

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

MARINE MAMMAL PROTECTION ACT

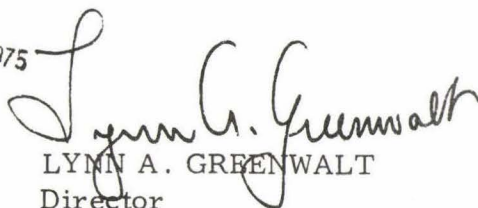
Report of the Department of the Interior

Section 103 (f) of the Marine Mammal Protection Act of 1972 (16 U.S.C. 1361, 86 Stat. 1027 (1972)) states that "Within six months after the effective date of this Act (December 21, 1972) and every twelve months thereafter, the Secretary shall report to the public through publication in the FEDERAL REGISTER and to the Congress on the current status of all marine mammal species and population stocks subject to the provisions of this Act. His report shall describe those actions taken and those measures believed necessary, including where appropriate, the issuance of permits pursuant to this title to assure the well-being of such marine mammals."

Section 3(12) (A) of the Act limits the responsibility of the Department of Interior to those mammals which are members of the order Carnivora (polar bear and sea otter), Pinnipedia (walrus), and Sirenia (dugongs and manatee). Accordingly, there is published herewith the report of the Department of Interior for the period June 22, 1974, to June 21, 1975, on the administration of the Act with regard to those mammals.

Issued at Washington, D. C., and dated

AUG 18 1975


LYNN A. GREENWALT
Director

ADMINISTRATION OF THE MARINE MAMMAL PROTECTION ACT OF 1972

June 1975

Report of the Department of the Interior

<u>Table of Contents</u>	<u>Page</u>
Introduction	1
Authority	1
Legal Actions	1
Oversight Hearings	2
Marine Mammal Commission	3
Part I. Administrative Actions	5
Regulations	5
Waiver of Moratorium	8
Enforcement	9
Permits and Certificates	10
Research and Endangered Species	26
OCS Program	28
International Activities	31
Part II. Species Status Reports	41
Introduction	41
Species List	42
Status Reports	43
Partial Bibliography	97

Part III. Appendices 122

Appendix A - Part 18 - Marine Mammal Regulations

Appendix B - Part 18 - Proposed Amendment 18.23

Appendix C - Part 18 - Proposed Amendment Sub-part F

Appendix D - Part 18 - Final Regulations (Walrus) - Sub-part G

Appendix E - Part 18 - Proposed Amendment Sub-part G

Appendix F - Part 82 - Grants-in-Aid Regulations

Appendix G - Endangered and Threatened Species - Critical
Habitat Areas

Appendix H - Endangered Species - Determination of
Critical Habitat

Appendix I - List of Scientific Reports and Publications

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Administration of the Marine Mammal Protection Act of 1972

June 22, 1974 to June 21, 1975

Introduction

Authority:

This report of administrative actions and the status of certain species of marine mammals is made pursuant to requirements of Section 103 (f) of the Marine Mammal Protection Act of 1972 (86 Stat. 1027; hereinafter, the "Act"). It covers the period June 22, 1974, through June 21, 1975 and is prepared in three parts: administrative actions; species status reports; and appendices.

The Department of the Interior, under section 3(12)(B) of the Act, is responsible for the following marine mammals: walrus, polar bear, sea otter, manatee, and dugong. The Secretary of the Interior has delegated authority for the functions prescribed by the Act to the Director, U. S. Fish and Wildlife Service, as prescribed in 242.1.1 of the Departmental Manual.

Legal Actions brought against the Federal Government

An action filed during the previous reporting period, Friends of Animals, et al v. Greenwalt was dismissed as moot on March 27, 1975, two days after the permit in question expired. The plaintiff had objected to the lack of a Section 104 hearing in Washington, D. C. and for not allowing their statutory right to review the terms of the permit.

During this report period an action was filed in the U. S. District Court for the Eastern District of Washington. This was:

Ray Loesche v. Department of Commerce, Frederick B. Dent, Department of the Interior and Rogers C. B. Morton. Filed on January 23, 1975, this action sought to enjoin enforcement of the Act insofar as it applies to polar bears and challenged the constitutionality of the Act. The Government's motion to dismiss for failure to state a claim was granted on February 24, 1975.

Legal actions such as the above and others filed against the Department of Commerce are indicative of the difficult problems being encountered in the administration of the Act.

In spite of opportunity for public review of actions taken under the authority of the Act, public hearings and comment periods, and review by the Marine Mammal Commission conceptual differences regarding terms such as optimum sustainable populations and the health and stability of the marine ecosystem exist. Until such time that public environmentalists concepts can be balanced with wildlife management principles, problems of administering the provisions of the Act can be expected to continue.

Congressional Oversight Hearings:

The Subcommittee on Fisheries and Wildlife Conservation and the Environment, Hon. John Dingell, Chairman, called for an oversight hearing on the Marine Mammal Protection Act of 1972 on November 22, 1974.

Director Greenwalt testified on the efforts of the Department to waive the moratorium under Section 101 of the Act, particularly as it applies to walrus hunting in Alaska.

During December 1974, a decision was made by the Director to consider the waiving of the moratorium and return of management of the Pacific Walrus to the State of Alaska.

Marine Mammal Commission:

Title II of the Act established a Marine Mammal Commission and a nine member Committee of Scientific advisors. The Commissioners are:

Victor Scheffer, Bellvue, Washington, Chairman. Mr. Scheffer is a marine mammal biologist retired from the U. S. Fish and Wildlife Service.

A. Starker Leopold, Berkeley, California. Dr. Leopold is a Professor of Zoology at the University of California, Berkeley, California.

Richard A. Cooley, Santa Cruz, California. Dr. Cooley is the Academic Assistant to the Chancellor at the University of California, Santa Cruz, California.

The Act prescribes extensive consultation roles for the Commission and the Committee with the Secretaries of Interior and Commerce. Contact with the Commission, through its staff, is on an almost daily basis.

The formal review of permit applications, section 110 grant proposals

and Waiver of the Moratorium requests are accomplished through established procedures.

The Marine Mammal Commission is an independent body and reports to Congress annually.

Part I - Administrative Actions

Regulations:

Regulations implementing the Act were published in the Federal Register, February 25, 1974 (Appendix A).

On August 22, 1974, the Service proposed a list of items which would be recognized as "authentic articles of native handicraft" made from polar bears and walrus. The list of items was not intended to be exclusive, and there was a procedure provided for amendments to the list (Appendix B).

The concept of such a list came up during hearings in Alaska on the original marine mammal regulations. Many natives expressed confusion over what would be accepted by the Service as an "authentic article of native handicraft". This was an important issue, because under the regulations, only such "authentic articles" can be legally transferred or sold to a non-native. Questions concerned the degree of work put into a product (for instance, is polishing of bone sufficient, or must there be etching as well?) and the nature of the product (for instance, are polar bear rugs handicraft items, or only mukluks with polar bear fur?).

The Service considered that many of these problems could be solved by a list of items which the Service considered to be "authentic articles of native handicraft".

Three hearings were held in Alaska on the proposal, in September, 1974. Strong opposition to the proposal was voiced by many natives, who saw the list of articles as being restrictive. They felt that such a restrictive list would stifle native artistic creativity, and that it was preferable to have no list at all.

The Service, on the basis of the hearings, decided to defer action on the proposal. This deferral was done on the basis of the contemplated regulations to "return management" of marine mammals to the state of Alaska. It was felt that if this occurred, the state could regulate trade in such problem areas as raw walrus ivory and polar bear skins. Then, with state regulations in effect, there would no longer be a need for the regulation which restricts transfers of marine mammal products to non-natives to "authentic articles of native handicrafts". With this restriction gone, the need for a list of accepted items would also disappear.

On February 13, 1975, the Service took the first step in the return of management of marine mammals to the state of Alaska. A proposed regulation was published on that date, which would waive the moratorium for walrus, based on the state's management program. Then management would be officially turned over to the state in the sense that, under section 9 (b) of Act, state laws and regulations would apply to the taking of walrus. The proposal also would drop the restriction on the transfer of walrus parts or products provided such state laws are in effect.

This proposal has been the subject of an adversary hearing, as required by the Act. As of the date of this report, no recommended decision has been reached by the administrative law judge who presided at the hearing. Therefore, the proposal for a list of "authentic articles" will remain in a pending status.

The state of Alaska requested a waiver of the moratorium and return of management for nine species of marine mammals in January 1973. In December, 1974, a decision was made by the Director to consider the waiving of the moratorium and return of management of the Pacific walrus to the state separately.

A proposed rule making, Subpart F, Waiver of the Moratorium; State Laws and Regulations, was published in the Federal Register on February 13, 1975 (Appendix C). The regulations contained in this subpart fulfill the requirements of sections 101, 103, and 109 of the Act for regulations to implement a waiver of the moratorium in those instances where a state provides an acceptable management program for the species in question.

After the required hearing (section 103 (d) of the Act), and following review of the recommended decision of the Administrative Law Judge (recommended decision pending at this writing), the Director will, if appropriate, publish these regulations as final rules.

Regulations governing the above mentioned hearing were published in the Federal Register on May 13, 1975. These regulations constituted a new

Subpart G in Part 18, 50 CFR (Appendix D).

In May, 1975 the Fish and Wildlife Service published a proposed rule making on Procedures for Hearings on Proposed Regulations (Appendix E). It is the intent of the Director to replace the earlier publication of Subpart G (40 FR. 6661, May 13, 1975) as the new subpart will broaden the hearing procedures from walrus to all marine mammals. Written comments were to be submitted on or before June 30, 1975.

Proposed regulations, Part 82, 50 CFR, were published in the Federal Register of October 21, 1974 to implement section 110 of the Act, pertaining to administrative procedures governing grants-in-aid. The regulations were published in final form on May 29, 1975 (Appendix F). These regulations define procedures whereby grants can be made to Federal or State agencies, public or private institutions for the purpose of undertaking research in subjects which are relevant to the protection and conservation of marine mammals.

Waiver of the Moratorium

The Fish & Wildlife Service and National Marine Fisheries Service joint task group formed last report year (FWS Administrative and Status Report June 22, 1973 to June 21, 1974) is continuing in the preparation of an environmental impact statement concerning Alaska's request for a waiver of the moratorium and return of management of nine species of marine mammals to their jurisdiction.

In December, 1974, a decision was made by the Director to consider the waiving of the moratorium and return of management of the Pacific walrus to the state of Alaska separately.

On the basis of an environmental assessment, a negative declaration was issued on the environmental impact of waiving the moratorium and returning management of the Pacific walrus to Alaska, and hearings on the record, as required by Sec. 103 (d) of the Act were held before an Administrative Law Judge.

These hearings in Anchorage, Alaska on March 19, 20, 21, and 22, 1975 and in Arlington, Virginia on April 8 and 9, 1975, were attended by many interest groups and accumulated over 1400 pages of testimony. A recommended decision from the Administrative Law Judge is pending at this writing.

A petition was received from the State of California on August 9, 1974 requesting that the moratorium be waived and management of the California Sea Otter be returned to their jurisdiction. Consideration of that request is pending receipt of supplementary information which is expected to be received by mid-summer.

Enforcement

Fish and Wildlife Service enforcement personnel initiated a total of 105 marine mammal cases during this report period. Fifty-two of these

cases, primarily importations through Interior designated ports, were referred to the National Marine Fisheries Service, who had primary jurisdiction . To date 70 cases have been closed.

A partial breakdown of investigations handled by FWS Special Agents is as follows:

9 investigations involved walrus

14 investigations involved polar bear

2 investigations involved sea otters

A polar bear case terminated with a civil penalty of \$1500.00 and forfeiture of two skins.

Section 18.26 of the regulations provides for the collection of bones, teeth or ivory of any dead marine mammal within $\frac{1}{4}$ mile of the ocean. Parts so collected may be retained if registered within 30 days with an Agent of the FWS or NMFS. Title to any such marine mammal parts collected under this section is not transferable, unless consented to in writing by the Agent making the initial registration.

Registrations to date, in Alaska, consist of: 4 registrations for walrus, 2 registrations for sea otter and 1 registration for whales.

Permits and Certificates of Registration Permits:

The Fish and Wildlife Service received twenty-one applications for scientific research and public display permits during the report period. Actions

taken on these applications are summarized below:

Scientific Research Permit Applications

To import the foot and limb bones of one polar bear already obtained and being held by the Canadian Wildlife Service, for scientific purposes - Amendment to PRT-7-1-I-75Z. (Charles A. Repenning, U.S. Geological Survey, Branch of Paleontology and Stratigraphy, Menlo Park, California).
Issued 4/29/75.

An amendment was issued to the original permit issued on July 25, 1974, for the purpose of importing the skeletal parts of a polar bear being held by the Canadian Wildlife Service, for scientific purposes. The amendment authorizes changes in the present permit, which will allow Mr. Repenning to import the additional foot and limb bones: the expiration date will be July 25, 1975, and the purpose of the permit will read - "to import the skeletal parts of polar bears being held by the Canadian Wildlife Service, for scientific purposes." All other terms and conditions of PRT-7-1-I-75Z remain in effect.

Monitoring movements of instrumented free ranging polar bears from an earth orbiting satellite. (Jack W. Lentfer, U.S. Fish and Wildlife Service, Anchorage, Alaska) Issued 10/22/74.

Between October, 1974 and May, 1977, up to 15 polar bears will be immobilized transported to Barrow, Alaska where they will be fitted with radio transmitter

and harness. The animals will be released near the capture site and their movements monitored from an earth orbiting satellite. Emphasis will be placed upon capturing and marking pregnant females so that their movements to and from maternal dens can be monitored.

To test a variety of telemetry packages on captive and free ranging sea otters. (Dr. Donald B. Siniff and Dr. John R. Tester, Department of Ecology and Behavioral Biology, Univ. of Minnesota, St. Paul, Minnesota)
Issued 5/19/75.

In Alaska and California, between March, 1975 through March 1976, a variety of telemetry packages will be tested on captive and free ranging sea otters. Long term goals are to identify home range, seasonal movement, habitat selection and use, dispersal patterns, and other factors relating use and habitat.

To provide information which will be useful in efforts to protect and conserve manatees. (Howard W. Campbell, Gainesville Substation, Gainesville, Florida) Issued 10/22/74.

The taking of up to 30 dead manatees in the states of North Carolina, South Carolina, Georgia, and Florida will supply vitally needed biological data on the manatee without further drain on wild stocks.

To take walrus, to purchase parts of walrus taken by Eskimos for subsistence, and to salvage parts from walrus found dead. (Dr. Francis

Fay, Institute of Marine Science, University of Alaska, Fairbanks, Alaska)

Issued 2/10/75.

To obtain new information on the reproductive cycle, the causes and rates of mortality and the feeding habits of the Pacific walrus. During the calendar year of 1975, walruses will be taken, parts will be purchased from Eskimos, and parts from dead animals will be salvaged. In any calendar year, probably no more than 15 animals will be taken, 300 parts purchased, and 50 carcasses salvaged.

To provide for immobilization of polar bears in order to examine for marks or mark, and obtain biological specimens and data. (Jack W. Lentfer, U.S. Fish and Wildlife Service, Anchorage Alaska) Issued 3/3/75.

From March 1, 1975 through February 28, 1978 , up to 800 live polar bears will be immobilized in the Bering and Chukchi seas and the Arctic Ocean off Alaska in order to examine them for marks, or to mark them with ear tags, lip tattoo and a number dyed on the fur. Also from each bear a rudimentary premolar tooth may be extracted, a blood sample taken and milk obtained from the sows. The bears will be immobilized with a tranquilizing drug injected by a syringe gun. Cubs will be handled if possible without drugs. Examination of immobilized animals provides data on sex and age composition and reproductive biology. All studies contribute to a better understanding of life history and ecology and aid in evaluating effects of human development on populations.

To initiate an intensive study of sea otters in Prince William Sound.

(Ancel Johnson, Marine Mammal Substation, Naval Support Activity, Seattle, Washington) Issued 12/13/74.

This intensive study, to be conducted between January 1, 1975 and January 1, 1977 will gather baseline data on the sea otter population in Prince William Sound, Alaska, prior to the beginning of oil shipment from the terminus of the trans-Alaska pipeline in Valdez arm. Information on movements, territoriality, behavior, reproduction, age determination, will be calculated through capturing and marking. Other biological data will be obtained from animals accidentally killed in the program or found dead on the beaches. Up to ten sea otters will be captured with nets and retained in captivity for testing methods of marking and attaching transmitters. They will be held in floating pens in a sheltered bay in Prince William Sound for a period of up to three months. Upon determination of the best method, up to thirty otters will be captured, marked, and released annually from 1976 through 1979.

To take Pacific Walrus for scientific research. (Dr. Francis H. Fay, Institute of Marine Science, University of Alaska, Fairbanks, Alaska and Dr. G. Carleton Ray, Department of Pathobiology, Johns Hopkins Univ. Baltimore, Maryland) Issued 8/15/74.

Each year, over a three-year period, up to ten Pacific walruses throughout the Bering and Chukchi Seas, will be taken by means of immobilizing drugs,

for the purpose of attaching radio tags. The tags will be attached using surgical techniques or by means of a "limpet" device. Up to twelve skin samples from the same species killed during the course of native subsistence hunting, will be collected in order to fulfill the requirements involved in estimating the thermal flux to and from their skin.

To capture, tag, and release sea otters for behavioral and ecological study. (Thomas R. Laughlin, Department of Biology, University of California, Los Angeles, California) Issued 6/23/75.

From June 1975 through June, 1977, ten adult and juvenile sea otters of both sexes will be captured and tagged along the central California coast. The tags, which will be attached to the web of the rear flipper, will also include permanent anodized ear tags. Telemetric devices attached to a collar designed to fit around the animal's neck will be used also. These devices include an electromagnetic and a sonic transmitter, which will monitor sub-surface movement. Information gained from this study will include home range, twenty-four hour activity cycles, diurnal versus nocturnal foraging strategies, depth of dives, and intraspecific dispersal parameters.

To take, mark, and harass marine mammals in support of state research and management efforts. (James W. Brooks, Commissioner, State of Alaska - Department of Fish and Game, Juneau, Alaska)

The State of Alaska submitted a proposal to collect (kill) the following marine

mammals to serve as the basic source of material and data for a number of continuing research and management programs conducted by Alaska:

Polar Bear, Walrus, and Sea Otter. The specimens to be collected are needed for studies of food habits, reproduction, natural mortality, taxonomy and systematics, physiology, interspecific relationships, pesticides, heavy metal burdens, seasonal movements and distribution. In addition, up to 200 sea otters of all ages and both sexes in the Prince William Sound and southeastern Alaska, will be marked using flipper tags. Permit returned for additional information. The State has indicated they will re-submit the proposal.

To quantitatively measure the trophic impact of the California sea otter on the nearshore coastal environment by use of the doubly labeled water technique. (Daniel P. Costa, Coastal Marine Lab, University of California, Santa Cruz, California) Issuance pending.

From July 1, 1975 through July 1, 1977, ten adult or sub-adult California sea otters of either sex, will be captured by underwater sea otter traps and transported to shore in specially constructed cages. The otters will be injected with one ml of .5mC/ml tritiated water and 20 ml of 90 atoms $^3\text{H}^{2018}$. 1.5 mls of blood will be taken from either the epidural or femoral vein, three hours later. After placement of a radio telemeter around the neck or ankle, the otters will be released. They will be tracked for five days, recaptured, restrained, 1.5 mls blood taken, and then released. In this manner, the sea otter's energy consumption in the field will be measured.

Public Display Permit Applications

Amendment to PD MM-1, issued to Sea World, Inc. on May 7, 1974. (Sea World, Inc., San Diego, California) Amendment issued 5/7/74.

On May 7, 1974, a permit to take Pacific Walrus for public display was issued to Sea World. On June 7, 1974, a request was submitted for significant amendments to the permit. The following sections of the original permit were amended: 3(e), 3(f), 3(i), and Section 5. Section 3(g) was deleted. All other terms and conditions of the permit remain in effect.

To collect four female and one male (optional) California Sea Otter for public display at Sea World. (Sea World, Inc., San Diego, California)

Sea World, Inc., in conjunction with the California Department of Fish and Game, would like to collect sea otters in the Pacific Grove, Monterey, and seaside areas of Monterey Bay, from September 1, 1975 through September 1, 1978. The manner of taking these animals will be with a diver-held device. The sea otters will be on display on a daily basis during Sea World's normal operating hours. Public viewing into their enclosure allows no direct contact with the animals. Issuance is pending.

To import from West Germany one male and one female polar bear, legally caught in Greenland and legally and temporarily exported to West Germany, for public display and propagation at the Jackson Zoological Park. (Jackson Zoological Park - Robert O. Wagner, Director, Jackson, Mississippi)

The Jackson Zoological Park requested and was denied permission to import one male and one female polar bear from West Germany, for public display in their facility.

To import two polar bears from Canada. (Louisville Zoological Garden - Robert B. Bean, Director, Louisville, Kentucky)

Permission has been requested to import one male and one female juvenile polar bear from the Calgary Zoo in Alberta, Canada to the Louisville Zoo for propagation, public education, and exhibition. Issuance is pending.

To take one walrus skull for teaching and public display. (Rudolph F. Nunnemacher, Department of Biology, Clark University, Worcester, Mass.)

A request was received and later withdrawn to take one walrus skull with the full complement of teeth in the upper and lower jaw, including the tusks, for teaching purposes and public display.

To import one male and one female polar bear. (Columbia Zoological Park, Columbia, South Carolina)

A request was received and later withdrawn to import one polar bear from the Zoological Park in Alfeld, West Germany for public display purposes.

To import one adult male polar bear. (San Antonio Zoological Gardens and Aquarium, San Antonio, Texas)

A request was received and later withdrawn for a permit to import one seven year old male polar bear born in captivity and held at the Assiniboine Park Zoo, Winnipeg, Manitoba for public display purposes.

To import one polar bear. (Utica Zoological Society, Utica, New York)

Permission was denied to import one polar bear cub from the Calgary Zoo, St. George's Island, Canada for public display purposes.

Certificates of Registration

Section 18.23 of the regulations provides that marine mammals taken by an Indian, Aleut, or Eskimo for the purpose of creating and selling authentic native articles of handicraft and clothing may be transferred to a registered tannery, either directly by the Indian, Aleut or Eskimo or through a registered agent. Similarly, marine mammals taken by Alaskan natives for subsistence may be sent to a registered tannery for processing and subsequent return to an Alaskan native.

Any tannery or person who wishes to act as an agent may apply for registration. The Service has processed the following applications for certificates of registration:

Ray Hendricks, Anchorage, Alaska

Was issued a certificate of registration to deal in marine mammal parts and products.

Dennis R. Carrington (Arctic Trading Post), Nome, Alaska

Was issued a certificate of registration to receive, store, cure, and sell marine mammal ivory.

Martin James, Jr. (Maruskiya's of Nome), Nome, Alaska

Was issued a certificate of registration to receive, store, cure, and sell marine mammal ivory and parts.

Coast to Coast Fur, Inc., Mead, Washington

Was issued a certificate of registration to receive, store, tan and ship polar bear hides.

Alaskan Custom Taxidermy, Anchorage, Alaska

Was issued a certificate of registration to receive, store, and ship polar bear hides.

Danny E. Fadness, Dall - Alaskan Taxidermy, Fairbanks, Alaska

This certificate of registration to receive, store, tan, and sell marine mammal parts and products was issued, but subsequently returned when the business was closed.

Ralph Ring Taxidermy, Anchorage, Alaska

Made application for a certificate of registration to receive, store, tan, and ship polar bear hides, but later withdrew it.

McGuire Irish Taxidermy Shop, Anchorage, Alaska

Was denied a certificate of registration to receive, store, and sell marine mammal parts and products.

Research

The objectives of the Fish and Wildlife Service research program relating to studies of marine mammals are to actively carry out the Service's mandates of the Act; and to determine the ecological effects on marine wildlife of man's activities related to the development of energy resources.

In order to meet these objectives a considerable amount of survey work and the accumulation of information and detailed analyses of population data remains to be accomplished. Review of world-wide marine mammal research literature and preparation of status reports is a continuing effort in the overall research program. Research is being conducted in-house, by contract, and by grants-in-aid. Research projects are summarized under the above headings.

In-house:

1. Sea Otter Investigations

- a. Sea Otters and other Marine Mammals in Prince Williams Sound, Alaska -- studies of the numbers, distribution, and ecology of sea otters.
- b. Recently Established Sea Otter Populations -- studies of the status and distributions of sea otter populations along the west coast.

2. Walrus Investigations

- a. Surveys of Walrus Harvest -- the compilation and analysis of data regarding the harvest of walrus.
- b. Aerial Surveys of Pacific Walrus -- survey of the numbers and distribution of Pacific walrus.

3. Polar Bear Investigations

- a. Biology of Polar Bears of the Chukchi Sea
- b. Alaska Coastal Denning Surveys of the Polar Bear -- studies of the den use and locations; polar bear behavior after leaving dens; effect of human activities on den use.
- c. Polar Bears of the Pack Ice of the Arctic Ocean -- study of polar bear ecology and denning in relation to sea ice.
- d. Summer Distribution and Ecology of Polar Bears -- study of the distribution and ecology of bears during the summer, through the marking and observation of bears.
- e. Analyses of the Discreetness of Populations of Polar Bears--studies movements and interaction of bear populations in Alaska and Canada.
- f. Radio Tracking of Polar Bears--utilization of the NASA Nimbus F satellite and telemetry techniques to monitor the movements of polar bears.

4. Manatee and Dugong Investigations

- a. Population Surveys of Manatees--surface and aerial habitat and population surveys of manatees in the United States and Dominican Republic.

Contract

1. Status of the Dugong

Investigator - Husar, S. (\$60,000)

Aerial and surface surveys of dugong populations off of Queensland,

Australia and New Guinea.

2. Environmental Pollutants in Marine Mammals

Investigator - Brownell (\$15,000)

Collection and analysis of marine mammal tissues as indicators of pollutant levels in ecosystem.

3. Survey of Heavy Metals in Marine Mammals

Investigator - Mead, J. (\$27,000)

Collection and analysis of marine mammal tissues as indicators of heavy metal levels in ecosystems in the Caribbean and South Atlantic.

4. Development of Radiotelemetry Package for the Polar Bear

Investigator - Haagstadt (\$18,000)

Develop radio transmitter for attachment to polar bears in monitoring their movements.

Grant-in-Aid

Five proposals were received for grants for research on four species of marine mammals from researchers or organizations outside of the Fish and Wildlife Service.

Three of the proposals were funded and two were rejected. They are summarized below:

1. Alaska Walrus Studies. (Alaska Department of Fish and Game, Juneau, Alaska, funded - \$40,000.00)

A study of the characteristics and magnitude of walrus harvests in Alaska, and natality, mortality, and population status of the Pacific walrus.

2. Biology of the Manatee. (Daniel K. Odell, School of Marine and Atmospheric Science, University of Miami, Miami, Florida, funded - \$1,500.00)

The manatee is currently considered an endangered species in the United States, yet little is known about its natural history. Considering that the manatee population may be as low as 600, animals cannot be sacrificed to obtain data. This study will make maximum use of all dead manatees to compile a more complete description of the natural history of the species. Autopsies will be performed on all dead manatees taken and data will be collected on body measurements, organ weights, pesticide and trace metal residues, parasites, diseases, reproductive condition, and tissues for histology and pathology.

3. Age Determination of the Manatee. (Daniel K. Odell, School of Marine and Atmospheric Science, University of Miami, Florida, funded - \$33,706.00)

The manatee is listed as an endangered specie throughout its range, yet little is known about its biology. In order to provide proper conservation and management measures, information must be obtained about the biology of the species, particularly population biology. This includes such parameters as longevity, age at sexual maturity, calving interval, and overall growth rates. However, a determination of the absolute age of the

manatee is prerequisite to insure precision in the above parameters. The purpose of this research is to seek a technique for determining age, both relative and absolute, in the manatee. Live animals would not be sacrificed; only stranded animals and museum specimen would be used.

4. Sea Otter Energetics. (Dr. Kenneth Norris, Coastal Marine Institute, University of California, Santa Cruz, California, \$53,635.00) Rejected.

The impact of the sea otter on commercial fisheries has been an issue of controversy for a number of years, and is not completely understood. Specifically, food intake in terms of calories, nutrients, and utilization by animals in nature, remains unknown. The proposed research would attempt to discern what role availability of food items plays in the range and preference in otter feeding, through analysing the energetics of the sea otter using a doubly labeled water technique.

5. Polar Bear Blood Serology. (Dr. Neylan A. Vedros, Naval Biomedical Research Laboratory, University of California, Berkeley, California, \$61,000.00) Rejected.

The purpose of this research would be to define the base line chemical values of blood from polar bears and to determine serologically and chemically the immune status of these animals with regard to infectious agents.

NASA Research (BESMEX) :

The Service has expressed its interest in collaborating with the National Aeronautics and Space Administration in developing a cooperative program to effectively utilize the technology being developed in the NASA supported Bering Sea Marine Mammal Experiment (BESMEX) being conducted by investigators at Johns Hopkins University. BESMEX focuses on developing ecological models for predicting walrus numbers, distributions, and abundance within the sea ice ecosystems of the Bering and Chukchi Seas. The proposed collaboration should enhance the conservation and sound management of marine mammal resources.

New Research Facilities and Staffing:

The Gainesville Field Station has been in operation only since the start of FY 1975. In this period progress has been made in establishing a suitably equipped physical base for field studies, in hiring a basic research staff, and in obtaining the required permits to begin research on Sirenians. Preliminary surface and aerial habitat and population surveys have been conducted; the initial steps in establishing a manatee reporting and salvage program have been taken and one specimen has been successfully recovered, measured, autopsied, and sampled for pesticide residues; coordination has been developed with other concerned federal and state agencies and with interested academicians.

During this report year, the Marine Mammal Laboratory, Sand Point, Seattle, Washington was moved to new quarters in Anchorage, Alaska and redesignated

the Anchorage Field Station of the National Fish and Wildlife Laboratory. This station has been assigned the responsibility of directing all service research on polar bears, sea otters and walrus. The station is staffed with a project leader and support staff for each of the marine mammals.

Endangered Species:

In 1974 the Florida Department of Natural Resources nominated the King's Bay area of the Crystal River in Citrus County as a marine sanctuary for the manatee. This nomination was reviewed by the U. S. Fish and Wildlife Service, and by February 1975, it was determined that the action called for was not immediately necessary. Instead, it was thought that proper protection could be afforded the manatee through use of provisions in the Endangered Species Act of 1973 and the Marine Mammal Protection Act of 1972. Through these provisions critical habitat could be determined and protected throughout the range of the manatee (including the Crystal River), and a management regime could be developed with possible matching funds.

The U. S. Fish and Wildlife Service and National Marine Fisheries Service subsequently moved ahead with the development of critical habitat guidelines. On April 22, 1975, the Fish and Wildlife Service published a notice stating that "critical habitat" for any endangered or threatened species could be the entire habitat or any portion thereof, if, and only if, any constituent element is necessary to the normal needs or survival of that species (Appendix G). On May 16, 1975, the Service published a notice stating the intention of the Department of Interior to determine critical habitat for 108 currently listed

native endangered species (Appendix H). It was noted that critical habitat for ten high priority species, including the manatee, would be determined as rapidly as possible.

At present the Fish and Wildlife Service is drafting a proposal to delineate critical habitat for the manatee. The nine areas, all in Florida, are: the Crystal River and its King's Bay headwaters; the Caloosahatchee River and associated coastal waters; waters off the coast of Collier and Monroe counties, including Whitewater Bay; the waterway formed by Card, Barnes, Blackwater, and Buttonwood sounds; Biscayne Bay and adjoining waterways; Lake Worth; the Indian and Banana rivers; the St. Johns River from Lake Monroe to Lake George; and the Intracoastal Waterway from the St. Marys River to State Highway AIA. These areas contain the largest concentrations of manatees in the United States, and are the only areas that presently can be defined as having major dependent populations.

The Florida manatee recovery team selection is scheduled for FY 1976 and a Cooperative Agreement with Florida is currently under review by the Service.

Outer Continental Shelf Baseline Studies

Approximately \$725,000.00 will be spent for marine mammal research in Alaska waters during FY 76 as part of the Interior Department's Outer Continental Shelf (OCS) baseline studies for offshore oil and gas development. The studies are funded by Interior's Bureau of Land Management (BLM). Interior's Fish and Wildlife Service (F&WS) has been designated as coordinator for the marine

mammal and sea bird portion of OCS baseline studies. In addition to serving in a continuing advisory capacity and participating directly in the baseline studies, the Service is also assisting Commerce's National Oceanic and Atmospheric Administration (NOAA) which is the principal program manager for all baseline studies in Alaska, with the continuing development of programs for the Beaufort Sea, Bering Sea, and the Gulf of Alaska.

The following is the listing of marine mammal projects now planned by NOAA and F&WS.

