

ANNUAL REPORT OF THE
MARINE MAMMAL COMMISSION, CALENDAR YEAR 1980

A REPORT TO CONGRESS

Marine Mammal Commission
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Washington, D.C. 20006

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CHAPTER I

INTRODUCTION

Background

This, the eighth Annual Report of the Marine Mammal Commission, is submitted to the Congress pursuant to Section 204 of the Marine Mammal Protection Act of 1972. The Report describes the Commission's activities from 1 January through 31 December 1980.

The Marine Mammal Commission was established under Title II of the Marine Mammal Protection Act. It is an independent agency of the Executive Branch with responsibility for developing, reviewing, and making recommendations on actions and policies of all Federal agencies with respect to marine mammal protection and conservation.

Personnel

The three Commissioners, appointed by the President, are: Dr. Douglas G. Chapman (Chairman), Seattle, Washington; Dr. Donald B. Siniff, Minneapolis, Minnesota; and Dr. Murray L. Johnson, Tacoma, Washington. The Commission's senior staff members are John R. Twiss, Jr., Executive Director; Robert Eisenbud, General Counsel; Robert J. Hofman, Scientific Program Director, and JoAnn Lashley, Administrative Officer.

The nine member Committee of Scientific Advisors on Marine Mammals is composed of scientists knowledgeable in marine ecology and marine mammal affairs. Its members, appointed by the Chairman, were, at the end of 1980: Dr. Daniel B. Botkin, University of California, Santa Barbara; Dr. Paul K. Dayton (Chairman of the Committee), Scripps Institution of Oceanography; Dr. L. Lee Eberhardt, Pacific Northwest Laboratory, Battelle Memorial Institute; Dr. Joseph R. Geraci, University of Guelph; Dr. Gerald L. Kooyman, Scripps Institution of Oceanography; Dr. Daniel K. Odell, University of Miami; Dr. William F. Perrin, National Marine Fisheries Service, Southwest Fisheries Center; Dr. Katherine Ralls, Smithsonian Institution; and Dr. Robert B. Weeden, University of Alaska. During 1980, Mr. John H. Prescott (Committee Chairman through August) completed his term of service on the Committee.

Funding

The Marine Mammal Commission, operational for less than six months in fiscal year (FY) 1974, was appropriated \$412,000 for that year, \$750,000 for FY 75, \$900,000 for FY 76, \$1,000,000 for FY 77, \$900,000 for FY 78, \$702,000 for FY 79, and \$940,000 for FY 80. In FY 81, the Commission was appropriated \$734,000, \$100,000 of which is to be spent on one or more of the following areas: California sea otters; Antarctic whales and seals; the concept of "optimum sustainable population"; the return of marine mammal management to the State of Alaska; and marine mammal-fisheries interactions.

Summary

During the year which this report treats, the Marine Mammal Commission invested a special FY 80 Congressional appropriation of \$300,000 equally among activities to further the protection and conservation of the West Indian manatee, the Hawaiian monk seal, and East Coast cetaceans. The use to which these funds were put is set forth in detail in the Report which follows.

The Commission's work with respect to endangered and threatened species, international negotiations affecting many species of marine mammals in all the world's oceans, incidental take of marine mammals, marine mammal/fisheries interactions, permits to take marine mammals for scientific research and public display, standards applicable to marine mammal capture and maintenance, and other issues are reported upon as well.

It should also be noted that during 1980, the General Accounting Office conducted a review of Federal agency activities related to marine mammals, and the report is expected in the spring of 1981.

CHAPTER II

RESEARCH AND STUDIES PROGRAM

The Marine Mammal Protection Act requires the Commission to conduct a continuing review of research programs conducted or proposed to be conducted under the authority of the Act, to undertake or cause to be undertaken such other studies as it deems necessary or desirable in connection with marine mammal protection and conservation, and to take every step feasible to prevent wasteful, duplicative research. To accomplish this, the Commission: conducts an annual survey of Federally-funded marine mammal research; reviews and recommends steps that should be taken to prevent duplication and improve the marine mammal research programs conducted or supported by the National Marine Fisheries Service, the U.S. Fish and Wildlife Service, the Bureau of Land Management, and other Federal agencies; convenes meetings and workshops to identify research needs and priorities as well as to review, plan, and coordinate marine mammal research; and contracts for studies to help define and develop solutions to domestic and international problems affecting marine mammal and habitat conservation so as to complement the other agencies' activities which are either underway or contemplated.

Survey of Federally-Funded Marine Mammal Research

Research, directly or indirectly relevant to the conservation and protection of marine mammals and their habitats, is conducted or supported by a broad range of Federal departments and agencies. To determine the precise nature of this research, how it can be used to facilitate marine mammal conservation and protection, and to prevent wasteful duplication, the Commission annually requests and reviews information on the marine mammal research projects being conducted, supported, or planned by other parts of the Federal Government.

In 1980, the Commission requested information from twenty-four different Federal departments and agencies, seventeen of which turned out to be conducting or supporting research related to the conservation and protection of marine mammals. The organizations so identified were the Army Corps of Engineers, the Bureau of Land Management, the Department of Energy, the Department of State, the National Aeronautics and Space Administration, the National Institutes of Health, the National Marine Fisheries Service, the National

Park Service, the National Science Foundation, the National Sea Grant Program, the Naval Ocean Systems Center, the North Pacific Fishery Management Council, the Office of Naval Research, the Smithsonian Institution, the U.S. Air Force, the U.S. Fish and Wildlife Service, and the U.S. Geological Survey.

Although the data from the 1980 survey are still being compiled and analyzed, they show that the Bureau of Land Management, the National Marine Fisheries Service, and the U.S. Fish and Wildlife Service have the largest and most diverse marine mammal programs. As a result of past Commission efforts, duplication of effort no longer is a problem, but data show that certain programs could benefit by being better integrated or coordinated to meet information needs more effectively and economically. As examples, the New York, New Orleans, and Los Angeles Offices of the Bureau of Land Management are supporting regional marine mammal surveys that could and should be better coordinated with related marine mammal studies being conducted or supported by the Northeast, Southeast, and Southwest Fisheries Centers of the National Marine Fisheries Service.

When all of the information from the 1980 survey is compiled and verified, the Commission, in consultation with its Committee of Scientific Advisors on Marine Mammals, will evaluate the information and, as appropriate, recommend steps that should be taken to better develop, orient, and coordinate agency programs.

Research Program Reviews, Workshops,
and Planning Meetings

In 1980, the Commission, in consultation with its Committee of Scientific Advisors, reviewed, commented upon, and/or made recommendations concerning: the overall scope of Federally-funded marine mammal research; the National Marine Fisheries Service's tuna-porpoise, Hawaiian monk seal, and North Pacific fur seal research programs; the bowhead whale research programs being conducted and/or supported by the National Marine Fisheries Service and the Bureau of Land Management; the Bureau of Land Management Outer Continental Shelf Environmental Studies Program; and the Fish and Wildlife Service's manatee and sea otter research programs. The Commission also convened or participated in meetings and workshops to: better define the nature and scope of research programs needed to determine what more can be done to conserve and protect Hawaiian monk seals, the West Indian manatee, and the Southern sea otter; identify research programs needed to assess and mitigate human-

related threats to humpback whales in the northwest Atlantic Ocean; identify research needs and the optimal U.S. research program relative to the conservation and protection of living resources, including whales and seals, in the oceans surrounding Antarctica; assist the States of Washington and Oregon in developing and implementing a program for assessing the nature and extent of marine-mammal fishery conflicts in the Columbia River and nearby areas; review the interaction between man-made noise and vibration and Arctic marine wildlife; review the National Marine Fisheries Service's tuna-porpoise and California coastal marine mammal research programs; review information and research related to the Bering Sea ecosystem; and review and evaluate on-going research related to the conservation of the North Pacific fur seal. Details of these activities, and the recommendations resulting therefrom, are provided elsewhere in this report.

Commission-Sponsored Research and Study Projects

The Departments of Commerce and the Interior have primary responsibility, under the authority of the Act, for acquiring the biological and ecological data needed to protect and conserve marine mammals and the ecosystems of which they are a part. This responsibility has been delegated to the National Marine Fisheries Service and the U.S. Fish and Wildlife Service.

The Commission, as noted earlier, convenes workshops and contracts for research and studies to identify and evaluate threats to marine mammal populations and supports such other research as it deems necessary and can afford. Since it was established, the Commission has contracted for more than 300 projects ranging in amounts from several hundred dollars to \$128,000. The average contract cost has been about \$9,000. Total contract amounts were \$258,787 in FY 74; \$446,628 in FY 75; \$479,449 in FY 76; \$132,068 in the FY 76-77 transition quarter; \$523,504 in FY 77; \$407,678 in FY 78; \$219,897 in FY 79; and \$391,000 in FY 80, including a special \$300,000 appropriation for activities bearing on the protection and recovery of the West Indian manatee, the Hawaiian monk seal, and East Coast cetaceans. The research budget for FY 81 includes a special appropriation of \$100,000 to be spent on projects in one or more of the following areas: marine mammal-fisheries interactions, the optimum concept, return of marine mammal management to the State of Alaska, the California sea otter population, and Antarctic marine living resources.

Contract work undertaken by the Commission in 1980 is summarized below. Final reports from Commission studies completed in 1980 and earlier are available from the National Technical Information Service. They are listed in Appendix B.

Special Research Appropriations

Hawaiian Monk Seal

The Hawaiian monk seal is in grave danger of extinction and, in recent years, the Commission has recommended that the National Marine Fisheries Service and the U.S. Fish and Wildlife Service undertake certain actions to better assess the status and encourage recovery of the species (see previous Annual Reports for details). By late 1979, neither agency had developed an effective research and management program, and Congress appropriated \$100,000 to the Commission for FY 1980 to facilitate the development of such a program.

Following consultations with appropriate representatives of the Hawaii Department of Fish and Game, the National Marine Fisheries Service, the U.S. Fish and Wildlife Service, and the academic community (see the Commission's 1979 Annual Report), the Commission determined that the special \$100,000 appropriation should be used to: (1) synthesize and evaluate survey and resighting data from monk seal studies carried out on Laysan Island in 1977, 1978, and 1979; (2) continue and, if possible, expand the Laysan Island study; (3) initiate a pilot study to evaluate the possible effects and effectiveness of using radio tags and depth-of-dive recorders to determine the movements and habitat-use patterns of monk seals; (4) facilitate the development of a contingency plan for responding to monk seal die-offs such as occurred on Laysan Island in 1978; (5) compile and evaluate available information concerning the feasibility, possible utility, and effects of a shark control program at Kure Atoll or elsewhere in the Leeward Hawaiian Islands; (6) identify and evaluate the possible adverse effects of on-going and planned fishery development on monk seals and their habitat; and (7) complete the analysis of available data concerning the biology, ecology, behavior, and population dynamics of monk seals on Laysan Island. Pursuant to these determinations, the Commission transferred funds to the National Marine Fisheries Service and/or contracted for the studies which are described below.

Synthesis and Evaluation of Survey and Resighting Data from Monk Seal Studies on Laysan Island, 1977-79 (B. and P. Johnson)

In 1977, 1978, and 1979, the investigators surveyed and observed monk seals on Laysan Island. Preliminary evaluation of the data collected by the investigators suggested that it

would be highly desirable to continue and perhaps expand the studies to include regular surveys and behavior observations on monk seals on other islands. Much of the data had not been fully evaluated, however, and it was not possible to determine precisely what, when, where, or how the follow-up studies should be conducted. Therefore, the Commission provided funds and guidance, and made arrangements with the U.S. Fish and Wildlife Service to provide a biometrician to help the investigators conduct a more detailed evaluation of selected survey and resighting data. The results of the analysis were used to evaluate alternative methods for estimating population size and to help plan the field study described below.

Continuation of Monk Seal Studies on Laysan Island
(National Marine Fisheries Service)

Since 1977, the Marine Mammal Commission, the National Marine Fisheries, and the U.S. Fish and Wildlife Service have jointly sponsored an in-depth study of the monk seal population on Laysan Island (see previous Annual Reports). The study has provided essential data on the demography, activity patterns, and behavior of monk seals and, from the results of the data analyses described above, the Commission determined that it should be continued for at least another year. The National Marine Fisheries Service concurred with the Commission's determination and funds were transferred to the Service so that the study could be continued. A comprehensive analysis of the data from the study will be undertaken in 1981 (see below) and the results of the analysis will be used by the Monk Seal Recovery Team, the Commission, and the National Marine Fisheries Service to assist in identifying actions needed to encourage recovery and monitor the status of the Hawaiian monk seal population.

Analysis of Data Concerning the Biology, Ecology, Behavior and Population Dynamics of Monk Seals on Laysan Island
(National Marine Fisheries Service)

As noted above, an in-depth study of the monk seals on Laysan Island has been underway since 1977. The study has produced more data than originally anticipated and, as a result, all of the data have not been analyzed and reported. The Monk Seal Recovery Team reviewed the study results during its first meeting in April 1980 and, following the meeting, advised the National Marine Fisheries Service and the Commission that a more thorough analysis of the data would facilitate the development of the Monk Seal Recovery Plan. The Commission concurred with this determination and, in addition to providing the necessary funds, advised the

Service as to what and how data should be analyzed and reported. The analysis is on-going and, among other things, is expected to provide more reliable information on pup and adult survival, growth rates, age at first reproduction, pupping intervals, age-specific reproductive rates, reproductive behavior, daily and seasonal haul-out patterns, feeding habits and food requirements of monk seals. This information will be used by the Monk Seal Recovery Team to provide a better assessment of the status of the monk seal population and actions needed to encourage its recovery.

Radio-Tagging Monk Seals

(Cedar Creek Electronics Laboratory, University of Minnesota)

Better information on the daily and seasonal activity patterns and the habitat-use patterns of monk seals is needed to improve population estimates, design more effective population surveys, and better delineate marine areas that are or may be critical to the survival or recovery of the Hawaiian monk seal. Radio transmitters and depth-of-dive recorders had been used on other pinnipeds to collect this kind of information and, in 1978, a group of experts convened by the Commission recommended that a pilot study be conducted to evaluate the potential utility and harmful effects of using such technology on monk seals. Subsequently, the National Marine Fisheries Service and the U.S. Fish and Wildlife Service planned a pilot "radio-tracking/dive profile" study. However, they lacked funds to purchase all of the necessary radio tags as well as the requisite technical expertise, and the Commission therefore contracted with the supplier to provide additional tags and technical assistance. The study, completed in 1980, demonstrated that radio tags and depth-of-dive recorders can be used to assess the activity patterns and habitat-use patterns of monk seals and that, if used as in this study, the tags and recorders will not jeopardize the well-being of the monk seals to which they are attached. The study results are being used by the Hawaiian Monk Seal Recovery Team to determine the potential utility of a major tagging effort; the report, being prepared by the National Marine Fisheries Service, is expected in early 1981.

