water development would reduce waterfowl habitat and food in the Marsh unless mitigative measures were taken to provide water of an adequate quality to the Marsh. The result of this agreement was the establishment of an Ecological Study Program which has developed the plan for the initial facilities. These facilities as presently designed provide for more effective utilization of existing water supplies in order to maintain existing habitat conditions

We agree that the proposed interim facilities which would be authorized by H.R. 4084 are needed. The interim facilities are identical to those being considered in the Bureau of Reclamation's feasibility study on the Solano County Water Project. That study will provide additional insight regarding a plan of action for permanent facilities to provide a long-term solution to the conditions in the Marsh. The report is currently being reviewed by the State of California, local governments, and other entities. After the feasibility report has been processed in accordance with established procedures and law, the Department of the Interior will be in a position to make a recommendation on the long-term plan.

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Our only concern with the bill is with the proposed Federal share of the interim facilities being fifty percent of their total cost, subject to the proviso that this share may be altered retroactively when the division of costs for the permanent facilities is determined.

The cost-sharing of the facilities should be based on the percent depletion of the Sacramento-San Joaquin Delta outflow attributed to the State Water Project and the Federal Central Valley Project as well as those private water users who also contribute to water depletion in the delta. Studies on the Solano County Water Project by the Water and Power Resources Service indicate that the State project would deplete 4.2 million acre-feet of water from the delta in the year 2020. The Federal project would deplete 5.3 million acre-feet.

Total depletions in the year 2020 are projected at 17.8 million acre-feet. Therefore, we recommend that 30 percent of the cost of the construction, operation, and maintenance of facilities be paid by the Federal Government and 23 percent by the State. The remaining 47 percent of the costs should be borne by those private water users who also contribute to water depletion in the Sacramento-San Joaquin Delta. The responsibility for assuring that the private water users contribute financially to the construction and operation and maintenance of the facilities should be with the State since the State has issued the water rights permits to those private water users which contribute to delta depletions.

Our concern relating to the cost-sharing is lessened somewhat by the proviso that would allow the retroactive adjustment of cost sharing. We would prefer, however, that the fifty percent figure be reduced to thirty percent to reflect what we believe is a more accurate estimate of the Federal share.

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In conclusion, we recognize the value of Suisun Marsh to waterfowl and other estuarine resources. We recognize that the Marsh needs protection, and that the proposed facilities are the only practical solution currently at hand. Because of this we support this legislation which will allow the Water and Power Resources Service to participate in a program of protecting the Marsh from the adverse effects of salinity intrusion.

That concludes my prepared statement. If there are any questions, I will be glad to answer them.

STATEMENT OF LYNN A. GREENWALT, DIRECTOR, U. S. FISH AND WILDLIFE SERVICE, DEPARTMENT OF THE INTERIOR BEFORE THE UNITED STATES SENATE ENVIRONMENT AND PUBLIC WORKS COMMITTEE, SUBCOMMITTEE ON RESOURCE PROTECTION, ON H.R. 4887, TO AUTHORIZE APPROPRIATIONS FOR THE SAN FRANCISCO BAY NATIONAL WILDLIFE REFUGE, FEBRUARY 4, 1980.

Mr. Chairman, the Fish and Wildlife Service has the obligation to develop and encourage responsible use and understanding of our remaining wildlife habitat while simultaneously protecting and preserving those lands and waters. San Francisco Bay National Wildlife Refuge in California not only preserves valuable wildlife habitat, but also offers a unique opportunity to present environmental education programs to a large metropolitan population.

During the 30 years prior to 1970 marsh habitat of the San Francisco Bay was reduced by nearly two-thirds. Were this trend to have continued unchecked, most of the wetlands of the bay area would have been lost by the year 1985. In recognition of this, in 1972, the Congress directed the Secretary of the Interior to establish and administer the San Francisco Bay National Wildlife Refuge to protect and enhance the habitat on 23,000 acres for a variety of waterfowl and wildlife and to provide wildlife-oriented educational and recreational opportunities.

The marshes, mudflats, open water and saltponds of this refuge form an ecosystem that supports a rich diversity of fish and wildlife. It is a major nesting and feeding area for the waterfowl and shorebirds of the Pacific flyway. The refuge also preserves hauling grounds for the harbor seal and habitat for several endangered and threatened

-2-

species, including the California least tern, California clapper rail, brown pelican, peregrine falcon and the salt marsh harvest mouse.

The refuge also establishes a sorely needed wildlife-oriented public use area for the burgeoning San Francisco Bay region. Once acquisition and development are complete we expect that more than one million visitors a year will take advantage of the fishing, the wildlife observation and the research and environmental education opportunities which will be provided by the refuge.

Public Law 92-330 provided an authorization of appropriations of \$9 million for land acquisition and \$11.3 million for development at the San Francisco Bay National Wildlife Refuge. The authorization expired at the end of fiscal year 1977 and was extended through fiscal year 1980 by Public Law 95-299.

We support enactment of H.R. 4887 which will increase the authorization of appropriations for land acquisition by \$4.2 million to a \$13.2 million ceiling and extend its availability for 3 years, until September 30, 1983. The legislation will also provide that funds currently authorized for development remain available until expended.

To date, the Service has acquired 15,666 acres for this refuge, with contracts on 40 tracts comprising an additional 340 acres. The acquisition authorization increase is necessary to conclude acquisition of the remaining 22 properties totalling 5,280 acres.

Most of the lands still to be acquired, as well as the 40 tracts on which the Service has obtained purchase contracts, are lands that may have been tidelands and title is clouded by possible claims of the State of California. The State owns submerged and tidelands up to the mean high tide line. This ownership includes the tideland trust of State which involves navigation rights, commerce, fisheries and other public use and cannot be transferred to the U.S. government or any other party under the California State Constitution. In some instances the State had previously conveyed tide and submerged lands but retained the tideland trust. The lands in question have been altered with the construction of salt ponds so that the former high tide line separating State and private ownership cannot now be distinguished. Thus, the present owners cannot convey completely clear title to the United States. Such lands, however, are routinely transferred between private parties.

Private title companies have solved this problem by approving title subject to the State's interest in lands now or formerly flowed by the tide, but Department of Justice regulations governing Federal land acquisition do not provide for title clearance with a possible State claim remaining. We therefore endorse the provision in H.R. 4887, as passed by the House, which will allow the Secretary to purchase lands for the San Francisco Bay refuge subject to the State's interest. Until this matter is resolved, the Service will be unable to complete purchase of lands from many people who have already contracted to sell

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their property to the refuge. Moreover, the State of California has offered to lease its interest in these lands for 66 years at virtually no cost. Such an arrangement will assure that no activities are conducted which are incompatible with the purpose of the refuge.

The master plan for the refuge has been prepared and construction of the headquarters complex at Freemont and the environmental education center at Alviso was completed this past August. In addition to these facilities, approximately four miles of walking trails are in use on the refuge. Construction of other interpretive trails and exhibits is planned during this fiscal year. However, construction of additional public use facilities and habitat restoration and development projects have been restricted because of the delays in acquiring the land, and much of the planned development cannot be accomplished until acquisition problems are resolved.

Mr. Chairman, this concludes my prepared statement on the San Francisco Bay National Wildlife Refuge. If you have any questions, I will be happy to answer them at this time.

STATEMENT OF LYNN A. GREENWALT, DIRECTOR, U.S. FISH AND WILDLIFE SERVICE, DEPARTMENT OF THE INTERIOR, BEFORE THE UNITED STATES SENATE, COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS, SUBCOMMITTEE ON RESOURCE PROTECTION, ON A PROPOSAL TO PROVIDE FOR ADDITIONAL AUTHORIZATION FOR APPROPRIATIONS FOR THE TINICUM NATIONAL ENVIRONMENTAL CENTER, FEBRUARY 4, 1980.

Mr. Chairman, the Tinicum National Environmental Center in Philadelphia is perhaps the least typical of all National Wildlife Refuges, yet it is one which we think is particularly valuable. Located at the confluence of the Delaware River and Darby Creek, not far from the Philadelphia Airport, the area bears more than a casual imprint of the hand of man. In spite of this, Tinicum Marsh provides habitat for a surprising diversity of wildlife. In all, at least 119 different species of waterfowl and shore birds have been seen in the Tinicum region. Pintails are the most abundant of the migratory waterfowl, but black ducks, mallards, green-winged teal and ruddy ducks are nearly as common. Among the marsh and shore birds, sandpipers, killdeer, herons and egrets are the most common. There are nesting colonies of American and least bitterns, black-crowned night herons, great and snowy egrets and green herons. There are also a number of species of mammals. Besides muskrat, squirrels, and rabbits, there is an occasional visit of white-tail deer and even otter.

The Tinicum National Environmental Center was established by enactment of Public Law 92-326. The first authorization was for \$2.25 million. This was subsequently raised as Congress included other lands in the refuge boundaries. As of now, the proposed refuge is slightly larger than 1100 acres and the total authorization stands at \$11.1 million.

The Department has transmitted proposed legislation which would provide for additional authorization of appropriations for the Tinicum National Environmental Center. This proposal would authorize \$11 million for land acquisition,

- 2 -

\$4 million for the construction of environmental education center facilities, and such sums as may be necessary for other development projects.

Tinicum is an urban refuge, with all the advantages and disadvantages of urban areas. It is becoming apparent that high land prices and rehabilitation costs are among the most serious disadvantages. With regard to land acquisition, the Service has acquired by donation, transfer and purchase approximately 680 acres, and we hope to complete acquisition of the refuge within the next eighteen months. However, the original estimates for land acquisition did not include some of the more expensive lands and the high price of the potential industrial use lands within the refuge. We estimate the total authorization needed for land acquisition, alone, to be \$11 million.

There are also a number of other rehabilitation works necessary, such as dikes and water control structures which will be put in place over a number of years. Much of the Tinicum National Environmental Center was formerly tideland, but has been altered by diking, dredging or filling. Where feasible the tidal wetlands will be restored. Elsewhere, the refuge will be managed to produce upland field and forest habitats. As areas are restored, trails will be developed to enrich the environmental education opportunities of the Center. A wetland boardwalk and canoe trail are also planned.

In addition, we do not yet know the extent of the containment work which might be necessary to stabilize the Folcroft landfill, which was included in the boundaries of the refuge by Public Law 94-548. The situation will be monitored, but at this time we are not able to accurately calculate the expense which might be required.

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Some costs, on the other hand, are more easily estimated. We plan to construct an environmental education center, a visitor contact station and a small maintenance building which will cost approximately \$3.9 million. These facilities will compliment the existing visitor contact center constructed by the Philadelphia Conservationists, Inc. We are therefore proposing an authorization of \$4 million for the construction of these facilities and an authorization of "such sums as may be necessary" for the remaining development work.

The plans for the refuge are now being completed. After two public meetings in January 1979 and substantial public comment, major revisions have been made in the draft Tinicum National Environmental Center Master Plan. The preliminary plan has been reviewed by a team from the Department of the Interior, in consultation with representatives of local groups interested in the preservation of Tinicum Marsh. We expect to have the master plan completed during this fiscal year.

Mr. Chairman, as you can see, the costs of the Tinicum Environmental Center have increased beyond original estimates, but we believe it will be one of the most important refuges in the system. With continued local support, Tinicum will become an exceptional wildlife education area, a place where people can go to learn about ecosystems and how people, water, fish and wildlife are all interdependent. There, the people of Philadelphia can go for an afternoon or perhaps only an hour out of a busy day for a moment of tranquility and a chance to fish or watch some of the numerous birds and other wetland animals that use the area. It will be particularly valuable for those people of Philadelphia who do not have the opportunity or the resources to visit the great national parks or wildlife refuges or wilderness

areas of this country.. In preserving our environment, we must think not only of the wild and remote places of our nation, but also of small areas near the large cities where most of us live.

This concludes my prepared statement, Mr. Chairman. If you have any further questions I will be pleased to answer them.

STATEMENT OF LYNN A. GREENWALT, DIRECTOR, U. S. FISH AND WILDLIFE SERVICE, DEPARTMENT OF THE INTERIOR, BEFORE THE UNITED STATES SENATE ENVIRONMENT AND PUBLIC WORKS COMMITTEE, SUBCOMMITTEE ON RESOURCE PROTECTION, ON H.R. 4889, TO EXTEND THE AUTHORIZATION PERIOD FOR THE GREAT DISMAL SWAMP NATIONAL WILDLIFE REFUGE, FEBRUARY 4, 1980.

Mr. Chairman, the authorization of appropriations for the Great Dismal Swamp National Wildlife Refuge expires at the end of fiscal year 1980. We recommend enactment of H.R. 4889 which would extend for three years the current authorization of \$21 million.

The Great Dismal Swamp National Wildlife Refuge was established in 1974 by Public Law 93-403. The refuge was to consist of approximately 50,000 acres donated to the Service by the Union Camp Corporation through the offices of the Nature Conservancy, plus any additional lands the Service would acquire after completing a study of the Swamp in 1974. In addition, a very sophisticated biological and hydrological study which will further define the boundaries of the refuge is to be completed by the U.S. Geological Survey and the Fish and Wildlife Service by the end of fiscal year 1980. We currently estimate that a total acquisition of 113,000 acres will be necessary to ensure the survival of this unique wooded wetland.

To date, more than 80,000 acres have been acquired by purchase and donation. In this fiscal year we expect to purchase an additional 9,000 acres and take possession of an 11,000 acre tract being donated by the Weyerhaeuser Corporation.

Under the refuge's earlier authorizations, which totaled \$7 million, \$4.75 million were appropriated for land acquisition. Of the present \$15.75 million authorization for this purpose, \$4.8 million have been

- 2 -

appropriated. An additional \$5.3 million have been appropriated for fiscal year 1980. The remaining balance of approximately \$5.6 million should be sufficient to complete acquisition of the refuge.

Land acquisition has been slow due to the fact that most of the lands yet to be acquired are divided among many different owners. Progress has been slow, also, due to our commitment to acquire land only from willing sellers during the life of the current authorization. The Service plans to continue this "willing seller" policy at the Great Dismal Swamp National Wildlife Refuge during this three year extension, in accord with present agreements.

Development of a refuge necessarily follows land acquisition. A public use plan is being prepared for the Great Dismal Swamp Refuge and detailed designs of a headquarters building and visitor center are in hand. Much of the \$422,000 appropriated under the current \$5.35 million development authorization has been used for the purchase of firefighting equipment, construction of an interpretive boardwalk and trail, and rehabilitation of existing water control structures. A large portion of the fiscal year 1980 appropriation of \$442,000 will increase our ability to control water levels in the swamp, which is a key to maintaining the abundance and diversity of fish and wildlife and plants historically found there.

Technically a timbered peat bog with a natural lake, Lake Drummond, near its center, the Great Dismal Swamp supports the only breeding population of black bears in eastern Virginia. A sizeable deer

-3-

population, bobcat and numerous smaller mammals are also found there. Large numbers of migratory songbirds use the swamp, as well as some waterfowl and a variety of resident species. The landscape includes some interesting floral associations, among them stands of gum, cypress and some of the largest stands of the relatively scarce Atlantic white cedar.

The Great Dismal Swamp is noted for an unusual intermingling of northern and southern species of plants and animals. In its preservation and management we also see an example of cooperation between Federal and State agencies. On the eastern boundary of the refuge the Army Corps of Engineers operates the historic Dismal Swamp Canal as part of the Atlantic Intercoastal Waterway, providing access to the refuge for boaters. The Corps also operates a small campground, and the State of North Carolina administers a 13,500-acre State Park parallel to the Canal. Together, we are creating an educational and recreational public use program which will have a minimal biological and physical impact upon the swamp environment.

This concludes my prepared statement on the Great Dismal Swamp National Wildlife Refuge, Mr. Chairman, and I would be pleased to answer any questions you may have.

JENNINGS RANDOLPH, W. VA., CHAIRMAN  
 EDMUND S. MUSKIE, MAINE  
 MIKE GRAVEL, ALASKA  
 LLOYD BENTSEN, TEX.  
 GLENN H. ROSENBERG, N. DAK.  
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## United States Senate

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS  
 WASHINGTON, D.C. 20510

February 12, 1980

Honorable Lynn Greenwalt  
 Director  
 U.S. Fish and Wildlife Service  
 U.S. Department of the Interior  
 18th and C Sts. NW  
 Washington, DC 20240

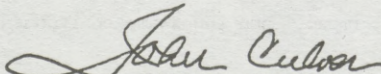
Dear Mr. Greenwalt:

Thank you for your February 4 testimony in behalf of the U.S. Fish and Wildlife Service before the Senate Resource Protection Subcommittee. The information provided by the Service on the Fish and Wildlife Conservation Act as well as the five refuge proposals and the Suisun Marsh legislation will be very helpful to the Subcommittee in our consideration of these bills.

Pursuant to your testimony you will find attached a number of questions to which the Subcommittee would appreciate your response for the hearing record. The record will close February 18, 1980 and your prompt reply would be very much appreciated.

Again, thank you for your assistance.

Sincerely,



JOHN C. CULVER  
 Chairman, Subcommittee on  
 Resource Protection

JCC/MP



## United States Department of the Interior

ADDRESS ONLY THE DIRECTOR,  
FISH AND WILDLIFE SERVICEFISH AND WILDLIFE SERVICE  
WASHINGTON, D.C. 20240

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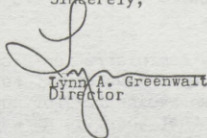
Honorable John C. Culver  
Chairman, Resource Protection Subcommittee  
Committee on Environment and Public Works  
United States Senate  
Washington, D.C. 20510

Dear Mr. Chairman:

Attached are responses to questions contained in your letter of February 12, 1980. This information is provided as a follow-up to the Subcommittee's hearings on February 4 covering a number of subjects, including the Fish and Wildlife Conservation Act and the establishment of the Bogue Chitto and Tensas National Wildlife Refuges.

Please do not hesitate to let me know if the Fish and Wildlife Service can assist in providing any additional information.

Sincerely,



Lynn A. Greenwalt  
Director

Attachment

Fish and Wildlife Conservation Act of 1980 - S. 2181

—Q.1. In your statement you note that only ten percent of Pittman-Robertson funds are specifically directed toward non-game. Why is this? Are there legal or practical restraints which prevent you from using more P-R or D-J money for non-game?

A. In the past, the Service has made a concerted effort to advise States of the availability of Federal aid funds under the Pittman-Robertson and Dingell-Johnson Acts for non-game projects. Despite these efforts, however, currently only about 10% of these funds are being used for this purpose.

There are both legal and practical restraints which limit the use of Pittman-Robertson and Dingell-Johnson funds for non-game. P-R is limited legally for the benefit of "wild birds and wild mammals." This excludes a wide range of non-game animals including amphibians such as frogs and salamanders, and reptiles such as turtles and snakes. Dingell-Johnson is limited to fin fish "...having material value in connection with sport or recreation...."

As for practical restraints, most States are hesitant to dedicate a large portion of their P-R and D-J funds to non-game, inasmuch as these funds are derived from hunting and fishing license receipts and from excise taxes placed on consumptive users of fish and wildlife. Furthermore, there is no way that the Fish and Wildlife Service can require States to use a larger portion of their Federal aid allocation for non-game. The P-R and D-J Acts give the Secretary no authority to require States to institute programs for particular species. The Secretary must require only that projects are "substantial in character and design."

Q.2. I understand the Administration's general dislike for excise taxes. But have you made a serious effort to evaluate the specific benefits or disadvantages of an excise tax for supporting non-game programs? Do you know for sure that there is no way of identifying specific items which can be equitably taxed to support this program?

A. The Administration has made an effort to evaluate the advantages and disadvantages of an excise tax to support non-game programs. In 1975 the Wildlife Management Institute, under contract to the Fish and Wildlife Service and Council on Environmental Quality, produced a report entitled "Current Amendments, Projected Needs and Potential new sources of Income for Non-game Fish and Wildlife Programs."

The report recommended that "a non-game fish and wildlife Federal matching grant-in-aid program be authorized by Congress, with funds to be obtained from new manufacturer's excise taxes" on designated types of outdoor equipment. The report identified potentially taxable groups of items, including various types of camping, songbird, snow skiing, and photographic equipment, and estimated that with an excise

tax ranging from 1% - 10% on these items, \$149,163,000 could be generated. The report did not, however, address the equitability of taxing these items for the benefit of non-game conservation programs.

- Q.3. I really think we need this type of information before we can make an intelligent decision on this matter. How long would it take the FWS to conduct a study on this matter? How much money would it cost? could the necessary funding be obtained from the general authorization contained in the bill, or is a separate authorization necessary?
- A. Relying largely on information already generated by other researchers, it would take the Service approximately a year to one and one-half years to conduct the type of study described in your letter. Our estimates are that such a study would cost between \$30,000 and \$50,000. Funds provided for administration of the program under the Subcommittee approved bill (8% of appropriations) would be sufficient for this purpose.
- Q.4. Some have suggested that the non-game program be consolidated with other Federal aid programs. What are your views on this?
- A. The Fish and Wildlife Service would favor the operational consolidation of the non-game program with other Federal aid programs.

Currently, both the Pittman-Robertson and Dingell-Johnson programs are administered in this manner. For instance, the same Fish and Wildlife Service personnel are responsible for processing State requests and allocating funds under both Acts. A State may submit a single proposal for a project which contains both fish and wildlife elements, and it can be funded using a combination of Pittman-Robertson and Dingell-Johnson, as appropriate. While it may be advantageous to consolidate these programs further for administrative purposes, it is important that their funds maintain separate identities since each program has a distinct constituency of users who are also the contributors of the funds.

We believe that the same type of procedure would work well with a non-game program. The program could be combined operationally with those from the Pittman-Robertson and Dingell-Johnson Acts, while at the same time maintaining identity of the funding sources for the three programs.

SAN FRANCISCO BAY NATIONAL WILDLIFE REFUGE

- Q. A provision in H.R. 4887 would allow the Fish and Wildlife Service to acquire the tidelands of the San Francisco Bay Refuge subject to the State's interest. Will this hamper your ability to manage the refuge?
- A. No. The provision in H.R. 4887 will allow the Fish and Wildlife Service to acquire private lands within the refuge that have titles encumbered by the possible interest of the State of California in the lands that are now or formerly flowed by the tide. Within this provision, the Attorney General cannot approve the titles so encumbered. The State cannot convey its interest to the United States; however, it has offered cost-free lease of the State interest for refuge management. While the Service would not construct expensive facilities in these areas of the refuge, we will be able to effectively regulate activities that might be incompatible with the fish and wildlife resources.

TINICUM NATIONAL ENVIRONMENTAL CENTER

Q. Your proposal would authorize such sums as may be necessary for development projects at Tinicum. What do you estimate would be required?

A. We currently estimate development costs at Tinicum will be approximately \$17 million. This figure includes construction of the environmental education facilities, as well as restoration of some of the tidal marshes and wetlands, other habitat development in the field and forest areas, construction of water control structures and development of pedestrian facilities such as a wetland boardwalk and trails.

Q. Will you provide the details of what will be needed for the record?

\$ in millions

A. -- Construction of an environmental education building, visitor contact station, and maintenance facilities. . . \$ 5.5

Environmental Education Building

The building's functions are primarily to accommodate environmental education programs on both an individual and group basis. A lecture room, classroom, teaching laboratories, and exhibit areas are required for this purpose. Space for administrative functions include office, library, and laboratory. These spaces together with circulation and support areas constitute approximately 21,000 square feet of indoor space. In addition outdoor terraces and exhibit areas will be provided.

Visitor Contact Station

A visitor contact station is planned at the west end of the Center with access from Wanamaker Avenue. This facility will function primarily as an orientation center. It will consist of a small office, a small area for orientation displays, and a lab suitable to accommodate groups during study at the western end of the Center.

The buildings will have four bays for service vehicles, a shop for maintenance and repairs, and 2,200 square feet of storage area for supplies and equipment. A staff lounge/locker room, an administrative office and restroom will provide adequate facilities for personnel.

\$ in millions

-- Bank stabilization . . . . . ~~\$ 3.4~~

The project will stabilize the banks surrounding the lagoons next to Interstate 95 by adding fill where required and regrading. In addition, the banks will be revegetated with plant materials resistant to erosion and attractive to wildlife.

-- Tidal marsh restoration and managed water development . . \$ 2.0

An area of former marsh that has recently been filled with dredged sediments will be excavated to the former marsh level. Dike and water control construction will allow tidal flow to be restored.

-- Pedestrian facilities . . . . . \$ 1.0

This project will provide a network of trails and boardwalks to give visitors access to all the major environments and habitats on the property. Trails will follow impoundments, meander through wooded areas and connect to the service road so that several options for walking routes are possible.

Rest areas, observation blinds and platforms will be located at appropriate locations. The project also includes necessary sanitary facilities and parking. Water related access will be at canoe landings along a designated canoe trail. Fishing docks will be provided in designated fishing areas.

-- Tidal wetland restoration . . . . . \$ 3.4

This project will re-establish a freshwater tidal marsh in an area that had been artificially filled. The fill from this area will be used to simulate natural siltation to restore a lagoon and maintain it also as a freshwater tidal marsh.

-- Managed water development and a new water control structure . . . . . \$ 1.4

Dike and water control structures will be constructed to establish managed water areas that can be manipulated easily and yield quick results. These impoundments will be better suited to environmental education and research purposes.

- 3 -

\$ in millions

-- Service road rehabilitation . . . . . \$ 0.3

Rehabilitation of 2.1 miles of service road will provide management and administrative access to all parts of the Center.

-- Habitat development . . . . . \$ 0.3

Lowland and upland fields, lowland transitional and upland forests.

The project includes establishment of about 65 acres of fields and about 225 acres of forests.

The establishment of field habitats will be primarily by seed. Forested habitats will be accomplished by planting native seedlings.

\$ 17.3

GREAT DISMAL SWAMP NATIONAL WILDLIFE REFUGE

- Q. I understand that there was some landowner opposition to Federal acquisition of the Great Dismal Swamp refuge. Has this been cleared up?
- A. Opposition came primarily from landowners adjacent to the western boundary of the refuge whose farms projected into the swamp. These owners feared condemnation of their properties. The Fish and Wildlife Service agreed not to contact landowners unless they indicated a willingness to sell and to buy only from willing sellers through the term of the current authorization. This removed the basis of the opposition and some of these owners have subsequently come to the Service with offers to sell. We will continue this policy during the authorization provided by H.R. 4889. In addition, the Service is carrying out a study to determine with greater precision just what portions of these lands are essential for protection of the Great Dismal Swamp and inclusion within the refuge.

TENSAS NATIONAL WILDLIFE REFUGE

- Q. Is the Chicago Mill Company likely to clear the bottomland hardwoods in the Tensas proposal and lease the area for farming if it is not purchased in the near future?
- A. Yes. It is our understanding that the Company was proceeding with plans to clear this land when the Nature Conservancy (TNC) interceded with negotiations to purchase the area. However, this is such a large project that TNC cannot finance it without assurances that some agency will purchase it. If these assurances are not forthcoming in the very near future, the company will proceed with clearing the land. Thus, this legislation is the last opportunity to save this tract.
- Q. According to Fish and Wildlife Service testimony, the Service has been studying the entire region in the lower Mississippi. Pursuant to this, is there any area in the region that contains this vanishing type of bottomland hardwood habitat that would be more suitable for acquisition as a refuge than the Tensas area?
- A. The Service has an ongoing program to acquire bottomland hardwood areas within the Mississippi Delta which provide exceptional and necessary habitat for wintering waterfowl. Migratory bird conservation funds are used to purchase these refuges.

The Tensas unit, although having some waterfowl usage, would not qualify for this acquisition program. However, it is an area which should be preserved for its diversity of wildlife benefits. As I stated in my testimony, the area supports populations of black bear and American alligator. It is a wintering area not only for wood ducks and other waterfowl species, but also for bald and golden eagle. Theodore Roosevelt once hunted there because it has the highest deer carrying capacity in Louisiana. And Tensas also provides the habitat type preferred

- 2 -

by several endangered species. Tensas is the largest remaining area in the north Louisiana delta with such significant natural values, making it uniquely suited for designation as a multi-purpose refuge.

The proposed Bogue Chitto refuge further to the south is substantially different. Tensas generally floods only once a year during the growing season. Bogue Chitto, like the Atchafalaya Basin, is a much lower flood plain area characterized by an extensive network of streams and rivers, so much of it remains flooded year-round. Both types of bottomland hardwood habitat should be preserved.

Q. Are there in fact any other large, contiguous areas of this type of habitat that are not in public ownership that are available for purchase?

A. There are no other areas of this habitat type as large as Tensas in a single ownership available for purchase.

Q. There are a few parcels of this type of land in public ownership--some in Arkansas, some in Mississippi and several State-owned areas in Louisiana--aside from the uniqueness of this area, is there a particular reason for having a refuge in this area?

A. Originally, the whole Mississippi River Delta was covered with these productive hardwoods; only a small percentage remain. We do not yet understand the full impact of this massive clearing on the total ecology of the region. Not only rich in natural resources, these areas produce benefits in terms of flood control, water purification, recreation and timber production. We believe that it is necessary to preserve as many of the remaining bottomland hardwood areas as possible, and their distribution is probably as important as the total acreage. No examples of this bottomland hardwood habitat have been preserved in public ownership in northeastern Louisiana.

Q. What is the status of the black bear in Louisiana?

A. The Louisiana black bear (*Ursus americanus luteolus*) originally occupied southeastern Texas, southern Mississippi, and all of Louisiana. Because of excessive hunting and loss of habitat, resulting especially from human occupation and development of bottomland areas, the bear populations declined drastically in the nineteenth and early twentieth centuries. By the 1950's only about 100 bears survived, mainly in the Atchafalaya Basin of south-central Louisiana and in the Tensas River area of north-eastern Louisiana. A few bears probably also remained along the Pearl River bottoms in extreme southeastern Louisiana and adjacent parts of Mississippi.

From 1964 to 1967 the Louisiana Wild Life and Fisheries Commission imported 161 bears of the subspecies *Ursus americanus americanus* and released them in Louisiana. Of this number, 130 were placed in the Atchafalaya Basin and 31 were set loose on the Tensas River. Many of these bears left the original area of liberation, and apparently these animals were responsible for various subsequent records of bears in much of Louisiana, as well as nearby parts of Texas, Arkansas, and Mississippi. Some of the introduced bears probably remained in the Atchafalaya Basin and began to breed, as a moderate population increase has been reported in that area. Of course, the presence of the introduced bears would have jeopardized the survival of a pure stock of the native Louisiana subspecies, as interbreeding would be likely. As for the Tensas area recoveries of bears introduced there were made during the year of release, and in the year after release, but not during the second or

third years after release. This may suggest the possibility that the transplant in that area was unsuccessful, and that the few bears remaining in the Tensas area represent the only native Louisiana population.

Regarding the bears in this area, Burnett, Farrar and Herring in a 1975 article in the Louisiana Conservationist stated:

...the last ditch stand of black bear in the northern region of Louisiana has faded to a few individuals on remaining large wooded areas. The majority of these areas, largely unsuitable for agriculture, are batture lands, immediately adjacent to the Mississippi River as well as within the former Chicago Mills Wildlife Management Area in Madison and Tensas Parishes. Native populations were probably forced to relocate in nearby Mississippi and Arkansas woodlands. Many were lost to illegal hunting, highway accidents, and other causes. Under present trends of land clearing for agriculture in this highly productive delta area, black bear populations in some areas are inevitably doomed.

- Q. To what extent have the numerous Corps of Engineers' projects in the Mississippi River Delta contributed to the destruction of bottomland hardwoods?
- A. Of the 25 million acres of forested wetlands in existence just 50 years ago in the Lower Mississippi River Valley, approximately 3 million acres remain, and these are being drained and cleared at the rate of about 300,000 acres per year. The destruction of bottomland hardwood areas has been primarily for conversion to cropland and has been made possible largely by massive Federal flood control projects undertaken by the Corps of Engineers. Flood control activities of the Soil Conservation Service and State and private interests have also resulted in the clearing of tremendous acreages of this habitat type.

Q. Is there not some Federal responsibility to mitigate these losses?

A. The Fish and Wildlife Coordination Act (16 U.S.C. 661-666c), amended, provides for the recognition of the importance of fish and wildlife resources to the nation and provides that fish and wildlife conservation measures shall receive equal consideration and coordination in planning and implementing water resources development programs. Under this law, Federal agencies, such as the Corps of Engineers, are required to consult with the Fish and Wildlife Service and appropriate State wildlife resource agencies whenever any stream or body of water is proposed or authorized to be impounded, diverted, deepened or modified for any purpose. Through this consultation the Fish and Wildlife Service is authorized to prepare reports and recommendations for the purpose of determining the possible damages to fish and wildlife resources and to determine means and measures to mitigate the loss or adverse impact to the resources. The law also provides authorization for the construction agency to modify their plans to provide structural and non-structural mitigation measures as an integral part of the project's cost.

Q. Can you give the Committee some idea as to how many acres of mitigation land have been recommended in conjunction with the Corps of Engineers' projects since the passage of the Fish and Wildlife Coordination Act? How many acres have been purchased?

A. The Fish and Wildlife Service has recommended 610,740 acres of mitigation lands to partially compensate for the loss of over 2,300,000 acres of wildlife habitat caused by 39 Corps of Engineers navigation and flood control projects in the lower Mississippi River Delta. Of this

- 6 -

610,740 acres, 182,765 or 18 percent of the recommended land has been authorized, but only about 36,683 acres or 6 percent of the recommended land has been actually acquired and under management for fish and wildlife purposes.

- Q. Given the fact that projects in the Tensas and Lower Red River Basins will probably warrant substantial mitigation acreages, do you know of any other sizeable area in the Tensas Basin and Lower Red River Basins that has the type and amount of bottomland hardwood habitat that could satisfy the mitigation requirements on an acre-by-acre basis?
- A. The Corps of Engineers will buy mitigation lands only from willing sellers. There is no other large area in this region with such significant resource values and with a willing vendor that could meet these mitigation requirements.

BOGUE CHITTO NATIONAL WILDLIFE REFUGE

- Q. In August, 1978, the Jackson, Mississippi office of the Fish and Wildlife Service assured local residents and various public officials that historic uses of the proposed Bogue Chitto Refuge including fishing, hunting, year-round boating, trapping and year-round temporary and house-boat camping would continue after Federal acquisition. Will these assurances be honored?
- A. The Fish and Wildlife Service will honor the commitments made by the Area Manager, subject only to the need to recognize that situations could arise that would necessitate suspending those activities or modifying them in order to assure the continued well-being of the wildlife and habitat for which the refuge is established. Obviously, in periods of extreme fire danger, for example, we would be obligated to take steps to avoid fire hazard. If wildlife populations declined seriously for some reason, we would reduce or suspend hunting opportunities as necessary to avoid over-harvest. In short, we will not deviate from the commitments to which the question refers unless a continuation of those activities would be in direct conflict with the basic purpose of the refuge: protection and enhancement of fish, wildlife, and habitat values. The Service would be remiss if we did not take proper steps to protect the area and its wildlife in those circumstances.
- Q. Are there any management changes now contemplated by the Fish and Wildlife Service from those outlined to local citizens and officials in August 1978?
- A. As stated above, the management measures outlined previously will be modified only to assure the well-being of the fish and wildlife resources and habitat values of the Bogue Chitto refuge.
- Q. The Bogue Chitto refuge proposal authorizes such sums as may be necessary for the purposes of the Act. Does the Fish and Wildlife Service have more specific estimates for the costs of the refuge?
- A. We estimate the costs to acquire the refuge to be approximately \$13 million. Initial development costs, encompassing construction of the refuge headquarters and boat launching facilities and the accomplishment of boundary surveys, are estimated to be \$1 million.

SUISUN MARSH

- Q. In the analysis by the Fish and Wildlife Service officials of the diversions caused by the various water users, did they distinguish between in-basin and out-of-basin diversions? Did they distinguish between riparian users and other users?
- A. Officials from the Water and Power Resources Service, rather than the Fish and Wildlife Service, performed the analysis. The Water and Power Resources Service does distinguish between in-basin and out-of-basin diversions, and it also distinguishes between riparian and appropriative water right users in addressing project impacts and water development potential.
- Q. Does the Service think that there is a fundamental difference between these uses? For example, some of the in-basin diversion returns to the river and the riparian owners have special water rights by virtue of their riparian ownership.?
- A. The Water and Power Resources Service acknowledges there is a difference between in-basin and out-of-basin water rights and uses.

The following are three examples where the Service acknowledges differences in the area of water use and water rights.

1. All return flows from the Central Valley Project (CVP) deliveries in-basin are considered a part of the CVP water supplies and as such are claimed for reuse in the project service area.
2. All in-basin riparian and senior appropriative water rights within a particular watershed are satisfied to the extent they are put to beneficial use before any water is assumed for CVP use.

- 2 -

3. All of Water and Power Resources Service's feasibility investigations make provisions for in-basin users prior to establishing a firm yield for export.

Basically, the CVP water rights Decision 990 by the State Water Resources Control Board (SWRCB) specified that the in-basin users, both riparian and appropriative, had rights senior to those in areas of export or out-of-basin users. D-990 also specified that in-basin areas include the Sacramento River basin and the Sacramento-San Joaquin Delta, as defined in the State Water Code. Therefore, the areas of export include all lands served by the Delta-Mendota Canal and State Aqueduct and most of the land served by the Contra Costa Canal.

The Suisun Marsh was not included as lands of the delta as defined in the State Water Code nor mentioned in D-990 as a service area with any priority over users in the Sacramento River Basin or the delta. In recent action by the SWRCB in adopting the Delta Water Quality Standards, Decision 1485, the delta and the Marsh were referred to on an equal basis. This has clearly indicated that the board feels that Marsh protection should come ahead of other areas of export. Nevertheless, the courts have never addressed this issue.

Q. But for the existence of the Central Valley Project and the State Water Project, would there be a real problem in the Marsh?

A. Assuming no CVP or State Water Project (SWP), the delta outflow and resulting water quality within the Marsh would be adequate most years during the period of October through May. However, during dry years the October and November period may exceed the adopted water quality standards. During

a repeat of the 1976-77 period, water quality in the Marsh would have been worse than conditions actually experienced under SWP and CVP operation. Within the economic constraints of private entities, the water of the Sacramento River Basin would have been developed for use within the Basin without the CVP by local entities, as has occurred within the San Joaquin River Basin. Therefore, these entities should be considered as contributing to water quality degradation.

In determining the equitable proportion of the cost of a proposed Marsh management plan between the SWP and CVP, an analysis of the water rights held by the State and Federal governmental agencies is being made. Since most of the CVP water rights are senior to the SWP, the largest proportion of the project costs should be assigned accordingly to the SWP or to other private entities having less senior water rights. The exact allocation of the costs has not yet been determined.

The adverse impact, considering only the CVP without the SWP on line within the Marsh, is considered insignificant. During the months of October and November during the critically dry years, the water quality within the Marsh would be improved significantly. Some local cost sharing should be explored for those instances in which project operations would result in improvement over natural conditions.

Q. The 1958 amendments to the Fish and Wildlife Coordination Act require that fish and wildlife values receive equal consideration with other features or water development projects. There have been some very large projects constructed since then in the Central Valley. How have you given fish and wildlife equal consideration?

- 4 -

A. The planning and construction features of CVP since the 1958 amendment have included consultation with the Fish and Wildlife Service in compliance with the Fish and Wildlife Coordination Act. The formulation of the plan to protect the Suisun Marsh was based primarily on the goal of maintaining this wetland area as a brackish marsh. The inter-agency plan formulation team, made up of the Water Resources and Fish and Game agencies, identified the criteria for protection of existing fish and wildlife values within the Marsh and has agreed to the design and operation of the Management Plan.

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Senator CHAFEE. I have statements here by Senators Pressler and Johnson. I will put them in the record.  
[The statements follow:]

TESTIMONY OF  
SENATOR LARRY PRESSLER  
OF SOUTH DAKOTA  
BEFORE  
THE UNITED STATES SENATE  
SUBCOMMITTEE ON RESOURCE PROTECTION  
OF THE COMMITTEE ON ENVIRONMENT AND  
PUBLIC WORKS

Mr. Chairman, members of the Subcommittee, I am pleased to have this opportunity to speak about S. 2181, a bill to assist the States in developing programs for nongame fish and wildlife conservation. I support the concept of nongame fish and wildlife conservation and commend the Subcommittee for its efforts to secure funding for the program without resorting to general appropriations. I must express my reservations, however, concerning the 11 per cent excise tax on the birdseed and bird feeder industry.

First, the Bill requires this industry to bear the entire burden of funding the program, while the beneficiary of the program is the general public. Although this industry may benefit from the program, bearing the entire burden may be inequitable.

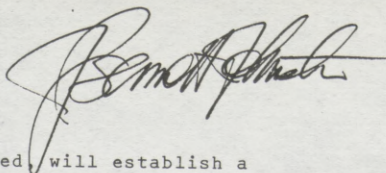
Second, the excise tax would most likely increase the retail price because birdseed is made by mixing and packaging ingredients such as millet and cracked corn. Thus, because the tax could not be absorbed in production costs, it would directly affect the price. An increase in price could be counterproductive to the purpose of the program, depending on the type of purchasers of birdseed. For elderly persons on fixed incomes who rely on bird feeding as a hobby, a price increase would take more of their already limited dollars and could make their hobby too expensive to continue. That would reduce the sales of birdseed which would in turn reduce the amount of funds generated for implementing the program.

Third, an increase in price could affect farmers who produce millet for sale as birdseed. I am concerned for South Dakota farmers who sell millet to birdseed companies directly and to other grain companies who in turn sell to birdseed companies. As demand for birdseed declines, the birdseed companies will buy less millet from farmers. Likewise, less millet would be bought from grain companies which in turn would buy less from farmers. If demand declines enough, the grain companies could stop selling to birdseed companies altogether and thus stop buying from farmers. In that case, farmers would be left without their principal market for millet.

Fourth, I am not sure that this industry is large enough to generate the funds needed to implement the conservation program. If a price increase caused lower sales, even less funds would be generated by the excise tax.

Once again, I reiterate my support for the conservation of nongame fish and wildlife. This hearing and any others that are necessary will help the Subcommittee to develop a method of funding the program. I am sure that our joint efforts will result in an equitable and reliable method.

Testimony Submitted for the Record  
by  
Senator J. Bennett Johnston  
to the  
Subcommittee on Resource Protection  
on S. 2115  
February 4, 1980



Senate bill 2115, if approved, will establish a 40,000 acre wildlife refuge located primarily in St. Tammany Parish, Louisiana with small portions lying in Washington Parish, Louisiana and in Pearl River County, Mississippi. The area proposed for Federal acquisition is close to a 27,000 acre state-owned game management area and to 13,480 acres owned by NASA which in effect comprise a partial buffer zone for the refuge. These complementary projects make this potentially one of the largest undeveloped areas available for preservation in a natural state in the southeastern region of the United States. The Ascertainment Report prepared by the Atlanta Fish and Wildlife Service Office in 1979 found that this unique backwater ecosystem would make a significant and important addition to the existing National Wildlife Refuge System.

The proposed unit contains an abundance of fish, wildlife and plant resources including rapidly disappearing bottomland hardwoods, as outlined in the attached Fish and Wildlife Service brochure. There are also a number of interesting archaeological sites located in the proposed refuge, one of which has not even been mapped. Located 30 miles north of Louisiana's major metropolitan area, New Orleans, the unit will be accessible to the residents of at least nine other Louisiana and six Mississippi cities, providing desperately needed recreation and environmental education opportunities for a large number of Louisianians

not served by other Federal recreation and wildlife projects.

This proposal enjoys widespread support in southeast Louisiana. Although originally controversial, most opposition has since been dispelled, in large part due to efforts by the Fish and Wildlife Service to give assurances to area residents and local officials that historical uses of the Basin -including hunting, fishing, year-round boating, and temporary, year-round land and houseboat camping throughout the refuge - would continue. With your permission, I would like to submit correspondence in this regard for the record.

Unfortunately, rumors have recently surfaced that these assurances may not be honored. It is my hope that this is not the case and that the Fish and Wildlife Service will reaffirm these commitments in testimony before this subcommittee today to make sure that the record is clear. It would be a great tragedy if unclear management plans jeopardized support for and acquisition of this unit.

Further delay may mean that we lose this acquisition opportunity. One 18,000 acre tract, which comprises the core of the refuge, has been on the market. If not purchased by the Federal government, this tract and the timber on it will be sold privately. The current option on the property expires in January. Since this option has already been renewed once, there is little chance of its

being held beyond next year. There is therefore an urgent need for action on this matter. If we fail to pass authorizing legislation and do not appropriate funds for the initial 18,000 acre purchase in FY 1981, we may no longer have the option of preserving this rich, unique ecosystem.

Mr. Chairman, I respectfully request your help in obtaining clarification of management plans from the Fish and Wildlife Service and timely action on this proposal to enable us to preserve this great resource for the enjoyment of future generations.

ROBERT L. LIVINGSTON  
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Congress of the United States  
House of Representatives  
Washington, D.C. 20515  
January 17, 1980

COMMITTEE ON PUBLIC WORKS  
AND TRANSPORTATION  
SUBCOMMITTEES:  
WATER RESOURCES  
SURFACE TRANSPORTATION  
PUBLIC BUILDINGS AND GROUNDS  
COMMITTEE ON STANDARDS OF  
OFFICIAL CONDUCT  
SELECT COMMITTEE ON THE  
OUTER CONTINENTAL SHELF  
SELECT COMMITTEE ON  
NARCOTICS ABUSE AND CONTROL

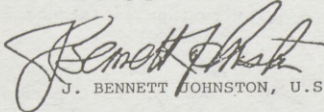
Mr. Lynn A. Greenwalt, Director  
United States Fish and Wildlife Service  
Department of the Interior  
Washington, D.C. 20240

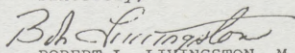
Dear Mr. Greenwalt:

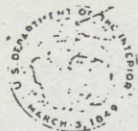
We are sure you followed the intense negotiations involved with the Fish and Wildlife Service's proposal to purchase 18,500 acres in St. Tammany Parish, Louisiana to form the Bogue Chitto National Wildlife Refuge. It is likely that legislation to authorize the refuge and to appropriate funds for the initial purchase will be considered this year. Our support is contingent upon the Service honoring past commitments made to local officials and to us with respect to refuge operations.