1. Biology of the harbor seal, Gulf of Alaska; Kenneth W. Pitcher, Alaska Dept. of Fish and Game, \$41,000 in FY 76.
2. Assessment of distribution and abundance of the sea otter along the Kenai Peninsula and Kamishak Bay and the Kodiak Archipelago; Karl Schneider, ADF&G, \$1,200 in FY 76.
3. Distribution and abundance of the sea otter in southwest Bristol Bay; Schneider, \$1,000 in FY 76.
4. Relationship of marine mammal distribution, densities and activities to sea ice conditions in the Bering Sea; Francis H. Fay, Univ. of Alaska, and John J. Burns, ADF&G, \$11,200 in FY 75 and \$74,400 in FY 76.
5. Relationship of marine mammal distribution, densities and activities to sea ice conditions in the Beaufort Sea: Fay and Burns, \$7,200 in FY 75 and \$38,100 in FY 76.

6. Bering Sea Marine Mammal Experiment (BESMEX); G. Carleton Ray and Douglas Wartzok, The Johns Hopkins Univ., \$12,100 in FY 76.
7. Population assessment, ecosystem and trophic relationship of Steller sea lions in the Gulf of Alaska; Schneider, \$102,500 in FY 76.
8. Marine mammal ecosystem dynamics; Michael Tillman, NMFS, \$33,000 in FY 76.
9. Abundance and seasonal distribution of bowhead and beluga whales, Bering Sea; Clifford Fiscus, NMFS, \$7,000 in FY 76.
10. Natural morbidity and mortality of marine mammals; Fay, \$7,400 in FY 76 and \$76,700 in FY 76.
11. Baseline characterizations of marine mammal pinnipeds of the Bering Sea; Fiscus, \$19,000 in FY 75 and \$64,000 in FY 76.
12. Abundance and seasonal distribution of marine mammals, offshore regions in Gulf of Alaska; Fiscus and George Harry, NMFS, \$55,000 in FY 76.
13. Abundance and seasonal distribution of bowhead and beluga whales, Beaufort Sea; W. M. Marquette and Harry, NMFS, \$49,000 in FY 76.
14. Trophic relationship among ice-inhabiting phocid seals; Burns, \$59,000 in FY 76.

15. Aerial census of largo seals; Burns, \$6,000 in FY 75 and \$12,000 in FY 76.
16. Natural history and ecology of the bearded and ring seals, Beaufort, Bering and Chukchi Seas; Burns, \$99,500 in FY 76.

International Activities

The international marine mammal program is an integral part of the Service's overall program. Activities in this section will be addressed under four major headings: Meetings, Treaties and Conventions, U.S.-U.S.S.R. Environmental Protection Agreement on Conservation, and Food and Agricultural Organization.

Meetings

I.U.C.N. Polar Bear Specialist Group: The group met at I.U.C.N. headquarters in Morges, Switzerland, December 2-5, 1974. Jack Lentfer, Polar Bear Biologist for the Fish and Wildlife Service attended this meeting as the only U. S. representative. At the conclusion of the meeting, Mr. Lentfer was selected to chair the group for the next two years. There was more in-depth discussion of bear biology and habitat preservation at this meeting and less discussion related to international aspects of management. This was because an international agreement on conservation and management had been drafted in final form at Oslo in November 1973.

The Group discussed the need for a long-term marker which would provide visual identification of bears from a distance. Delegates showed interest

in a web collar with a fiberglass identifying plate on the top of the neck, as developed by the Alaska Department of Fish and Game for brown bears.

A cooperative study by Canadian and Russian taxonomists to analyze skull measurements of polar bears from throughout their range has not been done, mainly because skulls from Russia have not been measured. The Canadians may no longer wish to do this, and if so, U. S. researchers might want to measure Russians skulls to increase their data on population discreteness as indicated by skull differences.

Bilateral cooperative studies were discussed. The U. S. is cooperating with Canada on remote sensing of movements and physiological parameters of polar bears, and on Beaufort Sea ecological and population studies. Nils Øritsland, of the University of Guelph, reported on progress and plans for the physiological telemetry program. The U. S. is planning cooperative studies with Russia on Wrangel Island and the area west of Alaska. Detailed planning was done with the Canadians outside the meetings.

It is believed there will be enough data in one to two years for the Group to start a polar bear modeling program. Broad categories for a model will include population dynamics, energetics, behavior, and ecological parameters. A preliminary meeting is scheduled for September 1975 with modelers at the U. of British Columbia.

The Polar Bear Group will prepare maps for popular and scientific use showing polar bear range and relative abundance of animals, denning areas,

migration routes, feeding areas, and areas with minerals or other potential uses which might threaten habitat.

The Polar Bear Group will develop a handbook of field techniques for immobilizing, marking, and measuring bears, classifying habitat, recording data, and other procedures. This will aid in the training of new field personnel and by standardizing will permit better comparisons between different areas.

The I.U.C.N. has planned for several years to prepare a detailed status report on bears, but it now appears they will not be able to because of higher priority needs for staff and funds. The Group believe such a report would be useful and will request Miss Moira Warland, formerly with the Survival Service Commission of I.U.C.N., to prepare it.

Richard A. Cooley, now of the University of California, Santa Cruz, has been an observer at all past meetings and has planned to write a book on the history of the Group and circumpolar cooperation in the Arctic. If Dr. Cooley is not able to do this, the Group will perhaps ask someone else to.

Steering-Planning Committee, U.S.-U.S.S.R. Agreement on Conservation:

A meeting of the Steering-Planning Committee, including key representatives of the marine mammal scientific community and the Scientific Advisory Committee of the Marine Mammal Commission, was held on 21 and 22 January at the NMFS, Northwest Fisheries Center, Seattle. The purposes of the meeting were to formulate an integrated plan and organizational framework

encompassing Federal, State, and private sector scientist for advancing the interests of joint U.S.-U.S.S.R. marine mammal research activities, and to begin development of a comprehensive proposal package for presentation to the Soviets prior to the next Project Area Meeting.

Ancel Johnson, Sea Otter Biologist for the Fish and Wildlife Service was asked to be a member of the Committee to represent the Service on matters pertaining to walrus and sea otters.

Other results of this meeting include the acceptance of an invitation from the U.S.S.R. to participate in a vessel study of walrus in late summer 1975 and the inclusion of a FWS representative (James Estes, Walrus Biologist) on the U. S. delegation to attend the June meeting in Lenengrad.

Treaties and Conventions

Convention on International Trade in Endangered Species of Wild Fauna and Flora:

On April 2, 1975, the tenth Nation had deposited its Articles of Ratification towards implementation of the "Convention on International Trade in Endangered Species of Wild Fauna and Flora." The Fish and Wildlife Service, in concert with other appropriate agencies, is seeking authorization for Management and Scientific Authorities for the implementation of this Convention which will enter into force on July 1, 1975.

Appendix I to the Convention: Includes all species threatened with

extinction which are or may be affected by trade while Appendix II to the Convention: Includes all species which although not necessarily now threatened with extinction may become so unless trade in specimens of such species is subject to strict regulation.

The following marine mammal species, under the Services administration are listed in the Appendices:

Appendix I

Enhydra lutris nereis - Southern sea otter

Dugong dugon - Dugong

Trichechus manatus - West Indian manatee

Trichechus inunguis - South American manatee

Appendix II

Ursus maritimus - Polar bear

Dugong dugon - Dugong (Australian population)

Trichechus senegalensis - West African manatee

Following is a list of the 12 nations who have deposited their Articles of Ratification through the close of this report period:

U.S.A.	January 14, 1974
Nigeria	May 9, 1974
Switzerland	July 9, 1974
Tunisia	July 10, 1974
Sweden	August 20, 1974

Cyprus	October 18, 1974
United Arab Emirates	November 21, 1974
Ecuador	February 11, 1975
Chile	February 14, 1975
Uruguay	April 2, 1975
Canada	April 10, 1975
Mauritius	April 28, 1975

Agreement on the Conservation of Polar Bears

In November 1973 the five polar bear nations -- Canada, Denmark, Norway, Russia, and United States -- drafted an Agreement on Conservation of Polar Bears to allow bears to be taken only in areas where they have been taken by traditional means in the past, and to prohibit use of aircraft and large motorized vessels as an aid in taking. The agreement also calls for both national research and cooperative international research and management, especially on populations occurring on the high seas or within more than one national jurisdiction; provides protection for ecosystems of which polar bears are a part; by resolution seeks special protection from hunting for denning females, females with cubs, and cubs; and by resolution asks for an international system of hide identification to better control traffic in hides.

The agreement becomes effective when ratified by three of the five nations. Canada and Norway have ratified it. In the United States, the Director of the Fish and Wildlife Service on the basis of an Environmental Assessment

has made a Negative Declaration stating that an Environmental Impact Statement is not required for the State Department to present the agreement to Congress for ratification. The Negative Declaration and a copy of the Environmental Assessment was transmitted to the State Department on May 7, 1975. Ratification procedures now await the certification of a new Russian translation of the Agreement.

Northern Hemisphere Convention for Pinnipeds

A Congressional resolution, calling for U.S. actions "to effect a regional Conservation treaty for the protection of northern hemisphere pinnipeds," has been introduced in the House by Rep. G. William Whitehurst (R-Va) with numerous co-sponsors. The bill, developed in cooperation with the State Department, has been referred to the Committee on International Relations, but no action has been scheduled.

U.S.-U.S.S.R. Environmental Protection Agreement on Conservation

Considerable progress has been made in developing programs responsive to the 1972 U.S.-U.S.S.R. agreement on cooperating in the Field of Environmental Protection. The National Marine Fisheries Service is the sponsoring agency of the Marine Mammal Project which comes under the subject area of the agreement concerning Wildlife Conservation.

The Marine Mammal Project has been active since its inception with scientists from both countries participating in collaborative programs in an effective and promising manner. During the summer of 1973 two Soviet

biologists from the TINRO (a Marine Research Organization) laboratory at Magadan participated in the Alpha Helix Bering-Chukchi Sea Expedition under the auspices of the University of Alaska.

Work initiated at that time was continued in 1974 during the visit of two Alaskan scientists to several institutions in the Soviet Union. The usefulness of such direct research cooperation was demonstrated by the successful resolution of differences between Soviet and American scientists regarding the taxonomy and systematics of the harbor seal, Phoca vitulina. Joint publications are being prepared.

Several projects are being implemented in 1975. Two U. S. scientists are participating in a whale research cruise in the eastern Pacific aboard a Soviet ship for a 2-month period, February-March. NMFS is requesting clearance for two Soviet scientists to work with the porpoise research program at the National Marine Fisheries Service, Southwest Fisheries Center during April.

The Soviets have invited two U.S. scientists to join a Bering-Chukchi Sea walrus survey later this year. Plans are being made for integrating that effort with joint U.S. aerial surveys in the same region. Two other U.S. scientists have been invited to take part in morphological and systematic studies of seals on the Kommandorski Islands.

The agreement with the Soviet Union for the development of collaborative research into the biology, ecology, and population dynamics of marine mammals

will contribute to the goals of understanding and conserving those species.

U.S. participation in collaborative research projects has been funded by various agencies including the National Science Foundation, Marine Mammal Commission, National Marine Fisheries Service, Department of the Navy, National Institutes of Health, National Oceanic and Atmospheric Administration Sea Grant, and Alaska Department of Fish and Game. Participants will continue to seek funding for their research projects through the regular avenues of research support where their proposals must compete with other programs.

Food and Agriculture Organization - (FAO)

The Advisory Committee for Marine Resource Research (ACMRR) Working Party on Marine Research is divided into four groups:

- Group I Large Whales
- Group II Small Cetaceans and Sirenians
- Group III Pinnipeds and Sea Otters
- Group IV Marine Mammals in the ecosystem

The program now has support from the United Nations Environment Program (UNEP), the United States and Norway and is proceeding in its task of objectively examining existing data on the status of all marine mammals. The group of small cetacean and sirenia experts established by FAO has been putting much of the information produced by the IWC Scientific Committee to use in developing a comprehensive research proposal. Group III

(Pinnipeds and Sea Otters) now has a membership of the leading pinniped scientists from around the world.

The most important Group, perhaps, is Group IV, composed of leading scientists who are considering "the place of marine mammals in the ecosystem and the overall effects on it of man - induced changes in their numbers. . .in order to provide a basis for optimum policies for management and conservation of marine mammals and their environment." It is expected that a review of the data now being accumulated by ACMMR will be presented at a scientific Marine Mammal Symposium in May, 1976.

Part II - Species Status Report

Introduction

Status reports have been prepared for the seven species which are the responsibility of the Secretary of the Interior under the terms of the Act. Information about each species is summarized under seven major headings. They are: distribution and migration, abundance and trends, general biology, ecological problems, allocation problems, regulations, and current research. A partial bibliography is listed at the end of this part.

The Act defines a marine mammal as "any mammal which (A) is morphologically adapted to the marine environment (including sea otters and members of the orders Sirenia, Pinnipedia, and Cetacea), or (B) primarily inhabits the marine environment (such as polar bears); and for the purpose of this Act, includes any part of any such marine mammal, including its raw, dressed, or dyed fur or skin."

The Service's National Fish and Wildlife Laboratory has evaluated the biology of the marine otter, (Lontra felina), which occurs in Chile and Peru and feels that it meets the criteria of the above definition of a marine mammal.

The Fish and Wildlife Service is considering the listing of the marine otter as a marine mammal under section 18.3 of the current regulations and therefore a brief status report is included on this species.

Species List

Carnivora

Ursidae

Thalarctos maritimus (Polar Bear)

Mustelidae

Enhydra lutris (Sea Otter)

Pinnipedia

Odobenidae

Odobenus rosmarus divergens (Pacific Walrus)

Odobenus rosmarus rosmarus (Atlantic Walrus)

Sirenia

Trichechidae

Trichechus manatus (West Indian Manatee)

Trichechus senegalensis (African Manatee)

Trichechus inunguis (Amazonian Manatee)

Dugong dugon (Dugong)

POLAR BEAR

(*Ursus maritimus*)

Distribution and Migration: Polar bears occur only in the northern hemisphere, nearly always in association with Arctic sea ice. Centers for six geographically isolated polar bear populations which have been identified in the main polar basin are Wrangel Island-western Alaska, northern Alaska, northern Canada, Greenland, Spitsbergen-Franz Josef Land, and central Siberia. Separate populations also occur further south in Hudson Bay in Canada.

Bears are most abundant near the southern edge of the sea ice but do occur throughout most of the polar basin and have been recorded as far north as 88° N. latitude. They make extensive north-south movements related to the seasonal position of the southern edge of the ice. In winter, bears off Alaska commonly occur as far south as Bering Strait and occasionally reach St. Lawrence Island and even St. Matthew Island in the Bering Sea. In the summer, north of Alaska, the edge of the ice pack and bears commonly occur between 71° and 72° N. latitude. Pregnant females concentrate for winter denning and bearing young on large offshore Russian islands, northern Canadian islands, and certain of the Spitsbergen islands.

Abundance, Trends, and Harvest: Total world population

estimates, which range from a low of 10,000 by the Soviets to a high of 20,000 by the Norwegians, are based on broad assumptions and should be considered as very general. Abundance of bears off the Alaska coast and the magnitude of sustained long-term harvests suggest that the 20,000 figure may be low.

During the 1930's, 1940's, and 1950's, Alaska Natives harvested about 120 bears annually. Trophy hunting with use of aircraft developed in the 1950's, and the average annual kill gradually increased to 250 for 1961-72. The number of bears reported per hour of flying by Alaska hunting guides did not show a trend during 1956-69, the period when guides provided reliable data. Sex composition for 1961-72 when 87 percent of the bears were taken with the use of aircraft was 70-80 males. Selective hunting with use of aircraft reduced the percentage of mature males in the population. A high percentage of females with young in the population indicated a healthy rate of reproduction however. Age composition of bears harvested west of Alaska during the aircraft hunting era did not show a trend. Age composition of bears harvested north of Alaska declined in 1970 and 1971 and then increased in 1972, reflecting high harvests in 1966 and 1967, followed by hunting restrictions and reductions in harvest after 1967. Harvests after passage of the Marine Mammal Protection Act of 1972, which permits hunting only by Natives for subsistence or as a source of material for

traditional articles of Native handicraft or clothing, were 7 in 1973, approximately 50 in 1974, and approximately 60 in 1975.

More bears occurred along Alaska's northwest and north coast in the winters of 1973-74 and 1974-75 than in previous years. Factors which could have caused this were reduced harvests and lack of disturbance by aircraft after 1972. Also, more heavy ice than usual moved south through the Chukchi Sea in the fall of 1974 and may have caused a movement of bears to the northwest coast.

Russians believe that polar bear populations in the Soviet Arctic declined during the first half of this century and have not stabilized since hunting was stopped in 1956. There is a 5-year moratorium by the Norwegian government on the hunting of bears in Spitsbergen, where formerly about 300 were taken each year. The annual harvest in Canada is 500-600. Thus the annual world harvest is now about 800.

General Biology: Polar bears other than family groups of females and young are solitary most of the year. During the breeding season in late March, April, and May, males actively seek out females by following their tracks on the sea ice. Bears are polygamous, and a male remains with a female a relatively short time and then seeks another female. Delayed implantation probably occurs.

Pregnant females seek out denning areas in October and November.

Known denning concentration areas occur on Russian, Canadian and Spitsbergen islands. Bears den along sections of the Greenland coast and the north Alaska coast. Some denning occurs on heavy pack ice north of Alaska. Bears most commonly den under banks along the coast or rivers, or on slopes where snow drifts. A denning female commonly forms a depression in the snow and then enlarges a denning chamber as snow drifts over her. Young, weighing less than a kilogram, are born in December. A litter of two is the most common, one is quite common, and three is rare. The female and cubs break out of the den in late March or early April when cubs weigh about 7 kilograms. They make short trips to and from the opened den for several days as the cubs become acclimated to outside temperatures. If the den is on land the family group then travels to the sea ice. In most sections of the Arctic, young remain with the mother until they are about 28 months old.

Age at which females produce their first litter is quite variable and probably ranges from 4 to 8 years. Some females breed again at about the time they separate from their young so can produce litters every third year. Other females have longer intervals between litters. Males can first breed when 4 years old. Most bears do not live beyond 25 years. Mature females off the Alaskan coast weigh 200 to 300 kilograms and mature males 300 to 600

kilograms. Animals west of Alaska are larger than animals north of Alaska. Polar bears feed primarily on ringed seals and also on bearded, harp, and bladdernose seals. They occasionally eat carrion, including whale, walrus, and seal carcasses, and small mammals, birds, eggs, and vegetation when other food is not available. Approximately 60 percent of Alaska bears harbor Trichinella spiralis, apparently obtained from eating seals and other marine mammals, garbage, and possibly carcasses of other bears. Polar bear liver is toxic if eaten because of high vitamin A content.

Ecological Problems: Long term climatic trends probably have a major impact on bear populations. Warming trends restrict areas that are suitable for denning and feeding, and cooling trends favor expansion of populations. Ice movement, especially in the fall when females are seeking maternal den sites, may also affect populations. Females may be forced to bear young in locations less favorable for denning when ice providing access to favorable denning sites forms late in the season. Years of light snow, or wind conditions which prevent formation of deep snow drifts, may also affect denning success, both for polar bears and ringed seals, one of their principal foods.

Human development, especially that associated with oil and gas extraction, poses the greatest immediate threat to polar bears. Oil

exploration and drilling in denning areas could cause bears to den in less suitable areas. Oil spills from offshore drilling or transporting of oil through ice covered waters could reduce insulating value of bears' fur and adversely affect the food chain below them. Ice would hinder or prevent containing of a spill, and currents could distribute oil over large areas.

Recent studies indicate that a significant number of bears have traditionally denned and produced young along Alaska's north coast. Increased human activity attendant to oil and gas development will perhaps cause fewer bears to come ashore to den and therefore den in less favorable sea ice sites, or cause animals to desert land dens earlier than normal when cubs are less able to survive. Areas where oil and gas development may be having an impact now or could impact in the future include Naval Petroleum Reserve No. 4, the Arctic National Wildlife Range, State coastal and nearshore oil and gas lease lands, Federal Outer Continental Shelf oil and gas lease lands, and lands eligible for under terms of the Alaska Native Claims Settlement Act. Thus there is a potential for development along the entire north Alaska coast from Pt. Hope to the Canadian border.

Mercury and low levels of DDT and PCBs have been found in tissue samples of all Alaskan Bears checked for these contaminants.

Allocation Problems: In Alaska after about 1950, trophy hunting with aircraft largely replaced Native hunting from the ground for subsistence and to sell hides. Use of airplanes for hunting has been severely criticized in recent years, and some preservationists would like to stop even the small amount of hunting which Natives now do from the ground. On the other hand, non-Native residents of the Arctic coast believe they are being discriminated against because only Natives can hunt.

The U.S.S.R. believes that bear stocks off the Siberian coast have been reduced, and restricts taking to a few cubs for zoos. Until recent years, Norwegian sealers killed bears as predators, Spitsbergen trappers used baited set guns to obtain hides to sell, and trophy hunters took bears from Norwegian boats in the summer. The present feeling in Norway is that these uses should no longer be permitted. In Greenland the harvest is limited to Eskimos or long term residents primarily for subsistence and personal use of skins. The Canadian harvest has traditionally been by Eskimos for subsistence and to obtain skins for sale. Trophy hunting from the ground, although encouraged by managing agencies in parts of Canada, has not developed to any great extent because Natives, who trophy hunters must employ as guides, can realize more profit from selling skins than from guiding.

Regulations: Alaska's past management practices to limit polar bear harvests were by seasons, bag limits, permit system, limit on the number of hunts individual guides could participate in, and protection for females with young and young. Two management areas were established, one to the west of Alaska and one to the north of Alaska. Residents were allowed to hunt bears at any time for food provided aircraft were not used. Hides and skulls of all bears taken had to be presented to the Alaska Department of Fish and Game within 30 days for examination, sealing, and removal of a tooth for age determination. Alaska banned the use of aircraft for hunting polar bears after July 1, 1972, and lengthened the season to encourage sport hunting from the ground.

The Federal Marine Mammal Protection Act of 1972 transferred management authority for polar bears to the Federal government and limited their harvest to Alaskan coastal Eskimos for subsistence or for manufacture of traditional Native articles of clothing or handicraft. The Marine Mammal Act removed restrictions on harvest of females with young and young by Natives. The request by the State of Alaska for return of management authority for polar bears and certain other marine mammals as provided for in the Marine Mammal Act is under review.

The U.S.S.R. has not allowed polar bear hunting since 1956.

Norway stopped set gun and trophy hunting in 1971 and enacted a 5-year moratorium in 1973 on all harvesting because of a change of attitude in Norway and because studies indicated the bear population was smaller than previously believed. In Greenland only Eskimos or long term residents may take bears and must use traditional ground methods of hunting. In Canada, prior to 1968, Eskimos hunting from the ground took bears with few restrictions. Since then, harvests have been regulated by establishment of hunting districts with quotas. In certain districts, trophy hunters may purchase a permit to take a bear from its quota provided a Native resident is used as a guide.

Current Research: The governments of Canada, Denmark, Norway, Russia, and the United States are conducting intensive long-term investigations. In most countries shorter term projects funded by universities and grants complement government programs. Research programs are coordinated internationally by the Polar Bear Specialist Group under the auspices of the International Union for the Conservation of Nature.

SEA OTTER
)
(Enhydra lutris)

Distribution and Migration: Populations in waters of the United States are resident (the sea otter is not migratory) along the west coast of North America from central California north to Prince William Sound and westward along the Aleutian Chain to the Commander Islands, along the southern Kamchatka Peninsula, and among the Kuril Islands. It seldom ranges offshore beyond the 30-fathom (180) depth curve. Recent surveys in Prince William Sound, Alaska has shown considerable seasonal changes in distribution

Abundance and Trends: In 1956 the Alaska sea otter population, based on aerial surveys, was estimated to be about 25,000 animals and to be increasing exponentially at about 4 to 5 percent per year; the world population was estimated at 32,000 to 35,000 animals. After additional surveys in 1970, the Alaska population estimate was 50,000. In 1972, with refined techniques and additional surveys using a variety of methods, the Alaskan population was estimated to be 100,000 to 125,000 animals and still increasing. The increase from 50,000 to 100,000 or more from 1970 to 1972 is the result of improved methods not a doubling of the population. In 1973 Alaska Department of Fish and Game published estimates of sea

otters in each Game Management unit. The total of these estimates are 101,050 to 121,050 otters.

Counts and estimates of the California sea otter population have shown a similar increase. California population counts are as follows: about 150 in 1938; 638 in August 1957; 1,014 in August 1968 and 1,060 in January 1972. Based on the 1972 count, the California Department of Fish and Game estimated the total California population to be 1,200 to 1,500 animals. From a similar survey in mid-1973 the sea otter population was estimated to be about 1,600 to 1,800 animals and ranged from Santa Cruz on the north to just beyond Point Buchon on the south.

Otters from Amchitka Island and Prince William Sound have been transplanted to the following locations: Southeastern Alaska in 1965, 1966, 1968, and 1969 (total 413); British Columbia in 1969, 1970, and 1972 (total 89); Washington in 1969 and 1970 (total 59); Oregon in 1970 and 1971 (total 93); and the Pribilof Islands in 1959 and 1968 (total 64). Among transplanted otters, young have been observed in Southeastern Alaska, British Columbia, Washington, and Oregon. Data from various sources indicate that translocated sea otter populations are approximately: 30 in Oregon, 12 in Washington, and probably 5 to 10 in the Pribilof Islands. An estimate for southeastern Alaska will be developed after a survey planned for May 1975. No estimate is available for the British

Columbia population.

Sea otters have been protected by both Federal and State laws since 1911 and are not subject to aboriginal hunting. Prior to 1741, a large coastal Native population had exploited the sea otter for some thousands of years. Thus, within its present range the sea otter today may be more abundant than it has been for centuries. In several areas local abundance of sea otters is believed to be near the level that the habitat can sustain. Reduced availability of preferred food species has been noted in some of these areas and increased mortality and emigration can be expected to halt further population increase in these areas.

General Biology: The sea otter is the largest member of the family Mustelidae, reaching a length of 148 cm and a weight of 45.5 kg. It becomes sexually mature at about 4 years of age and bears a single young, weighing approximately 2.3 kg, about every 2 years. The pup nurses for 10 to 12 months, but during this period often takes solid food gathered by the mother. The mother is very attentive to her young. Most of the young are born during the summer, but births and mating may occur at any season. Breeding behavior is promiscuous; mating male and female remain together for as long as 3 days. The dense underfur is about 1 inch long; the guard hairs are about 0.25 inch longer. A healthy animal

may accumulate considerable body fat but there is no layer of blubber. The sea otter is, therefore, dependent for insulation from cool (35° to 50° F) marine waters on the air blanket retained among the dense underfur fibers.

Mortality at Amchitka Island (the only area studied intensively) is greatest in winter and early spring. A dense population there depleted food organisms, and starvation occurred during stormy weather. Young animals accounted for 70 percent of the mortality. The remaining 30 percent were predominantly animals showing signs of old age. Most of the dead animals exhibited signs of starvation and enteritis. Internal parasites include Trematoda (4 spp.), Cestoda (2 spp.), Nematoda (1 sp.) and Acanthocephala (5 or possibly 6 spp.).

Ecological Problems: In areas where the sea otters are abundant a decrease in abundance of food species is evident. Because many preferred food species are primary consumers we expect that sea otters indirectly affect the nearshore community. This appears to be true in the Aleutian Islands where macrophytes appear to have increased substantially after a high sea otter population reduced the abundance of herbivorous sea urchins. The ecological importance of the indirect effects are not understood and may differ in other parts of the sea otter range.

Human activities which are changing the environment will no doubt affect sea otters. Oil pollution of waters occupied by sea otters probably would be fatal to them. Pesticide residues have been found in California sea otters, but their effect is unknown.

Allocation Problems: There is conflict over management of the sea otter population off the coast of California. Because sea otters reduce the abundance of prey species, some of which are desired by humans, commercial and sport users of these resources prefer that the abundance and range of sea otters be limited. Preservation groups would like sea otters re-established throughout their historic range.

There is no commercial or subsistence harvest of sea otters at the present time.

Regulations: The sea otter is protected by the Marine Mammal Protection Act of 1972 (PL 92-522). In California it is listed as a completely protected animal.

Current Research and Funding: The U.S. Fish and Wildlife Service employs two full time biologists on sea otter studies. The state of Alaska and California no longer employ biologists full time on sea otter studies but do carry out censuses. The Owings Foundation, privately endowed, employs a full time sea otter naturalist. Additional research is supported by the Marine Mammal

Commission and the Pacific Gas and Electric Company, California.

PACIFIC WALRUS

(*Odobenus rosmarus divergens*)

Distribution and Migration: Virtually the entire population winters in the seasonal pack ice of the Bering Sea. When the ice is at its maximum extent in March and April, concentrations of walrus are located southwest of St. Lawrence Island and in central Bristol Bay. Areas of low abundance surround areas of high concentration. These areas are generally predictable from year to year, although the specific distribution may change considerably over a short time as ice movements caused by wind and water currents create open leads in the pack ice. Walrus are thus able to feed in these relatively shallow waters of the intercontinental shelf, generally less than 40 fathoms deep.

The northward migration begins in late April. Walrus move through Bering Strait in two or more peaks, depending on ice conditions. From mid-May to early June, mostly females and young move through Bering Strait. Large numbers of males pass this point about mid-June. Three thousand or more adult and subadult males remain on or near Round Island in northern Bristol Bay. Other haul-out areas may be used in winter. In 1962 and 1965 small numbers (100 to 150) were seen on beaches of Amak Island. During the southern migration, walrus frequently haul-out to rest at Big Diomide and Penuk Islands south of St. Lawrence Island, until the pack ice

becomes accessible.

In the west, walrus haul-out on Ruder Spit, Arakamchechen Island, and Cape Instova in the Chukchi Sea. At one site on Cape Instova (1947), the first walrus was observed to come ashore on August 8, 1947, and by October 10, about 8,000 were hauled-out. Many of the coastal hauling-out areas were abandoned during earlier times of excessive harassment.

During the northward spring migration, into the Arctic Ocean, the majority of walrus pass through the western side of Bering Strait and proceed westward to the vicinity of Wrangell Island. At the northern extent of the summer ice pack, walrus are distributed along the ice edge from about Pt. Barrow to Long Strait. Apparently, the routes of migration and summer distribution vary considerably among years, depending upon seasonal ice conditions.

Abundance and Trends: Prior to large-scale exploitation by whalers which began in 1868, the Pacific walrus was estimated to number about 200,000 animals. The population may have fallen to a low of 40,000 to 50,000 by about 1950. Beginning in 1960, aerial surveys of walrus were undertaken. From data obtained on the five surveys (two in 1960, one each in 1961, 1968, and 1972), total estimates were computed by extending the number of animals observed in a one-mile flight track to the estimated area occupied

by walruses. In 1960, the total population was estimated at 73,000 to 117,000. In 1972, the estimate was 135,000 walruses (range between 93,000 and 179,000). An estimate derived by analysis of population information from walruses taken by Eskimos, supported the results of the aerial survey. This information indicates that the population is increasing, however a decreased productivity is also suggested from data collected during the Eskimo harvest in recent years. These data suggest that the Pacific walrus is experiencing resource limitation.

Annual mortality rates, using Ricker's "catch curve," were estimated by various investigators to range from 11 to 15 percent. Among males from 14 to 33 years of age, the mortality rate was 14 percent. The hunter take of walruses in Alaska in 1974 was about average, 1,410 (1,097 adult males, 263 adult females and 50 calves); the total kill, including those killed and lost, was estimated to be about 2,700 animals.

The take of walruses by the U.S.S.R. from 1968 through 1974 was 1097, 960, 957, 860, 1518, 1291, and 1205. The number killed but lost is not included. The harvest cannot exceed 2000, the present annual quota.

General Biology: Only one group of pinnipeds, the elephant seals, are larger than the Pacific walrus. Adult males weigh

an average of about 1160 kg with a mean standard length of about 316 cm. Adult females weigh an average of about 900 kg with a mean standard length of 270 cm. From a sample of new born young the maximum weight was 77 kg and the maximum length 137 cm.

The first ovulation of females usually occurs between 5 and 8 years of age. Males become fertile at 7 to 8 years but are not physically mature until they are at least 10 years old. The walrus is polygamous, in what is apparently the main breeding area (southwest of St. Lawrence Island). The gestation period is about 15 months, including approximately a 3 month period of delayed implantation. The young are usually born in May, during the spring migration northward. The females and young are very gregarious; males are gregarious outside the breeding season. Walruses often attain ages of 30 years or more.

Walruses are not buoyant, and must rest on ice or land at fairly frequent intervals. However, by means of pharyngeal pouches that may be inflated, walruses are able to sleep while floating upright at sea for short periods of time.

Clams are the most important food species. The stomach of one adult male contained 50 pounds of Mya truncata siphons and 35 pounds of Clinocardium nuttalli feet. Other food includes

echinoderms, annelids, coelenterates, sepunculids, echiurids, priapulids, arthropods, and tunicates. Occasionally, adult males may eat the flesh of other pinnipeds or cetaceans. The walrus' diet is apparently seasonally variable.