Development of a Monk Seal "Die-Off" Response Plan (National Marine Fisheries Service)

In 1978, 50-60 monk seals died on Laysan Island, possibly as a result of ciguatoxin poisoning. The National Marine Fisheries Service investigated the "die-off" but the investigation was hampered by difficulties in obtaining the necessary permits, and in assembling and transporting an appropriate research

team and equipment to the scene of the die-off. Therefore, a contingency plan is needed to be better prepared to act promptly and efficiently in the event of another die-off. To facilitate the development of a contingency plan, the Commission transferred funds to the Service for a workshop to: identify and provide the rationale for field and/or laboratory studies needed to determine the cause or causes and as possible to mitigate the effects of other monk seal "die-offs" should they occur; identify the permits, equipment, supplies, personnel, facilities, and logistic support that would be required to conduct the studies; and estimate the costs of conducting such studies. The workshop, organized by the leader of the Hawaiian Monk Seal Recovery Team, was held at the Service's Southwest Fisheries Center in April 1980. A workshop report has been drafted and is being used by the Service, in consultation with the Commission, to develop a die-off response plan.

Review of Available Information Concerning the Possible Effects of a Shark Control Program on Shark Populations and Other Components of Marine Communities in the Vicinity of the Northwest Hawaiian Islands
(Ocean Research Consulting and Analysis Limited, Honolulu, Hawaii)

It has been hypothesized that the observed decline of monk seals on Kure Atoll may be caused by sharks preying upon newly weaned pups and that a shark control program in the vicinity of Kure Island and perhaps elsewhere in the Northwest Hawaiian Islands might facilitate the recovery of the Hawaiian monk seal. However, it is not known whether predation is a cause of significant monk seal mortality or how a shark control program might affect the shark populations or other components of the marine communities of which they are a part. This study was undertaken to compile and summarize available information on: the structure and dynamics of shark populations and the marine communities of which they are a part; and the effects and effectiveness of shark control programs and shark fisheries in Australia, South Africa, Hawaii, and elsewhere. A preliminary report was provided to the Hawaiian Monk Seal Recovery Team in September 1980 and is being used to help assess the possible costs and benefits of reducing shark populations to facilitate recovery of the Hawaiian monk seal. The final report is expected to be completed in early 1981.

Identification and Evaluation of On-Going and Planned Fisheries in the Northwest Hawaiian Islands
(SEACO, Honolulu, Hawaii)

Monk seals may be disturbed, harassed, or taken incidentally by sport and commercial fishermen and overharvesting of certain fish and shellfish populations may reduce the habitat's carrying capacity for monk seals. This study was undertaken to provide information that could be used to determine whether and how on-going and planned fisheries may directly or indirectly affect monk seals. A preliminary report was provided to the Hawaiian Monk Seal Recovery Team in September 1980 and is being used to help determine whether and what actions may be needed to assure that fishery development does not have a significant adverse effect on monk seals and their habitat. The final report is expected in early 1981.

West Indian Manatee

Because of human-caused mortality, injury, and habitat destruction/degradation, the Florida manatee population, like other populations of West Indian manatees, is in danger of extinction. For these reasons, the Commission, in recent years, has recommended that the U.S. Fish and Wildlife Service take a variety of steps to protect and encourage recovery of the species (see previous Annual Reports).

In FY 1980, the Commission received a \$100,000 Congressional appropriation to facilitate the development of an effective research and management program to benefit the West Indian manatee. Following extensive governmental and non-governmental consultations, (see the 1979 Annual Report), the Commission decided to use the appropriation to: (1) make an appropriately qualified individual available to the Fish and Wildlife Service to facilitate problem identification and coordination of research, management, and education activities being undertaken by various Federal, State, and private organizations; (2) support a pilot program to develop site-specific research/management plans for areas of special significance to the manatee; (3) initiate a study to assess and characterize the feeding habits, food preferences, and feeding areas of manatees in Florida; (4) help strengthen manatee enforcement programs in Florida through additional training of law enforcement officers; (5) intensify the Florida Department of Natural Resources' public information and education programs; and (6) facilitate the development of a manatee advisory group

for the State of Florida. To meet these objectives, the Commission either transferred funds to the U.S. Fish and Wildlife Service or contracted directly for the described activities.

Problem Identification, Overview, and Coordination of Efforts to Protect the West Indian Manatee and its Habitat (U.S. Fish and Wildlife Service)

Based upon a number of reviews, including on-site evaluations, the Commission concluded, and the Fish and Wildlife Service agreed, that the Service needed a full-time program coordinator to oversee, facilitate, and coordinate the efforts of the various responsible and interested groups (see Chapter III). Therefore, the Commission provided funds and guidance to the Service, which in turn, contracted with the Florida Audubon Society to provide a full-time Manatee Recovery Activities Coordinator. During 1980, the Coordinator met regularly with representatives of the responsible agencies and interested organizations, developed the draft of the detailed plan of action for facilitating the protection and recovery of manatee populations in Florida, and provided assistance to the Service's management team until the Service appointed a full-time staff person with management responsibility. Under the terms of the Interagency Agreement with the Commission, the Service agreed to provide two additional years' support for the Coordinator.

Development of a Research/Management Plan for the Crystal River Manatee Population (U.S. Fish and Wildlife Service)

Available information on the distribution and movements of manatees suggests that there are a number of more or less discrete populations or sub-populations of manatees in Florida. Human-related threats to these populations or sub-populations appear to be area-specific so that protection and recovery of the population as a whole will require development and implementation of a number of area-specific research/management programs. Therefore, the Commission provided funds and guidance to the Fish and Wildlife Service to initiate development of a research/management plan for the manatee population which overwinters in the Crystal River area of Florida. The plan, intended to serve as a model for developing research/management plans for manatee populations in other areas as well as the plan for the Crystal River area proper, is expected in the spring of 1981.

Initiation of a Study to Assess and Characterize the
Feeding Habits, Food Preferences, and Feeding Areas of
Manatees in the Hobe Sound/Riviera Beach Area of Florida
(U.S. Fish and Wildlife Service)

To assure the continued existence and well-being of manatee populations in Florida, breeding areas, feeding areas, and other areas of biological importance must be protected and human-caused mortalities and injuries must be reduced. Unfortunately, habitat requirements and use patterns of manatees are not well documented, and all areas of special biological importance to manatees have not been identified. Furthermore, standardized methods and procedures for identifying, characterizing, and monitoring important manatee habitats have not yet been developed. This study was designed to develop and evaluate methods and procedures for identifying, characterizing, and monitoring essential manatee habitats. The Hobe Sound/Riviera Beach area includes extensive grassbeds which are used by manatees that congregate in the warm water effluent from the Riviera Beach Power Plant during winter cold periods, and available information suggests that dumping, dredging, and other human activities may be affecting the grassbeds. A need exists, therefore, to characterize and monitor the grassbeds and to determine their importance relative to the Hobe Sound/Riviera Beach manatee population, as well as to develop methods and procedures for doing so. Work began in October 1980, and the Fish and Wildlife Service intends to continue to support the research until the desired information has been acquired.

Law Enforcement Workshops
(Florida Department of Natural Resources)

Manatees are afforded protection under a variety of State and Federal laws, and all officers in the Florida Marine Patrol are deputized to take enforcement actions pursuant to Federal statutes such as the Marine Mammal Protection Act and the Endangered Species Act as well as the State of Florida's Manatee Sanctuary Act. The Commission, recognizing that fully effective officers must understand applicable law and the possible biological consequences of harassment, poaching, vandalism, and other causes of mortality and injury, contracted with the Department of Natural Resources' Florida Marine Patrol to convene a series of eight regional training workshops, under contract to the Commission, to review: applicable State and Federal laws; types of activities for which warnings or citations can be issued; ways of achieving optimum cooperation and effectiveness among law

enforcement agencies; and manatee life history including distribution, abundance, movements, behavior, feeding habits, and habitat use. All of the training sessions, to which the Florida Marine Patrol invited officers from the Game and Freshwater Fish Commission and the Puerto Rico Department of Natural Resources, were held before the beginning of the 1980-81 winter season.

Intensification of Education Programs
(Florida Department of Natural Resources)

The protection and recovery of manatees will depend heavily upon a well-informed public. Having recognized this, the Florida Department of Natural Resources has conducted public education programs for some time. Perceiving a need for the preparation and distribution of information brochures to the public, the Department proposed to the Commission that it consider supporting such an undertaking. The Commission contracted for the preparation and distribution of 50,000 brochures and for the revision of the field enforcement manual for Florida Marine Patrol Officers. Drafts have been completed and the final documents are expected in early 1981.

Constitution of a State Manatee Advisory Group
(Florida Department of Natural Resources)

The State of Florida's Department of Natural Resources sought Commission support to enable it to establish a committee of experts to assist the Director in: evaluating drafts of the manatee recovery plan; coordinating various State and Federal programs related to manatee recovery; developing rules on State aquatic preserves including some of those which may overlap designated areas of critical manatee habitat; identifying land which should be acquired for management and maintenance of important manatee habitat; making revisions appropriate for inclusion in the annual updating of work plans appended to the manatee recovery plan; and identifying ways to more effectively use all available statutory and programmatic mechanisms to further protect and encourage the recovery of the manatee. A contract was let by the Commission, and committee members were selected in late 1980. They are to be formally invited to serve in early 1981.

East Coast Cetaceans

More than 30 species of cetaceans and pinnipeds, including six endangered species of large whales, are known to occur in waters along the East Coast of the United States. Relatively little is known about the status or trends of these species, or how they have been or might be affected by offshore oil and gas development, coastal zone development, sport and commercial fisheries, whale-watching, or other human activities. Since the National Marine Fisheries Service, the agency responsible for the conservation and protection of these species, had not developed an effective research and management program, Congress made a special appropriation of \$100,000 to the Commission in FY 80 to facilitate the development of a research and management program for East Coast cetaceans.

To determine how best to invest the money to facilitate the development of an effective research and management program, the Commission contracted with the New England Aquarium to organize and convene a workshop to: compile and summarize available information on the status and trends of cetaceans and pinnipeds found off the East and Gulf Coasts; better define human-related threats to the species; and identify research being conducted or planned by the National Marine Fisheries Service, the Bureau of Land Management, and other entities (see p. 10 of the Commission's Annual Report for 1979). Workshop participation was broad. Representatives of Federal and State agencies, university scientists and others were involved. The group's report (see Appendix B) was reviewed by the Commission in consultation with its Committee of Scientific Advisors and the decision was made to use the money to: (1) compile and evaluate available data on cetaceans in the Cape Cod-Massachusetts Bay area; (2) initiate a program to assess and monitor the status of endangered whales, harbor porpoises, and other cetaceans along the Northeast Coast of the United States, especially in the Passamaquoddy-Lower Bay of Fundy area of Northwestern Maine; and (3) convene a workshop to assess available information on the biology, ecology, and exploitation of humpback whales in the northwest Atlantic. */ To accomplish

*/ The appropriation was designated for research relative to the conservation and protection of East Coast cetaceans. However, since many factors affecting cetacean conservation and protection also affect pinnipeds, the workshop was designed to address pinniped as well as cetacean problems. While the appropriated funds were used exclusively for cetacean research, the Commission advised the National Marine Fisheries Service as to research needed to facilitate the conservation and protection of East Coast pinnipeds.

these things, the Commission either transferred funds to the National Marine Fisheries Service with precise guidance on its expenditure and/or directly contracted for the following studies.

Compilation and Evaluation of Available Data on Cetaceans
in the Cape Cod-Massachusetts Bay Area
(Charles A. Mayo, Provincetown Center for Coastal Studies)

During the past five years, the contractor has observed and photographed cetaceans in the vicinity of Cape Cod and Massachusetts Bay. These observations and photographs, from an inshore area not covered by the BLM-supported Cetacean and Turtle Assessment Program (CETAP), had not been fully evaluated or reported. Therefore, the Commission provided funds to assist in synthesizing, analyzing, and reporting the data which the contractor had collected. The results of the analyses were presented and discussed at the Humpback Whale Workshop described below and the report will be completed in early 1981.

Workshop on Humpback Whales in the Western North Atlantic
(National Marine Fisheries Service)

Participants in the Commission's September 1979 Workshop on East Coast Cetaceans and Pinnipeds noted that substantial amounts of data on the biology and ecology of humpback whales have been neither summarized nor thoroughly evaluated, and that this should be done to better determine the kinds of research and management actions needed to protect and conserve humpback whales and their habitat in the Northwestern Atlantic. It was determined that a workshop would be the most efficient method for compiling and evaluating these data, and the Commission provided the National Marine Fisheries Service the funds necessary to organize and convene it. The report of the workshop, which was held at the New England Aquarium on 17-21 November 1980, is due in early 1981; it will be used by the Service, in consultation with the Commission, to develop a research/management plan for humpback whales in the northwestern Atlantic.

Initiation of a Program to Assess and Monitor the Status
of Endangered Whales, Harbor Porpoise, and Other Cetaceans
along the Northeast Coast of the United States
(National Marine Fisheries Service)

Little is known about the status and trends of cetacean populations in waters off the Northeast Coast of the United

States, or how these populations either have been or might be affected by environmental pollutants, coastal zone development, offshore oil and gas development, fisheries, and/or other human activities. Although the Bureau of Land Management is supporting a general cetacean survey in coastal waters between Cape Hatteras, North Carolina and the U.S./Canadian border, the survey is providing only limited information on harbor porpoise and other coastal species and does not include the area that could be affected by construction and operation of the proposed oil refinery at Eastport, Maine. Because of this, the Commission provided funds to initiate a program to determine the species, number and, as possible, the ages and sexes of cetaceans that occur in and adjacent to the Eastport area at different times of the year. Other objectives are to determine the distribution, number, daily and seasonal movements, productivity, and habitat requirements of harbor porpoise in the Northeast and, as possible, how harbor porpoises have been or are being affected by environmental contamination, incidental take by fishermen, or other human activities. The program was begun in April 1980, and its results have documented, among other things, that significant numbers of right whales and other endangered cetaceans occur in areas that could be affected by the proposed oil refinery at Eastport, Maine. Provided funds are available, the National Marine Fisheries Service will continue the program until such time as the desired information has been acquired.