In various oral and written communications with our offices, as well as with State Representative Ed Scogin, the Service agreed to exercise flexible control over hunting and camping within the refuge. Specifically, in a letter from your Area Manager, Mr. Russell D. Earnest, to Representative Scogin dated August 29, 1978 (copy enclosed) the Service answered numerous questions regarding management plans for the proposed refuge. Due to the high degree of local interest in maintaining historic use of this area, these Service commitments were vital in the effort to secure the necessary popular support for federal acquisition. This is particularly true for allowances made for temporary land and houseboat camping throughout the refuge on a year-round basis, boating on a year-round basis and hunting seasons "generally the same as" state hunting seasons.

We have heard some disturbing and serious rumors that these commitments may not be kept. We sincerely hope this is not true and would appreciate receiving a letter from you within one week stating your intentions in this regard.

  
J. BENNETT JOHNSTON, U.S.S.

Sincerely,  
  
ROBERT L. LIVINGSTON, M.C.



United States Department of the Interior

FISH AND WILDLIFE SERVICE

200 EAST PASCAGOULA STREET, SUITE 490

JACKSON, MISSISSIPPI 39201

August 29, 1978

Representative Edward C. Scogin  
2063 Second St.  
Slidell, Louisiana 70458

RECEIVED  
OCT 5 1978

Dear Representative Scogin:

We deeply regret the misunderstanding that has developed regarding our proposal to purchase lands in the Bogue Chitto-Pearl River Swamp. Most of this misunderstanding is the result of the expeditious manner with which we necessarily began this acquisition project. We were faced with two major concerns; the question of how long the property would remain on the market and the need to budget from funds that we feel will become available for such purchases this fiscal year.

A similar tract of land in the Red River backwater area of Avoyelles Parish, which we identified and tried to purchase at about the same time as the Thomas Tract, has been sold to agricultural interests and is now being cleared. This tract is very similar to the Thomas Tract in its subjectivity to flooding. In this case we didn't move fast enough.

The enclosed sheet contains my response to the many questions you have asked concerning the subject purchase and its management. If my answers fail to clear up any misunderstanding that exists or if additional questions are asked I would appreciate you contacting me.

It is my most sincere wish that the fine people of your area will join in supporting this program that assures the perpetuation of the fish and wildlife resources of this great swamp. We appreciate your concern and interest in this matter. If we can be of further assistance, please let us know.

Sincerely,

Russell D. Earnest  
Area Manager

Enclosure



## United States Department of the Interior

FISH AND WILDLIFE SERVICE

270 EAST PASCAGOULA STREET, SUITE 490

JACKSON, MISSISSIPPI 39201

The U.S. Department of the Interior, Fish and Wildlife Service proposes to preserve, through the most effective methods possible, approximately 33,000 acres of backwater swamp and associated woodland located primarily in St. Tammany Parish, Louisiana, and to a lesser extent in Washington Parish, Louisiana, and Pearl River County, Mississippi. The proposed acquisition of the Bogue Chitto River Swamp would serve to preserve and enhance this unique backwater ecosystem and its associated fauna and flora for the use and enjoyment of the citizens of the United States.

Bottomland hardwood wildlife habitat is one of the most threatened wildlife ecosystems in the United States today. The magnitude of destruction of forested wetlands during the past few decades is staggering. Of the 25 million acres of forested wetlands existing just 50 years ago in the Mississippi River Delta, approximately 3 million acres remain and these are being cleared at the rate of 300,000 acres a year. There are few remaining wetland areas that cannot be converted to agriculture, with or without Federal assistance. Today's technical capabilities to dredge, levee, and pump are simply incredible. In addition, these sections of Louisiana and Mississippi are the fastest growing areas of their respective states and the recreational land base is coming under more and more pressure. Acquisition of this tract would place in public trust a significant segment of an important and unique natural system.

The following questions have been raised by citizens concerned over the acquisition of the proposed refuge. It is the purpose of the Service to address these or anticipated questions raised by interested citizens.

1. Question: What is the proposed total Refuge boundary and to what degree is it flexible?

Answer: The proposed Bogue Chitto National Wildlife Refuge boundary is designed to protect as much bottomland hardwood wildlife habitat as possible, yet at the same time, avoid agricultural areas, housing areas, or similar areas with limited wildlife habitat. It is a boundary that is flexible and will reflect a willing seller type proposal.

The Thomas Tract is an 18,500 acre area that is large enough for the Service to manage as a unit should there be no additional willing sellers within the project area.

2. Question: What is the purchase situation regarding the sale of the Thomas Tract?

Answer: The owners of the 18,500 acre Thomas Tract have offered it to the Fish and Wildlife Service, and the Service has signed a binding agreement for its purchase. The Nature Conservancy, a non-profit conservation agency, has acquired the purchase option for this tract and will retain this option until sometime after October 1, 1979 when the Service will assume full title. Once the Service gains title to the property it will be at least a year before all management is assumed.

3. Question: How will the proposed refuge affect U.S. Army Corps of Engineer projects?

Answer: If there is at some time in the future a Corps of Engineers or Soil Conservation Service project planned for the proposed area, such as navigation, flood control, or gravel extraction, the opportunity to oppose inappropriate environmental impacts in the swamp will be greatly enhanced by Service ownership.

4. Question: What is the Service's attitude toward restoring historic water flows down the East Pearl River and Holmes Bayou?

Answer: The Service would be willing to participate in a water diversion study with the Corps and the respective State Game and Fish Departments. However, the Service would oppose any project which adversely effects the fish and wildlife resources or recreational opportunities of the area.

5. Question: Will the proposed refuge take lands from the tax rolls of St. Tammany Parish, Washington Parish, and Pearl River County?

Answer: Based upon present authority, Federal acquisition of this area will actually enhance the parish receipts collected from the Thomas Tract by better than three times the present amount collected. This payment to counties is based on the Refuge Revenue Sharing Act. A county within which a component of the National Refuge System is situated and has been acquired in fee is entitled annually to either: (a) three-fourths of one per centum of the cost of the area, exclusive of any improvements to such area made subsequent to Federal acquisition, such cost to

be adjusted to represent current values as determined by the Secretary for the first full fiscal year after enactment of this Act and as redetermined by him at five year intervals thereafter, or (b) 25 per centum of the net receipts collected annually by the Secretary from such acquired lands in that particular area of the System within such counties, whichever is greater. If such an area is situated in more than one county, the distributed share to each county from such receipts is proportional to its acreage of public lands.

6. Question: Will hunting and fishing be allowed after the area is acquired by the Fish and Wildlife Service?  
 Answer: Yes, hunting and fishing will be allowed. Our plans call for the area to be opened to the maximum extent commensurate with sound wildlife management. This means that seasons would generally be the same as state seasons except when particular game populations were low or in jeopardy.
7. Question: Will boating be allowed on the proposed refuge?  
 Answer: Boating has been and will continue to be an important component of the outdoor activity associated with this proposed area. Boating will be allowed on a year-round basis.
8. Question: Will guns be allowed on the proposed area?  
 Answer: Firearms will be allowed on the area only during the open hunting season. This restriction is necessary for enforcement reasons, public safety and protection of property. In this manner we will protect your wildlife resources and you the public from the indiscriminate and careless firearms user.
9. Question: Can dogs be used for the taking of legal game on the proposed area?  
 Answer: Yes, with the exception that the use of dogs for deer hunting will be phased out since this infringes on the rights of still-hunters. Use of dogs for other game in season will be permitted when the deer season and turkey season are not in progress.
10. Question: Will trapping be allowed on the proposed area?  
 Answer: Trapping is a legitimate activity that is carried out on many of our National Wildlife Refuges and serves to harvest a renewable natural resource. Trapping will be allowed if a need exists.

11. Question: Will citizens be allowed to harvest native fruits and berries?
- Answer: Berry or fruit (mayhaws, huckleberries, blackberries, grapes, muscadines, etc.) picking will be allowed on a 12-month basis as long as the participant adheres to all other regulations.
12. Question: What will be the enforcement situation if this area becomes a refuge?
- Answer: Both State and Federal regulations will be stringently enforced. The primary duties of the refuge staff will be enforcement.
13. Question: Will camping be permitted on the area?
- Answer: Temporary land and houseboat camping will be permitted on a year-round basis. Regulations against littering and cutting of trees will be used to maintain the quality of the sites for future users.
14. Question: What will happen to livestock now ranging on the proposed area?
- Answer: Livestock will not be allowed on the tracts of land acquired by the Fish and Wildlife Service. A grace period of one year will be allowed for livestock owners to remove their animals. After this removal period, hogs can be legally taken by hunters during open hunting season.
15. Question: Will there be a buffer zone around the proposed refuge?
- Answer: No. There will be no buffer zone around the refuge boundary. The boundary of the refuge will be clearly marked and adjacent private land will in no way be regulated by refuge management.
16. Question: Will oil and gas development be allowed on the proposed area?
- Answer: The mineral rights to the Thomas Tract are being retained by the present owners. If there develops an interest in mineral development within the proposed tract, it will be permitted, supervised, and regulated by the Service so that there will be a minimal amount of ecological damage to the present ecosystem. The Service now has closely supervised mineral development on most of its existing refuges in Louisiana and it has proven compatible with the intended purpose of the refuge.

17. Question: What will be the Fish and Wildlife Service's policy on forest management?

Answer: Forest management will be determined solely by wildlife need. Timber management practices will be single tree and group selection methods which will produce a desired species composition favorable to wildlife. Mast bearing species such as the oaks will be favored. Forest management of this nature will favor the local logging contractors. If selected plant communities worthy of complete preservation as unique botanical areas are identified on the refuge, these areas will be restricted from all timber cutting.

18. Question: Will the location of the proposed refuge in an area designated as flood prone by the government (Federal) protect this area from destruction?

Answer: The development and conversion of wetlands to agriculture is not slowed down in the least by such designation. This flood prone designation is aimed primarily at development by residential and industrial interests and even here it has had limited effect.

19. Question: Doesn't the inclusion of the West Pearl River, Holmes Bayou, Wilson's Slough, and Bradley Slough in Louisiana's Natural and Scenic Rivers Act provide the area protection against the clearing of adjacent timber lands?

Answer: This is an excellent Act, but it serves only to protect the stream proper from clearing, snagging, channel realignment, and reservoir construction. Nothing in this Act prohibits logging or clearing of adjacent lands. In fact, Bayou Cocodrie in Concordia Parish was recently very much in the news. Local hunters and fishermen rallied in support of local voters to turn back an effort to remove the Bayou from protection of the Act. Soon after a victory at the polls, they saw their stream ruined as the large tracts of bottomland forest on each side of the stream were bulldozed and burned to grow soybeans. Bayou Cocodrie now functions largely to carry highly turbid agricultural waste water to the Red River.

20. Question: Will this area be overrun with people?

Answer: Because of the relative inaccessibility of this area, it will always maintain a certain degree of remoteness. We do not expect the area to be overrun with people.

21. Question: What will be the restrictions, if any, on people from outside the Washington Parish, St. Tammany Parish, and Pearl River County area?

Answer: There will be no restrictions with regard to who can utilize this area, just as there are no restrictions as to who uses the area now.

22. Question: If the proposed lands are not purchased, will they remain open to the public?

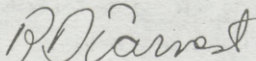
Answer: Based on recent trends, the public hunting right could be lost in one of two ways. Since the owners of the Thomas Tract have indicated a willingness to sell, it might be purchased by out-of-state or foreign developers whose changes in land use might destroy the wildlife habitat, thus eliminating recreational opportunity. This is happening today in many sections of Louisiana. Few bottomland hardwood habitats remain open for public use today. This type habitat may bring in excess of three dollars per acre per year for hunting rights and new owners may wish to capitalize on the growing demand for private hunting rights. This kind of arrangement usually excludes the middle income or lower income hunter. The only assurance of the availability of these lands for hunting is the public purchase and dedication for that purpose.

23. Question: Will there be roads?

Answer: No road system is anticipated in the Louisiana section of the project. If additional lands are purchased in Mississippi, access roads may be provided in that portion for management purposes.

24. Question: Will the Fish and Wildlife Service own the canal system?

Answer: The Service has been in contact with the Corps of Engineers concerning possible use of the canal. At this time no decision has been made. We do not anticipate any use of the Corps of Engineers lands on the west side of the canal.



Russell D. Earnest  
Area Manager



# Congressional Record

PROCEEDINGS AND DEBATES OF THE 96<sup>th</sup> CONGRESS, FIRST SESSION

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WASHINGTON, TUESDAY, DECEMBER 11, 1979

No. 176

## Senate

(Legislative day of Thursday, November 29, 1979)

By Mr. JOHNSTON:

S. 2115. A bill to establish the Bogue Chitto National Wildlife Refuge; to the Committee on Environment and Public Works.

### BOGUE CHITTO REFUGE

Mr. JOHNSTON. Mr. President, I am pleased today to introduce legislation to establish the Bogue Chitto National Wildlife Refuge in St. Tammany and Washington Parishes. This refuge will consist of 40,000 acres of predominantly bottomland hardwoods and is only one-half mile from the 20,700-acre, State-owned Pearl River management area, making this potentially one of the largest such habitats still available for preservation.

The lower Bogue Chitto-Pearl River area contains an excellent habitat for many species of wildlife and may be the most diverse drainage system in Louisiana. Primarily due to fertile alluvial soils and the mild subtropical temperature of this area, an impressive sampling of flora many of which are unique to Louisiana, thrive throughout the area. Over 36,000 acres of forested land remain, consisting of cypress-tupelo swamps on poorly drained land and red gum-mixed hardwoods, including overcup oak, bitter pecan, ash, elm, and hackberry, on higher lands. This region also supports an abundant variety of animals. Over 150 birds use this area for breeding and wintering, including the rare peregrine falcon, and 1 of the 12 known bald eagle nests is located here. Remnants of Louisiana once abundant black bear population roam throughout the basin and recent cougar sightings have been reported. More plentiful are large populations of bobcat, the American alligator, wild turkey, and the ringed sawback turtle. Moreover, the 120 freshwater fish species abundant in the Bogue Chitto Basin make it a true sportsman's paradise.

The proposed refuge is only 30 miles north of New Orleans, Louisiana's largest metropolitan area, and would provide desperately needed recreation opportunities for many urban residents. St. Tammany Parish, in which the largest portion of the refuge is located, is one of the fastest growing areas of Louisiana, experiencing a 64.5-percent population increase between 1960 and 1970. The area would also be accessible to at least nine other cities in Louisiana and six cities in Mississippi, all of which expect population increases to continue throughout the next decade. Despite its proximity to urban areas, most of the land in the proposal lies in a floodplain which overflows regularly and thus would not be suitable for permanent residential or industrial development. However, the valuable timber stands are threatened as the demand for timber products increases and a real threat of conversion to agricultural land is present. Fee acquisition is the most suitable means of preserving this area for the enjoyment of many who live close by and need open space for leisure activities.

A significant portion of the area has not been fully researched. For example, although this part of Louisiana is known to have been inhabited by Indians of the Poverty Point culture (6500 B.C. to 700 B.C.), as well as later groups in the Archaic phase including Tchulafine, Marksville, Troyville-Coles Creek, and Mississippian cultures, only sporadic explorations have taken place. In fact, there is one reported site within the proposed refuge which has not yet been mapped. This is just one example of the many possibilities the project area holds for further scientific exploration and research, with much work remaining on mammal and bird classifications and other wildlife research.

Finally, Mr. President, I would only add that the proposed refuge enjoys widespread support from numerous local officials and a majority of local groups, including environmental associations, sportsmen clubs and other community based organizations. The Louisiana Department of Wildlife and Fisheries supports this addition to the Federal refuge system and Federal support for it was evidenced in last year's budget request for acquiring the first 18,000 acre parcel, the so-called Thomas tract.

If we fail to act, this area could well be lost by conversion to high-grade logging and seasonal home development. Furthermore, if we postpone acquisition, the future acquisition costs will be even higher than now expected. I hope this will not happen and that this refuge will be quickly authorized and funded for the initial purchase approved in fiscal year 1981. It would be a travesty for future generations if we allowed the alteration or destruction of up to 40,000 acres of this unique and nationally significant area and urge the Senate to act expeditiously to prevent an irreversible loss from occurring.

I ask unanimous consent that the text of my bill be printed in the Record.

There being no objection, the bill was ordered to be printed in the Record, as follows:

S. 2115

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. (a) The Congress finds that—

(1) Thousands of acres of bottomland hardwoods are being cleared each year in the Mississippi River delta;

(2) These forested wetlands represent one of the most valuable and productive wildlife habitat types in the United States and have extremely high recreational value for hunters, fishermen, birdwatchers, nature photographers and others;

(3) The Bogue Chitto area is a bottomland hardwood swamp which harbors over 150 species of birds and many types of other wildlife, including several species imperiled with extinction.

(4) The purpose of this Act is to establish the Bogue Chitto National Wildlife Refuge.

### DEFINITIONS

SEC. 2. For purposes of this Act—

(1) the term "refuge" means the Bogue Chitto National Wildlife Refuge;

(2) the term "Secretary" means the Secretary of the Interior; and

(3) the term "selection area" means those lands and waters near the juncture of the Pearl River and its tributary, the Bogue Chitto, in St. Tammany and Washington Parishes, Louisiana, and Pearl River County, Mississippi, depicted on the map entitled "Bogue Chitto National Wildlife Refuge, Selection Area," dated and on file at the United States Fish and Wildlife Service.

### ESTABLISHMENT OF REFUGE

SEC. 3. (a) (1) Within one year after the date of the enactment of this Act the Secretary shall—

(A) designate approximately forty thousand acres of land and water within the selection area as land which the Secretary considers appropriate for the refuge; and

(B) publish in the Federal Register a detailed map depicting the boundaries of the land designated under subparagraph (A), which map shall be on file and available for public inspection at offices of the United States Fish and Wildlife Service.

(2) The Secretary may make such minor revisions in the boundaries designated under paragraph 1(B) of this subsection as may be appropriate to carry out the purposes of this Act or to facilitate the acquisition of property within the refuge.

(b) The Secretary shall acquire (by donation, purchase with donated or appropriated funds, or exchange) lands, waters, or interests therein, within the boundaries designated under subsection (a) (1) (B).

(c) The Secretary shall establish the Bogue Chitto National Wildlife Refuge, by publication of a notice to that effect in the Federal Register, whenever sufficient property has been acquired under this section to constitute an area that can be effectively managed as a refuge.

### ADMINISTRATION

SEC. 4. The Secretary shall administer all lands, waters, and interests therein, acquired under this Act in accordance with the provisions of the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 666d-666se). The Secretary may utilize such additional statutory authority as may be available to him for the conservation and development of wildlife and natural resources, the development of outdoor recreation opportunities, and interpretive education as he deems appropriate to carry out the purposes of this Act.

### AUTHORIZATION OF APPLICATIONS

SEC. 5. There are authorized to be appropriated such sums as may be necessary to carry out the purposes of this Act.

STATEMENT BY: SENATOR J. BENNETT JOHNSTON

PRESENTED TO: SUBCOMMITTEE ON RESOURCE PROTECTION  
SENATE ENVIRONMENT AND PUBLIC WORKS COMMITTEE  
FEBRUARY 4, 1980

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE:

IT GIVES ME A GREAT DEAL OF PLEASURE TO APPEAR BEFORE YOUR COMMITTEE  
TODAY, [REDACTED] TO TESTIFY IN SUPPORT OF  
THE TENSAS RIVER NATIONAL WILDLIFE REFUGE IN NORTHEAST LOUISIANA.

IT HAS BEEN MY EXPERIENCE WHILE SERVING IN THE SENATE, AND I SUSPECT  
EACH OF YOU HAVE SHARED THE EXPERIENCE, THAT TO INTRODUCE A MEASURE THAT HAS  
THE FULL SUPPORT OF BOTH THE ENVIRONMENTAL AND DEVELOPMENTAL COMMUNITIES IS  
RARE INDEED. THE BILL TO CREATE THE TENSAS RIVER NATIONAL WILDLIFE REFUGE  
HAS THAT SUPPORT.

THIS BILL HAS SOME UNIQUE ASPECTS WHICH I BELIEVE COMBINE FOR THE FIRST  
TIME A PLAN TO TAKE INTO ACCOUNT FUTURE WILDLIFE MITIGATION NEEDS FOR AN AREA  
WHILE AT THE SAME TIME CREATING A NEW NATIONAL WILDLIFE REFUGE. THIS IS  
ACCOMPLISHED BY THE LANGUAGE WITHIN THIS BILL WHICH IN EFFECT ESTABLISHES A  
WILDLIFE LAND MITIGATION BANK FROM WHICH WE CAN DRAW LAND, ON AN ACRE FOR  
ACRE BASIS, AS REQUIRED TO SUPPORT VARIOUS PUBLIC WORKS PROJECTS WHICH ARE  
CURRENTLY AUTHORIZED OR MAY BE AUTHORIZED IN THE FUTURE IN THIS PART OF THE  
STATE OF LOUISIANA. THE BILL ALSO PROTECTS THE FUTURE DRAINAGE PLANS OF THE  
LOCAL AREA RESIDENTS AND PROVIDES THEM WITH THE ASSURANCES THEY NEED THAT THE  
CREATION OF THIS NEW REFUGE WILL NOT INTERFERE WITH THEIR NEEDED FLOOD PRO-

SENATOR JOHNSTON STATEMENT  
PAGE 2

PROTECTION PROJECTS AND ACTIVITIES. I DO NOT WISH TO GO INTO A GREAT DEAL OF DETAIL OR TAKE UP YOUR TIME IN EXTOLLING THE VIRTURES OF THIS PROPERTY FROM A WILDLIFE PROTECTION POINT OF VIEW. I AM SURE THAT BOTH LYNN GREENWALT AND DAVE MORINE WILL BOTH BE ABLE TO DISCUSS THOSE ASPECTS WITH YOU IN A MUCH BETTER MANNER THAN I. BUT I DO WISH TO BRIEFLY LIST THE POSITIVE POINTS ASSOCIATED WITH THIS PROPOSAL:

FIRST, IN THIS INSTANCE WE HAVE BOTH A WILLING BUYER AND A WILLING SELLER. FOR MANY OF YOU WHO HAVE AGONIZED OVER PROPOSALS WHICH WOULD REQUIRE THE FEDERAL GOVERNMENT TO EXPROPRIATE PRIVATE PROPERTY FROM UNWILLING SELLERS, I AM SURE YOU CAN APPRECIATE THE VALUE OF THIS ASPECT.

SECOND, THIS PROPERTY HAS BEEN APPROPRIATELY CALLED THE "REDWOODS OF THE SOUTH" IN THAT THIS TRACT REPRESENTS THE LAST CHANCE OUR NATION HAS TO ACQUIRE BOTTOMLAND HARDWOOD PROPERTY OF THIS SIZE FOR THE CREATION OF A NATIONAL WILDLIFE REFUGE. A NOTE OF INTEREST TO YOU MIGHT BE THE FACT THAT TEDDY ROOSEVELT HUNTED BEAR ON THIS VERY LAND IN 1906 AND THE LAST IVORY-BILLED WOODPECKER WAS SIGHTED HERE IN 1943.

THIRD, THERE ARE PRESENTLY UNDER CONSTRUCTION, AUTHORIZED, OR TO BE AUTHORIZED CORPS OF ENGINEERS PROJECTS WHICH WILL REQUIRE AT LEAST THIS AMOUNT OF WILDLIFE MIGITATION LANDS. IF THIS PROPOSAL IS NOT APPROVED, THESE LANDS WILL HAVE TO BE PROVIDED FROM SOME OTHER SOURCE AT PROBABLY A GREATER COST AND POSSIBLY FROM AN UNWILLING OWNER. THIS ASPECT ALONE SHOULD BE SUFICIENT REASON TO APPROVE THIS BILL.

FOURTH, THIS PROPOSAL HAS THE SUPPORT OF ALL THE ELECTED OFFICIALS AND BODIES THAT REPRESENT THIS AREA.



TESTIMONY OF THE NATIONAL AUDUBON SOCIETY  
BEFORE THE SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS  
SUBCOMMITTEE ON RESOURCE PROTECTION, ON "THE FISH AND WILDLIFE  
CONSERVATION ACT OF 1980." (S.2181)

February 4, 1980

Mr. Chairman, members of this subcommittee, thank you for this opportunity to testify during these important hearings on the "Fish and Wildlife Conservation Act of 1980." (S.2181) I am Frank Dunstan, Mid-Atlantic Regional Representative of the National Audubon Society, a non-profit conservation organization with about 400,000 members organized into 436 chapters throughout these United States. The National Audubon Society is one of the oldest, largest and most experienced membership organizations devoted to conservation in general, and specifically to the protection and enhancement of wildlife populations and the ecosystems upon which those populations depend for their survival. It is because of this that we are here before you today testifying in support of this very necessary and monumental Wildlife-Conservation legislation.

BACKGROUND AND NEED FOR A NONGAME FISH AND WILDLIFE PROGRAM

The National Audubon Society has supported similar nongame legislation before this subcommittee in 1977. I refer to the bill sponsored by Senator Hart which passed the Senate during the 95th Congress. Later in February 1978 and again in April 1979, we presented testimony in support of nongame legislation during House subcommittee hearings. We remain solid in support of nongame legislation and refer those interested in our previous testimony, to the hearing record.

Mr. Chairman, the need for an expanded fish and wildlife program, federally financed, planned and implemented at the state level, has not diminished but intensified during these past three years. We recall Senator Hart's address to the Senate when he introduced S.3887, a prior bill, late in the 94th Congress. "Although the need for a Federal grant-in-aid program for nongame wildlife conservation is evident, there should and will be considerable discussion over the alternatives for its implementation." Indeed, there has been discussion and considerable thought on the part of many individuals, organizations, government agencies and Congress since that statement three years ago. The Fish and Wildlife Conservation Act of 1980 represents the product of these discussions. Senator Hart's initial legislation has evolved into a very workable and realistic bill that provides for considerable attention to be devoted to our nation's nongame fish and wildlife.

It is well documented that the major threats to most species of wildlife are man induced habitat loss and environmental degradation. These threats are not partial to game or nongame species. They impact both with equal force. However, historically in this country, we have not allowed these threats to impact wildlife equally. Modification of impacts has occurred by establishing intensive programs to enhance game populations. The Pittman-Robertson Wildlife Restoration Act (P-R) and the Dingell-Johnson Fish Restoration and Management Act (D-J) are classic, and I might add highly successful examples of programs designed to aid game species thereby modifying or reducing the threat of habitat loss and environmental degradation affecting all wildlife species.

In addition, all state fish and wildlife agencies are primarily oriented and the majority of their funds are directed toward game programs. About 88%, and some say over 95%, of these State and Federal wildlife dollars go to programs directly benefiting game species. Little attention is directed toward nongame species, especially when we consider that of the 3,700 vertebrate species found in the United States, 83% are classified as nongame animals. The fact remains, however, that this is a conscious decision and hunters, fishermen and trappers have provided these State and Federal funds through their activities.

Lest we be misunderstood, the National Audubon Society supports the P-R and D-J programs and commends sportsmen for their significant financial contributions to wildlife programs. Even though these programs are directed at benefiting game species, indirect benefits accrue to nongame. For example, from 1937-1972 the states have acquired about 38.5 million acres for wildlife. Among those acquired lands were 1622 wetland waterfowl areas which directly benefited 16 species of ducks. They also can be expected to benefit 162 species of nongame birds requiring wetland habitats.

However, we must stress that the gross imbalance in present wildlife management direction could have, in a national sense, negative impacts upon certain nongame species. When habitat is altered to benefit one or a few species of wildlife, the change in habitat will adversely affect other species. For example, when forests are kept in early successional stages through rotational clear-cutting to benefit deer and grouse populations, disadvantages occur to mammal and bird species such as squirrels and woodpeckers which require older growth timber that typically have cavities used by these species for nesting.

Perhaps to best illustrate the need for nongame conservation programs, we need to look at the endangered species list. Of the 186 vertebrate species currently listed as endangered about 86 percent were considered nongame prior to listing. It is estimated that an additional 450 nongame species could be listed as endangered by 1990, 120 within the next five years. In testimony given before this committee during the July 20-22, 1977 oversight hearing on the Endangered Species Act of 1973, the statement was made that "the purpose of the Act was not to list species, but to provide positive programs for their delisting." The primary object of this proposed nongame legislation and of existing wildlife legislation "should be to prevent a population of any fish or wildlife species from becoming so depressed as to cause it to be regarded as threatened or endangered in the first place." (Wildlife Management Institute, 1975). The Wildlife Management Institute's 1975 report on nongame fish and wildlife programs states further that:

"The attainment of this objective is to convert programs for the conservation of animals not commonly or traditionally regarded as "game" or "commercial" species from rescue missions to an ongoing program to uniformly

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husband all species of animals so that none, through man's ignorance, or indifference or inattention, ever again reaches the state where its continued existence as a life form is in jeopardy."

Mr. Chairman, the National Audubon Society believes our national goal should be to eliminate the need for the Endangered Species Act and its corresponding species lists. However, to reach this goal, we need viable wildlife programs designed to prevent populations of species from becoming endangered. The nongame legislation before you is an important step in that direction.

As stated above, habitat loss and degradation are the major factors contributing to population declines and lowered diversity of fish and wildlife. Man's activities are rapidly reshaping our nation's land and water base. The President's Council on Environmental Quality has estimated that approximately 1.25 million acres, an area the size of Delaware, are converted each year to human intensive uses. Many of the land use decisions being made today are considered without adequate data on the fish and wildlife inhabiting the land in question. Except for species listed as endangered and threatened, or game species, nongame receives limited consideration in these decisions. The impacts are accumulative and further shift many nongame species toward extinction. In some cases, transforming vast acreages into monocultures can lead to population explosions resulting in a species becoming a pest, for example, blackbirds. By increasing our knowledge of nongame species, we will be in a position to make wiser land use decisions in the future.

A significant aspect of this proposed legislation is the development of fish and wildlife conservation plans, thereby creating the mechanism for obtaining badly needed information on fish and wildlife through inventory and assessment at the state level. These data will make possible wise land-use decisions and ultimately reduce environmental-developer conflicts that result in costly delays. Since the enactment of the National Environmental Policy Act (NEPA), 783 projects have been the subject of legal action for failure to comply with the act. Of these, 177 have been delayed by NEPA-related injunctions and 41 have been cancelled as a result of these injunctions. Many of these conflicts occurred because of a lack of information at the time the project was being planned and considered. Had adequate wildlife inventories and assessments been available, conflict, in many cases, could have been avoided. The conservation plan benefits provided for in S. 2181 are further recognized by the response of the 50 state fish and wildlife agencies when polled by the U.S. Fish and Wildlife Service on their nongame program needs. The almost universal response was that there was a pressing need for an inventory and assessment of Fish and Wildlife populations and their habitats.

In 1975, 36 states and one territory were funding specific fish and/or wildlife programs other than for game species. A study conducted in 1974-75 revealed that investments for nongame

activities accounted for only 1.9 percent of the total state funds devoted to fish and wildlife management and 2.4 percent of the total manpower invested by state agencies for all fish and wildlife. In most cases, states have used even those limited amounts only toward work on endangered species. According to Department of Interior's testimony provided to the House subcommittee, only 26 states have, in one form or another, any nongame program. Of these states, a few have made significant progress toward expanding their overall fish and wildlife programs. Some states have inventories and comprehensive management plans in progress. Others have implemented some nongame conservation actions. However, with passage of this legislation, all states could begin nongame programs that would amount to something.

There is a considerable variety of needed projects that states could begin implementing if funds were available. Certainly many of the successful programs developed for game species would be applicable to nongame. For example, eastern states have been highly successful in re-establishing viable populations of wild turkey throughout much of their former range. There appear to be great opportunities at the state level for activities of this nature.

For the past 75 years, the National Audubon Society has been actively engaged in wildlife research and management. I would like to briefly describe two ongoing projects dealing with re-establishment of nongame birds to illustrate the type of projects states could begin implementing with the passage of S.2181.

Project Puffin is nothing less than the re-creation of an abandoned seabird colony. Nearly a century ago the Atlantic Puffin nested on off-shore islands along the coast of New England. However, man's activities caused this species to abandon these traditional nesting islands. Today, 71% of what is left of the North American Puffin population breeds on an island, one mile long and one-half mile wide, in Witless Bay, Newfoundland. Many of the human activities of the last century which forced the birds to leave their U.S. islands have ceased, but natural recolonization by puffins has not occurred. One of the prime reasons is the homing instinct of seabirds, which brings them back to breed on the island where they fledged.

The Audubon experiment, started in 1973, involves three phases. The first phase was developing techniques for transporting very young puffin chicks from the active colony at Witless Bay to our sanctuary island, Eastern Egg Rock off the coast of Maine, and rearing them in artificial burrows until they could fly. The second phase of the experiment was dependent upon the first. Once the techniques were developed, it was necessary to raise a sufficient number of puffins at Eastern Egg Rock to insure that enough would survive the five year period it takes them to reach sexual maturity. As of 1978, 438 puffins have been artificially reared at Eastern Egg Rock. This represents an overall fledging success rate of 97% which is not even approached by puffins in the wild. The third

phase involves the return of these puffins to Eastern Egg Rock for breeding. Preliminary evidence is encouraging and suggests that the second phase of the project is running according to plan. Sightings of immature puffins in the vicinity of Eastern Egg Rock have increased over the past few years. The birds reared in 1975 will reach breeding maturity in 1980; the new colony may be re-established in 1981.

In a similar project we have been cooperating with the Government of Bermuda in an attempt to re-establish a resident breeding population of Yellow-crowned Night Herons there. The islands of Bermuda are suffering from an over-abundance of burrowing land crabs. The crabs are directly causing an accelerated erosion rate of the islands because of their burrowing activities. The Yellow-crowned Night Heron predominantly feeds on crabs so it is thought that by bringing back this efficient predator, it will control the crab population and reduce the erosion rate. Since 1976, when we began this project, we have observed modest success. Some of the young herons that were relocated from our sanctuary in Tampa Bay, Florida, have remained in Bermuda after they were reared and released. Further, these birds are feeding predominantly on the land crab. On one small island where the released birds have been concentrating, the land crab population has undergone a significant reduction.

In addition to reintroduction projects, many opportunities exist for states to begin creating and restoring wildlife habitat. Here again a few examples of National Audubon Society activities will be illustrative. For instance, we created a small island out of oystershells at our 26,000 acre coastal marsh sanctuary in Louisiana. The purpose was to provide suitable nesting habitat for the Least Tern, a species which has been declining throughout the United States because of lack of suitable nesting places. Within the first year after we created the island, Least Terns nested. For a number of years now, 200 to 300 Least Terns successfully nest and raise their young on this man-made island each year.

In Florida and in Texas we have been working with the Army Corps of Engineers in creating wildlife habitat out of dredge spoil material which results from channel maintenance and harbor deepening projects. These activities vary from creating islands suitable for colony nesting birds to developing management techniques for establishing and maintaining suitable vegetation on these islands. In addition, we are involved in artificial marsh creation. The inter-tidal communities in many of our coastal estuaries have been severely reduced. Restorations of these habitats have significant benefits to a wide array of wildlife species, not to mention marine productivity and shoreline stabilization.

In addition to restoration of habitats and reintroduction of non-game species, we believe there is a tremendous need for state agencies to develop urban wildlife programs. Fish and wildlife information and education as well as projects designed to provide urban dwellers with opportunities to view a diversity of nongame species are desperately needed.

The value of fish and wildlife to man ranges from the obvious to the less understood. Plants and animals interacting with each other and their physical environments comprise communities or ecosystems upon which we depend for our energy, food and fiber. In total, they represent our life support system. The non-biological designation, nongame, refers to an overwhelming majority of species that function in our life support system. In general, we know that communities with a large diversity of species are the most stable and less susceptible to environmental perturbation. As species are removed from an ecosystem, it becomes more simplified and more vulnerable to sudden changes. The health and well-being of man as a species depends upon viable and healthy ecosystems which consists of a complexity of animals and plants. We must understand the rôle these species play in the functioning of the ecosystem.

Nongame species can also serve as biological indicators which allow us to measure the health of ecosystems. We can use them to foretell ecological disasters which will affect our well-being.

Perhaps a more obvious value of nongame is related to the non-consumptive recreational uses placed upon them by the public. Annual expenditures related to these recreational uses of nongame species are estimated to exceed \$1 billion. The 1975 National Survey of Hunting, Fishing and Wildlife-Associated Recreation by the U.S. Fish and Wildlife Service indicates that more than 95 million Americans participated in wildlife related activity in 1975. Some 49 million engaged in wildlife observation and about 15 million participated in wildlife photography. It is no wonder that past national surveys have shown the high value Americans place on wildlife.

#### SPECIFIC COMMENTS ON S.2181

The National Audubon Society strongly endorses the concepts embodied in S.2181. We feel it paramount that all fish and wildlife be afforded the necessary protection and management to insure their continuation as viable populations. There are, however, some specific points in S.2181 that we wish to comment upon:

1. Section 3(6) - We applaud the definition for nongame fish and wildlife that includes not only wild vertebrate animals but also, at the discretion of the state, any invertebrate animals. We see this expanded definition as essential for future management, which will increasingly recognize the importance of communities of organisms rather than individual species.
2. Section 4 - We particularly are pleased with the plan standards which require and assert that all nongame species within the participating state will be included in the conservation plan. While we recognize the need to establish priorities for implementing the conservation actions and realize that some species will receive more implementation action and funding than others, the

standard requires the state to collect essential information on all the plan species.

3. Section 5(d) - We strongly approve this provision which allows for specific nongame project implementation prior to conservation plan approval. We believe this is necessary because of the various levels of state agency activity. Some states are in a position to identify specific actions or projects which may be critical in order to prevent a species from being listed on the endangered or threatened list. To make these actions wait while the conservation plan is being developed would only aggravate the situation.
4. Section 6(d) - We believe a technical error has occurred here. It now reads - Subject to the limitations in subsection (c); we believe it should read subsection (e).
5. Section 6(e)(2)(F)(ii) - We suggest that the allowable percentage of inkind contributions be increased from 10% to 25%.

Mr. Chairman, in general we like the wording and intent of S.2181. Particularly, we like the incentives incorporated into the bill which encourage comprehensive planning and integration of game programs with the nongame objectives. We believe that a ten year period is adequate for all states to develop a conservation plan and believe the five year period is necessary for specific nongame actions without an approved plan. The incentive under section 6(e)(3)(A) which allows up to 90% reimbursement for development of a conservation plan during 1981 and 1982 will serve to allow states to be active in the program while they develop state funding sources. Also, we like the 90% incentive given to states when they implement conservation actions jointly. This is particularly important since wildlife doesn't recognize political boundaries.

Of major importance to the success of any nongame program is the recognition in S.2181 that a viable program must include two components, planning and action. Unfortunately, in the House passed bill, action was excluded. We urge the committee to opt for a complete bill that includes conservation planning and implementation. Both are important and both are needed now.

#### METHOD OF FUNDING NONGAME FISH AND WILDLIFE PROGRAMS

In our testimony of 3 August 1977, before this subcommittee on S.1140, a similar nongame bill, we advocated the adoption of an excise tax on certain items used by segments of the public while they enjoy fish and wildlife in a non-consumptive manner. We advocated this funding vehicle again during House deliberations in 1978 and 1979. Therefore, we are pleased to see that S.2181 uses this approach to fund implementation of the Act. Certainly the historical evidence provided by P-R and D-J allows us to predict the success of this mechanism as a means to fund nongame programs. Previously, we recommended items such as certain camping equipment, recreational vehicles, photographic equipment, binoculars and wild bird foods

for an excise tax. The Wildlife Management Institute (1975) estimated that at 1972 prices, about 150 million dollars could be produced annually from excise taxes on these items.

A recent study, entitled Public Attitudes Toward Critical Wildlife and Natural Habitat Issues by Stephen Kellert of Yale University, reports that public attitudes favored direct beneficiaries of wildlife programs paying the cost through excise taxes on various equipment. The graph attached to this testimony (taken from the report) demonstrates public response as well as response from user groups within the survey population.

It is important to note that in addition to support for special use or excise taxes as a means to fund wildlife management, the report demonstrates that 57% of the general public respondents advocated a greater amount of general tax revenues for wildlife.

In principle, the National Audubon Society has always felt that all the citizens of this nation should support financially sound natural resource management programs through general tax appropriations. Nongame fish and wildlife is no exception. All Americans receive benefits either directly through recreation or indirectly through the role these species play in the functioning of the life support system that we depend upon for our survival. Perhaps through increased education there will come a time when all Americans recognize this dependency and they will demonstrate their collective responsibility to all forms of life through adequate general fund appropriations for programs. However, until that time, those who have gained this greater appreciation for wildlife, oft times through recreational pursuits, will have to carry the ball. This is why members of the National Audubon Society have supported an excise tax on wild bird foods as a means of supporting viable nongame programs.

A study by Payne and DeGraaf entitled Economic Values and Recreational Trends Associated with Human Enjoyment of Nongame Birds estimated a total direct expenditure attributable to the enjoyment of nongame birds in 1974 to be \$500 million. They indicate that photographic equipment and services, birdseed and binoculars account for 95% of the total. Trends in birdseed sales are quite impressive with increases from \$50 million in 1969, to \$80 million in 1972 to \$170 million in 1974. Discussing this increase, the authors state: "The latter increase is attributable almost entirely to a doubling of the price of birdseed from 1972 to 1974. The failure of consumption to drop in response to this price increase is surprising. Apparently the demand for birdseed is inelastic at current price levels. This suggests (1) that consumers consider bird feeding to be very important, (2) that birdseed is underpriced in relation to the benefit received from feeding birds, or (3) that people who feed birds are wealthy enough that they did not mind spending an average of \$10.80 in 1974 for birdseed that cost them only \$5.40 in 1972."

We estimate that growth in birdseed sales coupled with inflation has risen at the rate of 10-20%/year since 1974. Using the author's 1974 estimate of retail sales of birdseed at \$170 million and retail sales of \$15 million in that same year for bird houses and feeders, we predict the 1979 retail sales of birdseed, houses and feeders to be between \$298-\$460 million. If we assume a 100% mark-up between the retail price and the wholesale or packaging cost, we estimate a \$150-\$230 million total. If an 11% excise tax were in effect for 1979 the nongame program would have had funding available between \$16 million and \$25 million. It appears then that an excise tax on birdseed, bird feeders and houses would generate the necessary funding to begin viable nongame programs at the state level.

While we support the excise tax concept in S.2181, we do have a specific comment regarding this provision in S.2181.

1. Section 12(a)(1) - We recommend that "a mixture of" and "primarily" be deleted so that it reads: "(1) seeds for use in the feeding of wild birds." By taxing only a mixture of seed we believe a portion of the seed being sold for feeding wild birds would go untaxed. Secondly, it would provide a loophole whereby the industry could increase single seed packing. Incidentally, this trend is currently increasing because many people that feed birds want to create their own special mixtures suitable for their geographic region or their particular interests.

We feel confident that the majority of those feeding birds will support this tax once they are informed of the positive advantages the funds will have for nongame programs. We do not feel the tax will result in a decline of birdseed sales for the seed industry. Past trends do not indicate that when seed prices go up, sales drop off, even when prices double as they did between 1972-1974.

In summary, Mr. Chairman, it is Audubon's philosophy that the existence of diverse ecosystems is essential to insure a healthy living environment for all species, man included. Self-sustaining populations of a diversity of fish and wildlife species are essential parts of such ecosystems, and the public is demanding that greater attention be given to the nongame components of these systems. Therefore, the National Audubon Society supports the "Fish and Wildlife Conservation Act of 1980" because it addresses the following tenets:

1. All wildlife deserves living space for its own intrinsic values and for its role in perpetuating healthy environments. Wildlife populations also function as barometers of the well-being of ecosystems.
2. Fish and wildlife agencies need this new source of funding in order to re-orient their philosophy and programs to achieve complete integration of game and nongame programs.

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3. Habitat destruction, primarily man induced, is the major cause of the decline of all wildlife.

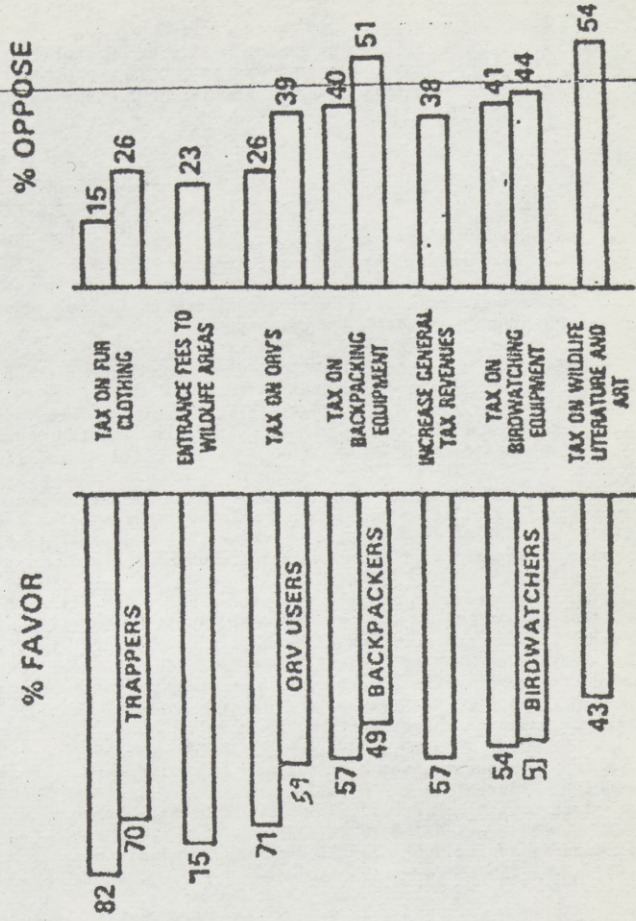
Thank you for this opportunity to testify, and we welcome the invitation to participate in future deliberations on this bill.