Internal parasites recorded from walrus include the following: Trematoda (3 spp.), Cestoda (3 spp.), Nematods (6 spp.), and Acanthocephala (4 spp.). All walrus except calves are infested with external parasites, including three species of sucking lice. A small percentage of adult male walrus become carnivorous and feed on seal flesh. Probably it is this abnormal feeding behavior that accounts for trichinosis infection of from 1 to 10 percent of over 1000 male walrus sampled from four arctic regions. Incidence of uterine cysts and other disease conditions is low, as far as is known, and such diseases and abnormalities appear to be unimportant.

Ecological Problems: Petroleum will undoubtedly be exploited from the Bering Sea and Arctic Ocean. The effect of these activities on walrus or their requisite resources is unknown. The extensive benthic food resources of the walrus are not yet subject to human exploitation. Such human activities could be competitive with walrus. However, the relationship between walrus and the benthic community are virtually unknown. Also of concern is the harassment of walrus when they are hauled out in summer on the Walrus Islands State Game Sanctuary (Togiak Bay), Bristol Bay.

Allocation Problems: Siberian and Alaskan Natives kill 5,000 to 6,000 walrus annually for subsistence, and 8 were taken in 1974 for display in marine aquariums. Loss of walrus during hunting is about 40 to 50 percent. Additional waste occurs in the utilization of the products of retrieved walrus. If ivory is the primary objective, utilization amounts to as little as 1 to 3 percent of the potential. When meat and hides are used, utilization is as high as 90 percent of the carcasses taken.

Regulations: Trophy hunting was stopped by the Marine Mammal Protection Act of 1972 (PL 92-522). Requested trophy hunting permits by guides under the hardship clause were not issued by the Secretary of the Interior. The taking of walrus by Native Alaskans (Eskimos and Aleuts) for meat, hides, and ivory which may be used to manufacture traditional artifacts for sale is permitted. PL 92-522 allows Natives to take an unlimited number of male and female walrus. The Alaska State law, which the Federal legislation invalidated, was more restrictive: it imposed a bag limit of 5 females per resident hunter with no limit on males. The return of walrus management to the state of Alaska is under consideration.

Current Research: A walrus research program is being established by the U.S. Fish and Wildlife Service. Investigators from the University of Alaska and Johns Hopkins University are

currently studying walruses under funded grants from several agencies. The Alaska Department of Fish and Game will maintain observers during the hunting seasons at St. Lawrence, King, and Little Diomide Islands to monitor the kill and to collect information on the population.

ATLANTIC WALRUS

(Odobenus rosmarus rosmarus)

Distribution and Migration : Walruses are circumpolar in distribution. In the north Atlantic area, a small population occurs along the east coast of Greenland, Spitsbergen-Franz Josef Land, and east to the Barents and Kara Seas. A larger, geographically isolated population, occurs in the eastern Canadian Arctic and western Greenland. Presently, walrus are rarely found along the coast of North America south of Labrador. Scattered groups are located in Angava Bay and on the southeast coast of Baffin Island. In Hudson Bay, the main population is found around Coats Island, southern Southhampton Island, and northern Foxe Basin. North of Baffin Island, walruses are scattered northeast from Kane Basin between Ellesmere Island and Greenland, west to Melville Island. Along the west coast of Greenland, the principal population is located in the Thule area. There is no evidence of extensive migration, except in the west Greenland area. This situation contrasts sharply with the strongly migratory Pacific walrus.

Abundance and Trends: Only the status of the population around Southhampton Island is well known. This was estimated by the Fisheries Research Board of Canada and the Canadian Wildlife Service to be about 3,000 animals in 1954. An aerial survey

in 1961 indicated a similar status at that time. The population in Foxe Basin appears to be larger although no reliable estimate of its abundance is available. Little is known of the status of walruses in other areas of the eastern Canadian arctic however, they are relatively inaccessible and remain unaffected from predation by man. In western Greenland, the population has apparently declined considerably since the early 1940's because of human encroachment and predation. Catches in this area have declined from around 600 per year to 19 in 1967. No subsequent data from this area are available. This decline was apparently the result of Norwegian hunting which was prohibited by law in 1952. The status of the population in the Thule area is less well understood, although hunting activities there apparently are not affecting adversely that population.

General Biology: The Atlantic walrus is generally smaller than the Pacific subspecies. Calves average 122 cm and weigh about 67 kg at birth. Adult females have an average length of about 260 cm and an average weight of about 570 kg, while males attain an average length of 305 cm and an average weight of about 910 kg. Seldom do the tusk lengths exceed 36 cm for males and 25 cm for females. Adult males may be distinguished from females by cutaneous tubercles of the head and neck, a broader muzzle, and more powerful muscles of the neck and shoulders.

Reproductive biology of the Atlantic walrus is not well understood. During most of the year, herds of adult males are spatially segregated from the herds of adult females with calves and immatures. Females apparently reach sexual maturity at about 4 years, and males at about 6 years although neither may become reproductively active until several years thereafter. The gestation period lasts about 15 months with births occurring over a two month period with a peak in mid-May.

Ecological Problems: Disturbance to the benthic food resources may affect the Atlantic walrus although limiting resources and relationships between walruses and the benthic community are virtually unknown. The results of recent exploration for oil and gas indicate that greatly increased human activity associated with the development of this resource may occur in northeastern Hudson Bay. The effect of these activities on walruses or their requisite resources is unknown.

Allocation Problems: In Canada the most successful hunting occurs in autumn from "Peterhead" boats in shallow bays along the coast where walruses are hauled out on land. Few wounded animals escape during these operations. Much hunting occurs from canoes and whaleboats amongst the loose ice in spring and summer. Losses are estimated at as high as 30 percent during this time, and many wounded animals escape the hunters. Some of the meat is

consumed by humans. Much of the meat, skin, guts, and blubber is used as dog food. An ivory trade is maintained with the Hudson's Bay Company and much is sold privately.

Regulations: Canada established regulations in 1928 which limited the killing of walruses to Eskimos for food and clothing. These regulations have since been amended several times, but have not been changed in their main intent. Walrus hunting regulations were established in Greenland in 1957. These limit hunting to Danish citizens resident in Greenland. From 1 June to 1 January all hunting of males in the West Ice is forbidden, and from 1 April to 1 January no females and calves may be taken in the same area. Hunting from land is also forbidden in certain areas at certain times.

Current Research: No field studies of the Atlantic walrus have been carried out since 1961.

AFRICAN MANATEE

(Trichechus senegalensis)

Distribution and Migration: The African Manatee occurs in coastal waters and in adjacent rivers along the coast of West Africa from the mouth of the Senegal River (16°N) to the mouth of the Cuanza River to Angola. They have been reported from the Faleme, Cambia and Casamance rivers of Senegal and Gambia, and from the coasts of Guiana. Other rivers known to support manatees are the Sierra Leone, the Missunado, the St. Paul's and the Cavalla rivers. In Ghana, they are now apparently restricted to Lake Volta and the upper reaches of the Volta River. Manatees have been taken at Benin and Lagos, Nigeria, and are numerous in most of the larger rivers of southern Nigeria. They occur in the Niger River and are commonly known as far upriver as Idah, on the western border. They travel even further upriver, and have been noted in Segou, Mali, approximately 200 miles southwest of Timbuktu. Manatees also ascend the Benue River, a large tributary of the Niger. They have been reported in this waterway as far east as Numan ($9^{\circ}\text{N } 12^{\circ}\text{W}$). It is not thought that manatees occur in Lake Chad, although specimens have been collected from its principal tributaries, the Baniangi, the Bahr Keeta and the River Shari. In Cameroon, they are found within the Korup Reserve and have been reported from the Mungo and Wouri rivers. It is also likely that they inhabit the Campo River in southern Cameroon. Specimens

have been taken from the Rio Muni, Gabon and Ogooue rivers and may also be found in the Loeme River of Congo Brazzaville. In Zaire, T. senegalensis occurs in the lower Congo River, and also in the upper drainage of the Uele River, east to Kibali. The Loge, Dnade, Bengo and Cuanza rivers of Angola all reportedly contain manatees. No migrational movements have been noted for this species.

Abundance and Trends: No population estimates are available for this species. The African Manatee was reported as rare in the Senegal, Faleme and Casamance rivers of Senegal as early as 1900. Recent reports of manatee abundance in Senegal, Guinea and Portuguese Guinea are lacking. Manatees remain common enough in the Sierra Leone river estuaries today to be trapped for food, but no information is available on the current status of manatees along the coast from Liberia, to Nigeria. Manatees have been extirpated from the Mekrou River of Dahomey and the portion of the Niger River on the Niger-Dahomey border, although they are thought to still be numerous in most of the larger rivers of southern Nigeria. Populations seem to be stable in the lower Niger, the Benue River, and the Anambra system of creeks, but manatees are rare in the Izichi River of Nigeria. T. senegalensis has apparently been extirpated in Lake Chad and is classified as rare in the Cameroons. The lower reaches of the Congo River

reportedly support considerable numbers, but populations have diminished in the upper rivers. In general, the manatee population of Zaire is much reduced. T. senegalensis is classified as a vulnerable species, but little data is available on the recent distribution or abundance of this animal.

General Biology: Externally, this manatee is indistinguishable from the West Indian Manatee. It is large, fusiform and nearly hairless, with paddlelike flippers and spatulate tail. Average adults measure from 2.5 to 3.4 m. in length and weigh from 400 to 500 kg. It has been hypothesized that breeding occurs during the late dry season in weedy swamps and lagoons, but documentation has not been provided. The gestation period is unknown but is probably about one year. One is the usual number of young. Newborn calves are approximately 1 m. in length, and they are believed to remain with the parent cow for a long period of time. There is no further information available on reproductive or population biology of this species. African Manatees favor weedy swamps and mirigots. They are believed to be active throughout the day, but feed mostly at night. Their diet includes mangrove leaves, Cymodocea nodosa, Polygonum, and Eichornia crassipes, but they have also been reported feeding on Rhizophora, a terrestrial plant which often hangs over water. A 1.85 m. captive male consumed 12 kg. of vegetables daily. Upon reaching 2.4 m. in length, he regularly ate 17 to 18 kg. of vegetables, Elodea, and

legumes daily. The only information available of the social behavior of T. senegalensis is that groups of 4 animals, including half-grown calves have been observed.

The one internal parasite reported for the African Manatee is Chiorchis fabaceus, a trematode found in the large intestine. No diseases of this species have been reported from the wild, but one captive died as a result of acute enteritis. There is no evidence of predation on T. senegalensis by any species other than man.

Ecological Problems: Propellers and keels of boats striking submerged manatees may inflict mortal wounds. While there has been no evidence presented indicating that this is a real problem in West Africa as it is in Florida, the Ijaw fishermen of the Anambra system of creeks in Nigeria, considered manatees a nuisance to their boat traffic. In 1932, they began trapping and killing manatees, and within three years, managed to exterminate the local population. Manatees inhabit the recently formed Lake Volta in Ghana and Lake Kainje in Nigeria, which are currently being swamped by growth of aquatic weeds. Use of herbicides on the weeds which are consumed by the manatees presents a potential threat to manatee. Pollution of waters in areas of human development would be expected to adversely affect the food sources of manatees. This species occurs within the Doro River Forest Reserve of Nigeria and in the proposed Korup and

Campo Reserves of Cameroon.

Allocation Problems: The African Manatee has long been hunted throughout its range, largely for its meat. Nets, harpoons and guns are used in taking manatees and the hunting is usually done at night. Manatee hunting has been a regular occupation in the lower Congo, Angola and in northern Nigeria. No estimates are available as to the current take. An additional problem is the accidental netting of manatees in shark nets. These are set along many coastal areas of West Africa. T. senegalensis has been considered as a potential solution to the problem of aquatic weed control in man-made lakes and river systems. Experiments carried out on the West Indian Manatee indicate that successful weed control by manatees is feasible for limited areas only. It is likely that the use of manatees in conjunction with the alternative mechanical weed removers, would provide the best means of control.

Regulations: The African Manatee is currently protected in Senegal, Guinea, Sierra Leone, Liberia, Ivory Coast, Ghana, Togo, Dahomey, Nigeria, Cameroon, Gabon, Congo Brazzaville, Zaire, and Angola.

Current Research: Silvia Sikes, of Benue-Plateau State, Nigeria, is currently involved in manatee conservation. She is being funded by a personal fellowship in manatee conservation from the University

of Ibadan and is dispersing information to the forestry divisions of other Nigerian states to make them aware of this endangered animal. She is also gathering data on distribution in local rivers. Peter van Bree of Amsterdam is supervising a taxonomic study comparing T. senegalensis to T. manatus. The National Fish and Wildlife Laboratory of the U.S. Department of the Interior has compiled a report on the distribution, conservation and natural history of T. senegalensis.

AMAZONIAN MANATEE

(Trichechus inunguis)

Distribution and Migration: The Amazonian Manatee is strictly fluviatile, apparently being confined to the Amazon Basin and possibly the Orinoco drainage. In Brazil, it occurs in the Amazon River and the following tributaries: the Rio Tocantins, the Rio Xingu, the Tapajos, the Nhamunca, the Rio Madeira and the Rio Negro. They have also been reported in the Rio Branco, which is almost continuous with the Essequibo and Rupununi rivers of Guyana during flooding, thus allowing manatees access to these rivers. It is thought that T. inunguis also inhabits the upper Orinoco and the Cano Casiquiare of Venezuela, but records are lacking. In Colombia, Amazonian Manatees may be found in the Amazon, the Putumayo River (west to the Araracuara rapids). They may also frequent the Apaporis River. Peruvian rivers supporting manatees are: the Rio Napo, the Rio Tigre, the Rio Marañon (as far as its confluence with the Rio Pastaza), the Rio Samiria and the Rio Pacaya. They also inhabit the Ucayli and Huallago River drainages, but are absent from both the Madre de Dios and the Purus systems. No information is available on migration of this species.

Abundance and Trends: Amazonian Manatees were formerly abundant in the Brazilian Amazon. Thousands of skins were brought yearly to Manaus for trade in the 1930's and 1940's. T. inunguis is

consequently rare today in most of the Amazon and its tributaries. They are, however, still fairly common in some lakes on the lower Tapajos, and in the Nhamunca River. In general, this manatee is regarded as rare in Colombia. This species is nearer to extinction in Peru than any other mammal, although modest numbers do remain in the Rio Samiria and the Rio Pacaya. All reports indicate dramatic decline in numbers of Amazonian Manatees throughout their range. Population estimates are not available, but extinction has been predicted within the next few decades if local hunting pressures continue.

General Biology: T. inunguis is a large, fusiform, nearly hairless marine mammal with paddlelike flippers and a spatulate tail. It is distinct from other manatee species (T. manatus and T. senegalensis) in both appearance and habitat. It is characteristically more slender in form with elongated flippers lacking nails, and it is marked by a unique white breast patch. This species is the only entirely fluvial manatee. Adults may reach lengths of 2.8 m. and estimated weights are between 125 and 250 kg. Breeding apparently occurs throughout the year. The gestation period is thought to be about one year, and one is the usual number of young born. Newborn calves are less than one meter in length and weigh less than 20 kg. Further information on reproduction, ontogenetic variation and population structure are lacking. Longevity in nature is unknown, but a captive

pair survived for 12½ years before they died.

Amazonian Manatees feed upon a variety of aquatic vegetation including Statiotes, Potamogeton, Vallisneria, Ceratophyllum, Ulva, Myriophyllum and Zostera. Daily consumption of food plants has not been measured under natural conditions, but captive adults generally require 9 to 15 kg. of lettuce and vegetables daily. There is no documentation of any natural predation on T. inunguis, but jaguars, sharks, piranha, and caiman have been suggested as likely predators. The trematode, Chiorchis fabaceus, occurring in the large intestine, is the only internal parasite reported for this species. Bronchial disorders, pneumonia and skin problems have been noted in captives, and one captive developed a case of osteomyelitis as a result of a harpoon wound.

Allocation Problems: Many Indian tribes of Amazonia have hunted manatees in the past, both for the meat, and for the hides which were used in making shields. Harpoons and nets were used in capturing the animals, but the final killing was done by driving wooden plugs into nostrils causing suffocation. In the 1930's and 1940's, the Amazonian Manatee was commercially exploited for the skins, which were shipped to Portugal and Rio de Janeiro to be used primarily in the manufacture of machine belting and water hoses. A meat preparation called "mixira" consisting of meat boiled in its own fat, was canned and also shipped abroad. Thousands of manatees were slaughtered yearly. Protective legislation has since been enacted

and the present rate of exploitation is reportedly reduced. However, poaching continues at a reduced rate and manatee meat is still available in Colombia and Brazil. In Leticia, Colombia, a large manatee today is worth about 40 Col. pesos. The price has reportedly slumped in other areas.

Regulations: T. inunguis is totally protected in Brazil (1968), Venezuela (1970), Colombia (1969), Peru (1973), and Guyana (1961).

Current Research: Diana Magor is the only individual currently studying T. inunguis. She is based in Manaus, Brazil, and is collecting data on growth, distribution, and the natural history of the Amazonian Manatee.

WEST INDIAN MANATEE

(Trichechus manatus)

Distribution and Migration: T. manatus inhabits rivers, estuaries, and coastal areas of the tropical and sub-tropical regions of the New World Atlantic. It commonly ranges from southern Georgia to the northern coasts of Surinam, in South America; it is seasonally present in South and North Carolina and occasional stragglers have been reported from as far north as Currituck Sound, Virginia (37°N) and as far south as Goiana, Brazil (7°S). Within the U.S., the range of T. manatus is largely confined to peninsular Florida, Georgia and South Carolina. On the west coast of Florida, the Aucilla and Port St. Joe Rivers appear to be the western limit of the manatee's range. They occur south of these rivers seasonally and congregate in a series of populations located along the coast at Crystal River and in adjacent rivers in Citrus County, in lower Tampa Bay, in Charlotte Harbor, and in the Everglades during the winter months. The distribution on the east coast is nearly continuous in the summer with manatees commonly occurring in the Intracoastal Waterway and the Indian River, and traveling well up the St. Johns River. In winter, east coast populations concentrate at Merritt Island and at selected refuges to the south and in the springs in the upper reaches of the St. Johns River.

In Mexico, manatees range southward from Veracruz at least and

perhaps from Tamaulipas, within the Bay of Campeche and on both sides of the Yucatan Peninsula. Distribution appears to be continuous along the coast from British Honduras to Costa Rico including Lake Isabella of Guatemala, whereas isolated populations only remain in Panama. These are located in Chiriqui Bay, the Changuinola River, Gatun Lake, the Sicaola River, and possibly the Cocle River. Colombian rivers which manatees inhabit are the Atrato, Leon, Suriqui, and the Magdalena and its tributaries. They may also be found along the eastern coast of Colombia and in the Meta River. T. manatus frequents the lower Orinoco of Venezuela plus its tributaries, the Apure, Arauca, Payara, Capanaparo, and the Claro, as well as Lake Maracaibo. In Guyana and Surinam, manatees are found primarily in the rivers of the coastal plain. They have also been recorded from Jamaica and Cuba, and are present in the Dominican Republic, and perhaps Haiti.

Manatees north of northern Florida apparently cannot withstand the cold winter temperatures. During winter some seek warm water springs or localities where factories discharge heated water into the rivers. There are more than twenty-five such warm water refugia used by manatees on the Atlantic and Gulf coasts. Arrival at these congregating sites usually begins in November; many animals remain for the winter, but there is continuous

exchange of old and new members of the congregations during warm periods. Summer observations of manatees at northern Florida and Georgia localities are common, whereas the animals are absent during the winter. This strongly suggests southward migration to avoid the cold. Offshore movements may also occur during all seasons.

Abundance and Trends: Aerial surveys of Florida coasts and rivers during 1972-75 and interview data in 1974-75 indicate a manatee population numbering between perhaps 1,000 and 2,000. Numbers have been reported to be increasing along the west coast of Florida and similarly increasing or stable along the Atlantic coast. Manatee numbers in Mexico are markedly reduced and reports are rare; however, their current local status appears to be stable. Likewise, populations in British Honduras seem to be decreased but stable.

Manatees are reported to be fast decreasing in Guatemala. Present status in Honduras is unknown, and estimates for Nicaragua range from a few score to several hundred. Numbers are low in Panama and Costa Rico.

Manatees are currently decreasing in many Colombian rivers and are extremely rare in the Santa Marta District and in the Llanos of eastern Colombia. They have been extirpated from Taganga Bay,

the Canal de Dique, and the Cienaga de Guajaro. In Venezuela, manatees are considered neither abundant nor rare in the lower Orinoco Basin. Estimates of some thousands but not tens of thousands of manatees have been made for Guyana, but populations are reportedly reduced for both Guyana and Surinam.

It can be generally concluded that hunting pressures in Mexico, Central and South America have resulted in the present diminished manatee populations. However, hunting efforts have decreased somewhat in these areas, partially due to the scarcity of manatees, permitting remaining populations to stabilize.

General Biology: The West Indian Manatee is large, fusiform in shape, and thick-skinned with little hair. The forelimbs are modified paddles with rudimentary nails, and the spatulate tail is horizontally flattened. Adults range in size from 2.5 to over 4.5 m. in length and corresponding weights vary from 200 to 600 kg. However, average adults are between 3 and 4 m. in length and weigh less than 500 kg. Sexual dimorphism in size has not been documented. T. manatus has no definite breeding season; breeding occurs throughout the year. The cow is polyandrous, allowing several bulls to copulate with her during her relatively short period of receptivity. Mating has been observed in water about 2.5 m. in depth as well as in shallows less than 1 m. deep.

The gestation period is probably about 385 to 400 days and parturition is thought to occur in secluded shallows. Successful breeding has occurred under captive conditions only once but full documentation of the event is lacking. One is the usual number of young; however, twins and a case of foster parenthood have been recorded. Newborn calves may measure over 1 m. in length and weigh between 11 and 27 kg. Suckling from the pectoral teats occurs underwater. Calves may begin grazing within weeks of birth, but nursing may continue for 1 or 2 years. Therefore, breeding probably occurs every 2.5 to 3 years. Manatees have been classified into the following age groups: calves, any young animal associating with a cow; juveniles, independent but not yet sexually mature; and adults, animals taking part in reproduction. Transition to adulthood is gradual and sexual maturity may not be attained until 4 or possibly 6 years of age. Manatee longevity in the wild is unknown, but a captive has been successfully maintained in Florida for 23 years.

Preliminary studies of social behavior indicate that the most obvious close bond is between cow and calf. Estrus herds of bulls may last from one week to more than a month. Small herds of less than 10 animals are the most commonly encountered groups except during cold winter periods when groups of as many as 75 animals are found in warm water refugia and protected areas in southern Florida. Intragroup social interactions including "play"

and nonspecific sexual behavior (including homosexual) are reported.

T. manatus is reported arrhythmic with no specific daily patterns of behavior. Adults may spend from 6 to 8 hours daily in feeding.

Manatees are wholly herbivorous, consuming a variety of food plants in the following order of preference: (1) submerged plants, (2) surface floating vegetation, and (3) emergents.

Quantities of incidentally ingested insect larvae, amphipods, mollusks, shrimp, and other invertebrates probably provide necessary amounts of protein for the manatee. Captive adults consume 30 to 50 kg. of vegetation each day. It has been suggested that manatees must return to freshwater occasionally for drinking.

Internal parasites of T. manatus include two species of trematodes (Opiosthotrema and Chiorchis) and one species of nematode (Plicatolabia). A single copepod (Harpacticus) was also reported on the skin. Manatees in saltwater become covered with marine diatoms (Zygnema and Navicula) and barnacles, whereas animals remaining in freshwater develop a coat of algae (Lyngbya and Compsopogon). Manatees appear to be susceptible to pneumonia and other bronchial disorders when exposed to unusually low temperatures. To date, there is no documentation of predation upon the manatee by any animals other than man. Crocodilians and sharks have been suggested as likely predators.

Ecological Problems: In the United States, wounds inflicted by motor boat propellers and keels pose a major problem and are the prime cause of known manatee mortality. Water contamination by industrial effluents is responsible for the destruction of proper manatee habitat and food supplies. In upper Tampa Bay, the natural submergent vegetation has been eradicated by this pollution, resulting in the absence of manatees in the upper bay. Dredging may also have detrimental effects, increasing the water turbidity to a point where submergent plants can no longer survive. Natant plants seem to thrive under these conditions, and in the absence of the preferred submergents, manatees do consume these natants. However, the floating plants present a problem to boat traffic and (as in the St. Johns River) are sprayed with herbicides, such as 2-4-D, which is then directly ingested by manatees. No direct effects of this, or other herbicides have been documented. Oil spills from offshore drilling may also have detrimental effects on the manatee's food supplies. Vandalism, poaching, accidental nettings, and flood control structures are additional threats to the manatee.

Blue Springs Park (a winter congregating site) has been designated a Manatee Sanctuary by the Florida Department of Natural Resources and is the only locality in Florida with lowered boat speed limits and swimming restrictions for manatee protection. As many as

25 manatees take refuge in this spring during cold periods.

Manatees also inhabit the Everglades National Park and several National Wildlife Refuges, being especially abundant in the Merritt Island NWR. They are found within the Parque Nacional Isla de Salamanca of Colombia, but their occurrence in other foreign reserves or sanctuaries is unknown.

Allocation Problems: Manatees have long been hunted for their meat, hides, oil, and ivory. Although protective legislation is nearly complete, the meat is still sold frequently in the markets of Colombia, Brazil, and Venezuela. T. manatus has been used with mixed success in small scale aquatic weed clearance projects in Guyana, Mexico, and Panama, but at this point, large-scale utilization of manatees for weed control does not seem feasible, for large numbers of animals are required. The manatee has also been suggested for domestication for meat in the distant future. Current decimated populations, plus a low reproductive rate, deem this project as unrealistic.

Regulations: Protective legislation for the manatee now exists in the following countries: U.S., Brazil, British Honduras, Costa Rica, Panama, Colombia, Venezuela, Guyana, Cuba, Jamaica, Puerto Rico, Trinidad, Haiti, and the Dominican Republic.

Current Research: The National Fish and Wildlife Laboratory of the U.S. Department of the Interior has initiated a broad scope

research program into the ecology and physiology of T. manatus. Survey efforts are being expanded in Florida and the Southeastern U.S. and initiated throughout the Caribbean, Central America, and southern Brazil. Tracking studies of movements and seasonal habitat utilization will be initiated in Fall, 1975 in the Southeastern U.S.. Detailed analysis of the environmental relationships of T. manatus in the Blue Springs Park has been initiated with the cooperation of the Florida Department of Natural Resources. Studies of basal metabolism, osmoregulation and sensory physiology underway or planned for Fall, 1975. Dr. D. Odell of the University of Miami Marine Laboratory is cooperating in studies of mortality factors and population biology with the NFWL. Dr. Odell is also conducting a study to develop a methodology for aging dead manatees. Dr. D. Forrester of the University of Florida College of Veterinary Medicine is conducting studies of manatee parasites with the cooperation of the NFWL.

E. Mondolf of Venezuela is compiling records of this species in his country to determine their local range and P. van Bree of Amsterdam is supervising a taxonomic study comparing T. manatus to T. senegalensis. The U.S. National Academy of Sciences, the National Research Council of Canada, and the National Science Research Council of Guyana are planning to jointly establish an international manatee research center in Guyana. They hope to

direct their research towards reproduction, physiology, and nutrition of the West Indian Manatee. This project is currently in advanced stages of planning.

DUGONG

(Dugong dugon)

Distribution and Migration: The dugong occurs in tropical and subtropical waters of the Indo-Pacific. It is totally marine and is usually found in coastal waters from two to three fathoms in depth. Along the east coast of Africa it ranges from Egypt in the Red Sea, south to Delagoa Bay (26°S), Mozambique. This distribution is discontinuous due to local extirpation in certain areas. Dugongs have been reported from the Persian Gulf and they also range along the west coast of India, south of the Gulf of Kutch. They occur in Ceylonese waters and are present in the Andaman Islands, the Mergui Archipelago, Burma, Malaysia, the Moluas and Sumatra. They may still be found in the Ryuyu Archipelago, and specimens have been taken in Formosa and Hong Kong. The present range extends south and east to include Guam, the Palau Islands, the Carolines, New Britain, New Guinea, the Solomons, New Caledonia, and New Hebrides. In Australia, dugongs occur all along the northern coast from Perth (32°S), on the west coast, to Brisbane, in the east. They are absent from the Marshall, Gilbert, Ellice, and Fiji Islands.

Long distance migrations are unknown for this species, but local, offshore movements are apparent. These correlated with the

changing monsoon seasons and possibly with resulting shifts in abundance of food sources. During the season of rough seas and extreme winds, the animals move to shore, apparently seeking shelter. Such movements have been reported in east Africa, India, and the Philippines (where they are no longer present). Similar migrations have not been noted in Australia.

Abundance and Trends: No numerical estimates of dugongs are available, but populations are thought to be much reduced and continuing to decline throughout nearly all portions of the range.

Dugongs are more abundant in Kenya and the Somali Republic than elsewhere along the coast of Africa. They are now extremely rare in the Red Sea and the Gulf of Aqaba. They were once abundant enough in the Gulf of Mannar (between Ceylon and India) to support a large commercial dugong fishery. The only remaining remnants of this population are restricted to the region near the Mannar Peninsula of Ceylon, from Jaffna to Puttalam. Numbers have declined along the Sarawak coast of Malaysia, and few dugongs can be found today in the Ryuyu Archipelago. The only stable populations occur off the northern Australia coast, Shark Bay, Broome, the Gulf of Carpentaria and along the northern coast of Queensland. These stocks appear to be maintaining themselves and may even be increasing. At present, dugongs occur only in Lamu Park in Kenya.

General Biology: Dugongs are large fusiform marine mammals with flipperlike forelimbs and a broadly notched, horizontal tail fluke. Adults range from 2.4 to 2.7 m. in length and corresponding weights are 230 to 360 kg. The thick, nearly hairless skin is deep slate in color and is usually marked with numerous scars and scratches. Dugongs were quite social in the past, occurring in large herds of several hundred animals. Today, groups of one to six animals are the usual number. Breeding apparently occurs throughout the year. The gestation period is thought to be about one year and one is the usual number born. Twins have been rarely reported. Newborn calves are about 1.1 m. in length. Calves begin grazing within the first three months after birth, but continue to nurse for over a year, reaching a length of up to 1.8 m. Sexual maturity is attained when animals reach approximate length of up to 2.4 m. (estimated 2 to 3 years of age). Sexual dimorphism in size of adults is not evident. Longevity of the dugong in the wild is unknown, but a pair of captives were maintained successfully for 10 years.

Dugongs are largely herbivorous and rely primarily upon marine sea grasses of the families Potamogetonaceae and Hydrocharitaceae, occurring in waters which range from 21° to 38°C throughout the year. Brown algae (Sargassum) may also be consumed in significant amounts when sea grasses are locally in short supply.

Dugongs reportedly prefer to feed at night or with the rising tide.

There are few observations of predation upon the dugong by animals other than man. Fishermen have claimed the shark is a predator, but in over 100 dugongs netted and drowned in Queensland, none ever showed any sign of attack by sharks or any other predators. Internal parasites include Termatoda (10 spp.) and Nematoda (2 spp.). Barnacles and green filamentous algae have been observed on dugongs but do not appear harmful. No diseases have been reported.

Allocation Problems: Man is the major threat to the dugong's existence. Boat traffic in offshore areas may inflict mortal wounds. Increased marine fishery activities in the India-Ceylon area have resulted in accidental nettings, drowning substantial numbers of dugongs. Dynamiting for fish is also assumed to affect dugongs adversely. In Queensland, Australia, a shark netting program has resulted in large dugong mortality; similar netting programs exist in Africa.

Dugongs have been hunted throughout their range. Their meat is similar to veal or pork, and "keeps" for long periods of time. Average sized adults yield from five to eight gallons of oil similar to cod liver oil, and the hide makes excellent leather, especially suitable for sandalmaking. Tusks and bones are used as ivory and several body parts were once thought to have medicinal or aphrodisiac

properties. Today, hunting pressures are much reduced, in part due to the decline of dugongs. In spite of legislative protection, however, poaching continues. In Australia, the aborigines and Torres Islanders may still legally hunt the animals. One village (250 people) caught an average of about 70 animals per year during the early 1960's.

Regulations: The dugong is totally protected in Egypt, Anglo-Egyptian Sudan, Ethiopia, Somalia, Kenya, Tanzania, Mozambique, Madagascar, South Africa, Natal, India, Ceylon, Sabah, Sarawak, the Philippines, Japan, Formosa, New Caledonia, and Australia. While protection is near complete, effective enforcement is virtually impossible.

