

the heading at the beginning of this document to find this action in the Unified Agenda.

List of Subjects in 49 CFR Part 512

Administrative practice and procedure, Confidential business information, Freedom of information, Motor vehicle safety, Reporting and recordkeeping requirements.

■ In consideration of the foregoing, the National Highway Traffic Safety Administration amends 49 CFR Chapter V, Code of Federal Regulations, by amending part 512 as set forth below.

PART 512—CONFIDENTIAL BUSINESS INFORMATION

■ 1. The authority for Part 512 continues to read as follows:

Authority: 49 U.S.C. 322; 5 U.S.C. 552; 49 U.S.C. 30166, 49 U.S.C. 30167; 49 U.S.C. 32307; 49 U.S.C. 32505; 49 U.S.C. 32708; 49 U.S.C. 32910; 49 U.S.C. 33116; delegation of authority at 49 CFR 1.50.

■ 2. Revise paragraph (c) of 49 CFR 512.21 to read as follows:

§ 512.21 How is information submitted pursuant to this part treated once a confidentiality determination is made?

* * * * *

(c) Should the Chief Counsel, after considering a petition for reconsideration, decide that information is not entitled to confidential treatment, the agency may make the information available after twenty (20) working days after the submitter has received notice of that decision from the Chief Counsel unless the agency receives direction from a court not to release the information.

■ 3. Amend Appendix B to Part 512 by revising the first paragraph to read as follows:

Appendix B to part 512—General Class Determinations

The Chief Counsel has determined that the following types of information would presumptively be likely to result in substantial competitive harm if disclosed to the public:

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■ 4. Amend Appendix C to Part 512 by revising paragraphs (a)(2) and (a)(3), by adding a new paragraph (a)(4), and by adding a new paragraph (c) to read as follows:

Appendix C to Part 512—Early Warning Reporting Class Determinations

(a) * * *
(1) * * *

(2) Reports and data relating to field reports, including dealer reports and hard copy reports;

(3) Reports and data relating to consumer complaints; and

(4) Lists of common green identifiers.

* * * * *

(c) The Chief Counsel has determined that the disclosure of the last six (6) characters, when disclosed along with the first eleven (11) characters, of vehicle identification numbers reported in information on incidents involving death or injury pursuant to the reporting of early warning information requirements of 49 CFR part 579 will constitute a clearly unwarranted invasion of personal privacy within the meaning of 5 U.S.C. 552(b)(6).

Issued on: April 16, 2004.

Jeffrey W. Runge,
Administrator.

[FR Doc. 04-9005 Filed 4-20-04; 8:45 am]

BILLING CODE 4910-59-P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018-AI11

Endangered and Threatened Wildlife and Plants; Final Determination of Threatened Status for the Beluga Sturgeon (*Huso huso*)

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), determine threatened status for the beluga sturgeon (*Huso huso*) under the authority of the Endangered Species Act of 1973 (Act; 16 U.S.C. 1531 *et seq.*). The beluga sturgeon is a large fish from which highly valued beluga caviar is produced. The species' range was reduced during the 20th century, and is now limited to the Caspian and Black Sea Basins. The species is threatened through habitat modification and degradation, over-exploitation for trade, limited natural reproduction, and agricultural and industrial pollution. A number of positive conservation measures have been taken for all sturgeon species since all previously unlisted Acipenseriformes species (sturgeons and paddlefishes) were added to Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in 1998. The regulatory mechanisms and consequent actions that have been implemented by CITES Parties, including the range countries

for these species, have improved the status of the species and will be discussed later in this notice. We believe that additional conservation measures for sturgeon species that have been adopted by the CITES Standing Committee will afford further benefits to beluga sturgeon, and other sturgeon species, provided the measures are fully implemented and continue to be supported by the CITES community. This rule identifies the beluga sturgeon as a species in need of conservation; implements protective measures by extending the full protection of the Act to the species throughout its range; and complements current and future conservation measures to be undertaken by the species' range countries, as recommended by the CITES Standing Committee.

DATES: This rule is effective October 21, 2004.

ADDRESSES: The complete file for this rule is available for inspection, by appointment, during normal business hours in the office of the Division of Scientific Authority; U.S. Fish and Wildlife Service; 4401 North Fairfax Drive; Room 750; Arlington, Virginia 22203.

Requests for copies of the regulations regarding listed wildlife and inquiries about prohibitions and permits may be addressed to: Division of Management Authority, U.S. Fish and Wildlife Service, 4401 North Fairfax Drive, Room 700, Arlington, Virginia 22203, (telephone: (703) 358-2104; facsimile: (703) 358-2281).

FOR FURTHER INFORMATION CONTACT: Robert R. Gabel, Chief, Division of Scientific Authority, at the above address (phone: 703-358-1708). For permitting information, contact: Tim Van Norman, Chief, Branch of Permits-International; Division of Management Authority; U.S. Fish and Wildlife Service; 4401 North Fairfax Drive; Room 700; Arlington, Virginia 22203 (phone: 703-358-2104).

SUPPLEMENTARY INFORMATION:

Background

The beluga sturgeon is the largest of all sturgeon species. Historic reports indicate that individual fish can reach 6 meters in length and more than one ton in weight. It is also considered the most economically valuable fish in the world, because the female beluga sturgeon is harvested to produce beluga caviar.

Beluga sturgeon are highly vulnerable to depletion, due to their unique life-history characteristics, and because the fishery for them targets the reproductive segment of the population. The species is long-lived and slow to mature.

Although estimates indicate that the oldest fish currently harvested are 50–55 years of age, with an average age of less than 35 years, during the early 20th century 100-year-old beluga sturgeon were commonly taken in the northern Caspian Sea (Khodorevskaya *et al.* 2000). On average, beluga sturgeon mature between 10 and 16 years of age for males, and between 14 and 20 years for females (Hochleithner and Gessner 1999). Male beluga sturgeon spawn only once every 4–7 years, whereas females reproduce once every 4–8 years (Raspopov 1993). Fecundity in adult female beluga sturgeon increases with age; individual fish will produce a greater number of eggs during each subsequent spawning run. On average, adult female *H. huso* can produce up to 12 percent of their body weight in roe (DeMeulenaer and Raymakers 1996).

The historic range of the beluga sturgeon formerly encompassed the Caspian Sea, Black Sea, Adriatic Sea, Sea of Azov, and all rivers within their watersheds (Khodorevskaya *et al.* 2000). Range countries currently include: Azerbaijan, Bulgaria, Croatia, the Czech Republic, Georgia, Hungary, the Islamic Republic of Iran, Kazakhstan, the Republic of Moldova, Romania, the Russian Federation, Turkey, Turkmenistan, Ukraine, and Yugoslavia. The Adriatic Sea population is considered extirpated, and the last record of a wild-caught specimen in the Sea of Azov is from the mid-1980s (TRAFFIC/Europe 1999). The species' current range is limited to the Caspian and Black Sea Basins.

Loss of spawning habitat has had the greatest impact on the survival of beluga sturgeon populations. Hydrographic modifications to major spawning rivers caused changes in river flow regimes that have had a negative impact on beluga sturgeon spawning behavior. Dam construction, for hydroelectric power generation and flood control, produced impassable barriers to migration. Spawning grounds have been flooded, and a large portion of the remaining rocky substrate that was previously utilized by the species for spawning has been blanketed by siltation. Observations during the 19th century indicated that the Black Sea *H. huso* population over-wintered and spawned as far north as the Austrian and Bavarian portions of the Danube River. Beluga sturgeon were once abundant in the Danube River. Harvest rates during the mid-1970s averaged 23 metric tons annually. After the construction of the Djerdap I and II dams during the 1980s, annual harvest assessments indicated that the Danube River populations were rapidly

decreasing (Hensel and Holcik 1997). Within one decade, annual Danube River beluga sturgeon harvest declined to 12.7 tons, indicative of the dams' effect on spawning sturgeon populations (Bacalbasa-Dobrovici 1997b).

The eradication of centralized control of the fishery in the northern Caspian Sea after the dissolution of the Soviet Union, and persistent high demand for beluga caviar, led to expansion of illegal harvest of the species and the growth of an illicit worldwide trade network to supply the demand. Enforcement has been difficult due to a lack of financial resources to supply adequate boats, equipment, and salaries for conservation officers.

On December 18, 2000, we received a petition to list the beluga sturgeon as endangered under the Act. On June 20, 2002, we published concurrent 90-day and 12-month findings on the petition (67 FR 41918). The 90-day finding stated that the petition presented substantial information indicating that the requested action may be warranted. The 12-month finding stated that the petitioned action is warranted. Subsequently, on July 31, 2002, we announced a proposal to list the beluga sturgeon (*Huso huso*) as endangered under the Act (67 FR 49657). The notice requested public comments and information by October 29, 2002. Requests for a public hearing were to be received by September 16, 2002. The Division of Scientific Authority (DSA) received four requests for a public hearing. To accommodate the requests, on November 6, 2002 (67 FR 67856), we gave notice of a public hearing to take place on December 5, 2002. With that notice, the public comment period was extended through December 28, 2002, to allow for submission of comments through, and 15 days after, the public hearing.