Additional Commission-Sponsored
Research and Study Projects

Survey of Federally-Funded Marine Mammal Research
(G. H. Waring, Southern Illinois University)

The Commission conducts an annual survey to identify marine mammal research conducted or supported by Federal agencies. At the end of 1980, the contractor was organizing and summarizing information provided by the agencies on their FY 80 and FY 81 research programs. The completed report will be sent to the agencies for verification of the data contained therein. Following verification, the Commission, in consultation with its Committee of Scientific Advisors, will review the information and, as appropriate, recommend actions to better develop, orient, and coordinate agency research programs. A copy of the final report will be provided to all agencies.

Analysis of Data, Models, and Procedures Used to Regulate
Commercial Whaling
(William Clark, University of Washington)

Commercial whaling has been poorly regulated and has led to the depletion and near extinction of several species and populations of large whales. Although regulation has been improved substantially in recent years, there still is considerable doubt as to the reliability of data, assumptions, procedures, and models being used by the International Whaling Commission and its Scientific Committee to assess the status of exploited whale populations and to establish allowable catch levels. The purpose of this study, initiated in 1979, is to review and evaluate the reliability of data, models, and procedures being used to assess the status of exploited whale populations and to establish allowable catch levels. The Commission will review the contractor's report and, as appropriate, advise the National Marine Fisheries Service and the U.S. Commissioner to the International Whaling Commission as to actions that should be taken to improve the data base and/or the models and procedures being used to estimate the status of exploited whale populations and allowable catch levels.

Evaluation of Marine Ecosystems Research in the Antarctic
(National Academy of Sciences)

Available information on the biology and ecology of whales, seals, krill, and other components of the Southern Ocean ecosystem is insufficient to accurately predict the direct and indirect effects of either the developing krill fishery or activities associated with exploration for and exploitation of offshore oil and gas in the Antarctic. Likewise, on-going and planned research programs seem inadequate to detect the direct and indirect effects of developing fisheries and possible offshore oil and gas development. Therefore, the Marine Mammal Commission took the lead in providing support and developing additional support among the National Oceanic and Atmospheric Administration and the National Science Foundation for the National Academy of Sciences to conduct a review and evaluation of marine ecosystems research in the Antarctic (see Chapter IX for additional background). The report from the study is expected in the fall of 1981, and will be used to determine whether and how the U.S. Antarctic Research Program should be revised and/or expanded to better assess and monitor the effects of fishery development and possible offshore oil and gas development in the Antarctic.

The Fishery-Dolphin Conflict in the Iki Island Area
of Japan
(Toshio Kasuya, Ocean Research Institute, Japan)

Fishermen in the Iki Island area of Japan fish for a number of species including yellowtail and squid. In recent years, the catch of these species has declined, and the fishermen, attributing poor fishing success to the presence of the cetaceans, have killed several thousand dolphin. Although these facts were generally known, reliable information on the Iki Island fishery and the cetacean-fishery conflict was not available. This study was contracted with a Japanese scientist to summarize available information on the history of the fishery and the fishery-cetacean conflict.

Interactions Between Fur Seals and Fisheries in the Bering Sea
(Gordon Swartzman, University of Washington, Seattle)

Since marine mammals are affected by sport and commercial fisheries, marine mammal populations and fisheries must be managed cooperatively to meet the goals of the Marine Mammal Protection Act and the Fishery Conservation and Management Act. This fact has not been reflected in many fishery management plans, and in 1980, the Commission, the North Pacific Fishery Management Council, and the National Marine Fisheries Service jointly sponsored a workshop to determine how ecosystem simulation models might be used to facilitate the development of ecosystem-oriented management plans (see Chapter V). Since the workshop focused on marine mammal-fishery interactions in the Bering Sea, this study was undertaken to compile and provide a preliminary evaluation of data and models being used to assess the interrelationships between fur seals, finfish, and other components of the Bering Sea ecosystem. The report, which has been published (see Appendix B), includes: a summary of available information concerning fur seals and fisheries in the Bering Sea; an assessment of the present status of fish species that are the primary prey of the North Pacific fur seal; a description and evaluation of the models that are being developed and used to estimate the size and productivity of pollack and other commercially exploited fish stocks in the Bering Sea; and recommended actions for improving the data and models upon which management of fish stocks, the fur seal herd, and the Bering Sea ecosystem are being based. The National Marine Fisheries Service, the North Pacific Fishery Management Council, and the Commission are reviewing the report and representatives of the Service, the Council, and the Commission will meet in early 1981 to discuss follow-up actions that may be necessary and desirable.

CHAPTER III

ENDANGERED, THREATENED, AND DEPLETED SPECIES

The Commission reviews the status of marine mammal populations and makes recommendations for appropriate actions and designations under the Marine Mammal Protection Act and the Endangered Species Act.

In 1980, the Commission devoted particular attention to the West Indian manatee, Hawaiian monk seal, California sea otter, the bowhead whale, the gray whale, and the humpback whale.

West Indian Manatee (Trichechus manatus)

Along with the Hawaiian monk seal, the right whale, and the bowhead whale, the West Indian manatee is among the most endangered marine mammals inhabiting coastal waters of the United States. The population in Florida is thought to be about 1,000 and may be declining. Observed mortality was 99 animals in 1977, 79 animals in 1978, 73 animals in 1979, and 63 animals in 1980. Observed mortality is certainly but a portion of the total actual mortality, and the apparent decline in mortality may in fact result as much from there now being fewer manatees to kill as from improved protective and enforcement measures. There is little question that if the population numbers only 1,000 animals and the present levels of mortality continue, the Florida manatee population will soon become extinct.

Examples of human-related factors lessening the species' chance for survival in the Southeastern United States include: accidental death or serious injury resulting from collisions with hulls or propellers of boats and barges; entrapment in water level control gates and navigation locks; entanglement in fishing gear; poaching; vandalism; and loss of habitat due to coastal development.

Whereas previous Annual Reports have catalogued a continuing and distressingly low level of activity with respect to efforts to protect and encourage the recovery of this species, the Commission is pleased to report that 1980 appears to have been a year of progress. The Fish and Wildlife Service intensified its efforts significantly, and cooperative work among the State of Florida, the Federal Government, and private organizations increased markedly.

To place 1980 progress in context, certain 1979 activities, fully described in the Commission's previous Annual Report, are briefly summarized. Late in the summer of 1979, the Commission learned that it had been appropriated \$100,000 in fiscal year 1980 for work on the manatee. The Commission and its Committee of Scientific Advisors immediately organized and convened a planning group composed of representatives from relevant State agencies in Florida, the Fish and Wildlife Service, the scientific community, and environmental organizations to review needed research and management activities and to provide suggestions on ways in which the appropriation could most profitably be invested.

In addition, an on-site re-evaluation of the situation was done by the Commission's Executive Director who met with research and management officials from a number of Federal and State agencies as well as representatives of the scientific community, industry, and environmental groups in Florida in December. As a result of these discussions and reviews, the Commission concluded that: (1) steps to improve the management of activities related to manatee protection were more urgently needed than additional research as a prerequisite to making good use of research already done and to be done; (2) the Fish and Wildlife Service needed an informed, competent, full-time manatee program coordinator/facilitator to work with all interested parties to further protection and recovery efforts; (3) a manatee program coordinator/facilitator was needed to maintain an on-site overview of manatee-related activities and facilitate planning for and implementation of the Service's manatee recovery activities; and (4) the Florida Department of Natural Resources had the interest and competence to undertake critically needed regulatory, enforcement, and educational activities and should be assisted in doing so. Incorporating these thoughts and others, the Commission developed a plan to maximize returns on the \$100,000 appropriation. The Commission also sought and received Congressional approval to invest a portion of the money in management-related activities as well as research programs.

To summarize, at the end of 1979, the Commission had identified steps which it believed necessary to address the broad range of manatee problems and had discussed these steps with Federal officials, State officials, and other interested persons. To further ensure that progress be realized, the Commission and its entire Committee of Scientific Advisors on Marine Mammals met in Florida in late February 1980 with representatives of: various Federal agencies including the Fish and Wildlife Service, the Corps of Engineers, and the National Aeronautics and Space Administration;

agencies of the State of Florida including the Department of Natural Resources and the Game and Freshwater Fish Commission; Sea World of Florida; the Florida Power and Light Company; various conservation groups including the Florida Audubon Society, Defenders of Wildlife, and the Center for Action on Endangered Species; and other interested persons. The purposes of the meeting were to provide for a thorough review and evaluation of manatee research and management efforts with benefit of broad participation and to seek the participants' views on Commission plans for investing the \$100,000 appropriated for work on manatees.

The meeting was held on February 21st and 22nd in Tampa, Florida, a location convenient for representatives of State and Federal agencies and other interested persons. During the full day devoted to review and evaluation of various factors affecting manatees, participants provided useful insights and suggestions to the Commission by concentrating on issues of special concern, deficiencies in on-going and planned programs, and ways to improve Federal/State/private communication and cooperation. Research and management activities either underway or under consideration were discussed as were ideas on steps which could and should be taken immediately to further protect and encourage the recovery of the manatee. Among the many topics discussed were: the Service's research on manatees, problems impairing the effectiveness of State and Federal enforcement efforts, the need for signs to warn boaters of manatees, the need to promptly complete the Manatee Recovery Plan, and Commission plans for investing its \$100,000.

Steps were taken to implement one part of the plan by immediately transferring \$50,000 to the Fish and Wildlife Service to support the first year's work of a Manatee Recovery Activities Coordinator. The Director of the Service shared the Commission's view that the appointment of such a person was essential, and further agreed to pay for the Coordinator for two additional years. In 1980, the Coordinator became the primary force in developing concrete plans to implement the more general Manatee Recovery Plan, coordinated inter-agency activities, and assisted the Service's management team pending its appointment of a full-time staff person to manatee work.

Subsequently, the Commission transferred \$25,000 to the Service to support a pilot program to develop a site-specific research/management plan for the Crystal River area -- a plan designed to facilitate protection for the manatees and their habitat in that area as well as to serve as a prototype plan for other areas. In this instance, as with the support of the coordinator, the Service agreed to continue to underwrite

the work beyond the first year until it is completed. The Commission made a third transfer of \$18,000 to the Service for a study to assess and characterize food preferences and feeding areas for manatees in certain areas of Florida as an important step in describing critical habitat. These transfers, as is the case with inter-agency transfers made by the Commission, were accompanied by precise guidance as to ways in which the money was to be spent. Work on both projects is underway, and a progress review will be held in February 1981.

To assist the State of Florida in its efforts to protect and encourage the recovery of the manatee, the Commission contracted with The Florida Department of Natural Resources to: convene a series of enforcement workshops to provide special training for officers of the Florida Marine Patrol (the enforcement arm of the Department of Natural Resources) on relevant laws and enforcement procedures, manatee biology, and general information related to manatee protection; prepare and disseminate special brochures to better inform and educate the public; rewrite the manatee section of the Florida Marine Patrol's field enforcement manual; and constitute and support a State Manatee Advisory Committee for its first year's operation.

With respect to the enforcement workshops, the Florida Marine Patrol held eight regional workshops before the beginning of the 1980-81 winter season. One hundred and sixty-eight Florida Marine Patrol officers, seventy Florida Game and Freshwater Fish Commission officers, two Puerto Rico Department of Natural Resources enforcement officers, and representatives from other governmental agencies, and private groups participated. One index of the success of the workshops may lie in the comparative figures for Florida Marine Patrol manatee-related citations in the 15 November-31 December periods for 1979 and 1980. These were: 1979, 31 arrests and 190 written warnings; 1980, 72 arrests and 850 written warnings. The brochures for the public are to be finished in early 1981 as is the revised field enforcement manual. Selections were made in 1980 for the Advisory Committee and formal invitations are to be extended in early 1981.

During the Commission's February meeting, the Director of the Florida Marine Patrol noted that while the Florida Department of Natural Resources had posted more than 300 signs to warn boaters to reduce speeds because of the possible presence of manatees, many signs remained to be posted. Preliminary discussions took place with the U.S. Army Corps of Engineers' representative as to whether the Corps might assist in posting the remaining signs, and the Commission

followed up on these discussions later that same month in Washington. Those and subsequent meetings involving the staffs of the Florida Department of Natural Resources, the Corps of Engineers, and the Commission concluded favorably when the Corps agreed in October to provide the necessary funds and logistical support to post 91 additional signs. The negotiation of contracts for the work is to be completed in early 1981 and the signs are to be in place by early summer.

The Fish and Wildlife Service had, by mid-1979, completed a draft Manatee Recovery Plan on which the Commission commented in detail on 25 July 1979. The Commission, emphasizing the need for action-oriented planning, recommended that the Plan's content, format, and process for updating be revised to precisely identify specific actions, schedules, and resources that the Service would commit to protect and encourage the species' recovery. In December, the Commission further commented on the next iteration noting that, although the Plan was substantially improved, it still did not contain the specific implementation plans earlier recommended by the Commission. During its February meeting, the Commission learned that the most recently reviewed draft was being considered for formal approval by the Director of the Fish and Wildlife Service. Although the Plan did not yet include the detailed, action-oriented implementation appendices recommended by the Commission, the Service agreed that such plans were needed, would be developed, and would be added to the approved Plan upon completion. On 15 April 1980, the Director of the Service, in approving the West Indian Manatee Recovery Plan, noted that, with the assistance of the Manatee Recovery Activities Coordinator, it would be updated and revised as soon as possible to include specific implementation plan appendices.

In early summer, the Commission suggested to the Fish and Wildlife Service that it convene a meeting of key personnel to review general progress and the activities of the Manatee Recovery Activities Coordinator, particularly with reference to the Recovery Plan. The Service responded promptly, and held the meeting on 23 June. It became clear that the Manatee Recovery Activities Coordinator had, of necessity, worked on many problems more appropriately handled by the Service's management staff, and, as a result, had not had the necessary time to complete the Recovery Plan appendices. To remedy this, the Service assigned full-time responsibility for manatee management activities to a staff member in Florida, thereby allowing the Manatee Recovery Activities Coordinator to concentrate on longer-term problems like the Recovery Plan. As a result, appendices were prepared and reviewed by representatives of the Service, the Commission,

the State of Florida, the Puerto Rico Department of Natural Resources and others on 20-21 October. By early 1981, the Service expects to have completed final appendices which set forth specific tasks to be conducted, those responsible for doing them, the costs involved, and the time-frame within which each task is to be done.