Current Research: George Heinsohn is continuing his study of dugongs in Townsville, Queensland. Animals accidentally drowned in shark nets are providing population and reproduction data, as well as information on food habits. Robert Kater and Adrian Hillier are also reportedly studying dugongs in Kenya, but the nature of their investigations is unknown. The National Fish and Wildlife Laboratory of the U.S. Department of the Interior has assembled a report on the distribution, status, and natural history of this species and recently conducted aerial surveys along the N. Australia coast and in Papua-New Guinea. Surveys are planned for FY 1976-77 to determine dugong distribution in many areas of the Pacific where data are lacking.

MARINE OTTER

(Lontra felina)

Local Common Names: Gato marino, chungungo, huallaque, nutria de mar, and chinchimen.

Taxonomy: Two subspecies of the marine otter are recognized; L. f. felina from southern Chile is slightly darker brown on the ventral surface when compared to L. f. peruviensis from northern Chile and Peru. Sufficient specimens are not currently available to permit detailed studies on the validity of these subspecies.

Distribution and Migration: This species inhabits the coastal waters along the west coast of South America from central Peru (north, at least, to 12°S) south to Cape Horn, Chile. Nothing is known about its seasonal movements. It occurs mainly in the littoral region, but it is also known to ascend rivers to at least 650 meters above sea level.

Abundance and Trends: Darwin found this otter abundant in the Chonos Archipelago and among the islands off the southwestern shores of Tierra del Fuego. It has been greatly diminished in numbers since Darwin's time, but in 1923 the Chicago Field Museum expedition found it to be common along the southern end of Chiloe Island, Chile. Nothing is known about numbers of the marine otter along the northern coast of Chile, but in Peruvian waters

the population is estimated to be between 200 to 300. In the Cape Horn and southern Tierra del Fuego region this species has been practically exterminated. One specimen was collected at Wollaston Islands, Tierra del Fuego about 25 years ago.

General Biology: The following external measurements have been recorded for the marine otter: head and body 570 to 787 mm, tail, 300 to 362 mm and total length, 910 to 1149 mm. An adult male taken at the southern end of Chiloe Island weighed 9 pounds. The fresh water prawn, Criphiops caementarius, is included in the diet of the species. Darwin reported that this otter feeds also on fish, "small red crab", "cuttle-fish", and the inhabitants of "volute shells". Sexual dimorphism was not detected in a small sample of this species. All species of Lontra except L. provocax and L. felina are allopatric (occupying different geographic areas), and all except L. felina, littoral marine species, are probably ecological equivalents. Lontra felina is the smallest and the most distinct species in the genus and, according to one investigator, "probably evolved from a stream-dwelling species that adapted to a marine environment after isolation in coastal habitats as a consequence of progressive aridity in middle latitudes of South America's west coast."

Parasites and Diseases: Nothing is known about parasites or diseases in this species.

Allocation Problems: In Peruvian waters these otters are often shot by fishermen because of the alleged damage they do to the stocks of freshwater prawns. In Chile the species is hunted regularly by fishermen for their skins, especially south of Isla Chiloe.

Ecological Problems: No specimens have been examined for pesticide residues or heavy metal contaminants.

Regulations: This species is listed as endangered in the Red Data Book of the International Union for the Conservation of Nature, but L. felina is not listed in the U.S. Endangered Species Act of 1973 which prohibits the importation into the United States species listed except for scientific, educational or propagation purposes. The Marine Mammal Protection Act of 1972 assumed management authority for all marine mammals, but the marine otter for some reason was not listed under the jurisdiction of the Act. In Peru, the marine otter has been found in three areas being considered as a coastal park, but it is not known if the species is local enough in habits to remain in any one of these areas throughout the year.

Current Research and Funding of Marine Otter Studies: No research is underway on this species.

Partial Bibliography

POLAR BEAR

- Harington, C. R. 1968. Denning habits of the polar bear (Ursus maritimus Phipps). Can. Wildl. Ser. Rpt. Series 5, 33 pp.
- International Union for the Conservation of Nature. 1970. Proceedings of the second working meeting of polar bear specialists. I.U.C.N. Publ. New Series, Supp. Paper 29, 88 pp.
- International Union for the Conservation of Nature. Proceedings of the third working meeting of polar bear specialists. In press.
- Jonkel, C. J. 1970. Polar bear research in Canada. Proceedings Conference of Productivity and Conservation in Northern Circum-polar Lands, I.U.C.N. Publ. New Series 16:150-154.
- Jonkel, C. J., G. B. Kolenosky, R. J. Robertson, and R. H. Russell. 1972. Further notes on polar bear denning habits. In Bears-- Their Biology and Management, Proceedings Second International Conference on Bear Research and Management. I.U.C.N. Publ. New Series 23:142-158.
- Larsen, T. 1967. The trapping and study of polar bears, Spitsbergen, 1966. Polar Rec:13(86): 589-593.
- Larsen, T. 1971. Capturing, handling and marking polar bears in Norway. J. Wildl. Mgt. 35(1):27-36.
- Larsen, T. 1972. Air and ship census of polar bears in Svalbard (Spitsbergen). J. Wildl. Mgt. 36(2):562-570.
- Lentfer, J. W. 1968. A technique for immobilizing and marking polar bears. J. Wildl. Mgt. 32(2):317-321.

- Lentfer, J. W. 1969. Polar bear tagging in Alaska, 1968. Polar Rec. 14(91):459-462.
- Lentfer, J. W. 1972. Polar bear-sea ice relationships. In Bears-- Their Biology and Management. Proceedings Second International Conference of Bear Research and Management. I.U.C.N. Publ. New Series 23, pp. 165-171.
- Lentfer, J. W. and J. W. Brooks. 1970. Polar bear research in Alaska. Proceedings Conference on Productivity and Conservation in Northern Circumpolar Lands. I.U.C.N. Publ. New Series 16: 143-149.
- Lewis, R. W. and J. W. Lentfer. 1967. The vitamin A content of polar bear liver: range and variability. Comp. Biochem. Physiol. 22:923-926.
- Lønø, O. 1970. The polar bear in the Svalbard area. Norsk Polarinstitutt Skrifter 149, Norway, 103 pp.
- Manning, T. H. 1964. Age determination in the polar bear. Can. Wildl. Ser. Occas. Papers 5, 12 pp.
- Manning, T. H. 1971. Geographical variation in the polar bear. (Ursus maritimus Phipps). Can. Wildl. Ser. Rpt. Series 13, 27 pp.
- Ministry of Agriculture of the U. S. S. R., Central Laboratory for Nature Conservation. 1969. The polar bear and its conservation in the Soviet Arctic. Hydrometeorological Publishing House, Leningrad, 188 pp.
- Øritsland, N. A. 1970. Temperature regulation of the polar bear. Comp. Biochem. Physiol. 37:225-233.

- Pedersen, A. 1945. Der Eisbar. Verbreitung and Lebensweise.
E. Bruun and Co., Copenhagen. 166 pp.
- Tovey, Paul E. and Robert F. Scott. 1957. A preliminary report on
the status of the polar bear in Alaska. Presented at Eighth
Alaska Science Conference. 11 pp. Mimeo.
- U. S. Department of the Interior and University of Alaska. 1966.
Proceedings of the first international meeting on the polar
bear, 72 pp.
- Uspenskii, S. M. and F. B. Chernyavski. 1965. "Maternity Home"
of polar bears. Priroda 4:81-86.
- Vibe, C. 1967. Arctic animals in relation to climatic fluctuations.
Meddelelser om Gronland (Denmark) 170(5), 277 pp.

SEA OTTER

- Alaska Department of Fish and Game. 1973. Alaska's wildlife and habitat. Van Cleve Printing, Anchorage, Alaska, January, 1973, 144 pp. and 155 maps.
- Bolin, R. L. 1938. Reappearance of the southern sea otter along the California coast. J. Mamm. 19(3):301-303.
- Booolootian, R. A. 1961. Distribution of the California sea otter. Calif. Fish Game 47(3):287-292.
- Dailey, M. D. and R. L. Brownell, Jr. 1972. A check list of marine mammal parasites. In S. H. Ridgeway (ed.) Mammals of the sea. C. C. Thomas, Springfield, Illinois.
- Jameson, R. J. 1973. An evaluation of attempts to re-establish the sea otter on the Oregon coast. Unpublished. Prog. Rept. Coop. Wildl. Res. Unit, Oregon State Univ., Corvallis, OR, Mar. 1973.
- Kenyon, K. W. 1969. The sea otter in the eastern Pacific Ocean. N. Amer. Fauna 68. 352 pp.
- Kenyon, K. W., C. E. Yunker and I. M. Newell. 1965. Nasal mites (Halarachnidae) in the sea otter. J. Of Parasitology 51(6): 29-37.
- Laughlin, W. S. 1970. Aleutian ecosystem, AAAS Symposium 26-27 December 1970, Chicago. Science, 169:1107-1108.
- Laughlin, W. S. and W. G. Reeder. 1962. Revision of Aleutian pre-history. Science, 137:856-857.
- Nikolaev, E. M. 1961. O rasprostraneni chislennosti i biologii kalanov /_ The biology and population spread of the sea otter_/.
- Tr. Soveshch. Ikhtiol. Komm. Akad. Nauk SSR 12:214-271.

- Peterson, R. S. and M. W. Odemar. 1969. Population growth of the sea otter in California; results of aerial censuses and behavioral studies. A paper read to the 49th annual meeting of the Amer. Soc. Mammal. June 17, 1969, New York 7 pp. processed.
- Schneider, K. B. 1970. Personal Communication.
- Schneider, K. B. 1973. Sea otter distribution and abundance in Alaska. Unpublished report (processed). Alaska Dept. Fish Game files, 333 Raspberry Road, Anchorage, AK 99502. Dated 7 January 1973, 5 pp. and maps.
- Sinha, A. A., Ch. H. Conaway, and K. W. Kenyon. 1966. Reproduction in the female sea otter. J. Wildl. Mgt. 30(1):121-130.
- Vania, J. S. 1973. Personal Communication.
- Vandevere, J. E. and J. A. Mattison. 1970. Sea otters, Sierra Club, Bull., 55(10):12-15.
- Wild, P. W. 1972. A summary of California Department of Fish and Game sea otter research activities. Unpublished report of marine Resources Laboratory, 2201 Garden Road, Monterey, CA 93940, Sept. 1972. 14 pp.
- Wild, P. W. 1973. Personal Communication.

PACIFIC WALRUS

- Allen, J. A. 1880. History of North American pinnipeds, a monograph of the walruses, sea lions, sea bears and seals of North America. U. S. Geol. Geogr. Surv. Terr. Mics. Publ. 12. 785 pp.
- Brooks, J. W. 1954. A contribution to the life history and ecology of the Pacific Walrus. Alaska Coop. Wildl. Res. Unit. Spec. Rep. 1, 103 pp.
- Burns, J. J. 1967. Walrus biology and population. Marine Mammal Report, Vol. 8, Annual Project Segment Report, Federal Aid in Wildlife Restoration Project W-14-R-1 and 2, Work Plan F. 44 pp.
- Burns, J. J. 1970. Remarks on the distribution and natural history of pagophilic pinnipeds in the Bering and Chukchi Seas. J. Mammal. 51:445-454.
- Burns, J. J. 1973. Personal communication.
- Bychkov, V. A. 1971. Review of the status of the pinniped fauna of the USSR. In scientific elements of nature conservation. Ministry of Agriculture of the USSR (translated by J. J. Burns, 1972).
- Dailey, M. D. and R. L. Brownell, Jr. 1972. A checklist of marine mammal parasites. P. 528-589. In S. H. Ridgeway (ed.) Mammals of the sea, biology and medicine. Charles C. Thomas Publ., Springfield, Illinois.
- Fay, F. H. 1955. The Pacific walrus (Odobenus rosmarus divergens): spatial ecology, life history, and populations. Univ. of British Columbia. Unpublished Ph.D. thesis.

- Fay, F. H. 1957. History and present status of the Pacific walrus population. Trans. 22d N. Amer. Wildl. Conf.:431-445.
- Fay, F. H. 1960. Carnivorous walrus and some arctic zoonoses. Arctic. 13(2):111-122.
- Fay, F. H. 1960. Structure and function of the pharyngeal pouches of the walrus (Odobenus rosmarus L.). Mammalia. 24(3):361-371.
- Fay, F. H. and M. S. Distribution and biology of the Pacific walrus. (Typed manuscript in prep.).
- Harbo, S. J., Jr. 1960. Walrus harvest and utilization. Fed. Aid. Comp. Rept. Alaska Dept. Fish and Game. 16 pp. (mimeo.).
- Kenyon, K. W. 1960. The Pacific walrus. Oryx. 5(6):332-340.
- Kenyon, K. W. 1960. Aerial surveys of marine mammals in the Bering Sea, 23 Feb. - 2 March 1960 and 25-28 April 1960. Unpublished report in U. S. Fish and Wildlife Service file, Seattle, WA.
- Kenyon, K. W. and J. G. King. 1965. Aerial survey of sea otters, other marine mammals and birds, Alaska Peninsula and Aleutian Islands, 19 April to 9 May 1965. Unpubl. report in U. S. Fish and Wildlife Service file, Seattle, WA.
- Krylov, V. I. 1966. Age and sex structures of Pacific walrus herds on ice and shore rookeries. Izv. TINRO, 62:189-204. (Israel Prog. Sci. Transl., 1971), "Pinnipeds of the North Pacific," p. 185-200.
- Nikulin, P. B. 1947. Biological characteristics of the shore aggregations of the walrus in the Chukotka Peninsula. Izv. Tikhookean. Nauchnoissled. Inst. Ryb. Khoz. Okeanogr. 25: 226-228. Preliminary transl. by W. E. Ricker.

- Ricker, W. E. 1948. Methods of estimating vital statistics of fish populations. Indiana Univ. Publ. Sci. Ser. No. 15, 101 pp.
- Vania, J. S. 1973. Personal Communication.

AFRICAN MANATEE

- Allen, G. M. 1942. Extinct and vanishing mammals of the western hemisphere. Amer. Comm. for Internat. Wildl. Protection Spec. Pub. No. 11, The Intelligence Printing Co., Lancaster, Pa. 620 pp.
- Allen, J. A. 1881. Preliminary list of works and papers relating to the mammalian orders Cete and Sirenia. Bull. U. S. Geol. and Geogr. Surv. of the Terr., 6(3):399-562.
- Baikie, B. 1857. On the skull of a Manatus from western Africa. Proc. Zool. Soc. London. pp. 29-33.
- Baylis, H. A. 1936. Some parasitic worms from the British Cameroons. Ann. and Mag. Nat. Hist. 17(ser. 10):257-272.
- Beal, W. P. 1939. The manatee as a food animal. Nigerian Field 8(3):124-126.
- Bertram, G. C. L. and C. K. R. Bertram. 1973. The modern Sirenia: their distribution and status. Biol. J. Linn. Soc. 5(4):297-338.
- Blancou, L. 1960. Destruction and protection of the fauna of French Equatorial and of French West Africa. Part III. Carnivores and some others. Afr. Wild Life 14:241-245.
- Bouveignes, O. 1952. Ce que les modernes savent du Lamantin. Zooleo 14(4):237-244.
- Cadenat, J. 1957. Observation de cetaces, sireniens, cheloniens et sauriens en 1955-1956. Bull. Inst. F. Afr. Noire. 19A(4):1358-1383.
- Cansdale, G. 1964. The Volta dam may help wildlife in Ghana. Oryx 7(4):168-171.

- Curry-Lindahl, K. 1969. The New African Conservation Convention.
Oryx 10(2):6-126.
- Davilliers, C. 1938. Sur la biologie du lamantin en captivite.
Mammalia 2:84-88.
- Dekeyser, P. L. 1952. Notre sommaire sur la temperature rectal du
lamantin (T. senegalensis Link). Bull. Mus. Nat. Hist. Paris
2(24):243-246.
- Dekeyser, P. L. 1955. Notre sommaire sur la denture d'un jeune
lamantin (T. senegalensis). Bull. Inst. franc. Afr. N.
17A(3):921-925.
- Derscheid, J. M. 1926. Les lamantins du Congo (T. senegalensis
Desm.) avec notes sur la repartition geographique et
l'extermination des Sireniens. Rev. Zool. Africaine Bull.
Cercle Congo lais. 14(2):23-31.
- Dorst, J. and P. Dandelot. 1969. A field guide to larger mammals
of Africa. Houghton-Mifflin, Boston. 287 pp.
- Flower, W. H. 1881. Notes on the habits of the manatee. Proc.
Zool. Soc. London. Pp. 453-456.
- Gijzen, A. 1963. Au cours de huit annees de sejour au Zoo Huka
notre lamantin ne fait que croitre et properer. Zoo, Antwerp.
28:194.
- Hatt, R. T. 1934. The American Museum Congo expedition manatee
and other recent manatees. Bull. Amer. Mus. Nat. Hist.
66:533-566.
- Howell, J. H. 1968. The Borgu Game Reserve of northern Nigeria.
Part 2. Nigerian Field 33(4):147-165.

- Kinzer, J. 1966. Beobachtungen über das Verhalten des Lamantin Trichechus senegalensis (Link, 1795) in Gefangenschaft. Zeitschr. Säugetierk., 31(1):47-52.
- Perkins, G. A. 1848. Account of a manatus from West Africa. Proc. Boston Soc. Nat. Hist. 2:198-199.
- Poche, R. 1973. Niger's threatened Park W. Oryx 12(2):216-222.
- Robinson, P. T. 1971. Wildlife trends in Liberia and Sierra Leone. Oryx, 11(2-3):117-121.
- Rochebrune, A. T. 1883. Faune de la Senegambie:Mammiferes. Act. Soc. Linn. Bordeaux, 37(4):VII:49-203.
- Simon, N. M. 1969. Proposals for field investigations of rare and endangered mammals. Biol. Conserv. 1(4):280-290.
- Van Den Bergh, H. 1968. Animal diving champions. Animals 10(10):449-451.
- Wood, F. J. 1937. Manatee. Nigerian Field 6(1):23-38.

WEST INDIAN MANATEE

- Allsopp, W. H. L. 1960. The manatee: ecology and use for weed control. *Nature*. 188:762.
- Allsopp, W. H. L. 1969. Aquatic weed control by manatees-- its prospects and problems pp. 344-351 in L. E. Obeng (ed.), *Man-made Lakes*, Ghana University Press, Accra. 398 pp.
- Bangs, O. 1895. The present standing of the Florida manatee, T. latirostris (Harlan) in the Indian River waters. *Amer. Nat.* 29:783-787.
- Barbour, T. 1937. Birth of a manatee. *J. Mamm.* 18(1):106-107.
- Baughman, J. L. 1946. Some early notices on American manatees and their mode of capture. *J. Mamm.* 27(3):234-239.
- Bertram, C. 1963. *In search of mermaids: the manatees of Guyana*. Peter Davies, London.
- Bertram, G. C. L. and C. K. R. Bertram. 1962. Manatees of Guyana. *Nature* 196:1329.
- Bertram, G. C. L. and C. K. R. Bertram. 1964. Manatees in the Guianas. *Zoologica* 49:115-120.
- Bertram, G. C. L. and C. K. R. Bertram. 1973. The modern Sirenia: their distribution and status. *Biol J. Linn. Soc.* 5(4):297-338.
- Brown, W. P. 1914. On the trail of the Florida manatee. *Forest and Stream* 82(21):689-690.

- Caldwell, M. C. and D. K. Caldwell. 1972. Behavior of marine mammals. In Ridgway, S. H., Mammals of the sea, Charles C. Thomas Pub., Springfield, Ill. pp. 419-465.
- Charnock-Wilson, J. 1968. The manatee in British Honduras. *Oryx* 9(4):293-294.
- Conzemius, E. 1932. Ethnological survey of the Miskito and Sumu Indians of Honduras and Nicaragua. *Bull. U. S. Bur. Amer. Ethnol.* 106:67.
- Dailey, M. D. and R. L. Brownell, Jr. 1972. A checklist of marine mammal parasites, pp. 528-589, in Ridgway, S. H. (ed.) *Mammals of the sea: biology and medicine.* Charles C. Thomas Pub., Springfield, Ill. 812 pp.
- Freund, L. 1950. A bibliography of the mammalian order Sirenia. *Vestn. Ceskol. zool. Spol.* XIV. pp. 161-181.
- Garrod, A. H. 1877. Notes on the manatee (Manatus americanus) recently living in the society's garden. *Trans. Zool. Soc. London.* 10:137-145.
- Goodwin, G. G. 1946. Mammals of Costa Rica. *Bull. Am. Mus. Nat. Hist.* 87(5).
- Gunter, G. 1941. Occurrence of the manatee in the United States with records from Texas. *J. Mamm.* 22:60-64.
- Gunter, G. 1954. Mammals in the Gulf of Mexico. In *Gulf of Mexico, its origin, waters and marine life.* Fishery Bull. No. 89, Washington, D. C. (Sirenians pp. 543-545).

- Harrison, R. J. and J. E. King. 1965. Marine mammals. Hutchinson and Co., London. 192 pp.
- Hartman, D. S. 1968. The status of the Florida manatee in captivity. Dept. of Nat. Resources, Tallahassee, Fla. MS 22pp. suppl.
- Hartman, D. S. 1969. Florida's manatees, mermaids in peril. Natl. Geogr. 136(3):342-353.
- Hartman, D. S. 1970. Sea nymphs and elephants. Not man apart. Special Wildlife Issue. Published for F.O.E., League of Conservation Voters, 2(1).
- Hartman, D. S. 1971. Behavior and ecology of the Florida manatee. Ph.D. Thesis, Cornell University, June 1971.
- Hartman, D. S. 1973b. Distribution and status of the manatee Trichechus manatus Linnaeus, in the United States. MS, 16 pp.
- Hartman, D. S. and J. A. Powell, Jr. 1973. Observations of manatees at Blue Springs Park, Volusia Co., Florida. MS, 16 pp.
- Krumholz, L. A. 1943. Notes on manatees in Florida waters. J. Mamm. 24(2):272-273.
- Lluch, B. D. 1965. Further notes on the biology of the manatee. An. Inst. Nat. Inves. Biol.-Presq. Mexico 1:405-419.
- MacLaren, J. P. 1967. Manatees as a naturalistic biological mosquito control method. Mosquito News 27(3):387-393.
- Mondolf, E. 1973. Taxonomy, distribution and status of the manatee in Venezuela. MS. 9pp.
- Moore, J. C. 1951a. The status of the manatee in the Everglades National Park, with notes on its natural history. J. Mamm. 32(1):22-36.

- Moore, J. C. 1951b. The range of the Florida manatee. Quart. J. Fla. Acad. Sci. 14(1):1-19.
- Moore, J. C. 1953. Distribution of marine mammals in Florida waters. Am. Midland Nat. 49:117-158.
- Murie, J. 1872. On the form and structure of the manatee. Trans. Zool. Soc. London. 8(3):127-202.
- National Science Research Council of Guyana and the National Academy of Sciences, USA. 1973. Some prospects for aquatic weed management in Guyana--workshop on aquatic weed management and utilization. Georgetown, Guyana, March 15-17, 1973. 39 pp.
- O'Keefe, M. T. 1973. Blue Springs--haven for the manatees. Florida Sportsman 5(1):10-14.
- Petit, G. 1925a. Remarques sur la distributiore géographique des Sireniens. C. R. Ass. franc. Avance. Sci. Paris. vol. 48.
- Quiring, D. P. and C. F. Harlan. 1953. On the anatomy of a manatee. J. Mamm. 34:192-203.
- Schevill, W. E. and W. A. Watkins. 1965. Underwater calls of Trichechus. Nature 205:373-374.
- Scholander, P. F. and L. Irving. 1941. Experimental investigations on the respiration and diving of the Florida manatee. J. Cell. and Comp. Physiol. 17:169-191.
- Tomkins, I. R. 1956. The manatee along the Georgia coast. J. Mamm. 37:288-289.
- Vieira, C. 1955. Arquivos de Zoologia (Sao Paulo) 8(11):341-474.

Westermann, J. H. 1953. Nature preservation in the Caribbean.
Publ. of the Found. for Scientific Res. in Surinam and the
Netherlands, Antilles, Martinus, Nijhoff, the Hague.

AMAZONIAN MANATEE

- Allen, G. M. 1949. Extinct and vanishing mammals of the Western Hemisphere. Amer. Comm. for Intern. Sldl. Protection Spec. Pub. No. 11, The Intelligence Printing Co., Lancaster, Pa. 620 pp.
- Allen, J. A. 1881. Preliminary list of works and papers relating to the mammalian orders Cete and Sirenia. Bull. U.S. Geol. and Geogr. Surv. of the Terr. 6(3):399-562.
- Baughman, J. L. 1946. Some early notices on American manatees and their mode of capture. J. Mamm. 27(3):234-239.
- Beddard, F. E. 1897. Notes on the anatomy of a manatee (T. inunguis) lately living in the society's gardens. Proc. Zool. Soc. London. pp. 47-53.
- Bertram, G. C. L., and C. K. R. Bertram. 1973. The modern Sirenia: their distribution and status. Biol. J. Linn. Socl 5(4):297-338.
- Blessing, M. H. 1970. Studies on the concentration of myoglobin in the sea cow and porpoise. Comp. Biochem. Physio. 41(3A) 475-480.
- Brown, A. E. 1873. The Sirenia. Amer. Nat. 12:291-318.
- Cabrera, A. 1957-1961. Catalogo de los mamiferos de America del Sur. Imprenta y casa editora, Buenos Aires. Tomo IV (2):309-311.
- Carvalho, C. T. and A. J. Toccheton. 1969. Mamiferos do nordeste do Para, Brazil. Rev. Biol. Trop. 15(2):215-226 (English summary).
- Dailey, M. D. and R. L. Brownell, Jr. 1972. A checklist of marine mammal parasites, pp. 528-589, in Ridgway, S. H. (ed.), Mammals of the sea: biology and medicine. Charles C. Thomas, Springfield. 812 pp.

- Davilliers, C. 1938. Sur la biologie du lamantin en captivite.
Mammalia 2:84-88.
- Dilg, C. 1909. Beitrage zur Kenntniss der Morphologie und post-embryonalen Entwicklung des Schadels bei Manatus inunguis
Natt. Morph. Jahrb.
- Duplaix-Hall, N. (ed.). 1973. Census of rare animals living
in zoos and other institutions. International Zoo Yearbook.
Vol. 13.
- Evans, W. E. and E. S. Herald. 1970. Underwater calls of a
captive Amazon manatee, Trichechus inunguis. J. Mamm.
51(4):820-823.
- Freund, L. 1950. A bibliography of the mammalian order Sirenia.
Vestn. Ceskol. zool. Spol. XIV. pp. 161-181.
- Friant, M. 1954b. Le cerveau du Lamantin (Manatus inunguis Natterer)
Vierteljahrresschrift Naturf. Gesell. Zurich. 99(2):129-135.
- Frye, F. and E. S. Herald. 1969. Osteomyelitis in a manatee.
J. Amer. Vet. Med. Assoc. 155(7):1073-1076.
- Grimwood, I. R. 1968. Endangered mammals in Peru. Oryx 9(6):411-421.
- Grimwood, I. R. 1969. Notes on the distribution and status of
some Peruvian mammals - 1968. Spec. Pub. No. 21 of the
Amer. Comm. for Internat. Wldl. Protection and the New York
Zool. Soc. 81 pp. (Sirenia p. 61).
- Harrison, R. J. and J. E. King. 1965. Marine mammals. Hutchinson
and Co., London. 192 pp.
- Humboldt, A. V. 1838. Uber den Manati des Orinoko. Archiv. fur
Naturgesch., Jahr. 4, 1:1-10.

- IUCN Bulletin. 1973. Main list of the world's rare and endangered mammals. Spec. Suppl. to Bull. 4(4), April 1973.
- Loughman, W. D., F. Frye, and E. S. Herald. 1970. The chromosomes of a male manatee. International Zoo Yearbook, 11:151-152.
- Magor, D. 1973. Ecology, distribution and movements of the Amazonian manatee, Trichechus inunguis (Natterer, 1883) in South America. Proposal, M.S. 20 pp.
- Mohr, E. 1957. Sirenen oder Seekuhe - Wittenberg - Lutherstadt (Die neu Brehm-Bucherei, No. 197). 61 pp. Translated by J. M. Chaplin, 54 pp.
- Oldham, F. K., D. P. McCleery and E. M. K. Geiling. 1938. A note on the histology and pharmacology of the hypophysis of the manatee (Trichechus inunguis). Anat. Rec. 71(1):27-32.
- Ridgway, S. H. 1972. Mammals of the sea: biology and medicine. Charles C. Thomas Pub., Springfield, Illinois. 812 pp.
- Simon, N. M. 1969. Proposals for field investigations of rare and endangered mammals. Biol. Conserv. 1(4):280-290.
- Vanzolini, P. E. 1973. Page 318, in Bertram, G. C. L. and C. K. R. Bertram The modern Sirenia: their distribution and status. Biol. J. Linn. Soc. 5(4):297-338.
- Vosseler, J. 1924-1925. Pflege und Haltung der Seekuhe (Trichechus) nebst Beiträgen zu ihrer Biologie. Pallasia 2:58-67, 113-133, 167-180, 213-230.
- Wallace, A. R. 1890. Travels on the Amazon and Rio Negro (2nd ed.). Ward, Lock and Co., London.

Wiegmann, A. F. A. 1838. Remarks on Humboldt's "Über den Manati
des Orinoko." Arch. f. Naturgesch. Jahr. 4, 1:10-18.

DUGONG

- Anon. 1970. Programme de Conservation du Dugong in Ceylon.
Biol. Conserv. 2:305-306.
- Allen, J. A. 1881. Preliminary list of works and papers relating
to the mammalian orders Cete and Sirenia. Bull. U. S. Geol.
and Geogr. Surv. of the Terr. 6(3):399-562.
- Allen, G. M. 1942. Extinct and vanishing mammals of the western
hemisphere. Amer. Comm. for Intern. Wldl. Protec. Spec.
Pub. No. 11, The Intelligence Printing Co., Lancaster, Pa.
620 pp.
- Andersen, H. T. 1969. The biology of marine mammals. Academic
Press, New York. 511 pp.
- Annandale, N. 1905. Notes on the species and external characters
of the dugong (Halicore dugong). Asiat. Soc. Bengal 1.
- Aragon, F. 1951. El dugong in Filipinas. Bol. Soc. esp. Hist.
nat. Biol. 49:265-268.
- Barrett, O. W. 1935. Notes concerning manatees and dugongs.
J. Mamm. 16:216-220.
- Bertram, G. C. L. 1943. Note on the sea cow in the Gulf of Aqaba.
Soc. for the Preservation of Fauna of the Empire 47:21-23.
- Bertram, C. K., and G. C. L. Bertram. 1966a. The Sirenia: A
vanishing order of mammals. Animal Kingdom 69:180-184.
- Bertram, G. C. L., and C. K. Bertram. 1966b. The Dugong. Nature
209:938-939.

- Bertram, G. C. L., and C. K. Bertram. 1966c. Dugongs in Australian waters. *Oryx* (London) 8:221-222.
- Bertram, G. C. L., and C. K. Bertram. 1970a. The dugongs of Ceylon. *Loris* 12(1):53-55.
- Bertram, G. C. L., and C. K. Bertram. 1973. The modern Sirenia: Their distribution and status. *Biol. J. Linn. Soc. Dec.* 1973 in press.
- Brown, A. E. 1878. The Sirenia. *American Nat.* 12:291-298.
- Dailey, M. D., and R. L. Brownell, Jr. A checklist of marine mammal parasites, pp. 528-589, in Ridgway, S. H. (ed.). *Mammals of the sea: biology and medicine*. Charles C. Thomas, Springfield, Ill. 812 pp. 1972.
- Dexler, H., and L. Freund. 1906b. External morphology of the dugong. *American Nat.* 40:567-581.
- Dollman, G. 1933a. Dugongs from Mafia Island and a manatee from Nigeria. *Nat. Hist. Mag., London (British Museum)* 4:117-125.
- Elsner, R., D. D. Hammond, and D. H. LeMessurier. 1969. Pp. 140-141, in Andersen, Harald T. *The Biology of the Marine Mammals*. 475 pp.
- Engel, S. 1959. The respiratory tissue of dugong Halicore dugong. *Anat. Anz.* 106:90-100.
- Fitter, R. 1968. *Vanishing wild animals of the world*. Franklin Watts, Inc., New York. 144 pp.