On March 11, 2003, we received a "Report on Results of Complex Interstate All-Caspian Sea Expedition on the Assess[ment] of Sturgeon Species Stocks" from the CITES Secretariat. This report summarized the 2002 sturgeon stock-assessment survey for the Caspian Sea and provided new data that would enhance the accuracy of previous population data, while providing sufficient new data that detailed the current status of the Caspian Sea beluga sturgeon population. We believed the information contained in the report would address substantial disagreements regarding the status of the species, and would be relevant to our final determination. Therefore, on July 2, 2003, we published a notice to re-open the comment period on our proposal to list the species for 60 days,

and we also extended the period to produce a final determination by 6 months, to January 31, 2004 (68 FR 39507). This extension was made for the purpose of soliciting additional population data and comments regarding the stock-assessment survey, as specified under section 4(b)(6)(B)(i) of the Act. We also submitted the report for independent peer review. The public comment period closed on September 2, 2003. All comments and information received during this and the previous two comment periods were considered in our final listing determination and are included in the administrative record.

Summary of Comments and Recommendations

On July 31, 2002, we announced a proposal to list beluga sturgeon (*Huso huso*) as endangered under the Endangered Species Act (67 FR 49657). All interested parties were requested to submit factual reports or information by October 29, 2002, so we could consider the information in the development of a final rule. Beluga sturgeon range countries, the CITES Secretariat, Federal and State agriculture and wildlife agencies, scientific organizations, the caviar and aquaculture industries, and other interested parties were contacted and supplied with a copy of the proposal. We received 31 substantive comments during the comment period, as well as 4,226 e-mail messages, postcards, and letters that were submitted as part of a letter-writing campaign. Four individuals submitted comments, but maintained a neutral position regarding listing. We received 14 written comments in opposition to listing the species as endangered. The opponents included members of the aquaculture, caviar, and fishing industries, State wildlife conservation and agriculture agencies, fisheries agencies representing three Caspian Sea range countries (the Islamic Republic of Iran, Kazakhstan, and the Russian Federation) and one Black Sea range country (Romania), two conservation organizations, and several private individuals. The proposal was not supported by the National Aquaculture Association; the Florida Department of Agriculture and Consumer Services, Division of Aquaculture; the World Conservation Union (IUCN) Sturgeon Specialist Group; and IWMC-World Conservation Trust.

We received 10 written comments in support of an endangered listing. Supporters included the original petitioners, Caviar Emptor, a consortium of non-government organizations that includes SeaWeb, the Wildlife

Conservation Society, and the Natural Resources Defense Council; Azerbaijan, a range country; a member of the caviar industry; and several private individuals. We also received a letter of support signed by 69 chefs and/or restaurant owners and another, similar letter signed by 57 members of academia and representatives of conservation organizations. A letter-writing campaign sponsored by Caviar Emptor produced an additional 4,226 comments in support of an endangered listing. Two letters were received from members of the caviar industry who supported an endangered listing, provided we would allow an exemption for beluga sturgeon products produced by commercial aquaculture.

Prior to the end of the comment period, we received four requests for a public hearing. Therefore, notice of a public hearing and extension of the comment period to accommodate comments received during, and 15 days after, the public hearing was published on November 6, 2002 (67 FR 67586). The public hearing took place December 5, 2002, and the public comment period was extended through December 28, 2002. During the public hearing, oral testimony was given by four individuals representing industry; the Florida Department of Agriculture and Consumer Services, Division of Aquaculture, and the Florida Sturgeon Production Working Group; Caviar Emptor; and The Seafood Choices Alliance. The representatives for industry and the State of Florida expressed their opposition to listing the species as endangered. Caviar Emptor and The Seafood Choices Alliance voiced their support for listing. In addition to the verbal testimony given during the public hearing, six additional written comments in support of the listing were received during the extended comment period. These comments were received from private individuals; The Seafood Choices Alliance (a letter signed by 191 chefs and other representatives of the seafood industry); academia; and the Management Authority of Bulgaria. We also received seven written comments, in addition to the verbal testimony given during the public hearing in opposition to listing the species as endangered. These comments were from a private individual, a member of the aquaculture industry, the IWMC-World Conservation Trust, and the Ministry of Waters and Environmental Protection of Romania. We received a total of 17 comments during the public hearing and extended comment period.

After receiving significant new information, which summarized the

2002 sturgeon stock-assessment survey for the Caspian Sea in the "Report on Results of Complex Interstate All-Caspian Sea Expedition on the Assess[ment] of Sturgeon Species Stocks," from the Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), we re-opened a final comment period on July 3, 2003 (68 FR 39507). We notified the public that we would accept comments through September 2, 2003. The notice also extended the deadline for publication of our final decision by 6 months, from the original date of July 31, 2003, to January 31, 2004. During the final comment period, we received three comments. A detailed set of documents submitted by the CITES Secretariat, on behalf of the beluga sturgeon range countries, included new information about the status of beluga sturgeon stocks in the Caspian and Black Seas. We also received a letter from the petitioners, Caviar Emptor, in which they presented an analysis of the survey methodology used during the 2002 Caspian Sea sturgeon stock-assessment, and they also provided numerous articles about the status of beluga sturgeon collected from national and international grey literature.

Peer Review

In accordance with our policy published on July 1, 1994 (59 FR 34270), we have sought expert opinions of at least three appropriate independent specialists for our proposed rule and documents regarding Caspian Sea stock-assessment surveys that were considered as part of this final listing decision. The purpose of such review is to ensure listing decisions are based on scientifically sound data, assumptions, and analysis. We considered and incorporated comments and information from the peer reviewers into this final rule.

Comments or questions about the rule, and our responses, are grouped into a number of general issues, depending on content, and are combined in the following discussion.

Issue 1: A number of commentors stated their belief that the beluga sturgeon is on the brink of extinction, and therefore, urgent action is necessary.

Response: We note that wild beluga sturgeon stocks have declined throughout the species' range during the past 40 years, particularly during the post-Soviet era in the Caspian Sea region. Population declines of several Caspian Sea sturgeon species were so severe during the 1990s that scientists and concerned nations supported the

listing of all previously unlisted sturgeon species in Appendix II of CITES, effective April 1, 1998. The listing required all exports and re-exports of Appendix II sturgeons in international trade to be accompanied by a CITES export permit or re-export certificate. The permitting system has helped to deter illegal international trade by focusing enforcement attention on document forgery, misidentification of species in trade, and illegal trade routes and networks. Since the listing, conservation of sturgeons (including paddlefishes) has continued to be a prominent issue at meetings of the CITES Standing Committee, Animals Committee, and Conference of the Parties. Many resolutions, recommendations, and decisions have been adopted by the CITES Parties to address issues ranging from annual quotas to stock surveys and management plans, further indicating the continuing conservation needs of sturgeon species (for further information, see www.cites.org). Although all of the recommendations made by the CITES Parties have not been implemented, actions taken to date have made significant contributions to the conservation of sturgeon species, and will continue to address conservation and management needs in the future. A threatened listing will reinforce the need to continue the positive actions taken since the listing, and encourage range countries to further develop and implement conservation measures for all wild sturgeon populations, including the beluga sturgeon.

In 2001, based on recommendations from the CITES Animals Committee, the so-called "Paris Agreement" was developed during the 45th meeting of the CITES Standing Committee (SC 45 Doc. 12.2). By accepting the conditions of the Paris Agreement, the Caspian Sea range countries of Azerbaijan, Kazakhstan, and the Russian Federation made commitments to further the conservation of Caspian Sea sturgeon stocks. All sturgeon harvest was suspended during the fall fishing season of 2001, proscribed under Stage 1 of the agreement. Further actions under Stage 1, to be completed before July 20, 2001, included declaration of all stocks of specimens intended for export, and restriction of exports in 2001 to the amounts of declared stocks, provided the 2001 export quotas were not exceeded. Under Stage 2 of the agreement, the range countries were required to undertake a comprehensive survey of sturgeon stocks, develop science-based catch and export quotas,

and assess illegal trade and fisheries enforcement needs in the region. Stage 2 was to be implemented prior to December 31, 2001. Stage 3 actions, to be implemented prior to June 20, 2002, included:

- Establishment of a long-term stock-assessment survey program to be used as the basis for future management of sturgeon stocks;
- A request to the Food and Agriculture Organization of the United Nations (FAO) for advice concerning operations of regional fisheries management organizations, management of shared fish resources, and dealing with unregulated fisheries;
- Adoption of a collaborative basin-level fisheries management plan for Caspian Sea sturgeon, as the basis for sustainable harvest for commercial exports;
- Significantly increased efforts to combat illegal harvest and trade;
- Regulation of domestic trade;
- Establishment of further research priorities;
- Making sturgeon samples available for DNA testing;
- Implementation of the caviar labeling system (Resolution Conf. 11.13, now repealed and replaced by Resolution Conf. 12.7); and
- Submission of a funding proposal to the Global Environmental Fund (GEF) or other donors for rehabilitation of sturgeon stocks, hatcheries, and restocking programs, including support for stock assessments, marking systems, identification of specimens in trade, public awareness, and enforcement.