In 1980, increased levels of cooperation and communication as well as intensified commitments to meet problems became apparent throughout governmental and non-governmental organizations. Improved law enforcement, the creation of specially protected areas, better public information and education programs, strengthened research and study programs, and a generally heightened awareness of the problems and issues are all in evidence.

Hawaiian Monk Seal (*Monachus schauinslandi*)

The Hawaiian monk seal inhabits a limited area on and around the coral atolls and islets of the Leeward Hawaiian Islands. Surveys conducted since the late 1950's indicate that there has been a substantial decrease in the population. Fewer than 700 seals were counted in 1977, while 1,200 were seen in 1958. Furthermore, in 1978, 50-60 seals died on or near Laysan Island, perhaps as a result of ciguatoxin poisoning. Threats to the species include: disturbance and harassment by persons living on or visiting the islands; commercial fishing in adjacent reef and open ocean areas; disease; natural and man-made toxic substances; and shark predation.

The National Marine Fisheries Service has lead-agency responsibility for protecting the monk seal and its habitat. This responsibility is shared to some extent with the Fish and Wildlife Service as well, since a portion of the species' range occurs in the Hawaiian Islands National Wildlife Refuge.

In recent years, the Commission has recommended a number of actions, including the designation of critical habitat and the constitution of a Monk Seal Recovery Team, to encourage the development of an effective research and management program which would facilitate protection and encourage the recovery of the species (see previous Annual Reports). In Appropriations Hearings on the FY 1980 budget, Congress took note of the slow response to Commission recommendations and, late in the summer of 1979, appropriated \$100,000 to the Commission to undertake necessary work on monk seals. Immediately thereafter, the Commission organized and convened a meeting of monk seal experts, including scientists from the National Marine Fisheries Service, the U.S. Fish and

Wildlife Service, the State of Hawaii, and the academic community, to review the draft five-year research plan prepared at an earlier Commission-sponsored meeting and provide suggestions on ways in which the maximum return on the appropriated money could be realized. The experts' report was used to develop a preliminary plan for investing the \$100,000, and, on 27 December 1979, letters enclosing the plan were sent to the National Marine Fisheries Service and the U.S. Fish and Wildlife Service for review and comment.

The Commission's plan identified ten tasks of primary importance for: determining the cause or causes of the monk seal decline; improving assessments of the status of monk seal populations and habitats; and facilitating the development, support, and implementation of an effective monk seal recovery plan. The letter to the National Marine Fisheries Service noted that the Commission assumed that the Service would continue certain studies and might be able to provide personnel and/or ship support to assist in the conduct of certain studies identified in the plan. The Commission also asked if the Service would undertake certain of the identified tasks with Commission support, and that, if it chose to do so, it submit a research proposal or proposals to the Commission for consideration. The Commission also recommended in its letter that the Service appoint and convene the Monk Seal Recovery Team no later than the first week in February 1980, and further asked that the information requested in the letter be provided in time to be considered at the meeting of the Commission and its Committee of Scientific Advisors on 21-22 February. The Commission's 27 December 1979 letter to the Fish and Wildlife Service asked that the Service: review the draft plan; indicate how it might be improved and/or coordinated with research programs being carried out in the Hawaiian Islands National Wildlife Refuge; provide a list and description of research projects to be carried out at the Refuge during the coming year, including an assessment of the possible effects of those studies on monk seals; and advise the Commission as to its short- and long-range plans for the abandoned Coast Guard station on Tern Island, French Frigate Shoals.

On 21-22 February 1980, the Commission and its Committee of Scientific Advisors met with representatives of the National Marine Fisheries Service who advised the Commission that: the Service generally concurred with the tasks, priorities, and funding levels set forth in the Commission's draft research and studies plan for monk seals; the Honolulu Laboratory of the Southwest Fisheries Center was willing to

undertake certain studies if funds were provided by the Commission; decisions on other studies should be postponed until after the first meeting of the Monk Seal Recovery Team; the Service was in the process of hiring a recovery team leader and appointing a recovery team; and a completion date for the monk seal recovery plan could not be projected. The Commission also was advised that the Draft Environmental Impact Statement concerning designation of critical habitat for the Hawaiian monk seal was almost finished and would be sent to the Commission for review and comment. Representatives of the U.S. Fish and Wildlife Service advised the Commission that certain proposals for research in the Hawaiian Islands National Wildlife Refuge were under review, pursuant to Section 7 of the Endangered Species Act, to determine whether they might have an adverse effect on monk seals, and that a study was being conducted to identify and evaluate alternative uses for the abandoned Coast Guard station on Tern Island.

After the 21-22 February meeting, the Commission took steps to implement the plan. Among other things, it drafted a scope of work for Laysan Island monk seal studies, and, by letter of 3 March 1980, forwarded it, as well as a proposed inter-agency agreement to transfer \$50,000 to the Service for support of the study. Also, since all the information requested in its 27 December letters had not been provided by the two Services prior to or during the February meeting, the Commission wrote them again on 7 March. In its letter to the National Marine Fisheries Service, the Commission noted that it remained uncertain as to: the details of certain studies being conducted or planned by the Service; how much financial assistance would be needed from the Commission in order to undertake certain activities; the Service's views as to other field research which could and should be conducted in 1980 and how it might contribute to those efforts; how much the Service had budgeted for monk seal-related activities in fiscal year 1981; who had been invited and agreed to become members of the Monk Seal Recovery Team; when the recovery team was expected to begin meeting; and when the recovery plan was expected to be completed, reviewed, adopted, and implemented by the Service.

The Commission's 7 March letter to the U.S. Fish and Wildlife Service requested that, before taking any action, the Service give the Commission and the National Marine

Fisheries Service an opportunity to review and comment on the report concerning options for the future use of the abandoned Coast Guard Station on Tern Island. The letter also asked the Service to advise the Commission as to: the nature and extent of monk seal research being conducted or planned by the Service and how it might be coordinated with other research being conducted or planned by the Commission and/or the National Marine Fisheries Service; the nature and extent of other research on the Hawaiian Islands National Wildlife Refuge which might affect monk seals or other endangered species; and the status of any on-going or planned Endangered Species Act consultations with the National Marine Fisheries Service.

On 12 March 1980, the Commission received the National Marine Fisheries Service's 7 March response to its letter of 27 December 1979. The response provided useful comments on the Commission's draft research and studies plan, as well as other requested information, and noted, among other things, that: the leader of the Monk Seal Recovery Team had been selected; the first meeting of the recovery team would be held sometime during the period from mid- to late-March 1980; and prior to the meeting, a workshop would be held to facilitate development of a plan for responding in the event of another monk seal "die-off" such as occurred on Laysan Island in 1978. On 13 March, the Commission and the National Marine Fisheries Service signed the inter-agency agreement which the Commission had forwarded to the Service on 3 March, thereby implementing the transfer of funds necessary to continue the Laysan Island monk seal study (see Chapter II).

On 18 March, Commission and National Marine Fisheries Service representatives met to review efforts to implement research and management actions.*/ During the meeting, Commission representatives expressed continuing uncertainty about the precise nature of the ciguatoxin and other monk seal studies either underway or planned by the Service, the resources allocated by the Service for monk seal-related activities in FY 80, and the possible need for Commission support of either the workshop to develop a "die-off" response plan or other needed studies. The Service noted that it had reprogrammed FY 80 funds to cover certain expenses including recovery team support and vessel charters for field scientists working on Laysan and other islands. It was also agreed

*/ A Fish and Wildlife Service representative was invited to attend this meeting, but was unable to do so.

that the Service would provide additional information about on-going and planned research and advise the Commission as to whether its support would be needed for the workshop to develop a "die-off" response plan.

On 27 March, the Service wrote the Commission that such support was needed, and on 28 March, the Commission developed and forwarded a scope of work and inter-agency agreement transferring \$3,000 to the Service for the workshop. At about the same time, the Commission also contracted for the radio transmitters for the pilot radio-tracking/dive-profile study, and thereby helped get this important work started (see Chapter II).

The Hawaiian Monk Seal Recovery Team used its first meeting on 26-27 April 1980 for organizational purposes and to review the Commission's research and studies plan. On 16 May, the results of the meeting were sent to the Commission and subsequently discussed during a 23 May meeting between Commission and Service representatives. Among other things, the Commission was advised that: the Recovery Team expected to complete a draft recovery plan by June 1981; the Recovery Team, with support from the National Marine Fisheries Service, would undertake several tasks identified in the Commission's research and studies plan; and the Recovery Team was of the opinion that analysis of existing data from the in-depth study of monk seals on Laysan Island should be afforded higher priority than certain other tasks identified in the Commission's research and studies plan.

On 10 June 1980, the Fish and Wildlife Service answered the Commission's 27 December letter. The Service concurred with the plan's objectives, recommended that the Commission consider allocating funds to support additional analysis of data from the Laysan Island study, provided a list of on-going and planned studies in the Hawaiian Islands National Wildlife Refuge, described efforts to coordinate studies and consult with the National Marine Fisheries Service to ensure that the studies would not adversely affect monk seals or other endangered species, and reviewed the situation with respect to the abandoned Coast Guard station on Tern Island.

On 19 June 1980, Commission and National Marine Fisheries representatives met to review progress and identify additional actions that might be taken in 1980 to speed developing and implementing an effective monk seal recovery plan. During the meeting, it was noted that: the Service was proceeding

with efforts to assess and designate critical habitats for monk seals in light of information developed during the recently completed "radio-tracking/dive-profile" study of monk seals on Lisianski Island (see Chapter II); the Service also was developing an education program and information brochures on monk seals; and the Service believed that every effort should be made to promptly complete the analysis and reporting of data from the Laysan Island study. The Commission agreed to contract for a study to compile and summarize available information on shark fisheries and control programs in Hawaii and elsewhere and for an analysis of possible direct and indirect effects of on-going and planned fishery development in the Northwest Hawaiian Islands. The Commission also agreed to consider transferring money to the National Marine Fisheries Service to complete the analysis of Laysan Island data.

Following further discussions with the Recovery Team Leader, the Commission contracted for the studies on shark control programs and fishery development on 8 and 12 August, respectively (see Chapter II). On 16 September, the Commission concluded an agreement to transfer \$21,000 to the Service for the analysis of data from the Laysan Island study.

In addition to taking actions to use the special \$100,000 appropriation to the maximum possible advantage, the Commission, in consultation with its Committee of Scientific Advisors on Marine Mammals, also reviewed and commented on: (1) the Draft Environmental Impact Statement (DEIS) for the Proposed Designation of Critical Habitat for the Hawaiian Monk Seal (Monachus schauinslandi) in the Northwestern Hawaiian Islands; and (2) a proposal submitted to the Intergovernmental Maritime Consultative Organization (IMCO) to designate areas around the Northwestern Hawaiian Islands as "Areas To Be Avoided" by large ocean-going vessels.

The DEIS on critical habitat designation was prepared by the National Marine Fisheries Service and forwarded to the Commission for review in late February 1980. On 14 May, the Commission commented. It noted, among other things, that: of the three options presented, the "20 fathom" option (i.e., designating critical habitat as all beach areas and surrounding waters out to a depth of 20 fathoms) was the best supported and most desirable based upon the available information concerning habitat requirements and the apparently declining status of the monk seal population;

and the DEIS discussion should be expanded to include a fourth option which would combine the 20-fathom and 3-mile options.

With respect to the proposal to designate the Northwestern Hawaiian Islands as an "Area To Be Avoided", the Commission reviewed the U.S. Coast Guard's proposal to IMCO's Maritime Safety Committee, and, in light of the potential effects on monk seals of pollution from stranded vessels, expressed its full support for the proposal by letter of 3 November. The Commission also described the on-going Service and Recovery Team efforts to prepare a monk seal recovery plan, and suggested that the Coast Guard consult with the Service as to how it might help facilitate adoption of the proposal. The proposal was considered at the December meeting of IMCO's Maritime Safety Committee and a final decision on the designation is expected from IMCO in 1981.

In late November, the Western Pacific Fishery Management Council solicited Commission comments on the "Combined Fishery Management Plan, Environmental Impact Statement, and Regulatory Analysis for the Spiny Lobster Fisheries of the Western Pacific Region", a plan for the spiny lobster fishery in the Northwestern Hawaiian Islands. The plan indicates that spiny lobsters currently are being harvested in substantial numbers in the Northwestern Hawaiian Islands and that the fishery could have direct and indirect effects on the monk seal. In early 1981, the Commission will submit its detailed comments and recommendations to the Council.

In summary, by the end of 1980, the National Marine Fisheries Service had constituted a Monk Seal Recovery Team which had met several times and had started to develop a Recovery Plan. The Commission had invested its special appropriation to hasten the development and implementation of effective monk seal research and management programs and had reviewed and commented on various proposed actions affecting monk seals. Unfortunately, the Service had made no decision regarding critical habitat designation by the end of the year, and it was also not clear that the Service had programmed sufficient funds to effectively follow up on work begun in 1980.

The California Sea Otter Population

Since the small, remnant population of sea otters in California could be reduced substantially by oil spills or other catastrophic events, the California sea otter was designated as "threatened" under the Endangered Species Act in January 1977. Available information also indicates that sea otters may play an important role in determining the structure of marine communities of which they are a part. They eat abalone and other shellfish of commercial or recreational importance, and make it difficult to maintain viable fisheries for these species in areas inhabited by sea otters. On the other hand, their presence serves to beneficially affect the growth of kelp, a product of commercial significance, which also provides habitat for certain species of finfish of recreational and commercial importance. Management of the California sea otter population must take these interactions into account as well as the "threatened" status of the population.