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**FIGURE 30**  
**SUPPORT FOR ADDITIONAL WILDLIFE**  
**MANAGEMENT FUNDING POSSIBILITIES:**  
**GENERAL PUBLIC AND KEY INTEREST GROUPS**



STATEMENT OF MICHAEL E. BERGER, ASSISTANT DIRECTOR  
RESOURCES DEFENSE DIVISION, NATIONAL WILDLIFE  
FEDERATION, BEFORE THE SENATE COMMITTEE ON ENVIRONMENT  
AND PUBLIC WORKS, SUBCOMMITTEE ON RESOURCE PROTECTION  
CONCERNING S.2181, THE FISH AND WILDLIFE CONSERVATION  
ACT OF 1980.

February 4, 1980

Mr. Chairman, I am Michael E. Berger, Assistant Director of Resources Defense for the National Wildlife Federation which has its national headquarters at 1412 16th Street, N.W., in Washington, D.C. I am a professional conservationist with degrees in wildlife management and resources development.

The Federation is a nonprofit, nongovernmental organization which has independent affiliate organizations in all 50 states, Guam, Puerto Rico, and the Virgin Islands. These affiliates, in turn, are made up of local groups and individuals who, when combined with associate members and other supporters of the Federation, number an estimated 4.1 million persons.

We welcome and appreciate the opportunity to appear and present testimony in support of S.2181, the Fish and Wildlife Conservation Act of 1980, to assist the states in developing nongame fish and wildlife plans and to assist the states in the implementation of such plans.

Our country's concern for the protection and restoration of fish and wildlife continues to expand. A recent study by Cornell University showed that urban and suburban residents felt that wildlife sightings were an important component of their outdoor recreational experiences. Fish and wildlife are of great educational, cultural, recreational, esthetic and economic value to the nation, and nongame concerns should be an integral part of wildlife management.

The 1970's brought about a revolution in environmental awareness and concern. Progress at any cost is slowly being replaced by development consistent with conservation. The multiplying number of wildlife oriented groups, media attention to wildlife issues, and the growing number of studies assessing public attitudes towards wildlife clearly illustrate the revival of the conservation ethic.

Our knowledge of nongame in general and their habitat requirements is grossly inadequate. The Fish and Wildlife Conservation Act of 1980 calls for federal assistance in nongame research, planning and programs to rectify this situation. The proposed excise tax on items purchased by bird watching enthusiasts (bird seed, bird feeders, bird houses) would provide a reliable source of funds to implement nongame programs.

The conservation of game species has been supported by sportsmen for years. Both the Federal Aid in Wildlife Restoration Act of 1937 (Pittman-Robertson) and the Federal Aid in Fish Protection Act of 1950 (Dingell-Johnson) have made significant contributions to the conservation of fish and wildlife species. Since their initiation they have raised well over \$1 billion in support of wildlife management practices. By 1979 alone, the Pittman-Robertson program raised \$93,974,102. The success of this tax-sponsored approach is indeed apparent. Without these funds, much of our nation's critical wildlife habitat would have been lost to development. destruct

The National Wildlife Federation has long felt that this successful concept is the most appropriate way to assure the availability and consistency of nongame wildlife funds, and in 1976 we adopted a resolution to this effect (attached). We are very pleased that Senator Chafee has seen fit to include this excise tax approach in his legislative proposal.

Dr. William Shaw, of the University of Arizona, initiated a study on the "Non-consumptive values of Wildlife at Selected Locations in Southern Arizona." The survey is comprehensive in design, and touches upon the financing considerations of nongame wildlife management. Initial phases of the study show that more than half (54 percent) of the respondents considered nongame wildlife to be neglected by government wildlife agencies, and nearly two-thirds (62 percent) felt that hunters should not be responsible for providing major funding for nongame conservation programs.

However, traditional sources of wildlife management revenues (hunting, and fishing licenses and excise taxes on equipment) still provide a major portion of nongame funds. In several instances states have appropriated funds from general revenues to supplement or initiate nongame programs. Such funding generally has proven undependable and has fluctuated considerably from year to year. In order to establish a successful and self-sustaining nongame wildlife program it is vital to establish a more secure source of funding.

Raising funds for nongame conservation is a difficult task since it is hard to identify a discrete beneficiary. Nongame wildlife species contribute to the total ecological balance and their existence is extremely valuable. It is estimated that annual expenditures relating to nongame recreational uses presently exceed \$1 billion, yet only the sportsman has significantly contributed to their conservation.

The states have demonstrated a keen interest in nongame programs. Where funds are available, many have already initiated planning and programming of nongame projects. Several states have raised funds sufficient to initiate planning. However, with few exceptions, state launched nongame fundraising programs have not provided sufficient funds to sustain nongame wildlife programs.

Some states, notably California, Colorado and Missouri have already established successful fundraising programs for supporting nongame management. California has an annual budget of nearly \$3 million a year, \$2 million of which comes through general fund appropriations. Missouri's "Design for Conservation" program, funded by an earmarked one-eighth of one percent sales tax, has a strong orientation toward nongame uses. Colorado has included a tax check off box on their Income Tax Return form which enables the taxpayer to allocate \$5 or more for conservation programs. The success of these programs has provided the impetus for expanding nongame management programs in these states.

Several states, including New Hampshire, Michigan, Colorado, Iowa, New Jersey, Ohio and California have launched Conservation stamp campaigns. California, Ohio, and Colorado have had the most success, raising on the average, \$5,000 per year. California and Washington have raised funds through the sale of personalized license plates. Many states, including Pennsylvania, New Jersey, Colorado, and California have tried selling decals, decanters, T-shirts or other items to raise funds. These programs have provided contributions, but not enough to sustain a program.

Most successful nongame fundraising programs have involved general fund appropriations or state sales taxes. These programs provide the most secure source of funds, and the National Wildlife Federation feels these are the most desirable methods of providing matching monies.

For the most part, current state involvement in nongame programs has primarily entailed fact finding rather than management. Until research provides better background information, any projection of future program needs must be considered preliminary. However, several states have completed their plans and are now in need of additional funding to implement programs.

The most commonly mentioned future program need is to determine population status, habitat requirements and distribution of individual nongame fish and wildlife populations. The status of many species has not been determined.

Colorado has initiated a "select species program" which utilizes about 200 species as environmental barometers to indicate the condition of any other species. Since over 83 percent of all vertebrate species are considered nongame, their role in such a program is vital.

Both Colorado and Wisconsin have sponsored reintroduction programs of River Otters and Pine Martens, respectively. Wisconsin, after launching a successful program was forced to discontinue it because of insufficient funds. In contrast, the nationwide reintroduction of the Wild Turkey has been extraordinarily successful due to the secure funding provided by the sportsmen-sponsored Pittman-Robertson fund.

Most states are involved to some extent with endangered species, environmental education, control of nuisance animals and law enforcement activities unrelated to hunting or fishing. All have indicated the need to enhance and upgrade these programs and to establish new programs in nongame management. Wildlife management can and should be for all types of wildlife and for the benefit of people who care about our natural resources.

Although the National Wildlife Federation has many sportsmen-members, we also have many members whose primary interest is nongame. Over 1,600 of these members have been recognized by the Federation for their efforts to improve their properties to benefit wildlife. These individuals and many other citizens who enjoy the outdoors in a variety of ways will benefit directly from the habitat improvements and other conservation programs stimulated by this bill.

In addition, the further incorporation of nongame into the already existing wildlife management framework will broaden the base of public support and enhance the effectiveness of wildlife conservation overall.

The Federation trusts that the funds generated will be sufficient to carry out effective nongame conservation. We feel that once this program is established and on-going, there may be a need for increased monies, and we trust that this committee will be sympathetic to expansion of the excise tax base at that time.

In closing, the Federation reiterates its support of this important and needed conservation legislation and urges the subcommittee to provide swift endorsement.

Resolution No. 9

FUNDS FOR NON-GAME FISH AND WILDLIFE

WHEREAS, non-game species of fish and wildlife (including those which are threatened or in danger of extinction) merit scientific management; and

WHEREAS, wildlife agencies in most states devote significant amounts of money and effort to the management of non-game species; and

WHEREAS, most state fish and wildlife resource management agencies are supported primarily by licenses, fees, and permits for fishing and hunting, activities which are concerned with game and other species of economic value; and

WHEREAS, governmental administrations and legislatures in most states are reluctant to commit from general tax revenues the funds necessary for the acquisition of suitable habitat and effective management of non-game species; and

WHEREAS, most outdoor recreational activities are enhanced by the opportunity to view abundant numbers of non-game fish and wildlife;

NOW, THEREFORE, BE IT RESOLVED that the National Wildlife Federation, in annual meeting assembled March 19-21, 1976, in Louisville, Ky., hereby expresses its support of the principle of imposing federal excise taxes upon sales of selected categories of outdoor recreational equipment, with the funds to be allocated to the states for approved non-game fish and wildlife projects.

## WILDLIFE MANAGEMENT INSTITUTE

Dedicated to Wildlife Restoration  
WIRE BUILDING, WASHINGTON, D. C. 20005

Statement of Daniel A. Poole  
before the  
Subcommittee on Resource Protection  
Senate Committee on Environment and Public Works  
on  
S. 2181  
February 4, 1980

Mr. Chairman:

I am Daniel A. Poole, president of the Wildlife Management Institute. We appreciate the invitation to comment on the proposed Fish and Wildlife Conservation Act of 1980.

S. 2181, which would initiate a national program to benefit what we refer to as nongame, is the most important wildlife legislation before this Congress. We urge the Subcommittee to report it favorably at the earliest opportunity and work closely with the House for enactment, including the excise tax provision.

The need for this legislation has been demonstrated extensively at previous hearings before this Subcommittee and in the House. We would like to touch on that but briefly and use most of this opportunity to discuss some of the questions raised about the legislation and to relate why we believe that the excise tax approach to funding this program is sound and equitable.

Concern has been raised by the Administration and others as to why a separate effort is needed for nongame fish and wildlife. Why not use current programs? Since the Institute initially recommended a separate nongame undertaking, as a result of its 1975 nationwide study of nongame funding, we should explain.

One must have a historical perspective and fundamental understanding of wildlife conservation in this country to fully comprehend the reasoning. The state wildlife agencies are the logical administrators of the program because they have the most knowledge, people and position to do the work. The Federal Aid in Wildlife

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Restoration Program (P-R Program), after which S. 2181 is designed, is the most successful single legislation ever enacted for wildlife. It utilizes the strengths of both federal and state governments in an unmatched cooperative effort and is a major reason why the U.S. is an undisputed world leader in wildlife conservation. That program is financed almost entirely by taxes and license fees paid by recreational hunters. Therefore, it understandably is used primarily for managing hunted species. Unfortunately, the pressures of a growing society on wildlife as well as inflation render these monies inadequate for needed game management activities. Therefore, sportsmen and the state agencies are protective of these funds, and rightly so. Little would be gained by building a new program by ruining another, especially since the P-R and license funds do offer significant benefits to the nongame resource.

To those of us involved professionally with wildlife, the word nongame is used merely as a term of convenience. It has little, if any ecological ramifications. Certain game and nongame species prefer the same habitats. A marsh developed for ducks is no less attractive to herons or ibis. And it is no less attractive to a birdwatcher or sightseer or fisherman than it is to a duck hunter.

To illustrate what I mean...state wildlife agencies manage more than 54 million acres of land, an area bigger than New England, Maryland and Hawaii combined. These lands were bought (3 million acres) and leased (51 million acres) with P-R and hunting license receipts. A study several years ago indicated that only 30 percent of the public use of those lands was dependent on wildlife. Seventy percent of the use occurred because the land was accessible to the public. Hunting amounted to only 9 percent of the use. Sightseeing was 28 percent, fishing 19 percent, picnicking 18 percent and camping 15 percent. Boating, nature study, swimming, water sports and hiking accounted for the remainder.

State agencies and the P-R Program, therefore, are doing something for nongame, nongame interests and for other outdoor recreationists. But the states not taking credit as they should. An excellent example of what is being done for

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nongame is reported in the December, 1979 Iowa Conservationist. In that issue is an article titled "Iowa's Living Resources: Aiding Nongame Wildlife." That piece is outstanding and I commend it for your reading.

State agencies, despite their demonstrated interest, have not been able to obtain money for nongame to anywhere near the degree needed. It is a similar situation that existed in the 1930s in relation to game species and that ultimately spawned the P-R Program of which sportsmen, state agencies and the sporting firearms industry are justly proud and protective.

The Institute files contain intimate records of the P-R Program history. In 1937, Frederic C. Walcott, who had retired as a U.S. Senator from Connecticut, was the Institute's president. Walcott had excellent rapport with members of Congress, and helped draft and promote legislation to redirect existing taxes on sporting firearms and ammunition from the general treasury into wildlife conservation activities...the P-R Program.

There are two primary reasons why the P-R Program has been so successful. First, it is a cooperative effort by federal and state governments, each providing unique services. Secondly, funding for the program is assured, with a built-in inflation compensator. The excise tax receipts are earmarked for the program and increase with sales and price of sporting arms and ammunition.

With respect to S. 2181, we strongly endorse the excise tax on wild bird feed, feeders, houses, and baths to fund the program. Wild bird species constitute a large part of the nation's nongame resource. They are the most utilized segment of the resource by far. And the wild bird enthusiasts are the major and most identifiable component of the overall user group.

In 1975, the U.S. Fish and Wildlife Service estimated that 49 million U.S. citizens participated in wildlife observation, primarily birdwatching. Another 7.7 million were wildlife photographers. Seventy-four percent of the wildlife observers had annual incomes in excess of \$10,000. The median income was between \$15,000 and \$25,000 annually, as it was for wildlife photographers.

We know from experience that the excise tax route is the best way to fund a nongame program. But at the same time, we have no intention that such a funding mechanism cause economic distress to the industries involved. We encourage the Subcommittee to gather all the information available from the industry in order to make a reasonable evaluation.

We hope, however, that the decision on the excise tax proposed in S. 2181 is based on available facts rather than opinion. We should note that the sporting firearms industry was not too enthusiastic originally about the 11 percent excise tax on its products. But today, one would be hard pressed to find anyone in that industry who is not strongly supportive of the P-R Program. In fact, the Subcommittee should have letters on file of the industry supporting legislation in the last Congress which would have extended the excise tax to include component parts of handloaded ammunition and added those receipts to the P-R Program.

Likewise, the archery industry opposed the P-R expansion involving an 11 percent excise tax on its products in the early 1970s. But today it will fight to protect that tax and the program it finances.

These industries support the program because it is an investment in their future. We visualize the wild bird supplies industry as having a similar stake in S. 2181.

We suggest, as a compromise position, that the Subcommittee may consider including a sunset clause in the tax provision of S. 2181. We are confident that the tax will not bite into industry profits and that in time it will benefit the resource and thus the industry significantly.

## Statement of

Dr. John L. George, Professor of Wildlife Management  
and  
Arlene Snyder and Gloria Hanley, Research Assistants  
The Pennsylvania State University

as part of the testimony of The Wildlife Management Institute  
before the  
Senate Subcommittee on Resource Protection  
of the  
Committee on Environment and Public Works  
February 4, 1980

Mr. Chairman, I am John L. George, Professor of Wildlife Management at The Pennsylvania State University and Arlene Snyder and Gloria Hanley are two of my research assistants. We at Penn State have been involved in several urban wildlife studies, including work on attitudes of people toward wildlife and bird feeding preference. We feel that the non-game area has been overlooked for a long time and we are grateful to you and the Committee for considering this bill.

We were approached by The Wildlife Management Institute to study the national expenditures on wild bird related products as an extension of our ongoing studies, and we have begun this project. Our testimony addresses Sections 11 and 12 of S. 2181. The findings presented are our tentative findings on the subject of this tax to date. We offer them in the hope that they will be useful to you in your deliberations on this bill. Our final results will be reported to The Wildlife Management Institute within the next few months.

We wish to address three major points that we feel are pertinent to a consideration of this bill: 1. the industry estimates of the value of

wild bird products; 2. an analysis of the industry estimates; and 3. a summary of manufacturers' concerns with the excise tax.

#### 1. INDUSTRY ESTIMATES OF THE VALUE OF WILD BIRD PRODUCTS

We compiled a list of 68 companies (attached as Appendix 1) involved in the wild bird product business and interviewed 10 of these companies in an effort to determine the total value of the industry for this preliminary report.

Based on these interviews we derived estimates which ranged between 29 and 81 million dollars at the wholesale level, with the average industry value estimated between 50 and 55 million dollars. Details of how these estimates were derived are given in Appendix 1.

#### 2. AN ANALYSIS OF THE INDUSTRY ESTIMATES

We compared the industry estimates with four other surveys on bird feeding values. In all cases, we feel that the data indicate that the highest industry estimate is the correct one. (Details of our analyses are given in Appendix 2.)

#### 3. A SUMMARY OF MANUFACTURERS' CONCERNS WITH THE EXCISE TAX

Manufacturers were very concerned about the possible loss of their market resulting from increased prices after the imposition of the excise tax. Their major concerns are summarized in Appendix 3. Although these manufacturers' concerns are certainly understandable, they may be unwarranted. We feel that a non-game program could stimulate further

interest in feeding birds, and therefore increase their sales. Also, we recommend that manufacturers be permitted to state on the label of their product that a portion of the purchase price will be used to support research and management of non-game species.

APPENDIX 1. List of companies involved in the wild bird product business and a summary of the industry estimates of the value of wild bird products.\*

Wild Bird Food Manufacturers

Colorado, Otis 80743	Valley Feed and Seed Inc.
Connecticut, Meriden	Welles L. Bishop Co.
Connecticut, Norwalk 06852	Libner Corporation
Illinois, Bristol	Seaboard Seed Company
Indiana	M. G. R. Feed Company
Indiana, Rochester 46975	Wilson's Corn Products, Inc.
Iowa, Davenport 52808	Victoria Feed Products
Maryland, Baltimore	William G. Scarlett & Co.
Maryland, Muirkirk 20829	Chesapeake Feed Co.
Michigan, Coopersville 49404	D & D Suet Cake Co.
Massachusetts, Waltham 02154	Hyde Bird Feeder Co.
Minnesota	Sitco Sunflowers
Minnesota, Crookston 56716	Dahlgren & Co., Div Beatrice Food
Minnesota, Fergus Falls 56537	John W. Swenson Farms
Minnesota, Kennedy 56733	Northwest Sunflower, Inc.
Minnesota, Minneapolis 55440	Barzen of Minneapolis
Missouri, St. Louis 163103	Country Pet Supply, Inc.
Missouri, St. Louis 63166	Mangelsdorf Seed Co.
Nebraska, Fairbury 68352	Preston Milling Industries, Inc.
New York, Brooklyn 11206	Natural Products Co.
New York, Farmingdale 11735	Hinton & Co., Inc.
New York, Farmingdale 11735	Wagner Brothers

\*The names of these companies were derived from the Thomas' Grocery Register and through informal surveys of retailers and manufacturers. The extent of each company's involvement in the industry has yet to be verified.

## APPENDIX 1 (cont'd.)

Page two

New York, Syracuse 13221	Country Foods, Div. of Agway Inc.
North Carolina, Scotland Neck 27874	Halifax House Mfg. Co.
North Dakota, Fargo 58102	Fargo Mills
North Dakota, Forman 58031	International Multifoods
North Dakota, Lisbon 58054	Loft-Dahlgren, Inc.
North Dakota, Mayville 58257	Dornaker Seed Co., Inc.
North Dakota, Oakes 58474	Shafer Seed Co.
North Dakota	Interstate Sunflower
Ohio, Wellington 44090	Farmers Grain & Milling Co., Inc.
Ohio, Akron	Hall Brothers
Pennsylvania, Horsham	Seeds, Inc.
Pennsylvania, Ottsville 18942	Hinkle Farms, Inc.
Pennsylvania, Oakdale 15071	Best Feeds & Farm Supplies, Inc.
Pennsylvania, Plymouth Meeting 19462	The Stanford Seed Co.
Pennsylvania, Sinking Springs 19608	F. M. Brown's Sons, Inc.
Rhode Island, Warwick 02886	K. Enterprises
Wisconsin, Clinton	Kay-Tee Products

APPENDIX 1 (cont'd.)  
page three

Wild Bird Feeder Manufacturers

Alaska, Decatur	Pockman Mfg. Co.
Connecticut, Meriden	Welles L. Bishop & Co.
Colorado, Denver	Perky Pet Products, Inc.
Illinois, Chicago	Artline
Indiana, LaPorte	Wolfcrest Products, Inc.
Massachusetts, Framingham 01701	Opus, Inc.
Massachusetts, Leominster	Columbia Plastics Co.
Massachusetts, Waltham	Hyde Bird Feeder Co.
Massachusetts, West Concord	Concord Woodworking Co., Inc.
Michigan, Coopersville	Heath Mfg. Co. (Div. of Wolfcrest)
New Hampshire, Penacook	Duncraft
New Hampshire, Northwood	Noel's Feeders, Inc.
New Jersey, Hainesport	Hardware & Industrial Tool Co., Inc.
New Jersey, Newark 07114	Carlisle Mfg. Co., Inc.
New York, Geneva 14456	Garden Galleries
Ohio, Cleveland	Dilley Manufacturing Co.
Ohio, Wooster	Rubbermaid, Inc.
Pennsylvania, Philadelphia 19127	Bright Industries
Rhode Island, Cumberland	Aspects
Rhode Island, Warwick 02886	K Enterprises
Rhode Island	Drool-Yankee
Wisconsin, Sturgeon Bay	Dorco Mfg., Inc.

APPENDIX 1 (cont'd.)  
page four

Wild Bird House Manufacturers

Indiana, LaPorte

Illinois, Griggsville

Illinois, Kankakee

Massachusetts, Leominster

Massachusetts, Waltham

Minnesota, Hopkins

New Jersey, Williamstown

Ohio, Wooster

Wisconsin, Racine

Wolfcrest Products, Inc.

Trio Mfg. Co.

Joseph H. Dodson Bird House Co.

Columbia Plastic Co.

Hyde Bird Feeder Co.

Product Engineering & Development Co., Inc.

Rustic Furniture Co., Inc.

Rubbermaid, Inc.

Gallo Mfg. Co.

APPENDIX 1 (cont'd.)  
page five

Wild Bird Bath Manufacturers

Alaska, Sylacauga	Moretti-Harrah Markle Co.
Connecticut, Wilton	Kenneth Lynch & Sons
Indiana, LaPorte	Wolfcrest Products Inc.
New York, New York	Florentine Craftsmen, Inc.
Ohio, Roseville	Robinson-Ransbottom Pottery Co.
Ohio, Zanesville	Zanesville Stoneware Co.
Pennsylvania, Havertown	Artcrete Products Co.

Feeder Poles

Ohio, Norton 44203

Adjusta-Post Mfg. Co.

APPENDIX 1 (cont'd.)  
page six

Summary of Industry Estimates of the Value of Wild Bird Products

Table 1 shows a breakdown of the minimum and maximum values of the wholesale market in wild bird products given by industry respondents. The respondents' values for the total industry ranged from \$29 to \$81 million. The most frequent industry estimates were \$35 million for feed and \$15-20 million for feeders, houses and baths.

Table 1

ESTIMATES OF THE WHOLESALE VALUE OF THE WILD BIRD INDUSTRY BY PRODUCT			
		<u>Minimum</u>	<u>Maximum</u>
Wild Bird Seed**			
	Pounds	165,000,000	730,000,000
	Dollars	\$ 28,000,000	\$ 61,000,000
Wild Bird Feeders			
	Dollars	\$ 500,000	\$ 19,000,000
Wild Bird Houses			
	Dollars	\$ 250,000	\$ 750,000
Wild Bird Baths			
	Dollars	\$ 250,000	\$ 250,000
TOTAL SALES		\$ 29,000,000	\$ 81,000,000

\*\*Mix and sunflower, not including thistle seed.

One qualification should be made on these figures. There are several levels of the bird product business - the manufacturer, wholesaler, distributor

APPENDIX 1 (cont'd.)  
Page seven

and retailer. One manufacturer mentioned that the manufacturer's price would include the cost of production plus 5%. Wholesaler's prices are approximately 25% above the manufacturer's level. Between the wholesaler and the retailer there may be 40-60% markup. In all of our interviews, we specifically asked for the wholesale price, but some manufacturers, who are also wholesalers may have given us the lower manufacturer's price.

Appendix 2. A summary of the analysis of the industry estimates.

We analyzed industry figures in four different ways, which are documented below.

1. In 1975, DeGraaf and Payne\* using market and private surveys, estimated that if 20% of the households fed 60 pounds of seed, the total value of the feed industry would be 85 million dollars. This, added to their estimate of 15 million dollars for houses and feeders, gave them a 100 million dollar estimate for the industry. This is higher than the current highest industry estimate of 81 million dollars (61 million for feed and 20 million for other products).

There is a possible explanation for the discrepancy between DeGraaf and Payne's figures and the industry estimate. According to manufacturers, 1974 was the last good year for bird product sales. Up until that year, concern over pesticide poisoning in birds prompted people to feed in an effort to help bird populations. As the economy tightened however, bird product sales decreased proportionately. Therefore, present figures are still under the 100 million dollar estimate for 1975. (One manufacturer claimed that his total sales are still 10% below his 1973 figures.)

2. An industry survey from 1972 quoted by DeGraaf and Payne showed that 20% of the households were feeding birds. If we assume no increase in the number of households feeding, 20% of the 1977 household population would total 14.8 million households feeding birds. If each household fed 56 pounds, then the total amount of feed sold would equal 830 million

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\*DeGraaf, R. M. and B. R. Payne. 1975. Economic values of non-game birds and some urban wildlife research needs. Trans. N. Am. Wildl. and Nat. Res. Conf. 40:281-287.

Appendix 2 (cont'd.)  
page two

pounds. This is double the average industry estimate of 400 million pounds sold annually, but within range of the highest industry estimate of 730 million pounds.

3. In our Pennsylvania survey of 261 adults, we found that 34% fed an average 56.6 pounds to birds. However, we had a 58% completion rate (our population sample had somewhat better education and income levels than the average for Pennsylvania). Assuming the other 40% never fed birds, we can conservatively estimate 20% of the households feed birds. If these 741,000 households fed an average of 56 pounds, Pennsylvanians alone would be purchasing 41.5 million pounds of feed. This is twice one respondent's estimate of 20-24 million pounds of mixed bird seed sold in Pennsylvania.

4. The Massachusetts Audubon Society conducted a bird feeding study in 1974 and found that nearly two-thirds of the households (approximately 600,000) bought bird seed. Although this study seemed somewhat biased in favor of persons who fed birds, it serves as another indicator of the level of interest in bird feeding.

Appendix 3. Summary of manufacturers' concerns with the excise tax.

The following is a summary of the five major arguments against the tax which were made by the companies whom we contacted.

1. First, the industry feels that while the general public is the main beneficiary of a non-game program, the backyard bird watcher will be paying the bill. They argue that songbirds are only one small portion of all non-game species.

2. The industry is concerned about their consumer market. They feel that the majority of the people who feed birds are elderly individuals on fixed incomes who will not be able to absorb a regular inflationary increase plus the 11% tax.

3. The industry questions the practicality of a tax on a business which experiences seasonal and yearly fluctuations in sales. They feel a more stable base is needed to provide consistent findings.

4. Some manufacturers feel that an excise tax will cause substitution on the market - the sale of cheaper and less nutritious mixes. They feel consumers will buy these cheaper mixes.

5. Some manufacturers also feel that the tax may penalize companies with higher base prices due to transportation costs. They are concerned about exactly where the tax will be levied and how the system would be supervised.

In summary the industry is concerned that an excise tax will put them out of the bird product market, due to the increased costs and subsequent loss of consumers.

SOCIETY FOR ANIMAL PROTECTIVE LEGISLATION  
P. O. Box 3719  
Georgetown Station  
Washington, D. C. 20007

STATEMENT ON S. 2181

By Christine Stevens, Secretary

February 4, 1980

Senate bill 2181, recognizes the importance of planning for all wildlife species, by state and federal governments. The Society for Animal Protective Legislation supports the bill in its allocation of substantial funds for the benefit of wild creatures that are not of interest for consumptive purposes. These species, designated in the bill as "non game" animals, constitute, of course, the vast majority of animal life. We urge that the guidelines published by the Secretary, as stated in Section 4a, emphasize comprehensive planning for the needs of all animals under state jurisdiction.

The Society for Animal Protective Legislation also recommends deletion of the portion of Section 5a4, which states that "The Secretary may not disapprove a conservation plan, in whole or in part, because the Secretary does not concur with any specification or identification made, or any priority established under Section 4a 3, 4, 5, or 6 as appropriate, unless the Secretary determines in writing that to implement any part of the plan on the basis of such specifications, identification, or priority would threaten the natural stability and continued viability of the plan species concerned." This language is too restrictive. The nongame bill is intended to provide leadership for wildlife planning in the form of guidelines published by the Secretary and the standards outlined in Section 4. To restrict

the Secretary as provided in 5a4 subverts the bill's intent.

The financing of nongame species programs through an excise tax can be a reasonable way to contribute toward the cost of necessary assistance to the majority of species of wildlife in each state, but such a tax can hardly be expected to bear the entire burden of the program. An 11% excise tax on bird seed and equipment is far too high. We recommend spreading the cost for implementing the program among the various revenues available for wildlife programs and increasing those funds by taxing those who destroy habitat.

Developers who want to use land and others who destroy wildlife habitat are the ones who should, by rights, be taxed to provide funds for conservation of nongame species, because they are the people who are the main consumptive users of these species.

People who buy wild bird seed are already donating towards the enhancement of one important group of nongame species. They are not using up wild birds, but, on the contrary, encouraging their survival. While many who feed birds would be glad to contribute to wider protection of the species they see in their gardens, it would not be right to put so high a tax on bird seed as to discourage persons on small fixed incomes from continuing to help wild birds in winter time. The pleasure an old person gets from doing a kindness and enjoying companionship of living creatures should not be made more difficult, nor is it an attractive thought that little birds be cut off from food they were depending on to maintain body heat when the temperature drops so low that they will freeze to death otherwise.

Juxtaposed to a vision of a large bulldozer wiping out the same little bird's summer habitat where it finds its own food and where it

nests and raises the next generation, it seems pretty clear that it is the contractor who hired the bulldozer who should be paying the tax rather than the senior citizen.

Some of the problems this legislation has experienced appear to have derived from an attempt to create a facsimile of the Pitman-Robinson and Dingell-Johnson laws which hunters and fishermen willingly support from direct self interest. The man with the bulldozer, however, may not care if he ever hears the dawn chorus in the spring or sees cardinals in the snow.

If we have a look, however, at Norman Myers' recent book, "The Sinking Ark" it is plain that all citizens have an interest in the continued existence of the widest possible variety of species. The tiny minority of "game" species can't help much. Myers writes (p.x) "the earth's species are being depleted more rapidly than the earth's mineral deposits." On page 29 the extreme changes are put in perspective "To reduce the history of species on earth to manageable proportions, suppose the whole existence of the planet is compressed into a single year. Conditions suitable for life do not develop for certain until May, and plants and animals do not become abundant (mostly in the seas) until the end of October. In mid-December, dinosaurs and other reptiles dominate the scene. Mammals, with hairy covering and suckling their young, appear in large numbers only a little before Christmas. On New Year's Eve, at about five minutes to midnight, man emerges. Of these few moments of man's existence, recorded history represents about the time the clock takes to strike twelve. The period since A.D. 1600, when man-induced extinctions have rapidly increased, amounts to 3 seconds, and the quarter-century just begun, when the

fallout of species looks likely to be far greater than all mass extinctions of the past put together, takes one-eighth of a second - a twinkling of an eye in evolutionary times."

To quote from the chapter on "Utilitarian Benefits,"

"The tiny fraction of marine organisms examined to date has yielded many extracts and compounds with varying biological characteristics, including anti-microbial, anti-viral, blood-coagulant and anti-coagulant, neuro-muscular and anti-cancer capacities. A strongly neurotoxic insecticide has been isolated from the segmented seaworm...A palliative for terminal cancer has been found in the poisons of the porcupine fish and the puffer fish. Liver lipids from sharks appear to enhance body resistance to cancer. The sting-ray produces a potent cardiac-depressant material. An extract from the octopus relieves hypertension, the seasnake has yielded an anti-coagulant and the menhaden provides an oil which may help with treatment of atherosclerosis. Sea cucumbers yield a substance that may prove better than digitalis in treatment of certain heart conditions. Sea cucumbers also yield glycosides with anti-tumor activity. Several species of seaweed contain an active agent that inhibits the growth of two forms of a virus that cause the common cold sore, severe eye infection and a widespread type of venereal disease. A Caribbean sponge yields a compound that proves effective against herpes encephalitis, a deadly brain infection that strikes many thousands of people each year and against which there has been no worthwhile drug. The sponge's compound thereby supplies a breakthrough in the treatment of diseases caused by viruses, much as penicillin did for diseases caused by bacteria. As a result of this widely hailed

discovery, there is now prospect of curing a wide range of viral diseases, from the common cold upwards.

"Furthermore, marine creatures assist not only with drug exploration, but they also help scientists with basic research into disease. The female octopus, with its specialized glandular mechanisms, offers clues on the aging process of body cells in humans. The hagfish does not possess a thymus gland, so has no immune system which might cause a rejection of grafts, thus making it an excellent subject for the study of skin grafts. Sea urchins, with their relatively simple life cycles, allow researchers to observe the teratological effect of drugs, since adverse reactions can be noted in a matter of days instead of weeks or months as is generally the case with conventional laboratory animals. The electric eel may one day point the way to development of a form of biological battery. Squids and the seahare, with their specialized nervous systems, are especially valuable to neuro-scientists."

With the passage of the Pittman-Robertson Wildlife Restoration Act in 1937 and the Dingell-Johnson Sport Fish Restoration Act in 1950, there has developed over the years a blatant discrepancy in the money and manpower spent within each state on game and nongame wildlife. The primary beneficiaries of this skewed emphasis have been consumptive users. Interestingly the original Pittman-Robertson Act was to create a program to benefit wildlife not just game species, and we believe that it would be well to return to that concept by adding the new funding sources provided by this bill to those already available to enhance planning and implementation of wildlife programs.

Times have changed and public attitudes toward wildlife have changed. There is a need for a more balanced program in every state that will

benefit all wildlife, and there is an increasingly vocal public demanding a program to answer this need. Dr. Stephen Kellert in a study for the U.S. Department of Interior entitled, "Public Attitudes Toward Critical Wildlife and Natural Habitat Issues, Phase I," confirmed that the information he gathered from 3,107 people across the country indicated a changing wildlife constituency "and the potential need to broaden wildlife management to include greater consideration of nongame and public awareness programs."

Though the numbers of this constituency interested in all wildlife greatly out-numbers those interested only in game animals, its considerable political and economic resources have not been effectively channeled into broadened state programs for wildlife. An exception to this is the State of Colorado where massive numbers of voters voluntarily directed use of their tax money for protection of endangered species and nongame wildlife in their state. John Torres, Colorado's Nongame Wildlife Supervisor pointed out that "Colorado has 783 species of nongame and threatened and endangered wildlife. Such animals including everything from songbirds and chipmunks (nongame species) to the threatened river otter and the endangered peregrine falcon.

"Last year, about \$125,000 was appropriated from the state's General Fund for programs to help these species. 'That figures out to about \$160 per species a year and clearly isn't enough to meet the need,' Torres said." Colorado raised more than \$242,000 in this way. This, I believe, should be the direction of the future in state wildlife conservation. Statistics show that non-consumptive use (if use it can be called) of wildlife is gaining rapidly over consumptive uses. And, of course, there is an almost limitless, though

largely untapped, opportunity for profit in non-consumptive activities.

More money is spent by Americans on whale records, books, films, oceanaria and whale watching than is made from killing whales in the main whaling country. Whales, in other words, are worth much more, even from a purely commercial standpoint, alive than dead. I do not know the statistics on other sorts of animals, but private enterprise need not despair as our approach to fellow mammals and birds tends to grow gentler, with more interest in their behavioral repertoire than their hides, in their beauty captured on film, or only in the mind's eye, than on possession of some part of their carcasses. State and federal governments alike can take advantage of cultural growth, and wildlife agencies, too, should grow with the times.

The entire conservation community is united in the desire to see the states do their job in protecting all local wildlife cooperatively with the federal government. Twenty states already have plans for non-game species programs. The Society for Animal Protective Legislation sees the future of our wildlife hinging on vastly improved state wildlife programs and improved cooperation between the states and federal government. Until this is accomplished, there will continue to be an imbalance in decision-making at the state level toward game species, which ultimately works not only against the animals under state jurisdiction, but against the majority of the public who, according to Dr. Kellert's study, "are willing to protect wildlife habitat at the expense of...human benefits," and who approve of hunting only if the meat is eaten and oppose trophy hunting and want to protect nongame animals. The public also heavily opposes use of the steel jaw leghold trap (79% of informed people and 74% of uninformed ones in the survey) which is the main implement currently used for capturing furbearers in the United States.

These and other findings of the Kellert study demonstrate widespread support for the concept expressed in S. 2181. The "nongame" constituency clearly should have a voice in state wildlife programs. We urge you to give the bill a favorable report with the suggested alterations to enlarge the funding base and reduce the size of the proposed excise tax.

It would be wrong to deny all aesthetic sense to every consumptive user of wildlife. Ought not Pittman-Robertson and Dingell-Johnson fund use be liberalized so that more of these funds could be available for non-target species?

Further, should not a means be found for interested persons to contribute? Many city dwellers never purchase an ounce of wild bird seed because there are no birds to feed where they live nor any place to put a bird house.

Senate Subcommittee on Resource Protection  
Committee on Environment and Public Works

Hearing on S. 2181, The Fish & Wildlife Conservation Act of 1980<sup>1/</sup>

My name is John Torres, Nongame Program Manager for the Colorado Division of Wildlife. I appreciate the opportunity to appear before you today to urge your firm support of S. 2181, the Fish and Wildlife Conservation Act of 1980. There is an urgent and immediate need for nongame wildlife programs in every state in the nation. Those programs must be specifically designed to conserve or protect this long neglected renewable natural resource. An epochal change in the nation's approach to wildlife conservation is essential and necessitates adequate and stable funding if it is to succeed. I speak of an approach which would establish and protect complete ecosystems - a complex system of myriad interdependent plants and animals, among which mankind is a relative and often disruptive late-comer. Only in this way, can mankind head off potential catastrophes resulting from thousands of years of exploitation and alteration of the earth's natural resources and ecological relationships.

In the past, well over 95 percent of federal and state expenditures on fish and wildlife have gone to enhance a few dozen species of mammals, birds, and fish in which sportsmen were interested.

This narrow focus has tended to propagate the misconception that "nature" was being adequately cared for, while actually subjecting total ecosystems to progressive destruction. However, we should strongly commend hunters and fishermen for their yeoman support of wildlife management. They have contributed millions of dollars and

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<sup>1/</sup> Testimony of John R. Torres, Nongame Program Manager, Colorado Division of Wildlife, before the Senate Subcommittee on Resource Protection.

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the success of game management programs is apparent. Simple economics still dictates that most of a state wildlife agency's money and staff be directed at managing game animals. Conversely, aid for nongame has been limited and occasionally occurred as a by-product of those game management projects.

We have long been governed by a definition of wildlife that is far too restrictive. State and federal resource agencies can no longer be content with only satisfying the traditional constituency of hunters and fishermen. Thus, we must act as rapidly as we can at both federal and state levels to redirect and redesign our wildlife activities so that they clearly reflect a definition that embraces all plant and animal life - a definition that implies that each living species is an integral part of the wildlife resource that we are responsible for maintaining.

In essence, we must develop broad spectrum programs which take into account all wildlife and the ecosystem. If the ecosystem functions properly, all wildlife species prosper; if it falters, wildlife and man are in danger.

S. 2181 will provide badly needed federal assistance to states who have long sought ways to develop programs that will benefit nongame fish and wildlife. The contents of this bill are very acceptable to the Colorado Division of Wildlife which currently enjoys an expanding Nongame Program with a staff of 14 full-time biologists. The badly needed funding which has long restricted nongame program implementation for most states will become a gratifying reality if S. 2181 is passed by this Congress.

## NEW YORK STATE TESTIMONY ON S. 2181

BEFORE THE SENATE SUBCOMMITTEE  
ON  
RESOURCE PROTECTION

February 4, 1980

My name is Herbert E. Doig. I am Assistant Commissioner for Natural Resources in the New York State Department of Environmental Conservation.

Any environment created or preserved for man's benefit will be hollow without fish and wildlife. It is essential therefore that government action and citizen concern address the nation's environment problems through consideration for all the earth's inhabitants and support financially as well as philosophically programs designed to benefit wildlife resources and the people who use and enjoy them.

Worthwhile goals must therefore be formulated that recognize the need to satisfy resource needs as well as human enjoyment of the values derived from the existence and abundance of wildlife. In New York we have established such goals as follows:

- (1) Perpetuate fish and wildlife as a part of the total ecology of the State
- (2) Manage fish and wildlife resources so that their numbers and occurrence will be compatible with the public interest
- (3) Provide maximum beneficial utilization and opportunity for enjoyment of fish and wildlife resources by people

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For decades, fish and wildlife programs conducted by government have been funded through income provided by sale of hunting, fishing and trapping licenses. Supplemented by returns from fines and taxes on hunting and fishing equipment, State programs have logically focused on management of game species and use of these species by sportsmen.

Many of the projects undertaken to benefit game mammals, birds and fishes, also improved habitats for non-game wildlife and provided opportunities for wildlife viewing and photography that would not otherwise have been available. In 1967 in New York, this contribution by sportsmen to the welfare of all wildlife was recognized and \$1.7 million was appropriated from the General Tax Fund of the State to support fish and wildlife programs. Subsequently, however, lean budget years have drained these funds from the program and operating fish and wildlife projects have been forced back within the fiscal bounds of sportsmen license funding.

Resource needs on the other hand have become more acute. Major environmental impacts have occurred which have threatened the very existence of some species. Unplanned development has claimed wildlife habitat at an accelerating rate and the spewing of poisonous compounds into the environment continues. An environmental awakening has caused citizens to demand sensible treatment of their environment and the burden of response to exercise responsible stewardship of wildlife has fallen upon fish and wildlife agencies--with no appreciable change in the funding base.

The value of wildlife as indicators of environmental quality has been well documented and the dependence upon fish and wildlife

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agencies to document detrimental environmental impacts of a wide spectrum of development projects is a matter of record. Society through Congress and State legislatures has determined that fish and wildlife resources and their habitats are important and their integrity must be preserved as one of the important values that benefit mankind.

Fish and wildlife agencies will fail to meet this mandate unless more monies are made available.

Management of the nongame fish and wildlife resource requires that new and innovative methods be developed, that basic fauna inventories be made, that life history and population characteristics be determined and that environmental limitations be defined. These types of positive fish and wildlife programs have been delayed because existing manpower was totally committed to meeting other fish and wildlife management needs. Increasingly greater demands are being made by the public for sophisticated nongame wildlife management techniques for which the biologist presently has very little research and management experience on which to rely. A systematic and well-financed effort is needed to address these less familiar resource questions.

New York is hopeful that S.2181 will not only provide an actual funding base for such a research and management effort, but will also provide the catalyst needed to focus the State Legislature's attention on additional financial support for fish and wildlife programs. The passage of Federal legislation will provide the base upon which Departments can demonstrate the development of a significant program

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for nongame. An expanded fish and wildlife program will include among many new programs, nongame species investigations, development of urban wildlife parks, fish and wildlife habitat enhancement and environmental contaminant monitoring of fish and wildlife populations.

The Department of Environmental Conservation has sponsored a meeting of interested wildlife groups to gather support for non-game funding legislation. Representatives of environmental, humane, sportsmen and professional organizations joined together in expressing their endorsement for the concept and have obtained official organization and membership endorsement. You have heard from many of these concerned citizens.

Federal funding is needed now to stimulate State and local commitment to support fish and wildlife programs, to provide integrated and coordinated management of species of national and international significance, to provide incentive for individual states to become involved in resource programs that benefit species that recognize no political bounds and to make available to states, hard dollars from every citizen's pocket to protect and enhance fish and wildlife values enjoyed by all. Earmarked funds provided by an excise tax on specified wildlife related products is the preferred method of funding for such programs but absent support for such worthwhile taxation, specific appropriation should be pursued with utmost expedience. Congress must act responsively now so that future generations of Americans will have the opportunity to make many of the same value judgments that we are making today. It is in the public interest to do so.

STATEMENT OF THE INTERNATIONAL ASSOCIATION OF FISH AND WILDLIFE  
AGENCIES BEFORE THE SENATE SUBCOMMITTEE ON RESOURCE PROTECTION  
CONCERNING S.2181, "THE FISH AND WILDLIFE ACT OF 1980", FEBRUARY 4, 1980.

Mr. Chairman, I am John S. Gottschalk, Legislative Counsel for the International Association of Fish and Wildlife Agencies, a voluntary organization of the state, provincial, and federal agencies responsible for the management of fish and wildlife in the United States, Canada, and Mexico. With me here today are representatives of three state agencies to expand upon the introductory comments that I wish to make in support of the bill before you, S.2181. We greatly appreciate the interest of the Committee and yourself in this legislation, and thank you for providing an opportunity for us to strongly support federal assistance for non-game fish and wildlife conservation work.

The Association has a long record of concern for the kinds of problems this bill is designed to solve. We have had committees working for more than fifteen years to promote greater interest in, and support for, the many kinds of wildlife that are not normally included in traditional fish and wildlife programs. At its meeting in September, 1979, the Association unanimously adopted the most recent in a succession of resolutions in support of "Non-game" legislation. A copy of that resolution is attached to my statement.