Several significant goals of Stage 3 have yet to be achieved. Conservation actions taken under CITES to date, however, have focused needed attention on the problems facing sturgeon stocks, improved export documentation, helped to increase beluga sturgeon populations, concentrated attention on the need for sound hatchery and release programs in the range countries, and initiated the lengthy process necessary to improve the status of all sturgeon species, including the beluga sturgeon.

Stock-assessment surveys undertaken from 2001 through the present continue to indicate an increase in beluga sturgeon stocks in the Caspian Sea Basin since the 1990s. U.S. scientists have been unable to replicate the survey results given the data presented in the survey reports. It is uncertain whether this is the result of incomplete data, translation problems, or differences in the stock-assessment and analytical methodologies used by the Russian scientists. However, we have considered that the same survey methods that originally alerted the scientific

community to the decline of sturgeon stocks are being used today to document increases in Caspian Sea sturgeon populations. According to the 2002 stock-assessment survey, the beluga sturgeon population in the Caspian Sea has increased from 7.6 million fish in 1998 to 11.6 million fish (Russian Federation *et al.* 2002). By comparison, the gulf sturgeon (*A. oxyrinchus desotoi*), a sturgeon species native to the United States, is listed as a threatened species under the Act, and population numbers for the gulf sturgeon are estimated in the tens of thousands, a much lower population threshold. The share of the annual spawning segment of the Caspian Sea beluga sturgeon population has increased from 14.8 percent in 2001 to 20.6 percent in 2002 (Armstrong and Karpyuk 2003).

Based on the best available scientific information, we do not believe the species is on the brink of extinction at this time and does not meet the definition of endangered under the Act. Many of the threats to the species remain, however, and will remain into the foreseeable future. Therefore, our final determination is to list the species as threatened under the Act. Under section 4(d) of the Act, regulations may be issued when necessary and advisable for the conservation of a threatened species. We intend to imminently publish a proposed 4(d) rule for beluga sturgeon, with conditions to further address the most significant threats to the species.

Issue 2: Nine commentors expressed the view that aquaculture promotes beluga sturgeon conservation, by reducing the pressure on wild stocks. However, one individual from the caviar industry stated that he did not believe aquaculture could ever replace harvest of beluga sturgeon from the wild, and "at best [aquaculture is] only a complement to wild harvest." Several members of the aquaculture industry and the Florida Department of Agriculture and Consumer Services, Division of Aquaculture, also suggested beluga sturgeon reared in aquaculture conditions should be exempt from our final listing determination.

Response: We cannot simply exempt captive specimens from the actual listing of a species, although we could consider such specimens as exempt under the provisions of a special rule under section 4(d) of the Act if the remaining protections afforded the species would be necessary and advisable for the conservation of the species. However, because demand for beluga caviar currently exceeds the amount available from legal sources, and this demand has resulted in over-

exploitation of this resource, it is not clear that the limited amount of beluga caviar available from aquaculture sources would sufficiently reduce the demand on wild stocks to cause a direct conservation benefit to the species. It is also unclear as to whether the demand for broodstock to establish aquaculture operations would itself constitute a threat to the species. For American alligator (*Alligator mississippiensis*), we have determined that allowing the export of live alligators for the establishment of breeding facilities outside the United States could actually undermine conservation efforts for alligators in this country. We have taken similar approaches, in concert with the range countries and CITES, in disallowing imports of live animals, eggs, and gametes of yacare caiman (*Caiman yacare*) and vicuña (*Vicugna vicugna*). Therefore, we intend to evaluate aquaculture programs on a case-by-case basis through the permitting procedures of 50 CFR 17.32, to determine whether any aquaculture program contributes to the conservation of beluga sturgeon.

Issue 3: Five individuals expressed concern about potential economic effects of the listing, particularly with regard to hindering commercial aquaculture.

Response: Section 4(b)(1) of the Act does not allow the Service to consider economic effects when making decisions on the listing of species as endangered or threatened.

Issue 4: Six individuals were concerned that listing the species as endangered would have a negative impact on their ability to import beluga caviar, and therefore would have an adverse impact on their business.

Response: As noted for Issue 3, section 4(b) of the Act requires listing decisions to be made solely on the basis of the best available scientific and commercial data. Economic factors may not be considered. Therefore, we were prohibited from considering economic factors when making our final listing determination.

Issue 5: Three individuals suggested that they will be unable to conduct research on life-history parameters and improvements of sturgeon aquaculture techniques if commercial aquaculture of beluga sturgeon and trade in beluga sturgeon products derived from aquaculture become prohibited.

Response: Under section 10(a)(1)(A) of the Act, permits may be issued for scientific purposes or to enhance the propagation or survival of listed species. For information about permit issuance criteria, see 50 CFR 17.22. Listing the species as threatened does not negate

the ability to conduct scientific research, provided the permit issuance criteria are met. Furthermore, numerous research studies have been and continue to be conducted regarding sturgeon life-history parameters and sturgeon culture methodology and techniques.

Optimization of growth and survival of sturgeons reared in culture conditions for release have been studied for years, particularly in the Caspian Sea region. Information and data from these studies are readily available in the scientific literature. Therefore, because permits may be issued provided the issuance criteria are met, we do not believe that listing beluga sturgeon under the Act will negatively affect the ability to conduct scientific investigation of beluga sturgeon life-history characteristics or methods to optimize captive culture of the species.

Issue 6: Several individuals expressed concerns about the problems associated with enforcing the provisions of the Act if the species were to be listed. One individual commented that it is impossible to visually distinguish between a farm-raised fish and a wild-caught fish. Another individual observed that it is impossible to determine the species composition and origin of caviar by visual inspection. Two commentors suggested a ban on sales of farm-raised beluga sturgeon products because of the potential to launder wild-caught sturgeon as farm-raised fish in trade. One individual commented that any controls the Service might institute will likely be easy to circumvent.

Response: We acknowledge that it is generally not possible to distinguish between a wild-caught sturgeon and a sturgeon that is produced in aquaculture by physical examination alone. Determining the species composition and origin of caviar in trade has long been recognized as a serious and confounding enforcement issue. Species identification of caviar and other products requires laboratory analysis of the specimen(s) in question. However, the Service, through the National Fish and Wildlife Forensics Laboratory has the capability to identify the species composition of caviar for enforcement purposes. Since the inclusion of all previously unlisted sturgeons and paddlefishes in the CITES Appendices, the Parties have been concerned about the need to regulate and identify legal caviar in trade. In 2000, at the 11th CITES Conference of the Parties (COP 11), CITES Resolution Conf. 11.13, Universal labeling system for the identification of caviar, was adopted to address this concern. The Resolution required range countries to implement a

standardized caviar marking system, with particular specifications for the design of labels that would be applied consistently by all Party range countries. Resolution Conf. 11.13 was subsequently amended and superseded by Resolution Conf. 12.7, Conservation of and trade in sturgeons and paddlefish, at COP 12 in 2002. As a result of these resolutions, most caviar-exporting countries now label caviar tins destined for international trade. Each sturgeon-processing facility in each exporting country that is a CITES Party uses a label that is unique to each specific facility. Including the origin of caviar on tin labels could be used to identify the origin of legal caviar in trade. Periodically, the CITES Secretariat issues a Notification to the Parties to advise the Parties when a caviar-exporting country has issued a standardized label for caviar. The Notification includes a depiction of the label. Copies of caviar labels are kept on file by the Office of Law Enforcement (OLE) and are used to verify the product in a shipment upon export. Shipments that are found to be out of compliance with CITES documentation and labeling requirements are refused or seized at the port of entry.

The Service's OLE uses several methods to identify and track imports and exports of CITES-listed species and species listed under the Act. These methods, detailed below, are currently being used for shipments of beluga sturgeon because of its listing in Appendix II of CITES. These methods will continue to be used for beluga sturgeon as a threatened species under the Act.

The OLE uses a system of permits, declarations, and inspections to ensure compliance with regulations under CITES and the Act for imports and exports of listed wildlife and wildlife products. Shipments of sturgeon and paddlefish products entering or leaving the United States cannot be cleared by OLE unless they are accompanied by the appropriate CITES documentation. All wildlife shipments must be declared to OLE upon exit or entry by filing a "Declaration for Importation or Exportation of Fish or Wildlife" (Form 3-177). This form is used to track and monitor all shipments of fish or wildlife arriving or departing from the United States. All shipments are subject to inspection at the port and must be cleared to ensure compliance with all applicable regulations. All wildlife products must be shipped from a designated port for wildlife, unless prior authorization has been granted to export from a non-authorized port.