The Fish and Wildlife Service, responsible for the management of sea otters and other species under the authority of the Endangered Species Act and the Marine Mammal Protection Act, viewed the sea otter problem as one of relatively low priority until 1979. However, at the May 1979 meeting of the Commission and its Committee of Scientific Advisors on Marine Mammals, Service representatives advised the Commission that California sea otters were to be afforded higher priority and that efforts were to be undertaken to develop a recovery plan. Nonetheless, decisions concerning the timing, content, and responsibility for development of the recovery plan had not yet been made by late summer, and, on 23 August 1979, the Commission wrote the Service to determine whether any decisions had been made as well as to elaborate its views on a number of issues discussed during the May meeting. In a further effort to catalyze action, the Commission convened a meeting in California on 13 December 1979 to discuss a variety of related issues with representatives of the Service, the California Department of Fish and Game, and the State of California's Scientific Advisory Committee on Sea Otters (for a detailed discussion, see the 1979 Annual Report).

By early May 1980, the Commission had not received a reply to its 23 August 1979 letter. Although some of the points raised in that letter had been discussed at the 13 December meeting, the precise actions which were being taken by the Service to prepare a recovery plan and to resolve related issues remained unclear. Therefore, on 1 May,

Commission and Service representatives met to review on-going and planned activities, and by letter of 21 May 1980, the Service assured the Commission that actions identified at the 13 December meeting would be incorporated into the sea otter recovery plan being drafted by the Service. To facilitate completion and implementation of the recovery plan, it was agreed that a second meeting with representatives of the California Department of Fish and Game and the State's Scientific Advisory Committee on Sea Otters should be held and that the Service would complete and distribute a Technical Review Draft of the Recovery Plan sufficiently in advance of the meeting to allow time for incorporating comments into a revised plan which could serve as a focus for meeting discussions.

On 19 June, the Commission received the Technical Review Draft of the Southern Sea Otter Recovery Plan, and, in consultation with its Committee of Scientific Advisors on Marine Mammals, commented to the Service by letter of 10 July. The Commission noted that while the introductory and background sections of the Plan were useful and required relatively little work, the Plan itself was incomplete and useful only as a starting point. Therefore, the Commission suggested that the planned meeting with State representatives be used to: review and discuss comments on the Technical Review Draft; discuss and agree upon the objectives, format, and content of the recovery plan; determine appropriate steps to expedite development, adoption, and implementation of the Plan, including consideration of the proposal to establish a Sea Otter Recovery Team; identify research and management actions to be undertaken immediately; and assign responsibility for those actions.

Although the Technical Review Draft of the Recovery Plan indicated that the Service had adopted some of the recommendations made in the Commission's 23 August 1979 letter, it was apparent that not all of them had been adopted. Therefore, the Commission included copies of that letter with its 10 July comments on the draft Plan. In addition, on 11 July 1980, the Commission requested that the Service clarify its position with respect to certain recommendations during or before the meeting with representatives of the California Department of Fish and Game and the State's Scientific Advisory Committee on Sea Otters. Specifically, the Commission asked to be advised as to: whether the fact that the draft plan did not directly address the effects of sea otter/fisheries interactions was an oversight or indicated that the Service did not share the Commission's view that restoring the Southern sea otter population to its optimum

sustainable level would require resolving fundamental issues concerning sea otter/fishery conflict as well as the potential adverse impact of human activities on the sea otters; whether the lack of detail in the draft Plan indicated that the Service did not concur with the Commission's view that the recovery plan should identify precisely what actions must be taken, by whom, when, and with what resources; and what steps the Service had taken or planned to take to compile and evaluate information on: (a) the distribution and density of sea otters in California and adjacent areas; (b) related fishery resources and fisheries; (c) biological productivity and other characteristics of current and potential sea otter habitats; (d) the possible direct and indirect effects of present and proposed human activities on sea otters and/or their habitats; and (e) such other data as may be relevant to decisions relating to the protection and conservation of the Southern sea otter population. In addition, the Commission asked to be advised of the procedure and schedule for finalizing the recovery plan, and the specific research and management actions that would be undertaken before the recovery plan is finalized, adopted, and implemented.

On 24 and 25 July, representatives of the Service, the Commission, the California Department of Fish and Game, and the State's Scientific Advisory Committee on Sea Otters met in California to: discuss actions needed to complete the sea otter recovery plan, identify priority tasks to be undertaken immediately; and agree on agency responsibilities for carrying out identified tasks. At the meeting, it was noted that: the manager of the Service's Sacramento office had been designated the Service's sea otter spokesperson; the Service had determined that, because of deficiencies in the first draft, a second Technical Review Draft of the Southern Sea Otter Recovery Plan would be prepared; and a small group of sea otter experts was being organized by the Service to assist with preparations of the second Technical Review Draft. Participants agreed that every effort should be made to complete the second draft by the end of September 1980, and that the Service would consult with the California Department of Fish and Game in assessing the suitability of potential sites for establishing one or more sea otter colonies outside the present range in California.

In late September, the Commission learned that the Service, under contract to the Bureau of Land Management, was completing "An Ecological Characterization of the Central and Northern California Coastal Region", and that it had

also requested proposals to do an inventory of Pacific Coast ecological resources which might be affected by the coastal siting of refineries, processing plants, and transportation systems for oil and gas. Since the studies appeared to be potentially duplicative and also appeared to bear on the Commission's 23 August 1979 recommendation that the Service undertake efforts to generate a series of maps and accompanying text summarizing available biological, ecological, and socio-economic information to be considered in determining the optimal management strategy for the California sea otter, the Commission requested by letter of 2 October that the Service advise it on the relationships between the two studies and on actions the Service had taken to compile and map relevant biological, ecological, and socio-economic information.

The Service's 18 November response to the Commission's inquiry indicated that although the "ecological characterization" and the "ecological inventory" were closely related, they were not duplicative and neither would provide the level of detail envisioned by the Commission's recommendations. The letter also described the Service's on-going efforts to compile and evaluate information needed to resolve issues concerning the protection and management of the California sea otter.

Although the Service's 18 November letter indicated that steps were being taken to resolve the problem, progress was less than expected, and on 2 December, the Commission wrote to the Service expressing concern. Noting that resolution of the problem will require decisions and actions to secure the population from threats associated with human activities, restore the population to its optimum sustainable level, and minimize conflicts between sea otters and fisheries, the Commission expressed the view that on-going efforts must be more clearly focused and structured. The Commission recommended that the Service adopt and implement an approach which, among other things, recognizes the ultimate need for "zonal management" of sea otters and the need to establish at least one additional group of otters, as soon as possible, at a site unlikely to be affected by a spill occurring in the present range.

At the end of 1980, the Service had not yet completed the second Technical Review Draft of the Southern Sea Otter Recovery Plan or formally responded to the Commission's letter of 2 December. The Commission had been advised, however, that the second Technical Review Draft would be completed and distributed in early 1981, and that the revised draft would address many, if not all, of the points raised in the Commission's 2 December letter.

Bowhead Whale (Balaena mysticetus)

Over-exploitation by commercial whalers reduced the bowhead whale to extremely low levels throughout its range. It has been totally protected from commercial whaling for more than 40 years, and it is listed as both "endangered" under the Endangered Species Act and "depleted" under the Marine Mammal Protection Act.

Although commercial exploitation of the Bering Sea population of bowheads did not begin until the mid-19th century, they have been hunted for subsistence purposes by Eskimos for centuries. Reported increases in the numbers of bowhead whales landed, killed but lost, and struck but lost by Alaskan Eskimos during the mid-1970's, however, led to increasing concern about the adverse impact of unregulated Eskimo hunting on the endangered bowhead population. This concern led to a decision by the International Whaling Commission (IWC) in June 1977 to ban the taking of bowhead whales for subsistence by all its member nations' people, including Alaskan Eskimos. Subsequently, in December 1977 and thereafter, the IWC modified the total ban in recognition of the subsistence and cultural dependence of Alaskan Eskimos upon bowheads, and established limited quotas for subsistence hunting during 1978, 1979, and 1980. Detailed discussions of the activities of the Commission and others with respect to this matter during 1977, 1978, and 1979 are presented in the Commission's Annual Reports for those calendar years.

During 1980, the bowhead whale issue continued to be the subject of international and domestic efforts to meet the subsistence and cultural needs of Alaskan Eskimos while protecting this endangered population. These efforts, including actions by the IWC, research on the status and trends of the bowhead population, and determinations of the needs of Alaskan Eskimos for bowhead whales, are discussed below. The Commission's efforts relating to research on the potential adverse impacts of offshore oil and gas activities on bowhead whales are discussed in Chapter X.

Eskimo Whaling During 1980

As discussed in the Commission's previous Annual Report, the IWC at its meeting in July 1979 established a limited quota for bowhead whales that allowed Alaskan Eskimos to either land up to 18 whales or strike up to 26 whales (including those landed), whichever comes first, during the spring and fall hunts in 1980. By the end of the spring hunt, 15 whales had been landed and 31 (including the 15 landed) had been struck. An additional whale was landed and a total of 3 whales (including the one landed) were struck in the fall after the quota of 26 strikes had been reached in the spring and further whaling prohibited by regulations.

As a result, a total of 16 bowhead whales were landed and 34 struck during 1980. By the end of 1980, enforcement proceedings relating to the whales landed and struck in the fall of 1980 had been commenced but not yet concluded.

For reference, the estimated numbers of bowhead whales taken by Alaskan Eskimos and the applicable quotas since 1976 are set forth below.

<u>YEAR</u>	<u>IWC QUOTA</u>	<u>WHALES TAKEN</u>
1976	No quota established	48 landed and a total of 91 struck (48 landed + 8 known killed but lost + 35 struck and lost)
1977	No quota established	29 landed and a total of 108 struck (29 landed + 79 struck and lost)
1978	14 landed or 20 struck, whichever comes first	12 landed and a total of 18 struck (12 landed + 6 struck and lost)
1979	18 landed or 27 struck, whichever comes first	12 landed and a total of 27 struck (12 landed + 15 struck and lost)
1980	18 landed or 26 struck, whichever comes first	16 landed and a total of 34 struck (16 landed + 18 struck and lost)

Actions by the IWC During 1980

Preparations for the IWC Meeting

In preparation for the IWC meeting in July 1980, the United States government undertook several research efforts relating to the documentation of the needs of Alaskan Eskimos for bowhead whales and the status and trends of the bowhead whale population.

As discussed in the Commission's previous Annual Report, the IWC passed a resolution at its meeting in 1979 calling upon the United States to determine and document annually to the IWC the needs of Alaskan Eskimos for bowhead whales based upon six factors and the Department of the Interior assumed lead responsibility within the federal government to design, fund, and manage a contract study to develop the relevant information and prepare a document to be submitted

to the IWC. Although the Department issued a contract for this purpose, an acceptable contract report was not available for review by the Department in consultation with interested agencies and others prior to the IWC meeting. In the absence of an acceptable contract report, the Department prepared an "Interim Report on Aboriginal/Subsistence Whaling of the Bowhead Whale by Alaskan Eskimos" dated 24 June 1980, based upon the draft contract report and other available information. The Interim Report detailed the cultural, historic, and nutritional needs of Alaskan Eskimos and estimated that the number of bowhead whales required to meet these three classes of need were 18 to 22, 19 to 33, and 32 to 33, respectively. The Interim Report indicated that the cultural need was of the greatest significance to the Alaskan Eskimo community.

In addition to the Interim Report on the needs of Eskimos for bowhead whales prepared by the Department of the Interior, the National Marine Fisheries Service conducted and prepared reports on research efforts relating to the status and trends of the bowhead whale population. The report on census efforts conducted during the spring of 1980 provided further support for the population estimate of between 1,783 and 2,865 whales, with a best estimate of 2,264 which had been developed based upon the 1978 census efforts. The report also estimated that 1.7 percent of the animals observed during the 1980 census were calves. A second report entitled "Projections of a Decline in the Western Arctic Population of Bowhead Whales" dated June 1980 was prepared by scientists at the National Marine Fisheries Service's National Marine Mammal Laboratory to examine in greater detail the results of the preliminary evaluation by the IWC's Scientific Committee in 1979 that a very high proportion of the recruitment to the adult portion of the population had been removed by recent increased Eskimo hunting and, as a result of the reduction in recruitment, the population could be expected to decline even in the absence of any kill by Alaskan Eskimos. This report on efforts to model the bowhead whale population on the basis of the available information tended to confirm that the population would decline. The report indicated that the population would decline under both the moderate and pessimistic set of assumptions concerning reproductive rate and other relevant parameters, and that it was only under the unrealistically high optimistic set of assumptions that the population would increase while being harvested.

Meeting of the Scientific Committee

At its meeting in late June and early July 1980, the IWC's Scientific Committee considered the information and

reports submitted by the United States on the conduct and results of its research program in 1980 as well as other relevant information and analyses relating to the Bering Sea population of bowhead whales. The Committee noted that the IWC quota of 18 landed or 26 struck had already been exceeded in the spring hunt, when 15 whales had been landed and 31 struck, and that the harvest for the year had been closed by the United States on 29 May 1980. It noted that the proportion of calves seen in 1980 (1.7 percent) was lower than in the two previous years (2.5 percent and 3.5 percent) and that the results of the simulation model indicated that with the moderate or pessimistic values the bowhead whale population would decline from 1980 levels, even in the absence of catches, and even with the optimistic parameters it would increase only slowly. In light of this information, the Scientific Committee restated its recommendations made at its three previous annual meetings that from a biological point of view the only safe course is for the kill of bowhead whales from the Bering Sea population to be zero.

Meeting of the IWC

The members of the IWC considered the bowhead whale issue at their meeting in July 1980 with reference to the report and information provided by the United States and the report and recommendations of the Scientific Committee. The United States indicated that, after weighing all factors, firm biological evidence should be paramount and that the survival of the bowhead whale population should not be risked to satisfy the cultural needs of the Alaskan Eskimos, particularly if alternatives were available. The United States indicated that it recognized that, based upon the available scientific evidence, a sustained harvest of bowhead whales at current levels over an extended period of time would endanger the population and would jeopardize the Eskimos' interests as well. It therefore proposed that the IWC treat 1981 as a one-year transition period at the 1980 quota level, during which the government could cooperate with the Eskimos in developing and studying the implications of the biological evidence, exploring subsistence alternatives so as to facilitate a reduction in kills, and improving hunting practices and weapons to increase the efficiency of the hunt. This proposal was not accepted by the IWC's Technical Committee which adopted by simple majority vote a zero catch limit as recommended by the Scientific Committee. This proposal failed to receive the necessary three-fourths majority in plenary session (7 in favor, 8 opposed, and 8 abstentions) and a proposal to set the quota at 8 landed or 12 struck, whichever comes first, also failed in plenary session by a vote of 5 in favor, 9 opposed, and 10 abstentions.