Also for the record, it should be noted that the Association has presented testimony on various aspects of the need for this legislation at the several hearings that have been held in the Senate and the House of Representatives over the past several years. Therefore, I will only outline the principal points to be reiterated in our sustained support for a federally assisted nongame program.

1. Broad public benefits. Our citizens tend to take nature, including wildlife, pretty much for granted. It is only when problems develop that people become sensitized to the existence of the many species that form a part of the background for the daily routine of our lives. Yet, wild things are integral and essential to our way of life, in both ecologic and esthetic dimensions.

Because of the manner in which fish and wildlife conservation programs have been financed traditionally over the years, that is, with funds derived from sport fishing or hunting licenses, the emphasis on conservation programs has been on the species that can be taken by anglers and hunters. This group of animals is but a small fraction of the total number of species that exists in a given habitat.

There are scarcely any citizens, whether urban or rural that do not benefit from and enjoy the non-game forms--the song birds and other kinds of interesting wildlife. Yet, these are the forms that generally receive little Federal or State attention.

The federal program authorized by both the House-passed bill, and S. 2181 would go far toward providing strong incentives to the states to initiate or expand their non-game programs.

We submit that this approach is the best means of strengthening the Nation's fish and wildlife conservation efforts. Instead of preempting state authority this bill recognizes that the states have a duty to perform which will result in benefits to the citizens broadly across the country. It will strengthen the cooperative bond between the states and the federal government. It provides incentives for expanded state programs that will contribute directly and indirectly to the welfare of all the people of America.

2. Combining planning and action. In our opinion, S.2181 is noteworthy also in that it provides for incentives for action in

conservation, as well as planning. We all know that planning any endeavor is essential to its ultimate success. The direct appropriations planning authority in the bill recognizes this need and would support the essential immediate and long-range planning.

Yet we all know that we continuously invest fortunes in planning plans that are never implemented. In a very logical way, this bill provides for federal assistance to states that may be ready to proceed with non-game action programs by virtue of previous planning or as the result of that done under the authority of this bill.

These funds needed to support action would come from that most readily identified "user-group", those who feed wild birds at artificial feeding stations. The vehicle would be the 11 percent excise tax on bird feed, feeders, birdbaths, and birdhouses. Thus the specific benefits that the program would achieve would be financed by a group that is generally willing, and able, to support conservation programs with financial contributions.

All in all, the way S.2181 blends planning and action, direct appropriations and an excise tax funding, and thus recognizes broad public, as well as direct benefits, represents a new high in conservation program sophistication.

3. Closing a major conservation gap. Without going into a detailed recitation of the historical handling of fish and wildlife conservation by the U. S. Congress, it may be said that enactment of S.2181 will close the last evident major gap in the broad spectrum of national fish and wildlife conservation concerns. There is federal action or assistance for eagles, burros, endangered species, marine mammals, marine fisheries, sport fishing and hunting, and so forth, but up to the present there has been no authority granted by the Congress for the federal government to

concern itself with the groups of animals loosely called "non-game". This bill if passed, will complete our current National fish and wildlife conservation program.

4. A means of conflict resolution. In recent months we have become accustomed to seeing fierce battles erupt over the effect of a variety of resource development schemes on a variety of fish and wildlife resources. In most cases these conflicts could have been avoided or substantially moderated had there been knowledge, in advance, of the particular wildlife species that would be affected by the development.

One of the largely unadvertised benefits of this bill is that it should make a strong start toward identifying the kinds, numbers, and locations of the little known forms of fish and wildlife that are the focus of development disputes. The result is bound to be a savings in wasted money and frayed nerves.

There is still another factor that makes this legislation significant to those of us who have been close observers of the national conservation scene. We believe that one "spin-off" will be a substantial enlargement of the constituency concerned with wildlife conservation. Heretofore, because of the strong orientation toward game species, many people who had a sincere interest in wildlife other than because of hunting, have felt left out of the wildlife management decision-making process. With the mandate for public participation in the bill, we believe there is great opportunity for expanding the ranks of those who believe there is a role for wildlife in the everyday life of America.

5. Miscellaneous concerns. There are several matters that need attention to make the existing bill completely effective. These have been discussed to some extent with the staff of the Committee and will be ironed out before the bill is finally reported out. Nevertheless, we would like to enumerate them here for the record.

a. Species covered. The scope of the bill, which is now limited to "wild vertebrates" should be expanded by the major phyla of invertebrates (Arthropoda, Mollusca, Echinodermata, and Coelenterata). This expansion would make possible a much broader program approach and would reflect current scientific and popular interest in the application of the scientific principles of ecology.

At the same time, it must be said that if the requirements of the bill for inventories, population estimates, and location and amount of habitats were taken literally, no state would ever be able to qualify its plan. The amount of knowledge required would be overwhelming. Therefore, it would be essential that appropriate wording reflect two concepts: First, that the plan would not have to be all encompassing with respect to the groups covered before it could be approved by the Secretary. Second, the requirement for data derived with respect to population, location, numbers, habitat, and so forth, should be related to the "state of the science". Few animal population censuses consist of absolute counts of individuals. Population estimates are of practical necessity based on sampling procedures, trend data, catch or harvest records, age and sex ratios, and similar approaches that do not produce absolute numbers. This fact must be made clear, either in the bill or in the legislative report of the Committee.

b. Limitation on use of license funds. The states, reflecting the apprehensions of license buyers that excessive amounts of license funds could be earmarked for non-game work, would like to see a reasonable limitation on those funds. We would accept an amount up to 10 percent of program costs to come from license revenues. How this is handled in the language is a technical drafting problem that should not accidentally shut off all use of such funds, as earlier House language would have done, nor create administrative problems.

c. Program vs. project approach. When last revised, the Federal Aid in Fish and Wildlife Programs were broadened to permit either a program documentation system, or the continuation of the "project" approach. While a few states have adopted the program system, most continue to use the project approach because of the relative ease of developing the planning, approval and management documents. The states should continue to be given the option of either system.

The foregoing points are the major issues that should be considered as this legislation, with the support of the Committee, moves forward. Again, we thank the Chairman and the members for this opportunity to demonstrate our support for S.2181.

Mr. Chairman, at this point may I present the panel of representatives of the states to give you more specific indications of the need for this program for non-game wildlife, and to tell you what they have done, and will do, if this new program materializes.

Thank you very much.

## Resolution No. 14

## Federal Nongame Fish and Wildlife Conservation Act

WHEREAS, state efforts for the conservation and restoration of many fish and wildlife species have proven to be successful under the Pittman-Robertson and Dingell-Johnson federal aid program; and

WHEREAS, the total fish and wildlife resource can benefit from expanded state efforts to conserve and restore populations for their ecological, economic, educational, scientific and recreational values; and

WHEREAS, legislation approved by the House of Representatives (H. R. 3292) which soon may be considered in the United States Senate to further such fish and wildlife conservation programs, is limited only to planning and does not contemplate initiation of projects to implement approved plans;

NOW, THEREFORE, BE IT RESOLVED, that the International Association of Fish and Wildlife Agencies hereby (1) urges Congress to approve a Federal Nongame Fish and Wildlife Conservation Act to provide for program planning implementation and (2) prefers that program funding be obtained through a self-sustaining manufacturers' excise tax.

Adopted at the Association's 69th Annual Convention,  
West Yellowstone, Montana, September 12, 1979.

EXCERPT FROM THE  
 PROCEEDINGS OF THE SIXTY-SEVENTH CONVENTION  
 INTERNATIONAL ASSOCIATION OF FISH AND WILDLIFE  
 AGENCIES

SEPTEMBER 12-14, 1977

## Report of Nongame Wildlife Committee

In the past year the Nongame Wildlife Committee has focused attention on three interrelated items.

1. Helping advance the proposed Federal Aid In Nongame Fish and Wildlife Conservation Act.
2. Documenting public interest in and demand for a well-funded nongame fish and wildlife program.
3. Identifying research and management activities that should be carried out to benefit nongame fish and wildlife, as well as the public interested in them.

### *Legislative Progress*

As recommended by last year's Nongame Committee, significant attention focused on providing consultations and testimony, as requested, on pending nongame bills in Congress. Members of this year's committee and representatives of the International Association of Fish and Wildlife Agencies responded individually at appropriate times.

The Federal Aid In Nongame Fish and Wildlife Conservation Act of 1977 (S. 1140) was introduced by Senator Gary W. Hart (Colorado) and 18 of his colleagues on 28 March 1977. On 23 May President Carter provided strong support for the concept of strengthening nongame programs in his environmental message. With this broad endorsement, hearings were held on 3 August by the Senate Subcommittee on Resource Protection. Representatives from state fish and wildlife agencies in California, Iowa, Illinois, New Jersey, New York, South Carolina and Washington testified, while some other states submitted written statements. All endorsed the idea of improving fish and wildlife programs, as did a variety of organizations representing conservation, environmental and humane interests.

S. 1140 calls for a "Federal Aid in Nongame Fish and Wildlife Conservation Act of 1977" patterned after the highly successful Federal Aid in Fish Restoration Program and Federal Aid in Wildlife Restoration Program. The latter program, enacted in 1937, is funded by manufacturers' excise taxes on sporting arms and ammunition, handguns and archery equipment. Receipts from the taxes are partitioned to state fish and wildlife agencies on a 75 percent federal-25 percent state matching basis by the U.S. Fish and Wildlife Service and are used for wildlife restoration activities. S. 1140 calls for funding the nongame effort through annual appropriations from the U.S. general treasury.

The only opposition to S. 1140 was by Administration witnesses from the U.S. Fish and Wildlife Service and the Council on Environmental Quality. They said they are studying the nongame matter and would present an Administration proposal early in 1978. They gave no indication as to what the proposal would contain except that it probably would not recommend that any new program be funded via excise taxes because of the political problems in getting such a provision enacted.

Other witnesses preferred the earmarked excise tax approach to funding nongame programs, with state representatives voicing acceptance of general appropriations if that method of funding was deemed most appropriate. They noted that history has proven annual appropriations for wildlife to be less than dependable because Congress must decide each year whether to provide monies and in what amounts. Excise taxes, on the other hand, assure a steady source of funds with which states can build and operate effective programs.

At the hearing, Senator Hart read a letter from Senate Appropriations Committee Chairman John L. McClellan (Arkansas) who opposed the creation of a "new trust fund" because such earmarking of money would prevent Congress from having control. McClellan said the Committee, however, did not oppose imposition of a new tax. That leaves an opportunity to recommend that Congress establish a separate account for nongame fish and wildlife under the existing Federal Aid Acts. It was emphasized that the monies must be kept separate from current funds to prevent any controversy among taxpayers over how the funds are being invested. Also, separate accounting will permit those who pay the taxes, as well as manufacturers, to see their special contributions accumulate and work for nongame fish and wildlife.

The Senate Appropriation Committee's apparent position is not surprising. The privilege to control the spending of taxpayers' money is a much-revered trust by legislators and executive departments at all levels of government. It is a basis of much political power. But when people are willing to contribute by paying additional taxes for a specific purpose, it is a duty of Congress to help them do it, one conservationist said. "Thus," she continued, "if enough people ask for excise taxes to support nongame programs, I do not see how Congress can refuse in any reasonable fashion."

As the Senate hearings got underway, Congressmen Robert L. Leggett (California) and Edwin B. Forsythe (New Jersey) introduced a nongame bill in the House. Their proposal, H.R. 8606, is a somewhat refined version of S. 1140. It contains several important improvements.

It focuses on "nongame fish and wildlife" rather than "species" and limits the definition of nongame to "vertebrate" animals rather than including all living creatures, many of which state fish and wildlife agencies do not have authority to manage. In many states, for example, insects are under authorities of agriculture departments. These states' fish and wildlife agencies, therefore, could not participate in a program with too broad a definition of nongame.

The House bill requires both planning and implementation of plans. It also provides for planning grants to help states expedite conservation programs to benefit nongame. Without question, acceptable programs and projects must be a prerequisite to receiving funds under federal aid programs.

The major deficiency in H.R. 8606, as compared to S. 1140, is the lack of an allocation formula in the House bill. H.R. 8606 would not require the Secretary to make planning and program operating grants of any specific percentage. The current Federal Aid in Fish and Wildlife Restoration Acts direct that the Secretary pay 75 percent of the costs and the state 25 percent. S. 1140 has an identical provision for nongame. But under H.R. 8606, the Secretary apparently could make 90 percent grants to one state and 10 percent grants to another for identical efforts. This point needs careful evaluation.

H.R. 8606 calls for the money apportioned to any state to remain available to that state for two years, as do the current federal aid programs. Conservationists have recommended that any unused money, after the two years, be directed to a special fund which the Secretary may reallocate to any state that can use it. Use of the initial apportionment should be at the states' discretion, however, not the Secretary's. That would encourage broad application of nongame programs and help state agencies pry matching funds they need from their legislatures.

Hearings are scheduled for the week of September 26 by the House Subcommittee on Fisheries and Wildlife Conservation and the Environment. Mark-ups of the Senate bill will be in September, according to the committee staff. Congress is scheduled to adjourn in October. Business not completed by that time will carry over into the second session next year.

In the Senate, nongame legislation is being directed by:

Senator John C. Culver, Chairman  
Subcommittee on Resource Protection  
Committee on Environment and Public Works  
Senate Office Building  
Washington, D.C. 20510

In the House, nongame legislation is being directed by:

Congressman Robert L. Leggett, Chairman  
Subcommittee on Fisheries and Wildlife  
Conservation and the Environment  
Committee on Merchant Marine and Fisheries

House Office Building  
Washington, D.C. 20515

To help keep interested individuals and organizations informed of progress on nongame proposals before Congress, the Wildlife Management Institute initiated a Nongame Fish and Wildlife Newsletter in early August. Groups are invited to join the National Coalition for Nongame Fish and Wildlife Conservation by writing under their letterhead to the Wildlife Management Institute, 709 Wire Building, 1000 Vermont Avenue, N.W., Washington, D.C. 20005. News releases will be prepared as developments warrant and sent to coalition members free of charge.

#### *Public Interest and Demands*

Strong support for strengthening nongame fish and wildlife programs echoed at the August 3 hearing also has been demonstrated by other public expressions. In a 1972 survey of households in the southeastern United States, nonconsumptive values of fish and wildlife were found to be greater (\$12.3 billion) than combined fishing and hunting values (\$11.8 billion). Since individuals who watch and photograph wildlife place a high value on their recreational pursuits, it was concluded that nonconsumptive activities should receive increased attention in the design of resource management programs.

Following a 1975 survey encompassing all 50 states, the U.S. Fish and Wildlife Service reported that one-half of the persons nine years of age and older who engaged in nonconsumptive fish and wildlife-related activities (observing or photographing wildlife, shell collecting) also hunted, fished or did both. At least one-half of the benefits from current investments of Pittman-Robertson and Dingell-Johnson federal aid funds accrue to nonconsumptive users and nongame fish and wildlife. Although many projects are designed with game populations in mind, nongame also benefit. For example, a marsh managed for waterfowl usually also benefits other aquatic animals including muskrats, shorebirds, frogs, herons and turtles. Shrub plantings for pheasants and rabbits also accommodate catbirds, brown thrashers, towhees and other nongame species. Lands acquired for seasonal hunting also are used for hiking, bird watching and nature study throughout the year.

Such outdoor recreation activities continue to attract increasing numbers of participants. Memberships in nature-oriented societies and subscriptions to nature magazines continue to grow rapidly. Membership in the National Audubon Society expanded from 41,000 in 1963 to 321,000 in 1975. Subscription to the National Wildlife Federation's "National Wildlife" magazine went from 60,000 in 1963 to 600,000 in 1977.

In 1973, conservation groups in the State of Washington organized to seek authority for voluntary personalized license plates with funds going to nongame programs. After the Governor vetoed the bill approved by the State Legislature, citizens demanded a referendum question on the November ballot. Through a 2:1 vote, citizens approved strengthening nongame wildlife programs in Washington.

Missouri voters showed similar foresight and conviction when they approved a constitutional amendment in the 1976 general election to add a one-eighth of one percent sales tax to expand that State's conservation programs, including those for nongame fish and wildlife. That pioneering program took effect 1 July 1977.

In a formal resolution in October 1976, the Humane Society of the United States encouraged federal and state fish and wildlife agencies to establish vigorous nongame wildlife management programs and supported alternative methods of funding wildlife management programs from general appropriations, taxes on non-hunting goods and sales of wildlife conservation stamps.

An April 1977 telephone survey of Colorado residents 10 years of age and older revealed specific interests that citizens have for nonconsumptive fish and wildlife activities. At least 69 percent of those surveyed go afield and participate in some wildlife-oriented activity other than hunting, fishing or trapping. Ways in which people enjoy wildlife included field observations (64%), backyard viewing and feeding (49%), field feeding (20%), photography (16%), bird watching (7%), nature study (5%), and art (3%). Interest was expressed in big game (63%), small mammals (36%), song and garden birds (21%), birds of prey (10%), upland game birds (10%), waterfowl (9%), predators (6%), fish (4%), shore birds (3%), reptiles (2%), and amphibians (1%).

With these expressions of broad interest in wildlife, strong support pledged for improved nongame programs is readily understandable. The Colorado respondents indicated they believe public tax funds should be used to: (1) preserve species whose populations are very low (85%); (2) establish wildlife observation areas (68%); (3) develop educational brochures on wildlife (61%); and (4) inventory the numbers of wildlife (56%). Approximately 91 percent of those surveyed would visit wildlife management areas if a reasonable fee were charged. Of those showing such interest, 73 percent thought \$2.00 per person would be a fair charge. More than 70 percent of the respondents favored using a portion of existing personal state income tax funds to finance conservation programs in Colorado to protect and manage animals.

At and following a June 1977 informational meeting on fish and wildlife management, New York citizens enthusiastically supported expanded programs for nongame fish and wildlife, including S. 1140 and the need to obtain funds for new sources for the programs. Among those offering support were sportsmen's organizations, professional research societies, environmental groups, natural history societies and outing clubs.

#### *Nongame Program Needs*

This expanding citizen interest in fish and wildlife has stimulated wildlife researchers and managers to develop approaches for considering the wide array of species, subspecies, and populations and their habitat needs. Overall magnitude of the task can be grasped by recognizing that there are 3,699 vertebrate species in the United States and an average of 748 species in each state. An average of 125 species per state may be taken legally at prescribed times and places for recreational, commercial or control purposes.

Although the state fish and wildlife agencies have more than \$300 million per year available primarily for fish and wildlife research and management activities, those funds are insufficient to undertake the full range of essential activities for the 125 vertebrate species taken legally per state. In particular, state and federal fish and wildlife agencies continue to lack funds and manpower to evaluate proposed land and water developments at the earliest stages of planning, and to recommend alternatives that minimize and avoid adverse impacts on fish and wildlife populations. This is a serious weakness in a man-dominated landscape.

Lack of site-specific planning and management guidelines has contributed to the demise of fish and wildlife species and populations. Landscape alterations and associated habitat degradations were responsible for 55 percent of 114 species qualifying for official listing as threatened or endangered in the United States in 1976. Both federal and state fish and wildlife agencies are now attempting to rescue these depleted species through appropriate management efforts.

Of the 3,699 U.S. vertebrate species, probably less than 10 percent receive specific management attention. The pressing need is for funds from new sources to help assure that vertebrate populations and habitat requirements are assured. Greater efforts are needed to detect and prevent adverse impacts of habitat modifications and environmental contaminants by providing recommendations and guidelines for a variety of man's activities.

In appraising needs for nongame programs, the states want to give attention to an average of 279 fish and wildlife species in each state. This is more than double the number of species now legally harvested or controlled. The question is, how can the entire spectrum of species in each state be evaluated objectively and be managed effectively without more adequate funding to do the job?

States such as Colorado, California, Washington, Arizona, Montana and New York are moving forward with small initial efforts to define management actions tailored to the needs of species and groups of species requiring similar habitat and survival considerations. This effort is attempted through a sequence of six steps designed to accumulate the essential facts about species and populations not officially classified as threatened and endangered, and not subject to special recovery efforts. A seventh step is used to keep citizens informed of the fish and wildlife program needs and accomplishments. One approach being used is by providing recreational and educational opportunities consistent with tolerance of wildlife populations to human disturbances. The objective is to enhance understanding, appreciation and enjoyment of fish and wildlife populations, the natural and man-dominated units of the landscape they use, and the management actions required to insure their production and survival. Some states have established areas for the public to observe and photograph wildlife. With additional essential funds these efforts can be expanded as described above.

The six steps include actions to:

1. Determine the distribution and relative abundance of all vertebrate species in a state. Information is assembled from a broad spectrum of knowledgeable cooperators on a county, drainage, or latitude-longitude mapping system.
2. Identify which species have the most restricted populations, rigid ecological requirements, and are most vulnerable to water and landscape alterations. Describe habitat preferences for them. Among the most vulnerable habitats are prairie grasslands, aquatic habitats and riparian areas.
3. For those fish and wildlife populations with restricted populations, high vulnerabilities to landscape changes, or both, determine which potentially can respond to management.
4. Conduct research, when needed, on those species identified in Step 3 and develop information to frame specific management guidelines, particularly for uncommon species and populations having the most specialized or restrictive ecological requirements. Species such as cavity nesters and raptors are receiving special attention. Raptors are at the end of food chains and are most

susceptible to biomagnification of environmental contaminants. Cavity nesters require older trees as well as future replacements, which in most situations must be designated for retention to prevent their removal in normal rotational-cutting cycles.

5. Apply management in delineated areas to maintain designated fish and wildlife species and populations and to enhance their habitats. It is at this point of transition from research to practical management where critical decisions must be made on available facts. Should one or more populations of a species be restored and maintained in designated areas of a state? Colorado, for example, answered this for the grizzly bear and gray wolf. Neither species will be restored to that state because of its conflicts with human activities.

6. Use recommended management practices for fish and wildlife populations in landscape-disturbing activities carried out by all state and local agencies, as well as by many private developers and land and water managers. These actions should be designed to prevent adverse impacts on critical fish and wildlife habitats and populations.

Cliches such as "good timber or land management is good wildlife management," are simply inadequate and misleading. The Fish and Wildlife Coordination Act and the National Environmental Policy Act require evaluation of environmental impacts, including effects on fish and wildlife, of federally financed projects. Alternatives must be identified for avoiding and minimizing adverse impacts on public resources, such as fish and wildlife, held in trust for the public. We need to examine vegetative communities, food webs, and functional relationships of ecosystems.

A recent significant breakthrough in defining habitat requirements of wildlife in practical management terms occurred in the Pacific Northwest. Wildlife-timber relationships were modeled in a framework that foresters can readily relate to timber-management activities. All vertebrates (263 birds, 90 mammals, and 26 amphibians and reptiles) in the Blue Mountain area were divided into 16 life forms based on a combination of requirements for reproductive sites and feeding habitats. This pioneering system gives predicted responses of all vertebrates in the 16 life forms to vegetative community and successional stage of the habitat. It emphasizes relationships that say "if you do this, you may expect that . . ."

It is this type of information—specific to vegetative communities, land management activities associated with advancing or retarding plant succession, and habitat requirements of functional groups of wildlife species—that holds promise for improved understanding and management of the full spectrum of vertebrates.

At the federal level, agencies with responsibilities for fish and wildlife also do not have adequate funds to accumulate basic ecological information and carry out management for a variety of species and populations. One example illustrates the pressing need. The U.S. Fish and Wildlife Service, in combination with the International Association of Fish and Wildlife Agencies, has estimated an immediate annual need of \$1.3 million to gather information and improve management for shorebirds and upland migratory gamebirds. The \$250,000 per year allotted by Congress, although helpful, is not meeting all needs. In fact, an 80 percent increase now is required to maintain the purchasing power of the \$250,000 first made available in 1967.

## Vertebrate Species Occurring in the U.S.

Vertebrates	Number of Species			
	U.S.	Avg. Per State	Avg. Per State Taken Legally	Avg. Per State To Benefit From Nongame Programs
Birds	780	333	36	137
Mammals	400	80	21	31
Fish	2,080	255	59	77
Reptiles	265	49	6	20
Amphibians	174	31	3	14
Total	3,699	748	125	279

Data provided by U.S. Fish and Wildlife Service.

Nearly all of the 64 North American species of shorebirds use estuarine habitats some time during their annual life cycles. These areas are being heavily impacted by pollutants, channelization, dredging, filling and other human activities. Accelerated research and management of these coastal aquatic areas and populations of shorebirds is needed to frame practical guidelines for developments that assure perpetuation of habitats for a broad array of fish and wildlife populations, including shorebirds.

Broad citizen interest and support prevail for these new expanded research and management efforts. But significantly more funds are required to support them and permit accelerated accumulation and application of essential information in order to register accomplishments. Initial estimates by the Wildlife Management Institute for the nongame state federal-aid grant program were for \$40 million per year. This committee believes a sum of this general magnitude is needed now to focus on the 279 of 748 vertebrate species found, on the average, in each state.

This committee strongly recommends that efforts be continued to seek authorization of the proposed Federal Aid In Nongame Fish and Wildlife Act to bolster state programs. Likewise, federal fish and wildlife programs should be upgraded simultaneously as specific needs are identified. We invite and urge all individuals and groups to lend support to these concerted efforts to strengthen programs for vertebrate fish and wildlife, especially nongame.

We believe enactment should be sought in memory and honor of Ira N. Gabrielson, who dealt with the full spectrum of wildlife throughout his life. Those funds could be used to help forge the joint efforts required to advance scientific wildlife management.

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Laurence R. Jahn  
Chairman

STATEMENT OF WILLIAM G. WAGNER  
VICE-PRESIDENT  
WAGNER BROS. FEED CORPORATION  
BEFORE THE  
SENATE SUBCOMMITTEE ON RESOURCE PROTECTION  
ON  
S. 2181  
February 4, 1980

Mr. Chairman, my name is William G. Wagner, Vice President of Wagner Bros. Feed Corporation, the largest producer of mixed wild bird seed in the United States. While our company has always supported and continues to support non-game conservation and management programs, we are opposed to the imposition of an 11% excise tax on wild bird seed mixtures to fund the proposed non-game program. We strongly believe that the 11% excise tax on wild bird seed mixtures and bird feeders will provide neither an adequate nor reliable source of funding. Further, the proposed excise tax would be inequitable and potentially disastrous to the wild bird seed industry. Imposition of the tax would also be counter productive to the goals of many of the non-game program sponsors by actually reducing the amount of mixed bird seed purchased for backyard feeders.

Wagner Bros. Feed Corporation is the largest producer of mixed wild bird seed in the United States. Since 1894, Wagner Bros. has been a family owned and operated business, selling nationally with six packing plants and a large number of warehouses throughout the United States. Currently, Wagner Bros. operates mixing plants in Oakes, North Dakota, Hatton, North Dakota, Ludden, North Dakota, Flagler, Colorado, Milford, Illinois, and Wellington, Ohio. Our

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headquarters are located in Farmingdale, New York. We employ 100 full time employees and up to 300 part time, depending upon the season. Further, we purchase ingredient seeds including millet, milo, and sun flower seeds in over ten states.

Our reasons for opposing the imposition of the 11% excise tax on mixed wild bird seed to fund the non-game program are as follows:

1) The excise tax will not provide an adequate or reliable source of funding.

2) We estimate that the mixed wild bird seed industry at the producer level represents between \$30-35 million per year. The 11% tax would therefore produce at most between \$3.3 to \$3.8 million per year.

3) Sales of mixed bird seed are highly volatile based upon weather conditions and the price of ingredient commodities such as millet, milo, and sun flower seeds. Industrywide sales of mixed bird seed have declined the past two years by approximately 15%. Imposition of the tax will force many producers to shift from mixed bird seed to the sale of only milo, millet, sun flower seeds, or cracked corn. Sale of the individual commodities would not be subject to the tax.

4) Imposition of the tax will raise the retail price of mixed bird seed thereby reducing sales. This will weaken and/or destroy our small industry, discourage backyard feeding of song birds, and reduce the tax base.

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5) Imposition of the 11% excise tax will have an adverse effect on the farmers' sales of millet, milo, and sun flower seeds.

6) Imposition of the excise tax would be inequitable to the mixed bird seed industry, would be difficult to collect, and would not benefit the industry.

7) The proposed non-game program would benefit all non-game species; seed eating song birds fed by backyard feeders represent only a small percentage of song birds, which represent only a small fraction of non-game species. It would be unfair to fund the broad non-game program based on the purchases of a small number of backyard feeders.

8) The proposed excise tax on bird seed is different from the taxes imposed under the Dingle-Johnson and Pittman-Robertson Acts.

9) Senior citizens on fixed incomes are the largest purchasing group of mixed wild bird seed and therefore would be the hardest hit by the proposed excise tax.

10) The proposed 11% excise tax would be highly inflationary and beyond the President's price guidelines.

11) The general public is the primary beneficiary of the proposed non-game program, not the backyard bird feeder. The proposed program should be funded out of general revenues during the early stages in order that the true needs of the state agencies can be determined. General appropriation funding would also enable Congress to monitor the progress of the program and provide necessary oversight.

12) The House of Representatives rejected the excise tax. The Constitution requires revenue legislation to originate in the House.

The Proposed Excise Tax Will Not  
Provide an Adequate or Reliable  
Source of Funding.

Sponsors and proponents of the non-game bill argue that an adequate and reliable source of funding is needed to enable the state agencies to estimate available funds from year to year. In response to a recent U.S. Fish and Wildlife Service survey, the states estimated their non-game related needs for the period 1978-1983 to be nearly \$100 million or in excess of \$16 million per year. Other groups, including many represented at the hearing today, have suggested that over \$30 million and up to \$50 million may be required per year to adequately fund state programs.

The mixed wild bird seed industry is a small, marginal, and declining industry which is unable to provide either an adequate or reliable source of funding for the proposed non-game program. The vast majority of wild bird seed mixers are small wholesale and retail feed and seed dealers, and grain elevator operators. We estimate that the top ten to fifteen producers of mixed bird seed account for only 50-60% of total production.

The proposed excise tax would apply only to mixed bird seed. Although the mixed bird seed industry is not well organized, we estimate that at the producer level, the industry accounts for up to 400 million pounds of seed a year. Production has been declining by 15% over the past two years, and currently is below 400 million pounds. This figure excludes the sale of sun flower seeds, milo, and millet sold as such. At an average price of approximately 9 cents per pound at the producer level, this translates into between \$30 and

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\$36 million per year.<sup>1/</sup> Weather conditions and the base price of milo, millet, and sunflower seeds affect the sales volume of mixed bird seed.

Representatives of a number of wildlife and conservation groups have wildly overestimated the size of the mixed bird seed industry. For example, Michael Zagata, Director of Federal Relations for the National Audubon Society suggested during the hearing on H.R. 3292 that \$400 million of birdseed alone is sold. Such an estimate is grossly inaccurate.

The estimate contained in the Payne/DeGraaf Report, relied upon by many advocates of the proposed excise tax, is also inaccurate. First, their conclusion that one out of every five households purchases an average of 60 pounds of bird seed per year (900 million pounds), overstates the size of the market. Their sources focused primarily on states that have a tradition of heavy feeding of birds and thus does not accurately reflect a national average. Second, the Payne/DeGraaf Report estimate of \$170 million per year is at the retail level. This figure thus must be reduced at least 50% to reflect the producer level price. Finally, the estimate apparently focuses on all bird seed purchased and consumed annually, including sunflower

<sup>1/</sup> These production and sales data are supported by a market survey conducted in 1977 by a feed/seed company about to enter the mixed wild bird seed industry. These figures indicate that the mixed wild bird seed industry is 360 million pounds a year. A 1972 National Family Opinion survey estimated the wild bird food market (including straight sunflower seeds and millet) to be 388,795,000 pounds. Philip Agee, Acting Associate Director for Federal Assistance, U.S. Fish and Wildlife Service, Department of Interior, during hearings on H.R. 3292, correctly estimated the size of the industry as being between \$20 and \$40 million.

seeds, milo, and millet sold separately. Since only mixed bird seed would be taxed under the proposal, the Payne/DeGraaf estimate must be reduced further. As stated previously, the most reliable and realistic estimate of the mixed bird seed industry at the producer level is that annual sales are between \$30 and \$36 million per year.

Alternatives to Mixed Bird Seed  
Would Erode the Tax Base and  
Adversely Affect the Industry.

Because the proposed excise tax would apply only to mixed bird seed, many producers may decide to shift to selling separate packages of millet, milo, sunflower seeds, or cracked corn. This would erode the potential tax base for funding the program and adversely affect those few companies whose business is predominantly the sale of mixed bird seed.

The Excise Tax Would Erode the  
Retail Market for Mixed Birdseed.

An 11% excise tax on the sale of mixed bird seed will translate into at least an 11% increase in the retail price of the product. Since mixed bird seed is a non-essential item, the increase in price will clearly reduce retail sales. The demand for mixed bird seed is price sensitive. Because mixed bird seed sales increase when the price is reduced, it is clear that a price increase will result in reduced sales. Mixed wild bird seed is sold primarily through retail food stores. Accordingly, this product is already competing for the shrinking consumer food dollar. Since purchases of mixed bird seed are from the consumers' discretionary income, a price increase will reduce sales. Further, as sales of mixed bird

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seed decline, retail supermarkets will allocate less space to the product, thereby further reducing the sales to backyard feeders. Reduced sales of mixed bird seed will inevitably hurt those seed eating song birds which rely on backyard feeding programs.

The Excise Tax Will Destroy the  
Already Weak and Marginal Mixed  
Bird Seed Industry.

The vast majority of producers of mixed bird seed are small businessmen, grain elevator operators, and small wholesale and retail feed/seed dealers. The producers profit margin on the sale of mixed bird seed is small, and the increased price for this product and resulting reduced sales will destroy many of the marginal companies in the industry.

The General Public is the Primary  
Beneficiary of the Non-Game Program,  
Not the Backyard Bird Feeder.

"Seed eating" song birds represent only an extremely small segment of the song bird population. We estimate that only 25-30 species of birds can be attracted to bird feeders. A tax on the suppliers of bird seed and bird feeders for these 30 species would be utilized to fund the entire non-game program which is designed to conserve and manage over 600 species of non-game birds as well as 2900 species of other non-game wildlife. A tax on mixed bird seed and bird feeders would thus provide an extremely narrow base for the funding of the total program. The full burden for funding the extensive non-game program envisioned in the legislation would unfairly fall on the backyard bird feeder. In prior years, proponents of the excise

tax focused on a much broader base for funding the program. Previously included were spotting scopes, binoculars, wildlife publications, photographic equipment, fur clothing, back packing and camping equipment, off-road vehicles, and entrance fees to wildlife refuges. It is unfair and inequitable to place the burden on the bird seed and bird feeder industries which are already contributing substantially to conservation.

It should be emphasized that under the proposed excise tax, those funding the program would not be the primary beneficiaries. The tax would be imposed on producers of mixed bird seed, bird feeders, bird houses, and bird baths, and passed on for ultimate payment by the backyard bird feeder. We fail to see how the backyard feeder or bird watcher would benefit at all from the proposed non-game program. Funds would be spent on all non-game species with little or no emphasis on the thirty non-game species which can be attracted by backyard feeders. The real benefactor of the proposed non-game program is the general public and the "birder." "Birders" are defined as those who watch birds and keep an accurate list of all species. Birders are not the principle purchasers of bird seed and represent only a small fraction of the total market.

The Proposed Excise Tax is Both  
Philosophically and Logically  
Different from the Game Conser-  
vation Funding Programs.

Current game conservation programs are funded through an excise tax on hunting equipment, ammunition, and fishing gear. These

taxes imposed under the Dingle-Johnson and Pittman-Robertson Acts are clearly consumption oriented, taxing those individuals who directly benefit from the game program. One of the arguments in support of the non-game program is that funds collected under Dingle-Johnson and Pittman-Robertson are used almost exclusively for game purposes, leaving nothing for non-game. The reason for this was described by Mr. Zagata as follows:

The problem can be a political rather than a biological one, and that is that sportsmen feel that they have contributed the money, and therefore, should have a priority in terms of its usage. If the money has not been adequate to meet all the needs of game species alone, it would be very difficult to justify taking very much of that money and expending it on non-game, because you are taking it away from a constituency that is putting out the money.

We question whether any of the funds collected for non-game under the proposed tax will be utilized to benefit our industry or the backyard feeder.

Mixed bird seed producers and backyard feeders are not consuming or commercially exploiting non-game species, nor adversely affecting these species. Rather, they are already doing more than their share in the conservation effort. Because the investment in commencing a backyard bird feeding program is so small, many individuals will simply quit or restrict purchases in response to the price hike. It would be inequitable and unfair to tax our company and the backyard bird feeder as the basis for funding a non-game program, not directed at our interests. Further, increased prices of mixed bird seed and reduced sales will adversely affect the seed eating backyard bird.

- 10 -

Senior Citizens on Fixed Incomes  
Would be Disproportionately Taxed  
to Fund the Program.

Nearly 50% of those who purchase mixed bird seed and bird feeders are over the age of 56. Many of these individuals are already on fixed incomes and will be unable to continue current purchases of bird seed if the price is increased up to 11% at retail. Accordingly, those who are least able to fund the program will be taxed the greatest. Arguments that the demand for bird seed is inelastic ignore economic realities. Higher prices will clearly discourage purchasers with marginal interests.

Alternatives.

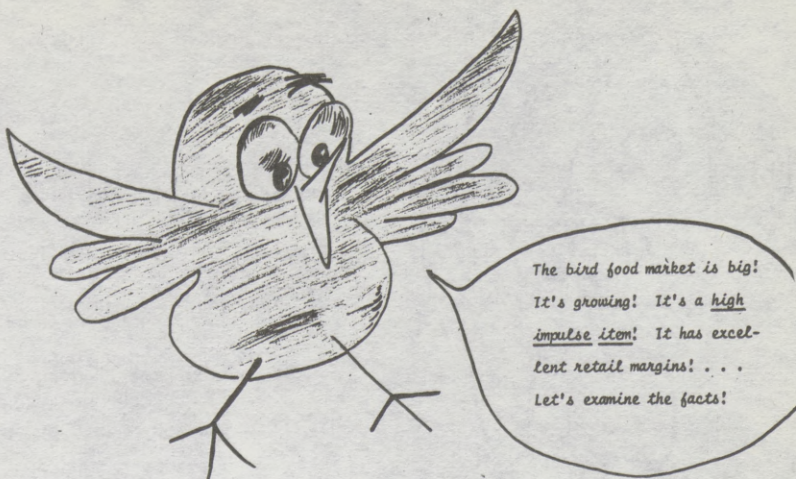
We have not come here today devoid of what we believe to be viable alternatives to the proposed excise tax. First, the fairest and most just approach would be to fund the proposed program out of general revenues. Wagner Bros. supports the approach adopted by the House of Representatives which recently passed H.R. 3292. Since the proposed programs will benefit each and every man, woman, and child in the United States, it is only fair and appropriate that it be funded out of general revenues. This approach has been endorsed by the Administration and the Committee for Humane Legislation. Further, the appropriations process will enable Congress to monitor, and if necessary adjust, the extent and scope of these programs. In these times of great inflation, it appears reasonable to have some form of oversight.

- 11 -

Second, consider an excise tax on all dues paid to national and state wildlife and conservation groups. This industry surely is as large as the bird seed and bird feeder industries and therefore just as capable of supporting the proposed non-game programs. And, its leaders contend that their membership have always been anxious to support financially what they believe in. We realize such a tax would discourage membership in these worthwhile organizations just as it would stifle our sales.

When all is said and done, it appears the only fair and realistic approach is general funding.

We appreciate this opportunity to present our views.  
Thank you.



The bird food market is big!  
 It's growing! It's a high  
impulse item! It has excel-  
 lent retail margins! . . .  
 Let's examine the facts!

Findings based on recent NFO (National Family Opinion)  
 survey taken among 10,000 households:

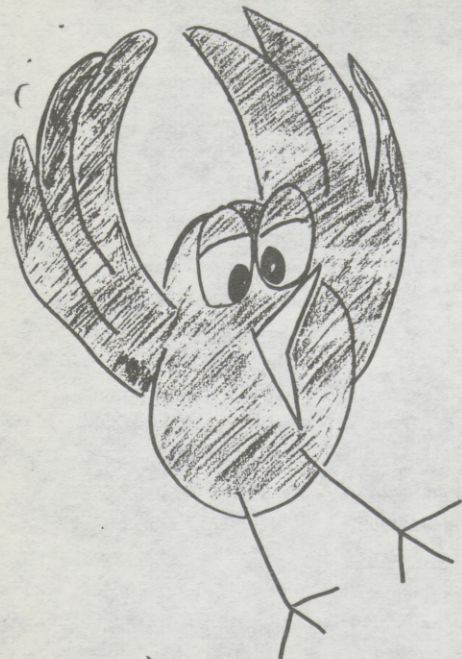
SIZE OF MARKET

388,795,000 lbs. . . . and growing!

\$52,400,000 in Retail Sales!

Today's Wild Bird Food market is LARGER than these  
 grocery items, which few stores are without:

Popcorn	\$22,860,000
Cocoa	36,330,000
Condensed Milk	13,800,000
Pepper	43,710,000
Salt	44,150,000
Vinegar	14,920,000
Relishes & Mixed Pickles	32,400,000
Instant Potatoes	25,320,000
Dry Milk Powders	50,580,000
Soup Mixes	43,610,000
Toys	36,700,000



The National Family Opinion survey of 10,000 households says:

88,256,465 pounds are being sold in March, April, and May!

34,213,960 pounds are being sold in June, July, and August!

95,254,775 pounds are being sold in September, October, and November!

171,069,800 pounds are being sold in December, January, and February!

#### WHERE IT'S SOLD

Grocery Stores	61%
Hardware	5%
Garden Supply	14%
Discount Stores	8%
Feed Stores	6%
All Other	6%

#### WHO BUYS BIRD FOOD?

One out of every five families now purchase Wild Bird Foods!!

#### HOW MUCH??

An average family buys 34.8# of bird food per year. This compares with 56# of family flour per year.

STATEMENT OF DONALD B. HYDE, JR.  
PRESIDENT  
HYDE INCORPORATED  
BEFORE THE  
SENATE SUBCOMMITTEE ON RESOURCE PROTECTION  
ON  
S. 2181

February 4, 1980 .

Mr. Chairman, my name is Donald B. Hyde, Jr., President of Hyde Incorporated, a small manufacturing firm located in Waltham, Massachusetts. Hyde is a family owned and operated manufacturing facility employing between 20-45 persons depending on the season. We are one of the largest commercial producers of bird feeders in the U.S. The company is primarily a wood working operation engaged in making wild bird feeders, planters, window boxes and to a lesser degree, bird houses and mixed suet and seed bird foods.

I welcome this opportunity to appear before the Senate Subcommittee on Resource Protection to present my views on S. 2181. In general, I have always been and continue to be an avid supporter of non-game conservation and management programs. In this regard, I support the intent and purpose of S. 2181 in that it is designed to assist in non-game preservation and management. However, I strenuously object to the imposition of an 11% excise tax on bird feeders, bird baths, and bird houses as a means of funding this program. I am convinced that the proposed excise tax will provide neither an adequate nor reliable source of funding for the program.

- 2 -

The 11% tax which will eventually be paid by the consumer exceeds the 8% anti-inflation guidelines. Further, the imposition of the excise tax will weaken my business as well as have an adverse effect on the seed eating backyard song birds.

Let's divide the bird feeder manufacturers into two groups based upon raw materials utilized. One group, including Hyde's, uses primarily forest products such as wood. The second group makes their feeders primarily from plastic. The "industry," if you can call it that, of wooden bird feeder manufacturers is a classic example of a "cottage" industry except that the products produced in the "cottage" are almost always marketed by the producer. I live in Stow, Massachusetts, a small town 25 miles northwest of Boston. There are two producers of wild bird houses and feeders in Stow. The first has a large barn where he is the only laborer. The barn and adjacent yard are covered with bird houses and feeders for sale. The second is a larger operation conducted by a full time fireman in his "spare time" and his family of four sons who work part time. Each Monday, this entrepreneur will load his stationwagon and supply, for cash, a small number of lawn and garden and hardware stores with his previous week's production. Every major market for bird feeders and bird houses, be it Rochester, New York or Rockford, Illinois, has a similar operation. This type of operation has a decided market advantage over the dozen or so small factory operations such as ours. The cottage operator does not pay minimum wage, nor overhead other than additional electricity to run a table saw and has no packaging costs. It will be difficult if not impossible for the Internal Revenue Service to identify these individuals and collect the tax. In addition, these small operators, as well as

companies like Hyde, do not have the recordkeeping capacity to identify which products are covered by the tax and which are not. If the small operators are not taxed, the entire burden of the tax would be placed on the small manufacturers such as Hyde putting us at an even further competitive disadvantage.

I have not mentioned the Boy Scout Troups, Handicapped Workshops, Junior Achievement Groups, or Wildlife Organizations which also produce and sell a large number of bird feeders and houses. It appears quite unlikely that the tax will be applied to these organizations.

In the past twelve years, we have increased our retail prices far more than they were increased in the previous twenty-five years. We have developed a history as to the effect of the price increase on our product sales. And believe me, it is definitely a NEGATIVE effect. According to our figures, if we raise the price of our product 10%, our unit sales will drop at least 10%. Accordingly, there is no doubt in my mind that an 11% tax will cause a substantial drop in sales.

The 1975 "Payne Report" which has been bandied around at length, estimates that retail sales of bird feeders and bird houses is approximately \$15 million. I believe this figure is close to accurate. But remember this is at retail. The proposed 11% excise tax is proposed at the producer or manufacturer level which would result in a tax base well under \$8 million, producing less than \$.9 million in tax revenues.

I believe the excise tax, if imposed, would be grossly unfair, particularly to elderly citizens on fixed incomes. We maintain a small retail operation adjacent to our office that sells "factory seconds" at 1/2 price. The vast majority of our customers, probably 75% or greater, are over the age of 56. At least one half of these, familiar local citizens, are retired and on fixed incomes. Based on this small sampling, the tax would be paid by a segment of the population least able to spare the income.