Issue 7: Two members of the U.S. aquaculture industry suggested that we require that a portion of profits from commercial aquaculture sales be designated for hatchery upgrades in beluga sturgeon range countries. Four representatives from beluga sturgeon range countries also recommended using a portion of profits from the international trade in beluga sturgeon to rebuild aging hatcheries and construct new facilities. Several range countries already depend on the international sturgeon trade to fund hatchery programs, and the commentors consider it vital that additional funding be obtained to improve and rebuild the existing hatchery infrastructure for the conservation of beluga sturgeon populations. The Bulgarian Management Authority suggested that aquaculture should be used to return beluga sturgeon populations to historic population abundance levels. Specifically, they suggested a 7-year moratorium on harvest of beluga sturgeon to allow for development of aquaculture. The moratorium would be followed by an introduction of gradually declining catch quotas from the wild. Other measures suggested by the Bulgarian Management Authority included: investments for hatchery upgrades and establishment of new facilities, restocking of natural populations, development of improved artificial culture techniques, and more effective enforcement measures to protect wild populations.

Response: We cannot require members of the commercial aquaculture industry to invest or contribute funds for hatchery system upgrades and new construction in beluga sturgeon range countries. However, through the permitting system and under the 4(d) rule, we hope to encourage conservation actions for the species, by means of economic incentives, including hatchery production of fingerlings for restocking purposes.

Artificial sturgeon culture has been used to supplement wild sturgeon stocks in the former Soviet Union since 1959. The Soviet hatchery program successfully reared and released millions of sturgeon fingerlings using artificial culture techniques. Hatchery programs and restocking efforts were curbed during the early 1990s, however, due to changes in the region's political structure following the dissolution of the Soviet Union. The importance of hatchery programs to supplement Caspian Sea sturgeon stocks was quickly recognized, and some hatcheries are operating once again. An average of 11.7 million beluga sturgeon fingerlings have been released into the Caspian Sea

annually since 1996 (Armstrong and Karpyuk 2003). Secor *et al.* (2000) estimate that more than 90 percent of the current beluga sturgeon population in the Caspian Sea is of hatchery origin, whereas Armstrong and Karpyuk (2003) estimate a figure closer to 97 percent for the northern Caspian Sea. Armstrong (2003) notes that revenues for hatcheries and re-introduction programs are largely derived from the legal trade in sturgeons; therefore, maintenance of Caspian Sea sturgeon stocks is dependent on the existence of that trade.

Issue 8: Four individuals expressed the opinion that conservation measures undertaken under CITES and by the range countries should be sufficient to conserve Caspian Sea sturgeon populations.

Response: The response to Issue 1 provides a lengthy discussion of the actions taken under CITES since the Appendix II listing of beluga sturgeon became effective in 1998. The CITES listing has proven important as a deterrent to illegal international trade and has focused law enforcement attention on illegal trade routes and networks. Conservation of sturgeons remains a prominent issue within the CITES community, and many resolutions, recommendations, and decisions have been developed to address wide-ranging conservation issues. Actions taken to date have made significant contributions to the conservation of sturgeon species, and will continue to address conservation and management needs in the future.

While we recognize the important role CITES has played in the improvement of trade controls and other conservation measures for sturgeon conservation, a number of unresolved issues remain. As previously noted, the conditions of the Paris Agreement encouraged commitments between most of the Caspian Sea range countries to further the conservation of Caspian Sea sturgeon stocks. Stage 1 measures were completed by July 20, 2001, as required. Primary measures undertaken for the completion of Stage 2 were to be finished prior to December 31, 2001, and Stage 3 actions were to be implemented prior to June 20, 2002. Several significant goals of Stage 3 have not been accomplished, as of publication of this notice. Our listing determination will strengthen and promote complete implementation of the Paris Agreement recommendations, for the conservation of all Caspian Sea sturgeon species. As the largest importer of beluga sturgeon caviar, the United States can reinforce and increase the focus on conservation measures

currently under way and influence the implementation of future management actions for the species.

Issue 9: Several individuals expressed concern regarding the high level of illegal harvest of and trade in beluga sturgeon within the Caspian Sea region.

Response: Actions taken by the CITES Parties to reduce illegal trade in sturgeon products have proven relatively successful to date. In the United States alone, over 135 shipments of beluga caviar have been refused since 1998, due to false documentation and other factors. Law enforcement agencies of the CITES Parties continue to detect and seize illegal shipments of caviar upon import. Adoption of the caviar labeling requirement in Resolution Conf. 12.7 instituted a method for tracking sturgeon products from the country of origin and the processor to ensure legal international trade in sturgeon products. The Resolution has been implemented by most beluga sturgeon range countries.

However, a report from an Environmental Prosecutor in Kazakhstan reveals the problems associated with illegal harvest in the region and notes that illegal harvest continues to be a serious problem in a specific region of the Caspian Sea. It is our understanding that illegal harvest and bycatch of sturgeon in other fisheries remains a significant problem for enforcement agencies. Provisions of our proposed 4(d) rule further address illegal harvest of beluga sturgeon.

Issue 10: One individual expressed concern that listing beluga sturgeon under the Act will not give the United States the authority required to address habitat loss, the most serious threat to beluga sturgeon populations, nor will we have the authority to remediate pollution problems.

Response: We agree that listing a species with a home range outside of U.S. borders does not provide some of the protections afforded a species by the Act. We are unable to designate critical habitat, nor do we have the authority to impose U.S. law within another sovereign nation. However, listing beluga sturgeon as threatened under the Act can positively affect international trade and management of the species by reinforcing conservation measures already in place. In a proposed 4(d) rule, which we intend to publish as soon as possible, we will attempt to address further actions that are appropriate and necessary to manage the species on a collaborative basin-wide level, enhance stock abundance, target illegal harvest and trade, and encourage the range countries to address problems with the

hatchery infrastructure throughout the Caspian Sea region.

Summary of Factors Affecting the Beluga Sturgeon

Section 4(a)(1) of the Act (16 U.S.C. 1531 *et seq.*) and regulations promulgated to implement the listing provisions of the Act (50 CFR part 424) set forth the procedures for determining whether any species is an endangered or threatened species. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1) of the Act. These factors and their application to beluga sturgeon (*Huso huso*) are as follows:

A. The Present or Threatened Destruction, Modification, or Curtailment of Beluga Sturgeon Habitat or Range

Natural reproduction of beluga sturgeon is extremely limited and occurs in less than 15 percent of the species' historic spawning habitat. Approximately 85 percent (Secor *et al.* 2000) to 90 percent (Barannikova *et al.* 1995) of the species' former spawning grounds have been damaged by pollution or are no longer accessible to spawning sturgeon. Dams, river channelization, and other man-made alterations of flow regimes have significantly reduced the amount of available sturgeon spawning habitat throughout the species' range. Messier (1998) noted that the surface area of the Caspian Sea is some 169,000 square miles, yet all sturgeon species that spawn in the Volga River utilize an area no larger than 1,000 acres (405 hectares) near the mouth of the river.

Although the Volga River historically accounted for the largest number of spawning sturgeon in the Caspian Sea Basin, the Ural River in Kazakhstan now is believed to contain the most suitable spawning habitat for sturgeons (Semyon Khvan, pers. comm.). The Ural River is the only major river within the Caspian Sea Basin that has not been dammed or otherwise modified (Khodorevskaya *et al.* 1997). Recent reports indicate that habitat utilized by sturgeons for migration and spawning in this river system is threatened by siltation and river mouth occlusion. Armstrong (2003) notes that siltation and occlusion problems are natural phenomena resulting from sea-level fluctuations in the Caspian Sea Basin. The availability of sturgeon spawning habitat has ebbed and flowed throughout historic time as a result of these naturally occurring sea-level fluctuations (Armstrong 2003).

Spawning runs in the Kura River in Azerbaijan have also been limited by

siltation and occlusion of the river mouth. River mouth and channel dredging is under way in the Kura River, with the goal of increasing available spawning habitat (Armstrong 2003), and with the expectation that beluga sturgeon will once again reproduce in the Kura River system.

The Volga River represents the most extensive spawning habitat in the Russian Federation. It is believed that beluga sturgeon no longer spawn in the Terek River (Khodorevskaya *et al.* 1997). Extirpation of the species from the Sea of Azov resulted, in part, from dam construction on the Don and Kuban Rivers, which has blocked spawning migrations to historic spawning grounds (TRAFFIC 1998). In Iran, the Tajen and Gorganrud Rivers are available for spawning runs in the southern Caspian Sea. However, the Mangil Dam on the Sefidrud River blocks passage, and all spawning habitat has been destroyed because of pollution and water extraction (TRAFFIC 1998).