After extensive further discussions, the members adopted by a vote of 16 in favor, 3 opposed, and 5 abstentions a total quota for the three years 1981 through 1983 of 45 whales landed or 65 struck, whichever comes first, provided that the number of whales landed in any one of those three years shall not exceed 17. This decision allows the United States to allocate the number of whales to be taken each year, subject to the annual limit of 17, while attempting to strike an equitable balance between protection of the endangered bowhead whale population and Alaskan Eskimo needs during the interim period needed to address and resolve the difficult problems associated with the bowhead whale issue.

Judicial Action

During the course of domestic and international negotiations and efforts to implement the decisions of the IWC, the bowhead whale issue has also been the subject of litigation in the federal courts.

On 21 October 1977, the day after the United States government announced its decision to accept the IWC's decision establishing a zero quota for bowhead whales while seeking approval for a limited quota for the spring 1978 hunt, representatives of Eskimo whalers filed suit in the U.S. District Court for the District of Columbia in an attempt to obtain a preliminary injunction requiring the Secretary of State to file an objection to the Schedule change and the District Court issued such an order on 21 October 1977. The government appealed the order to the U.S. Court of Appeals for the District of Columbia which vacated the order on 22 October 1977 because of its findings that filing an objection would prejudice on-going policies and efforts by the United States and that the government had not acted contrary to law (Adams v. Vance, 570 F. 2d 950 (D.C. Cir. 1977)). The Eskimos' request to reverse the decision of the Court of Appeals was denied by Supreme Court Justice Burger on 24 October 1977, no objection was filed, and that lawsuit was dismissed on 10 December 1977.

Following the June 1978 meeting of the IWC at which the quota for 1978 was raised from 12 landed or 18 struck to 14 landed or 20 struck and the quota for 1979 was set at 18 landed or 27 struck, representatives of Alaskan Eskimo whalers filed suit in the U.S. District Court for the District of Alaska to enjoin enforcement of the bowhead whaling regulations promulgated by the National Marine Fisheries Service to implement the IWC's decision. The plaintiff Eskimos alleged, among other things, that the federal regulations implementing the IWC's Schedule were not valid because the IWC had no jurisdiction over subsistence whaling and that

the decisions of the IWC could not be implemented under the Whaling Convention Act. On 11 January 1979, the District Court found that the federal regulations were so directly linked to the conduct of foreign relations that it lacked subject matter jurisdiction to review their validity. The Court dismissed the Eskimos' suit as presenting a non-justiciable political question, leaving intact the authority of the federal government to implement the IWC's decision under the Whaling Convention Act (Hopson v. Kreps, 462 F. Supp. 1374 (D. Alas. 1979)).

The Eskimo plaintiffs appealed the decision of the U.S. District Court for the District of Alaska to the U.S. Court of Appeals for the Ninth Circuit which issued an opinion on 14 July 1980 finding that the District Court had jurisdiction to consider whether the Whaling Convention Act authorized the Department of Commerce to issue regulations governing Eskimo whaling, that this question of statutory interpretation was not a "political question", and that the District Court should have considered it on the merits rather than dismissing the suit. The Court of Appeals reversed the District Court's dismissal of the lawsuit and remanded the case back to the District Court for consideration of the statutory question raised by the plaintiffs (Hopson v. Kreps, No. 79-4151 (9th Cir. July 14, 1980)). At the end of 1980, the litigation was again proceeding before the District Court in Alaska and the federal government was preparing to publish proposed regulations in the Federal Register to implement the most recent decision of the IWC.

Gray Whale (Eschrichtius robustus)

The California population of gray whales migrates close to shore between breeding and calving areas along the coast of Mexico and summer feeding grounds in the Bering and Chukchi Seas. The gray whale's affinity for near-shore coastal waters exposes it to threats associated with offshore oil and gas development, commercial and recreational vessel traffic, and pollutants from land run-off and ocean outfalls. Its dependence on coastal habitats also makes it one of the easier species of great whales to study (see previous Annual Reports).

In January 1980, the National Marine Fisheries Service sent the Commission a draft gray whale research plan which the Commission and its Committee of Scientific Advisors on Marine Mammals discussed during their 21-22 February 1980 meeting. On 9 April, the Commission, in commenting, noted that it understood the plan's purpose to be: (a) to facilitate cooperation and coordination among U.S. and foreign scientists working on gray whales; (b) to identify ways in which to best plan, fund, and coordinate gray whale research with Mexico, the U.S.S.R., and perhaps Canada; and (c) to determine appropriate levels of financial, manpower, and logistic investment for the Service and/or other Federal organizations to obtain the information needed to make ecologically sound decisions on gray whale conservation. Bearing this in mind, the Commission pointed out that although the draft plan identified research needs, described the general rationale, purpose, and major elements of the plan, and outlined where and how major programs should be conducted, the plan needed to be expanded to include: (1) a clearer statement of the plan's objectives; (2) a discussion of the actual and potential roles of those countries, agencies, and organizations interested in and/or responsible for the conservation and protection of gray whales and their habitats; (3) a more detailed description and rationale for each major program element; (4) target initiation and completion dates for each major program element; (5) estimates of funds, personnel, equipment, and aircraft/ship support required for each program element; and (6) a recommendation on or discussion of allocating funding responsibilities among relevant organizations. The Commission also recommended that the plan be written for a three- or five-year period with provisions for annual review and updating.

The Commission also noted that the plan should address priorities amongst gray whales and those species (e.g., monk seals, right whales, and humpback whales) which are in greater jeopardy, and that identified research should be set forth in order of priority. Finally, the Commission recommended that the meeting of the Gray Whale Research Working Group scheduled for late August or early September 1980 be held earlier to allow more time to plan, organize, and coordinate, gray whale studies during the field season beginning in early December. On 23 April, the Service responded noting that the comments would be considered in preparing the final plan but that, due to the Service's workload, the gray whale meeting could not be held earlier than planned.

On 4-5 September 1980, the Gray Whale Research Working Group meeting was held to review research results and to develop recommendations on gray whale research in Mexico. The Commission participated and subsequently commented on the research program and planned research activities. In late November, the Commission received the Service's "Plan for Gray Whale Research in Baja California in 1980/1981".

Humpback Whales (Megaptera novaeangliae)

Humpback whales, over-exploited throughout their range, are endangered. Threats to the species include commercial and recreational ship traffic, offshore oil and gas development, sport and commercial fisheries, and certain coastal developments. At certain times of the year, humpback whales may be found off both coasts of the United States, Alaska, and Hawaii.

Glacier Bay National Monument, Alaska

In the late summer of 1979, the Commission, with the assistance of the National Park Service and the National Marine Fisheries Service, convened a meeting to: review information on the nature and possible causes of humpback whale movement from Glacier Bay; review on-going and planned research and management actions related to humpback whales in Glacier Bay and adjacent waters; and identify additional research or management actions needed to protect and conserve the North Pacific population(s) of humpback whales. The meeting, held on 12-13 October 1979, included representatives of the U.S. Fish and Wildlife Service, the Alaska Department of Fish and Game, the cruise ship industry, and the scientific community as well as representatives of the Park Service, the National Marine Fisheries Service, and the Commission (see the 1979 Annual Report).

Participants concluded that: although vessel traffic had increased and humpback whales were no longer using the Bay as in the past, available information had not been evaluated fully and likely would be insufficient to determine, with certainty, whether increased vessel traffic was responsible for the observed shift in whale distribution; information on whale-vessel interactions needed more thorough evaluation; and the data analysis results should be evaluated to determine what restrictions, if any, on vessel traffic might be needed. The Commission staff forwarded the meeting report to participants in November 1979.

On 3 December 1979, the National Marine Fisheries Service advised the National Park Service of the results of its threshold examination conducted pursuant to Section 7 of the Endangered Species Act. The Service found that increased vessel traffic, particularly of erratically travelling charter/pleasure craft, had probably altered the humpback whale behavior in Glacier Bay and thus might be implicated in their departure, and recommended that the National Park Service: reduce vessel use of the Bay to 1976 levels;

regulate vessel routing and maneuvering in areas inhabited by whales; develop guidelines prohibiting pursuit and willful or persistent disturbance of whales; initiate a public education effort; continue efforts to monitor the humpback whale population and whale-vessel interactions; and start research to (1) characterize the food and feeding behavior of humpback whales in Glacier Bay and other areas, (2) study the acoustic characteristics of vessels in the Bay and other areas to identify equipment and/or modes of operation which elicit response from the whales, and (3) compare behavioral responses of the humpbacks to vessels in Glacier Bay with those observed in other areas of southeast Alaska.

On 17 December 1979, the Commission advised the National Marine Fisheries Service that it concurred with the findings and conclusions set forth in the 3 December letter to the National Park Service, and recommended that the Service elaborate on certain of its recommendations so as to distinguish between recommended regulations and general guidelines for boating activity in Glacier Bay and to provide the Park Service with a more detailed description of needed research projects.

On 2 January 1980, the National Marine Fisheries Service answered the Commission's 17 December letter by noting that the National Park Service found the recommendations as made to be sufficiently clear to initiate the necessary management and research program and that it would continue to work with the National Park Service to develop the most cost-effective research and management program. Finally, the Service noted that the Commission's draft report on the 12-13 October meeting had been useful to both agencies in conducting the "Section 7" consultation and in program development.

On 18 January, the Commission wrote the National Marine Fisheries Service expressing continued uncertainty and asking for clarification as to what was meant by "general guidelines" and why these would offer better enforceability and compliance than would regulations. The Service resolved the Commission's uncertainties on 11 March when it wrote that its recommendation concerning guidelines was directed to the National Park Service with the understanding that it would be translated into regulations for controlling vessel activities in the Bay.

On 6 March 1980 the National Park Service published proposed regulations and on 15 May published final regulations for protecting humpback whales in the Glacier Bay National Monument.

In addition, the National Park Service funded a more thorough analysis of available information on vessel-whale interactions in the Bay, took steps to start a study of the bio-acoustic characteristics of the Bay and the effects of man-made noise on the whales, and, at the end of 1980, was taking steps to start research to characterize the food and feeding behavior of humpback whales in Glacier Bay.

Humpback Whales in Hawaii

The waters surrounding the main Hawaiian Islands provide winter calving grounds and habitat for about 500 of the estimated 1,000 humpback whales comprising the North Pacific population. As public interest in whale-watching in Hawaii increased, it became apparent that these activities might be adversely affecting the whales. In July 1977, the Commission convened a workshop to consider the problem, and, based upon the workshop results and other findings, considered and acted in cooperation with the National Marine Fisheries Service, upon a number of points related to humpback whale protection. These included hydrofoil operation in certain areas, establishing criteria for determining activities constituting harassment, the education of military and civilian boat and aircraft operators, as well as research on the abundance, distribution, and movements of humpback whales in the area (see the 1978 Annual Report). On 4 January 1979, the Service, after consulting with the Commission, published a "Notice of Interpretation of 'Taking by Harassment' in Regard to Humpback Whales in the Hawaiian Islands Area" and thereby established criteria for making determinations concerning activities constituting harassment (see the 1979 Annual Report).

In 1979, the Commission learned of plans to reinstitute inter-island hydrofoil service, and on 6 August 1979, asked the National Marine Fisheries Service about steps being taken to assure that hydrofoils would not jeopardize the whales. On 4 September, the Service answered that it intended to work with the company to ensure compliance with the provisions of the Marine Mammal Protection Act and the Endangered Species Act and to review and incorporate appropriate protective measures into the Service's on-going interpretation of harassment relative to humpback whales in Hawaiian waters. Concerned about the timing of these steps, the Commission wrote on 13 November 1979 about the status of plans to resume hydrofoil operations, the results of the Service's review of existing protective measures, the Service's determination as to whether an environmental impact statement and/or a Section 7 consultation under the Endangered Species Act would be required, and its plans for future research and management actions.

On 16 January 1980, the Service answered that: representatives of the Service had met with representatives of the hydrofoil company, advised them of the Service's concerns, and discussed possible steps for protecting the whales; the Service had not decided whether Federal involvement would be sufficient to warrant either "Section 7" consultations or the preparation of an environmental impact statement; if necessary, the Service's "Notification of Interpretation of 'Taking by Harassment' in Regard to Humpback Whales in the Hawaiian Islands Area" could be modified to prevent or mitigate adverse impacts from hydrofoils; the Service's 1980 humpback whale research program would be focused in Alaska; studies on distribution and behavior of humpback whales in Hawaii would be conducted by others; and the Service planned to continue its management program and to assist the Office of Coastal Zone Management in evaluating the proposed marine sanctuary for humpback whales in Hawaii.

With respect to the sanctuary question, the Office of Coastal Zone Management convened a group of experts on 12-14 December 1979 to consider and report on a proposal for a marine sanctuary for humpback whales in Hawaiian waters. The report, forwarded for review and comment in September 1980, recommended the establishment of a sanctuary to foster the development of educational programs and scientific research on humpback whales and to stimulate national and international efforts to conserve humpback whales. The report further suggested establishing one or more advisory groups to identify measures needed to protect the whales and their habitat, and recommended development of a recovery plan for humpback whales throughout the North Pacific.

The Commission, in consultation with its Committee of Scientific Advisors, commented on the "Report of the Hawaiian Humpback Whale Sanctuary Workshop Committee" on 3 December 1980. While the Commission agreed with the general objectives of the sanctuary proposal, it was unable to determine from the information provided exactly how a sanctuary would better serve these objectives than might actions under existing authorities. The Commission therefore recommended that the Office of Coastal Zone Management further evaluate the proposed actions, administrative arrangements, resource commitments, and benefits that would result from the sanctuary in light of those available under existing authorities. As examples, the Commission noted that the National Marine Fisheries Service had established a "Notice of Interpretation of 'Taking by Harassment' in Regard to Humpback Whales in the Hawaiian Islands Area" and that the Service was supporting relevant research, enforcement, and public education efforts. The Commission also recommended that the Office of Coastal Zone Management consult with the National Marine Fisheries Service while doing the analysis.