- Freund, L. 1950. A bibliography of the mammalian order Sirenia. Vestnik. Csl. Zool. Spolec. 14:161-181.
- Funaioli, V., and A. M. Simonetta. 1966. The mammalian fauna of the Somali Republic: status and conservation problems. Monitore. Zool. Italy, 74:285-347.
- Gohar, H. A. F. 1957. The Red Sea dugong. Pub. Marine Biol. Sta. Al Ghardaga (Red Sea) No. 9:3-49.
- Harrison, R. J., and J. E. King. 1965. Marine mammals. Hutchinson and Co., London. 192 pp.
- Harrisson, T. 1965. A future for Borneo's wildlife? Oryx (London) 8(2):99-104.
- Heinsohn, G. E. 1972. A study of dugongs (Dugong dugong) in northern Queensland, Australia. Biol. Conserv. 4(3):205-213.
- Heinsohn, G. E., and W. R. Birch. 1972. Foods and feeding habits of the dugong, Dugong dugong (Erxleben), in northern Queensland, Australia. Mammalia 36(3):414-422.
- Hill, W. C. O. 1945. Notes on the dissection of two dugongs. J. Mamm. 26:153-175.
- Hirasaka, K. 1939. Dugong dugong in Palau. Kagaku Nanyo (Science of the South Sea) 2(2):11-18.
- Hughes, G. R., and R. Oxley-Oxland. 1971. A survey of dugong (Dugong dugong) in and around Antonio Enes, Northern Mozambique. Biol. Conserv. 3(4):299-301.
- Jarman, P. J. 1966. The status of the dugong (Dugong dugong Muller); Kenya, 1961. East African Wildl. J. 4:82-88.
- Jones, S. 1960. On a pair of captive dugongs. J. Marine Biol. Assoc. India 1:198-202.

- Jones, S. 1967a. The dugong--its present status in the seas round India with observations on its behaviour in captivity. International Zoo Yearbook 7:215-220.
- Kenny, R. 1967. The breathing pattern of the dugong. Australian J. Sci. 29:372-373.
- Kingdon, J. 1971. East African mammals, an atlas of evolution in Africa. Vol. I. Academic Press, London, New York. 446 pp.
- MacMillan, L. 1955. The dugong. Walkabout 21:17-20.
- Mitchell, J. 1973. Determination of relative age in the dugong Dugong dugong (Muller) from a study of skulls and teeth. Zool. J. Linn. Soc. 53:1-23.
- Norris, C. E. 1960. The distribution of the dugong in Ceylon. Loris 8(5):296-300.
- Owen, R. 1838. On the anatomy of the dugong. Proc. Zool. Soc. London 6:28-46.
- Philip, Prince (Duke of Edinburgh) and J. Fisher. 1970. Wildlife Crisis. Cowles Book Co., Inc., New York. 256 pp.
- Prater, S. H. 1929a. The dugong or sea cow (Halicore dugong). J. Bombay Nat. Hist. Soc. 33:84-99.
- Seale, A. 1915. Note regarding the dugong in the Philippine Islands. Phil. J. Sci. D. 10:215-217.
- Spittel, R. L. 1960. A sanctuary for dugongs. Loris 8(5):304-305.
- Troughton, E. L. 1928. The study of the dugong. Australian Mus. Mag. 3(7):220-228.
- Yin, T. 1970. The dugong, Dugong dugong (Muller) in Burmese waters. J. Bombay Nat. Hist. Soc. 67:326-327.

MARINE OTTER

- Darwin, C. 1958. The voyage of the Beagle. Bantam Books, New York, 439 pp.
- Grinwood, I. R. 1969. Notes on the distribution and status of some Peruvian mammals 1968. Spec. Pub. 21 Am. Comm. Int. Wildlife Protec. and New York Zool. Soc. Bronx, New York.
- Harris, C. J. 1958. Otters - a study of the percent litrinae. Weidenfeld and Nicolson, London, 397 pp.
- Hernandez. 1960. Contribucion al conocimiento de camaron de Rio. Pesca y Caza. Ministerio de Agricultura, Lima, No. 10:84-106.
- IUCN. 1972. Red data book.
- Mann, G. 1945. Mamiferos de Tarapaca. Biologica Santiago, 2:23-134.
- Olrog, C. 1950. Acta Zool. Lilloana, 9:505-532.
- Osgood, W. H. 1943. The mammals of Chile. Field Mus. Nat. Hist. Zool. Ser. 30:1-268.
- Van Zyll de Jong, C. G. 1972. A systematic review of the nearctic and neotropical river otters (Genus Lutra, Mustelidae, Carnivora). Life Sci. Contr. R. Ont. Mus., 80:1-104.

Part III. Appendices

Appendix A - Part 18 - Marine Mammal Regulations

Appendix B - Part 18 - Proposed Amendment 18.23

Appendix C - Part 18 - Proposed Amendment Sub-part F

Appendix D - Part 18 - Final Regulations (Walrus) - Sub-part G

Appendix E - Part 18 - Proposed Amendment Sub-part G

Appendix F - Part 82 - Grants-in-Aid Regulations

Appendix G - Endangered and Threatened Species - Critical
Habitat Areas

Appendix H - Endangered Species - Determination of
Critical Habitat

Appendix I - List of Scientific Reports and Publications

MONDAY, FEBRUARY 25, 1974
WASHINGTON, D.C.

Volume 39 ■ Number 38

PART II



DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service



MARINE MAMMALS

Protection

federal register

Title 50—Wildlife and Fisheries

CHAPTER I—BUREAU OF SPORTS FISHERIES AND WILDLIFE, FISH AND WILDLIFE SERVICE, DEPARTMENT OF THE INTERIOR

PART 18—MARINE MAMMALS

Regulations were published in the FEDERAL REGISTER of December 21, 1972 (37 FR 28173-28177) to implement the Marine Mammal Protection Act of 1972 (86 Stat. 1027). Although these were final rules, comments, suggestions and objections were invited for a sixty-day period until February 21, 1973. These comments, suggestions and objections resulted in the proposed rulemaking which was published in the FEDERAL REGISTER of August 16, 1973 (38 FR 22143). Comments were invited to November 1, 1973.

These regulations must be read together with the regulations published on August 15, 1973, 38 FR 22015 and January 4, 1974, 39 FR 1157. Those regulations provide procedures for all permit applications, for civil penalty proceedings, for the entry of wildlife through designated ports, and for other aspects of clearance. All of these regulations form Subchapter B of Chapter I, Title 50 of the Code of Federal Regulations. The regulations, when read together, provide a comprehensive system of rules regarding wildlife under the jurisdiction of the Bureau of Sport Fisheries and Wildlife.

The deletions, additions and minor changes in this final rulemaking (i) reflect comments received, (ii) correct certain technical errors and omissions and (iii) provide clarity and uniformity.

The regulations of the Department of Commerce and Interior are virtually identical in format and substance.

The following changes have been made:

1. Section 18.14—Provides a method for establishing that a marine mammal was taken prior to December 21, 1972. The Act and these regulations do not apply to such marine mammals.

2. Section 18.23—This section now allows non-native agents to deal in marine mammal products as middlemen, where the product is being transferred between natives.

3. Section 18.26—There were several comments regarding the inclusion of the collection of marine mammal parts, such as walrus ivory or whalebone, in the definition of "taking," thereby prohibiting such collection without a permit. The definition of taking has not been modified, but a new provision is added to allow such collection if the items are registered with an agent.

4. Section 18.32—This section provided methods of applying for economic hardship permits. Since the economic hardship exemption provision expired on October 21, 1973, as provided for in the Act, this section has been deleted.

5. Section 18.33 and 18.34—Renumbered as §§ 18.32 and 18.33 to conform with the deletion of the Undue Economic Hardship § 18.32.

In addition to the changes discussed above, it has been determined to pro-

pose a list of items which qualify as "authentic native articles of handicrafts and clothing." However, since this would involve new material, which was not covered by the proposed rulemaking of August 16, 1973, it will be published as a proposal in the FEDERAL REGISTER in the immediate future, with opportunity for public comment.

The changes in these regulations suggested by the original notice of proposed rulemaking (38 FR 22143) and the changes adopted in this rulemaking involve primarily relaxations of various restrictions. Considering the long period during which the public has had actual notice of these changes, and considering the importance of making these rules effective as soon as possible for public convenience, it has been determined that there is good cause to make this rulemaking effective upon publication pursuant to 5 U.S.C. 553.

Effective date: These regulations become effective on February 15, 1974.

Date: February 15, 1974.

LYNN A. GREENWALT,
*Director, Bureau of Sport
Fisheries and Wildlife.*

Subpart A—Introduction

- | | |
|------|----------------------------------|
| Sec. | 18.1 Purpose of regulations. |
| | 18.2 Scope of regulations. |
| | 18.3 Definitions. |
| | 18.4 Other laws and regulations. |

Subpart B—Prohibitions

- | | |
|-------|---|
| 18.11 | Prohibited taking. |
| 18.12 | Prohibited importation. |
| 18.13 | Prohibited uses, possession, transportation, and sales. |
| 18.14 | Marine Mammals taken before the Act. |

Subpart C—General Exceptions

- | | |
|-------|--|
| 18.21 | Actions permitted by international treaty, convention, or agreement. |
| 18.22 | Taking by State or local government officials. |
| 18.23 | Native exceptions. |
| 18.24 | Taking incidental to commercial fishing operations. |
| 18.25 | Exempted marine mammals or marine mammals products. |
| 18.26 | Collection of certain dead marine mammal parts. |

Subpart D—Special Exceptions

- | | |
|-------|---|
| 18.31 | Scientific research permits and public display permits. |
| 18.32 | Waiver of the Moratorium [Reserved]. |
| 18.33 | Procedures for issuance of permits and modification, suspension, or revocation thereof. |

Subpart E—Depleted Species or Stocks

[Reserved]

AUTHORITY: Marine Mammal Protection Act of 1972, 86 Stat. 1027 (16 U.S.C. 1361-1407).

Subpart A—Introduction

§ 18.1 Purpose of regulations.

The regulations contained in this part implement the Marine Mammal Protection Act of 1972 (16 U.S.C. 1361-1407), which among other things, restricts the taking, possession, transportation, sell-

ing, offering for sale, and importing of marine mammals.

§ 18.2 Scope of regulations.

(a) This Part 18 applies solely to marine mammals and marine mammal products as defined in § 18.3. For regulations under the Act with respect to cetacea (whales and porpoises), pinnipedia, other than walrus (seals and sea lions), see 50 CFR Part 216.

(b) The provisions in this part are in addition to, and are not in lieu of, other regulations of this subchapter B which may require a permit or prescribe additional restrictions or conditions for the importation, exportation, and interstate transportation of wildlife. (See also Part 13 of this subchapter.)

§ 18.3 Definitions.

In addition to definitions contained in the Act and in Part 10 of this subchapter, and unless the context otherwise requires, in this Part 18:

"Act" means the Marine Mammal Protection Act of 1972, 86 Stat. 1027, 16 U.S.C. 1361-1407; Pub. L. 92-522.

"Alaskan Native" means a person defined in the Alaska Native Claims Settlement Act (43 U.S.C. section 1603(b) (85 Stat. 588)) as a citizen of the United States who is of one-fourth degree or more Alaska Indian (including Tsimshian Indians enrolled or not enrolled in the Metlakla Indian Community), Eskimo, or Aleut blood, or combination thereof. The term includes any Native, as so defined, either or both of whose adoptive parents are not Natives. It also includes, in the absence of proof of a minimum blood quantum, any citizen of the United States who is regarded as an Alaska Native by the Native village or town of which he claims to be a member and whose father or mother is (or, if deceased, was) regarded as Native by any Native village or Native town. Any citizen enrolled by the Secretary pursuant to section 5 of the Alaska Native Claims Settlement Act shall be conclusively presumed to be an Alaskan Native for purposes of this part.

"Authentic native articles of handicrafts and clothing" means items made by an Indian, Aleut, or Eskimo which (a) were commonly produced on or before December 21, 1972, and (b) are composed wholly or in some significant respect of natural materials, and (c) are significantly altered from their natural form and which are produced, decorated, or fashioned in the exercise of traditional native handicrafts without the use of pantographs, multiple carvers, or similar mass copying devices. Improved methods of production utilizing modern implements such as sewing machines or modern techniques at a tannery registered pursuant to § 18.23(c) may be used so long as no large scale mass production industry results. Traditional native handicrafts include, but are not limited to, weaving, carving, stitching, sewing, beading, drawing, and painting. The formation of traditional native groups, such as cooperatives, is permitted so long as no large scale mass production results.

"Commercial fishing operation" means the lawful harvesting of fish from the marine environment for profit as part of an on-going business enterprise. Such term shall not include sport fishing activities whether or not carried out by charter boat or otherwise, and whether or not the fish so caught are subsequently sold.

"Endangered species" means a species of marine mammal listed as "endangered" pursuant to the Endangered Species Act of 1973, 87 Stat. 884, Pub. L. 93-205 (See Part 17 of this subchapter).

"Incidental catch" means the taking of a marine mammal (a) because it is directly interfering with commercial fishing operations, or (b) as a consequence of the steps used to secure the fish in connection with commercial fishing operations: *Provided, however,* That a marine mammal so taken must immediately be returned to the sea with a minimum of injury; and *Provided, further,* That the taking of a marine mammal which otherwise meets the requirements of this definition shall not be considered as incidental catch of that mammal if it is used subsequently to assist in commercial fishing operations.

"Marine mammal" means specimens of the following species, whether alive or dead, and any part thereof, including but not limited to, any raw, dressed, or dyed fur or skin:

Scientific name	Common name
<i>Ursus maritimus</i> -----	Polar Bear
<i>Enhydra lutris</i> -----	Sea Otter
<i>Odobenus rosmarus</i> -----	Walrus
<i>Dugong dugong</i> -----	Dugong
<i>Trichechus manatus</i> -----	West African manatee
<i>Trichechus inunguis</i> -----	West Indian manatee
<i>Trichechus senegalensis</i> ---	Amazonian manatee

NOTE: Common names given may be at variance with local usage, they are not required to be provided by the Act, and they have no legal significance.

"Native village or town" means any community, association, tribe, band, clan, or group.

"Pregnant" means pregnant near term.

"Subsistence" means the use by Alaskan Natives of marine mammals taken by Alaskan Natives for food, clothing, shelter, heating, transportation, and other uses necessary to maintain the life of the taker or for those who depend upon the taker to provide them with such subsistence.

"Take" means to harass, hunt, capture, collect, or kill, or attempt to harass, hunt, capture, collect, or kill any marine mammal, including, without limitation, any of the following: The collection of dead animals or parts thereof; the restraint or detention of a marine mammal, no matter how temporary; tagging a marine mammal; or the negligent or intentional operation of an aircraft or vessel, or the doing of any other negligent or intentional act which results in the disturbing or molesting of a marine mammal.

"Threatened species" means a species of marine mammal listed as "threatened" pursuant to the Endangered Species Act of 1973, 87 Stat. 884, Pub. L. 93-205.

"Wasteful manner" means any taking or method of taking which is likely to result in the killing or injuring of marine mammals beyond those needed for subsistence purposes or for the making of authentic native articles of handicrafts and clothing or which results in the waste of a substantial portion of the marine mammal and includes without limitation the employment of a method of taking which is not likely to assure the capture or killing of a marine mammal, or which is not immediately followed by a reasonable effort to retrieve the marine mammal.

§ 18.4 Other laws and regulations.

(a) (See 50 CFR 10.3 in regards to other Federal laws and regulations).

(b) Section 109 of the Act provides that on or after December 21, 1972, no State may adopt any law or regulation, or enforce any existing law or regulation, which relates to the taking of marine mammals or which in effect nullifies an exemption or exception created by the Act, unless such laws or regulations have been previously reviewed by the Secretary and determined by him to be consistent with the provisions of the Act and the regulations in this part. In no event, however, will the Secretary approve any State laws or regulations which:

(1) Purport to authorize a State to issue permits in situations which would require a Federal permit under the Act, unless and until appropriate Federal regulations have been issued under section 103 of the Act, and where appropriate, the Secretary has waived the moratorium on such taking or importation under section 101(a) (3) of the Act; or

(2) Purport to authorize a State to issue permits for scientific research or for public display (except that a State may, under authority of a general scientific research permit granted by the Secretary to it, assign individual scientific research permits to State employees or representatives of State universities or other State agencies, subject to the provisions of the general permit); or

(c) Any State may obtain a review and determination of its existing laws and regulations from the Secretary by submitting a written request to that effect to the Director accompanied by the following documents, unless otherwise specified by the Director:

(1) A complete set of laws and regulations to be reviewed, certified as complete, true and correct, by the appropriate State official;

(2) A scientific description by species and population stock of the marine mammals to be subjected to such laws and regulations;

(3) A description of the organization, staffing and funding for the administration and enforcement of the laws and regulations to be reviewed;

(4) A description, where such laws and regulations provide for discretionary authority on the part of State officials to issue permits, of the procedures to be used in granting or withholding such permits and otherwise enforcing such laws; and

(5) Such other materials and information as the Secretary may request or which the State may deem necessary or advisable to demonstrate the compatibility of such laws and regulations with the policy and purposes of the Act and the rules and regulations issued thereunder.

(d) In making a determination with respect to any State laws and regulations, the Secretary shall take into account:

(1) Whether such laws and regulations are consistent with the purpose and policies of the Act and the rules and regulations issued thereunder;

(2) The extent to which such laws and regulations are consistent with, or constitute an integrated management or protection program with, the laws and regulations of other jurisdictions whose activities may affect the same species or stocks or marine mammals; and

(3) The existence of or preparations for an overall State program regarding the protection and management of marine mammals to which the laws and regulations under review relate.

(e) To assist States in preparing laws and regulations relating to marine mammals, the Secretary will also, at the written request of any State, make a preliminary review of any such proposed laws or regulations. Such review will be strictly advisory in nature and shall not be binding upon the Secretary. Upon adoption of previously reviewed laws and regulations, the same shall be subject to a complete review for a final determination pursuant to these regulations. To be considered for preliminary review, all legislative and regulatory proposals must be forwarded to the Director and certified by the appropriate State official. In addition, they shall be accompanied to the extent available with the same materials required under paragraph (c) above, unless otherwise provided by the Secretary.

All determinations by the Secretary (other than as a result of preliminary reviews of proposed laws and regulations) shall be final.

(f) The implementation and enforcement of all State laws and regulations previously approved by the Secretary pursuant to this section shall be subject to continuous monitoring and review by the Secretary pursuant to such rules and regulations as he may adopt. Any modifications, amendments, deletions or additions to laws or regulations previously approved shall be deemed to be new laws and regulations for the purposes of these regulations and shall require review and approval by the Secretary before their adoption.

(g) Notwithstanding the foregoing, nothing herein shall prevent (1) the tak-

ing of a marine mammal by a State or local government official pursuant to § 18.22 of the regulations in this part, or (2) the adoption or enforcement of any law or regulation relating to any marine mammal taken or imported prior to the effective date of the Act.

Subpart B—Prohibitions

§ 18.11 Prohibited taking.

Except as otherwise provided in Subparts C and D of this Part 18, it is unlawful for:

(a) Any person, vessel, or conveyance subject to the jurisdiction of the United States to take any marine mammal on the high seas, or

(b) Any person, vessel, or conveyance to take any marine mammal in waters or on lands under the jurisdiction of the United States.

§ 18.12 Prohibited importation.

(a) Except as otherwise provided in Subparts C and D of this Part 18, it is unlawful for any person to import any marine mammal or marine mammal product into the United States.

(b) Regardless of whether an importation is otherwise authorized pursuant to Subparts C and D of this Part 18, it is unlawful for any person to import into the United States any:

(1) Marine mammal: (i) Taken in violation of the Act, or (ii) Taken in another country in violation of the laws of that country;

(2) Any marine mammal product if: (i) The importation into the United States of the marine mammal from which such product is made would be unlawful under subparagraph (1) of this paragraph, or (ii) The sale in commerce of such product in the country of origin of the product is illegal.

(c) Except in accordance with an exception referred to in Subpart C and §§ 18.31 and 18.32 of this Part 18, it is unlawful to import into the United States any:

(1) Marine mammal which was pregnant at the time of taking,

(2) Marine mammal which was nursing at the time of taking, or less than 8 months old, whichever occurs later,

(3) Specimen of an endangered or threatened species of marine mammals.

(4) Specimen taken from a depleted species or stock of marine mammals, or

(5) Marine mammal taken in an inhumane manner.

(d) It is unlawful to import into the United States any fish, whether fresh, frozen, or otherwise prepared, if such fish was caught in a manner proscribed by the Secretary of Commerce for persons subject to the jurisdiction of the United States, whether or not any marine mammals were in fact taken incident to the catching of the fish.

§ 18.13 Prohibited uses, possession, transportation, and sales.

Except as otherwise provided in the Act or these regulations, it is unlawful for:

(a) Any person to use any port, harbor, or other place under the jurisdiction

of the United States for any purpose in any way connected with a prohibited taking or any unlawful importation of any marine mammal or marine mammal products;

(b) Any person subject to the jurisdiction of the United States to possess any marine mammal taken in violation of the Act or these regulations, or to transport, sell, or offer for sale any such marine mammal or any marine mammal product made from any such mammal; or

(c) Any person subject to the jurisdiction of the United States to use in a commercial fishery, any means or method of fishing in contravention of regulations and limitations issued by the Secretary of Commerce for that fishery to achieve the purposes of this Act.

§ 18.14 Marine mammals taken before the Act.

(a) Section 102(e) of the Act provides in effect that the Act shall not apply to any marine mammal taken prior to December 21, 1972, or to any marine mammal product consisting of, or composed in whole or in part of, any marine mammal taken before such date. Such status may be established by submitting to the Director prior to, or at the time of importation, an affidavit containing the following:

(1) The Affiant's name and address;

(2) Identification of the Affiant;

(3) A description of the marine mammals or marine mammal products which the Affiant desires to import;

(4) A statement by the Affiant that to the best of his knowledge and belief, the marine mammals involved in the application were taken prior to December 21, 1972;

(5) A statement by the Affiant in the following language:

The foregoing is principally based on the attached exhibits which, to the best of my knowledge and belief, are complete, true and correct. I understand that this affidavit is being submitted for the purpose of inducing the Federal Government to permit the importation of _____ under the Marine Mammal Protection Act of 1972 (16 U.S.C. 1361-1407) and regulations promulgated thereunder, and that any false statements may subject me to the criminal penalties of 18 U.S.C. 1001.

(b) Either one of two exhibits shall be attached to such affidavit, and will contain either:

(1) Records or other available evidence showing that the product consists of or is composed in whole or in part of marine mammals taken prior to December 21, 1972. Such records or other evidentiary material must include information on how, when, where, and by whom the animals were taken, what processing has taken place since taking, and the date and location of such processing; or

(2) A statement from a government agency of the country of origin exercising jurisdiction over marine mammals that any and all such mammals from which the products sought to be imported were derived were taken prior to December 21, 1972.

(c) Bureau agents, or Customs officers, may refuse to clear marine mammals or marine mammal products for importation into the United States, pursuant to § 14.53 of this Subchapter, until the importer can demonstrate, by production of the affidavit referred in above or otherwise, that section 102(e) of the Act applies to all affected items.

(d) This section has no application to any marine mammal or marine mammal product intended to be imported pursuant to §§ 18.21, 18.31 or 18.32 of this part.

Subpart C—General Exceptions

§ 18.21 Actions permitted by international treaty, convention, or agreement.

The Act and these regulations shall not apply to the extent that they are inconsistent with the provisions of any international treaty, convention or agreement, or any statute implementing the same, relating to the taking or importation of marine mammals or marine mammal products, which was existing and in force prior to December 21, 1972, and to which the United States was a party. Specifically, the regulations in Subpart B of this part and the provisions of the Act shall not apply to activities carried out pursuant to the Interim Convention on the Conservation of North Pacific Fur Seals signed in Washington on February 9, 1957, and the Fur Seal Act of 1966, 16 U.S.C. 1151-1187, as, in each case, from time to time amended.

§ 18.22 Taking by State or local government officials.

(a) A State or local government official or employee may take a marine mammal in the course of his duties as an official or employee and no permit shall be required, if such taking:

(1) Is accomplished in a humane manner;

(2) Is for the protection or welfare of such mammal or from the protection of the public health or welfare; and

(3) Includes steps designed to insure return of such mammal, if not killed in the course of such taking, to its natural habitat. In addition, any such official or employee may, incidental to such taking, possess and transport, but not sell or offer for sale, such mammal and use any port, harbor or other place under the jurisdiction of the United States. All steps reasonably practicable under the circumstances shall be taken by any such employee or official to prevent injury or death to the marine mammal as the result of such taking.

(b) Each taking permitted under this Section should be included in a written report, to be submitted to the Director every six months, beginning December 31, 1973. Unless otherwise permitted by the Director, the report shall contain a description of:

(1) The animal involved;

(2) The circumstances requiring the taking;

(3) The method of taking;

(4) The name and official position of the State official or employee involved;

(5) The disposition of the animal, including in cases where the animal has been retained in captivity, a description of the place and means of confinement and the measures taken for its maintenance and care; and

(6) Such other information as the Director may require.

The reports shall be mailed to the Director, Bureau of Sport Fisheries and Wildlife, U.S. Department of the Interior, Washington, D.C. 20240.

§ 18.23 Native exceptions.

(a) *Taking.* Notwithstanding the prohibitions of Subpart B of this Part 18, but subject to the restrictions contained in this section, any Indian, Aleut, or Eskimo who resides on the coast of the North Pacific Ocean or the Arctic Ocean may take any marine mammal without a permit, if such taking is:

(1) By Alaskan Natives who reside in Alaska and such taking is for subsistence, or

(2) For purposes of creating and selling authentic native articles of handicraft and clothing, and

(3) In each case, not accomplished in a wasteful manner.

(b) *Restrictions.* (1) No marine mammal taken for subsistence may be sold or otherwise transferred to any person other than an Alaskan Native or delivered, carried, transported, or shipped in interstate or foreign commerce, unless:

(i) It is being sent by an Alaskan Native directly or through a registered agent to a tannery registered under subsection (c) of this section for the purpose of processing, and will be returned directly or through a registered agent to the Alaskan Native; or

(ii) It is sold or transferred to a registered agent in Alaska for resale or transfer to an Alaskan Native; or

(iii) It is an edible portion and it is sold in an Alaskan native village or town.

(2) No marine mammal taken for purposes of creating and selling authentic native articles of handicraft and clothing may be sold or otherwise transferred to any person other than an Indian, Aleut or Eskimo, or delivered, carried, transported or shipped in interstate or foreign commerce, unless:

(i) It is being sent by an Indian, Aleut or Eskimo directly or through a registered agent to a tannery registered under subsection (c) of this section for the purpose of processing, and will be returned directly or through a registered agent to the Indian, Aleut or Eskimo; or

(ii) It is sold or transferred to a registered agent for resale or transfer to an Indian, Aleut, or Eskimo; or

(iii) It has been first transformed into an authentic native article of handicraft or clothing; or

(iv) It is an edible portion and it is sold (A) in an Alaskan native village or town or (B) to an Alaskan Native for his consumption.

(c) Any tannery, or person who wishes to act as an agent, within the jurisdiction of the United States may apply to the Director for registration as a tan-

nery or an agent which may possess and process marine mammal products for Indians, Aleuts, or Eskimos. The application shall include the following information:

(i) The name and address of the applicant;

(ii) A description of the applicant's procedures for receiving, storing, processing, and shipping materials;

(iii) A proposal for a system of book-keeping and/or inventory segregation by which the applicant could maintain accurate records of marine mammals received from Indians, Aleuts, or Eskimos, pursuant to this section;

(iv) Such other information as the Director may request;

(v) A certification in the following language:

I hereby certify that the foregoing information is complete, true, and correct to the best of my knowledge and belief. I understand that this information is submitted for the purpose of obtaining the benefit of an exception under the Marine Mammal Protection Act of 1972 (16 U.S.C. 1361-1407) and regulations promulgated thereunder, and that any false statement may subject me to the criminal penalties of 18 U.S.C. 1001.

(vi) The signature of the applicant.

The sufficiency of the application shall be determined by the Director, and in that connection, he may waive any requirement for information, or require any elaboration or further information deemed necessary. The registration of a tannery or other agent shall be subject to the conditions as the Director prescribes, which may include, but are not limited to provisions regarding records, inventory segregation, reports, and inspection. The Director may charge a reasonable fee for such applications, including an appropriate apportionment of overhead and administrative expenses of the Department of Interior.

(d) Notwithstanding the preceding provisions of this section, whenever, under the Act, the Secretary determines any species or stock of marine mammals to be depleted, he may prescribe regulations pursuant to section 103 of the Act upon the taking of such marine mammals by any Indian, Aleut, or Eskimo and, after promulgation of such regulations, all takings of such marine mammals by such person shall conform to such regulations.

§ 18.24 Taking incidental to commercial fishing operations.

Persons may take marine mammals incidental to commercial fishing operations until October 21, 1974: *Provided*, That such taking is by means of equipment and techniques prescribed in regulations issued by the Secretary of Commerce. However, any marine mammal taken as an incidental catch may not be retained. It shall be the immediate goal that the incidental kill or incidental serious injury of marine mammals permitted in the course of commercial fishing operations be reduced to insignificant levels approaching a zero mortality and serious injury rate.

§ 18.25 Exempted marine mammals or marine mammal products.

(a) The provisions of the Act and these regulations shall not apply:

(1) To any marine mammal taken before December 21, 1972, or

(2) To any marine mammal product if the marine mammal portion of such product consists solely of a marine mammal taken before such date.

(b) The prohibitions contained in § 18.12(c) paragraphs (3) and (4) shall not apply to marine mammals or marine mammal products imported into the United States before the date on which notice is published in the FEDERAL REGISTER of the proposed rulemaking with respect to the designation of the species of stock concerned as depleted or endangered:

(c) Section 18.12(b) shall not apply to articles imported into the United States before the effective date of the foreign law making the taking or sale, as the case may be, of such marine mammals or marine mammal products unlawful.

§ 18.26 Collection of certain dead marine mammal parts.

(a) Any bones, teeth or ivory of any dead marine mammal may be collected from a beach or from land within 1/4 of a mile of the ocean. The term "ocean" includes bays and estuaries.

(b) Marine mammal parts so collected may be retained if registered within 30 days with an agent of the National Marine Fisheries Service, or an agent of the Bureau of Sport Fisheries and Wildlife.

(c) Registration shall include (1) the name of the owner, (2) a description of the article to be registered and (3) the date and location of collection.

(d) Title to any marine mammal parts collected under this section is not transferable, unless consented to in writing by the agent referred to in paragraph (b) of this section.

Subpart D—Special Exceptions

§ 18.31 Scientific research permits and public display permits.

The Director may, upon receipt of an application and in accordance with the issuance criteria of this section, issue a permit authorizing the taking and importation of marine mammals for scientific research purposes or for public display.

(a) *Application procedure.* Applications for permits to take and import marine mammals for scientific research purposes or for public display shall be submitted to the Director. Each such application must contain the general information and certification required by § 13.12(a) of this Subchapter plus the following additional information:

(1) A statement of the purpose, date, location and manner of the taking or importation;

(2) A description of the marine mammal or the marine mammal products to be taken or imported, including the species or subspecies involved; the popu-

lation stock, when known, the number of specimens or products (or the weight thereof, where appropriate); and the anticipated age, size, sex, and condition (i.e., whether pregnant or nursing) of the animals involved;

(3) If the marine mammal is to be taken and transported alive, a complete description of the manner of transportation, care and maintenance, including the type, size, and construction of the container or artificial environment; arrangements for feeding and sanitation; a statement of the applicant's qualifications and previous experience in caring for and handling captive marine mammals and a like statement as to the qualifications of any common carrier or agent to be employed to transport the animal; and a written certification of a licensed veterinarian knowledgeable in the field of marine mammals that he has personally reviewed the arrangements for transporting and maintaining the animals and that in his opinion they are adequate to provide for the well-being of the animal;

(4) If the application is for a scientific research permit, a detailed description of the scientific research project or program in which the marine mammal or marine mammal product is to be used including a copy of the research proposal relating to such program or project and the names and addresses of the sponsor or cooperating institution and the scientists involved;

(5) If the application is for a scientific research permit, and if the marine mammal proposed to be taken or imported is listed as an endangered or threatened species or has been designated by the Secretary as depleted, a detailed justification of the need for such a marine mammal, including a discussion of possible alternatives, whether or not under the control of the applicant; and

(6) If the application is for a public display permit, a detailed description of the proposed use to which the marine mammal or marine mammal product is to be put, including the manner, location, and times of display, whether such display is for profit, an estimate of the numbers and types of persons who it is anticipated will benefit for such display, and whether and to what extent the display is connected with educational or scientific programs. There shall also be included a complete description of the enterprise seeking the display permit and its educational, and scientific qualifications, if any.

(b) *Review by Marine Mammal Commission.* Upon receipt of an application the Director shall forward the application to the Marine Mammal Commission together with a request for the recommendations of the Commission and the Committee of Scientific Advisors on Marine Mammals. In order to comply with the time limits provided in these regulations, the Director shall request that such recommendation be submitted within 30 days of receipt of the application by the Commission. If the Commission or the Committee, as the case may

be, does not respond within 30 days from the receipt of such application by the Commission, the Director shall advise the Commission in writing that failure to respond within 45 days from original receipt of the application (or such longer time as the Director may establish) shall be considered as a recommendation from the Commission and the Committee that the permit be issued. The Director may also consult with any other person, institution or agency concerning the application.