Previous studies have noted that some 85 percent of the Black Sea's Danube River delta has been diked and dammed, resulting in substantial losses of sturgeon spawning habitat (Bacalbasa-Dobrovici 1997b). Harvest rates of beluga sturgeon decreased substantially after construction of the Djerdap Dams I and II during the mid-1980s (Hensel and Holcik 1997). Annual estimates of Danube River beluga sturgeon harvest declined from an average of 23 tons during the mid-1970s to 12.7 tons in 1994, indicative of the dams' effects on spawning sturgeon populations (Bacalbasa-Dobrovici 1997b).

A recent study, however, suggests that previous estimates of decline in the Black Sea Basin were inaccurate because "poor" fisheries statistics were maintained by the Romanian fisheries administration (Suciuc 2002). As part of a research program funded by the Global Environment Fund (GEF) and the World Bank, a Rapid Rural Assessment (RRA) was conducted to evaluate sturgeon harvest. The RRA discovered that estimates of previous beluga sturgeon harvest were much higher than originally reported, after determining that much of the catch was under-reported by local fishers. For instance, in 1997, nearly 106 tons of beluga sturgeon were harvested (Suciuc 2002). The study also located five potentially intact spawning sites. While additional studies should be undertaken to confirm the findings of the RRA, the results are promising and indicate that a larger population of beluga sturgeon may exist in the Danube River and Black Sea Basin than was previously believed.

Furthermore, whereas spawning habitat in the Danube River system has been compromised by man-made river alterations, suitable habitat remains for the species' spawning requirements.

B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

The international demand for caviar is the primary factor driving overexploitation of beluga sturgeon. In 1995, the retail price for one pound of beluga caviar in the United States was US\$1,000 (DeMeulenaer and Raymakers 1996); today beluga caviar sells for around US\$1,500 per pound on the U.S. retail market (Petrossian 2003).

The beluga sturgeon was first listed as endangered by the IUCN in 1996 (IUCN 2000). In an assessment by TRAFFIC (1999), the state of all Russian sturgeon populations was considered "catastrophic." Information provided by the Natural Resources Defense Council, the Wildlife Conservation Society, and SeaWeb (Petitioners) in the original petition to list beluga sturgeon as endangered (Petitioners 2000), and in subsequent communications (Petitioners, *in litt.* July 9, 2003; September 1, 2003), indicates their belief that the species is on the brink of extinction. Overutilization, coupled with loss of spawning habitat, is considered one of the most significant factors precipitating the decline of beluga sturgeon populations (Petitioners 2000). Rapid expansion of legal and illegal sturgeon fisheries during the upheaval caused by the dissolution of the Soviet Union in 1991 (Secor *et al.* 2000) succeeded in further reducing beluga sturgeon populations. The absence of a central regulatory authority and persistent unrestricted harvest had swiftly placed beluga sturgeon stocks in imminent danger of collapse within a decade.

Formerly, Caspian Sea sturgeon populations were closely regulated and monitored by the Soviet Union and Iran, to ensure sustainable commercial sturgeon fisheries for the future. Caspian Sea management provisions included basin-specific harvest regulations and quotas, strict trade quotas, and stocking programs that have been in operation in the former Soviet republics continually since the late 1950s, albeit in much-reduced circumstances from the late 1980s to the present (Secor *et al.* 2000). In 1967, the Soviet Union banned open-sea harvest of all anadromous fish species in the Caspian Sea to eliminate bycatch mortality of juvenile sturgeons (Secor *et al.*, 2000). However, with the loss of the Soviet state sturgeon monopoly, bycatch of beluga sturgeon

again increased with the resumption of open-sea Caspian Sea fisheries, particularly the anchovy fishery (TRAFFIC/Europe 1999). Open-sea harvest heightened the risk of injury and mortality of juvenile beluga sturgeon, significantly impacting future stock recruitment by adversely affecting entire year classes. In 1996, the Caspian Sea range countries signed an agreement prohibiting open-sea fishing, thereby protecting remaining and future immature sturgeon stocks.

Detrimental effects of the legal harvest were additionally compounded by the ever-increasing illegal harvest of the species (CITES 1997). Illegal harvest and trade quickly escalated during the 1990s, again a result of the turbulence that took place during the emergence of market economies in the former Soviet bloc nations. The disorder of the early and mid-1990s was also responsible for the lack of effective enforcement measures available in the newly emerging nations. DeMeulenaer and Raymakers (1996) originally estimated that the illegal harvest of Caspian Sea sturgeons was 6–10 times higher than legal harvest. More recent assessments, however, suggest the illegal trade may be some 11 times greater than the legal market (Volkov 2001).

International and domestic demand for sturgeon caviar and meat ensures traffickers of an extremely lucrative market for the illegal trade in sturgeon products. Processed caviar generates maximum prices and is packaged in small, easily smuggled containers. Organized teams of poachers use the most up-to-date equipment to efficiently harvest sturgeons. The British Broadcasting Company (BBC) has reported that poaching teams utilize modern satellite navigation equipment and regularly fish in prohibited open-sea waters. Detection of the fishing crews is difficult, and encounters between border guards and violators often end violently (BBC 2003).

As an example of the widespread nature of poaching networks in the region and the large volume of illegal harvest that has been detected, this year alone a Russian poaching investigation, dubbed Putina-2003, has been responsible for detaining more than 1,500 people for violating fishing regulations. However, many poachers continue to elude this poaching investigation and other enforcement actions under way daily in the region. During a recent broadcast of Moscow's Channel One TV, Vladimir Streltsov, Deputy of the Federal Security Service's North Caucasus Regional Border Directorate, stated that these arrests indicate a three-fold increase in Caspian

Sea poaching (BBC 2003). Over 500 km of sturgeon fishing nets have been confiscated during the Putina-2003 operation and were officially destroyed recently.

Hatchery programs were also impacted by the upheaval in the region during the last decade. Overharvest has reduced the availability of wild broodstock, which has consequently caused a decrease in hatchery production and restocking programs. Hatchery infrastructure has deteriorated in all countries except Iran, and most facilities do not have sufficient capability to over-winter sturgeon broodstock. As a result, after the broodstock is used for reproductive purposes, it may be released or, more commonly, sold for meat to obtain funds for hatchery operating costs.

The Caspian Sea range countries maintain that the historic decline in Caspian Sea beluga sturgeon populations has been arrested, and in fact, the population has increased. They further assert that the proportion of reproductively mature individuals has likewise increased (Armstrong and Karpyuk 2003). The data used to determine the status of sturgeon populations in the Caspian Sea are derived from annual stock monitoring, which involves collaborative trawl surveys and assessment of abundance and biomass of spawning stocks migrating into the Volga and Ural Rivers (Armstrong and Karpyuk 2003). According to the CITES Secretariat, this research has been continuously conducted in the Caspian Sea since 1962 (Armstrong and Karpyuk 2003).

The estimated number of beluga sturgeon in the Caspian Sea has exhibited a gradual increase since 1998, the year the beluga sturgeon was listed in Appendix II of CITES. The percentage of adults, based on summer trawl surveys, has likewise increased. Data obtained during summer trawl surveys are considered the most reliable indicators of population size because beluga sturgeon do not actively migrate during the summer. The population estimates in Table 1 (below) are viewed as conservative; they do not accurately reflect the number of beluga sturgeon present in shallow coastal waters. It is impossible to survey shallow depths using the trawl methods employed for the survey.

TABLE 1.—ESTIMATED CASPIAN SEA BELUGA STURGEON POPULATION AND PERCENTAGE OF ADULTS

Year	1998	1999	2000	2001	2002
Total Population	7.6 million	9.3 million	5 million*	9.3 million	11.6 million.
Percentage of adults in the northern Caspian Sea.	0%	8.7%	5.5%*	14.8%	20.6%
Percentage of adults in the middle and southern Caspian Sea.	17.4%	10.0%	No data collected	22.0%	42.9%

Source: Armstrong and Karpyuk 2003.

* Adult estimate data collected for the northern Caspian Sea population only in 2000.

The CITES Secretariat also reports that the summer index of beluga catch per unit effort (CPUE) has increased from 10 specimens per 100 trawls in 1994 to 18 specimens per 100 trawls in 2001, the highest value recorded in the past 7 years (Armstrong and Karpyuk 2003). The trend data indicate that the beluga sturgeon fishery is recovering under CITES regulation, according to the CITES Secretariat. Armstrong and Karpyuk (2003) make an emphatic distinction between the status of beluga sturgeon populations prior to CITES regulation and the same populations post-listing. They state that current data illustrate a population that “has been/

was severely overfished” rather than a population that “is currently severely overfished.”