Humpback Whales in the Northwestern Atlantic

Participants in the Commission's September 1979 workshop on East Coast cetaceans noted that: concentrations of humpback whales appear to center around Cape Cod, Stellwagen Bank, Jeffrey's Ledge, the Great South Channel between Cape Cod and George's Bank, the northeastern peak of George's Bank, and the entrance to the Bay of Fundy near Passamaquoddy Bay during the summer months; they are occasionally entangled in fish weirs and gillnets along the New England Coast; seines and lobster set lines have entangled whales off Nova Scotia and Newfoundland; and, subsistence fisheries in Greenland and Bequia take about twenty humpbacks each year. They further noted that the subsistence and incidental take, when combined with mortalities from other sources, may be inhibiting the recovery of the species. The group recommended that: (1) existing population estimates and data be re-analyzed; (2) historical data, including whalers' logbooks, be compiled and analyzed; (3) aerial and shipboard surveys be continued and expanded to better determine habitat use and migration patterns; (4) surveys be undertaken to determine the levels and effects of incidental take; and (5) tagging methodology be developed to facilitate assessment of migration patterns, habitat requirements, and population size. The workshop report (see Appendix B) was reviewed by the Commission, in consultation with its Committee of Scientific Advisors, and used to develop a preliminary research plan.

To implement the plan, the Commission contracted for a compilation and evaluation of existing data concerning cetaceans in the Cape Cod-Massachusetts Bay area and drafted scopes of work for the "Eastport" survey and the humpback whale workshop, all of which are described in Chapter II. To save money by combining the "Eastport" survey with the National Marine Fisheries Service's harbor porpoise survey, the Commission proposed a transfer of funds which would vest management of both projects in the National Marine Fisheries Service. The Service agreed, and the two agencies concluded agreements concerning the "Eastport" survey and the humpback whale workshop in July (see Chapter II). The survey work was started in June 1980 and, under the terms of the agreement with the Commission, will be continued by the Service until such time as the desired information has been acquired, provided funds are available. The humpback whale workshop was held on 17-21 November 1980, and the report, which will be used to develop a recovery plan for the Northwestern Atlantic population of humpback whales, is expected in early 1981.

CHAPTER IV

INCIDENTAL TAKE OF MARINE MAMMALS IN THE COURSE OF COMMERCIAL FISHING OPERATIONS: THE TUNA-PORPOISE ISSUE

The Marine Mammal Protection Act directs the Secretary of Commerce, in consultation with the Commission, to develop regulations governing the incidental taking of marine mammals by persons subject to the jurisdiction of the United States and to develop effective international arrangements, through the Secretary of State, for the purpose of reducing the incidental taking of marine mammals to insignificant levels approaching a zero mortality and serious injury rate.

Although incidental taking of marine mammals occurs in the course of several fisheries and involves several different species of marine mammals, the "tuna-porpoise" issue involving the incidental mortality and serious injury of porpoises entrapped in the purse seine nets used by commercial yellowfin tuna fishermen has been the subject of the most intense concern, attention, and controversy since passage of the Act.

A detailed discussion of the Commission's activities and an historical summary of efforts to resolve the problem are presented in the Commission's previous Annual Reports. During 1980, the Commission continued to devote efforts to this aspect of incidental taking of marine mammals, with particular attention to regulations governing the 1981-1985 fishing seasons, population assessment, and research planning, as described below.

The 1980 Fishing Season

As discussed in the Commission's previous Annual Reports, final regulations governing the 1978-1980 fishing seasons were published by the National Marine Fisheries Service in the Federal Register on 23 December 1977. These regulations established declining incidental take quotas of 51,945 animals in 1978, 41,610 in 1979, and 31,150 in 1980. Although analyses have not yet been completed and a final figure is not yet available, the data available at the end of 1980 indicate that, as in 1978 and 1979, the U.S. fishing fleet maintained the total porpoise mortality and serious injury level well below the upper limits established by the quotas and that the total incidental porpoise mortality and serious injury associated with U.S. commercial yellowfin tuna fishing in 1980 was between 13,000 and 15,000 animals.

This number constitutes a very substantial reduction from the mortality levels for 1977 and previous years. For reference, figures for the estimated porpoise mortality and serious injury associated with U.S. tuna fishing vessels since passage of the Act are set forth below.

<u>Year</u>	<u>Estimated Kill and Serious Injury</u>
1972	368,600
1973	206,697
1974	147,437
1975	166,645
1976	108,740
1977	25,452
1978	19,366
1979	17,938
1980	13,000-15,000

Regulations for the 1981-1985 Fishing Seasons

In an effort to develop and evaluate the best scientific information available concerning the status of the affected porpoise populations for consideration in the course of hearings to develop regulations and quotas for the 1981 and subsequent fishing seasons, the National Marine Fisheries Service convened a workshop of experts in population dynamics, with special emphasis on large mammals. Representatives of the Commission participated in the Workshop which was held in August 1979 at the Southwest Fisheries Center in La Jolla, California. The Report on the Workshop, published in November 1979, set forth the conclusions of the participants that, among other things, the estimated abundances of the affected porpoise populations in 1979 were substantially lower for most stocks than was estimated in the 1976 Workshop and proceedings which formed the basis of the quotas for the 1978-80 fishing seasons. The Report indicated that the reduced size of stocks should not be construed to be an indication of large stock decreases between 1976 and 1979 but, rather, to be a result of a new and improved estimation procedure and better information.

A particularly significant conclusion of the participants was that the abundance of the northern offshore spotted porpoise population was only between 34 and 55 percent of its initial, pre-exploitation level, depending upon which of several alternative assumptions were made, and that the present level is below what the participants felt was the lower bound of the range of optimum sustainable population levels. The significance of those conclusions resulted from the fact that if the northern offshore spotted population were found

to be below optimum levels, it would be "depleted" under the provisions of the Marine Mammal Protection Act as they have been interpreted. As such, no incidental taking of animals from that depleted population would be permissible and amendment of the current regulations and quotas for the 1980 season would be necessary in order to prohibit the taking of northern offshore spotted porpoise. The regulations for the 1980 fishing season permitted the U.S. fleet to kill up to 21,300 offshore spotted porpoise (including both the northern and southern populations) and it was estimated that approximately 70 percent of the yellowfin tuna taken in recent years has been caught principally in association with the northern offshore spotted population.

In light of the importance of these conclusions, the National Marine Fisheries Service, after consultation with the Commission, published an Advance Notice of Proposed Rulemaking on 23 November 1979 indicating its intent to reconsider the existing regulations governing the incidental taking of porpoise and to consider the regulatory regime that would be appropriate beyond 1980. The Notice indicated that the Service had determined that although a formal hearing was not necessarily required for adjustments of the 1980 quotas, it felt that a formal hearing before an administrative law judge was the best means of reviewing the conclusions of the Workshop Report and other relevant information concerning the quotas for 1980 and thereafter and of affording full due process rights to all interested parties.

Proposed regulations were published by the National Marine Fisheries Service in the Federal Register on 15 February 1980 (45 FR 10552-10562) and a formal administrative hearing was conducted before an administrative law judge in San Diego, California from 31 March through 5 April 1980 and in Washington, D.C. on 14-18 April and 19 May 1980. Representatives of the Commission testified and filed briefs in support of the proposed regulations, the central features of which would have designated the northern offshore spotted population as well as the eastern spinner population as depleted and prohibited intentional setting on those species and established revised quotas for other non-depleted species for 1980 and 1981. The status of the northern offshore spotted population was the most controversial and difficult issue involved in the hearing. While recognizing that the available information was not complete and that further research and analyses were desirable, the Commission argued in its testimony and briefs that the available data and theory strongly suggested that: the maximum net productivity level which serves as the lower bound of the range of optimum sustainable population for the

northern offshore spotted population and other species involved is higher than the 50-70 percent of initial population size that had been utilized previously and that it should be considered to be between 65 and 80 percent of initial population size, as suggested by the Workshop Report; the best available scientific information indicated that the current size of the northern offshore spotted population was below the midpoint (72.5 percent) of the estimated lower bound of the optimum sustainable population level; a number of assumptions involved in the analyses were amenable to alternative analyses which suggested that the northern offshore spotted population may be even more depleted than had been estimated; and that the prudent course of action, in light of the available information and provisions of the Act as they have been interpreted by the courts, was to prohibit intentional setting on northern offshore spotted porpoise.

The administrative law judge issued his recommended decision on 18 July 1980. Although the decision addressed most of the issues raised during the course of the hearings, it did not reach a conclusion as to the status of the northern offshore spotted population or other affected species nor on the values for density and species proportions to be utilized in determining the status of those populations, and it made no recommendations for stock-by-stock quotas to be established if the northern offshore spotted population were found to be non-depleted. The decision did, however, find, among other things, that the proposal to consider 65 to 80 percent as the maximum net productivity level was not adequately supported and that the 50 to 70 percent level used in previous proceedings should be retained, in light of the significant adverse impacts of such a change on the tuna industry and that tuna vessel data should be used in estimating mean school size. The decision also recommended adoption of certain proposed amendments of the regulations regarding fishing techniques and practices including a ban on "sundown sets" which are commenced within one and one-half hours before sunset and were found to result in unduly high porpoise mortality. The Commission submitted exceptions to the recommended decision on 8 August 1980 recommending that the Administrator of the National Oceanic and Atmospheric Administration not adopt the findings of the administrative law judge concerning the maximum net productivity level, the use of tuna vessel data, and certain other values and that the Administrator adopt the proposed regulations as modified and supplemented by those aspects of the recommended decision to which the Commission did not take exception.

The decision of the Administrator of the National Oceanic and Atmospheric Administration and final regulations were published in the Federal Register on 31 October 1980 (45 FR 72178-72196). The Administrator did not adopt the recommendation of the administrative law judge that tuna vessel data be used to estimate mean school size but did adopt the recommendation that the range of the maximum net productivity level remain unchanged at 50-70 percent of initial size, with a mid-point of 60 percent. The Administrator also found that the allocation of historic kill among the various stocks that had been used by the Workshop was not consistent with the westward progression of the fishing fleet's effort and therefore recalculated the historic kill for the northern offshore spotted and coastal spotted populations. Taken together, these and other factors led the Administrator to find that the current size of the northern offshore spotted population was 63 percent of its initial size and therefore not depleted when compared to the 60 percent maximum net productivity level, while both the coastal spotted population and eastern spinner population, at 42 percent and 27 percent of their initial levels respectively, were depleted. The decision and final regulations established a five-year regime with regulations governing fishing practices, including the ban on "sundown sets" as recommended by the administrative law judge, and quotas for each of the non-depleted stocks for 1981 through 1985 with a total limit of 20,500 animals that may be taken during each of those five years. The Administrator's decision also directed the National Marine Fisheries Service to: determine whether it is feasible to reduce the quota within the next five years; make a complete assessment of the affected stocks no later than 1984; and propose modifications of the regulations to protect the stocks if evidence developed prior to the complete assessments suggests that taking is to the disadvantage of any population. A general permit to incidentally take porpoise in compliance with the final regulations and quotas was issued to the American Tunaboat Association on 1 December 1980.

Research Planning and Coordination

As part of the continuing consultation between the National Marine Fisheries Service and the Commission, representatives of the Commission met with representatives of the Service's Southwest Fisheries Center on 6 and 7 October 1980 to discuss the Center's plans for research activities relating to the tuna-porpoise problem.

Based upon the discussions at the meeting, the Commission transmitted comments and recommendations to the Service by letter of 7 November 1980. The Commission expressed its

concern that there were several unresolved issues regarding the substantive elements of the research program and the mechanism and schedule for resolving them that warranted attention. In particular, the Commission noted that: the projected budget for tuna-porpoise activities beyond FY 81 was unclear; there appeared to be no plans for research on the effects of chase and capture, on alternative fishing techniques, or on questions about species proportions; there were no plans for the use of any vessels in 1981 to resolve questions about survey methods; some alternative scenarios should be developed for the use of satellite tags and disc tags; a schedule should be developed for decisions to be made concerning an aerial survey in 1983 and for consultations with interested parties concerning those decisions; and there appeared to be no specific plans for scheduled consultations with representatives of the tuna industry, the Inter-American Tropical Tuna Commission, the Commission, or other interested parties so as to solicit suggestions on proposed efforts and evaluate the results of those efforts before proceeding with the next stage of the program. The Commission indicated that it believed that efforts to reach agreement upon a cooperative, goal-oriented research program were especially important in light of the questions identified during the administrative hearings and the final decision of the Administrator that established a five-year regime and called upon the Service to determine whether it is feasible to reduce the quotas, make a complete assessment of the stocks by 1984, and propose modifications of the regulations if evidence suggests that affected populations are disadvantaged by the permitted taking. The Commission therefore recommended that the Service take steps to schedule reviews of the various aspects of the tuna-porpoise research program to be conducted within the next five years so as to achieve as much consensus as possible on the direction and conduct of a coordinated research program.

The Service responded by letter of 2 December 1980 providing additional information and commenting on a number of issues about which the Commission had expressed concern. The Service expressed agreement with the Commission's comments and recommendations concerning the desirability of scheduled consultations between the Service, the Commission, and other interested parties, while suggesting that the schedule for many such consultations depends upon the progress of the subject research efforts. It also noted that cooperative research efforts on specific projects had been and would continue to be conducted but the Service expressed the view that a more comprehensive cooperative government/industry research program was not feasible since there is generally little overlap in specific projects to which more than one party was able to commit resources. The Service suggested

that a research project review board be established to facilitate cooperative work by encouraging joint participation in projects in which there is mutual interest.

During 1981 the Commission will convene a working group of experts to consider the status of and plans for development of alternative fishing techniques that may serve to reduce the potential adverse impacts associated with the pursuit and capture of porpoises. The Commission will continue to consult with the National Marine Fisheries Service and other interested parties concerning these and other aspects of research relating to the tuna-porpoise issue.

CHAPTER V

MARINE MAMMAL-FISHERIES INTERACTIONS

Marine mammals are taken incidentally in fisheries such as the yellowfin tuna purse seine fishery, are responsible for gear damage, fish damage, and fish loss in fisheries such as the salmon gillnet fishery and, in areas such as the Bering Sea, compete with fishermen for fish such as pollack. Commission overview and actions with respect to the incidental take of marine mammals during commercial tuna fishing operations are discussed elsewhere in this report. The following discussions describe Commission efforts to identify and deal with problems concerning marine mammal-caused gear damage, fish damage, and fish loss, and competition between marine mammals and fishermen for the same fish resources.