Our products are distributed in what economists refer to as "a three step method;" manufacturer to wholesaler to dealer to consumer. The discount structures are clearly defined with the result that an item for which we receive \$3.80 is eventually sold to the consumer for \$10.00. The proposed 11% tax would add approximately 40 cents to our selling price, but this would result in the consumer paying an additional \$1.10. Our past experience with price increases, particularly those caused by increases in raw materials, suggests that a price increase of this magnitude would significantly reduce our sales. It must be remembered that many consumers faced with rising prices, will turn to homemade devices for feeding birds.

At this point, I think we should try to establish who are the "bird watchers" and who are the "bird feeders." There are literally thousands of apartment and condominium dwellers who watch, but never feed, birds. On weekends or during Spring migrations, many of these individuals grab their binoculars and set off "birding." My late mother was an avid birder, but because of her lifestyle, she did not choose to be tied down to the responsibility of feeding birds in her large well-manicured suburban yard. I would estimate that only

60% of bird watchers are also bird feeders. Why should the bird feeders be singled out to undertake the complete funding of the massive non-game program proposed in S. 2181.

Last week I conducted a simple phone poll of three friends who are recognized conservationists concerning those species which frequent bird feeders, bird houses, and bird baths. The three individuals were Alan Morgan, Senior Vice-President of the Massachusetts Audubon Society; George Harrison, Roving Editor for National Wildlife and Author of the Backyard Bird Watcher; and Elbridge Freeborn, a retired Executive Vice-President of an Atlanta Seed Company and an active member of the Atlanta Bird Club. I asked three questions; 1) How many different species of birds will regularly frequent a bird feeder to eat plain or mixed seeds? 2) How many additional species will nest in a man made bird house? and 3) How many additional species will be attracted to a bird bath including those which might stop twice a year during migration? The answers were revealing. First, between 15 and 27 species will frequent a bird feeder depending on the geographic area. To the second question, approximately 12 additional species would frequent a bird house and to the third question, between 10 and 20 species would stop off in a bird bath. Adopting the higher numbers for the purposes of this discussion, it appears that a total of 59 species can be attracted by man-made devices. In the Report accompanying the House version of this legislation (H.R. 3292), the U.S. Fish and Wildlife lists 608 non-game species of birds. Thus, a tax on products aimed at supporting 60 species is designed to support research for over 600 species of

birds. Further, the bill is not limited to birds -- it includes 3700 species of birds, mammals, fish, reptiles, and amphibians, of which 2900 are non-game. The concept implied here is clearly unprecedented. In Pittman-Robertson and Dingle-Johnson, the funds went directly to support research on species that generated the funds. In no way will a research program based on 2900 species have any but the most minute effect on the 60 species that the payers of the proposed tax wish to attract to their backyards. This approach is grossly unfair. Clearly the general public is the primary beneficiary of any non-game program and should underwrite its expense.

I feel I should offer some alternatives:

1) What about a tax on containers - a federal bottle or container bill. One state is already doing it funding non-game wildlife.

2) How about a tax on pesticides which are known to be extremely detrimental to many non-game species. This is a mammoth industry quite capable of supporting non-game programs with little or no adverse consequences to its members. However, I don't think any specific excise tax to fund non-game would be fair or equitable.

3) Finally, how about an 11% excise tax on all dues paid to national and state wildlife and conservation groups. I am a member of three groups - Massachusetts Audubon Society, National Audubon Society, and National Wildlife Federation. The dues collected by these three groups above amounts to at least \$16 million annually and there are many more such groups. This industry is surely as large as the birdseed and bird feeder industries. I personally would endorse

such a tax on my dues to pay for non-game programs. I'm sure this suggestion will be opposed because the conservation groups know what would happen to their revenues with an 11% increase just as sure as I know what will happen to my sales.

We are clearly already doing our part to support non-game conservation and management and object to being singled out as a proposed underwriter of legislative programs designed to benefit the general public.

The only fair alternative is general revenue funding. Let the Congress provide the funds for an initial program to identify those non-game species which require assistance. General appropriations funding permits the Congress to consider and review the appropriateness of any program and to allocate the funds necessary for its effective operation. I am fully aware of the problem of getting new revenues from general appropriations. Sure it would mean a hard selling job, but if the program is worth it, the public would force the administration and the Congress to support the legislation. If the proposed research on non-game wildlife will benefit every man, woman, and child in the United States to the extent that the proponents would have us believe, then every man, woman, and child should support the program.

Thank you for this opportunity to present my views.



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Statement  
of  
Charles L. Boothby, Executive Secretary  
National Association of Conservation Districts  
on  
S. 2181, Fish and Wildlife Conservation Act of 1980  
before the  
Subcommittee on Resource Protection  
Environment and Public Works Committee  
United States Senate  
February 4, 1980

Mr. Chairman, members of the Committee, I am Charles Boothby, Executive Secretary, National Association of Conservation Districts. Our association represents the nearly 3000 local conservation districts in all 50 states, Puerto Rico, and the Virgin Islands. Conservation districts are responsible, under state laws, for developing and carrying out programs for the conservation, utilization, and development of the soil, water, and related resources within their boundaries. Districts are managed by over 17,000 elected or appointed public officials and serve over 2 1/2 million cooperating landowners.

NACD policy is developed by consensus. To be considered by the NACD Council, a new policy must be proposed by a state association of conservation districts or by one of our seven regional meetings. Present NACD policy states in part;

Fish and wildlife are important natural resources and are necessary elements in the ecological system. They contribute to the quality of the human environment and have both monetary and esthetic values. In a balanced program of resource conservation and development, we support efforts to provide adequate food, cover and water of suitable quantity and quality for fish and wildlife.

National Association of Conservation Districts  
Rm. 1105, 1025 Vermont Ave., N.W., Washington, D.C. 20005  
(202) 347-5995

We recognize that most of the wildlife in the United States is propagated and feeds on the privately-owned farm and ranch lands of our country. It is a matter of record that conservation work carried forward in conservation districts has been of tremendous benefit to the protection and propagation of wildlife. We encourage district officials and all agencies associated with districts to help everyone understand that we can have both efficient farming and wildlife improvements.

Based on this established policy, NACD wishes to support the basic concepts of S. 2181. This bill provides the framework for the planning and ultimate improved management of the non-game fish and wildlife resources of the various states.

There are a few provisions of the bill, however, which we would like to bring to your attention, primarily for the purpose of clarification.

Section 2, para 5, ends with the phrase, "in urban and nonurban areas." This language appears to be superfluous. We would recommend that the sentence end with the word state.

Section 3, para 3, in the definition of conservation, does not include language which specifies habitat management. In our opinion, one of the most important activities in the management of wildlife species is the activity of habitat management. We believe this activity is much more important, and definitely more acceptable to the general public, than habitat acquisition. Therefore, we recommend the inclusion of the term "habitat management" in the list of measures illustrating scientific resources management.

Additionally, on line 8, page 4, there should be a comma between census and law enforcement.

Section 4, conservation plans. Over 2/3 of the land in this nation is owned by private landowners. This private land is the habitat of most wildlife species, both game and non-game species. In our opinion the most effective way of managing the non-game species is to manage the habitat upon which the species depends. This will require working with the owners of this habitat, the private landowner.

We recommend that management plans should include plans for providing technical assistance to landowners to assist them in the management of habitat. We submit that conservation districts already have the necessary institutional arrangements to accomplish this task through existing cooperative agreements with landowners. Therefore, we believe that conservation plans prescribed under this subsection should, "provide for assisting private landowners with habitat management plans through conservation districts." Such language should be included as a new paragraph between the present paragraphs (5) and (6) on page 7.

Section 4, paragraph (10) on page 7 requires the designated state agency to consult with federal and other state agencies during development, revision, and implementation of the plan. Because of the ongoing work already being done by conservation districts we recommend that line 17 on page 7 be revised to read, other state and local agencies....

The reimbursement limitations on pages 12 through 16 appear to be extremely complicated. As I read this section, it appears that at least 90% of the state's portion of the cost of the implementation of a conservation plan must come from state General Fund revenues, as opposed to license sales or fines. Further, no more than 25% of the money spent for implementation can be used for law enforcement and educational purposes. Although we have no position on how much of the money should be used for law enforcement, we believe the funds for extension and technical assistance should not be so limited. Again, we believe that the key to accomplishment in this program will be to work with individual landowners on habitat management.

Section 6 (4)(B), lines 5 through 8, gives the Secretary of the Interior authority over the qualifications of volunteers if the work of volunteers is to be counted as in-kind contribution. From my experience, one accepts volunteers from any source that one can find. Then you give them a job that they can handle. We cannot support this provision of the bill.

Section 8, paragraphs (3)(A) and (B) outlines a funding formula based on land area and population of people. It does not relate to the productivity of the land to support wildlife species. We have no magic formula to suggest to accomplish this, however.

There are many persons who will have reservations about this program because they will not want to authorize any new program which will give states additional reasons for acquiring additional lands. If this issue becomes evident as a result of this hearing, the matter could be addressed in Section 6 by including the following language: None of the funds allocated to the states under this act may be used for the purchase of land or interests therein. This language would limit the use of federal funds but would not preclude the use of state funds for that purpose.

The Authorizations of Appropriations in Section 11 calls for appropriations in 1980, 1981, and 1982. In light of the fact that FY 1980 is already 1/3 gone, we recommend that the years listed on line 16, page 20 be changed to read 1981, 1982, and 1983.

Our association has no position on the proposed excise tax on wild bird supplies. However, I do wish to bring to your attention some problems which we foresee with this approach. Many feed mixtures for domestic poultry are a good substitute for commercial seed mixtures designed for feeding wild birds. If the tax raises the price very much, many persons will switch to other sources of bird food. Additionally, many craftsmen produce small numbers of bird houses and bird feeders as a hobby and for incidental sales. The collection of the tax, keeping records, and remitting the tax could become an onerous burden on these craftsmen. The result would be: a) ignore the law, or b) go out of business. May we suggest that if you feel that the tax is necessary, it be limited to those manufacturers of over 25 or 30 units per year.

Thank you for this opportunity to present the views of this association. We will be glad to answer any questions you may have.

Promotes the Conservation, Development and Wise Utilization of the Fisheries



*American Fisheries Society*

ORGANIZED 1870 | INCORPORATED 1910

JAN 28 1980

RICHARD H. STROUD  
PRESIDENT 1979-1980CARL R. SULLIVAN  
EXECUTIVE DIRECTORROBERT L. KENDALL  
EDITOR

January 23, 1980

The Honorable John H. Chafee  
Subcommittee on Resource Protection  
U.S. Senate  
Room 4204, Dirksen Senate Office Building  
Washington, D.C. 20510

Dear Senator Chafee:

The American Fisheries Society is the professional organization of North American fisheries scientists. We have been actively involved with aquatic resource issues for well over 100 years. At the Society's 1979 Annual Meeting the following resolution was introduced, debated, and approved by the membership. I am pleased to bring this matter to your attention and respectfully ask that it become a part of the hearing record in support of S.2181.

**RESOLUTION - A FEDERAL NONGAME FISH AND WILDLIFE RESTORATION ACT**

WHEREAS, Nongame fish and wildlife populations have important, social, economic, educational, research, aesthetic, recreational, and ecological values and protection, and realization of these values can be achieved only through strong and sustained conservation and restoration programs; and

WHEREAS, Conservation and restoration programs for nongame fish and wildlife are restricted by the absence of technical information and by the level of financial support presently available; and

WHEREAS, A federal nongame fish and wildlife restoration act designed to function through the states and funded on a sound and continuing basis will be the most effective approach to developing and implementing conservation and restoration programs:

NOW, THEREFORE, BE IT RESOLVED, That the American Fisheries Society, assembled at its 109th annual meeting in West Yellowstone, Montana, September 14, 1979, hereby urge the United States Government to take appropriate action to assure passage and implementation of a federal non-game fish and wildlife restoration act as early as possible.

Sincerely,

Carl R. Sullivan  
Executive Director

CRS/twb

*Bright  
Industries*

215/844-6232

• • • • 4123 STATION STREET  
PHILADELPHIA, PA. 19127

January 29, 1980

Mr. James D. Range  
Minority Council for Senate  
Environment and Public Works Committee  
Room 4202  
Dirkson Senate Office Bldg.  
Wash., D.C. 20510

Dear Mr. Range:

On behalf of my company, I would like to express my utmost opposition to the proposed tax on manufacturers to support research on non-game wild life for the following reasons:

- 1) We are a small family business employing about 25 people. We manufacture redwood wild bird feeders. Over the past several years our sales have fallen in direct proportion to the rising sales prices of our products. Due to conservationist efforts, our basic raw material, redwood, has doubled in price over the last 5 years. The proposed tax would have to be passed on directly to the consumer, and would therefore again cause a decrease in sales.
- 2) About 80% of the users of our products are over 50 and on fixed incomes. These people are not in a position to pay the increase in product costs that would be caused by the proposed tax.
- 3) The research to be supported by the proposed tax would provide little or no benefit to our business. The wildlife with which we are concerned represent less than 10% of the targeted research.
- 4) Enforcement could not possibly be fairly administered. The largest group of competitors for businesses like ours, is the scout groups, retired persons, backyard builders, etc. While we in interstate commerce are highly visible, the others would be completely overlooked.
- 5) Any tax base provided would be highly unstable. We have considerable business fluctuations based on the amount of annual snowfall.

In short, the proposed tax has all the potential for destroying our family business and the jobs of the 25 people we employ.

Thank you for your consideration.

Sincerely,

*Alan B. Lesser*  
Alan B. Lesser  
President

ABL:pm



## THE BROWN COMPANY

Yawgoo Pond Road, West Kingston, Rhode Island 02892

Mail: P.O. Box 451

Telephone: 401-789-9384

January 30, 1980

Mr. James D. Range  
 Minority Council For Senate  
 Environment & Public Work Committee  
 Romm 4202  
 Dirkson Center Office Building  
 Washington, D.C. 20510

Dear Mr. Range:

I am writing to you concerning the proposed excise tax on bird feeders to raise funds to support non-game wildlife research and development.

As a wholesaler/manufacturer of bird feeders, I am opposed for the following reasons;

1. It is estimated that total sales of bird feeders is approximately 5M dollars. No one company dominates and therefore it is comprised of many "small businesses". Further it is a seasonal business and might well be considered a luxury item. I feel any general rise in prices would discourage sales dramatically.

2. By our records a great majority of sales are to women and the elderly. Therefore this tax would be discriminatory and in particular be an unfair burden on the elderly.

3. I don't understand what benefit these revenues will have to the individual concerning bird feeding. Historically 80% of the bird feeders are sold in less than 25% of the country. Would this revenue be disbursed accordingly?

4. It has been a tradition in many parts of the country for the elderly and retired to manufacture and sell bird feeders as a "cottage industry". I would hazard a guess that 15% to 20% of the bird feeders sold are from this source and would question the government's ability to police the collection of another tax on these individuals.

Finally in these inflationary times and generally agreed overburdening of taxes and paper work on the small business of this country, I am opposed to this bill. If there is a necessity for funds for non-game wildlife research, protection, etc., I am of the opinion that a broader base be examined to support any program.

Respectfully,

Arthur C. Brown  
 President

ACB/lp  
 cc: Senator John Chafee

# CRAFTY Ideals

WH 3-9111—HA 1-2228

1505 BEAUMONT ST. DALLAS, TEXAS 75215

January 28, 1980

Mr. James D. Range  
Minority Council  
Senate Environment & Public Works Committee  
Room 4202  
Dirken Senate Office Building  
Washington, D. C. 20510

Dear Mr. Range:

We would like to make known our opposition to Senate Bill  
# S-2181.

We are in the business of manufacturing wild bird feeders and houses and have always felt that we were contributing to the preservation of wild birds in this country. We feel that individual participation is a better method of preservation of wild birds. With the passage of this bill it may well be that the additional cost would prohibit many people in this country from purchasing supplies for the preservation of wild birds and therefore the bill would be defeating its purpose.

Thank you for your consideration.

Yours truly,

*Leslie W. Schiller*

Leslie W. Schiller

February 15, 1980

The Honorable John C. Culver, Chairman  
 Subcommittee on Resource Protection  
 Committee on Environment and Public Works  
 U.S. Senate  
 Washington, D.C. 20510

Dear Senator Culver:

We regret we were unable to present testimony at your recent hearings on S. 2181, the "Fish and Wildlife Conservation Act of 1980." We would like to take this opportunity to indicate our support for this legislation and request this letter be included in the hearing record.

The Izaak Walton League is a citizen-based conservation organization of more than 50,000 members, many of whom are sport hunters and fishermen. The League has consistently backed federal programs to support fish and wildlife enhancement efforts at the state level, specifically the Pittman-Robertson and Dingell-Johnson programs. These programs raise funding from excise taxes placed on hunting and fishing equipment. Since fishermen and hunters have provided the funds, the states have, quite properly, tended to focus their wildlife conservation efforts on game species.

Nongame wildlife has benefited incidentally from funds spent for game species, particularly from habitat acquisition, but nongame needs have seldom been addressed. Small amounts of Pittman-Robertson monies have been used specifically for nongame enhancement, but the sportsman's contributions have simply been inadequate to meet the research, planning, and management needs of both game and nongame wildlife.

S. 2181 would help rectify this problem by providing federal funding on a cost-sharing basis to the states for the preparation of fish and wildlife conservation plans that focus on nongame species and by providing additional funding specifically for nongame enhancement efforts. The League supports this bill as a vital and necessary step toward providing effective conservation and management of all of the nation's fish and wildlife.

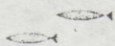
We would like particularly to emphasize our support for the excise tax funding mechanism provided for in Section 12 of the bill. This section provides funding for the implementation section of the bill by placing an 11 percent manufacturer's tax on wild bird seed, bird baths, houses, and feeders.

Excise taxes have proven to be effective funding vehicles over the many years for which the Pittman-Robertson and Dingell-Johnson programs have been operating. Such taxes form a reliable source of funds and, in addition, help create an awareness and appreciation in the user that he or she is fulfilling a responsibility to care for and conserve the wildlife that he or she

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THE IZAAK WALTON LEAGUE OF AMERICA

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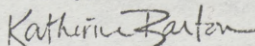
The Hon. John C. Culver  
February 15, 1980  
page two

enjoys. In a time of cutbacks in federal spending, the excise tax makes particular sense as a way to fund a program without tapping general revenues. We strongly support this provision.

In conclusion, we would like to reiterate our support for the general goals and specific provisions of S. 2181. It is past time to focus some of our wildlife conservation efforts on the entire wildlife picture. In past years, Congress has authorized funding for some programs to conserve wildlife that is neither fished nor hunted--such as endangered species and marine mammals--but those are specialized programs. A whole class of wildlife has been largely ignored. S. 2181 will go far in rectifying this imbalance.

Thank you for the opportunity to express our views.

Sincerely,



Katherine Barton  
Environmental Associate



Box 1122  
Montpelier, Vermont 05602  
January 28, 1980

Mr. Al Hawkes  
Rhode Island Audubon Society  
Providence, Rhode Island

Dear Al:

The Central Vermont Audubon Society understands that you will soon be testifying in Washington in support of the proposed federal non-game, wildlife conservation bill.

Our Board of Directors would like to go on record as supporting this bill and we urge you to speak for us when you testify. We are an organization of 230 members.

If we can be of help in any way, please don't hesitate to let us know.

Sincerely,

*Susan B. Weber*  
Susan Bartlett Weber  
President

SBW:s



802-457-2779  
woodstock  
vermont  
05091

## VERMONT INSTITUTE OF NATURAL SCIENCE

The Vermont Institute of Natural Science strongly endorses the Senate Non-Game Bill (S.2181) and feels that the proposed manufacturers's excise tax on wild bird seed and related items is a sound and sensible method of financing non-game research management.

As a membership organization which comprises many of Vermont's bird-watchers and bird-feeders, VINS believes that the people who feed birds and who enjoy birdwatching as a recreational activity are willing to finance their "hobby" through a users tax similar to that paid by hunters and fishermen.

"Non-game" species make up the majority of life on this planet, and it is high time that research on and conservation management of these species became a national concern.

Songbirds, for example, are not only an essential part of the ecosystem but also provide an important recreational activity which is both healthy and non-consumptive.

This bill, which provides the method and the ensured funding for such a program, merits the support of our organization, as well as all similar organizations.

Sarah B. Laughlin  
Director  
29 January 1980

96TH CONGRESS  
1ST SESSION

# S. 2181

To assist the States in developing fish and wildlife conservation plans and actions,  
and for other purposes.

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## IN THE SENATE OF THE UNITED STATES

DECEMBER 20 (legislative day, DECEMBER 15), 1979

Mr. CHAFEE introduced the following bill; which was read twice and referred to  
the Committee on Environment and Public Works

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## A BILL

To assist the States in developing fish and wildlife conservation  
plans and actions, 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 "Fish and Wildlife Conser-  
4 vation Act of 1980".

5 **SEC. 2. DECLARATION OF FINDINGS AND PURPOSE.**

6        (a) The Congress finds and declares the following:

7            (1) Fish and wildlife are of ecological, educational,  
8            esthetic, cultural, recreational, economic, and scientific  
9            value to the Nation.

1           (2) The improved conservation and management  
2 of fish and wildlife, particularly nongame fish and wild-  
3 life, will assist in restoring and maintaining fish and  
4 wildlife and in assuring a productive and more estheti-  
5 cally pleasing environment for all citizens.

6           (3) Many citizens, particularly those residing in  
7 urban areas, have insufficient opportunity to participate  
8 in recreational and other programs designed to foster  
9 human interaction with fish and wildlife and thereby  
10 are unable to have a greater appreciation and aware-  
11 ness of the environment.

12           (4) Historically, fish and wildlife conservation pro-  
13 grams have been focused on the more recreationally  
14 and commercially important species within any particu-  
15 lar ecosystem. As a consequence such programs have  
16 been largely financed by hunting and fishing license  
17 revenues or excise taxes on certain hunting and fishing  
18 equipment. These traditional financing mechanisms are  
19 neither adequate nor fully appropriate to meet the con-  
20 servation needs of nongame fish and wildlife.

21           (5) Each State should be encouraged to develop,  
22 revise, and maintain, in consultation with appropriate  
23 Federal, State, and local and regional agencies, a plan  
24 for the conservation of fish and wildlife, particularly

1 those species which are indigenous to the State, in  
2 urban and nonurban areas.

3 (b) PURPOSE.—It is the purpose of this Act—

4 (1) to provide financial and technical assistance to  
5 the States for the development, revision, and mainte-  
6 nance of conservation plans and programs for nongame  
7 fish and wildlife; and

8 (2) to encourage that all Federal departments and  
9 agencies utilize their statutory and administrative au-  
10 thority, to the maximum extent practicable, and con-  
11 sistent with each agency's statutory responsibilities to  
12 conserve and to promote conservation of nongame fish  
13 and wildlife and their habitats, in furtherance of the  
14 policy of this Act.

15 **SEC. 3. DEFINITIONS.**

16 As used in this Act—

17 (1) The term "approved conservation plan" means  
18 the conservation plan of a State approved by the Sec-  
19 retary under section 5(a).

20 (2) The term "conservation plan" means a plan  
21 developed by a State for the conservation of fish and  
22 wildlife which meets the standards prescribed by the  
23 Secretary under section 4.

24 (3) The terms "conserve", "conserving", and  
25 "conservation" mean to use, and the use of, such

## 4

1 methods and procedures which are necessary to ensure,  
2 to the maximum extent practicable, the well being and  
3 enhancement of fish and wildlife and their habitats for  
4 the ecological, educational, esthetic, cultural, recre-  
5 ational, and scientific enrichment of the public. Such  
6 methods and procedures may include, but are not limit-  
7 ed to, any activity associated with scientific resources  
8 management, such as research, census law enforce-  
9 ment, habitat acquisition, maintenance, development,  
10 information, education, population, manipulation, prop-  
11 agation, live trapping, and transplantation.

12 (4) The term "designated State agency" means  
13 the commission, department, division, or other agency  
14 of a State which has primary legal authority for the  
15 conservation of fish and wildlife. If any State has  
16 placed such authority in more than one agency, such  
17 term means each such agency acting with respect to  
18 its assigned responsibilities.

19 (5) The term "fish and wildlife" means wild ver-  
20 tebrate animals that are in an unconfined state, includ-  
21 ing, but not limited to, nongame fish and wildlife.

22 (6) The term "nongame fish and wildlife" means  
23 wild vertebrate animals or, at the discretion of the  
24 State, any invertebrate animals, that are in an uncon-  
25 fined state and that—

## 5

1 (A) are not ordinarily taken for sport, fur, or  
2 food, except that if under applicable State law,  
3 any of such animals may be taken for sport, fur,  
4 or food in some, but not all, areas of the State,  
5 any of such animals within any area of the State  
6 in which such taking is not permitted may be  
7 deemed to be nongame fish and wildlife;

8 (B) are not listed as endangered species or  
9 threatened species under the Endangered Species  
10 Act of 1973 (16 U.S.C. 1531-1543); and

11 (C) are not marine mammals within the  
12 meaning of section 3(5) of the Marine Mammal  
13 Protection Act of 1972 (16 U.S.C. 1362(5)). Such  
14 term does not include any domesticated animal  
15 that has reverted to a feral existence.

16 (7) The term "Secretary" means the Secretary of  
17 the Interior.

18 (8) The term "State" means any of the several  
19 States, the District of Columbia, the Commonwealth of  
20 Puerto Rico, American Samoa, the Virgin Islands,  
21 Guam, the Trust Territory of the Pacific Islands, and  
22 the Commonwealth of the Northern Mariana Islands.

23 **SEC. 4. CONSERVATION PLANS.**

24 (a) **PLAN STANDARDS.**—Not later than 6 months after  
25 the date of enactment of this Act the Secretary shall develop

## 6

1 and publish such guidelines as the Secretary deems necessary  
2 or appropriate to provide that conservation plans developed  
3 and subsequently revised by the designated State agencies  
4 with financial assistance under this Act result in the conser-  
5 vation of fish and wildlife and their habitat. Conservation  
6 plans prescribed under this subsection must:

7 (1) provide for the vesting in the designated State  
8 agency of the overall responsibility for the development  
9 of the conservation plan;

10 (2) provide for an inventory of the nongame fish  
11 and wildlife, and such other fish and wildlife as the  
12 designated State agency deems appropriate, that are  
13 within the State and are valued for ecological, educa-  
14 tional, esthetic, cultural, recreational, economic, or sci-  
15 entific benefits by the public;

16 (3) with respect to those species identified under  
17 paragraph (2) (hereinafter in this section referred to as  
18 "plan species"), provide for the determination of—

19 (A) the size, range, and distribution of their  
20 populations, and

21 (B) identify the extent, condition, and loca-  
22 tion of their significant habitats;

23 (4) identify the significant problems which may  
24 adversely affect the plan species and their significant  
25 habitats;

1           (5) determine those actions which should be taken  
2           to conserve the plan species and their significant habi-  
3           tats, and the estimated time and cost required to effect  
4           each such action;

5           (6) establish priorities for implementing the con-  
6           servation actions determined under paragraph (5);

7           (7) provide for the monitoring, on a regular basis,  
8           of the plan species and the effectiveness of the conser-  
9           vation actions determined under paragraph (5);

10          (8) provide for plan review and revision, if appro-  
11          priate, at intervals of not more than 3 years.

12          (9) ensure that the public be given opportunity to  
13          make its views known and considered during the devel-  
14          opment, revision, and implementation of the plan; and

15          (10) provide that the designated State agency  
16          consult, as appropriate, with Federal agencies, and  
17          other State agencies during the development, revision,  
18          and implementation of the plan.

19 **SEC. 5. APPROVAL OF CONSERVATION PLANS AND CERTAIN**  
20 **NONGAME FISH AND WILDLIFE CONSERVATION**  
21 **ACTIONS.**

22          (a) **APPROVAL BY SECRETARY OF PLANS.**—(1) Any  
23 State may apply to the Secretary for approval of a conserva-  
24 tion plan.

1       (2) Applications for the approval of conservation plans  
2 shall be made and reviewed by the Secretary in such manner  
3 as the Secretary shall by regulation prescribe.

4       (3) If the Secretary determines that a conservation  
5 plan—

6           (A) meets the requirements set forth in section 4,  
7 the Secretary shall within 120 days from the date of  
8 application for approval designate the plan as an ap-  
9 proved conservation plan; or

10          (B) does not meet such requirements, the Secre-  
11 tary shall within 120 days from the date of application  
12 for approval disapprove the plan, give the State con-  
13 cerned a written statement of the reasons for disap-  
14 proval, and provide the State opportunity for consulta-  
15 tion with respect to the deficiencies in the plan and the  
16 modifications required for approval.

17       (4) The Secretary shall approve any conservation plan  
18 submitted or resubmitted for approval under this subsection  
19 as soon as practicable but not later than 120 days after the  
20 date on which the Secretary receives the application for ap-  
21 proval. The Secretary may not disapprove a conservation  
22 plan, in whole or in part, because the Secretary does not  
23 concur with any specification or identification made, or any  
24 priority established under section 4(a) (3), (4), (5), or (6) as  
25 appropriate, unless the Secretary determines in writing that

1 to implement any part of the plan on the basis of such specifi-  
2 cations, identification, or priority would threaten the natural  
3 stability and continued viability of the plan species  
4 concerned.

5 (b) EFFECT OF APPROVAL OF PLANS.—If the Secre-  
6 tary approves the conservation plan of any State under sub-  
7 section (a)—

8 (1) that portion of such plan that pertains to wild-  
9 life conservation shall be deemed to be an approved  
10 plan for purposes of section 6(a)(1) of the Act of Sep-  
11 tember 2, 1937 (16 U.S.C. 669e(a)(1), commonly re-  
12 ferred to as the Pittman-Robertson Wildlife Restora-  
13 tion Act); and

14 (2) that portion of such plan that pertains to fish  
15 conservation shall be deemed to be an approved plan  
16 for the purposes of section 6(a)(1) of the Act of August  
17 9, 1950 (16 U.S.C. 777c(a)(1), commonly referred to  
18 as the Dingell-Johnson Sport Fish Restoration Act).

19 (c) If the Secretary approves the conservation plan of  
20 any State under subsection (a), those conservation actions set  
21 forth in the plan which pertain to nongame fish and wildlife  
22 shall be deemed to be nongame fish and wildlife projects for  
23 which reimbursement is available under section 6.

24 (d) In the absence of an approved conservation plan, and  
25 on a showing of need by the State, the Secretary may deem

1 certain conservation actions to be nongame fish and wildlife  
2 projects for which reimbursement is available under section  
3 6(e)(2)(B) if they are consistent with the provision of sections  
4 2 and 4 of the Act.

5 **SEC. 6. REIMBURSEMENT OF STATE COSTS FOR DEVELOPING,**  
6 **REVISING, AND IMPLEMENTING CONSERVATION**  
7 **PLANS AND IMPLEMENTING CERTAIN NONGAME**  
8 **FISH AND WILDLIFE CONSERVATION ACTIONS.**

9 (a) **IN GENERAL.**—Any State may apply to the Secre-  
10 tary for reimbursement under this section for costs incurred  
11 by the State for the following:

- 12 (1) the development of a conservation plan,
- 13 (2) the revision and maintenance of an approved  
14 conservation plan,
- 15 (3) the implementation of nongame fish and wild-  
16 life conservation actions approved under sections 5 (c)  
17 and (d),
- 18 (4) the implementation of conservation programs  
19 and actions specified in an approved conservation plan,
- 20 (5) the coordination, integration, or implementa-  
21 tion of the conservation plan or conservation actions  
22 approved under this Act with other related plans or ac-  
23 tions developed pursuant to the Federal Aid in Wildlife  
24 Restoration Act (16 U.S.C. 779e(a)(1)) and the Federal

1 Aid in Sport Fish Restoration Act (16 U.S.C.  
2 777e(a)(1)).

3 (b) APPLICATIONS.—Application for reimbursement  
4 under this section shall be made in such manner as the Secre-  
5 tary shall by regulation prescribe and shall contain such in-  
6 formation as is necessary to enable the Secretary to deter-  
7 mine whether the State meets the eligibility requirements set  
8 forth in subsection (c).

9 (c) ELIGIBILITY.—No State is eligible for reimburse-  
10 ment under this section unless the Secretary finds that the  
11 costs, for which reimbursement is sought, have been incurred  
12 by the State as follows:

13 (1) If reimbursement is sought under subsection  
14 (a)(1) such costs have been incurred in developing a  
15 conservation plan that meets the standards set forth in  
16 section 4.

17 (2) If reimbursement is sought under subsection  
18 (a)(2) and costs have been incurred in revising the plan  
19 in a manner consistent with the requirements set forth  
20 in section 4.

21 (3) If reimbursement is sought under subsection  
22 (a)(3), and costs have been incurred in implementing  
23 the conservation actions as approved by the Secretary.

24 (4) If reimbursement is sought under subsection  
25 (a)(4), such costs have been incurred in implementing

1 conservation actions specified in the approved conser-  
2 vation plan, and in a manner consistent with such plan.

3 (5) If reimbursement is sought under subsection  
4 (a)(5) such costs have been incurred in consolidating or  
5 coordinating conservation plans and actions approved  
6 under this Act with approved plans and actions under  
7 the Federal Aid in Sport Fish Restoration Act and the  
8 Federal Aid in Wildlife Restoration Act in a manner  
9 consistent with sections 2 and 4 of this Act.

10 (d) REIMBURSEMENT.—Subject to the limitations in  
11 subsection (c) and the terms and conditions imposed under  
12 section 7, the Secretary shall reimburse each State which the  
13 Secretary finds to be eligible therefor under subsection (c).

14 (e) LIMITATIONS.—(1) The total amount of the reim-  
15 bursement paid to any State under this section with respect  
16 to any fiscal year may not exceed the allocation available to  
17 the State under section 8 for such year.

18 (2) No reimbursement may be paid under this section to  
19 any State for any cost incurred by the State during any fiscal  
20 year—

21 (A) after September 30, 1990, in developing a  
22 conservation plan;

23 (B) after September 30, 1985, for costs incurred  
24 in implementing certain nongame fish and wildlife ac-  
25 tions approved under section 5(d);

1           (C) in developing a conservation plan that covers  
2 fish and wildlife if more than 20 percent of all funds  
3 that are made available to the State under this Act are  
4 obligated or expended, or both, during the fiscal year  
5 for such development with respect to other than non-  
6 game fish and wildlife.

7           (D) in implementing an approved conservation  
8 plan, unless the cost was incurred in implementing ac-  
9 tions approved under sections 5 (c) or (d);

10           (E) in implementing an approved conservation  
11 plan covering only nongame fish and wildlife, or any  
12 nongame fish and wildlife conservation action approved  
13 under section 5 (c) or (d), to the extent that more than  
14 10 percent of such costs are paid for with moneys col-  
15 lected during such year by the State—

16                   (i) from the sale of hunting, fishing, and trap-  
17 ping licenses, and

18                   (ii) as penalties (including forfeitures) for vio-  
19 lations of the hunting, fishing, and trapping laws  
20 of the State; or

21           (F) in implementing an approved conservation  
22 plan or any nongame fish and wildlife conservation ac-  
23 tion approved under section 5(c) or 5(d), to the extent  
24 that—

## 14

1 (i) more than 25 percent of such costs are  
2 applied for purposes of conservation law enforce-  
3 ment and information and extension services  
4 under any such plan or action, and

5 (ii) more than 10 percent of such costs in  
6 any such year are accounted for by inkind contri-  
7 butions.

8 (3) The amount of the reimbursement paid to any State  
9 under this section with respect to any fiscal year—

10 (A) may not exceed 75 percent for the develop-  
11 ment of a conservation plan except that during fiscal  
12 years 1981 and 1982 such amount shall not exceed 90  
13 percent;

14 (B) for the implementation of nongame fish and  
15 wildlife conservation actions approved under section  
16 5(c) or 5(d), may not exceed 75 percent of the cost of  
17 implementing the action during such fiscal year, except  
18 that if such action is undertaken by two or more States  
19 such amount shall not exceed 90 percent;

20 (C) during and after the fiscal year in which the  
21 conservation plan of the State is approved under sec-  
22 tion 5(a), may not exceed 75 percent of the cost of im-  
23 plementing and revising the conservation plan during  
24 such fiscal year, except that if the Secretary has desig-  
25 nated such plan under section 5(b), or if two or more

1 States cooperate in implementing or revising such plan,  
2 such cost shall not exceed 90 percent, and

3 (D) after September 30, 1990, may not exceed—

4 (i) 50 percent of the cost of implementing  
5 and revising the plan during the fiscal year, if the  
6 approved conservation plan of the State covers  
7 only nongame fish and wildlife, or

8 (ii) 75 percent of the cost of implementing  
9 and revising the plan during such fiscal year, if  
10 the approved conservation plan of the State cov-  
11 ers fish and wildlife.

12 (4)(A) In computing the costs incurred by any State dur-  
13 ing any fiscal year in developing or revising conservation  
14 plans, in implementing approved conservation plans, or in im-  
15 plementing nongame fish and wildlife conservation actions  
16 approved under section 5(c) or 5(d), for which reimbursement  
17 may be available under this section, the Secretary shall—

18 (i) take into account, in addition to each outlay,  
19 the value of inkind contributions and real and personal  
20 property received and applied during such year by the  
21 State for such purposes; and

22 (ii) disregard any other Federal moneys received  
23 by such State and applied by it, directly or indirectly,  
24 for such purposes.

1 (B) For purposes of subparagraph (A), inkind contribu-  
2 tions may be in the form of, but are not limited to, personal  
3 services rendered by volunteers in carrying out surveys, cen-  
4 suses, and other scientific studies regarding fish and wildlife.  
5 The Secretary shall by regulation establish (i) the training,  
6 experience, and other qualifications which such volunteers  
7 must have in order for their services to be considered as in-  
8 kind contributions; and (ii) the standards under which the  
9 Secretary will determine the value of inkind contributions  
10 and real and personal property for purposes of subparagraph  
11 (A).

12 (C) Any valuation determination made by the Secretary  
13 for purposes of this paragraph shall be final and conclusive.

14 **SEC. 7. TERMS AND CONDITIONS OF REIMBURSEMENT.**

15 Reimbursements made to the States under section 6  
16 shall be subject to such terms and conditions as the Secretary  
17 shall by regulation prescribe as being necessary and appropri-  
18 ate to protect the interests of the United States. Such  
19 terms and conditions shall include, but not be limited to,  
20 the following:

21 (1) Each State and each designated State agency  
22 shall keep such records as the Secretary shall require  
23 as being necessary and appropriate for fully disclosing  
24 the amount and purposes of costs incurred by the State  
25 for which reimbursement under section 6 is, or may be,

1 sought. The Secretary and the Comptroller General of  
2 the United States, or any of their duly authorized rep-  
3 resentatives, shall have access, for purposes of audit  
4 and examination, to such records.

5 (2) Upon a finding by the Secretary, after notice  
6 and opportunity for an agency hearing on the record,  
7 that any State has received reimbursement under sec-  
8 tion 6 for which it is not eligible, or has violated any  
9 term or condition imposed under this section, the State  
10 shall thereafter be ineligible to receive reimbursement  
11 under such section until restitution satisfactory to the  
12 Secretary is made, such violation ceases, or adverse ef-  
13 fects resulting from such violation are remedied.

14 **SEC. 8. ALLOCATION OF FUNDS FOR ADMINISTRATION AND**  
15 **REIMBURSEMENT OF STATES**

16 (a) **IN GENERAL.**—The total amount appropriated pur-  
17 suant to section 11(a) for any fiscal year and the total amount  
18 appropriated pursuant to section 11(b) for any fiscal year  
19 shall each be available for administration and for allocation  
20 among the States as provided in this section.

21 (b) **ALLOCATION FORMULA.**—Of the total amount ap-  
22 propriated for any fiscal year pursuant to each of subsections  
23 (a) and (b) of section 11—

24 (1) the Secretary shall deduct so much, but not to  
25 exceed 5 percent thereof, as may be necessary for ad-

1 ministering during such fiscal year the provisions of  
2 this Act relating to the purposes for which so  
3 appropriated;

4 (2) less the deduction under paragraph (1), the  
5 Secretary shall allocate—

6 (A) for the District of Columbia and the  
7 Commonwealth of Puerto Rico each a sum equal  
8 to not more than one-half of 1 percent of such  
9 amount; and

10 (B) for Guam, American Samoa, the Virgin  
11 Islands, the Trust Territory of the Pacific Islands,  
12 and the Commonwealth of the Northern Mariana  
13 Islands each a sum equal to not more than one-  
14 sixth of 1 percent of such amount; and

15 (3) less the deduction under paragraph (1) and the  
16 sums allocated under paragraph (2), the Secretary shall  
17 allocate for each of the States (other than those pro-  
18 vided for in paragraph (2)) a sum—

19 (A) one-third of which is based on the ratio  
20 to which the area of such State bears to the total  
21 area of all such States, and

22 (B) two-thirds of which is based on the ratio  
23 to which the population of such State bears to the  
24 total population of all such States,

1 except all sums allocated under this paragraph shall be ad-  
2 justed equitably so that no State shall be allocated a sum  
3 which is less than one-half of 1 percent of the amount availa-  
4 ble for allocation under this paragraph for any fiscal year or  
5 more than 5 percent of such amount.

6 (c) TREATMENT OF AMOUNTS ALLOCATED BUT NOT  
7 USED FOR ANY FISCAL YEAR.—That portion of any amount  
8 deducted by the Secretary under subsection (b)(1) for admin-  
9 istrative purposes for any fiscal year and not expended during  
10 such fiscal year shall remain available for administrative pur-  
11 poses until the close of the next succeeding fiscal year and if  
12 not obligated or expended by the close of such succeeding  
13 fiscal year shall be available for disbursement by the Secre-  
14 tary without regard to subsection (b), to the States to carry  
15 out the purposes of this Act.

16 SEC. 9. OTHER FEDERAL ASSISTANCE AND ACTIONS.

17 The Secretary and the chief executive officer of any  
18 other appropriate Federal department or agency may loan to  
19 any State such personnel and equipment of the department or  
20 agency, share such scientific or other appropriate informa-  
21 tion, and provide such other assistance as the Secretary or  
22 officer determines appropriate for purposes of assisting any  
23 State to develop or revise conservation plans.

24 SEC. 10. DISCLAIMERS.

25 Nothing in this Act shall be construed as affecting—

1           (1) the authority, jurisdiction, or responsibility of  
2           the States to manage, control, or regulate fish and  
3           resident wildlife under State law;

4           (2) any requirement under State law that lands,  
5           waters, and interests therein may only be acquired for  
6           conservation purposes if the owner thereof is a willing  
7           seller; and

8           (3) the authority of the Secretary of Agriculture  
9           under the Act of March 2, 1931 (46 Stat. 1468-1469;  
10          7 U.S.C. 426-426b).

11 **SEC. 11. AUTHORIZATION OF APPROPRIATIONS.**

12          (a) **FOR DEVELOPMENT AND REVISION OF CONSERVA-**  
13 **TION PLANS.**—There are authorized to be appropriated for  
14 purposes of making reimbursements under section 6 to States  
15 for the development of conservation plans not to exceed  
16 \$8,000,000 for each of fiscal years 1980, 1981, and 1982.

17          (b) **FOR IMPLEMENTING NONGAME FISH AND WILD-**  
18 **LIFE CONSERVATION ACTIONS AS CALLED FOR IN CON-**  
19 **SERVATION PLANS.**—An amount equal to all revenues ac-  
20 cruing each fiscal year (beginning with the fiscal year 1981)  
21 from any tax imposed on specified articles by section 4171 of  
22 the Internal Revenue Code of 1954 shall be placed into the  
23 Fish and Wildlife Fund which is hereby established in the  
24 Treasury of the United States. Such amount is authorized to  
25 be appropriated for purposes of making reimbursements

1 under section 6 to States with respect to the implementation  
2 of approved conservation plans and nongame fish and wildlife  
3 conservation actions approved under section 5(c) or 5(d).

4 **SEC. 12. EXCISE TAXES ON WILD BIRD SUPPLIES.**

5 (a) Subchapter D of chapter 32 of the Internal Revenue  
6 Code of 1954 is amended by inserting immediately after part  
7 I thereof the following new part:

8 **"PART II—MISCELLANEOUS BIRD SUPPLIES**

9 **"SEC. 4171. IMPOSITION OF TAX.**

10 "There is hereby imposed upon the sale by the manu-  
11 facturer, producer, or importer of—

12 "(1) any mixture of seeds primarily for use in the  
13 feeding of wild birds, and

14 "(2) any birdhouse, birdfeeder, or birdbath de-  
15 signed for outdoor installation, a tax equivalent to 11  
16 percent of the price for which so sold."

17 (b) The analysis of such subchapter D is amended by  
18 inserting—

"Part II. Miscellaneous wild bird supplies."

19 after

"Part I. Sporting goods."

20 (c) The amendments made by subsections (a) and (b) of  
21 this section shall apply with respect to articles sold by the  
22 manufacturer, producer, or importer on or after October 1,  
23 1980.

How do the numbers who participate in nonconsumptive uses of wildlife compare with the numbers who fish and hunt?

In a survey currently being tabulated covering 1975 activities, people reported their participation in three types of wildlife-dependent recreation which was nonconsumptive in nature. Projections of these data indicate that people 9 years and older in the 50 States reported making trips specifically to:

1. Observe wildlife.
2. Photograph wildlife.
3. Go clamming, crabbing, or shell collecting (this activity involved consumptive as well as nonconsumptive recreation).

Following are the numbers who took part in each of these activities and the number who hunted and fished, according to the same survey. (Since tabulations are still in progress, results must be considered preliminary.)