Levels of beluga sturgeon harvest in tributary rivers since 1998 range from one-third to one-fifth of the total spawning fish entering the river system (see Table 2). Although Armstrong and Karpyuk (2003) contend that recent numbers of spawning beluga sturgeon are higher than those in the past, the historic data used for comparison are from the period from 1961 to 1965. The use of more recent data would be more meaningful. Significantly, the number of harvested specimens held for hatchery use is greater than 50 percent of the total

harvest in 3 of the 5 years from which data are available. Transferring live beluga sturgeon that were captured as part of the annual harvest quotas allocated in 1999, 2001, and 2002 to hatcheries for fingerling production effectively reduced the number of adult fish that were being killed for caviar and meat production by more than 50 percent. Use of adult broodstock for hatchery production rather than caviar production further contributes to the future status of the species through the annual production and release of fingerlings to augment current population numbers in the Caspian Sea.

TABLE 2.—TOTAL HARVEST LEVELS IN CASPIAN SEA TRIBUTARY RIVERS AND PERCENT ALLOCATED FOR HATCHERY USE

Year	Number of adults*	Number of adults entering rivers	Number of adults harvested	Percent of harvest held for hatchery use
1998	0	6,090	2,118	41.1
1999	809,000	5,272	1,454	72.3
2000	**275,000	5,355	1,182	48.4
2001	1,376,400	5,695	1,059	69.1
2002	2,389,600	5,524	1,121	61.9

Source: Armstrong and Karpyuk 2003.

*Numbers based on Table 1.

**Northern Caspian Sea only.

Analyses of long-term tributary monitoring data in the Volga River

indicate that natural spawning still occurs and is on the increase, similar to

the other population parameters presented by the Secretariat and the

Caspian Sea range nations (Armstrong *et al.* 2003). Annual larval sampling has revealed that, within the sampling sites of the lower Volga River, wild beluga sturgeon larval abundance has increased from 130,000 specimens in 1997 to 2 million specimens in 2002 (Armstrong and Karpyuk 2003).

The data presented by the Secretariat and the Caspian Sea range nations indicate an improvement in the status of beluga sturgeon populations. While concerns have been raised about the accuracy of the most recent population estimates (Petitioners, Secor, *in litt.* 2003), the same survey methods that originally alerted the scientific community to the decline of sturgeon stocks are currently being used to document increases in Caspian Sea sturgeon populations. The protections and improvements in management afforded the species since the CITES listing in 1998 have contributed to these improvements.

C. Disease or Predation

Decades of industrial pollution and centuries of sewage effluent have degraded water quality in the Caspian Sea region. The Volga River, formerly responsible for the largest amount of sturgeon production annually, is the single major source of pollutants draining into the Caspian Sea. Sewage produced by half the Russian population and most of the country's heavy industrial waste flow through the Volga River system (Anon. 2002). Disease and reproductive abnormalities associated with pollution have been observed in beluga sturgeon throughout their range. A contaminant study of the Volga River conducted in 1990 found abnormalities in 100 percent of the sturgeon eggs that were sampled (all sturgeon species sampled), and 100 percent of the embryos examined were found to be non-viable (Khodorevskaya *et al.* 1997). In a 3-year study (1999–2002) funded by the World Bank, organochlorines and heavy metals were identified as the predominant environmental contaminants in the Caspian Sea. The contaminants reside in sediments and are also found in living organisms, such as seals, bony fish, and sturgeons (Padeco 2002). The northeast section of the Caspian Sea, in and around Kazakhstan, has the lowest levels of contaminants in the basin. Beluga sturgeon were found to have the highest organochlorine levels of all sturgeon species, likely attributable to the species' longevity (Padeco 2002). Organochlorine contamination in sturgeons is at a level where reproductive effects may be expected (Padeco 2002). The study revealed that

the major hotspot for contamination is Baku Bay in Azerbaijan.

Analysis of the contaminant data provided in the 2002 Sturgeon Stock Assessment Survey suggests that several of the Caspian Sea sturgeon sampled during the survey had mercury concentrations that approached or exceeded U.S. Environmental Protection Agency (EPA) criteria for human health protection (USFWS *in litt.* 2003). Although existing contaminant research indicates that pollution is a threat to all sturgeon species, and most particularly beluga sturgeon, we note that this threat is not uniform throughout its range. In addition, the actual impact of some contaminants on these fish is indeterminate, and although they are present, it is not clear what, if any, effect they are having or may have on beluga sturgeon. We are also aware that positive steps have been taken in the development and adoption of a new environmental treaty to protect the Caspian Sea. The Framework Convention for the Protection of the Marine Environment of the Caspian Sea is the first legally binding treaty ever developed by the Caspian Sea nations. The treaty provides a basis for regional coordination to promote conservation of the Caspian Sea and its bio-resources, and address problems with habitat destruction, pollution, and over-exploitation of fish and other marine life (UNEP 2003). The treaty must be ratified by all of the basin nations before it enters into force and becomes legally binding.

A ctenophore, the American comb jellyfish (*Mnemiopsis leidyi*), was introduced into the Black Sea in 1982 from the discharge of ship ballast water. There are no known Black Sea predators of the comb jellyfish, and the species' growth has been explosive. Within 7 years, the biomass of *M. leidyi* in the Black Sea grew to 800 million metric tons (Bacalbasa-Dobrovici N. 1997a). Comb jellyfish feed on zooplankton and pelagic fish eggs, embryos, and larvae, prey that are utilized by small marine fishes, such as anchovies. The small marine fishes are fed upon by the piscivorous beluga sturgeon. The feeding habits of the comb jellyfish resulted in the complete collapse of the Sea of Azov anchovy fishery in 1989. Changes in invertebrate distribution and faunal structure caused by *M. leidyi* have altered the prey base of Black Sea sturgeon populations (Kovalev *et al.* 1994, as cited in Bacalbasa-Dobrovici 1997a). The comb jellyfish has expanded its range and is believed to have infiltrated the Caspian Sea through the Lenin Canal that links the Don and Volga Rivers. The first certified record

of *M. leidyi* was made in 1999 along the coast of Kazakhstan (UNISCI 2000). Expansion of the species was faster than that in the Black Sea; within one year the population exploded and *M. leidyi* was found throughout the Caspian Sea Basin. Introduction of the comb jellyfish has resulted in declines of kilka, a suite of sardine-like pelagic fishes. Declines in kilka populations have had a direct, negative impact on the species that feed upon them, including beluga sturgeon (UNISCI 2000).

D. The Inadequacy of Existing Regulatory Mechanisms

Under previous management regimes to protect immature sturgeon stocks in the Caspian Sea, open-sea fishing was prohibited from the 1950s through the early 1990s. After the collapse of the Soviet Union in 1991 and the subsequent absence of controls on commercial fisheries, a period of open-sea fishing was resumed during the mid-1990s. Impacts from harvest and bycatch of the mixed-stock sturgeon populations that occupy the open waters of the Caspian Sea were considered detrimental to the survival of sturgeon species. If the open-sea fishery was allowed to continue unregulated, extirpation of local stocks was a very real probability, because it was impossible to determine from which specific population individual fish were harvested. Additionally, harvest might have disproportionately affected specific populations that were already vulnerable to over-exploitation (D. Secor, personal communication). This period of unregulated harvest, with the bycatch of immature sturgeons, may have destroyed a major component of future sturgeon stocks (CITES 1997). In 1996, the Caspian Sea range countries signed an agreement prohibiting open-sea fishing, thereby protecting remaining and future immature sturgeon stocks.

Iran continued to apply strict management and enforcement measures to conserve beluga sturgeon, and persisted with a successful annual beluga sturgeon stocking program, while many profound changes were occurring in the former Soviet States. Despite decreases in harvest from Iranian waters from 1995 through 2001, the Iranian Government's fisheries management agency, SHILAT, maintains that harvest was not detrimental because of the large number of fingerlings that were stocked during those years (SHILAT, *in litt.* 2002). A total of 5,713,269 beluga sturgeon fingerlings were released into the Caspian Sea from 1995 to 2001 (SHILAT, *in litt.* 2002). On average, fingerlings released during that time

weighed 3–5 grams. Currently, however, fingerlings are given a “head start” by increasing the age and weight at the time of stocking to 30 grams each. SHILAT estimates the total number of adult beluga sturgeon harvested in the Caspian Sea during 2001 was fewer than 3,000 specimens from an estimated total population of 9.35 million beluga sturgeon, and an estimated commercial stock (adult fish) of 1.383 million fish (SHILAT, *in litt.* 2002).

Khodorevskaya (2000) and TRAFFIC Europe-Russia (1999) have suggested that the failure of regulatory oversight in the Caspian Sea region since the dissolution of the Soviet Union has been an important factor contributing to the rapid decline of beluga sturgeon populations. Recognition of the inadequacy of existing regulatory mechanisms prompted conservation actions from the CITES community to address the regulatory deficiencies. A synopsis of significant actions taken by the CITES community follows.