(c) *Issuance criteria.* Permits applied for under this section shall be issued, suspended, modified and revoked pursuant to regulations contained in § 18.33. In determining whether to issue a scientific research permit, the Director shall consider whether the proposed taking or importation will be consistent with the policies and purposes of the Act; and whether the granting of the permit is required to further a bona fide and necessary or desirable scientific purpose, taking into account the benefits anticipated to be derived from the scientific research contemplated and the effect of the proposed taking or importation on the population stock and the marine ecosystem. In determining whether to issue a public display permit, the Director shall consider whether the proposed taking or importation will be consistent with the policies and purposes of the Act; whether a substantial public benefit will be gained from the display contemplated, taking into account the manner of the display and the anticipated audience on the one hand, and the effect of the proposed taking or importation on the population stocks of the marine mammal in question and the marine ecosystem on the other; and the applicant's qualifications for the proper care and maintenance of the marine mammal or the marine mammal product, and the adequacy of his facilities.

(d) *Additional Permit Conditions.* In addition to the general conditions set forth in part 13 of this subchapter B, permits issued under this section shall be subject to the following conditions:

(1) Any permit issued under these regulations must be in the possession of the person to whom it is issued (or an agent of such person) during:

(i) The time of the authorized taking or importation;

(ii) The period of any transit of such person or agent which is incidental to such taking or importation; and

(iii) Any other time while any marine mammal taken or imported under such permit is in the possession of such person or agent.

(2) A duplicate copy of the issued permit must be physically attached to the container, package, enclosure, or other means of containment, in which the marine mammal is placed for purposes of storage, transit, supervision, or care.

(e) *Tenure of Permits.* The tenure of permits for scientific research or public display shall be designated on the face of the permit.

§ 18.32 Waiver of the Moratorium [Reserved].

§ 18.33 Procedures for issuance of permits and modification, suspension or revocation thereof.

(a) Whenever application for a permit is received by the director which the director deems sufficient, he shall, as soon as practicable, publish a notice thereof in the FEDERAL REGISTER. Such notice shall set forth a summary of the information contained in such application. Any interested party may, within 30 days after the date of publication of such notice, submit to the director his written data or views with respect to the taking or importation proposed in such application and may request a hearing in connection with the action to be taken thereon.

(b) If the request for a hearing is made within the 30 day period referred to in paragraph (a) of this section, or if the director determines that a hearing would otherwise be advisable, the director may, within 60 days after the date of publication of the notice referred to in paragraph (a) of this section, afford to such requesting party or parties an opportunity for a hearing. Such hearing shall also be open to participation by any interested members of the public. Notice of the date, time, and place of such hearing shall be published in the FEDERAL REGISTER not less than 15 days in advance of such hearing. Any interested person may appear in person or through representatives at the hearing and may submit any relevant material, data, views, comments, arguments, or exhibits. A summary record of the hearing shall be kept.

(c) As soon as practicable but not later than 30 days after the close of the hearing (or if no hearing is held, as soon as practicable after the end of the 30 days succeeding publication of the notice referred to in paragraph (a) of this section the director shall issue or deny issuance of the permit. Notice of the decision of the director shall be published in the FEDERAL REGISTER within 10 days after the date of such issuance or denial. Such notice shall include the date of the issuance or denial and indicate where copies of the permit, if issued, may be obtained.

(d) Any permit shall be subject to modification, suspension, or revocation by the director in whole or in part in accordance with these regulations and the terms of such permits. The permittee shall be given written notice by registered mail, return receipt requested, of any proposed modification, suspension, or revocation. Such notice shall specify:

(1) The action proposed to be taken along with a summary of the reasons therefor;

(2) In accordance with 5 U.S.C. 558, the steps which the permittee may take to demonstrate or achieve compliance with all lawful requirements; and

(3) That the permittee is entitled to a hearing thereon, if a written request for such a hearing is received by the Direc-

tor within 10 days after receipt of the aforesaid notice or such other later date as may be specified in the notice to the permittee. The time and place of the hearing, if requested by the permittee, shall be determined by the director and a written notice thereof given to the permittee by registered mail, return receipt requested, not less than 15 days prior to the date of hearing specified. The director may, in his discretion, allow participation at the hearing by interested

members of the public. The permittee and other parties participating may submit all relevant material, data, views, comments, arguments, and exhibits at the hearing. A summary record shall be kept of any such hearing.

(e) The Director shall make a decision regarding the proposed modification, suspension, or revocation, as soon as practicable after the close of the hearing, or if no hearing is held, as soon as practicable after the close of the 10

day period during which a hearing could have been requested. Notice of the modification, suspension, or revocation shall be published in the FEDERAL REGISTER within 10 days from the date of the Director's decision. In no event shall the proposed action take effect until notice of the Director's decision is published in the FEDERAL REGISTER.

**Subpart E—Depleted Species of Stocks
[Reserved]**

[FR Doc.74-4069 Filed 2-22-74;8:45 am]

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PART II



DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service



MARINE MAMMALS

Protection

federal register

proposed rules

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rulemaking prior to the adoption of the final rules.

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

[50 CFR Part 18]

MARINE MAMMALS

Regulations Governing Taking and Importation

On February 25, 1974, the Director, Bureau of Sport Fisheries and Wildlife, published in the FEDERAL REGISTER (39 FR 7262), regulations governing the protection of marine mammals. Mention was made, at that time, of an intention to publish a list of those items which would qualify as authentic native articles of handicraft and clothing within the meaning of § 18.23.

There is set out hereafter, a proposed list of such articles. Incorporation of this list as part of the regulations will necessitate certain changes in existing § 18.23. Accordingly, it is further proposed that this section be amended as hereinafter set out.

It is the intent of the Fish and Wildlife Service and the National Marine Fisheries Service to hold public hearings in Alaska. The hearings will be at the following locations:

September 24, 1974
District Court Chambers
District Court
Nome, Alaska
9 a.m.-4 p.m.

September 26, 1974
City Council Chambers
Alaska State Bank Bldg.
Fairbanks, Alaska
9 a.m.-4 p.m.

September 27, 1974
City Council Chambers
Loussac Library
Anchorage, Alaska
9 a.m.-4 p.m.

Written comments on, or objections to, these proposed changes will be received and included in the Hearing record until the close of business on October 14, 1974. Comments should be made to the Director, U.S. Fish and Wildlife Service, Washington, D.C. 20240.

Dated: August 16, 1974.

DOUGLAS P. WHEELER,
*Deputy Assistant Secretary,
Fish and Wildlife and Parks.*

Add new paragraph (e) and (f) of § 18.23 to read as follows:

§ 18.23 Native Exceptions.

(e) The following articles shall be considered to be native articles of handicrafts and clothing, assuming they meet

the other criteria in the definition of such articles included in § 18.3 of these regulations:

POLAR BEAR

Hunting pants & boots, Mattress & cushions, Rifle pad, Trim for skin balls & other ornaments, Trim for top of Mukluks.
Teeth: Buttons, Jewelry, Ornaments for dance costumes, Art carvings.

WALRUS

Ivory: Sculpture & Art carvings, Inlay, Jewelry, Tools & Utensils.
Skin: Tossing blankets, Skin boats, Skin house, Harpoon & clothes line, Lashing of all kinds, Food.
Whiskers: Trim on ivory carvings, Baskets, Tooth picks, Novelties.
Intestine & stomach: Drum heads, Rain parka, Sewing bags, Water bags, Snow shirts.
Bone: Base for ivory carvings, Harpoon heads and sockets, Tools & utensils.

(f) The list of authentic native articles of handicraft and clothing, which appears in § 18.23(e) of these regulations may be revised from time to time as additional information becomes available, which shows to the Director's satisfaction that an item should be added to, or removed from the list.

(1) Any interested person may, at any time, submit a request to the Director, for the purpose of adding to, or deleting from, the list.

(2) In order to be considered, all requests must show the following:

- (i) The name and address of the person making the request.
- (ii) A complete identification of the article or articles named in the request.
- (iii) A statement in support of the action requested on the article or articles.
- (iv) Some justification or documentation of the statement required in (iii).

[FR Doc. 74-19392 Filed 8-21-74; 8:45 am]

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THURSDAY, FEBRUARY 13, 1975

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Pages 6639-6759

Appendix C



DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service



MARINE MAMMALS

Protection

Subpart F -- Waiver of the Moratorium;
State Laws and Regulations

proposed rules

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

[50 CFR Part 18]

MARINE MAMMALS

Regulations To Waive Moratorium

This proposal contains regulations to implement sections 101 and 103 of the Marine Mammal Protection Act of 1972 (hereinafter referred to as "the Act"), by waiving the moratorium on the taking and importing of Pacific walrus (*Odobenus rosmarus*). A separate rule-making at 40 FR 6661 establishes hearing procedures for an agency hearing on the substantive issues raised in this proposal.

Section 101 of the Act establishes a moratorium on the taking and importing of marine mammals. Under certain conditions, which are set out in section 101(a)(3)(A), the moratorium can be waived for any given species of marine mammal. The waiver is to be accompanied by regulations for the conservation of the species in question, issued pursuant to section 103 of the Act.

Section 109 of the Act preempts State laws and regulations relating to the taking of marine mammals within the State's jurisdiction. That section also provides for the reinstatement of State laws and regulations which provide for the conservation of marine mammals consistent with the Act and any applicable regulations.

Since the inception of the Act, neither of these provisions has been utilized. Thus, all marine mammals have been subject to strict Federal rules prohibiting all taking and importation, with the few exceptions, such as subsistence and handicrafts used by certain Indians, Aleuts and Eskimos, provided by the Act.

Based on scientific and other evidence available to it, the Fish and Wildlife Service has determined that certain marine mammals, specifically the Pacific walrus, can and should be conserved on the basis of a management regime other than a strict moratorium on taking and importation. Based on a long-standing request from the State of Alaska, and on communications with other States, the Fish and Wildlife Service has also determined that in many instances, the States have the primary interest and expertise in conserving marine mammals consistent with the Act, and the capability of implementing such conservation programs.

The regulations in this proposal are written pursuant to section 103 of the Act to provide for those situations where it is appropriate to waive the moratorium under section 101, and a State can pro-

vide a conservation program under section 109 to manage the populations in question, consistent with the Act. These regulations do not cover the circumstance where a waiver of the moratorium is appropriate, but the Federal Government alone would establish and implement the particular conservation regime. That situation would be handled with separate regulations under section 103 of the Act.

DESCRIPTION OF THE PROPOSAL

I. Regulations for a cooperative State-Federal conservation program.

The first item in the proposal would establish a new subpart F in Part 18, Title 50, Code of Federal Regulations, providing standards and procedures for Federal waivers of the moratorium to be implemented by State regulations. This is essentially a refinement of the existing regulations in § 18.4 for the approval of State laws and regulations. However, this new subpart is specifically designed for a cooperative State-Federal management system for marine mammal resources.

In §§ 18.51 through 18.53, the proposal requires two simultaneous events in order to trigger a waiver of the moratorium:

- (1) A decision by the Director that a waiver of the moratorium is appropriate; and
- (2) The submission of State laws and regulations constituting a proper management regime for the marine mammals in question.

When both of these conditions have been met, the approval of the State laws and regulations pursuant to section 109 of the Act activates the waiver of the moratorium.

Section 18.54 describes the procedures for both the initial and the continuing approval of State laws and regulations. It provides for FEDERAL REGISTER notice to the public of the Director's approval of State laws and regulations, a description of the management regime established by the State, and the extent of the waiver of the moratorium. It also provides for Federal adoption of approved State laws and regulations. This will provide effective management of the population in question even if the taking occurs beyond the State's jurisdictional area.

Section 18.55 provides the criteria for the approval of State laws and regulations. These criteria have been designed to assure that all appropriate biological and ecological factors have been taken into account, consistent with the basic policies and goals of the Act.

Section 18.56 establishes machinery for an annual review of the State program (or more often if necessary). Working together, this section and the preceding

sections provide for State management of certain marine mammal resources, under Federal guidelines and review. This system will have the following advantages:

- (1) The States will actually manage the resource; generally, the States have the interest, expertise and capability to carry out proper conservation programs;
- (2) The State conservation program must meet Federal standards;
- (3) The State program will be under continual Federal review;
- (4) Implementation of a State program will be preceded by a Federal waiver of the moratorium.

The Fish and Wildlife Service believes that this system provides the best combination of State and Federal capabilities, while meeting the objectives of the Act for conservation of marine mammals. It is consistent with the program for cooperative agreements with States under the Endangered Species Act of 1973, which likewise encourages State action under Federal guidelines. As stated above, this does not eliminate the possibility of a Federal management regime for certain marine mammal populations under appropriate circumstances. It simply provides for those occasions when a State desires to establish a marine mammal conservation program.

Section 18.57 establishes certain norms for enforcement, and certain Federal rules. These will assure the effectiveness of the particular approved conservation program.

For public convenience and clarity, § 18.58 will contain a list of all waivers of the moratorium, and of all States which have approved programs.

II. Consequential changes in the basic marine mammal regulations.

The second item in this proposal would make consequential changes in § 18.23, which relates to the taking of marine mammals by certain Indians, Aleuts and Eskimos. If the State laws and regulations regarding walrus become effective, certain Federal restrictions on the transfer of parts or products of walrus will no longer be necessary. This is based on the State's ability to control any illicit trade in such items as raw walrus ivory, thereby avoiding an incentive to take more walrus than appropriate.

NOTICE OF AVAILABILITY OF ALASKA'S REGULATIONS ON PACIFIC WALRUS AND SECTION 103(d) STATEMENT

The State of Alaska has proposed a conservation program for the Pacific walrus. The Director has determined that consideration of a waiver of the moratorium is appropriate under section 101 (a)(3)(A) of the Act, and has made a

preliminary determination that Alaska's laws and regulations meet the standards for approval under such a waiver, as set forth in this proposal.

The Alaska laws and regulations are available for inspection at the dockets section of the Office of Hearings and Appeals, U.S. Department of the Interior, 4015 Wilson Blvd., Arlington, Virginia 22203. Copies may be obtained by writing to the Director (MNB), U.S. Fish and Wildlife Service, Washington, D.C. 20240.

The statements required by section 103(d) (1)-(4) are discussed in detail in an environmental assessment which is available for inspection and copying at the above location. A summary of those four statements follows:

1. Population status of the Pacific Walrus (*Odobenus rosmarus*).

The population of the Pacific walrus, prior to the advent of American whaling, was estimated to have been 200,000 animals. Soviet and American estimates indicate a population of about 50,000 in the 1930's, and it seems unlikely that it ever went much below that level, although several investigators indicate that it may have. In 1963 the population was estimated at about 90,000 animals and at present it is about 140,000 to 160,000 animals.

Productivity (the rate of production) can be expected to decrease as the population nears its optimum sustainable level. There is evidence this is occurring at the present.

2. Expected impact of the proposed regulations on the optimum sustainable population of Pacific Walrus (*Odobenus rosmarus*).

The effect of the proposed regulations will be to allow sport taking of walrus. This harvest will be less than fifty animals and no substantial effect upon the optimum sustainable population of Pacific walrus is expected.

3. Evidence before the Secretary upon which he has based his regulations.

The Secretary's evidence for such regulations is 1 and 2 summarized above, and a management plan based upon sound principles of resource management which will again allow the utilization of this resource more fully for its esthetic, recreational and economic benefits.

4. Studies or Recommendations Made by or for the Secretary or the Marine Mammal Commission

No known recommendations have been made by or for the Secretary or the Marine Mammal Commission. The Secretary conducted a walrus survey in late summer, 1974 to determine seasonal distribution of walrus in the Bering and Chukchi Seas. However, the vagaries of arctic weather and equipment problems did not allow the collection of sufficient data upon which to base valid population estimates. The last valid statistics from which population estimates could be projected were collected in 1972. Those data indicated a walrus population of about 140,000 animals at that time.

PROCEDURES FOR THE WAIVER AND THIS PROPOSAL

Section 103(d) of the Act requires opportunity for a hearing on the Director's determination to waive the moratorium, and on the regulations contained in this proposal. As mentioned above, regulations governing such a hearing have been published at 40 FR (6661). These regulations constitute a new Subpart G in Part 18, 50 CFR. All persons wishing to participate in the hearing procedure should read those regulations carefully, and follow the procedures set forth.

After the hearing, and following review of the recommended decision, the Director will, if appropriate, publish these regulations as final rules, make a final determination to waive the moratorium, and approve Alaska's laws and regulations pursuant to section 109 of the Act and § 18.54 of the proposal.

The notice of availability of Alaska's laws and regulations, and of the statement required by section 103(d), incorporated herein, meets the requirements of the Act and of § 18.54(c) of the proposal. Therefore, when the proposal, the waiver, and the State program are acted upon, as described in the previous paragraph, all procedural requirements will have been complied with.

NOTICE OF PROCEDURAL MATTERS

1. Notice is hereby given of intent to hold a hearing, if requested, regarding the proposed waiver and regulations. Such hearing is scheduled for March 19-22, 1975, to be held in Anchorage, Alaska at a time and place to be announced at the prehearing conference. A second phase of this hearing will be held in Washington, D.C., if deemed appropriate and necessary by the presiding officer.

2. Notice is hereby given of a prehearing conference to be held on March 3, 1975, beginning at 9:30 a.m. at the following location:

Hearing Room C, 12th Floor, 4015 Wilson Blvd., Arlington, Va. 22203.

3. The Presiding Officer is hereby designated to be:

Administrative Law Judge Joseph E. Kennedy. Address: Same as above. Telephone: 703-557-9200.

4. All communications and correspondence relating to this matter must be entitled as follows:

In re waiver of moratorium on walrus. MMPA Docket No. Wash. 75-1.

5. All persons interested in participating in this proceeding must notify the presiding officer by February 26, 1975, of their intention to participate, their request for hearing, and must submit what issues of fact and law they deem necessary to be determined. Such notification must be by certified mail.

Dated: February 10, 1975.

LYNN GREENWALT,
Director,
Fish and Wildlife Service.

Accordingly, it is hereby proposed to amend Part 18, Subchapter B of Chapter I, Title 50 of the Code of Federal Regulations, as follows:

1. In the table of sections, a new subpart F is added, reading:

Subpart F—Waiver of the Moratorium; State Laws and Regulations

- Sec.
- 18.51 Purpose of regulations.
- 18.52 Scope of regulations.
- 18.53 Effective waiver of the moratorium.
- 18.54 Approval of State laws and regulations.
- 18.55 Approval of State laws and regulations—criteria.
- 18.56 Review of approved State laws and regulations.
- 18.57 Enforcement.
- 18.58 List of species waivers and States approved species.

2. Section 18.32 is added to read as follows:

§ 18.32 Waiver of the moratorium.

"See subpart F (waiver of the moratorium; State laws and regulations) for procedures regarding waivers of the moratorium in those circumstances where a State provides an acceptable management regime for the species in question."

3. A new subpart F is added, reading as follows:

Subpart F—Waiver of the Moratorium; State Laws and Regulations

§ 18.51 Purpose of regulations.

The regulations contained in this subpart fulfill the requirements of sections 101, 103, and 109 of the Act for regulations to implement a waiver of the moratorium in those circumstances where a State provides an acceptable management regime for the species in question.

§ 18.52 Scope of regulations.

(a) The provisions in this subpart apply only when the Director has made a decision to waive the moratorium, and when a State has requested a determination from the Director, pursuant to section 109(a) (2) of the Act, that the State's laws and regulations relating to the protection and taking, within its jurisdiction, of any species or population stock of marine mammals, are consistent with the waiver of the moratorium, the Act, and the regulations in this subchapter which apply to such species or population stocks. The provisions set forth standards and criteria for such determination by the Director and for subsequently waiving appropriate sections of the Act.

(b) These regulations apply to all taking of marine mammals and to importation subsequent to such taking except taking for scientific research, for public display, and incidental to commercial fishing operations.

§ 18.53 Effective waiver of the moratorium.

(a) The Director may make such waivers of the moratorium, pursuant to the procedures established in the Act as he deems appropriate. Such waivers shall be

published as notices in the FEDERAL REGISTER.

(b) When a waiver so indicates by its terms, it shall not be effective until the Director has approved the relevant State laws and regulations pursuant to § 18.54.

(c) State laws and regulations in any State where a waiver of the moratorium is in effect pursuant to paragraph (b) of this section must be reviewed annually. If they are subsequently disapproved, pursuant to § 18.56, the moratorium is deemed to be in effect until such time as the State makes the necessary changes to gain approval.

(d) In order to be lawful, all activities conducted pursuant to a waiver of the moratorium which would otherwise be prohibited by subpart B of this part must be conducted in strict accordance with such approved State laws and regulations.

§ 18.54 Approval of State laws and regulations—procedures.

(a) Any State may request a determination that its laws and regulations are consistent with the Act and the regulations in this part; and may request a waiver of the appropriate portions of the Act in order to allow such laws and regulations to take effect.

(b) The request must be submitted in accordance with § 18.4(c) of this part.

(c) The Director issues a notice of consideration of these regulations, together with a notice of availability of the substantive ecological and biological statement required by section 103(d) of the Act.

(d) The Director may approve such State laws and regulations if:

(1) They implement a waiver of the moratorium; and

(2) They meet the criteria prescribed in § 18.55 of these regulations.

(e) Upon approval, the Director shall issue a notice in the FEDERAL REGISTER stating such approval, briefly summarizing the management regime established by the State laws and regulations, stating which sections of the Act are waived in order to allow such State laws and regulations to take effect, and the date of submission of the State's annual report.

(f) Any modifications, amendments, deletions or additions to laws or regulations previously approved shall be deemed to be new laws and regulations for the purposes of these regulations and shall require review and approval by the Director pursuant to paragraphs (a) through (d) of this section before their adoption.

(g) All determinations by the Director shall be final.

(h) If the Director has approved State laws and regulations pursuant to this subpart, such State regulations shall be adopted as Federal regulations, and may be enforced concurrently by the Federal Government.

§ 18.55 Approval of State laws and regulations—criteria.

Any State which applies to the Director for approval of its laws and regulations pursuant to § 18.54 must demon-

strate, to the Director's satisfaction, that such laws and regulations:

(a) Provide a comprehensive management regime for the marine mammals in question;

(b) Establish a regime which is based on the best available data on the relevant marine ecosystem and the role of the marine mammals in question in that ecosystem;

(c) Establish a regime which is consistent with the primary goal of the Act, that is to maintain the health and stability of the marine ecosystem;

(d) Establish a regime which will allow the stock of marine mammals in question to expand, to remain at, or to be reduced to the level at which it can be supported by the habitat on a sustained basis, unless the State can show that some other population level more properly maintains the health and stability of the marine ecosystem;

(e) Provide appropriate maximum quotas and seasons, whenever a taking or importation is proposed, unless the State can show that it is consistent with these criteria to have no quota or season;

(f) Establish quotas, seasons, and other allowances and restrictions in accordance with the following factors:

(1) The seasonal distribution of populations

(2) Segregation within populations by sex and age

(3) Discreteness of populations

(4) Population density

(5) Critical periods in the species life cycle

(6) Critical habitat areas

(7) Productivity of the population

(8) Species interactions

(9) Percentage of retrieval by hunters

(10) Maximization of the utilization of the species

(11) Other uses of the species, such as recreational use or incidental catch

(12) Enforceability of the limitations

(g) Contain suitable limitations on the means and methods of taking which assure that taking will be by humane means and will maximize the utilization of each animal taken;

(h) Contain provisions for significant public participation within the State in the process of making the rules in question.

(i) Meet the criteria specified in § 18.4 (d) of this part, to the extent such criteria may differ from those prescribed in this section.

§ 18.56 Review of approved State laws and regulations.

(a) All State laws and regulations which have been approved shall be reviewed annually, unless a major modification indicates that an earlier review is appropriate.

(b) In order to facilitate such a review, each State having approved laws and regulations must submit an annual report containing the following information current for each reporting period:

(1) Any changes in the State laws or regulations;

(2) Any new data on the marine mammal stocks or the marine ecosystem in question;

(3) All available harvest data;

(4) A summary of all research activity on the stocks or ecosystem in question;

(5) Any changes in the information provided with the original request for approval;

(6) A summary of all enforcement activity, including permits issued, skins sealed, reports under permits, investigations undertaken and their dispositions;

(7) Present budget and staffing level for the marine mammal activities;

(8) Any other information which the Director may request, or which the State deems necessary or advisable.

(c) Each State having approved laws and regulations shall file a special report within 30 days whenever any of the following information is available:

(1) A proposed change in a relevant State law or regulation (amendments, re-pealers, or new legislation or regulations); or

(2) A significant natural or man-made occurrence affecting the marine ecosystem or the stock in question; or

(3) An apparent over-harvest or other significant violation of the State management regime.

(d) On the basis of reports by the States, and any other information available to him, the Director shall, in consultation with the Marine Mammal Commission, determine whether or not the State laws and regulations continue to meet the criteria specified in § 18.55 of this subpart.

(e) If the Director tentatively disapproves any such State laws and regulation, he shall notify the State of his disapproval, along with his reasons therefor.

(f) The State shall have 90 days in which to discuss the tentative disapproval with the Director and make such changes as are agreed upon. The Director shall make the final decision at the expiration of the 90-day period. If the State laws and regulations are disapproved, the moratorium resumes in effect, and the waiver of portions of the Act is voided.

§ 18.57 Enforcement.

(a) The appropriate official in each State shall utilize such methods as he deems appropriate to assure to the maximum extent practicable that the quotas, seasons and other limitations in approved State laws and regulations are not exceeded.

These methods may include, but are not limited to, patrols, surveillance, investigation, permit records-keeping and reporting requirements, and tagging and marking requirements.

(b) The hides or skins of marine mammals taken pursuant to approved State laws and regulations, and tanned commercially, must be tanned at a tannery registered pursuant to this part. Lists of such tanneries may be obtained from agents of the Service.

(c) Any seals attached by State officials under approved State laws and regulations must remain affixed until removed for tanning.

(d) Permits granted for scientific research and public display pursuant to section 101 of the Act, shall be conditioned upon the issuance of a permit for the activity in question or concurrence by the State if such State has approved laws and regulations.

§ 18.58 List of species waivers and States approved. [Reserved]

4. Amend § 18.23 by redesignating the existing subsections (c) and (d) as subsections (d) and (e), respectively, and a new subsection (c) is added, reading as follows:

§ 18.23 Native exceptions.

* * * * *
(c) The restrictions in subsection (b) shall not apply to parts or products of the Pacific walrus (*Odobenus rosmarus*) if a waiver of the moratorium and approval of State laws and regulations regarding that species are in effect, as indicated by listing in § 18.58.
* * * * *

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DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

■

MARINE MAMMALS

Protection

Subpart G -- Notice and Hearing on
Section 103 Regulations

decision and record to the Director, U.S. Fish and Wildlife Service for a final determination.

Since these regulations are procedural in nature and pertain to the procedures to be followed for adoption of substantive section 103 regulations concerning the waiver of the moratorium with respect to walrus only, and do not pertain to a general waiver of the moratorium, it is determined that with respect to these procedural regulations the notice and public procedure thereon, called for by 5 U.S.C. 553(b), are impracticable and unnecessary, and these regulations shall become effective upon publication in the FEDERAL REGISTER.

Accordingly, Part 18 of Title 50, Code of Federal Regulations, Chapter I, is amended as set forth below.

Dated: February 10, 1975.

LYNN GREENWALT,
Director, Fish and
Wildlife Service.

Title 50—Wildlife and Fisheries
CHAPTER I—UNITED STATES FISH AND WILDLIFE SERVICE, DEPARTMENT OF THE INTERIOR

SUBCHAPTER B—TAKING, POSSESSION, TRANSPORTATION, SALE, PURCHASE, BARTER, EXPORTATION, AND IMPORTATION OF WILDLIFE

PART 18—MARINE MAMMALS

Waiver of Moratorium on Taking Marine Mammals

The Marine Mammal Protection Act (86 Stat. 1027, 16 U.S.C. 1361 et seq.) authorizes the Secretary to prescribe regulations and to waive the moratorium on the taking and/or importation of marine mammals and marine mammal products and, for such prescription or waiver, refers the Secretary to section 103 of the Act (16 U.S.C. section 1373). Section 103(d) requires that the waiver and implementing regulations be made on the record after opportunity for an agency hearing.

The basic format for the proposed hearing procedures to govern the section 103 hearing consists of:

(1) Publication of notice in the FEDERAL REGISTER of (i) an intent to waive moratorium and/or to prescribe regulations and (ii) a description of the subjects and issues which may be involved in the hearing;

(2) Submission in writing of requests for hearing and issues of fact and law to be determined. Such submission must be accomplished by a date specified in the notice;

(3) As soon as possible after the date specified in (2) above, the presiding officer shall convene a prehearing conference to consider simplification and clarification of the issues to be determined.

(4) The hearing shall be conducted in accordance with sections 7 and 8 of the Administrative Procedure Act, 5 U.S.C. §§ 556 and 557.

(5) After the hearing, the parties will be afforded an opportunity to submit proposed findings, conclusions, and supporting briefs.

(6) Thereafter, the presiding officer shall as soon as practicable prepare a recommended decision, and transmit said

1. In the Table of sections, a new subpart G consisting of §§ 18.60 through 18.75 are added to read:

- Subpart G—Notice and Hearing on Section 103 Regulations**
- Sec.
 - 18.60 Basis and purpose.
 - 18.61 Definitions.
 - 18.62 Scope of regulations.
 - 18.63 Notice of public rulemaking.
 - 18.64 Notification by interested persons.
 - 18.65 Presiding officer.
 - 18.66 Mailing address.
 - 18.67 Inspection and copying of documents.
 - 18.68 Ex parte communications.
 - 18.69 Prehearing conference.
 - 18.70 Final agenda of the hearing.
 - 18.71 Waiver of right to participate.
 - 18.72 Conduct of the hearing.
 - 18.73 Oral and written arguments.
 - 18.74 Recommended decision and submission of exceptions to recommended decision.
 - 18.75 Director's decision.

AUTHORITY: 86 Stat. 1027; 16 U.S.C. 1361, 1373 et seq.

2. New subpart G reads as follows:

Subpart G—Notice and Hearing on Section 103 Regulations

§ 18.60 Basis and purpose.

(a) Sections 101(a)(2), 101(a)(3)(A), and 101(b) (16 U.S.C. Sections 1371(a)(2), 1371(a)(3)(A), 1371(b) (1972)) of the Act and these regulations authorize the Director to (1) impose regulations governing the taking of marine mammals incidental to commercial fishing operations; (2) waive the moratorium and to adopt regulations with respect to the taking and importing of animals from each species of marine mammals under his jurisdiction; (3) prescribe regulations governing the taking of depleted marine mammals by any Indian, Aleut or Eskimo, respectively. In prescribing regulations to carry out the provisions of said sections, the Act refers the Director to section 103 (16 U.S.C. 1373 (1972)). In accordance with section 103(d), regulations must be made on the record after opportunity for an agency hearing on such regulations by interested persons,

and, in the case of a waiver, on the determination by the Director to waive the moratorium pursuant to section 101 (a) (3) (A) (16 U.S.C. 1371(a) (3) (A) (1972)).

(b) The purpose of this subpart is to establish rules of practice and procedure for all hearings conducted pursuant to section 103(d).

§ 18.61 Definitions.

Definitions shall be the same as in subpart A of this Part except as follows:

"Party" means, for the purposes of this subpart:

- (1) The Director of the U.S. Fish and Wildlife Service or his representative;
- (2) A person who has notified the presiding officer by specified dates of his intent to participate in the hearing.

§ 18.62 Scope of regulations.

The procedural regulations in this subpart govern the practice and procedure in hearings held under section 103(d) of the Act. These hearings will be governed by the provisions of sections 7 and 8 of the Administrative Procedure Act, 5 U.S.C. sections 556 and 557. The regulations shall be construed to secure the just, speedy, and inexpensive determination of all issues raised with respect to any waiver or regulation proposed pursuant to section 103(d) of the Act with full protection for the rights of all persons affected thereby.

§ 18.63 Notice of public rulemaking.

(a) A notice of public rulemaking on any proposed regulations shall be published in the FEDERAL REGISTER, together with the Director's proposed determination to waive the moratorium pursuant to section 101(a) (3) (A) (16 U.S.C. 1371(a) (3) (A)), where applicable.

(b) The notice shall state:

- (1) The nature of the hearing;
- (2) The place and date of the hearing. The date shall not be less than 30 days after publication of notice of the hearing;
- (3) The legal authority under which the hearing is to be held;
- (4) The proposed regulations and waiver, where applicable, and a summary of the statements required by section 103(d) of the Act (16 U.S.C. 1373 (d));
- (5) Any written advice received as the result of consultations with the Marine Mammal Commission;
- (6) The place(s) where the official record will be kept for public inspection;
- (7) The final date for filing with the presiding officer a notice of intent to participate in the hearing;
- (8) The docket number assigned to the case which shall be used in all subsequent proceedings; and
- (9) The place and date of the prehearing conference.

(5) Any written advice received as the result of consultations with the Marine Mammal Commission;

(6) The place(s) where the official record will be kept for public inspection;

(7) The final date for filing with the presiding officer a notice of intent to participate in the hearing;

(8) The docket number assigned to the case which shall be used in all subsequent proceedings; and

(9) The place and date of the prehearing conference.