Hunted	20,591,000
Fished	53,923,000
Observed wildlife	49,314,000
Photographed wildlife	14,992,000
Clammed, crabbed, or collected shells	25,373,000

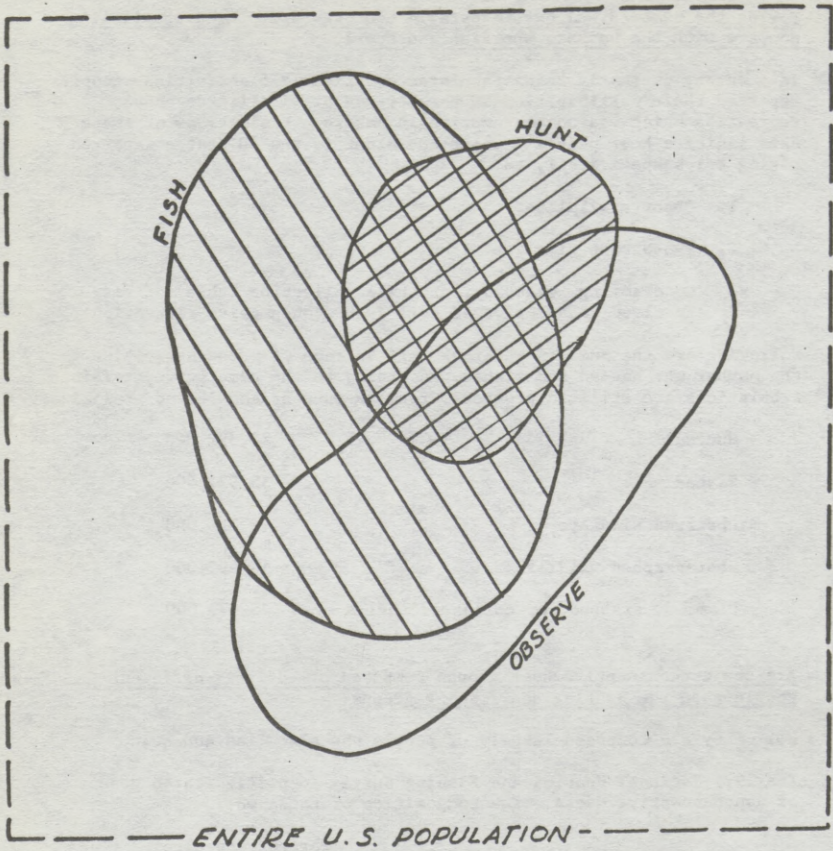
Are the nonconsumptive user groups composed of entirely different people than the hunting and fishing groups?

No. They are composed largely of people who also fish and hunt.

The 1975 National Hunting and Fishing Survey identified three groups of nonconsumptive users. The composition of these was:

<u>People who reported:</u>	<u>Percent who also:</u>			
	<u>Hunted</u>	<u>Fished</u>	<u>Hunted and/or Fished</u>	<u>Neither</u>
Wildlife observation	18	44	48	52
Wildlife photography	20	48	52	48
Clamming, crabbing & shell collecting	13	48	51	49

The degree of overlap of each of these groups with fishermen and hunters is depicted on the following diagrams.



If the States had the needed resources, what types of work would they undertake for the benefit of nongame?

A survey of the States completed in April 1977, showed a diversity of projects typified by the following sample:

Michigan

- A Study of loons, stressing population status, migration patterns, food habits, and vulnerability to botulism.
- The development of marshland interpretive centers at Point Mouille, Saginaw Bay, Lake St. Clair and Munuscong Bay.

Wisconsin

- Evaluate the role of harvest in the decline of certain populations of snapping turtles.

Minnesota

- Identification, management and protection of nesting areas for bald eagles and ospreys, and study into the feasibility of reintroducing burrowing owls and Mississippi kites.

Delaware

- Public education programs aimed principally at school children to convey factual information about life systems.

New York

- Locate and develop eight urban wildlife parks distributed among New York City, Albany, Syracuse, Rochester, Buffalo, and Utica.

Pennsylvania

- Determine the distribution and abundance of selected species of fish, reptiles, and amphibians and identify the factors necessary for their conservation.

Missouri

- Development of publications and movies for public education.

Nebraska

- Populations, ecologic relationships and management of small carnivores, jackrabbits, bats, and small rodents.

North Dakota

- Evaluate depredations by nongame birds.

Iowa

- Conduct statewide survey of fish populations, specifying habitat needs of each species and classifying each stream.

Wyoming

- Identify declining species of nongame and actions needed to ensure their survival.

Maine

- Reestablishment of peregrine falcons and osprey.
- Determine the distribution and habitat requirements of five species of salamanders.

New Jersey

- Study distribution of otters, porcupines, coyotes, bats, and marine mammals.

Alaska

- Study the response to shore birds to oil pollution along coastal areas.

Georgia

- Survey status of populations, habitats, and ecologic relationships for selected nongame species as a basis for their conservation.

Mississippi

- Studies into the population and distribution of the diamondback terrapin.

California

- A 5-year survey of 17 species of seabirds.

Oregon

- Acquire 10 heronries to assure their protection.

Washington

- Develop program of public education on selected species of nongame wildlife.

Texas

- Determine the status and distribution of 47 species of birds, 15 species of mammals, 25 species of fish, 28 species of reptiles, and 13 species of amphibians.

How many species would be expected to benefit from a nongame program?

Birds	137	species	(average	per	state)
Mammals	31	"	"	"	"
Fish	77	"	"	"	"
Reptiles	20	"	"	"	"
Amphibians	14	"	"	"	"
<b>TOTAL</b>	<b>279</b>				

In appraising their needs for a nongame program, the States expressed the desire to give new or increased attention to an average of 279 species in each State. This number represents more than twice the number of species which are legally harvested or controlled and probably more than three times the number of species which are currently under scientific management in those States.

The following information is supplied in response to questions from the Senate Subcommittee on Resource Protection.

1. How many species of "game" and "nongame" vertebrates are there in the United States?

In the continental U.S., and its coastal waters, there are approximately 3,700 species of vertebrates (birds, mammals, fish, reptiles, and amphibians). From these species, each State designates those resident species which may legally be taken for purposes of recreation or control. About one-sixth of the species in an average State may legally be taken for harvest or control, only part of these species being of interest to the sportsman.

The average number of species occurring in a State and the average number which can be legally harvested or controlled are as follows:

	Total species in U.S.:	Average # of species recorded per State:	Average # of species per State which can be legally taken:
Birds	780	333	36
Mammals	400	80	21
Fish	2,080	255	59
Reptiles	265	49	6
Amphibians	<u>174</u>	<u>31</u>	<u>3</u>
TOTAL	3,699	748	125

This second column total includes approximately 8 endangered or threatened species and marine mammals, leaving about 740 which meet the definition of "nongame". Also, assuming that about two-thirds of the species in the third column are of interest to hunters or fishermen, the number of "game" species in the average State would be about 85 and the remaining 40 could be classified "nongame".

Thus, the average State probably has about 85 species of vertebrates which are of direct interest to fishermen and hunters and about 780 species which would be regarded as nongame as defined in S. 2181.

2. What is the present distribution of Federal grants for "game" and "nongame"?

There is one existing Federal grant program which can be applied to nongame as well as game species. Pittman-Robertson may be utilized for the benefit of any wild bird or wild mammal. In FY 1980, \$89 million were made available to the States of which about \$4 million will be used for State administration and \$85 million for projects. It is expected that the beneficiaries of projects undertaken by the States will be approximately as follows:

Game species	82%	(\$69.7 million)
Nongame species	8%	(\$ 6.8 million)
Threatened & endangered	2%	(\$ 1.6 million)
Not able to classify	8%	(\$ 6.8 million)
	<u>100%</u>	

The Dingell-Johnson program is usable only for the benefit of fin fish having material value in sport or recreation. Thus, this program, which in 1980 made \$28 million available to the States, is not available for nongame work.

Species served by the Endangered Species and Marine Mammals grants cannot, by definition, be classified as either game or nongame.

3. How many vertebrate species in the continental U.S. and its coastal waters are threatened or endangered?

Including the sea turtles and whales, this number is 150.

4. How has hunting and fishing contributed to their threatened or endangered status?

In virtually all of the 150 species, environmental change is believed to be the central reason for their declines. However, among the other significant causes, hunting or shooting was considered significant for 4 species, and fishing was a factor for 9 species. Twenty-three additional species were considered affected by commercial killing, poaching, or control measures.

## STATEMENT OF JOHN TORRES

February, 1980

Thank you Mr. Chairman, and Subcommittee members, for the opportunity to appear before you today. Colorado is pleased to lend its complete support for S.2181, a bill which will provide badly needed funding for the research and management of this nation's nongame wildlife resources. As Senator Hart will attest, Colorado has been blessed with a diversity of fish and wildlife and habitat that ranges from prairie to Alpine tundra. The Colorado Wildlife Commission recognizes 748 species of nongame wildlife of which 27 are classified as threatened or endangered. The Division of Wildlife has not yet received legislative authority for the management of native plants species. Consequently, little or no effort has been directed at recovering some 40 species believed to be in some degree of endangerment in the state.

Colorado's Nongame Wildlife Program efforts have given attention to three major areas. (I) The recovery of threatened and endangered species has received primary consideration. The high demands of the public, the biological needs of these species and the availability of federal funds have influenced major program emphasis toward these imperiled wildlife. (II) The second most important need of the program relates to the inventory of all other nongame species to form a foundation for their preservation and enhancement.

Colorado is blessed with a diversity of wildlife species-both game and nongame. This very diversity, however, poses a major management problem. Any preservation or enhancement program for a species must be based on two things: (1) a continuing detailed knowledge of the distribution and abundance of the species; (2) a comprehensive understanding of the species' biology and ecology, with

special emphasis on those features which limit its population. Realistically, in terms of the resources available to the Colorado Division of Wildlife now and probably in the future, it is not feasible to obtain detailed biological information for each of the 748 nongame species.

But there is an alternative. On a broad scale, we can determine the distribution and relative abundance of all species. By studying those species with the most restricted ecological needs we can determine which species potentially can respond to various management methods. Then we can study the latter species to develop specific management guidelines for major habitat types. Consequently, it is in this area in which we are weakest in our efforts to assist the nongame resource. Similarly, it is also this area where we need the greatest financial assistance if our objectives are to be achieved.

(III) Lastly, our third priority relates to the subprogram for nonconsumptive use of wildlife. With the increasing trend toward city dwelling, people are less exposed to wildlife in their daily lives. Seeing and having the opportunity to observe wildlife in their natural habitats is becoming a unique experience for increasing numbers of people. More and more people have an awakening interest in wildlife and nonconsumptive appreciation in wild animals, particularly in the urban environments.

Colorado's goal is to provide greater opportunities for people to see wildlife and to provide information on how to better observe and understand wildlife species.

NONCONSUMPTIVE WILDLIFE PROJECTS:

1. Publish wildlife observation and interpretation guides.
2. Inform the public of wildlife observation use opportunities through the mass media.
3. Accelerate nongame wildlife programs in and near urban areas, including land acquisitions and management of available parks and natural areas to improve wildlife habitats and facilitate nonconsumptive public use.
4. Assist public and private landowners to develop and protect suitable habitats for wildlife observation, study and photography.
5. Improve and develop habitats on state-owned lands.

*Editor*  
*Photographer*  
*Writer*

**GEORGE H. HARRISON**

*671 Amy Belle Lake Road*  
*Hubertus, Wisconsin 53033*

January 28, 1980

Mr. Jim Ranger  
Minority Counsel for Senate Environ-  
ment and Public Works Committee  
Room 4202, Dirkson Senate Office Building  
Washington, D.C. 20510

Dear Jim:

As the author of the current successful book, *THE BACKYARD BIRD WATCHER* (Simon & Schuster, 1979), and as a free-lance magazine writer and photographer who specializes in backyard bird watching, I would like to express my opinion about the proposed Non-Game Wildlife Management Bill No. S2181.

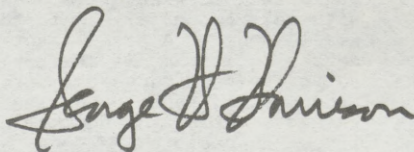
I am not opposed to a non-game wildlife management act. Indeed, I am very much in favor of any act that will benefit non-game wildlife from chickadees to garter snakes. I am opposed to the current proposal of a tax only on bird feeders, bird houses and bird seed. Here is why:

1. The bird feeder and bird house industry is very small, with only two major manufacturers and a dozen or so smaller ones. A significant number of feeders and houses built in this country are produced by a so-called cottage industry where thousands of people or groups build these products in their basements and garages, making the collection of taxes difficult, if not impossible.
2. In researching my book, I discovered that the sales of feeders and seed are not stable. Some winters, such as the winters of 1977-78 and 1978-79, when the snow piled high across most of the country, feeders and seed sold well. This year, the winter of 1979-80, the weather has been much milder and the birds coming to my feeding station are fewer, and thus the amount of seed being consumed is much less. I understand that this is true over much of the country.

3. I don't see how those people who ultimately have to pay the tax, people who maintain backyard birding areas, will benefit from the tax. They are benefitting now from their own efforts to maintain a backyard wildlife habitat, providing food, cover and water. The direct benefits they will realize from non-game wildlife management would be no greater than the benefits enjoyed by all hikers, campers, boaters, bird watchers who do not maintain their own backyard habitats, and anyone who enjoys the outdoors.
4. The tax may very well create a hardship for those retired people, children and others with low incomes who currently enjoy the simple delights of seeing wild birds in their backyards. The taxes could place the cost of feeders, houses and seed out of the reach of those who find that the nominal cost of enjoying birds in their own backyards is now within their means.
5. The feeding of wild birds in the backyards of America is one of the most fulfilling, wholesome and rewarding family activities in America. It seems unfair to place the entire burden of taxation on these people while a much larger segment of American outdoor people will benefit without paying anything.

Jim, I believe that the idea of a non-game wildlife management act is great, but the current plan for financing it is unfair, too narrowly based and not in the best interest of those who stand to benefit from the act.

Sincerely,



kph

CURRENT INVESTMENTS, PROJECTED NEEDS,  
AND POTENTIAL NEW SOURCES OF INCOME  
FOR NONGAME FISH AND WILDLIFE PROGRAMS IN THE UNITED STATES

by

Wildlife Management Institute

In Cooperation With

Public Affairs Information Service  
The University of Missouri-Columbia

Under Contract To

The Council On Environmental Quality

and

U.S. Fish and Wildlife Service  
Department of the Interior

Washington, D. C.

February 1975

## FOREWORD

The need for initiating or expanding and, in all cases, accelerating, conservation programs in the United States to assure adequate consideration of our national treasury of fish and wildlife by now is widely recognized and accepted. Quite understandably, there is not an equal level of official and public comprehension of the actions that should be taken. And by whom.

Public sensitivity to wildlife is rooted in our national history. First actions in this regard dealt with individual species and largely do so today. On February 4, 1646, the Town of Portsmouth, Rhode Island, proclaimed a closed season on the hunting of deer from May 1 to November 1. Similar closures were practically universal throughout the Colonies by 1720. And some other decisions about animals, not widely popular today, also had their beginnings in our early history. Massachusetts Bay Colony in 1630, for example, authorized the payment of a bounty on wolves, with Virginia following shortly thereafter.

One of the earliest recorded animal rescue operations in North America got underway about 1860 in an effort to perpetuate the declining heath hen, an original inhabitant of the coastal Northeast. State and private funds -- more than \$55,000 -- were spent to protect the dwindling flock, but these good efforts, by 1925, proved futile. Successive wildfires swept the birds' final refuge on Martha's Vineyard, destroying needed food and cover. Slowly, surely, and irreversibly, the forces of nature bested man's determined efforts. Soon there was a single known survivor. Then none.

In following years, man turned his attention to other species in need -- fur seals and sea lions in Alaska, migratory birds, Key deer in Florida, nene geese in Hawaii, black bass, sea otters and the bald and golden eagles. As time passed and experience was gained, there came a realization that every animal is

part of an interrelated web of soil, vegetation and water that makes up its environment or habitat. And with that realization, which unfortunately, has yet to gain full credence at the public level, many useful conservation laws emerged, culminating, most recently, in the endangered species Acts of 1966, 1969, and 1973 and the Convention on International Trade in Endangered Species of Wild Fauna and Flora. These enactments rightfully require broader and more imaginative application of fish and wildlife management than has been the case in the past.

While an important short-term objective of management programs for endangered species is to seek to prevent the extirpation of any single form of animal life, the overall effort, if ever it is to fully succeed, has an infinitely broader purpose. Up to now, man's efforts with numerous species largely have been rescue oriented. That is, halt the population decline of a species and, insofar as possible, restore it to a level where reproduction and survival exceed mortality. Then, if the cause of the species' difficulty is not habitat related, its population should increase. Deer, pronghorns, sea otters, fur seals, and many other species attest to the workability of this management option.

But the second and vastly more important objective of fish and wildlife management programs should be to prevent a population of any species from becoming so depressed as to cause it to be regarded as threatened or endangered in the first place. The attainment of this objective is to convert programs for the conservation of animals not commonly or traditionally regarded as "game" or "commercial" species from rescue missions to an ongoing program to uniformly husband all species of animals so that none, through man's ignorance, indifference or inattention, ever again reaches the state where its continued existence as a life form is in jeopardy.

The recommendations that arise out of this study are pointed toward that desirable and positive objective. They include all fish and wildlife, not just

those that may be in a threatened or endangered category. In fact, it was the opportunity to participate in such a positive project that prompted the Institute to accept this assignment despite the severe constraints of time that were imposed. If implemented at both federal and state levels, the recommendations would carry this needed and noble effort forward. And at a justifiably accelerated pace.

There are a number of things that the reader should keep in mind when paging through and thinking about this report. First -- and this is of utmost importance -- it should be remembered that the information presented herein represents the first time that such material has been solicited and summarized on a national scale. As such, it is the best available at this time. It is not, and it is not offered as being, accurate to the last detail.

As will be emphasized in the discussion, there is no uniformity at any level in accounting for the amount of money and attention given to research, management, and law enforcement for "nongame" purposes. This is not an unexpected finding. It has not been the custom of the state and federal agencies to account separately for activities devoted to nongame fish and wildlife.

So, at this point in time, the information obtained, while the best available, most likely is conservative. But more important, the information supplied by co-operating agencies and institutions provides the base from which more adequate state and national programs can be launched. With initial funding and public and official support, necessary experience can be gained to refine and more sharply direct further efforts. Therefore, the Institute considers its report and recommendations as a point of beginning. Programs for nongame species would continue to sputter along in the absence of such an initial baseline study. The report charts a route that can be followed to build toward an adequate national effort to manage nongame fish and wildlife.

A final observation. While there is an acute need for broadening and initiating programs for nongame fish and wildlife at private, state and national levels, it would be a mistake to place total reliance solely on a "new program" approach. The future of animal life is linked directly to the availability and suitability of habitat. All agencies, state and federal, having legal responsibility for animal life or their habitat should give fish and wildlife a better shake on the hundreds of millions of acres of land already in public ownership. Species of limited number or range must be given more sympathetic consideration in the agencies' use or commitment of that land. Congress should examine its many policies and actions that, through financial and technical assistance, needlessly stimulate thoughtless destruction and alteration of habitat on both private and public lands. Its record is discouraging in this regard.

And an Administration should seek and the Congress should provide authorized appropriations to energize specific programs already on the books, such as those for marine mammals and endangered species. These new authorities, which were enacted in response to public demand and demonstrated need, will remain a hollow promise unless fully and promptly implemented. And nowhere throughout the federal establishment do the agencies which administer one-third of this nation's land surface receive sufficient funding to conduct anywhere near an adequate program for the fish and wildlife resources using those lands.

Success in the area of nongame fish and wildlife, therefore, depends on a blending of the new with realignment of the old. New authorities, new programs, new funds are needed. But, by themselves, these new tools will not be enough to overcome the continuing and massive ravages of habitat by outdated and single-purpose programs.

\* \* \* \* \*

This report hews to the assignment accepted by the Wildlife Management Institute. Its text is purposely spare. As agreed with the Council on Environmental Quality and the Department of the Interior, the Institute undertook, on what is best described as a crash basis, (1) to determine the national investment, in terms of dollars and man-years of attention, in species of fish and wildlife not traditionally regarded as game or subject to consumptive use; (2) to obtain estimates of the initial funding required to expand federal, state and other programs to the point where, in the eyes of those legally responsible for the well-being of such animals, more adequate attention is being given to their status and needs; (3) to identify and examine potential new sources of funds to support such programs at national and state levels; and (4) to suggest actions that, when teamed with adequate funding and authority, will enable those agencies responsible for fish and wildlife or their habitat to mount truly responsive programs.

To the many federal and state agencies, universities and colleges, and private groups that responded to our necessary questionnaires and provided information and suggestions, the Institute expresses its sincere appreciation.

Daniel A. Poole, President  
Wildlife Management Institute

## RECOMMENDATIONS

- I. That a nongame fish and wildlife federal matching grant-in-aid program be authorized by Congress, with funds to be obtained from new manufacturers' excise taxes on designated items of equipment used in outdoor recreation.

Excise taxes are passed on to the consumer; hence, the purchaser of such equipment would help defray the costs of a nongame program. A federal grant program with the states offers the best mechanism for obtaining and distributing funds. Further, and equally important, a partnership state-federal nongame program can be elevated to the desired level of attention and activity more uniformly and quickly. To implement this recommendation:

- A. Draft legislation and justification should be prepared and forwarded to Congress. The authorizing legislation should:
1. Establish a manufacturers' excise tax on specific items of equipment used in outdoor recreation to initially yield a minimum of \$40 million annually for a matching grant nongame program with the states.
  2. Vest administrative responsibility in the U.S. Fish and Wildlife Service, an agency that for nearly four decades has administered similar federal aid programs for fish and wildlife.
  3. Include these features:
    - a. Require, as a condition for state (territory) participation, enactment of enabling legislation, where lacking, comparable to the model bill distributed to the states by the Fish and Wildlife Service under date of 19 April 1974 (Appendix O).

- B. Authorize a one-time appropriation of \$5 million plus additional manpower authorizations to enable the Fish and Wildlife Service to assemble staff and take immediate actions to initiate the program.
- C. Base apportionments to the states and territories on area and population, with limits on the minimum and maximum amounts to be received by each. It may be desirable to give extra weight to population inasmuch as high-density settlement and development diminish fish and wildlife habitat, including that for nongame.
- D. Authorize a specific percentage of each year's funds for administering the Act by the Fish and Wildlife Service. Existing Acts authorize deductions of up to eight percent for administration, a level that has proven to be more than adequate. This provision also should specifically authorize the Service to use some administrative funds for research projects that are in the interest of furthering the mutual federal-state objectives of the program.
- E. Set the level of cost sharing at 75 percent federal - 25 percent state for projects within an individual state; except that when two or more states are involved in a mutual project the federal share should be increased. This follows the philosophy of the Endangered Species Act of 1973.

- F. Follow established practice in the existing Federal Aid in Fish and Wildlife Restoration Acts and the Endangered Species Act of 1973 by making a state's apportionment available for expenditure or obligation for two fiscal years. However, unlike these Acts, any of a state's apportionment remaining unexpended or unobligated at the end of the second fiscal year should revert to a special discretionary fund and remain available for two more fiscal years for assisting states whose nongame program costs exceed their regular apportionment. Any year-one money unexpended or unobligated at the end of four fiscal years should be available to the Fish and Wildlife Service to support its nongame fish and wildlife research program.
- G. Firmly limit to a maximum of 10 percent the cost of a state's nongame fish and wildlife program that may be borne by revenues traditionally received by state fish and wildlife agencies. If this is not done, there is a strong likelihood that the agencies will be forced by practical and political considerations to draw more heavily on these sources. The undesirable effect will be to place excessive demands on an already inadequate funding base, thereby harming traditional game and nongame programs alike.

No one should lose sight of the fact that the eventual success of an expanded nongame fish and wildlife program will depend entirely on creating new sources of funding. The actual percentage of costs to be borne by traditional fish and wildlife funds should be determined through consultation with the International Association of Game, Fish and Conservation Commissioners.

H. Broaden the purposes for which nongame grant-in-aid funds may be used by the states over those eligible for assistance under the existing Federal Aid in Fish and Wildlife Restoration Acts. Law enforcement, information and education, and extension activities do not qualify for support under existing federal aid programs, nor should they. However, these important activities should be eligible in a nongame fish and wildlife program, but support should not exceed 25 percent of a state's apportionment. The greatest need is money for fundamental research and management activities.

II. That the Administration and Congress work together in determining the additional general funding required by the Fish and Wildlife Service, National Marine Fisheries Service, U.S. Forest Service, Bureau of Land Management, and other federal resource agencies to conduct full-scale, comprehensive fish and wildlife programs.

The accomplishments of some federal agencies are dismal in this regard. Without exception, none has ever received adequate manpower authorizations and funding needed to benefit all fish and wildlife and their habitats. Until more adequate general funds become available to such agencies, the program outlined in Recommendation No. I will not accomplish maximum results.

III. That major efforts be made through research to determine the status, trends, distribution, habitat requirements, and ecological relationships of key fish and wildlife species in major habitat types.

The knowledge to be gained is essential if management programs for all species are to be improved. A 10-year program of high priority research should be designed and implemented by state and federal agencies

to identify specific habitat requirements to be provided through management programs.

- IV. That all agencies and organizations having land and water management responsibilities identify beneficial and adverse effects of their programs on fish and wildlife, including nongame species.

Such responsibility, in part, is mandated by Section 7 of the Endangered Species Act of 1973.

- V. That all agencies and organizations having fish and wildlife responsibilities collectively strive to integrate supportive needs for all species in their programs.
- VI. That all agencies and organizations determine more precisely: (1) their current investments in nongame species and their habitats and (2) additional funds needed to enhance nongame species in existing and planned fish and wildlife programs.

Continuous refinement is essential to expanding the national nongame fish and wildlife program. Only by clearly identifying program investments, needs, and costs can adequate authorizations and appropriations be obtained.

- VII. That each state and territory evaluate, in depth, potential new sources of funds to be used to develop and intensify efforts to enhance nongame species.

State methods to obtain needed funding will vary widely because of differing philosophies and institutional arrangements. One point is certain, however, voluntary and contributory programs will not be successful in raising the quantity of funds needed. Any approach to secure funds must provide an adequate and continuous source of money.

- VIII. That a Federal Extension Service Wildlife Specialist be hired to fill the position which has been vacant for about 35 of the past 38 years.

Lack of leadership and coordination by the Federal Extension Service has hampered State Cooperative Extension Services' efforts to develop more adequate fish and wildlife programs. This is unfortunate because nearly two-thirds of the nation's land is in private ownership.

- IX. That the State Cooperative Extension Services coordinate their fish and wildlife programs more closely with each other at least on a regional basis.

Publications, films, and radio and television programs could be produced jointly with higher quality and lower costs.

- X. That those State Cooperative Extension Services not now having a Fishery and/or Wildlife Specialist take the necessary action to create, fill, and fund such a position.
- XI. That agencies and organizations intensify their efforts to salvage critical or diminishing habitats for all fish and wildlife.
- XII. That a comprehensive course on natural resources and environmental awareness be encouraged in each educational institution and be required of all students.

Table 1. State (36)\* and territorial (1) fish and wildlife agencies: total and nongame investments in research, management, and enforcement, 1974-75.

	Total Program		Nongame Program			No. Endangered Sp. Projects	No. Projects with Non- license Funds
	Dollars	Man-Years	Dollars	Man-Years	No. Projects		
Management							
Birds			\$ 426,034	12.2	37	19	6
Mammals			136,425	13.6	14	6	5
Fish			45,725	11.6	6	2	1
Other Species			229,005	0.9	8	2	2
Habitat			56,270	3.8	6	0	2
Subtotal	\$ 84,248,136	3,640.8	\$ 893,459	42.1	71	29	16
Research							
Birds			449,305	37.9	47	15	6
Mammals			276,700	26.3	24	10	2
Fish			563,323	31.8	25	7	3
Other Species			198,336	19.9	23	6	0
Habitat			170,100	12.5	8	0	1
Subtotal	40,550,213	2,008.0	\$1,657,764	128.4	127	38	12
Law Enforcement							
Birds			525,804	35.9	22	2	0
Mammals			155,141	9.4	12	1	0
Fish			72,370	4.2	9	0	0
Other Species			37,500	1.8	5	0	0
Habitat			14,000	1.0	1	0	0
Subtotal	\$ 51,628,385	3,460.3	\$ 804,815	52.3	49	3	0
TOTALS	\$176,426,734	9,109.1	\$3,356,038	222.8	247	70	28

\* 5 agencies were unable to provide data.

5 agencies and one territory had no specific nongame activities.

4 states and one territory did not return the questionnaire.

PUBLIC ATTITUDES TOWARD  
CRITICAL WILDLIFE AND NATURAL HABITAT ISSUES

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Phase one results of a U.S. Fish and Wildlife Service funded study of "American attitudes, knowledge and behaviors toward wildlife and natural habitats." Grant #14-16-0009-77-056. Presented to the U.S. Fish and Wildlife Service, October 15, 1979.

#### E. WILDLIFE MANAGEMENT

To some extent, all previous sections have examined aspects of wildlife management and policy. These have ranged from the most peripheral wildlife value issues, mainly pertinent to the evolution of management priorities and strategies, to issues with more direct implications for resource planning and allocation decisions. This section, although entitled wildlife management, certainly does not intend to cover all management issues. Instead, its focus is on the general organization of wildlife management and some program areas not yet covered. Specifically, this section will deal with the funding of public wildlife management, public attitudes toward species population control, wildlife law enforcement, wildlife education and urban wildlife programs.

One of the most important considerations facing the field today is the funding of public wildlife management. This issue not only concerns how to obtain additional revenues for ongoing and needed programs but, implicitly, the relative influence and role of varying constituencies in the formulation of wildlife policy.

Public attitudes toward seven possible funding sources were explored. In the question asked, the respondent was informed of the principle of having

direct beneficiaries of wildlife management pay some of the management costs, as hunters and fishermen have done through taxes on equipment and license fees. The results of this question are indicated by Tables 50 and 51 (and more graphically in Figure 30), with the funding possibilities listed in order of most to least public support. As noted in Table 50, three funding options received very strong support, considerably greater than any of the other four alternatives. These included a sales tax on fur clothing derived from wild furbearers (82 percent in favor), entrance fees to public wildlife areas, including wildlife refuges (75 percent in favor), and a sales tax on off-road vehicles (71 percent in favor). It is relevant to note that the harvesting of furbearers and the use of public wildlife areas involve direct benefits derived from wildlife. Additionally, the taking of furbearers and, in an indirect sense, the use of off-road vehicle can be regarded as consumptive use type activities. These two factors--direct benefits and consumptive use--may have been partly involved in the public's support for these funding alternatives. Relatedly, the only funding possibility which embodied both consumptive use and direct benefit, the taking of wild fur-bearers, received significantly greater public support than did the other six alternatives (82 percent in favor, and 71 percent to a relatively strong degree).

As revealed by the last finding in Table 50 and Table 51, a moderate, although significant, majority of the public approved of a sales tax on backpacking and camping equipment (57 percent in favor), on birdwatching equipment and supplies (54 percent), and of increasing the amount of general tax revenues for wildlife management (57 percent in favor). The finding of significantly less support for taxes on backpacking and birdwatching equipment, in comparison to the first three alternatives, may have been related to the nonconsumptive nature of these activities which historically have been of

TABLE 50  
FUNDING OF WILDLIFE MANAGEMENT X GENERAL PUBLIC

IT HAS BEEN PROPOSED THAT PEOPLE WHO BENEFIT FROM WILDLIFE SHOULD HELP PAY THE COST OF WILDLIFE CONSERVATION, THE WAY HUNTERS AND FISHERMEN PRESENTLY DO THROUGH LICENSING AND TAXES ON EQUIPMENT. WHICH ADDITIONAL FUNDING SOURCES DO YOU THINK SHOULD HELP PAY FOR THE COST OF WILDLIFE CONSERVATION?

SALES TAX ON FUR CLOTHING, SUCH AS FUR COATS, MADE FROM WILD ANIMALS.

STRONGLY APPROVE	APPROVE	SLIGHTLY APPROVE	SLIGHTLY DISAPPROVE	DISAPPROVE	STRONGLY DISAPPROVE
(78)	(969)	(268)	(88)	(214)	(75)
31.8	39.5	10.9	3.6	8.7	3.1
	82		15		

ENTRANCE FEES TO WILDLIFE REFUGES AND OTHER PUBLIC WILDLIFE AREAS.

STRONGLY APPROVE	APPROVE	SLIGHTLY APPROVE	SLIGHTLY DISAPPROVE	DISAPPROVE	STRONGLY DISAPPROVE
(333)	(1081)	(422)	(155)	(297)	(106)
13.6	44.1	17.2	6.3	12.1	4.3
	75		23		

SALES TAX ON OFF-ROAD VEHICLES SUCH AS DUNE BUGGIES AND SNOWMOBILES.

STRONGLY APPROVE	APPROVE	SLIGHTLY APPROVE	SLIGHTLY DISAPPROVE	DISAPPROVE	STRONGLY DISAPPROVE
(514)	(989)	(319)	(155)	(438)	(125)
20.9	36.6	13.0	6.3	14.2	5.1
	71		26		

SALES TAX ON BACKPACKING AND CAMPING EQUIPMENT.

STRONGLY APPROVE	APPROVE	SLIGHTLY APPROVE	SLIGHTLY DISAPPROVE	DISAPPROVE	STRONGLY DISAPPROVE
(174)	(796)	(427)	(224)	(551)	(199)
7.1	32.4	17.4	9.1	22.4	8.1
	57		40		

TABLE 51  
 FUNDING OF WILDLIFE MANAGEMENT X GENERAL PUBLIC \*,\*\*

(CONTINUED)

IT HAS BEEN PROPOSED THAT PEOPLE WHO BENEFIT FROM WILDLIFE SHOULD HELP PAY THE COST OF WILDLIFE CONSERVATION, THE WAY HUNTERS AND FISHERMEN PRESENTLY DO THROUGH LICENSING AND TAXES ON EQUIPMENT. WHICH ADDITIONAL FUNDING SOURCES DO YOU THINK SHOULD HELP PAY FOR THE COST OF WILDLIFE CONSERVATION?

A GREATER AMOUNT OF GENERAL TAX REVENUES FOR WILDLIFE.

STRONGLY APPROVE	APPROVE	SLIGHTLY APPROVE	SLIGHTLY DISAPPROVE	DISAPPROVE	STRONGLY DISAPPROVE
(204)	(692)	(498)	(260)	(503)	(174)
8.3	28.2	20.3	10.6	20.5	7.1
	57		38		

SALES TAX ON BIRDWATCHING EQUIPMENT AND SUPPLIES.

STRONGLY APPROVE	APPROVE	SLIGHTLY APPROVE	SLIGHTLY DISAPPROVE	DISAPPROVE	STRONGLY DISAPPROVE
(157)	(732)	(435)	(218)	(565)	(216)
6.4	29.8	17.7	8.9	23.0	8.8
	54		41		

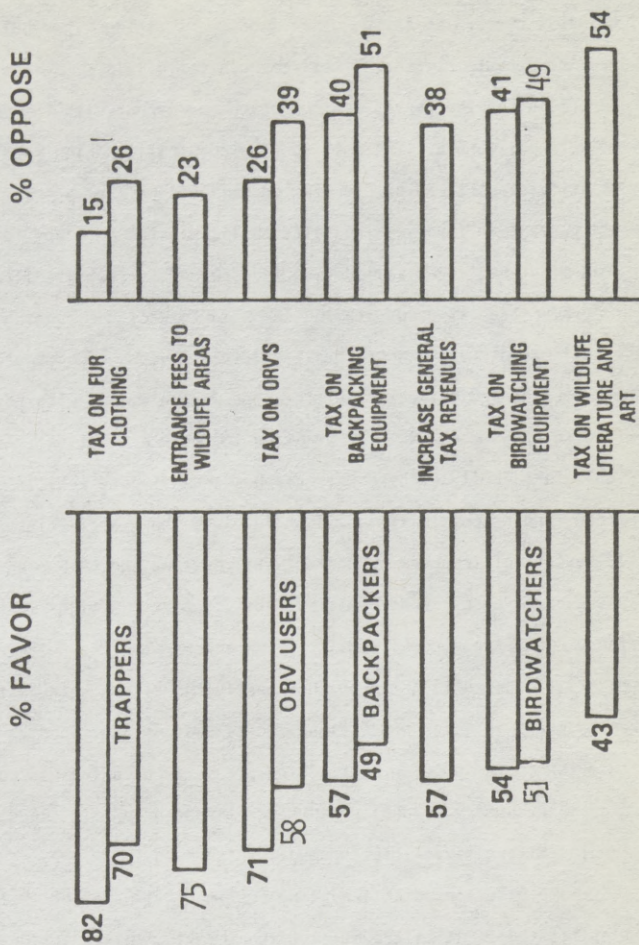
SALES TAX ON WILDLIFE BOOKS, ART AND MAGAZINES.

STRONGLY APPROVE	APPROVE	SLIGHTLY APPROVE	SLIGHTLY DISAPPROVE	DISAPPROVE	STRONGLY DISAPPROVE
(130)	(568)	(362)	(238)	(761)	(315)
5.3	23.2	14.7	9.7	31.0	12.8
	43		54		

\* USING 1.5 PERCENT CONFIDENCE LIMITS, NON SIGNIFICANT DIFFERENCES WERE FOUND BETWEEN THE OPTIONS, ENTRANCE FEES TO WILDLIFE AREAS AND TAX ON OFF-ROAD VEHICLES; AND BETWEEN TAX ON BACKPACKING EQUIPMENT, GREATER GENERAL TAXES AND THE TAX ON BIRDWATCHING EQUIPMENT.

\*\* DIFFERENCES BETWEEN APPROVE AND DISAPPROVE WERE SIGNIFICANT FOR ALL OPTIONS AT THE  $\leq .0001$  LEVEL.

FIGURE 30  
**SUPPORT FOR ADDITIONAL WILDLIFE  
 MANAGEMENT FUNDING POSSIBILITIES:  
 GENERAL PUBLIC AND KEY INTEREST GROUPS**



marginal concern to the wildlife management field. The public's support for greater amounts of general tax revenues for wildlife management was somewhat surprising as the survey was conducted concurrent with the Proposition 13 vote in California. The only funding possibility which received less than majority support was a sales tax on wildlife-related art and literature (43 percent in favor). This alternative was the only one involving indirect, what might better be called vicarious, benefits from wildlife.

Key interest group attitudes toward some of the funding possibilities were limitedly explored. Specifically, the views of birdwatchers, trappers, backpackers and off-road vehicle users were examined with regard to those funding areas most directly relating to their activities. As Table 52 reveals, a majority of birders, trappers and off-road vehicle users supported those funding possibilities which involved their activities. However, while 70 percent of trappers supported a tax on furs and 58 percent of frequent ORV users a tax on off-road vehicles, this support was significantly less than found among the general public. Backpackers were the only group with a majority opposed to a tax on their activity, although the difference between backpackers in favor and against the tax was insignificant. Opposition to this tax in the popular backpacking press may have influenced the results. A graphic summary of public and key interest group attitudes toward the funding alternatives is presented in Figure 30.

Some have linked anti-hunting sentiment with an anti-wildlife management attitude. A limited attempt at exploring this relationship involved a question on the notion that most waterfowl and deer would be "better-off" if wildlife professionals did not try to control the populations of these animals. A significant majority of the general public disagreed with this notion, as seen in Table 53 and more graphically in Figure 31. More remarkably,

TABLE 52  
 FUNDING OF WILDLIFE MANAGEMENT ALTERNATIVES X  
 KEY INTEREST GROUPS

## BIRDWATCHERS:

SALES TAX ON BIRDWATCHING EQUIPMENT AND SUPPLIES.

STRONGLY APPROVE	APPROVE		SLIGHTLY APPROVE	SLIGHTLY DISAPPROVE	DISAPPROVE	STRONGLY DISAPPROVE	
(6)	(23)		(10)	(5)	(16)	(7)	
7.8	29.9	51	13.0	6.5	20.8	22.1	Z = .11
				49			P = .0875

## TRAPPERS:

SALES TAX ON FUR CLOTHING, SUCH AS FUR COATS, MADE FROM WILD ANIMALS.

STRONGLY APPROVE	APPROVE		SLIGHTLY APPROVE	SLIGHTLY DISAPPROVE	DISAPPROVE	STRONGLY DISAPPROVE	
(42)	(47)		(31)	(13)	(17)	(15)	Z = 5.84
24.6	27.5	70	18.1	7.6	9.9	8.8	P = $\leq$ .0001
				26			

## BACKPACKERS (6 OR MORE DAYS/YEAR):

SALES TAX ON BACKPACKING AND CAMPING EQUIPMENT.

STRONGLY APPROVE	APPROVE		SLIGHTLY APPROVE	SLIGHTLY DISAPPROVE	DISAPPROVE	STRONGLY DISAPPROVE	
(12)	(36)		(19)	(18)	(35)	(18)	Z = .34
8.8	26.3	49	13.9	13.1	25.5	13.1	P = .73
				51			

## OFF-ROAD VEHICLE USERS (11 OR MORE DAYS/YEAR):

SALES TAX ON OFF-ROAD VEHICLES SUCH AS DUNE BUGGIES OR SNOWMOBILES.

STRONGLY APPROVE	APPROVE		SLIGHTLY APPROVE	SLIGHTLY DISAPPROVE	DISAPPROVE	STRONGLY DISAPPROVE	
(27)	(46)		(19)	(17)	(27)	(17)	Z = 2.51
17.1	29.2	58	11.9	10.7	17.3	10.8	P = .01
				39			

the very groups presumably opposed to modern wildlife management efforts expressed even greater disagreement. For example, 60 percent of humane-related organization members and 61 percent of anti-sport hunters approved of management efforts to control populations of waterfowl and deer.

The results of Table 54 and the bar graphs in Figure 32 deal with two additional wildlife management issues: wildlife law enforcement and wildlife education efforts. Regarding wildlife law enforcement, the public overwhelmingly supported strict enforcement and severe penalties for illegal wildlife activities involving the killing of animals. Indeed, only 11 percent disagreed with the notion of stiff fines and even prison sentences for repeated offenders. The second finding in Table 54 and Figure 32 reveals substantial public support for federal wildlife education efforts, with only 24 percent advocating little time and money being spent in this area. Table 55 indicates limited public support for expanding urban wildlife programs, although 60 percent of respondents from areas of more than one million population were in favor.

*TRANSACTIONS:*

**Fortieth North American  
Wildlife and Natural Resources  
Conference**

Conference Theme:

*Adjusting Consumptive Demands  
to Resource Capabilities*

Pittsburgh Hilton Hotel  
Pittsburgh, Pennsylvania  
March 16-19, 1975

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## Migratory Birds: Inventories, Population Status, Research Needs, and Management Opportunities

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*Discussion Leader:*

CHARLES J. HENNEY

Research Biologist, U. S. Fish and Wildlife Service, Denver, Colorado

## Economic Values of Non-Game Birds and Some Urban Wildlife Research Needs

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Perhaps the greatest opportunity for human enjoyment of wildlife exists for urban man in the observation of non-game birds. Most Americans now live in cities, where a relatively small percentage of residents have even occasional chances to enjoy wildlife by hunting or by viewing game species. But the potential for wildlife enjoyment through bird watching is enormous. Bird watching is already an extremely popular activity, and the enjoyment derived from observing non-game birds can be greatly increased through research on habitat requirements, human preferences, and methods of increasing human awareness of and contact with non-game species.

One measure of the importance of any activity is the amount of money spent by participants in that activity. Even though we recognize that the value of a product or service arises from its use or from its exchange for other products or services, we usually express this value in terms of dollars and cents. Economic value may be a crude and imperfect measure of worth, but it is a useful means for comparing different kinds of products and services.

By the measure of economic value, the enjoyment of non-game birds is already a big business, and that business is growing. We estimated the total direct expenditures associated with the enjoyment of non-game birds. Included in our estimate were total retail sales of birdseed, birdhouses and feeders, field guides, gift books, a portion of total retail sales of binoculars and cameras, and dues paid to representative professional societies.

We believe that our estimate is conservative and that it represents a minimum value of the economic importance of non-game birds. We have not attempted to measure willingness to pay for bird watching; we have estimated only what has actually been spent for the activity. Actual expenditures obviously must always be less than or equal to willingness to pay.

A common shortcoming of an expenditures approach to measuring the value of some activity is the tendency to over-estimate value by including indirect expenditures. For example, we did not attempt to estimate expenditures for transportation, lodging, food, or alcoholic beverages during bird watching expeditions. Although often associated with bird watching, these expenditures are made for their own sake and are not required for enjoyment of wildlife. Neither did we include the value of clothing worn by participants. The primary motive for wearing clothing has nothing to do with observing wildlife. The same is true for eating and drinking.

Expenditures for wild birdseed are directly attributable to enjoyment of non-game birds. There are virtually no uses for birdseed other than for feeding birds. Birdseed is purchased and consumed annually, and thus represents a measure of current interest in non-game birds. Our estimates ignore expenditures for wildlife foods other than birdseed, such as breadcrumbs, table scraps, suet, and grains purchased from feed stores, but not identified as birdseed. In dollar terms, we believe that this omission is of minor importance.

Bird houses and feeders are a second category of expenditure related directly to the enjoyment of birds. Houses and feeders last several years, so that growth in their sales is due primarily to purchases by households not previously feeding birds.

Expenditures for guides to field identification of birds are also directly attributable to non-game bird enjoyment. A few titles account for the great majority of sales. Because each book lasts for many years, growth in sales is attributable almost entirely to recruitment of new bird watchers.

Expenditures for gift books about birds are attributable primarily to wildlife appreciation, although some people may buy books as status symbols, or they may give them as gifts whether or not the recipient has any interest in wildlife. Although each book has a nearly indefinite life span, new titles are available each year, and people tend to collect them. In a sense, gift books are consumed annually, and the sales of the new books each year are a good measure of consumer interest to wildlife.

Membership dues paid to organizations such as the National Audubon Society are easily estimated and show a continuous record of growth in the numbers of people interested in non-game wildlife.

A portion of the annual retail sales of binoculars are directly related to wildlife appreciation. No serious bird watcher is without at least one pair of fairly expensive binoculars that he uses almost exclusively for identification and observation of birds. A good pair of binoculars lasts for decades, so that binocular sales to bird watchers, like sales of field guides, are usually sales to new bird watchers.