To curtail trade in illegally obtained caviar, and to ensure sustainable use, conservation, and management of wild sturgeon populations, the first significant international regulatory action was undertaken during COP 10 in 1997. At that time, all previously unlisted species of Acipenseriformes (sturgeons and paddlefishes) were listed in Appendix II of CITES, effective April 1, 1998. Appendix II includes species that may become threatened with extinction if trade is not regulated. Occasionally, species that are not threatened by unregulated trade are listed in Appendix II because trade in these species may impact other species that were listed because they were likely to become threatened with extinction if trade was not regulated. As an example, species that are similar in appearance to a listed species may also be listed to ensure complete regulation of the species of concern. All specimens of Appendix II species in international trade, including parts and products, require an export permit from the country of origin. Permits are issued only when a positive finding can be made that the proposed export will not be detrimental to the survival of the species, and the specimens were legally acquired.

Under CITES, trade is regulated through a system of permits that requires wildlife inspections at ports of entry. The inspection process has been influential in the discovery of falsified documentation accompanying illegal shipments of sturgeon products. Through the inspection process, carried out by OLE, numerous illegal shipments of sturgeon products have been

detected. Between June 1998 and June 2003, OLE refused clearance of more than 135 shipments of beluga sturgeon products into the United States. The shipments that were refused clearance by OLE were seized, re-exported, or destroyed. Recognition of falsified documentation, and other investigatory information gathered by enforcement agencies of the CITES Parties, was instrumental in the discovery of illicit trade networks that moved illegal caviar through several countries. As a result of the law enforcement investigations, CITES imposed trade sanctions against the countries involved.

The CITES listing also served to further engage and integrate international scientific attention on sturgeon conservation issues. Since the listing, a suite of sturgeon conservation measures have been recommended and undertaken by the CITES community. Sturgeons were included in the Review of Significant Trade shortly after the listing became effective and provided scientists and management authorities with recommendations to improve the basis for trade. If Appendix II species are being traded at significant levels, the Significant Trade Review process is the Convention’s mechanism for evaluating if the provisions of CITES are being adequately implemented and non-detriment findings are being properly made. Remedial action can be taken, if deemed necessary. The review of all Acipenseriformes commenced in 2000, and the results showed a clear pattern of declining yields from Caspian and Black Sea sturgeon populations, necessitating prompt conservation action (Armstrong and Karpyuk 2003). The Significant Trade Review process was a catalyst for the development of numerous critical conservation actions for sturgeons. To address and implement the conservation requirements of all sturgeon species, intergovernmental sturgeon management commissions were established for the Amur River and Sea of Azov (Armstrong and Karpyuk 2003). The Black Sea sturgeon range countries established the Black Sea Sturgeon Action Group (BSSAG) in 2001, and in 2002, the Caspian Sea range countries created the Commission on Aquatic Bioresources of the Caspian Sea, also known as the Caspian Bioresources Commission (Armstrong and Karpyuk 2003).

The Caspian Bioresources Commission is composed of representatives of the Caspian Sea nations and is currently responsible for the allocation of sturgeon quotas to regulate and control harvest of and trade in sturgeons (Armstrong and Karpyuk

2003). CITES Decision 11.58, for the establishment of annual harvest and export quotas for shared sturgeon stocks, was adopted at the 11th meeting of the Conference of the Parties (COP 11; Nairobi 2000). This Decision was later rescinded and the recommendations previously found in the Decision became part of CITES Resolution Conf. 12.7, Conservation of and trade in sturgeons and paddlefish. Prior to the dissolution of the Soviet Union, and before the CITES listing, the Soviet Union and Iran set annual quotas for Caspian Sea sturgeon products and specimens. After 1991, the former Soviet Republics and Iran continued to set annual quotas for Caspian Sea sturgeon outside the bounds of a formal agreement. Since 1993, the annual share of sturgeon catch for each former Soviet republic has been allocated as a percentage of total harvest. The Russian Federation is allowed 70 percent of the total catch; Kazakhstan 17.6 percent; Turkmenistan 6.3 percent; and Azerbaijan 6.1 percent (TRAFFIC 2000).

The CITES community recognized that illegal trade was one of the major threats to the survival of certain sturgeon populations and continued to undermine range countries’ efforts to manage their sturgeon resources on a sustainable basis. Therefore, Resolution Conf. 10.12 (Rev.), adopted at COP 10, directed the Secretariat, in consultation with the Animals Committee, to explore development of a uniform marking system for sturgeons to assist in identification of legal caviar in trade. The Resolution stated that a marking system should be standardized and specifications for label design were to be generally applied. CITES Resolution Conf. 11.13, a Universal labeling system for the identification of caviar, was adopted at COP 11 (Resolution Conf. 11.13 has been repealed and replaced with Resolution Conf. 12.7: Conservation of and trade in sturgeon and paddlefish). Resolution Conf. 12.7 recommended harmonization of each country’s national legislation so that the personal-effects exemption, provided for in Article VII of CITES, would be limited to no more than 250 grams of caviar.

The original Resolution, and subsequent Notifications (No. 2001/075 and No. 2001/089) to clarify implementation of the Resolution, specify labeling requirements and details for primary and secondary containers. A non-reusable label is to be affixed to all primary containers and should contain, at a minimum, the following information, in the order presented: the standard three-letter CITES species code; the source code of

the caviar; the ISO two-letter code for the country of origin; the four-digit year of harvest; the caviar processing plant's unique code (assigned by each range country and/or processing company); and the lot identification number. CITES Notification 2001/089 noted that sufficient time had passed for range countries to implement the caviar labeling system, and recommended that importing countries should not accept caviar shipments from exporting countries after December 31, 2001, unless they were labeled in compliance with Resolution Conf. 11.13. The universal labeling system protects legal exporters, assists wildlife inspectors and customs officers globally in verifying the contents of caviar shipments, and aids in the detection of illegal trade.

A sturgeon conservation action plan approved during the 45th meeting of the CITES Standing Committee (SC 45 Doc. 12.2), the so-called Paris Agreement, included the most significant sturgeon conservation actions recommended to date. The agreement listed specific conservation measures that were to be implemented by each range country in three stages. Completion of each stage was to take place by a particular deadline. Stage 1 required declaration of stocks of specimens intended for export that were harvested in spring 2001 by the northern Caspian Sea range nations. The countries agreed to limit exports in 2001 to the declared stocks only, provided they did not exceed the existing quotas, and further agreed to suspend all commercial harvest for the remainder of the year. Declarations of stocks were submitted prior to the deadline of July 20, 2001, and the CITES Secretariat was satisfied with the declarations after completing missions to verify each country's stock declaration. The agreements under Stage 2 required completion of a comprehensive survey of sturgeon stocks; a request to Interpol to analyze the illegal sturgeon trade; a study of enforcement needs to combat illegal harvest and trade, in collaboration with Interpol, the World Customs Organization, and the CITES Secretariat; and on-site inspections of each country's sturgeon management activities. Preliminary to Stage 3 was the final condition: agreement on coordinated management of Caspian Sea resources, including the joint allocation of harvest and export quotas for 2002. Stage 2 requirements were to be completed by December 31, 2002; failure to implement the agreement was to result in zero quotas for 2002. It is not clear if all Stage 2 requirements were met prior to the deadline; however,

2002 harvest and export quotas were allocated for the range countries.

The final phase, Stage 3, imposed actions necessitating the highest level of cooperation between the range nations of all previous stages of the Paris Agreement. The Caspian Sea range countries (excepting Iran) were to establish a long-term survey program for sturgeons, incorporating up-to-date technology and techniques; request advice from the Food and Agriculture Organization of the United Nations (FAO) on managing regional fisheries; adopt a collaborative management system for Caspian Sea sturgeon fisheries; significantly increase efforts to combat illegal trade and regulate domestic trade; submit funding proposals to the Global Environment Fund (GEF) and other donors for rehabilitation of sturgeon stocks; and implement the caviar labeling system required by Resolution Conf. 11.13. The deadline for Stage 3 actions was June 20, 2002. Several actions of the final stage have not been completed. In particular, completion of what may be the most important action of the entire agreement, development and adoption of an inter-jurisdictional fisheries management plan for Caspian Sea sturgeons, has yet to occur.

The long-term stock survey plan to be used "as the basis for future management of sturgeon stocks" has been established and undertaken, as recommended in SC 45 Doc. 12.2.1(e)(i). Unfortunately, the stock survey methodology and subsequent techniques utilized for analysis of the survey data have not been submitted for review by independent scientists. The annual surveys conducted since 2001 have shown increases in the Caspian Sea beluga sturgeon stock. However, when the survey results were reviewed by three U.S. scientists, they were unable to replicate the results using the data supplied in the 2002 sturgeon stock-assessment survey report. Questions regarding the accuracy and precision of the survey results could be allayed by subjecting the survey and analysis methodologies to independent scientific review, and applying rigorous statistical analysis to the process. The CITES Secretariat has informed us that FAO is currently reviewing the methodology used for the annual stock-assessment surveys, and recommendations to improve the techniques and methodology will be incorporated into subsequent surveys (Armstrong 2003). A completion date for the analysis by FAO is unknown at this time.