§ 18.64 Notification by interested persons.

Any person desiring to participate as a party shall notify the presiding officer, by certified mail, on or before the date specified in the notice.

§ 18.65 Presiding officer.

(a) Upon publication of the notice of public rulemaking pursuant to § 18.63, the Director shall appoint a presiding officer pursuant to 5 U.S.C. § 3105. No individual who has any conflict of interest, financial or otherwise, shall serve as presiding officer in such proceeding.

(b) The presiding officer, in any proceeding under this subpart, shall have power to:

- (1) Change the time and place of the prehearing and hearing and adjourn the hearing;
- (2) Conduct a prehearing conference to determine the issues for the hearing agenda, and publish a pretrial order.
- (3) Rule upon motions, requests and admissibility of evidence;
- (4) Administer oaths and affirmations, question witnesses and direct witnesses to testify;
- (5) Modify or waive any rule (after notice) when determining no party will be prejudiced;
- (6) Receive written testimony and hear oral arguments;
- (7) Render a recommended decision; and
- (8) Do all acts and take all measures, including regulation of media coverage, for the maintenance of order at and the efficient conduct of the proceeding.

(c) In case of the absence of the original presiding officer or his inability to act, the powers and duties to be performed by the original presiding officer under this part in connection with a proceeding may, without abatement of the proceeding, be assigned to any other presiding officer unless otherwise ordered by the Director.

(d) The presiding officer may upon his own motion withdraw as presiding officer in a proceeding of he deems himself to be disqualified.

§ 18.66 Mailing address.

Unless otherwise specified in the notice of hearing, all communications shall be addressed to the Presiding Officer, Office of Hearings and Appeals, U.S. Department of the Interior, 4015 Wilson Blvd., Arlington, Virginia 22203, and shall be clearly marked with the docket number of the proceeding.

§ 18.67 Inspection and copying of documents.

Any document in a file pertaining to any hearing authorized by this subpart or any document forming part of the record of such a hearing may be inspected and/or copied in the dockets section of the Office of Hearings and Appeals.

§ 18.68 Ex parte communications.

(a) After notice of a hearing is published in the FEDERAL REGISTER, all communications, whether oral or written, involving any substantive issue and directed either to the presiding officer or to the Director shall be deemed ex parte communications and are not to be considered part of the record for decision.

(b) A record of oral conversations concerning substantive matters shall be made by the above persons who are contacted. All communications shall be available for public viewing at the place(s) specified in the notice of hearing.

(c) The presiding officer shall not consult any person or party on any fact in issue or on the merits of the matter unless notice and opportunity is given to all parties to participate.

§ 18.69 Prehearing conference.

The purpose of the prehearing conference shall be to enable the presiding officer to determine the issues of fact and law to be heard, and:

- (1) What facts are not in dispute;
 - (2) Which witnesses may appear at the hearing; and
 - (3) The nature of the interest of each party and which parties' interests are adverse.
- (4) Only parties may participate in the prehearing conference and a party may appear in person or be represented by counsel.
- (5) Parties who do not appear at the prehearing conference shall be bound by the conference's determinations.

§ 18.70 Final agenda of the hearing.

After the prehearing conference, the presiding officer shall prepare a pretrial order setting forth the issues of fact and law to be heard. A copy of the order shall be served on each party and shall govern the course and conduct of the hearing.

§ 18.71 Waiver of right to participate.

Persons who fail to notify the presiding officer pursuant to § 18.64 shall be deemed to have waived their right to participate as parties in any part of the hearing.

§ 18.72 Conduct of the hearing.

(a) The hearing shall be held at the time and place fixed in the notice of hearing, unless the presiding officer changes the time or place. If a change occurs, notice of this change shall be served on all participating parties; *Provided*, That if the change in time or place of hearing is made less than five days before the date previously fixed for the hearing, the presiding officer shall also announce, or cause to be announced, the change at the time and place previously fixed for the hearing.

(b) The hearing shall be publicly conducted and reported verbatim by an official reporter.

(c) If a party objects to the admission or rejection of any direct testimony or to any other ruling of the presiding officer during the hearing, he shall state briefly the grounds of such objection, whereupon an automatic exception will follow if the objection is overruled by the presiding officer. The transcript shall not include argument or debate thereon except as ordered by the presiding officer. The ruling of the presiding officer on any objection shall be a part of the transcript and shall be subject to review at the same time and in the same manner as

the Director's final decision. Only objections made before the presiding officer may subsequently be relied upon in the proceedings.

(d) All motions and requests shall be addressed to, and ruled on by, the presiding officer, if made prior to his certification of the transcript or by the Director if made thereafter.

§ 18.73 Oral and written arguments.

(a) The presiding officer may, in his discretion, provide for oral argument at the end of the hearing. Such argument, when permitted, may be limited by the presiding officer to the extent necessary for the expeditious disposition of the proceeding.

(b) The presiding officer shall announce at the hearing a reasonable period of time within which any participating party may file with the presiding officer any proposed findings and conclusions and supporting briefs, which are based upon the record and citing the relevant page or pages of the transcript and exhibits. If a party filing a brief desires the presiding officer to reconsider any objection made by such party to a ruling of the presiding officer, he shall specifically identify such rulings by reference to the pertinent pages of the transcript and shall state his arguments thereon as a part of the brief.

(c) Oral or written arguments shall be limited to issues arising from direct testimony on the record.

§ 18.74 Recommended decision, and submission of exceptions to recommended decision.

(a) Promptly after expiration of the period for receiving written briefs, the presiding officer shall make a recommended decision based on the record and transmit the decision to the Director. The recommended decision shall include:

- (1) A statement containing a description of the history of the proceedings;
- (2) Findings on the issues of fact with the reasons therefor; and
- (3) Rulings on issues of law.

(b) The presiding officer shall also transmit to the Director the entire hearing record. The presiding officer shall attach to the original transcript of the hearing a certificate stating that, to the best of his knowledge and belief, the

transcript is a true transcript of the testimony given at the hearing except in such particulars as are specified.

(c) Immediately after receipt of the recommended decision, the Director shall give notice thereof in the FEDERAL REGISTER, send copies of the recommended decision to all parties, and provide opportunity for the submission of exceptions. The recommended decision may be reviewed and/or copied in the office of the Director, U.S. Fish and Wildlife Service, Washington, D.C. 20240.

(d) Within 20 days after the issuance of the recommended decision any participating party may file with the Director exceptions to the recommended decision.

§ 18.75 Director's decision.

(a) Upon receipt of the recommended decision and record, and after the 20 day period for receiving written exceptions to the recommended decision has passed, the Director shall make a final decision on the proposed regulations and waiver, where applicable. The Director's decision may affirm, modify, or set aside, in whole or in part, the recommended findings, decision of the presiding officer. The Director may also remand the hearing record to the officer for a fuller development of the record.

(b) The Director's decision shall include:

- (1) A statement containing a description of the history of the proceeding;
- (2) Findings on the issues of fact with the reasons therefor; and
- (3) Rulings on issues of law.

(c) The Director's decisions shall be published in the FEDERAL REGISTER. If the waiver is approved, the final adopted regulations shall be promulgated with the decision, to become effective upon publication.

[FR Doc.75-4047 Filed 2-10-75; 10:59 am]

federal register

THURSDAY, MAY 29, 1975

WASHINGTON, D.C.

Volume 40 ■ Number 104

Pages 23271-23425

PART I



DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service



MARINE MAMMALS

Protection

Subpart G -- Notice and Hearing on
Section 103 Regulations

hearing on such regulations and, in the case of a waiver, on a determination by the Secretary to waive the moratorium.

On July 12, 1974 proposed regulations to govern hearings on the record as required by section 103 of the Act (16 U.S.C. 1373) were published in the FEDERAL REGISTER, 39 FR 25664-25667, by the National Marine Fisheries Service, National Oceanic and Atmospheric Administration, Department of Commerce. Thirty days were provided for comments on the proposed regulations.

The only comment received was from the Environmental Protection Agency (EPA). The EPA suggested that provision be made for introducing the environmental impact statement into the record of the hearing. To comply with that suggestion, §§ 216.73(b)(6) and 216.85(b) have been amended. Furthermore, if an environmental impact statement is necessary, the statement will be considered when the Director determines the issues of fact published in the notice of hearing pursuant to § 216.73(b)(5).

The regulations to govern hearings on the record as required by section 103 of the Marine Mammal Protection Act (16 U.S.C. 1373) were published in final form in the FEDERAL REGISTER, 40 FR 10182-10186, March 5, 1975.

It is the intent of the Director, U.S. Fish and Wildlife Service to adopt the regulations published in final form by the NMFS on March 5, 1975 [40 FR 10182-10182]. The purpose of adopting these regulations would be to allow the two Departments to handle joint requests for a waiver of the moratorium and hearings simultaneously.

The basic format for the proposed hearing procedures to govern section 103 hearings consist of:

(1) Publication of notice in the FEDERAL REGISTER of (i) an intent to waive the moratorium and/or to prescribe regulations and (ii) issues which may be involved in the hearing;

(2) Submission in writing of all direct testimony to be introduced at the hearing. Such submission must be accomplished by a date specified in the notice;

(3) As soon as possible after the date specified in (2) above, the presiding officer shall consider all the direct testimony offered and make a preliminary determination of the issues presented;

(4) The presiding officer shall then conduct a prehearing conference and cause to be published in the FEDERAL REGISTER a final hearing agenda;

(5) If the presiding officer determines at the prehearing conference that no issues of fact are presented by the written direct testimony, the presiding officer shall publish in the FEDERAL REGISTER such determination and notice that no hearing will be held and that any person may submit written comments for the presiding officer's consideration prior to his rendering of a recommended decision;

(6) When a hearing is held, only direct testimony previously submitted may be introduced. Direct testimony not submitted as provided in these regulations and introduced at the hearing shall not

be considered a part of the record;

(7) The hearing shall be limited to cross-examination of witnesses introducing direct testimony. Oral arguments may be allowed at the presiding officer's discretion;

(8) After the hearing, written comments may be submitted by any interested person;

(9) After the time provided for submission of written comments, the presiding officer shall make a recommended decision and transmit such decision with the transcript and comments to the Director for a final determination.

Written comments, views and objections with respect to this proposed adoption of regulations may be submitted to the Director, U.S. Fish and Wildlife Service (MNB), Washington, D.C. 20240. All material received on or before June 30, 1975 will be considered.

The Fish and Wildlife Service published the present subpart G in the FEDERAL REGISTER on February 13, 1975 (40 FR 6661-6663) for the hearing to waive the Moratorium and return the Management of Walrus to the State of Alaska. This proposal will replace the earlier publication as the new subpart G will broaden the hearing procedures from walrus to all marine mammals.

Accordingly, it is hereby proposed to amend Subpart G, Part 18, Subchapter B, Chapter I of Title 50, CFR by deleting it in its entirety and replacing it with the following new language.

LYNN A. GREENWALT,
Director.

MAY 21, 1975.

Subpart G—Notice and Hearing on Section 103 Regulations

- Sec.
- 18.70 Basis and purpose.
- 18.71 Definitions.
- 18.72 Scope of regulations.
- 18.73 Notice of hearing.
- 18.74 Notification by interested persons.
- 18.75 Presiding officer.
- 18.76 Direct testimony submitted as written documents.
- 18.77 Mailing address.
- 18.78 Inspection and copying of documents.
- 18.79 Ex parte communications.
- 18.80 Prehearing conference.
- 18.81 Final agenda of the hearing.
- 18.82 Determination to cancel the hearing.
- 18.83 Rebuttal testimony and new issues of fact in final agenda.
- 18.84 Waiver of right to participate.
- 18.85 Conduct of the hearing.
- 18.86 Direct testimony.
- 18.87 Cross-examination.
- 18.88 Oral and written arguments.
- 18.89 Recommended decision, certification of the transcript and submission of comments on the recommended decision.
- 18.90 Director's decision.

AUTHORITY: Title I of the Marine Mammal Protection Act of 1972, 86 Stat. 1027 (16 U.S.C. 1361-1407), Pub. L. No. 92-522.

Subpart G—Notice and Hearing on Section 103 Regulations

§ 18.70 Basis and purpose.

(a) Sections 101(a)(2), 101(a)(3)(A), and 101(b) (16 U.S.C. §§ 1371(a)(2), 1371(a)(3)(A), 1371(b) (1972)) of the Act and these regulations authorize the Director, U.S. Fish and Wildlife Service,

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

[50 CFR Part 18]

MARINE MAMMALS

Procedures for Hearings on Proposed Regulations

The Marine Mammal Protection Act authorizes the Secretary to prescribe regulations and to waive the moratorium on the taking and/or importation of marine mammals and marine mammal products and, for such prescription or waiver, refers the Secretary to section 103 of the Act (16 U.S.C. 1373). Section 103(d) requires that regulations be made on the record after opportunity for an agency

to (1) impose regulations governing the taking of marine mammals incidental to commercial fishing operations; (2) waive the moratorium and to adopt regulations with respect to the taking and importing of animals from each species of marine mammals under his jurisdiction; (3) prescribe regulations governing the taking of depleted marine mammals by any Indian, Aleut or Eskimo, respectively. In prescribing regulations to carry out the provisions of said sections, the Act refers the Director to § 103 (16 U.S.C. § 1373 (1972)). In accordance with § 103(d), regulations must be made on the record after opportunity for an agency hearing on such regulations and, in the case of a waiver, on the determination by the Director to waive the moratorium pursuant to section 101(a)(3)(A) (16 U.S.C. 1371(a)(3)(A) (1972)).

(b) The purpose of this subpart is to establish rules of practice and procedure for all hearings conducted pursuant to § 103(d).

§ 18.71 Definitions.

Definitions shall be the same as in subpart A of this Part except as follows:

(a) "Party" means, for the purposes of this subpart:

(1) The Director or his representative;

(2) A person who has notified the Director by specified dates of his or her intent to participate in the hearing pursuant to §§ 18.74 and 18.83(b).

(b) "Witness" means, for the purposes of this subpart, any person who submits written direct testimony on the proposed regulations.

A person may be both a party and a witness.

§ 18.72 Scope of regulations.

The procedural regulations in this subpart govern the practice and procedure in hearings held under § 103(d) of the Act. These hearings will be governed by the provisions of 5 U.S.C. § 556 and § 557 of the Administrative Procedure Act. The regulations shall be construed to secure the just, speedy, and inexpensive determination of all issues raised with respect to any waiver or regulation proposed pursuant to § 103(d) of the Act with full protection for the rights of all persons affected thereby.

§ 18.73 Notice of hearing.

(a) A notice of hearing on any proposed regulations shall be published in the FEDERAL REGISTER, together with the Director's proposed determination to waive the moratorium pursuant to section 101(a)(3)(A) (16 U.S.C. § 1371(a)(3)(A)), where applicable.

(b) The notice shall state:

(1) The nature of the hearing;

(2) The place and date of the hearing. The date shall not be less than 60 days after publication of notice of the hearing;

(3) The legal authority under which the hearing is to be held;

(4) The proposed regulations and waiver, where applicable, and a sum-

mary of the statements required by § 103(d) of the Act (16 U.S.C. § 1373(d));

(5) Issues of fact which may be involved in the hearing;

(6) If a draft Environmental Impact Statement is required, the date of publication of the draft and the place(s) where the draft and comments thereon may be viewed and copied;

(7) Any written advice received from the Marine Mammal Commission;

(8) The place(s) where records and submitted direct testimony will be kept for public inspection;

(9) The final date for filing with the Director a notice of intent to participate in the hearing pursuant to § 81.74;

(10) The final date for submission of direct testimony on the proposed regulations and waiver, if applicable, and the number of copies required;

(11) The docket number assigned to the case which shall be used in all subsequent proceedings; and

(12) The place and date of the prehearing conference.

§ 18.74 Notification by interested persons.

Any person desiring to participate as a party shall notify the Director, by certified mail, on or before the date specified in the notice.

§ 18.75 Presiding officer.

(a) Upon publication of the notice of hearing pursuant to § 18.73, the Director shall appoint a presiding officer pursuant to 5 U.S.C. 3105. No individual who has any conflict of interest, financial or otherwise, shall serve as presiding officer in such proceeding.

(b) The presiding officer, in any proceeding under this subpart, shall have power to:

(1) Change the time and place of the hearing and adjourn the hearing;

(2) Evaluate direct testimony submitted pursuant to these regulations, make a preliminary determination of the issues, conduct a prehearing conference to determine the issues for the hearing agenda, and cause to be published in the FEDERAL REGISTER a final hearing agenda;

(3) Rule upon motions, requests and admissibility of direct testimony;

(4) Administer oaths and affirmations, question witnesses and direct witnesses to testify;

(5) Modify or waive any rule (after notice) when determining no party will be prejudiced;

(6) Receive written comments and hear oral arguments;

(7) Render a recommended decision; and

(8) Do all acts and take all measures, including regulation of media coverage, for the maintenance of order and the efficient conduct of the proceeding.

(c) In case of the absence of the original presiding officer or his inability to act, the powers and duties to be performed by the original presiding officer under this part in connection with a proceeding may, without abatement of the proceeding, be assigned to any other presiding officer unless otherwise ordered by the Director.

(d) The presiding officer may upon his own motion withdraw as presiding officer in a proceeding if he deems himself to be disqualified.

(e) A presiding officer may be requested to withdraw at any time prior to the recommended decision. Upon the filing by an interested person in good faith of a timely and sufficient affidavit alleging the presiding officer's personal bias, malice, conflict of interest or other basis which might result in prejudice to a party, the hearing shall recess. The Director shall immediately determine the matter as a part of the record and decision in the proceeding, after making such investigation or holding such hearings, or both, as he may deem appropriate in the circumstances.

§ 18.76 Direct testimony submitted as written documents.

(a) Unless otherwise specified, all direct testimony, including accompanying exhibits, must be submitted to the presiding officer in writing no later than the dates specified in the notice of the hearing (§ 18.73), the final hearing agenda (§ 18.81), or within 15 days after the conclusion of the prehearing conference (§ 18.83) as the case may be. All direct testimony shall be in affidavit form and exhibits constituting part of such testimony, referred to in the affidavit and made a part thereof, must be attached to the affidavit. Direct testimony submitted with exhibits must state the issue to which the exhibit relates; if no such statement is made, the presiding officer shall determine the relevance of the exhibit to the issues published in the FEDERAL REGISTER.

(b) The direct testimony submitted shall contain:

(1) A concise statement of the witness' interest in the proceeding and his position regarding the issues presented. If the direct testimony is presented by a witness who is not a party, the witness shall state his relationship to the party; and

(2) Facts that are relevant and material.

(c) The direct testimony may propose issues of fact not defined in the notice of the hearing and the reason(s) why such issues should be considered at the hearing.

(d) Ten copies of all direct testimony must be submitted unless the notice of the hearing otherwise specifies.

(e) Upon receipt, direct testimony shall be assigned a number and stamped with that number and the docket number.

(f) Contemporaneous with the publication of the notice of hearing, the Director's direct testimony in support of the proposed regulations and waiver, where applicable, shall be available for public inspection as specified in the notice of hearing. The Director may submit additional direct testimony during the time periods allowed for submission of such testimony by witnesses.

§ 18.77 Mailing address.

Unless otherwise specified in the notice of hearing, all direct testimony shall be addressed to the Presiding Officer,

c/o Director, U.S. Fish and Wildlife Service, Washington, D.C. 20240. All affidavits and exhibits shall be clearly marked with the docket number of the proceedings.

§ 18.78 Inspection and copying of documents.

Any document in a file pertaining to any hearing authorized by this subpart or any document forming part of the record of such a hearing may be inspected and/or copied in the Office of the Director, U.S. Fish and Wildlife Service, Washington, D.C. 20240 unless the file is in the care and custody of the presiding officer, in which case he shall notify the parties as to where and when the record may be inspected.

§ 18.79 Ex parte communications.

(a) After notice of a hearing is published in the FEDERAL REGISTER, all communications, whether oral or written, involving any substantive or procedural issue and directed either to the presiding officer or to the Director, Deputy Director or Marine Mammal Coordinator, U.S. Fish and Wildlife Service, without reference to these rules of procedure, shall be deemed ex parte communications and are not to be considered part of the record for decision.

(b) A record of oral conversations shall be made by the above persons who are contacted. All communications shall be available for public viewing at the place(s) specified in the notice of hearing.

(c) The presiding officer shall not consult any person or party on any fact in issue or on the merits of the matter unless notice and opportunity is given for all parties to participate.

§ 18.80 Prehearing conference.

(a) After an examination of all the direct testimony submitted pursuant to § 18.76, the presiding officer shall make a preliminary determination of issues of fact which may be addressed at the hearing.

(b) The presiding officer's preliminary determination shall be made available at the place or places provided in the notice of the hearing (§ 18.73(b)(8)) at least five days before the prehearing conference is held.

(c) The purpose of the prehearing conference shall be to enable the presiding officer to determine, on the basis of the direct testimony submitted and prehearing discussions:

(1) Whether the presiding officer's preliminary determination of issues of fact for the hearing has omitted any significant issues;

(2) What facts are not in dispute;

(3) Which witnesses may appear at the hearing; and

(4) The nature of the interest of each party and which parties' interests are adverse.

(d) Only parties may participate in the prehearing conference and a party may appear in person or be represented by counsel.

(e) Parties who do not appear at the prehearing conference shall be bound by the conference's determinations.

§ 18.81 Final agenda of the hearing.

(a) After the prehearing conference, the presiding officer shall prepare a final agenda which shall be published in the FEDERAL REGISTER within ten days after the conclusion of the conference. A copy of the final agenda shall be mailed to all parties.

(b) The final agenda shall list: (1) all the issues which the hearing shall address, the order in which those issues shall be presented, and the direct testimony submitted which bears on the issues; and (2) a final date for submission of direct testimony on issues of fact not included in the notice of hearing if such issues are presented. The final agenda may also specify a final date for submission of direct testimony to rebut testimony previously submitted during the time specified in the notice of the hearing.

(c) The presiding officer shall publish with the final agenda a list of witnesses who may appear at the hearing, a list of parties, the nature of the interest of each party, and which parties' interests are adverse on the issues presented.

§ 18.82 Determination to cancel the hearing.

(a) If the presiding officer concludes that no issues of fact are presented by the direct testimony submitted, the presiding officer shall publish such conclusion and notice in the FEDERAL REGISTER that a hearing shall not be held and shall also publish a date for filing written comments on the proposed regulations. Written comments may include proposed findings and conclusions, arguments or briefs.

(b) A person need not be a party to submit any written comments.

(c) Promptly after expiration of the period for receiving written comments, the presiding officer shall make a recommended decision based on the record, which in this case shall consist of the direct testimony and written comments submitted. He shall transfer to the Director his recommended decision, the record and a certificate stating that the record contains all the written direct testimony and comments submitted. The Director shall then make a final decision in accordance with these regulations (§ 18.90).

§ 18.83 Rebuttal testimony and new issues of fact in final agenda.

(a) Direct testimony to rebut testimony offered during the time period specified in the notice of hearing may be submitted pursuant to these regulations within fifteen days after the conclusion of the prehearing conference unless the presiding officer otherwise specifies in the final agenda.

(b) If the final agenda presents issues not included in the notice of the hearing published pursuant to § 18.73:

(1) Any person interested in participating at the hearing on such issues presented shall notify the Director by certified mail of an intent to participate not later than ten days after publication

of the final agenda. Such person may present direct testimony or cross-examine witnesses only on such issues presented unless he previously notified the Director pursuant to § 18.74; and

(2) Additional written direct testimony concerning such issues may be submitted within the time provided in the final agenda. Such direct testimony will comply with the requirements of § 18.76.

§ 18.84 Waiver of right to participate.

Persons who fail to notify the Director pursuant to § 18.74 and § 18.83 shall be deemed to have waived their right to participate as parties in any part of the hearing.

§ 18.85 Conduct of the hearing.

(a) The hearing shall be held at the time and place fixed in the notice of hearing, unless the presiding officer changes the time or place. If a change occurs, the presiding officer shall publish the change in the FEDERAL REGISTER and shall expeditiously notify all parties by telephone or by mail: *Provided*, That if the change in time or place of hearing is made less than five days before the date previously fixed for the hearing, the presiding officer shall also announce, or cause to be announced, the change at the time and place previously fixed for the hearing.

(b) The presiding officer shall, at the commencement of the hearing, introduce into the record: the notice of hearing as published in the FEDERAL REGISTER; all subsequent notices published in the FEDERAL REGISTER; the draft Environmental Impact Statement if it is required and the comments thereon and agency responses to the comments; and a list of all parties. Direct testimony shall then be received with respect to the matters specified in the final agenda in such order as the presiding officer shall announce. With respect to direct testimony submitted as rebuttal testimony or in response to new issues presented by the prehearing conference, the presiding officer shall determine the relevancy of such testimony.

(c) The hearing shall be publicly conducted and reported verbatim by an official reporter.

(d) If a party objects to the admission or rejection of any direct testimony or to any other ruling of the presiding officer during the hearing, he shall state briefly the grounds of such objection, whereupon an automatic exception will follow if the objection is overruled by the presiding officer. The transcript shall not include argument or debate thereon except as ordered by the presiding officer. The ruling of the presiding officer on any objection shall be a part of the transcript and shall be subject to review at the same time and in the same manner as the Director's final decision. Only objections made before the presiding officer may subsequently be relied upon in the proceedings.

(e) All motions and requests shall be addressed to, and ruled on by, the presiding officer, if made prior to his certification of the transcript or by the Director if made thereafter.

§ 18.86 Direct testimony.

(a) Only direct testimony submitted by affidavit as provided in these regulations and introduced at the hearing by a witness shall be considered part of the record. Such direct testimony shall not be read into evidence but shall become a part of the record subject to exclusion of irrelevant and immaterial parts thereof;

(b) The witness introducing direct testimony shall:

(1) State his name, address and occupation;

(2) State qualifications for introducing the direct testimony. If an expert, the witness shall briefly state the scientific or technical training which qualifies him as an expert;

(3) Identify the direct testimony previously submitted in accordance with these regulations; and

(4) Submit to appropriate cross and direct examination. Cross-examination shall be by a party whose interests are adverse on the issue presented, to the witness, if the witness is a party, or to the interests of the party who presented the witness.

(c) A party shall be deemed to have waived the right to introduce direct testimony if such party fails to present a witness to introduce the direct testimony.

(d) Official notice may be taken of such matters as are judicially noticed by the courts of the United States: *Provided*, That parties shall be given adequate notice, by the presiding officer, at the hearing, of matters so noticed and shall be given adequate opportunity to show that such facts are inaccurate or are erroneously noticed.

§ 18.87 Cross examination.

(a) The presiding officer may:

(1) Require the cross-examiner to outline the intended scope of the cross-examination;

(2) Prohibit parties from cross-examining witnesses unless the presiding officer has determined that the cross-examiner has an adverse interest on the facts at issue to the party-witness or the party presenting the witness. For the purposes of this subsection, the Director's or his representative's interest shall be considered adverse to all parties;

(3) Limit the number of times any party or parties having a common interest may cross-examine an "adverse" witness on the same matter; and

(4) Exclude cross-examination questions that are immaterial, irrelevant or unduly repetitious.

(b) Any party shall be given an opportunity to appear, either in person or through an authorized counsel or representative, to cross-examine witnesses. Before cross-examining a witness, the party or counsel shall state his name, address and occupation. If counsel cross-examines the witness, counsel shall state for the record the authority to act as counsel. Cross-examiners shall be assumed to be familiar with the direct testimony.

(c) Any party or party's counsel who fails to appear at the hearing to cross-examine an "adverse" witness shall be deemed to have waived the right to cross-examine that witness.

(d) Scientific, technical or commercial publications may only be utilized for the limited purposes of impeaching witnesses under cross-examination unless previously submitted and introduced in accordance with these regulations.

§ 18.88 Oral and written arguments.

(a) The presiding officer may, in his discretion, provide for oral argument at the end of the hearing. Such argument when permitted, may be limited by the presiding officer to the extent necessary for the expeditious disposition of the proceeding.

(b) The presiding officer shall announce at the hearing a reasonable period of time within which any interested person may file with the presiding officer any written comments on the proposed regulations and waiver, including proposed findings and conclusions and written arguments or briefs, which are based upon the record and citing where practicable the relevant page or pages of the transcript. If a party filing a brief desires the presiding officer to reconsider any objection made by such party to a ruling of the presiding officer, he shall specifically identify such rulings by reference to the pertinent pages of the transcript and shall state his arguments thereon as a part of the brief.

(c) Oral or written arguments shall be limited to issues arising from direct testimony on the record.

§ 18.89 Recommended Decision, Certification of the transcript and submission of comments on the recommended decision.

(a) Promptly after expiration of the period for receiving written briefs, the presiding officer shall make a recommended decision based on the record and transmit the decision to the Director. The recommended decision shall include:

(1) A statement containing a description of the history of the proceedings;

(2) Findings on the issues of fact with the reasons therefor; and

(3) Rulings on issues of law.

(b) The presiding officer shall also transmit to the Director the transcript of the hearing, the original and all copies of the direct testimony, and written comments. The presiding officer shall attach to the original transcript of the hearing a certificate stating that, to the best of his knowledge and belief, the transcript is a true transcript of the testimony given at the hearing except in such particulars as are specified.

(c) Immediately after receipt of the recommended decision, the Director shall give notice thereof in the FEDERAL REGISTER, send copies of the recommended decision to all parties, and provide opportunity for the submission of comments. The recommended decision may be reviewed and/or copied in the office of the Director, U.S. Fish and Wild-

life Service, Washington, D.C. 20240.

(d) Within twenty days after the notice of receipt of the recommended decision has been published in the FEDERAL REGISTER, any interested person may file with the Director any written comments on the recommended decision. All comments, including recommendations from or consultation with the Marine Mammal Commission, must be submitted during the twenty-day period to the Director at the above address.

§ 18.90 Director's decision.

(a) Upon receipt of the recommended decision and transcript and after the twenty-day period for receiving written comments on the recommended decision has passed, the Director shall make a final decision on the proposed regulations and waiver, where applicable. The Director's decision may affirm, modify, or set aside, in whole or in part, the recommended findings, conclusions and decision of the presiding officer. The Director may also remand the hearing record to the presiding officer for a fuller development of the record.

(b) The Director's decision shall include:

(1) A statement containing a description of the history of the proceeding;

(2) Findings on the issues of fact with the reasons therefor; and

(3) Rulings on issues of law.

(c) The Director's decision shall be published in the FEDERAL REGISTER. If the waiver is approved, the final adopted regulations shall be promulgated with the decision.

[FR Doc.75-13959 Filed 5-28-75; 8:45 am]

THURSDAY, MAY 29, 1975

WASHINGTON, D.C.

Volume 40 ■ Number 104

Pages 23271-23425

PART I



DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service



MARINE MAMMALS

Protection

Administrative Procedures for
for Grants-in-aid

federal register

Title 50—Wildlife and Fisheries

CHAPTER I—UNITED STATES FISH AND WILDLIFE SERVICE, DEPARTMENT OF THE INTERIOR

PART 82—ADMINISTRATIVE PROCEDURES FOR GRANTS-IN-AID (MARINE MAMMAL PROTECTION ACT OF 1972)

Proposed regulations were published in the FEDERAL REGISTER of October 21, 1974 (39 FR 37394-37396) to implement section 110 of the Marine Mammal Protection Act of 1972 ((16 U.S.C. 1361-1407) 86 Stat. 1027), pertaining to administrative procedures governing grants-in-aid.

The regulations define procedures whereby grants can be made to Federal or State agencies, public or private institutions, or private individuals for the purpose of undertaking research in subjects

which are relevant to the protection and conservation of marine mammals.

Applications must be received by September 1 of the year preceding the fiscal year in which the research is contemplated.

The deletions, additions and minor changes in this final rule-making reflect comments received and correct certain technical errors and omissions. The following changes have been made:

1. Section 82.1—This is a new section which will clarify the regulations.
2. Section 82.2—This is a new section provided for clarification.
3. Section 82.3—This section provides supplementary information and procedures for applicants.
4. Section 82.5—The definition of "Cooperative Agreement" and "grantee" have been reworded for clarification.
5. Section 82.6—This section simplifies the application procedures.
6. Section 82.7—This section clarifies coordinating proposals with the various states.

It is determined that compliance with a delayed effective date 5 U.S.C. 553 (d) is unnecessary, impracticable, and contrary to the public interest in as much as these regulations are merely procedural in nature. Accordingly, these regulations shall become effective upon publication.

Effective Date: These regulations become effective on May 29, 1975.

Dated: May 22, 1975.

LYNN A. GREENWALT,
Director.

Subpart A—Introduction

- Sec.
- 82.1 Scope of regulations.
 - 82.2 Purpose of regulations.
 - 82.3 Supplementary information and procedures.
 - 82.4 Authority.
 - 82.5 Definitions.

Subpart B—Application for Grants

- 82.6 Submission of proposals.
- 82.7 Coordination with States.