A portion of the market for photographic equipment is directly attributable to appreciative uses of wildlife. As with binoculars, the trick is to estimate what portion. Most serious bird watchers own one or more cameras; however, these probably are not used exclusively for taking pictures of wildlife. Cameras may be replaced more frequently than binoculars due to their greater complexity and

continuing technological improvements. Because the market for camera equipment is huge, even a small percentage attributable to wildlife appreciation represents a large annual expenditure.

What are the annual expenditures for these categories, and how did we estimate them?

Several studies have contributed to our knowledge of the annual expenditures for birdseed. DeGraaf and Thomas (1974) found that 43 percent of households surveyed in Amherst, Massachusetts fed birds in 1972. A mail and telephone survey of Massachusetts residents (Massachusetts Audubon Society 1974) found that one-third of all households bought an average of 60 pounds of birdseed per year. A survey in Maine (Cross 1973) found one-third of households feeding nearly 125 pounds of birdseed per year. However, this survey was biased in favor of persons interested in birds. A study in 1972 by Agway (Bruce Dunning, personal communication) found that 24 percent of Boston households fed birds and that purchases by household averaged 70 pounds of seed per year. Table 1 shows comparable figures for five large U. S. cities.

Based on these studies and on communication with birdseed suppliers, we have concluded that approximately 20 percent of U. S. households purchase an average of 60 pounds of birdseed per year; furthermore, these figures have remained constant for several years. Assuming an average retail price of \$18 per hundred-weight in 1974 and approximately 15 million households feeding birds, we estimate total annual retail sales in 1974 to be \$170 million. In 1972, with fewer households and with birdseed selling for about half of 1974 prices, we estimated annual retail sales of nearly \$80 million. Sales in 1969 were somewhat over \$50 million.

Sales of birdhouses and feeders are more difficult to estimate accurately than sales of birdseed. Annual sales are much lower, and dozens of small companies make birdhouses and feeders. Based on annual sales and estimated market percentage of one large supplier, we estimated expenditures of \$15 million for birdhouses and feeders in 1974. This figure does not include the cost of homemade houses and feeders.

Sales of field guides are dominated by two publishers. Based on communication with these publishers, we estimated total sales of five titles at \$3 million in 1974.

Sales of gift books related to birds have grown steadily since 1970, according to figures that we obtained from a private market research firm. Sales in 1970 were approximately \$1.5 million; but 1974 sales were slightly over \$4 million.

Based on annual membership records, we calculated dues paid to the National Audubon Society and the Massachusetts Audubon Society from 1970 to 1974. The total obviously under-represents total dues paid to organizations primarily concerned with non-game birds, but the Audubon figures show an increase from \$1.6 million in 1970 to \$3.1 million in 1974. Thus, dues payments have doubled in only five years.

In 1974, approximately \$115 million were spent by bird watchers for the purchase of binoculars. Bird watching accounts for between one-half and two-thirds of total dollar sales of binoculars. Bird watchers buy very few binoculars in lower price ranges, but may buy as much as three-quarters of the binoculars that cost more than \$250. (These figures are based on warranty return cards and were adjusted for non-response in lower price ranges.)

Table 1. Birdseed purchases by percent of households in five major U. S. cities in 1972.

	Number of households	Percent of households that feed birds	Average annual seed purchase per household (pounds)
Milwaukee	442,804	19.4	64.5
Cleveland	659,487	24.7	57.6
St. Louis	750,164	19.8	64.5
New York	3,949,454	15.1	49.2
Boston	861,024	23.8	69.6

Data on camera sales attributable to non-game bird photography are extremely difficult to obtain, partly due to the large number of foreign and domestic camera makers and to the wide range of subjects photographed. The latest figures available showed total sales of cameras, lenses, film, and photo processing of about \$3.7 billion in 1972. If we attribute only five percent of this total to photography of birds and other wildlife, we estimate an expenditure of \$187 million.

Thus, the total direct expenditures attributable to the enjoyment of non-game wildlife in 1974 appeared to be about \$500 million. Photographic equipment and services, birdseed, and binoculars account for 95 percent of this total. An additional three percent is contributed by birdhouses and feeders, with minor contributions from membership dues, gift books, and field guides.

Our estimate of \$500 million per year is both a conservative and an impressive indication of the economic importance of non-game birds. To help put this figure in perspective, it might be compared with the total expenditures of hunters, exclusive of transportation, lodging, food, and alcoholic beverages. According to the National Survey of Fishing and Hunting (USDI 1972), this total was \$1.7 billion in 1970.

Comparing birding expenditures to expenditures of waterfowl hunters may be more appropriate. In 1970, waterfowl hunters spent \$180 million, again excluding transportation, lodging, food, and alcoholic beverages (USDI 1972). Even if we allow for inflation and some increase in hunting by 1974, waterfowl hunting expenditures must not have exceeded \$300 million, or 60 percent of birding expenditures for the same year.

Research needs concerning non-game wildlife have been proposed by DeGraaf and Thomas (1973 and 1974), who advocated a three-part program of determining habitat requirements, human preferences, and ways to increase human-wildlife interaction. Thomas and DeGraaf (1973) proposed specific studies within these problems areas.

The present discussion of research needs is broad, and may even be considered a *pot pourri* of problem areas. Some problems can be studied only by wildlife professionals: others require help from other professions.

The determination of the habitat requirements of non-game species is still a major research need because it is requisite to any management that we might propose. Not only are habitat determinations important, but methods for habitat analysis must be refined and simplified so that private organizations and laymen can apply them. Also, we need inventories of urban and suburban wildlife populations and sites which have potential for habitat management.

A second research need, especially in urban and suburban areas, is to identify our constituents. Who enjoys wildlife, when and how? We should not be satisfied with the commonly used "wildlife-oriented recreation day" approach. Also needed are studies of human preferences among species in order to establish management priorities. Such studies may require the input of recreation researchers if reliable data are to be gathered; wildlife biologists are too prone to assume public support for our programs. This attitude is typified by the statement: "Twenty percent of the populace feeds birds; therefore it must be good for them."

This suggests a most important problem area: a research effort to find out if there are real benefits, either mental or physical, from experiences which include wildlife. We would probably all agree that there are. That is why we're here. That is also why we need an objective study with the help of the medical profession. If such benefits were in fact demonstrated, we could link urban wildlife management efforts to larger programs with greater funding, such as those of the U. S. Departments of Housing and Urban Development, and Health, Education and Welfare, to help improve the lot of urban residents. A beginning in this type of research might be made by studying the effect of birds at window-sill feeders in hospitals or convalescent or nursing homes.

Two research areas would require help from the legal profession. The time may be at hand for treaties with Central and South American countries that are rapidly destroying the wintering habitat of many of our breeding species. More pragmatically, a model law might be proposed to allow tax deductions for money spent in the creation of residential or backyard habitat on the premise that the resultant production of wildlife represents a community good.

Enjoyment of non-game birds is an important activity in our society, economically as well as aesthetically. If we are to meet our professional responsibilities, we must devote greater effort to research and management of non-game species, with particular attention to urban and suburban habitats.

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## Discussion

CHAIRMAN HICKEY: Thank you, Mr. DeGraaf.

I have one observation in relation to bird feeders in Germany. One time, I was able to count them in relation to balconies in a particular town and found that 25 percent of the balconies contained bird feeders in the urban area. As you can see, this is quite close to the figures presented by our speaker.

DISCUSSION LEADER HENNEY: I think it is no wonder that several authors have actually suggested that the range expansion of many species of birds in recent decades may be partially in response to these backyard bird feeders. As we can see from our talk today, the amount of feeding is indeed large.

I might ask the speaker if he has any feeling for the amount of feeding that may have been taking place a decade or two decades ago—has there been a rapid increase? Is there information available as to that aspect?

MR. DeGRAAF: Unfortunately, I do not have any data on what was going on a decade ago. Through my informants, I will try to find out and get some long term trends.

MR. STEWART FEFER: [Maine] I was wondering if you separated the money spent by duck hunters, such as for binoculars, bird books and cameras, from the non-game consumptive uses in terms of the figures you gave?

MR. DeGRAAF: No. There are, of course, some problems with this. It was difficult enough just getting dollar sales at all on the product and a finer separation is pretty difficult.

MR. FEFER: Therefore, within that \$500 million figure, there was money spent by hunters in terms of binoculars?

MR. DeGRAAF: Undoubtedly, yes, there is money in there spent by hunters. I did not mean to imply that there was no contribution by hunters.

MR. TOM STOCKDALE [Ohio State University]: It seems to me there might be one other category which we may be overlooking at the present time and I think it falls in the same realm as books—and that is the whole mushrooming area of wildlife art and sale of art prints. This is a fantastic business today and one which I think we can attribute directly to non-consumptive interest in wildlife, is that correct?

MR. DeGRAAF: Yes I might say that we did consider this aspect of it but had no dealers that were really willing to give us any figures at all. I have already asked about it, asked people with displays if they had any indication of the market, either locally or nationally, and there was absolutely no indication given. I wonder how much of this art or art prints is bought for art's sake, even though some dealers contribute some of the sales toward management and research efforts. However, many do not. My point is that this may reflect, not an appreciation of wildlife but just of art. I would like to know if it does.

Undoubtedly, it is a large amount of money but I have no sources of information on this.

DR. GEORGE HULSEY [National Wildlife Federation]: Dick, do you view as a possibility here a taxable base where perhaps an 11 percent excise tax could be applied to packaged bird seed, the revenue from which could be applied to the management of non-game species?

MR. DeGRAAF: That was the unstated purpose of the whole project that I have been discussing here. It is why I mentioned that 95 percent of the estimated total resulted in binoculars, bird seed and camera equipment purchases. Any proposed tax would have to be on a product pretty directly related to the enjoyment of birds, such as bird seed. However, some \$30 million would be needed soon for management and research on non-game species.

MR. DALE POTTER [Seattle, Washington]: Let me say that I particularly appreciated your paper here today. I believe it is very timely and I laud your efforts in this area. We very badly need some research in the urban areas.

It occurred to me as you were talking that you were thinking primarily in terms of the positive effects of feeding birds. I wonder if, in your thinking or in your program, you plugged in the possible potential negative effects of attracting birds? I am thinking particularly of the health problems that may arise from attracting larger populations of pigeons, for example—that feeding in the park, for example, will attract some undesirable species.

You did mention some possibilities of cooperation with the health people and perhaps this would be an extension of that program. Do you have any comments on that or do you see any of these negative effects?

MR. DeGRAAF: There is no question about it. I am not a pathologist and won't pretend to be. The only thing I can refer you to in relation to adverse effects, is the work by Locke. His paper talks about this and they talked about this at the Urban Wildlife Symposium held in Springfield, Mass. In that proceeding there is a discussion of some of the negative aspects of concentrating birds.

CHAIRMAN HICKEY: I believe an increase in bird food distributed officially has been fairly recent. This also involves sunflower seeds in Western Maine and Eastern North Dakota.

Insofar as health problems are concerned, I might say that some people to whom I have talked about health problems posed by the great concentration of blackbirds which we have seen something of in the press recently, say that these problems may be somewhat exaggerated by the press.

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NONCONSUMPTIVE WILDLIFE ENTHUSIASTS VISITING SOUTHERN ARIZONA:  
THEIR BELIEFS ABOUT WILDLIFE MANAGEMENT PROGRAMS AND POLICIES<sup>1</sup>

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ABSTRACT:

To broaden current knowledge of nonconsumptive wildlife enthusiasts, a voluntary sample of 591 individuals was obtained at seven selected wildlife viewing sites in Southern Arizona from March to August, 1977. The "typical" respondent can be cautiously characterized as a middle to older aged, well educated, rather affluent metropolitan dweller who greatly enjoys observing wildlife. Most belonged or contributed to two or more private conservation organizations of a nonconsumptive bent; the group, however, did not possess an anti-hunting inclination. In general, they thought that wildlife management presently benefits mostly the hunter, and perceived an imbalance in game versus nongame management weighted

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toward the former. Among the methods they favored for financing increased nongame management was the use of general tax revenues. Most felt that hunters and nonhunters could work together in support of wildlife, and thought it important that government give attention to uniting hunters and nonhunters to this end. These nonconsumptive enthusiasts appear not to threaten the prevailing pattern of wildlife management, in which hunting and game management play central roles; however, they do not actively support it. Until they perceive that wildlife agencies represent their interests, or until funding mechanisms are developed which make their participation in public programs mandatory, their financial and political resources will flow to wildlife conservation programs in the private sector, and remain largely untapped by government agencies.

#### INTRODUCTION

It is now widely recognized by the wildlife profession that the interests of nonconsumptive wildlife enthusiasts warrant increased consideration in the management of wildlife resources. In this paper, the term "nonconsumptive" describes users not involved in the attempted or actual removal of wild animals from their habitats (notably, bird-watchers, wildlife photographers, hikers, backpackers, and nature artists).

Unlike hunters and anti-hunters, who have been studied in some detail, investigation of nonconsumptive users and their wildlife-related beliefs has been sparse (Potter et al., 1973; Fazio and Belli, 1977;

Witter, 1977). As a result, there is a question as to where these enthusiasts stand in relation to wildlife management agencies. Are they totally supportive of the prevailing pattern of game and nongame management? Mildly supportive? Or, are they extremely dissatisfied with wildlife management programs and policies affecting them? Such questions must be answered if wildlife professionals and public policy makers hope to understand the expectations of non-consumptive users for wildlife management, and respond by designing and funding programs appealing to groups with diverse wildlife interests.

For reasons of geography, climate, and biological diversity, Southern Arizona is an unparalleled natural setting which draws a large number of nonconsumptive enthusiasts who seek a variety of wildlife-related recreational and educational experiences. Unique, too, is the opportunity this area affords social scientists to investigate the beliefs held by nonconsumptive enthusiasts with respect to the programs and policies of contemporary wildlife management.

This study utilized a voluntary sample of nonconsumptive enthusiasts visiting selected wildlife viewing sites in Southern Arizona. This paper, (1) identifies the respondents in a socio-economic sense, (2) describes their beliefs about policies and programs of contemporary wildlife management, (3) reviews the mechanisms favored by them for funding nongame management, and

(4) discusses the possibility of wildlife management agencies enlisting the support of nonconsumptive users in furtherance of wildlife welfare .

#### ACKNOWLEDGEMENTS

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#### METHOD

Through preliminary field investigation and expert advise, seven sites in Southern Arizona known to be frequented by non-consumptive wildlife enthusiasts were selected. These sites were Cave Creek Canyon in the Chiricahua Mountains, Ramsey Canyon in the Huachuca Mountains, Patagonia-Sonoita Creek Sanctuary, Canelo Hills Cienega Sanctuary near Elgin, the Circle Z Guest Ranch near Patagonia, and the Tanque Verde and Wild Horse Guest Ranches near Tucson.

In early 1977, residents at these sites who would come in frequent contact with visiting wildlife viewers were enlisted to

act as field cooperators for the study. These cooperators, most of whom were ranch owners or sanctuary caretakers, had a two-fold job: first, to alert visitors to the study, and second, to give each visitor expressing interest in the investigation a one-page description of the study and a card for the visitor's name and address. On the card, the potential subject was asked if wildlife appreciation was one of the reasons for his or her visit to the area, and if so, to provide name and address so that a detailed questionnaire about wildlife interests and activities could be sent. Having completed the card, the visitor returned it to the cooperator. Although this sampling scheme was deemed satisfactory for the exploratory purposes of the study, we cannot state unequivocally that the method resulted in an adequate representation of day visitors.

The address cards were collected from the cooperators every three weeks from March to August, 1977. In all, 706 people volunteered to participate; of these, 604 completed and returned the questionnaires sent them, for a response rate of 86 percent. Thirteen respondents resided permanently in foreign countries. Because these individuals may not have formulated opinions about wildlife management in the United States, they were removed from the sample for the purposes of this paper. The sample size upon which the following results are based was thus reduced to 591. Percentages in the text are adjusted for missing values where necessary.

## RESULTS

Most respondents volunteered for the study while visiting Cave Creek Canyon or Ramsey Canyon. These two areas accounted for 74 percent of the sample.

Socioeconomic Characteristics

A thumbnail sketch of respondents shows that men outnumbered women, 394 versus 197. The mean age was 48 years, with 50 percent being 50 years of age or older. Strikingly, the average years of education was 17. Slightly over half (53 percent) had household incomes of \$20,000 or more, and 31 percent had incomes of over \$30,000. Nearly a third (30 percent) resided permanently in the Pacific states, with California alone accounting for 25 percent. Another 29 percent lived in the Mountain states, with Arizona accounting for 22 percent. Seventeen percent resided in the South, 12 percent in the North Central states, and 12 percent in the Northeast. Sixty-one percent were metropolitan dwellers.

Like hunters, nonconsumptive wildlife enthusiasts are a heterogeneous group, and generalizations about their socioeconomic characteristics can be misleading. However, the "typical" respondent can be cautiously characterized as a middle to older aged, well educated, rather affluent metropolitan resident. This one-sentence portrayal is consistent with the general sociocultural description of nonconsumptive users offered by Hendee (1969).

### Selected Wildlife Interests

Almost all (92 percent) of the respondents were bird-watchers. Indeed, 82 percent listed bird or wildlife watching among the three outdoor recreation activities they most enjoyed. Over half (55 percent) classified themselves as wildlife photographers. About 7 percent, or 39 individuals, considered themselves active hunters. Thirty-five of these hunters were also bird-watchers.

Most respondents (88 percent) belonged or contributed to at least one private conservation organization which can be characterized as having a nonconsumptive bent. Seventy-three percent belonged or contributed to two or more such groups, and slightly over half (54 percent), to three or more.

### Beliefs About Wildlife Management

From the responses, the following summary of subjects' beliefs about contemporary wildlife management can be constructed.

View of Game and Nongame Management. A majority (65 percent) felt that wildlife management as we know it today benefits mostly the hunter. They disagreed (87 percent) with the idea that, because hunters have long financed wildlife management, they should have more of a voice in management than other wildlife interest groups. Indeed, most (92 percent) felt that nonhunting wildlife enthusiasts should have a say in government wildlife agencies equal to the say hunters now have.

Significantly, this group did not possess an anti-hunting inclination. Most (73 percent) felt that a government ban on hunting

would not help wildlife, and a slight majority (56 percent) agreed that hunting is essential to prevent overpopulation of some types of wildlife. In general, then, the perception of the group was that hunting has a role in wildlife management.

Nearly three-fourths (73 percent) indicated they were equally concerned with the welfare of both game and nongame animals. Fifty-nine percent did indicate, however, that they felt an imbalance exists in game versus nongame management, with 54 percent feeling that nongame animals are given inadequate attention by government wildlife agencies.

It should be stressed here that, in response to the question of balance in game versus nongame management, fully 33 percent were undecided, with 8 percent saying a balance does exist. The large percentage responding "undecided" suggests that, unlike anti-hunters, a substantial number of subjects were willing to give programs and intentions of wildlife agencies the benefit of a doubt.

Thoughts on Financing Nongame Management. Almost all (90 percent) disagreed with the statement that, because nongame animals are not hunted, not nearly as much time and money need be devoted to their management as is given to game management. Who, then, is to pay for expanded nongame management, and how?

A majority (62 percent) felt that hunters should not be expected to pay the major part of nongame management costs. At the same time, however, 61 percent said that nonhunting wildlife enthusiasts do not

now have an acceptable way to help pay the costs of nongame management.

One unacceptable way appeared to be the purchase of a state hunting license. (Some wildlife authorities have suggested that this purchase is at least one way nonconsumptive enthusiasts can support wildlife management by public agencies.) Fifty-two (9 percent) of 548 responding indicated that they had purchased hunting licenses in the last 12 months. However, of these, 34 (6 percent) were hunters, thus reducing the number of those who had purchased state hunting licenses for nonhunting purposes to 18 (3 percent).

Another way a nonconsumptive user might support the programs of wildlife agencies is the purchase of a federal duck stamp. However, very few of these wildlife enthusiasts used this method. Of 545 responding, 35 (6 percent) indicated they had purchased duck stamps in the last 12 months. However, of these, 19 (3 percent) were waterfowl hunters. Thus, only 16 (3 percent) of 545 respondents had purchased federal duck stamps for reasons other than hunting (presumably, for conservation purposes or stamp collection). Interestingly, there was one nonhunter who indicated purchasing both a federal duck stamp and a state hunting license in the last 12 months, again, presumably for nonhunting reasons.

Subjects were given a list of 24 potential ways of generating monies to finance nongame programs, and were asked to indicate which of these they favored. In Table 1 are listed the methods of financing nongame management favored by 80 percent or more of the respondents.

It is noteworthy that, of these nine methods, none would place the costs of financing nongame management exclusively on nonconsumptive users -- not even the selling of nongame stamps and decals, for such programs would probably be voluntary. Rather, this group would prefer to spread the cost across the general public, or make other groups who extract benefits from and/or impose costs on the environment accountable for the financing, e.g., timber, grazing, and mining interests, and hunters, fishermen, and users of outdoor recreation vehicles.

Before leaving Table 1, note that the acquisition of funds from general tax revenues was among the ways favored by most of the respondents. This method of financing wildlife management is one toward which the federal government and many states are now looking.

In Table 2 are listed those methods of financing nongame programs which would place costs more directly on nonconsumptive enthusiasts than the plans in Table 1. Favored by majorities were the selling of permits for recreational use of public lands (69 percent) and placing a one cent per dollar tax on outdoor recreational gear (59 percent). Less than a majority (45 percent) favored a one cent per dollar tax on bird-watching equipment, and only 31 percent favored a one cent per dollar tax on photographic equipment. Here, it seems that the percentages favoring decrease as the range of activities, interests, and equipment from which nongame funds would be drawn grows narrower.

Where Agency Efforts Should Be Placed. Subjects were given four wildlife-related concerns to rank indicating the amount of

emphasis they felt each should receive from government. In Table 3 are listed the four concerns and the mean rank of each. As might be expected, the concern on which respondents felt government should place the most emphasis was "protecting endangered wildlife." Tied were "uniting hunters and nonhunters in common action for wildlife," and "providing increased management for nonendangered nongame animals." The concern which respondents felt should receive least emphasis of these four was "providing increased management for game animals."

Of interest here is the importance respondents attached to the uniting of hunters and nonhunters in support of wildlife. Such a union would indeed be a coalition of formidable financial and political strength capable of substantial gains in wildlife conservation. This group of nonconsumptive enthusiasts thought this union possible, for when asked if hunters and nonhunters could cooperate in some way to further wildlife welfare, 82 percent (404) of 496 answering said "yes." Respondents were asked to suggest specific programs which could be offered by wildlife management agencies or private conservation organizations to foster cooperation. Suggestions forthcoming included, (1) conservation workshops with topics of interest to both groups, (2) educational programs explaining what government is, and is not, accomplishing through its wildlife management programs, (3) regularly scheduled meetings in which participants discuss issues of concern to all wildlife conservationists, (4) shared conservation projects, including the joint acquisition and management of habitat,

(5) ensuring both consumptive and nonconsumptive interests are represented on boards or commissions which make wildlife policy, and (6) having state agencies give reassurances, through their names and in their operations, that they have the interests of all wildlife at heart.

In addition to promoting cooperation between hunters and non-hunters, this group wanted government to place emphasis on increased management of nonendangered nongame animals. Subjects were asked for suggestions as to specific programs they would like to see come from government wildlife management agencies. Among those offered were, (1) acquire and protect wildlife habitat, (2) undertake more habitat research, (3) set aside more unique natural areas for wildlife observation, (4) institute permit systems at unique wildlife observation sites to ensure that nonconsumptive enthusiasts do not adversely affect the wildlife they seek, (5) pursue wildlife law enforcement more vigorously, (6) manage the total ecosystem, not just parts, and (7) closely regulate, and in some cases, stop, (a) predator control, (b) trapping, (c) poisoning, (d) hunting in wildlife refuges, and (e) vehicular access to public lands.

#### DISCUSSION

The nonprobability, voluntary sampling technique used in this investigation does not allow us to generalize our findings to a larger population. Instead, these results should be interpreted

only as a source of preliminary insights into the characteristics and beliefs of active nonconsumptive wildlife enthusiasts. In spite of these limitations, these results should provide useful information for wildlife professionals concerned with understanding, responding to, and capitalizing on the interests of nonconsumptive wildlife enthusiasts.

These nonconsumptive wildlife users and others like them appear not to threaten the prevailing pattern of wildlife management, in which hunting and game management play central roles. This thought should reassure those wildlife professionals who, because of the anti-hunting controversy, have grown suspicious of all nonhunting wildlife users and their motives.

However, though these enthusiasts do not pose a threat to wildlife agencies, they do not actively support them. In general, they perceive the management theme of agencies as "pro-hunting" rather than "pro-wildlife," and see difficulties becoming involved in the present system.

Their lack of participation in public programs -- their failure to buy federal duck stamps, for example -- should not be interpreted as an unwillingness to pay their own way in wildlife management. Any notion that these people do not "put their money where their mouths are" is quickly dispelled when recalling that 73 percent of the respondents belonged or contributed to at least two private conservation organizations of a nonconsumptive orientation, and

54 percent, to three or more such groups. In other words, this group actively supports wildlife conservation, but not the programs of the public sector. Understandably, they support the conservation efforts of private organizations which, in return for membership dollars, offer nonconsumptive users tangible products and services appealing to their wildlife interests. Thus, their failure to purchase federal duck stamps in significant numbers is best seen as a sign that these wildlife users perceive few or no benefits accruing to them from such purchases.

Their disapproval of the placement of taxes on bird-watching and photographic gear to finance nongame programs is a bit puzzling, given their apparent concern for increased nongame management. Perhaps their disfavor of funding methods which put the costs of nongame management squarely on them can be interpreted as a combination of, (1) an economically rational hesitance to impose costs on themselves, (2) an unwillingness to give their money to wildlife agencies which they do not perceive as their representatives, and (3) a feeling that nongame, much more so than game, represents a public good equally available to all, and a good for which the public should assume financial responsibility through, say, general tax funds or a \$1.00 income tax check-off.

Although this group indicated a hesitance to support certain funding methods affecting them directly, there do seem to be ways wildlife agencies could tap the financial resources of nonconsumptive

enthusiasts. Schick et al. (1976) suggested that agencies could sell nature publications and wildlife decals, stamps, posters, and art prints, and offer lectures and publicly-sponsored bird walks. The Revenue Resources Committee (1977), appointed by the Arizona Game and Fish Department to explore new sources of funding, also recognized the financial benefits which might come from such programs, and recommended that the Department consider selling wildlife donor certificates, art prints, decals, and publications appealing to diverse wildlife interests. If any of these programs are to be successful, however, nonconsumptive enthusiasts must be made aware of their existence, and then receive benefits in return for their participation.

In essence, we are discussing the incorporation of nonconsumptive wildlife enthusiasts into the programs and plans of public agencies. The respondents in this study seemed quite receptive to the notion of joining forces with agencies and hunters in support of wildlife -- and why not? Their beliefs about the role of hunting, importance of habitat protection, need for increased wildlife law enforcement, and benefits of conservation education appear similar to what wildlife professionals and hunters probably think on these points.

It is not so much change this group seeks in current wildlife programs and policies, but rather the addition of nongame programs which appeal to their wildlife interests. They would appreciate

nongame research, representation on state wildlife commissions, protection of unique wildlife observation sites, and state wildlife agencies with titles that reflect a concern for the welfare of all wildlife.

Some of the programs nonconsumptive enthusiasts desire will require funding to get off the ground. Acquisition of this seed money represents a serious problem for wildlife agencies. However, the results of this study give reason to believe that nonconsumptive enthusiasts can be rallied to support these programs, once started.

What might be future scenarios for state wildlife agencies with and without the support of nonconsumptive enthusiasts? First, if nonconsumptive users do not receive recognition by wildlife establishments at the state level, they might direct their monies and political clout at gaining recognition at the federal level. This may result in increasing federal influence in nongame management at the expense of state control.

Second, if nonconsumptive enthusiasts were to identify their wildlife interests with those of state agencies, the political and financial bases of support for these agencies could swell substantially as nonconsumptive users became a constituency working to advance state agency efforts. The time now appears ripe for this scenario to actually unfold. Two bills (S. 1140 and H.R. 8606) are now being considered at the federal level which would create a

nationwide Nongame Fish and Wildlife Conservation Program on a financial base of general appropriations (Wildlife Society Bulletin, 1977). The U.S. Fish and Wildlife Service would apportion these funds to state agencies on a matching basis. Adoption of these programs, or similar ones in the future, might encourage nonconsumptive users to join with state agencies in efforts to acquire nongame funds to be funneled into state management mechanisms. (This assumes, of course, that state agencies would be receptive to seeking federal aid for nongame management, and moreover, open to cooperative ventures with nonconsumptive enthusiasts.)

In the third scenario, the situation could continue as it is now for some time into the future. Nonconsumptive enthusiasts could pursue wildlife conservation through the private sector, with agencies maintaining their heavy reliance on license fees to support their programs.

Encouragingly, public wildlife agencies and nonconsumptive wildlife enthusiasts appear to be on parallel paths to the same end, wildlife conservation. However, though they hold a common goal, little is shared in the way of financial and political resources. Until nonconsumptive wildlife enthusiasts perceive that wildlife agencies are full-time representatives of their interests, or until funding mechanisms are developed which make their participation in public programs mandatory, their resources will flow to wildlife conservation programs in the private sector, and remain largely untapped by government agencies.

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Table 1. Methods of Financing Nongame Programs Favored by 80 Percent or More of the Nonconsumptive Enthusiasts Sampled.

Method	Respondents (N=591) Favoring	
	Number	Percent <sup>a</sup>
Placing a surcharge (a fixed sum added to usual cost) on:		
Minerals extracted from public lands	514	89
Registration fee for boats, snowmobiles, and off-road vehicles	507	87
Timber cut on public lands	502	87
Grazing permits on public lands	488	84
Allowing income or property tax exemption for maintaining fish and wildlife habitats	509	88
Selling of nongame stamps and decals by government wildlife agencies	495	86
Using 10% of fishing and hunting license receipts for nongame purposes	482	83
Instituting a \$1 check-off on federal and/or state income tax	469	82
Getting funds from general tax revenues	466	81

<sup>a</sup>Adjusted for missing values

**Table 2.** Percentages of Respondents Favoring Methods of Financing Nongame Programs Affecting Nonconsumptive Enthusiasts Directly.

Method	Respondents (N=591) Favoring	
	Number	Percent <sup>a</sup>
Selling permits for recreational use of public lands	396	69
Placing a sales tax (1¢ on each dollar) on:		
Outdoor recreational equipment (skis, tents, backpacking gear, etc.)	347	59
Bird-watching equipment (birdseed, birdhouses, feeders, binoculars, field guides)	262	45
Photographic equipment	181	31

<sup>a</sup>Adjusted for missing values.

Table 3. Mean Ranks of Wildlife-Related Concerns Indicating Where Government Should Place Emphasis, as Ranked by Nonconsumptive Wildlife Enthusiasts.

Concern	Number Responding	Mean Rank (in descending order of emphasis)	Standard Deviation
Protecting endangered wildlife	549	1.4	.7
Uniting hunters and nonhunters in common action for wildlife	547	2.5	1.0
Providing increased management for non-endangered nongame animals	551	2.5	.9
Providing increased management for game animals	547	3.5	.7

NONHUNTING WILDLIFE ENTHUSIASTS AND WILDLIFE MANAGEMENT<sup>1</sup>

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One of the most pressing needs facing the wildlife management profession is to broaden its base of public support. Traditionally, the group most interested in wildlife management as well as the group providing most of the revenue for management activities has been the sport hunter. Today, however, hunters are no longer the only major interest group concerned with wildlife. There is growing evidence that for many Americans, wildlife have become household concerns, whether valued for hunting recreation, aesthetic appreciation, or existence values as symbols of nature and environmental quality.

Public concern for wildlife is evident in the form of increased numbers of wildlife oriented organizations (Witter 1976), media attention on wildlife issues, and results of a growing number of studies attempting to assess public sentiments toward wildlife (Kellert 1976, Arthur et al. 1977, Shaw 1977, Shaw et al. 1978).

Certainly, any increase in society's concern with wildlife is a welcome development for wildlife professionals. It does, however, complicate the process of setting priorities for wildlife management. What kinds of wildlife management activities should be emphasized and, very significantly, how can these activities be financed? Although we know a great deal about the kinds of people who hunt, why they hunt, and how they feel about wildlife management (Hendee and Potter (1976) reviewed 33 articles describing hunters), research is only beginning to provide these kinds of information for nonhunting enthusiasts and for the general public.

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Perhaps the nonhunting groups most directly affected by wildlife management policies are those individuals who actively pursue wildlife viewing as a primary recreational activity. This paper reports initial results of an ongoing study which is attempting to describe active wildlife enthusiasts in terms of their feelings about wildlife and wildlife management.

#### METHODS

The methodology for this study and some of these results have been described by Witter et al. (1978). The sample was drawn from individuals who visited seven prominent birdwatching sites in southeastern Arizona in 1977. The unique and diverse biota of this region attracts birdwatchers and other wildlife enthusiasts from throughout North America and many other parts of the world. These people were asked if wildlife appreciation was one of the reasons for their visit to the area and if it was, they were requested to provide their names and addresses so that an extensive questionnaire dealing with their beliefs about wildlife and wildlife management could be sent to them. Seven hundred and six people volunteered to participate. After one reminder postcard and a second mailing of questionnaires, 604 completed questionnaires were returned (86 percent). Percentages in the text are adjusted for missing values where necessary. It should be stressed that these results are based on a voluntary sample of participants. This was a select group of very avid wildlife enthusiasts and is not necessarily representative of any other population.

#### RESULTS

##### Sociodemographic Characteristics

The sociodemographic characteristics of these people are summarized in Table 1. These wildlife enthusiasts were a diverse group. The mean age of respondents was 48 years and 51 percent were over 50 years old. As a group they were quite affluent with over 50 percent reporting household incomes exceeding \$20,000 and nearly a third over \$30,000. Most (60%) resided in cities of over 50,000 and about a fourth (23%) were from large metropolitan areas of over 500,000. These people tended to be well-educated with nearly 90 percent having some college education and over 50 percent with more than four years of college.

##### Feelings About Wildlife Management

A number of items in this survey dealt with perceptions of and feelings about wildlife management. In several regards, these people were critical of wildlife management agencies. Not surprisingly, they felt that too much emphasis is put on game management and that nonhunters should have input into wildlife policy that is equivalent to that of hunters (Table 2).

However, this willingness to criticize certain aspects of contemporary wildlife management should not be interpreted as opposition to the general idea of wildlife management. Several items dealt with feelings about hunting

Table 1. Sociodemographic characteristics of respondents.

	%	N
<b>Sex</b>		
Male	67	397
Female	33	197
<b>Age</b>		
Less than 20 years	1	8
20-29 years	15	85
30-39 years	21	117
40-49 years	13	74
50-59 years	16	88
More than 59 years	35	197
<b>Household Income</b>		
Under \$5,000	6	36
\$5,000 - \$9,999	12	67
\$10,000 - \$14,999	14	83
\$15,000 - \$19,999	16	91
\$20,000 - \$24,999	13	73
\$25,000 - \$29,999	9	51
\$30,000 - \$39,999	16	93
\$40,000 - \$49,999	7	39
\$50,000 - \$74,999	6	35
\$75,000 - \$99,999	1	6
Over \$100,000	1	8
<b>Size of Area of Residence</b>		
Large Metropolitan (500,000 or more)	23	137
Medium Metropolitan (150,000 - 499,000)	23	138
Small Metropolitan (50,000 - 149,000)	14	84
Semi-Urban (10,000 - 49,000)	20	117
Semi-Rural (2,500 - 9,999)	9	55
Rural (less than 2,500)	10	58
<b>Education Completed</b>		
Less than 12 years	3	16
12 years	8	46
13-16 years	36	217
More than 16 years	53	319

Table 2. Feelings about wildlife management and hunting.

DS = Disagree strongly  
 D = Disagree  
 U = Undecided  
 A = Agree  
 AS = Agree strongly

	%				
	DS	D	U	A	AS
Hunting is essential to prevent overpopulation of some types of wildlife.	12	23	9	48	8
Hunters should not be expected to pay the major part of nongame management costs.	7	17	15	55	7
Nonhunting wildlife enthusiasts do not have an acceptable way to help pay the costs of management of nongame animals by government agencies.	5	17	15	55	7
A good way for government to help wildlife is to ban hunting.	20	53	15	8	4
Wildlife management as currently practiced by government agencies has a good balance between game and nongame management.	20	39	33	8	0
Nongame animals are neglected by government wildlife management agencies.	2	24	21	41	13
Wildlife management as we know it today benefits mostly the hunter.	2	17	16	53	13
Nonhunting wildlife enthusiasts should have a say in government wildlife management agencies equal to the say hunters now have.	1	3	4	42	50

and management for hunting and although only 7 percent of the sample were active hunters, most were not opposed to the practice. Fifty-six percent considered hunting essential to control some wildlife populations and only 12 percent felt that banning hunting would benefit wildlife.

Although these enthusiasts are not necessarily opponents of the wildlife management establishment, nor are they presently allies. There is a very big selling job that needs to be done to convince these people that existing wildlife management agencies have something to offer them. Notice throughout those questions dealing with existing wildlife management activities (Table 2) the large percentages indicating "undecided". These are individuals with very strong interests in wildlife and yet many of them have no opinion concerning wildlife management activities. They simply are not aware or concerned for they tend to view wildlife agencies as arms of hunting interests that have little to offer nonconsumptive enthusiasts.

However, several results of this study suggest that these people might be a significant potential source of support for wildlife management agencies if they believed they could receive direct benefits from these agencies. Most respondents (82 percent) felt that hunters and nonhunters could cooperate to further wildlife welfare and they rated such a union as a high priority for emphasis by governmental wildlife agencies.

#### Importance of Wildlife-Oriented Recreation

In many ways, nonconsumptive wildlife enthusiasts are similar to avid hunters. For both groups, wildlife appreciation is more than simply one of many outdoor recreation activities enjoyed. For most of the respondents in this study, nonconsumptive enjoyment of wildlife is the focal point of their recreational pursuits. Over 50 percent indicated that wildlife appreciation was their most enjoyed outdoor recreational activity and 79 percent listed it as one of three most enjoyable activities. On an average they spent 68 days per year engaged in nonhunting wildlife appreciation and the importance of wildlife-related recreation to these people is further reflected in their expenditures on equipment for nonhunting wildlife appreciation (Table 3). Almost 50 percent valued their equipment used for enjoying wildlife at \$1000 or more.

Although these people do not generally support wildlife management by state and federal agencies, their concern for wildlife conservation is reflected by their support of private organizations. Seventy-three percent of the respondents contributed to at least two private conservation organizations and 54 percent to three or more such groups.

#### Financing Nongame Management

Several items in this survey addressed the issue of financing nongame management. Although most respondents (54 percent) felt that nongame animals are neglected by government wildlife management agencies, an even greater majority (62 percent) felt that hunters should not be expected to pay the major part of nongame management costs (Table 2).

Table 3. Replacement value of all equipment owned and used primarily for nonhunting wildlife appreciation.

Value	%	N
Less than \$100	6	33
\$100 - \$499	26	148
\$500 - \$999	20	117
\$1,000 - \$1,499	16	90
\$1,500 - \$1,999	8	46
\$2,000 - \$2,499	6	32
\$2,500 - \$2,999	4	21
\$3,000 - \$4,999	8	47
More than \$5,000	7	41

In order to gain further insights into this issue, participants in this study were presented with a list of 24 possible mechanisms for funding nongame management. Nine of these schemes were favored by over 80 percent of the respondents (Table 4). Most favored were systems that would spread the costs across the general public or make special interest groups absorb these costs. Among the highly supported approaches to funding nongame management was using funds from general tax revenues. This mechanism is already being used in a few states and is being considered in many others.

#### DISCUSSION

It should be stressed that this research is exploratory. It describes a select group of very avid wildlife enthusiasts. We still know very little about the wildlife-related views of other segments of the nonhunting public.

The participants in this study are individuals in whose lives wildlife plays a very important role. And yet, their concerns and activities are almost entirely outside the domain of government wildlife management activities. They neither threaten existing state wildlife agencies nor support them. Given the pressures of limited financial resources and constant public scrutiny being experienced by most state agencies, the possibility of enlisting the support of these additional wildlife enthusiasts is worthy of serious consideration. This is particularly true when considering that the concerns and beliefs of these people on most wildlife issues are very compatible with the feelings of wildlife professionals and hunters. In a related study (Witter 1978), national samples of hunters, wildlife professionals, and bird-watchers were surveyed to determine the potential for cooperation among these groups. That study concluded that there exists a real potential for a union of these groups provided the appeal of state agencies could be broadened to "capture the attention of nonconsumptive wildlife enthusiasts".

Incorporating more nonhunting considerations into the programs of wildlife management agencies will undoubtedly require some compromises. Hunters may be expected to share representation on state wildlife commissions with nonhunting wildlife enthusiasts and there may be certain unique wildlife observation sites at which hunting is eliminated. However, the effects of such concessions on hunting interests may be quite minimal and even beneficial in the long run. Habitat management or preservation benefits all types of wildlife and wildlife enthusiasts.

The real challenge is in finding new sources of revenue to support nongame management. Most of the participants in this study felt that hunters should not be expected to finance the major part of nongame management. They were, however, favorably disposed toward a number of potential funding mechanisms. If these people were convinced that they could receive direct benefits from wildlife management agencies they might be valuable allies in obtaining new sources of funding. However, until such benefits are demonstrated, the conservation efforts of these wildlife enthusiasts will probably continue to be overwhelmingly oriented toward supporting private wildlife organizations rather than government agencies.

Table 4. Methods of Financing Nongame Programs Favored by 80 Percent or More of the Nonconsumptive Enthusiasts Sampled.

Method	Respondents (N = 591) <sup>1</sup> Favoring	
	Number	Percent
Placing a surcharge (a fixed sum added to usual cost) on:		
Minerals extracted from public lands	514	89
Registration fee for boats, snowmobiles, and off-road vehicles	507	87
Timber cut on public lands	502	87
Grazing permits on public lands	488	84
Allowing income or property tax exemption for maintaining fish and wildlife habitats	509	88
Selling of nongame stamps and decals by government wildlife agencies	495	86
Using 10% of fishing and hunting license receipts for nongame purposes	482	83
Instituting a \$1 check-off on federal and/or state income tax	469	82
Getting funds from general tax revenues	466	81

<sup>1</sup>Thirteen respondents from foreign countries were excluded from this analysis.

Some states, notably California and Missouri, already have functional mechanisms for supporting nongame management through general fund appropriations or state sales taxes. This money, plus matching funds from the federal government (if any of the several proposed nongame bills is passed), should provide the impetus for expanding nongame management programs and subsequently increasing support from nonhunting wildlife enthusiasts.

Other states, however, are still almost entirely dependent on sport hunters for their support. These states would be well advised to use what resources they can in publicizing existing nonhunting benefits and on nongame projects which are highly visible to the public. Most states are involved to some extent with endangered species, urban wildlife problems, conservation education, and law enforcement activities which do benefit nonhunters. The problem is that the nonhunting public is too often unaware of these activities.

Wildlife management can and should be for all types of wildlife and all types of people who care about wild animals. Incorporation of nonhunting wildlife objectives into the plans and programs of state agencies will broaden their base of public support and enhance their effectiveness in managing wildlife for public benefits.

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[From the Iowa Conservationist, December 1979]

## IOWA'S LIVING RESOURCES AIDING NONGAME WILDLIFE

(By David A. Newhouse, wildlife research biologist)

The American pioneer perspective, regarding natural resources as inexhaustible, is unique—and shortsighted. Free land, clean water and abundant energy have all gone the way of the passenger pigeon, victims of over-exploitation. Generations of Americans have struggled to do, make and have more, seeking the good life. While income and possessions are gratifying, the quality of life depends as well upon recreation and enjoyment of our culture and environment. We rely on others to provide facilities and opportunities for stimulating experiences that enliven us. Our lives are better when "Someone" furnishes us access to rivers and lakes, safe roads, interesting museums, inspiring parks, good schools and police, fire and military protection. "Someone" else supplies opportunities to indulge our tastes for bowling, movies, concerts, dining or races. We can see America, fly the friendly skies or shop and save through services provided by "Someone" else. Of course, we invest a smart part of our incomes (as taxes, user fees, admissions, tickets, etc.) in each "Someone" who affords us these services and benefits. Without patrons, arts and amusements could not exist. Unfortunately, nongame wildlife is one of Iowa's living resources without a "Someone", without definite patrons (although it has many users and admirers). Responsibility for these appreciatively used animals and plants constituting Iowa's "Living Resources" has fallen upon the Fish & Wildlife Division, although it has heretofore been provided no funds to accomplish management or research. Other living resources are more fortunate. The beautiful natural areas comprising our state parks and forests are provided and maintained by state general funds, assisted to a small extent by scant user fees and federal money. County conservation boards manage outdoor areas primarily for more active recreation, funded again by tax revenue, federal funds, and income from the new wildlife habitat stamp. Access to lakes and rivers is provided and patrolled at the expense of the Iowa public and federal government as well, with some costs offset by boat registration fees. The Nature Conservancy and Iowa's new Heritage Conservation Foundation seek to acquire and preserve areas of unique natural resources, using private contributions. The Preserves Advisory Board performs a similar function with very limited public revenue. Persons involved in the wildlife resource through such organizations as National and State Audubon chapters, Iowa Ornithological Union and National and State Wildlife Federation chapters have been instrumental in raising public consciousness, and some limited habitat management and research in other states.