As previously noted, the first legally binding environmental treaty ever

adopted by the Caspian Sea nations, the Framework Convention for the Protection of the Marine Environment of the Caspian Sea (CPMECS), was recently agreed to and finalized by the range nations. The treaty will provide a basis for regional coordination on the conservation of the Caspian Sea and its biological resources. The intent of the framers is to reverse and mitigate the environmental damage brought about by habitat destruction, pollution, and over-exploitation of commercial fisheries (UNEP 2003). The treaty must first be ratified by all Caspian Sea range nations before its entry into force, thereby ensuring that the treaty becomes legally binding.

In our proposed rule of July 31, 2002 (67 FR 49657), we expressed concern that the regulatory mechanisms in place at the time were not sufficient to protect and conserve the species. Currently, the execution of conservation recommendations, decisions, and resolutions adopted by the CITES community as a result of the 1998 listing and the Significant Trade Review are beginning to yield practical results. According to the data collected and analyzed during the sturgeon stock-assessment surveys, populations are slowly beginning to increase, and the number of spawning adults has likewise improved. Stock-assessment surveys are conducted each year, adding to the pool of data available to make sound management decisions, such as the allocation of harvest and export quotas. Finally, the CPMECS has been finalized and is awaiting ratification by the Caspian Sea range nations, so that additional sturgeon conservation measures can be undertaken on a basin-wide level.

E. Other Natural or Man-Made Factors Affecting the Continued Existence of Beluga Sturgeon

Cyclic changes in sea level within the Caspian Sea have been common throughout geologic time (Ivanov, 2000). Reductions in sea level from 1970 through 1977 adversely affected sturgeon populations because of changes to biochemical regimes and faunal communities (Ivanov, 2000; DeMeulenaer and Raymakers, 1996).

Genetic alteration and hybridization of sturgeon stocks is also a serious concern. It is postulated that the Volga-Don Canal, linking the Black and Caspian Seas, allowed for an "avalanche" of genetic alteration and hybridization between these sturgeon populations (DeMeulenaer and Raymakers, 1996). Although hybridization occurs naturally, when artificial connections are made between

previously isolated water bodies, the rapidity with which hybridization occurs is accelerated. This process can impact the homogeneity of populations and further hamper recovery efforts.

In developing this rule, we have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by beluga sturgeon. Based on this evaluation, the preferred action is to list the beluga sturgeon as a threatened species. Although documentation has revealed that the species has been in decline for several decades, conservation actions taken since the species' CITES Appendix-II listing have resulted in increases of total population numbers. Loss of habitat continues to be a threat to the species; however, actions are being taken in Azerbaijan and Kazakhstan to dredge waterways, thereby improving access to former spawning grounds during migration runs. Although pollution and other factors are impacting beluga sturgeon populations, the Ural River continues to support a population that is not impacted by dams and has free access to remaining spawning habitat. Important and beneficial results of the CITES listing that have had a major impact on the illegal trade of beluga sturgeon include the allocation of annual quotas for harvest and trade, issuance of CITES export permits and re-export certificates, caviar labeling requirements, and inspections of shipments by law enforcement agencies upon importation. However, illegal harvest persists and remains a serious threat to all sturgeon species. By its nature, it is impossible to accurately estimate the annual volume of illegal harvest. However, any reduction in this portion of the harvest will yield a positive impact to beluga sturgeon populations. Attention to this specific threat is vital and we intend to address it in the proposed 4(d) rule that we intend to publish as soon as possible following publication of this determination.

Finally, the conservation actions taken by the CITES Parties since the Appendix-II listing in 1998 have proven beneficial to the status of the species. Nevertheless, actions recommended under the Paris Agreement have not been completed, and other conservation measures, while in progress, also remain incomplete. Benefits to beluga sturgeon from current and future conservation actions may not be realized or quantifiable for years. At this time the beluga sturgeon is not in immediate danger of extinction because of ongoing conservation actions; however, listing the species as threatened is consistent

with the intent of the Act. The listing also strengthens the measures taken by the CITES Parties to date, and affords the species the protections of the Act.

We will soon publish in the Proposed Rules section of the **Federal Register** a proposal outlining regulations we deem necessary and advisable to provide for the conservation of the species, as provided by section 4(d) of the Act. Our final determination to list the beluga sturgeon as threatened will become effective in 6 months. We are delaying the effective date of our final determination to allow for development of a final 4(d) rule, with specific conservation measures for beluga sturgeon, as part of this listing decision. We intend to publish a proposed 4(d) rule, as previously stated, as soon as possible following publication of this rule. After a public comment period, we will consider publishing a final 4(d) rule to implement the final conservation measures developed for beluga sturgeon, thereby increasing the effectiveness of the threatened listing.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Endangered Species Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing results in public awareness, and encourages and results in conservation actions by Federal and State governments, private agencies and groups, and individuals.

Section 7(a) of the Act, as amended, and as implemented by regulations at 50 CFR part 402, requires Federal agencies to evaluate their actions within the United States or on the high seas with respect to any species that is proposed or listed as endangered or threatened, and with respect to its critical habitat, if any is being designated. However, because the beluga sturgeon is not native to the United States, no critical habitat is being proposed for designation with this rule.

With respect to the beluga sturgeon, no Federal activities, other than the issuance of CITES export permits or re-export certificates, are known that would require conferral or consultation. According to CITES, Appendix-II species need only a CITES export permit or re-export certificate issued by the exporting country for their importation into another country. However, because of its listing as threatened under the Act, the importation and exportation of specimens of *Huso huso* presently require an Endangered Species Act permit issued by the Division of

Management Authority. Consequently, a consultation with the Division of Scientific Authority is currently required before the Division of Management Authority can issue any import or export permit for beluga sturgeon. Section 8(a) of the Act authorizes the provision of limited financial assistance for the development and management of programs that the Secretary of the Interior determines to be necessary or useful for the conservation of endangered species in foreign countries. Sections 8(b) and 8(c) of the Act authorize the Secretary to encourage conservation programs for foreign endangered species, and to provide assistance for such programs, in the form of personnel and the training of personnel.

Sections 4(d) and 9 of the Act, and implementing regulations found at 50 CFR 17.31, (which incorporate certain provisions of 50 CFR 17.21), set forth a series of prohibitions and exceptions that generally apply to all threatened wildlife. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to take (within U.S. territory or on the high seas), import or export, ship in interstate commerce in the course of a commercial activity, or sell or offer for sale in interstate or foreign commerce any listed species. It is also illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. Certain exceptions apply to employees or agents of the Service, other Federal land management agencies, the National Marine Fisheries Service, and State conservation agencies (50 CFR 17.21(c)(3) and part 17.31(b)). Permits may be issued to carry out otherwise prohibited activities involving threatened wildlife species under certain circumstances. Regulations governing permits are codified at 50 CFR 17.32. With regard to threatened wildlife, a permit may be issued for the following purposes: scientific research, enhancement of propagation or survival, zoological exhibition or education, incidental taking, or special purposes consistent with the Act. All such permits must also be consistent with the purposes and policy of the Act as required by section 10(d). Such a permit will be governed by the provisions of 50 CFR 17.32 unless a special rule applicable to the wildlife (appearing in 50 CFR 17.40 to 50 CFR 17.48) provides otherwise. Threatened species are generally covered by all prohibitions applicable to endangered species, under 50 CFR 17.31. We may, however, develop special rules if deemed necessary and

advisable to provide for the conservation of the species.

National Environmental Policy Act

We have determined that Environmental Assessments and Environmental Impact Statements, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Act. A notice outlining our reasons for this determination was published in the **Federal Register** on October 25, 1983 (48 FR 49244).

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List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Regulation Promulgation

■ Accordingly, we amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as follows:

PART 17—[AMENDED]

■ 1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500; unless otherwise noted.

2. Amend § 17.11(h) by adding the following, in alphabetical order under FISHES, to the List of Endangered and Threatened Wildlife:

§ 17.11 Endangered and threatened wildlife.
 * * * * *
 (h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
*	*	*	*	*	*		*
FISHES	NA
*	*	*	*	*	*		*
Sturgeon, beluga	<i>Huso huso</i>	Azerbaijan, Bulgaria, Croatia, Czech Republic, Georgia, Hungary, Islamic Republic of Iran, Kazakhstan, Republic of Moldova, Romania, Russian Federation, Turkey, Turkmenistan, Ukraine, Yugoslavia (Caspian Sea, Black Sea, Adriatic Sea, Sea of Azov, and all rivers in their watersheds).	Entire	T	NA
*	*	*	*	*	*		*

Dated: March 19, 2004.
Marshall P. Jones, Jr.,
 Acting Director, Fish and Wildlife Service.
 [FR Doc. 04–8934 Filed 4–20–04; 8:45 am]
 BILLING CODE 4310–55–P