Subpart C—Administration

- 82.8 Prosecution or work.
- 82.9 General information for the Secretary.
- 82.10 Payments to grantee.
- 82.11 Forms of vouchers.
- 81.12 Permit requirements.
- 82.13 Ownership of property.
- 82.14 Inspection and audit.
- 82.15 Record retention.
- 82.16 Reporting.
- 82.17 Procurement.
- 82.18 Officials not to benefit.
- 82.19 Patents and inventions.
- 82.20 Civil rights.
- 82.21 Copyrights.

Subpart A—Introduction

§ 82.1 Scope of regulations.

The regulations in this part are issued, pursuant to the authority of the Secretary in section 1380 of the Marine Mammal Protection Act, 16 U.S.C. 1361-1407 (Supp. II 1972), to provide procedures for the submission and review of applications and the award and administration of research grants, or other forms of financial assistance, to Federal or state agencies, public or private institutions, or other

persons including any foreign governments for research relevant to the protection and conservation of marine mammals.

§ 82.2 Purpose of regulations.

The Marine Mammal Protection Act of 1972 (Pub. L. 92-552) authorizes appropriations, and confers authority upon the Secretary, subject to such terms and conditions as he deems necessary, and after review by the Marine Mammal Commission, to make grants, or provide other forms of financial assistance, for the purpose of undertaking research relevant to the protection and conservation of marine mammals. Research initiated pursuant to this authorization is to be directed toward increasing the available knowledge of the ecology and population dynamics of marine mammals and of the factors which bear upon their ability to reproduce themselves successfully, which information may be used for the purposes of increasing and maintaining the number of animals within species and populations of marine mammals at the optimum carrying capacity of their habitat.

§ 82.3 Supplementary information and procedures.

The regulations in this part are intended to provide for the maximum flexibility and simplicity in the application and award of grants or other financial assistance and the minimum amount of Federal control in the conduct of the research and supervision of Federal funds, consistent with the anticipated level of appropriated funds and demand for such funds. With respect to grants to state or local governments these regulations are intended to implement and be read as consistent with Federal Management Circular 74-7, "Uniform Administrative Requirements for Grants-in-Aid to State and Local Governments," (FMC 74-7) 34 CFR Part 256, 39 FR 35787-35796, October 4, 1974, unless specifically noted

otherwise. The standards and procedures set forth therein, and other referenced Federal management circulars, will, to the extent practical, govern other forms of financial assistance to state and local governments, public and private institutions and persons as well as grants to such institutions and persons. Other Federal regulations and sources of guidance potential applicants may find worthwhile to consult for information which may be helpful in applying and implementing research grants or other financial assistance under these regulations include: 34 CFR Part 211, Cost Sharing on Federal Research (FMC 73-3); 34 CFR Part 251, Audit of Federal Operations and Programs by Executive Branch Agencies, superseding OMB Circular No. A-73, dated August 4, 1965; 34 CFR Part 252, Coordinating Indirect Cost Rates and Audit at Educational Institutions, (FMC 73-6); 34 CFR Part 253, Administration of College and University Grants (FMC 73-7); 34 CFR Part 254, Cost Principles for Educational Institutions (FMC 73-8); FMC 74-4, Cost Principles under Grants to State and Local Governments.

§ 82.4 Authority.

The Secretary of the Interior has delegated to the Director, Fish and Wildlife Service, his authority under the Marine Mammal Protection Act to enter into grants or other forms of financial assistance for research relevant to the protection and conservation of marine mammals covered by the Act excluding the order *Cetacea* and members, other than walrus, of the order *Pinnipedia*.

§ 82.5 Definitions.

As used in this part, terms shall have the meanings ascribed in this section.

(a) "Act" means the Marine Mammal Protection Act of 1972, 16 U.S.C. §§ 1361-1407.

(b) "Cooperative Agreement" means the properly signed documentation, including the Application for Federal Assistance, which describes the project goals, the time schedule for achieving them, the estimated expenses to be incurred and the terms and conditions under which the research will be conducted, the totality of which constitutes the legally binding instrument between the Secretary and the grantee.

(c) "Grantee" means (A) any private person or entity, or (B) any officer, employee, agent, department, or instrumentality of the Federal Government, or any state or political subdivision thereof or any foreign government, participating in a cooperative agreement with the Secretary.

(d) "Marine Mammal" means any specimen of the following species, whether alive or dead, or any part thereof, including but not limited to, any raw, dressed, or dyed fur or skin:

Scientific name:	Common name
<i>Ursus maritimus</i> -----	Polar bear.
<i>Enhydra lutris</i> -----	Sea Otter.
<i>Odobenus rosmarus</i> -----	Walrus.
<i>Dugong dugong</i> -----	Dugong.
<i>Trichechus inunguis</i> ----	West Indian manatee.
<i>Trichechus manatus</i> ----	West African manatee.
<i>Trichechus senegalensis</i> .-	Amazonian manatee.

NOTE: Common names given may be at variance with local usage; they are not required to be provided by the Act, and they have no legal significance.

(e) "Non-Federal interest" means any organization, association, institution, business, school, individual or group of individuals, state agency, municipality, or others outside the Federal Government which desires to participate within the terms of the Act.

(f) "Project" means any program for which an Application for Federal Assistance and a cooperative agreement have been approved and which provides for research in subjects which are relevant to the protection and conservation of marine mammals.

(g) "Secretary" means the Secretary of the Interior or his delegated representative.

(h) "State" means the several states, the District of Columbia, the Commonwealth of Puerto Rico, the Canal Zone, the possessions of the United States, and

the Trust Territory of the Pacific Islands.

(i) "State agency" means any department(s), commission(s), or officials(s), of a state empowered under its laws to administer the state program for marine mammals.

Subpart B—Application for Grants

§ 82.6 Submission of proposals.

(a) Preapplication forms may be submitted by any potential grantee in order to (1) Establish communication between the Fish and Wildlife Service and the applicant; (2) to determine the applicant's eligibility; (3) determine how well the project can compete with applications from others; and (4) eliminate any proposals which have little or no chance for Federal funding before the applicant incurs significant expenditures for preparing an application. A notice of review action will be sent to the applicant within 45 days of the receipt of the preapplication form informing the applicant of the results of the review of the preapplication form. If the review cannot be completed within 45 days, the applicant will be informed by letter as to when the review will be completed.

(b) An Application for Federal Assistance for non-construction shall be submitted by all applicants for grants, however, an Application for Federal Assistance—Short Form may be utilized for single purpose and one-time grant applications for less than \$10,000 not requiring clearinghouse approval, an environmental impact statement, or the relocation of persons, businesses, or farms.

(c) Copies of the applications described in subsections (a) and (b) may be obtained from the Federal Aid Coordinator, State Fish and Game Agency, and the Director, U.S. Fish and Wildlife (Attention: Division of Cooperative Research), Washington, D.C. 20240. An original and two copies of the appropriate application forms should be submitted to the Director at this address. In order to allow sufficient time for processing, the Federal Assistance Application must be submitted by September 1 of the year preceding the fiscal year in which the research is contemplated. Any requests by grantees for changes, continuations, and supplements to approved grants must be submitted on the same form as the original application.

§ 82.7 Coordination with States.

If the proposed project is to be conducted within the territorial limits of a state, the Secretary shall not enter into an agreement with a non-Federal interest other than a State without first consulting with the State agency.

Subpart C—Administration

§ 82.8 Prosecution of work.

(a) The grantee shall pursue the agreed-upon objectives expeditiously, adhering to the procedures set forth in the Cooperative Agreement. Failure to do so or failure to provide timely and adequate reports shall be cause for the Secretary to withhold further reimburse-

ments to the grantee until project commitments are satisfactorily met. All further disbursement of funds under the cooperative agreement may be terminated upon determination by the Secretary that satisfactory progress has not been maintained.

(b) All work shall be performed in accordance with applicable Federal, state, and local laws, including safety, health and sanitation laws, except that when state and local laws are in conflict with Federal laws or regulations, such Federal laws or regulations shall prevail.

§ 82.9 General information for the Secretary.

Before any Federal funds may be obligated for any project the grantee shall furnish to the Director such information regarding the authority of the grantee to participate in the benefits of the Act, such information of the type described in FMC 74-7 Attachment G, concerning the system to be used by the grantee for the financial management of grant funds, the state laws affecting marine mammals, and such other information as the Director may request.

(a) *Document signature.* The Application for Federal Assistance and the Cooperative Agreement must bear the signature of an official who is legally authorized to commit the prospective grantee to expenditure of funds. The

Secretary may, from time to time, request, and grantee shall furnish, information relating to the administration and maintenance of any project established under the Act.

§ 82.10 Payments to grantee.

Payments may be requested by the grantee at intervals of not less than 30 days as work described in the cooperative agreement progresses.

§ 82.11 Forms of vouchers.

Vouchers, on forms provided by the Secretary, showing amounts expended on each project, and the Federal portion claimed to be due on account thereof, shall be certified and submitted to the Director by the grantee.

§ 82.12 Permit requirements.

No work shall commence on a proposal funded under the provisions of 16 U.S.C. 1380 until all appropriate State and Federal permits have been applied for and issued.

§ 82.13 Ownership of property.

When property is acquired pursuant to the provisions of the Act, title to such property or interests therein shall be vested in the grantee as long as the property is used for the authorized purpose. When the property is no longer needed for such purpose, the Director and the grantee shall mutually agree regarding the assignment of title and any compensations consistent with the terms of Federal Management Circular 74-7 or other appropriate referenced Federal Management Circulars cited in § 82.3 above.

§ 82.14 Inspection and audit.

Supervision of each project shall be as specified in the initial cooperative agreement and shall include adequate and continuous inspection by the grantee. The project will be subject at all reasonable times to Federal inspection. The Director and the Comptroller General of the United States, or their duly authorized representatives, shall be given access by the grantee during regular business hours to any books, documents, papers, and records of the grantee which are pertinent to the project for the purposes of making audit, examination, excerpts, and transcripts.

§ 82.15 Record retention.

All records of accounts, and reports, with supporting documentation thereto, will be maintained by the grantee for a period of three years after submission of the final expenditure report, with the qualifications stated in FMC 74-7, Attachment C, paragraph 1.

§ 82.16 Reporting.

Performance reports and other specified reports shall be submitted to the Secretary by the grantee in accordance with requirements prescribed by FMC 74-7 or other appropriate referenced Federal Management Circulars cited in § 82.3 above.

§ 82.17 Procurement.

Grantees may use their own procurement regulations which reflect applicable State and local laws, rules, and regulations, provided that procurements made with funds under the Act adhere to the standards set forth in FMC 74-7 or other appropriate referenced Federal Management Circulars cited in § 82.3 above.

§ 82.18 Officials not to benefit.

No member of, or delegate to, Congress, or Resident Commissioner, shall be admitted to any share or any part of an agreement, or to any benefit that may arise therefrom; but this provision shall not be construed to extend to an agreement made with a corporation for its general benefit.

§ 82.19 Patents and inventions.

Determination of the patent rights in any inventions or discoveries resulting from work under cooperative agreements entered into pursuant to the Act shall be governed by the "Government Patent Policy," President's Memorandum for Heads of Executive Departments and Agencies, August 23, 1971, and statement of government patent policy as printed in 36 FR 16889.

§ 82.20 Civil rights.

Each cooperative agreement shall be supported by a statement of assurance executed by the grantee providing that the project will be carried out in accordance with Title VI, non-discrimination in federally assisted programs, of the Civil Rights Act of 1964, 42 U.S.C. 2000d-2000d-4, and with the Secretary's regulations promulgated thereunder, 43 CFR Part 17.

§ 82.21 Copyrights.

Where research conducted under a grant issued pursuant to this part results in a book or other copyrightable material, the author or grantee, subject to the terms of the Cooperative Agreement, is encouraged to publish the work, but the Department of the Interior reserves a royalty free, nonexclusive and irrevocable license to reproduce, publish, or otherwise use, and to authorize others to use the work for Government purposes. Any publication by the grantee must bear in an appropriate place an acknowledgment of grant support under the Marine Mammal Act from the Department of the Interior. In addition, any publication must include a statement that the findings, conclusions, etc., do not necessarily represent the views of the Department of the Interior. At least two copies of any printed publications must be furnished to the United States Fish and Wildlife Service.

[FR Doc.75-13958 Filed 5-28-75;8:45 am]

NOTICES

federal register

TUESDAY, APRIL 22, 1975

WASHINGTON, D. C.

Volume 40 - Number 78

ENDANGERED AND THREATENED SPECIES

Critical Habitat Areas

ENDANGERED AND THREATENED SPECIES

Notice on Critical Habitat Areas

In implementing their responsibilities under the Endangered Species Act of 1973 providing for the protection and conservation of Endangered and Threatened species, the U.S. Fish and Wildlife Service and the National Marine Fisheries Service will be proposing areas to be designated by rulemaking to be "critical habitat" for such species. Except in emergency situations, Governors of States, territories, and possessions will be notified at least 90 days prior to the final rulemaking designating areas within their respective State, territory, or possession as "critical habitat" for Endangered and/or Threatened species.

It is expected that the following concepts and information will be useful to Federal, State, and local government agencies and interested private organizations and individuals in the gathering of information, participation in upcoming public and private meetings, and suggestions for proposing the designation of any habitat as "critical habitat."

One of the purposes of the Endangered Species Act of 1973 (16 U.S.C. 1531-1543), as stated in section 2 (16 U.S.C. 1531), is " * * * to provide a means whereby the ecosystems upon which Endangered species and Threatened species depend may be conserved."

Section 7 (16 U.S.C. 1536) of the Act states as follows:

The Secretary shall review other programs administered by him and utilize such programs in furtherance of the purposes of this Act. All other Federal departments and agencies shall, in consultation with and with the assistance of the Secretary, utilize their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of endangered species and threatened species listed pursuant to section 4 of this Act and by taking such action necessary to insure that actions authorized, funded, or carried out by them do not jeopardize the continued existence of such endangered species and threatened species or result in the destruction or modification of habitat of such species which is determined by the Secretary, after consultation as appropriate with the affected States, to be critical.

(The term Secretary as used above means the Secretary of Commerce and/or the Secretary of the Interior.)

Conservation of the earth's resources can maintain ecosystems within which, it is hoped, all species of fauna and flora can coexist and thereby benefit. The role that natural and man-made factors play in affecting interrelationships between fauna and flora and the ecosystems upon which they depend needs to be recognized. For the continued viability of any species, suitable habitat is not only important but essential to life itself. The term "habitat" could be considered to consist of a spatial environment in which a species lives and all elements of that environment including, but not limited to, land and water area, physical structure and topography, flora, fauna, climate, human activity, and the quality and chemical content of soil, water, and air. "Critical habitat" for any Endangered or Threatened species could be the entire habitat or any portion thereof, if, and only if, any constituent element is necessary to the normal needs or survival of that species. The following vital needs are relevant in determining "critical habitat" for a given species:

- (1) Space for normal growth, movements, or territorial behavior;
- (2) Nutritional requirements, such as food, water, minerals;
- (3) Sites for breeding, reproduction, or rearing of offspring;
- (4) Cover or shelter; or
- (5) Other biological, physical, or behavioral requirements.

The Endangered Species Act of 1973 is intended to prevent the further decline, and to bring about the restoration, of Endangered and Threatened species and of the habitat upon which such species depend. The Act recognizes in section 4 (16 U.S.C. 1533) that the present or threatened destruction, modification, or curtailment of a species' habitat may endanger or threaten that species with extinction. The administration and management of critical habitats provide an important means for protecting species already determined to be Endangered or Threatened and restoring such species to a point at which they are no longer Endangered or Threatened. In order to carry out the intent of the Endangered Species Act of 1973 and to

meet the biological needs of the animals and plants involved, the Fish and Wildlife Service and the National Marine Fisheries Service believe it both necessary and desirable, whenever and wherever possible, to designate "critical habitats." Federal conservation actions involving "critical habitats" may include the development of regulations, land and water acquisition, leasing arrangements, Federal/State cooperation in implementing the Act, and other administrative, research, and management plans and activities.

Actions by a Federal agency which result in the destruction or modification of habitat considered "critical habitat" for a given Endangered or Threatened species would not conform with section 7 of the Endangered Species Act of 1973, if such an action might be expected to result in a reduction in the numbers or distribution of that species of sufficient magnitude to place the species in further jeopardy, or restrict the potential and reasonable expansion or recovery of that species. It must be emphasized that, because the primary intention of the Fish and Wildlife Service and the National Marine Fisheries Service under that Act is to protect, maintain, and restore presently Endangered and Threatened species, application of the term "critical habitat" may not be restricted to the habitat necessary for a minimum viable population.

It is emphasized further that certain actions may not be detrimental to "critical habitat." There may be many kinds of actions which can be carried out within the "critical habitat" of a species that would not be expected to result in such reduction in the numbers or distribution or otherwise adversely affect such species.

The Fish and Wildlife Service and the National Marine Fisheries Service would appreciate receiving information from any Federal, State, or private agency, organization, and/or individuals concerned with Endangered and Threatened species of fauna and flora, including maps, that would assist in delineating the "critical habitat" of those species appearing on the official list of Endangered or Threatened species (50 CFR 17.11, 17.12, or 17.32). Concerned parties also may choose to provide information on the specific kinds of actions that could be permitted and those that should be prohibited within the area so delineated as "critical habitat." Copies of such information should be sent to both the Director, Fish and Wildlife Service, Washington, D.C. 20240, and the Director, National Marine Fisheries Service, Washington, D.C. 20235.

As sufficient information on "critical habitat" is gathered for each of the species now listed, the Fish and Wildlife Service and/or the National Marine Fisheries Service will publish a proposed rulemaking in the FEDERAL REGISTER. This rulemaking will identify spatial environments, including geographical boundaries where possible, considered to be "critical habitat" for the Endangered and/or Threatened species in question.

Such identification will permit all Federal agencies to evaluate, prior to final rulemaking, their programs for compliance with section 7 (16 U.S.C. 1536): To avoid actions authorized, funded, or carried out by them from destroying or adversely modifying any such "critical habitat" and to enable such agencies to seek the consultation and assistance of the Secretary in utilizing their authorities to further the purposes of the Act. At least 60 days will be allowed for comments, alternative recommendations, etc., before publication of a final rulemaking on any specific designation of "critical habitat." As indicated above, Governors of States, territories, and possessions wherein "critical habitat" is to be designated normally will be given at least 90 days notification.

In the future, where deemed appropriate by the Secretary, as new candidate species for the Endangered or Threatened classification are proposed in the FEDERAL REGISTER, each such proposal will contain a proposed designation of "critical habitat" for that species.

LYNN A. GREENWALT,
Director,
Fish and Wildlife Service.

APRIL 15, 1975.

JACK W. GEHRINGER,
Acting Director,
National Marine Fisheries Service.

APRIL 15, 1975.

[FR Doc.75-10437 Filed 4-21-75;8:45 am]

federal register

FRIDAY, MAY 16, 1975

WASHINGTON, D.C.

Volume 40 - Number 96

ENDANGERED SPECIES

Determination of critical Habitat

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

ENDANGERED SPECIES

Determination of Critical Habitat

MAY 13, 1975.

Notice is hereby given that the Department of the Interior intends to determine "critical habitat" for 108 currently listed "Endangered" species of the United States and Puerto Rico.

A notice which has been published in the FEDERAL REGISTER by the Department of the Interior and the Department of Commerce (FR Vol. 40, No. 78; April 22, 1975; pp. 17764-17765) provides a concept of "critical habitat" as it relates to section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1531-1543). The concept is as follows:

"Habitat" could be considered to consist of a spatial environment in which a species lives and all elements of that environment including, but not limited to, land and water area, physical structure and topography, flora, fauna, climate, human activity, and the quality and chemical content of soil, water, and air. "Critical Habitat" for any endangered or threatened species could be the entire habitat or any portion thereof, if, and only if, any constituent element is necessary to the normal needs or survival of that species. The following vital needs are relevant in determining "critical habitat" for a given species:

- (1) Space for normal growth, movements, or territorial behavior;
- (2) Nutritional requirements, such as food, water or minerals;
- (3) Sites for breeding, reproduction, or rearing of offspring;
- (4) Cover or shelter; or
- (5) Other biological, physical, or behavioral requirements.

Under this concept, the destruction, disturbance, modification, curtailment, or subjection to human activity of habitat considered "critical" for a given species would not conform with section 7 of the Endangered Species Act of 1973, if such an action might be expected to result in a reduction in the numbers or distribution of that species of sufficient magnitude to place the species in further

jeopardy, or in a restriction of the potential and reasonable expansion or recovery of that species. It must be emphasized that because the primary intention of the Fish and Wildlife Service and the National Marine Fisheries Service is to maintain and restore presently threatened and endangered species, application of the term "critical" is not restricted to the habitat necessary to support a minimum population. It is emphasized further that only specific

kinds of actions are detrimental to habitat regarded as "critical" as defined above. There may be many kinds of actions which can be carried out within the "critical habitat" of a species that would not be expected to result in a reduction in the numbers or distribution or otherwise adversely affect that species. The endangered species for which "critical habitat" will be determined are as follows:

Common name	Scientific name
FISHES	
Bonytail, Pahranaagat.....	<i>Gila robusta jordani</i>
Chub, humpback.....	<i>Gila cypha</i>
Chub, Mohave.....	<i>Siphateles mohavensis</i>
Cisco, longjaw.....	<i>Coregonus alpenae</i>
Cui-ui.....	<i>Chasmistes cujus</i>
Dace, Kendall Warm Springs.....	<i>Rhinichthys osculus thermalis</i>
Dace, Moapa.....	<i>Moapa coriacea</i>
Darter, fountain.....	<i>Etheostoma fonticola</i>
Darter, Maryland.....	<i>Etheostoma sellare</i>
Darter, Okaloosa.....	<i>Etheostoma okaloosae</i>
Darter, watercress.....	<i>Etheostoma nuchale</i>
Gambusia, Big Bend.....	<i>Gambusia gaigei</i>
Gambusia, Clear Creek.....	<i>Gambusia heterochir</i>
Gambusia, Pecos.....	<i>Gambusia nobilis</i>
Killifish, Pahrump.....	<i>Empetrichthys latos</i>
Pike, blue.....	<i>Stizostedion vitreum glaucum</i>
Pupfish, Comanche Springs.....	<i>Cyprinodon elegans</i>
Pupfish, Devil's Hole.....	<i>Cyprinodon diabolis</i>
Pupfish, Owens River.....	<i>Cyprinodon radiosus</i>
Pupfish, Tecopa.....	<i>Cyprinodon nevadensis calidae</i>
Pupfish, Warm Springs.....	<i>Cyprinodon nevadensis pectoralis</i>
Squawfish, Colorado River.....	<i>Ptychocheilus lucius</i>
Stickleback, unarmored threespine.....	<i>Casterosteus aculeatus williamsoni</i>
Topminnow, Gila.....	<i>Poeciliopsis occidentalis</i>
Trout, Arizona (Apache).....	<i>Salmo</i> sp.
Trout, Gila.....	<i>Salmo gilae</i>
Trout, greenback cutthroat.....	<i>Salmo clarki stomias</i>
Trout, Lahontan cutthroat.....	<i>Salmo clarki henshawi</i>
Trout, Paiute cutthroat.....	<i>Salmo clarki seleniris</i>
Woundfin.....	<i>Plagopherus argentissimus</i>

REPTILES AND AMPHIBIANS

Alligator, American.....	<i>Alligator mississippiensis</i>
Boa, Puerto Rican.....	<i>Epicrates inornatus</i>
Lizard, blunt-nosed leopard.....	<i>Crotaphytus silus</i>
Salamander, desert slender.....	<i>Eatrachoseps aridus</i>
Salamander, Santa Cruz long-toed.....	<i>Ambystoma macrodactylum croceum</i>
Salamander, Texas blind.....	<i>Typhlomolge rathbuni</i>
Snake, San Francisco garter.....	<i>Thamnophis sirtalis tetrataenia</i>
Toad, Houston.....	<i>Bufo houstonensis</i>

BIRDS

Akepa, Hawaii (akepa).....	<i>Loxops coccinea coccinea</i>
Akepa, Maui (akepule).....	<i>Loxops coccinea ochracea</i>
Akiakoa, Kauai.....	<i>Hemignathus procerus</i>
Akiapohou.....	<i>Hemignathus wilsoni</i>
Bobwhite, masked.....	<i>Colinus virginianus ridgwaii</i>
Condor, California.....	<i>Gymnogyps californianus</i>
Coot, Hawaiian.....	<i>Fulica americana alai</i>
Crane, Mississippi sandhill.....	<i>Grus canadensis pulla</i>
Crane, whooping.....	<i>Grus americana</i>
Crow, Hawaiian (alela).....	<i>Corvus tropicus</i>
Creeper, Molokai (kakawahie).....	<i>Loxops maculata flammea</i>
Creeper, Oahu (akaupohia).....	<i>Loxops maculata maculata</i>
Curlew, Eskimo.....	<i>Numenius borealis</i>
Duck, Hawaiian (koloa).....	<i>Anas wyvilliana</i>
Duck, Laysan.....	<i>Anas laysanensis</i>
Duck, Mexican.....	<i>Anas diazi</i>
Eagle, Southern bald.....	<i>Haliaeetus leucocephalus leucocephalus</i>
Falcon, American peregrine.....	<i>Falco peregrinus anatum</i>
Falcon, Arctic peregrine.....	<i>Falco peregrinus tundrius</i>
Finches, Laysan and Nihoa.....	<i>Psittirostra cantans</i>
Gallinule, Hawaiian.....	<i>Gallinula chloropus sandwicensis</i>
Goose, Aleutian Canada.....	<i>Branta canadensis leucopareta</i>
Goose, Hawaiian (kene).....	<i>Branta sandwicensis</i>
Hawk, Hawaiian (io).....	<i>Buteo solitarius</i>
Kite, Florida Mangrove (snail kite).....	<i>Rostrhamus sociabilis plumbeus</i>
Honeycreeper, crested (akohekohe).....	<i>Palmeria dolei</i>

BIRDS—Continued

Millerbird, Nihoa.....	<i>Acrocephalus kingi</i>
Nukupuu, Kauai and Maul.....	<i>Hemignathus lucidus</i>
Oo, Kauai (oo aa).....	<i>Moho braccatus</i>
Ou.....	<i>Psittirostra psittacea</i>
Pallia.....	<i>Psittirostra bailliei</i>
Parrot, Puerto Rican.....	<i>Amazona vittata</i>
Parrotbill, Maui.....	<i>Pseudonestor xanthophrys</i>
Pelican, brown.....	<i>Pelecanus occidentalis</i>
Petrel, Hawaiian dark-rumped.....	<i>Pterodroma phaeopygia sandwichensis</i>
Pigeon, Puerto Rican plain.....	<i>Columba inornata wetmorei</i>
Prairie chicken, Attwater's greater.....	<i>Tympanuchus cupido attwateri</i>
Rail, California clapper.....	<i>Rallus longirostris obsoletus</i>
Rail, light-footed clapper.....	<i>Rallus longirostris levipes</i>
Rail, Yuma clapper.....	<i>Rallus longirostris yumanensis</i>
Sparrow, Cape Sable.....	<i>Ammospiza mirabilis</i>
Sparrow, dusky seaside.....	<i>Ammospiza nigrescens</i>
Sparrow, Santa Barbara song.....	<i>Melospiza melodia graminea</i>
Stilt, Hawaiian.....	<i>Himantopus himantopus knudseni</i>
Tern, California least.....	<i>Sterna albifrons browni</i>
Thrush, large Kauai.....	<i>Phaeornis obscurus myadestina</i>
Thrush, Molokai (olomau).....	<i>Phaeornis obscurus rutha</i>
Thrush, small Kauai (puaiohi).....	<i>Phaeornis palmert</i>
Warbler, Bachman's.....	<i>Vermivora bachmanii</i>
Warbler, Kirtland's.....	<i>Dendroica kirtlandii</i>
Whip-poor-will, Puerto Rican.....	<i>Caprimulgus noctitherus</i>
Woodpecker, ivory-billed.....	<i>Campephilus principalis</i>
Woodpecker, red-cockaded.....	<i>Dendrocopos borealis</i>

MAMMALS

Bat, Hawaiian hoary.....	<i>Lasturus cinereus semotus</i>
Bat, Indiana.....	<i>Myotis sodalis</i>
Cougar, Eastern.....	<i>Felis concolor cougar</i>
Deer, Columbian white-tailed.....	<i>Odocoileus virginianus leucurus</i>
Deer, Key.....	<i>Odocoileus virginianus clavium</i>
Ferret, black-footed.....	<i>Mustela nigripes</i>
Fox, San Joaquin kit.....	<i>Vulpes macrotis mutica</i>
Manatee, Florida (sea cow).....	<i>Trichechus manatus latirostris</i>
Mouse, salt marsh harvest.....	<i>Reithrodontomys raviventris</i>
Panther, Florida.....	<i>Felis concolor coryi</i>
Prairie Dog, Utah.....	<i>Cynomys parvidens</i>
Pronghorn, Sonoran.....	<i>Antilocapra americana sonoriensis</i>
Rat, Morro Bay kangaroo.....	<i>Dipodomys heermanni morroensis</i>
Squirrel, Delmarva Peninsula fox.....	<i>Sciurus niger cinereus</i>
Wolf, Eastern timber.....	<i>Canis lupus lycaon</i>
Wolf, Northern Rocky Mountain.....	<i>Canis lupus irremotus</i>
Wolf, red.....	<i>Canis rufus</i>

Although we are seeking information on "critical habitat" for all of the above, we are particularly interested in receiving data quickly on the following ten high priority species: Indiana bat, Mississippi sandhill crane, whooping crane, manatee, American peregrine falcon, San Joaquin kit fox, blunt-nosed leopard lizard, California condor, black-footed ferret, and pallia. The Fish and Wildlife Service will determine "critical habitat" for these key species as rapidly as possible.

The Fish and Wildlife Service requests that all Federal, State, and private agencies, organizations, and individuals concerned with endangered and threatened species of fauna and flora submit information and maps that would assist in delineating the "critical habitat" of those species currently appearing on the official list. The Service requests further that all concerned parties provide information on the specific kinds of actions that could be permitted and those that should be prohibited within the area so delineated as "critical."

As sufficient information on "critical habitat" is gathered for each of the species now listed, the Fish and Wildlife Service will publish a proposed rulemaking in the FEDERAL REGISTER. This rulemaking will identify spatial environments, including geographical boundaries where possible, considered to be "critical habitat" for the species in question, and will identify those elements of that environment which must be protected from adverse actions by man. Routinely, 60 days will be allowed for comments, criticisms, and alternative recommendations before publication of a final rulemaking on any specific "critical habitat."

In the future, where possible and desirable, as new candidate species for the "endangered" or "threatened" classification are proposed in the FEDERAL REGISTER, each such proposal also will contain a proposed designation of "critical habitat" for that species.

LYNN A. GREENWALT,
Director, Fish and Wildlife Service.

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Appendix I

List of Scientific Reports and Publications

The following reports, papers, and publications prepared by Fish and Wildlife Service personnel or contractors are available through the Service's National Fish and Wildlife Laboratory, Washington, D.C. 20240.

Reports:

- Barrett, R. E., and J. W. Lentfer. Trichinae in Alaskan polar bears.
- Galster, W. A., and J. W. Lentfer. Heavy metals in tissues of Alaskan polar bears.
- Hartman, D. Ecology and behavior of the Florida manatee.
- Hartman, D. Distribution, status, and conservation of the Florida manatee.
- Husar, S. Status of the dugong.
- Husar, S. Status of the West Indian manatee.
- Husar, S. Status of the Amazonian manatee.
- Husar, S. Status of the African manatee.
- Husar, S. Bibliography of the Sirenia.
- Johnson, A. Status report on the sea otter.
- Johnson, A. Status report on the Pacific Walrus.
- Johnson, A. Status report on the Atlantic Walrus.
- Johnson, A. Sea Otter report of the FAO Marine Mammal Working Group.
- Johnson, A. Marine Mammal Survey of the Northern Washington Coast.
- Lentfer, J. Status report on the polar bear.

Lentfer, J. W. Polar bear denning on drifting sea ice.

Wilson, D. Status of the manatee in Costa Rica.

Publications:

Estes, J., and J. Palmisano. 1974. Sea otters: their role in structuring nearshore communities. *Science* 185: 1058-1060.

Husar, S. 1975. The dugong: endangered siren of the south seas. *National Parks and Conservation Magazine*.

Husar, S. 1975. Dugong. *Mammalian Species*.

Lentfer, J. W. 1974. Discreteness of Alaskan polar bear populations.

Proceedings XIth International Congress of Game Biologists, Stockholm, Sweden, 3-7 September 1973: 323-329.

Lentfer, J. W. Polar bear management in Alaska. Proceedings Third, International Conference on Bear Research and Management, State University of New York, Binghamton, 31 May - 1 June 1974 (in press).

Øritsland, N. A., J. W. Lentfer, and K. Ronald. 1974. Radiative surface temperatures of the polar bear. *J. Mamm.* 55: 459-461.

Wilson, D. E. Cranial variation in polar bears. Symposium on Bear Research and Management (in press).