Iowa's living resources benefit more, however, from the patronage of hunters, anglers and trappers than from any other source. State and federal waterfowl stamp monies fund land acquisition, management and research for waterfowl both here and in Canada. Wildlife habitat stamp funds are earmarked for acquisition and management of land, and for providing incentives for demonstrations of wise private land management. Trout anglers pay for their sport through the purchase of trout stamps, incidentally improving streams for other species and users. Since 1937 these resource users also have paid an 11 percent excise tax on sporting arms and ammunition (and more recently, on fishing equipment) to perpetuate the wildlife resource. These funds make hunting, fishing and trapping license monies go even further, and support greater management activities in behalf of Iowa's living resources.

If nongame wildlife has had any constituency, any "Someone" in Iowa, it has been among these consumptive recreationists. Federal nongame revenue programs similar to those for fish and wildlife have died in Congress the last few years, stymied in part by misguided opposition from trade unions and hikers' associations. Although some wildlife habitat has been acquired by federal and state general revenues under open spaces and protected water areas programs, the majority of land managed to benefit wildlife in Iowa has been acquired with the fees paid by hunters and anglers. Marshes managed for ducks support massasaugas, Blanding's turtles and marsh wrens as well. Pheasant nesting cover also produces upland sandpipers, grasshopper mice and northern harriers. Broadwinged hawks and spring peepers make their homes with deer and turkeys in forested areas. Nongame wildlife has been a by-product of beneficent game management.

This is not to say that Fish & Wildlife Division of the Iowa Conservation Commission has not been purposefully concerned with the welfare of nongame wildlife. Even prior to official designation of a nongame wildlife program, Commission

personnel have been involved on a personal level with Iowa's living resources. They cooperate with various universities and state, federal and provincial agencies reporting observations of marked nongame species. In January they assisted with the National Wildlife Federation's nationwide winter bald eagle survey. They participate in many local Audubon chapter Christmas Bird Counts, Breeding Bird Surveys, Cornell's Colonial Bird nesting and Nest Record Card programs, and the winter Raptor Survey established by state ecologist Dean Roosa. Their observations of rare or unusual species in winter, migration and nesting periods are collected to expand our knowledge of the abundance and occurrence of nongame wildlife. The Missouri River unit biologist, Neil Heiser, involves his summer workers in surveying the small mammal populations in the Loess Hills, providing important information on that unique land area.

Research conducted by Division biologists concerns nongame wildlife, either directly or indirectly. The nongame biologist at Boone has just completed a study of utilization of different habitats in winter by nongame birds, which documents the value of timber and shrub plantings. Over the first 9 km of habitat traversed, a new bird species was detected every 818 meters (on the average) in farmland, compared to 529 m in shrub-planted agricultural fields and 391 m in forest. New species continue to be found in diverse forest habitats during successive visits, while the few species wintering in farmland are soon detected, without additions. Nongame bird information is also being collected as part of a study evaluating pheasant and duck nesting habitat manipulation on the Ventura Marsh and McIntosh Wildlife Areas in northern Iowa. About 500 red-winged black birds, 20 boblinks, 30 yellowthroats, 50 goldfinches and many long-tailed weasels, mourning doves, dickcissels, meadowlarks and field and song sparrows were known produced last season on the McIntosh Area alone. About 50 white pelicans also summered in this area of habitat SUPPOSEDLY manipulated solely to benefit game species, like the teal, shovelers, mallards and coots nesting there.

Commission research biologists at Chariton have recently completed a 4-year study to evaluate reintroduced native grasses which could provide both wildlife nesting cover and very desirable warm-season livestock forage for the private landowner. Properly managed native grass pastures seeded to pure stands of switchgrass, Indian grass, or big bluestem provided suitable nesting cover for a variety of birds including ring-necked pheasants, red-winged blackbirds, eastern meadowlarks, dickcissels, yellowthroats and field sparrows. Based on the results of this study, switchgrass is being widely planted on public lands in Iowa and the Commission is currently planning to use some of the revenue from the sale of the new wildlife habitat stamps to cost-share the establishment of switchgrass pastures on private land. We believe cattlemen will be impressed with switchgrass and will continue to plant and include switchgrass in their grazing rotation programs even after cost-sharing ceases. Both game and nongame species of wildlife are expected to benefit from this program.

The upland wildlife research team is also currently conducting a mourning dove nesting ecology study in cooperation with the U.S. Fish and Wildlife Service. This study compares mourning dove nesting success in states which have a dove hunting season and in those which do not. The project also gives perfect opportunity to study nesting habits of many nongame and song birds. Five study plots of differing habitat types, including both coniferous and deciduous trees and shrubs, are searched intensively once each week. Nests which are found are monitored on a weekly basis until the fate of the nest is determined.

In 1978 and 1979 the mourning dove was the most common nester found in the study plots, accounting for 39% of the total nests. Other common nesters were brown thrashers, red-winged blackbirds, cardinals, robins, grackles, gray catbirds and black-billed and yellow billed cuckoos. The black-billed cuckoos found to be common nesters are apparently quite rare in some parts of Iowa. In 1979, the nest of a long-eared owl, a threatened species in Iowa, was found on the study area and the nest was monitored until young successfully fledge. Several other unusual (green heron, rufous-sided towhee and cedar waxwing) nests have been found and monitored during the two years of the study. One whip-poor-will nest and one yellow-breasted chat nest have also been located. Iowa's non-game birds are an important resource which should not be overlooked when wildlife management plans are being formulated.

Besides saving wildlife habitat from the ravages of plow and paving machines, these land management activities for wildlife are the Wildlife Division's greatest contribution to nongame animals. Much of the quality wildlife habitat in Iowa

would not exist, were it not under Commission stewardship. Rather than being managed for a biologically depauperate monoculture of corn or beans, wildlife management areas are managed in a *synecological* way. This means that many different types and ages of vegetation are maintained in, and considered as, one management unit. Such diversity of habitat results in use by diverse wildlife species, which we enjoy consumptively and/or nonconsumptively.

What follows is an annotated catalog of habitat areas available to Iowa's living resources, drawn from the responses of Iowa's 20 wildlife management biologists. These managers most intimately familiar with wildlife habitats have quantified the amount of land they control in each of eight general habitat categories. They have also noted nongame wildlife species they feel are indicative residents and users of each of those habitat types.

#### LAKE

The most extensive habitat managed by the Wildlife Division, lakes cover over 49,000 acres (20,000 hectares) of the 20 wildlife management units (WMUs). In north-central and central Iowa, these are mostly natural glacial lakes which have survived widespread agricultural drainage. Along the major border rivers, lakes are frequently oxbows and now landlocked meanders of the mighty rivers. Elsewhere, lakes and ponds have been created by impounding streams; the largest of these are the federal reservoirs Saylorville, Red Rock, Rathbun and Coralville. Obviously, Fisheries and Waters Divisions are more involved in the open water resource, but lakes play an important part in the holistic approach the Wildlife Division applies to managing for wildlife.

Nongame species commonly associated with lakes are white pelicans, double-crested cormorants, painted turtles, herring gulls, pied-billed grebes, great blue herons and belted kingfishers. The endangered blacknose shiner has been found in Trumbull Lake, and migrating ospreys routinely visit lakes on wildlife management areas (WMAs) across Iowa. Bald eagles also scavenge fish from lakes, particularly around the wintering eagle concentrations near Missouri Valley and the Quad Cities. Woods and prairie pools in southeastern Iowa harbor the endangered central newt. Threatened spring peepers still chorus from eastern woods ponds, also.

#### MARSH

Unfortunately, only a tiny fraction of the prairie marshes that once dotted Iowa, giving rise to place names like Curlew, Mallard and Plover, still remain. Marsh habitat managed by the Wildlife Division has been rescued from agricultural tiling or recreated after ill-considered drainage. Our larger marshes are shallow flood-plain impoundments, watered by diversion from adjacent streams.

Here we find pied-billed grebes, American bitterns, yellow-headed blackbirds, long-billed marsh wrens, Blanding's turtles, red-winged blackbirds, great blue herons, snapping turtles and leopard frogs. Similar species (redwings, grackles, bobolinks, black terns, swamp sparrows and yellow-headed blackbirds) are documented from Illinois marshes. The Blanding's turtle is threatened, yet occurs this limited habitat on the Big Sioux, Black Hawk, Coralville, Odessa and Sweet Marsh WMUs. Massasaugas, threatened rattlesnakes of vanished prairie marshes, now enjoy management which ensures their perpetuation, with several Natrix water snakes, on WMAs in Bremer and Louis counties. Eared grebes, threatened by loss of habitat, use marshes of northwestern Iowa. Cattle egrets and king rails visit Sweet Marsh. Endangered northern harriers were formerly called marsh hawk because they hunt rodents so extensively in this habitat, as do short-eared owls, now considered extirpated by habitat degradation. Blue-spotted salamanders, endangered even where they occur in east-central Iowa, use this habitat. Least shrews and long- and short-tailed weasels, though seldom seen, call marshes home. Fortunately, nearly 31,000 acres (12,400 ha) of such habitat is managed to their benefit.

#### STREAM

Approximately 306 miles (492 kilometers) of streams flow through WMAs. Most are warm-water streams of low gradient, lined with riparian timber considered later as a separate habitat type. About 47 miles (76 km) are cold-water ("trout") streams, all in the northeast, whose narrow valleys lined with upland hardwoods are also home to ruffed grouse. Fishing, boating and canoeing are the obvious open-water activities. Careful observers, however, note the activity of belted kingfishers, great blue herons, green herons, bank swallows and even flathead minnows typical of riverine habitat.

Channelization, impoundment and siltation erosion have altered the character of Iowa streams. Few rivers except in the northeast still support threatened river otters. Redside dace, considered extirpated, are known from the Maquoketa River. The endangered plains topminnow has been found in the Little Sioux River. Topeka shiners have held out in the Little Rock River, also in the northwest. Illinois mud turtles, piping plovers and least terns are endangered by alterations of major boundary rivers which remove the sandy areas they need. Red-eared and Blanding's turtles, both threatened, survive in quiet vegetated stream back-waters on WMAs like Odessa. Wood turtles, stinkpots and orange-throat darters may also find refuge in streams in WMAs, managed by enlightened conservation principles.

#### RIPARIAN FOREST

The forest growing along warm-water streams typically consists of elms, ashes and cottonwoods; willows and silver maples are also tolerant of the periodic flooding common in this habitat. Small mammals are obviously limited in such a flooding environment, but the highest quality habitat for birds, and for some amphibians and more mobile mammals, is located in or near floodplain forest. Dean Stauffer found that floodplain woodlands supported higher densities of breeding birds than herbaceous or upland woodland habitats in Guthrie County. My research has found more kinds of birds in this habitat in winter than in any other cover type studied. In fact, a new bird was seen every 53 m throughout this forest, on the average. Here, too, are found the snags (dead trees, usually victims of Dutch elm disease) vital to cavity-nesting birds like woodpeckers. Riparian hardwoods form protective migration corridors for many wildlife species. They also create thermal refuges, protecting wintering wildlife from whistling winds. Division biologists manage 36,500 acres (14,800 ha) of riparian forests, including Corps of Engineers lands.

Barred owls and turkey vultures nest almost exclusively in this environment. Other common inhabitants are blue jays, red-headed woodpeckers, common flickers, white-breasted nuthatches, great horned owls, redtailed hawks, black-capped chickadees and short-tailed shrews. Cardinals and great-crested flycatchers frequent openings in this forest, as documented in Illinois. Endangered Indiana bats are known to use caves in eastern Iowa, and probably have maternity colonies in south-eastern riparian forests; more research is urgently needed. Endangered woodland voles and red-shouldered hawks are known from the Odessa and Upper Iowa WMUs, respectively. Endangered peregrine falcons have visited Red Rock and may use river valleys in the northeast.

#### UPLAND FORESTS

Upland forests in Iowa are typically oak-hickory stands, or maple-basswood in the northeast. Often they rise across rugged hills above riparian forests. Thus some plant and animal species may appear in both upland and lowland habitats. The edge between types is very rich in animal life; I encountered different birds every 12 m (average) along this edge in winter counts. Historically, prairie fires restricted forests to these timbered ridges and slopes, reinforcing this amalgamation of habitats and species. Upland forests are usually drier, but are certainly not deserts, as evidenced by their destruction for pastures and crop fields. In winter, I walked less than 77 m (on the average) between successive bird encounters in upland forest.

Blue jays, chickadees, great horned owls and redtails occupy upland forests as well as riparian timber. Downy woodpeckers, northern orioles, eastern chipmunks, white-footed mice and rose-breasted grosbeaks are also common in this upland timber. Graber and Graber also found indigo buntings an important inhabitant of upland forests in Illinois. Broadwinged hawks, though threatened, are known to use the Big Sioux, Rathbun and Red Rock WMUs. Spring peepers sing from forest ponds near Odessa and Volga River. Cooper's hawks, sharp-shinned hawks and long-eared owls visit WMUs along the length of the Des Moines River valley across Iowa. Five-lined skinks, black rat snakes and bobcats may all evade human contact in extensive northeastern forests.

Management in this forest type which retains or enhances additional vegetative layers (by restricting grazing or by all-age management, for example) increases the number of avian feeding associations using the area. Most winter resident birds found in my research are ground feeders, bark gleaners or probers, predators and adaptable generalists with variable diets. Loss of understory shrubs, predicts Dean Stauffer, would lead to reductions in rufous-sided towhees, ovenbirds,

acadian flycatchers and wood thrushes. These same species require extensive blocks of timber habitat, as do American redstarts, tufted titmice, warbling vireos and scarlet tanagers. Large habitat blocks are most important to rare species that require that habitat type; many small blocks of essentially similar habitat are of much lower value. This highlights the importance of wildlife management planning for nearly 42,000 acres (16,900 ha) of upland forests, including some State Forest lands, by Division biologists.

#### SHRUB/TREE PLANTINGS

Although Iowa has relatively little forest land, shrubs and trees are usually planted in open areas for reasons other than reforestation. Windbreaks, farm groves, fencerows, landscape plantings and Christmas tree farms begin in this way. Such plantings are used by nongame animals almost immediately. Here they find shelter from frigid winds, searing sun and aerial predators. They also utilize the strips of cover as avenues of travel and escape. An amazing number and variety of songbirds nest in these plantings, also. Installation of such cover to break the monotonous expanse of crop fields benefits both wildlife residents and human managers. Durward Allen (in *The Farmer and Wildlife*) and Wallace Anderson (in *Making Land Produce Useful Wildlife*) both point out that songbirds, raptors, weasels, *etc.* using shrub rows are efficient eradicators of agricultural pests (ground squirrels, insects, *etc.*). Deep-rooted, wind-breaking, perennial plantings also reduce the loss of wind- and water-borne soil by erosion.

The species commonly associated with shrub plantings are adaptable generalists, also found in forest edge situations. Brown thrasher nests are usually found in multiflora rose thickets by division researchers. Catbirds also utilize this cover, and Scots pine as well. Mourning doves, common grackles, song sparrows, American robins, yellow-billed cuckoos and white-footed mice also frequent hedgerows, and tree sparrows are common there in winter. Graber and Graber found field sparrows, indigo buntings, red-winged blackbirds and American goldfinches in Illinois shrub/orchard plantings, as well. Hawthorn is used here for nesting by rose-breasted grosbeaks and eastern kingbirds. One of nature's little dramas, in which a threatened loggerhead shrike impales a captured vole upon a hawthorn spike for a later repast, is seldom witnessed by humans. Yellow and blue-winged warblers, subjects of concern, also nest in suitable brushy habitat, including plum thickets and willows.

Commission land managers have been dividing cropfields and grassland areas with wildlife plantings that provide food and/or cover. Over 4,100 acres (1680 ha) have been planted to nine-bark, pine, honeysuckle, autumn and Russian olives and dogwood, with more planned each year. Private citizens may obtain these same plants to establish wildlife cover from the State Forest Nursery in Ames. As figures from my research show, enhancement of agricultural fields with strips of shrubs and trees has the effect of adding 50 percent more bird species in this improved habitat. Bird species diversity trebles, as well.

#### GRASSLAND

Native bluestem prairie originally covered roughly the northwestern three-quarters of Iowa. Much of that land is now managed for a taller annual grass with yellow seeds. Grasslands that presently cover most of the unglaciated southern half of Iowa were wrested in part from oak-hickory forests. Livestock, pheasants and coyotes have replaced bison, prairie chickens and red wolves as human use changed the character of the land. Now we commonly find meadowlarks, dickcissels, bobolinks, American goldfinches, plains pocket gophers, short-tailed shrews, thirteen-lined ground squirrels, upland sandpipers, meadow voles and deer mice in pastures and hayfields. Illinois accounts add redwings, house sparrows and grackles to these grassland nesters.

The continued existence of many species has been threatened as prairies died for corn. Endangered upland sandpipers and northern harriers both nest on the Rathbun WMU, however, and are known from Harrison and Monona counties and the Big Sioux, Blackhawk, Mount Ayr, Red Rock, Riverton and Saylorville WMUs. Grasshopper mice, pygmy shrews and burrowing owls are holding out on WMAs in the northwest. The threatened plains spadefoot toad and endangered plains pocket mouse survive along the Missouri River. Spotted skunks and least weasels are declining, and should be considered threatened by loss of habitat. Threatened ornate box turtles benefit from management along the Iowa River. And short-eared owls, considered extirpated or occasional migrants, are thought to nest in southcentral WMAs.

Commission biologists manage over 33,000 acres (13,500 ha) of grassland/hay for nesting cover. Delayed first cutting of hay, to prevent destruction of pheasant hens and nests, and timing the last cutting to allow sufficient regrowth to provide winter cover, are essential management practices. Rotation of grazing between cool- and warm-season grass pastures, suggested earlier, also benefits wildlife, as shown by heavy nest densities of songbirds in big bluestem and Indian grass pastures.

#### CULTIVATED

Intensive agriculture manages Iowa's rich soil for one or two crops, to the unfortunate detriment of most other living resources. Since approximately 95 percent (34 of 35.8 million acres) of Iowa's surface is cultivated, this constitutes a major impact on wildlife. The few species we usually see in farmland are horned larks, meadowlarks, deer mice, thirteen-lined ground squirrels, killdeers and plains pocket gophers. House sparrows also abound where farm buildings provide nest sites.

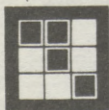
Why then should the Commission lease some of its land for cultivation? Not for the small amount of cash rent received, assuredly. Rather, management plans which follow wise-use principles allow Commission lands to become demonstration areas which private land managers can emulate. Crop rotation, erosion control, proper harvest timing and field fragmentation with wildlife cover are all practiced here. About 20 percent of the crop is left for wildlife food, also. This not only makes the WMA more attractive to wildlife, but reduces the impact of wildlife feeding on adjacent private crops. As a result, unflooded fields managed by cultivation, especially along our major reservoirs, benefit all kinds of wildlife (including least shrews) and recreationists alike.

#### SUMMARY AND OUTLOOK

These habitats also exist in State Parks, Forests, Preserves and fishing access areas. The management and recreational use of those lands is different from WMAs'. From wildlife's standpoint, however, designated uses do not make habitats more or less desirable. Quantity, quality and type of habitat are the significant factors to our living resources. Wildlife habitat is a critical need in Iowa, yet the Wildlife Division manages only 0.69 percent of the surface of Iowa for wildlife. This puts Iowa at the bottom of the list of states, in terms of public lands management. Fortunately, those 246,500 managed acres (99,700 ha) are unmatched for their benefits to nongame wildlife. They also benefit the general public; 40% of the use of WMAs is by nonlicensed recreationists, who spend 860,000 to 1,105,000 days each year observing and enjoying our living resources.

An effective program for the future nongame resource of Iowa is now being designed in the Wildlife Division. This laudable effort is being supported by hunters and anglers, the effective but unofficial patrons of nongame wildlife to date. A primary consideration, of course, is program funding. The people of Iowa, all of whom enjoy or benefit from our living resources, must assume leadership and responsibility in this area. Exact sources of the revenue are less important than their continuity and effective use. Money devoted to nongame wildlife must produce, manage or preserve habitat to ensure the existence of nongame wildlife in our state. "Wildlife has continually been relegated to areas that are difficult to cultivate or to intensively manage, and these areas continue to dwindle as new economic uses are discovered. There are two broad alternatives available to society. The first is to continue managing with a dwindling habitat base usurped by an expanding urban population and intensification of agricultural practices, or secondly, stimulate incorporation of habitat management practices in land use planning . . . (Evans and Probasco 1977:14-15).

We clearly need to take an assertive stand for expanding the habitat of the living resources with whom we share this land, and who improve the quality of our life. The Iowa Conservation Commission's Wildlife Division, supported by hunters and anglers, has shown the way. We challenge you to claim and perpetuate your heritage of living resources.



COMMUNITY RESPONSE OF COLORADO, INC.

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STATE DIVISION OF WILDLIFE

WILDLIFE USE SURVEY

MAY 6, 1977

SUMMARY ANALYSIS

STUDY DESCRIPTION:

The major purposes of this survey were to provide information regarding wildlife use throughout the state. Specifically, the survey sought to define the type of wildlife activities participated in, the frequency of participation, kinds of wildlife preferred, the potential use of an established wildlife preserve and the exploration of various means to finance such a preserve.

To meet the basic purposes of this study, a single survey instrument was designed and administered to five hundred four (504) male or female heads of households who live in Colorado. Information pertaining to certain parts of the questionnaire was obtained (via the 504 adults) on all persons living in the contacted households who were ten years of age and older. Therefore, the sample size from parts of the survey ranges as high as 1,233.

All existing phone directories for the State of Colorado were obtained. For each directory the approximate number of residential phone listings was determined, a proportion to all listings in the state was calculated, and using a random and at times systematic random technique, initial households were selected from all the directories. Such a sampling process insures that the statewide sample is geographically proportionate based on population density.

A sample of 1,233 persons (which is the total number of persons on whom information was obtained for the first section of the research) randomly selected yields total results statistically accurate within an expected maximum error range of  $\pm 2.8$  percentage points at a 95% confidence level. Simply stated, this means that if a sample of 1,233 persons were randomly selected 100 times, 95 times out of the 100, obtained total results would vary no more than  $\pm 2.8$  percentage points from the results that would be obtained if information pertaining to all persons age 10 and above in Colorado were gathered.

The maximum expected error range for a randomly selected sample of 504 persons (which is the number of individuals who actually responded to the survey) at a 95% confidence level is  $\pm 4.4$  percentage points. Actually, expected maximum statistical error ranges vary depending on the percentage results obtained. The following table indicates the maximum expected error range for various percentage results. (It should be noted that the sampling procedure that was utilized to obtain those two sample groups, while quite acceptable, is not a pure random process, and therefore, a discussion of statistical error ranges is one of estimates.)

EXPECTED MAXIMUM ERROR RANGES  
AT A 95% CONFIDENCE LEVEL FOR  
SAMPLES OF 504 AND 1,234

	10%	20%	30%	40%	50%	60%	70%	80%	90%
Expected Maximum Error (n = 504)	$\pm 2.6\%$	$\pm 3.5\%$	$\pm 4.0\%$	$\pm 4.3\%$	$\pm 4.4\%$	$\pm 4.3\%$	$\pm 4.0\%$	$\pm 3.5\%$	$\pm 2.6\%$
(n = 1,233)	$\pm 1.7\%$	$\pm 2.2\%$	$\pm 2.6\%$	$\pm 2.7\%$	$\pm 2.8\%$	$\pm 2.7\%$	$\pm 2.6\%$	$\pm 2.2\%$	$\pm 1.7\%$

All question items in the study were developed jointly by Community Response of Colorado and representatives of the Division of Wildlife, State of Colorado. Community Response was responsible for writing items that were technically correct and without bias. Prior to actual sample contact, a pilot test of the instrument was conducted to insure the clarity and workability of the instrument. All final question items were mutually agreed upon by CRI and the client before the actual sample contacts were initiated. All interviewing was conducted from April 5 to April 13, 1977, and was completed via telephone.

#### INTRODUCTION TO THE ANALYSIS:

The analysis presented herein is not intended to be a substitute for the complete tabular results reported under separate cover. The purpose of this

analysis is to highlight what are felt to be the significant findings of the study and to point out where statistically significant differences exist in the response patterns of the sample. The statistical technique used to measure for differences was the Chi-square technique. For the purpose of this report, statistically significant results were those which reached the .05 level of probability. In other words, significant results were indicated where there was a 95% probability that real differences did exist in response patterns. Only significant results are presented in the narrative.

The analysis that follows is organized in an item-by-item fashion. It is suggested that for maximum clarity, the specific tabular results associated with each item be consulted as the analysis is studied.

## ANALYSIS

## ITEM THREE:

Now, I'm going to read a list of activities to you and I'd like you to tell me which members of your household who are 10 years and older participated in each of them during the last two years here in Colorado. (AFTER EACH ACTIVITY IN WHICH AT LEAST ONE PERSON PARTICIPATED, ASK:) How many days did (EACH PERSON WHO PARTICIPATED) participate in this activity during the last two years? (OPEN-ENDED) (READ ACTIVITIES & CODE ON PAGE 2)

The following table presents the numbers of persons participating and the extent of participation in each of the listed activities.

Activity	Total Participating	Days Participated Last Two Years				
		1-7	8-15	16-30	31-60	61-365
A. Hunting	206(2)*	46%	28%	17%	7%	2%
B. Fishing	544(8)	36%	23%	19%	13%	9%
C. Trapping	9	1	2	1	1	4
D. Wildlife Photography	194(6)	57%	21%	11%	6%	5%
E. Wildlife Art	35(1)	35%	18%	29%	12%	6%
F. Bird Watching	88(2)	44%	9%	29%	5%	13%
G. Nature Study	60(3)	51%	9%	23%	9%	9%
H. Capture for Pets	11	9	1	1	0	0
I. Feeding Wildlife	253(20)	70%	12%	2%	8%	8%
J. Observing Wildlife	780(48)	38%	26%	14%	11%	11%
K. Feeding/Observing in Own Backyard	610	Not Tabulated				

\*Parenthetical ( ) numbers are frequencies of persons who were unable to approximate days of participation. These persons are not included in the amount of participation distributions.

## A. Hunting

Seventeen percent of the sample had hunted at least once during the last two years. This rate was significantly elevated among men (28%), 25 to 44

year olds (23%), and residents of western slope regions, 8 through 12, (25% to 37%) and southeastern region seven (29%); it was relatively low among those 45 and over (9%).

County of residence was the only significant indicator of frequency of hunting, with region 11 (northwest Colorado) hunters participating relatively frequently and region two and three hunters being primarily infrequent participants.

#### B. Fishing

Forty-four percent of the sample had fished at least once during the past two years (the second most popular activity). This rate was significantly higher for men (55%) than for women (32%) and was notably elevated among the 10 to 15 year olds (66%) and 25 to 44 year olds (50%, probably their parents?) Geographically, the rate was relatively high in regions seven (67%) and 11 (75%), and relatively low in regions one (24%), two (35%), six (36%) and ten (38%).

Among those with some fishing activity, men were more frequent fishers than were women and region seven and 11 were the highest concentration of avid fishermen.

#### C. Trapping

There were only nine trappers, and four of this group reside in region 11 (northwest Colorado).

#### D. Wildlife Photography

Sixteen percent of the sample had engaged in wildlife photography at least once during the last two years. Once again, men (19%) were more likely than women (11%) to have participated. Photography was relatively high among 25 to 44 year olds and relatively low among those 45 and older (8%). This activity was notably elevated among region four (30%), six (32%), eight (29%) and nine (30%) residents, and extremely low (6%) among region one, (northeast

Colorado residents).

Frequency of wildlife photography did not vary significantly by age or sex, and there was an insufficient number to analyze the frequency of participation across regions.

E. Wildlife Art

Only three percent of the sample had engaged in wildlife art during the past two years, and this number is insufficient for further analysis.

F. Bird Watching

Bird watching was an activity of seven percent of the sample, with participation being notable in regions three, four, seven and eleven and almost non-existent elsewhere.

G. Nature Study

This activity was pursued by five percent of the sample, with the rate of participation essentially decreasing with increasing age; although it should be noted that frequent nature study was elevated among 25 to 44 year olds.

H. Capturing Wild Animals for Pets

Eleven members of the sample had captured wild animals for pets during the last two years, with this activity being somewhat pronounced among youth and residents of region four (primarily El Paso County).

I. Feeding Wild Animals

Twenty percent had fed wild animals during the past two years. This rate was relatively high among youth (28%) and 25 to 44 year olds (25%) and relatively low among those 45 years and older (9%). In addition, it should be noted that none of those sampled from regions one, six, ten or thirteen had engaged in this activity.

J. Observing Wild Animals

Almost two-thirds (64%) of the sample indicated that time had been taken

to observe wild animals during the last two years. This activity was reported more by men (63%) than women (56%), and was relatively infrequent among those over 45 years old (40%). In addition, this activity was notably high among residents of regions seven (71%), nine (70%), 11 (73%) and 12 (68%), and notably low among residents of regions one (33%) and 13 (14%).

Taking time for wild animal observation was especially pronounced in regions 11 and 12, where 34% and 48%, respectively, participated in this activity between 61 and 365 days over the past two years.

K. Feeding and Observing Wild Animals in Own Yard

Almost one-half of the sample reported taking time for this activity. Such observation was significantly elevated among those 45 and older (58%) and residents of regions one (61%) and four (68%), while being relatively low among residents of region nine (10%).

ITEM FOUR:

In which county in Colorado did (PARTICIPANT) usually (OR MOSTLY) participate (INSERT ALL ACTIVITIES OTHER THAN HUNTING, FISHING, TRAPPING, AND FEEDING AND OBSERVING IN BACKYARD.)

The following is the distribution of responses given by the 794 persons responding to this item.

<u>Region</u>	<u>Percent Mentioning</u>
1	2%
2	14%
3	26%
4	9%
5	1%
6	4
7	5%
8	3%
9	3%
10	5%
11	7%
12	15%
13	4%
Don't Know	3%
Several	2%
Any Other	3%

Statistical analyses of these data were not feasible; nonetheless, inspection of the Tabular Results may prove useful. Indeed, close examination of the data indicate, as would be expected, an artifactual relationship between region of residence and region of activity - i.e., most activity occurs in the region in which the person resides.

ITEM FIVE:

For activities such as we've been discussing, other than hunting, fishing, trapping and feeding and observing in your backyard, what specific kinds of animals in Colorado is/are (PARTICIPANT) most interested in? (OPEN-ENDED) (PROBE & CLARIFY) (CODE ON PAGE 2) (ALLOW FOR MULTIPLE RESPONSES)

The specific kinds of wildlife and their rates of mention follow.

<u>Wildlife</u>	<u>Percent Mentioning</u>
A. Big Game	63%
B. Small Mammals	36%
C. Birds of Prey	10%
D. Shore Birds	3
E. Predators	6%
F. Waterfowl	9%
G. Upland Game Birds	10%
H. Song & Garden Birds	21%
I. Amphibians	1%
J. Reptiles	2%
K. Fish	4%
L. Other (see Tabular Results)	26%

Multiple responses were allowed, and therefore, the response total exceeds 100%.

A. Big Game

Interest in big game was significantly higher among men (67%) than women (58%) and was notably elevated in regions four (85%), six (100%), nine (89%) and ten (83%), while being relatively low in region seven (44%).

B. Small Mammals

Interest in small mammals increased with decreased age. Such interest was notably elevated in regions two (49%), four (61%) and six (50%), while being relatively low in regions five (0), seven (8%) and thirteen (0).

C. Birds of Prey

Interest in birds of prey was relatively high between the ages of 16 and 44 (13%) and relatively low among youth (5%) and those 45 and older (4%).

D. Shore Birds

Insufficient number for analysis.

E. Predators

Interest in predators was elevated in region four (22%) and absent in regions six, seven, eight, ten and thirteen.

F. Water Fowl

Water fowl were of relatively high interest to residents of region four (34%) and were not mentioned by sample members from regions, five, six, eight, nine, ten, twelve, and thirteen.

G. Upland Game Birds

Again geography proved to be a significant indicator of interest, with regions four (25%) and five (44%) manifesting the most interest in upland game birds; while no interest was indicated by sample members from regions eight, ten, twelve and thirteen.

H. Song and Garden Birds

Interest in these birds was extremely high in region four (61%), while being absent or virtually absent in regions one, five, six, seven, eight, ten and thirteen.

I. Amphibians

Insufficient number for analysis.

J. Reptiles

Insufficient number for analysis.

K. Fish

Insufficient number for analysis by region; other analyses were not significant.

L. Others (see Tabular Results)

Interest in aspects of this category was notably elevated in region seven (59%).

ITEM SIX:

In which county do you currently live? (OPEN-ENDED) (CODE ON PAGE 2)  
(See Tabular Results)

ITEM SEVEN:

If there were a special place set aside by the State of Colorado where people could go to see and study many types of wild animals in their natural habitats, how inclined would you be to actually visit such a place? Would you say you would (READ RESPONSES; ROTATE STARTING POINTS) visit the area?

<u>Definitely</u>	<u>Probably</u>	<u>Probably Not</u>	<u>Definitely Not</u>	<u>Don't Know</u>
38%	38%	16%	6%	2%

As can be seen, over three-fourths of those interviewed (n = 504) indicated at least qualified interest in such a place. Likelihood of visiting such natural habitats decreased with increased age and was notably low among respondents from regions one, nine, and ten.

ITEM EIGHT:

How inclined would you be to visit such a place if you knew that some sort of a reasonable fee would be charged? Would you say you would: (READ RESPONSES; ROTATE STARTING POINTS) visit the area?

The following distribution of responses was gained from those indicating at least probable interest in Item Seven (n = 386).

<u>Definitely</u>	<u>Probably</u>	<u>Probably Not</u>	<u>Definitely Not</u>	<u>Don't Know</u>
36%	55%	6%	1%	2%

There were no sex or age differences on this item, and the distribution of responses across the regions made analysis unfeasible. (See Tabular Results)

ITEM NINE:

Do you feel that \$2.00 per person would be a fair price to pay for a one day visit to a protected wildlife area in Colorado? (OPEN-ENDED)

Of the 353 persons indicating at least probable interest in face of a reasonable fee, almost three-fourths (73%) thought \$2.00 per person would be a fair price; 21% disagreed; and five percent weren't sure. Men (79%) were significantly more likely than women (68%) to feel the \$2.00 fee would be reasonable.

ITEM TEN:

For which of the following types of activities, if any, do you feel that public tax money should be used? (READ & ROTATE ACTIVITIES) (OPEN-ENDED)

	<u>Yes</u>	<u>No</u>	<u>Not Sure</u>
A. Wildlife Observation Areas	68%	24%	9%
B. Studies of Numbers of Animals	56%	33%	11%
C. Wildlife Educational Brochures	61%	33%	6%
D. Preserving Endangered Species	85%	11%	4%

The following specific analyses excluded the response because of low cell sizes for many regions. Please see Tabular Results for regional data.

A. Wildlife Observation Areas

This activity was rated second by the sample with 68% approval. Support for such an effort decreased with increased age of the respondents. No other significant differences were obtained.

B. Studies of Numbers of Animals

This pursuit was lowest rated by the sample; nonetheless, a majority of

those polled favored the activity. Support for such studies was elevated among men (63% vs. women 50%) and relatively low (50%) among persons 45 years and older.

C. Wildlife Educational Brochures

One significant variation surfaced for this third rated activity -- men (66%) were more likely than women (57%) to approve funding for such brochures.

D. Preserving Endangered Species

Eighty-five percent of the sample supported this top priority activity with the most (98%) support coming from the 16 to 24 year olds and the least (78%) support coming from those 45 and older. No other analyses proved statistically significant.

ITEM ELEVEN:

An idea has been proposed that a small additional annual tax of less than \$5.00 per person be added to the state income tax to finance wildlife conservation programs to protect wild animals in Colorado. Do you feel this idea is a: (READ RESPONSES; ROTATE STARTING POINTS) idea?

<u>Very Good</u>	<u>Good</u>	<u>Neither Good Nor Poor</u>	<u>Poor</u>	<u>Very Poor</u>	<u>Don't Know</u>
19%	40%	9%	17%	10%	5%

While a majority of all age groups favored this measure, it should be noted that support decreased with increased age. As might be expected, support for an additional tax increased with increased probability of visiting protected wildlife areas.

ITEM TWELVE:

What do you feel would be a fair amount to pay in the form of an annual tax for the purpose of financing conservation programs that will protect wildlife here in Colorado? (OPEN-ENDED) (RECORD EXACT AMOUNT)

Of the 194 persons responding to this item, 106 persons indicated \$0.00

would be a fair fee; and 60 persons responded "Don't Know". The Tabular Results detail the remaining 34 responses.

ITEM THIRTEEN:

Another idea that has been proposed is that a portion of the personal state income tax dollars that you are already paying be used to finance conservation programs in Colorado to protect wild animals. Do you feel that this is a: (READ RESPONSES; ROTATE STARTING POINTS) idea?

<u>Very Good</u>	<u>Good</u>	<u>Neither Good Nor Poor</u>	<u>Poor</u>	<u>Very Poor</u>	<u>Don't Know/ Won't Say</u>
24%	47%	8%	11%	4%	5%

Almost three-fourths (71%) of the sample feel positively about this idea, and this support increased with decreased age. Again, support for this idea increased as the probability of visiting potential wildlife areas increased.

ITEM FOURTEEN:

How much in favor or opposed would you be to having \$5.00 per household of State income tax that your household is already paying be set aside for financing wildlife conservation programs to protect wildlife here in Colorado? Would you say you would be (READ RESPONSES; ROTATE STARTING POINTS) of/ to this idea?

<u>Strongly in Favor</u>	<u>Somewhat in Favor</u>	<u>Neither in Favor Nor Opposed</u>	<u>Somewhat Opposed</u>	<u>Strongly Opposed</u>	<u>Don't Know/ Won't Say</u>
51%	36%	5%	4%	2%	1%

Not unexpectedly, support for this concept among those persons already expressing similar support is overwhelming (87%). Among the larger regions, support is highest in Denver metro and lowest in greater El Paso.

SUMMARY:

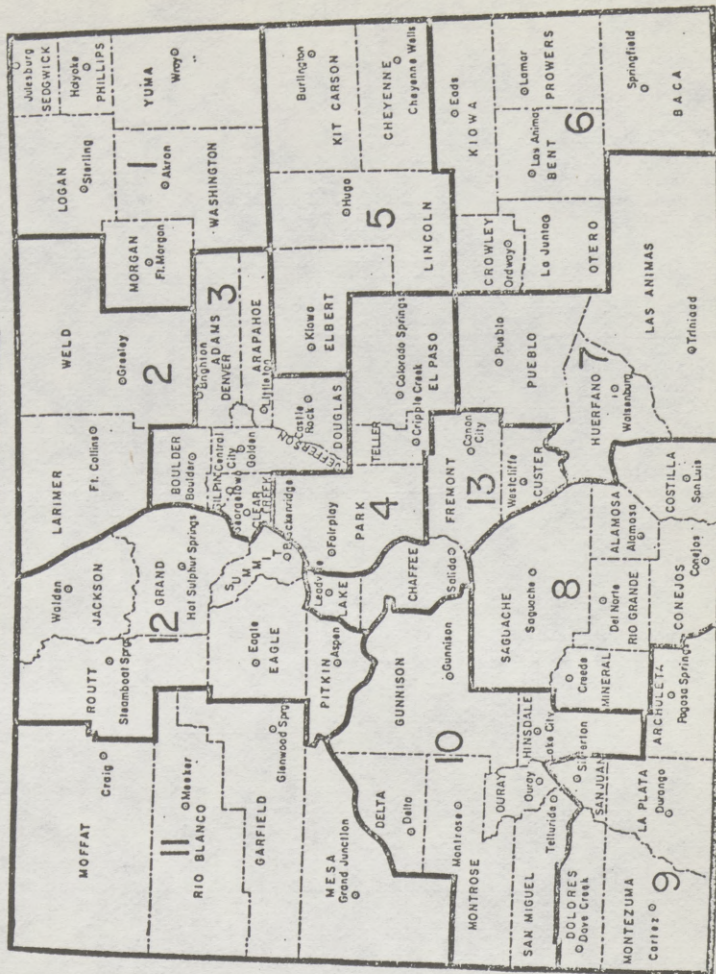
Generally speaking, where differences existed, men were more likely than women to participate, express interest in, and be willing to finance wildlife related activities. Age-wise, a similar trend surfaced with 25 to 44 year olds

being most active and supportive, and those 45 and older being least active and least supportive. Regionally, support and participating in wildlife activities was generally elevated in regions four, seven, eleven and twelve, and generally lowered in region one; all other regions occupy the middle - ground.

Finally, the data suggest some fee or tax would be acceptable, especially by those with interest in wildlife and wildlife conservation.

QUESTIONNAIRE

PLANNING AND MANAGEMENT DISTRICTS



Division of Planning  
 524 Social Services Building  
 Denver, Colorado 80203

JANUARY 1, 1974

SAMPLE CHARACTERISTICS

<u>HOUSEHOLDS:</u>	<u>Frequency</u>	<u>Per Cent</u>
NUMBER OF PERSONS IN HOUSEHOLD:		
One:	86	17%
Two:	243	48%
Three:	73	14%
Four:	69	14%
Five or More:	33	7%
TOTAL:	504	100%

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ACTUAL PERSONS RESPONDING  
TO QUESTIONNAIRE

SEX:		
Male:	236	47%
Female:	268	53%

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AGE:		
10-15:	0	0%
16-24:	48	9%
25-44:	242	48%
45+:	210	42%
(WON'T SAY):	4	1%

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TOTAL:	504	100%
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ALL PERSONS TEN  
YEARS OF AGE AND  
OLDER

SEX:		
Male:	616	50%
Female:	617	50%

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AGE:		
10-15:	145	12%
16-24:	243	20%
25-44:	462	37%
45+:	376	30%
(WON'T SAY):	7	1%

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TOTAL:	1,233	100%
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## "Others List"

5. For activities such as we've been discussing, other than hunting, fishing, trapping, and feeding and observing in your backyard, what specific kinds of animals in Colorado is/are (PARTICIPANT) most interested in? (OPEN-ENDED) (PROBE & CLARIFY) (CODE ON PAGE 2) (ALLOW FOR MULTIPLE RESPONSES)
1. All kinds of Wildlife. (97)
2. All kinds of animals. (51)
3. Nothing in particular. (22)
4. Don't know what another member of the household is interested in. (13)
5. None that I'm interested in. (7)
6. All birds. (7)
7. Everything we see. (6)
8. Peacocks. (4)
9. All kinds of wildlife except snakes. (2)
10. All mammals. (2)
11. I don't like any of them, I'm afraid of them. (1)
12. Insects. (1)

## "Others List"

9. Do you feel that \$2.00 per person would be a fair price to pay for a one day visit to a protected wildlife area in Colorado? (OPEN-ENDED)
1. \$2.00 for adults is all right, but it should be less for children. (6)
2. Too much. (5)
3. Should be \$1.00 instead of \$2.00. (2)
4. Too much for a family with children. (2)
5. It would be better to charge by the carload. (2)
6. \$2.00 would be all right for adults, but it should be 50 cents for children. (1)
7. \$2.00 is O.K. for one person like me, but its too much for a whole family. (1)
8. If there is lots of ground and lots to see. (1)
9. Should be less for children under 12. (1)
10. \$2.00 for adults only. (1)
11. Children should be free. (1)
12. If we could picnic then and make a full days outing. (1)
13. It depends on what all there is there. (1)
14. If it's a large place. (1)
15. Only for adults. (1)

12. What do you feel would be a fair amount to pay in the form of annual tax for the purpose of financing conservation programs that will protect wildlife here in Colorado? (OPEN-ENDED) (RECORD EXACT AMOUNT)

(Due to the limited nature of the response to this question only total frequencies and per cents are presented in this table.)

	<u>Frequency</u>	<u>Per Cent</u>
\$ .00 (Nothing)	106	54.6%
\$ .50	1	.5%
\$1.00	13	6.7%
\$1.50	1	.5%
\$2.00	6	3.1%
\$2.50	3	1.5%
\$3.00	2	1.0%
\$5.00	2	1.0%
(DON'T KNOW/WON'T SAY)	<u>60</u>	<u>30.9%</u>
TOTAL:	194	99.8%*

Total per cent does not equal 100% due to rounding.

## "List of Comments" (Unsolicited)

12. What do you feel would be a fair amount to pay in the form of an annual tax for the purpose of financing conservation programs that will protect wildlife here in Colorado? (OPEN-ENDED) (RECORD EXACT AMOUNT)
  1. We don't need anymore taxes. (15)
  2. It should come from the license fee. (7)
  3. Only the \$2.00 admission price. (5)
  4. It should be a user's fee. (5)
  5. Lots of people couldn't afford it. (4)
  6. Should be dealt with like a contribution. (4)
  7. Tax should not be added on to everyone. (2)
  8. It should be added to the out of state license fee. (2)
  9. Charge \$1.00 per person in household. (2)
10. Before I could quote a fair price I need more information. (2)
11. It should be according to income. (2)
12. Use other methods besides taxes. (2)
13. It should be optional. (1)
14. They are getting enough now. (1)
15. We are already paying enough. (1)
16. Any amount is fair as long as individuals can decide if they want to pay it or not. (1)
17. It should be from the hunter's license fee. (1)
18. It should be from the state lottery. (1)
19. It should come under park and recreational areas. (1)
20. \$1.00 per household added on to the property tax it would be a more even distribution among the people. (1)
21. I'm not sure of the need. (1)
22. We pay enough for our license fees, we shouldn't be taxed more on this. (1)

23. I have to know how they are presently financed to know what financing they need to give an answer on this. (1)
24. Charge more for parks. (1)
25. Use the surplus tax money for this. (1)
26. Senior citizens shouldn't have to pay. (1)
27. Excise tax on guns and ammunitions. (1)
28. Other taxing methods needed. (1)
29. It should be taken from somewhere else like my recreation district. (1)
30. Our tax money should be used where it is more needed. (1)
31. \$1.50 per household because of the number of households to be taxed. (1)
32. \$5.00 is O.K. but I would like to know how that money is going to be used. (1)
33. It is already included in our taxes. (1)
34. Too many people not interested in it would end up paying and they would be the ones to dictate how it was to be run. (1)
35. Federal tax money should be used, not state taxes. (1)