Marine Mammal-Caused Gear Damage, Fish Damage, and Fish Loss

Prior to passage of the Marine Mammal Protection Act, sport hunting, bounty hunting, and various forms of harassment were used to control the distribution, abundance, and/or behavior of certain marine mammals so as to eliminate or reduce gear damage, fish damage, and fish loss caused by marine mammals. The Act imposed a moratorium on such taking and, in recent years, there have been reports that populations of harbor seals and other marine mammals are increasing and that there has been a corresponding increase in the amount of damage caused by marine mammals.

Most of the reports of increasing marine mammal populations, gear damage, etc., have been from the Pacific Northwest and, in December 1977, the Commission convened a workshop to gather and review information concerning the nature and extent of possible marine mammal-fishery conflicts in Oregon, Washington, and Alaska (see p. 9 of the Commission's Annual Report for 1977). The workshop participants concluded that available information was insufficient to determine the precise extent and effects of apparent marine mammal-fishery conflicts in the Pacific Northwest, noted that conflicts appeared to be particularly severe on the Columbia River and in the Copper River Delta/Prince William Sound area of Alaska, and recommended, among other things, that appropriate methodology be developed and studies initiated to determine the levels of incidental take, gear damage, etc., on the Columbia River and in the Copper River Delta.

To follow up on the workshop recommendations, the Commission provided funds for a meeting to begin developing a comprehensive plan for the Columbia River study, and contracted for a study to determine how harbor seals and other marine mammals affect and are affected by the salmon fishery in the Copper River Delta/Prince William Sound area of Alaska (see pp. 11-12 of the Commission's Annual Report for 1978). The planning meeting for the Columbia River study led to a research proposal which was submitted to and funded by the National Marine Fisheries Service following extensive review and revision (see p. 22 of the Commission's Annual Report for 1979).

The Columbia River study, started in early 1980, and scheduled to be completed in late 1983, is intended to provide the information needed to resolve marine mammal-fishery conflicts in the Columbia River and adjacent waters. However, because of budget limitations, the National Marine Fisheries Service has been unable to assure continued and adequate funding and the Commission is concerned that it may not be possible to complete the project on schedule and in such a way as to provide the kinds and quality of information needed for decision-making. The Commission, considering the project critical, advised the Service of its concerns by letters of 5 and 29 December 1980. The Service shared the Commission's concerns and scheduled a project review for early 1981.

The Commission-sponsored research project in the Copper River Delta/Prince William Sound area of Alaska was completed and the report (see Appendix B) provided to the National Marine Fisheries Service and other interested parties. Among other things, the report notes that: substantial fish loss, fish damage, and gear damage apparently are caused by marine mammals, particularly harbor seals and Steller sea lions; substantial numbers of marine mammals, particularly harbor porpoise, harbor seals, and Steller sea lions are taken incidentally during fishing operations; the levels of incidental take and marine mammal-caused gear damage and fish damage vary from location to location and by season and time of day; deterrent devices, such as "seal bombs", appear to be effective in driving away marine mammals that are interfering with or may interfere with fishing operations; rates of incidental take, gear damage, and fish damage could be substantially reduced if fishermen used deterrent devices and avoided long-term sets (especially overnight sets of unattended nets) and fishing at certain times and in certain places; and the nature and extent of incidental take is difficult to determine precisely because most fishermen operate without "incidental take" permits and are reluctant to report or discuss catches.

The Commission had hoped that either it or the National Marine Fisheries Service would be able to continue to support the Copper River Delta/Prince William Sound study; however, neither agency had funds to do so in either 1979 or 1980. Although the Commission also had planned to convene workshops to assess the nature and extent of marine mammal-fishery interactions in New England, Florida, and Hawaii, funding and staffing levels limited the Commission to organizing and convening only one workshop which treated East Coast cetaceans and pinnipeds (see p. 10 of the Commission's Annual Report for 1979).

Participants in that workshop concluded, among other things, that available information was insufficient to determine what remedial measures, if any, might be needed to eliminate marine mammal-fishery conflicts along the East and Gulf Coasts. They noted, as did participants in the December 1977 workshop, that many fishermen were not obtaining "incidental take" permits or reporting incidental take, and that lack of reliable information on the nature and extent of incidental take could be attributed, in part, to the permit requirement and procedures. They recommended that a comprehensive research program be undertaken to assess the nature and extent of marine mammal-fishery conflicts along the East and Gulf Coasts and that the National Marine Fisheries Service re-evaluate and modify permit procedures, as necessary, to assure that marine mammals taken during commercial fishing operations are reported and subsequently made available to researchers for study. They also recommended that certain other research be undertaken and actions on these recommendations are described elsewhere in this report.

The report from the workshop (see Appendix B) was used to develop a preliminary research plan (see Chapter II) which included an assessment of marine mammal-fishery interactions in the northeast and southeast. By letter of 24 April 1980, both documents were forwarded to the National Marine Fisheries Service, and the Service subsequently contracted with the University of Maine to start an assessment of marine mammal-fishery interactions in the northeast. The Service also reviewed its permitting procedures, and, on 10 December 1980, proposed modifications to increase the potential for obtaining data relevant to the incidental catch of marine mammals in commercial fishing operations.

Competition for Fish and Shellfish Resources

Since marine mammals and fisheries compete for some of the same fish and shellfish resources, marine mammals and fisheries must be managed cooperatively to achieve the goals of both the Marine Mammal Protection Act and the Fishery Conservation and Management Act. Since data and theory generally are not adequate to define the precise nature, extent, or effects of this competition, the Commission suggested that a steering group consisting of representatives of the North Pacific Fishery Management Council, the National Marine Fisheries Service, and the Commission be formed to develop a plan for approaching the problem. This was done in 1979 (see pp. 24-25 of the Commission's Annual Report for 1979).

At its first meeting on 6 August 1979, the steering group agreed that: the ultimate goal is to develop standard procedures and models for assessing the interrelationships between target and non-target fish populations, marine mammal populations, bird populations, and other ecosystem components; efforts should be focused, at least initially, on the Bering Sea ecosystem; available information on the species' composition, status, food habits, and food requirements of marine mammals and birds of the Bering Sea should be compiled and evaluated and a request for proposals to accomplish this should be published; and a symposium or workshop should be held to assess the adequacy of existing data, procedures, and models with particular emphasis on the Bering Sea ecosystem. On 4 January 1980, representatives of the Commission and the National Marine Fisheries Service met to begin planning the workshop proposed at the steering group's first meeting. As a result of this meeting, the Commission contracted for a study to review and evaluate data and models being used to assess interactions between fur seal populations and fisheries in the Bering Sea (see Chapter II of this report).

The workshop was held in Seattle on 29 April-1 May 1980. Organized by the National Marine Fisheries Service under cooperative sponsorship with the North Pacific Fishery Management Council and the Commission, the workshop included representatives of the academic community, the Alaska Department of Fish and Game, and the Fish and Wildlife Service, in addition to the sponsoring agencies' representatives.

Workshop objectives were to: review the management requirements of the Fishery Conservation and Management Act, the Marine Mammal Protection Act, and other relevant legislation; determine the appropriateness and means of applying ecosystem simulation models to fishery management; and identify steps to improve existing models or otherwise facilitate the development of fishery management plans which take account of the dynamics and interactions among target and non-target species including marine mammals and birds. After considering existing data and models, the participants concluded that: ecosystem simulation models and other types of models can and should be used to assist in developing and evaluating fishery management plans; models also can be used to identify critical gaps in our knowledge of the dynamics and interrelationships among target and non-target species; no single model is likely to be applicable to all areas or problems and none of the existing models are fully adequate for management purposes; and models used for management purposes should be constructed for specific and explicitly stated objectives and should be validated with respect to the stated objectives. Participants also concluded that: procedures used to develop and evaluate fishery management plans should include the development of hypotheses concerning the possible impact of fishing levels on non-target as well as target species; persons knowledgeable about the biology, ecology, distribution, and abundance of non-target species should be included on plan development teams whenever appropriate; and information on the current status, feeding habits, and food requirements of non-target as well as target species should be collected, analyzed, and considered for prediction of the potential impact of proposed fishing levels on the ecosystem itself.

A workshop report ("Ecosystem Simulation Models and Their Applications to Fishery Management") has been prepared by the National Marine Fisheries Service, but has not yet been published. It is being reviewed, and the steering group, expected to meet early in 1981, will determine what further action may be necessary or desirable. In addition, the North Pacific Fishery Management Council is expected to publish in early 1981 the request for proposals to work on the feeding habits and food requirements of marine mammals in the Bering Sea.

CHAPTER VI

REQUEST FOR RETURN OF MARINE MAMMAL MANAGEMENT BY THE STATE OF ALASKA

Under the Act, the Secretaries of Commerce and the Interior, in consultation with the Commission, may waive the moratorium on the taking of marine mammals, promulgate regulations to govern permitted taking, and return management to a state if such a waiver and return of management is determined to be consistent with the goals and provisions of the Act.

On 31 January 1973, the State of Alaska submitted a request to the Secretaries of Commerce and the Interior for a waiver of the moratorium and return of management of 10 species of marine mammals polar bear, sea otter, Steller sea lion, bearded seal, harbor seal, larga seal, ribbon seal, ringed seal, beluga whale, and walrus. Although such a return of management to a state is generally consistent with the policies and provisions of the Act, delays in the course of proceedings relating to this request and disagreements with respect to a variety of procedural and substantive issues impaired efforts to respond to the request and the issues remained unresolved at the end of 1980. Summaries of the events and the Commission's activities and recommendations relating to this matter through 1979 are presented in the Commission's previous Annual Reports. The discussion which follows briefly summarizes that background and the status of research and management efforts in 1980.

Background

Factors giving rise to many of the difficulties associated with the request by the State of Alaska may be summarized as follows: the State's request sought a waiver as well as a return of management and, as a result, required formal hearings before an administrative law judge on the status of the populations and the expected effects of the proposed takings as well as consideration of the proposed laws and regulations that would govern such taking; the Act required that decisions on the waiver be based upon "the record" adduced at the formal hearings; the proposed waiver of the moratorium to allow taking of marine mammals required compliance with the provisions of the National Environmental Policy Act; the State's request was the first such request under the Act and neither the Federal nor the State officials were yet familiar with the procedural or substantive requirements of the Marine Mammal Protection Act or the National Environmental Policy Act; in addition to the lack of experience and familiarity

with the applicable law and procedures, many of the Federal officials and interested public were not familiar with the atypical nature and extent of the complex and difficult marine mammal issues in Alaska; seven of the species (Steller sea lion, bearded seal, harbor seal, larga seal, ribbon seal, ringed seal, and beluga whale) were subject to the jurisdiction of the Secretary of Commerce, while the other three species (polar bear, sea otter, and walrus) were subject to the jurisdiction of the Secretary of the Interior; and this bifurcation of jurisdiction required consideration and decisions by two separate agencies and compounded the problems.

Although these difficulties delayed action on the State's request, the Commission had hoped that most of the issues had been or could be resolved and that effective Federal-State management efforts consistent with the Act could finally be implemented for all ten species in 1979. The waiver of the moratorium and return of management of walrus was approved by the Director of the Fish and Wildlife Service in December 1975, subject to certain changes being made in the State's proposed laws and regulations. The State submitted modified laws and regulations which were approved by the Director in April 1976 and the State resumed management of walrus with quotas and other measures applicable to the taking of walrus by natives and non-natives. The waiver of the moratorium and return of management of the other species was approved in January 1979, again subject to certain changes being made in the State's laws and regulations before it could be effected and subject to a further condition that a scientific workshop be convened to continue the evaluation of data and research efforts relating to the affected marine mammal populations. Representatives of the Commission and its Committee of Scientific Advisors participated in that workshop which was organized by the Alaska Department of Fish and Game and convened on 11-13 January 1979. In addition, while representatives of the State of Alaska expressed disagreement with some aspects of the January 1979 conditional decision to waive the moratorium and return management, they indicated a desire to work with Federal officials to resolve the problems. Meetings to discuss and develop a mutually acceptable resolution of issues relating to the language of the decision and to draft the necessary modifications of laws and regulations appeared to be progressing well.

Unfortunately, this apparent progress in resolving most of the issues relating to the waiver and return of management was slowed, if not stopped, by difficulties associated with the "native exemption" clause set forth in Section 101(b) of the Act. In April 1979, U.S. District Court Judge Harold H. Greene issued an order denying the Federal government's

motion to dismiss a lawsuit brought by Alaskan natives (People of Togiak v. United States) challenging the authority of the Director of the Fish and Wildlife Service to delegate to the State the authority to regulate the taking of walrus. In its opinion explaining why it had denied the Government's motion, the Court expressed its view that the "native exemption" clause in the Act constituted a Congressionally-mandated permit allowing Alaskan natives to hunt non-depleted walrus in a non-wasteful manner for subsistence and native handicraft purposes and that inconsistent laws and regulations of the State attempting to limit taking by natives in that manner and for those purposes were pre-empted. On 29 January 1980, Judge Greene issued a final decision, supportive of the earlier Court opinion, in which he ordered and declared that Alaskan natives "have the right to hunt non-depleted Pacific walrus in a non-wasteful manner for the purposes specified in the Marine Mammal Protection Act", and enjoined the Department of the Interior "from delegating authority to manage or regulate the taking of Pacific walrus to the State of Alaska as long as there is in effect any state law or official regulation of the State of Alaska relating to the taking or protection of walrus which has the substantial purpose and effect of limiting the rights of Native Alaskans to take walrus for subsistence and other purposes consistent with the Marine Mammal Protection Act."

The State's walrus program which had been approved by the Director of the Fish and Wildlife Service included limits in the form of quotas and other regulatory measures applicable to the taking of non-depleted walrus by native Alaskans and, as such, were not limited to insuring that the taking by natives was non-wasteful and for subsistence and handicraft purposes. Anticipating the likely impacts of Judge Greene's April 1979 statement concerning the native exemption clause, the State advised the Fish and Wildlife Service in June 1979 of its intent to return management of walrus to the Fish and Wildlife Service, effective 1 July, unless there were satisfactory resolution of issues relating to the waiver and the legal authority to regulate native taking. On 27 June, the Alaska Board of Game adopted emergency regulations that effectively terminated most of the State's walrus management and law enforcement activities. In response and in recognition of the fact that there was no longer a State management program in effect to govern taking of walrus under the waiver, the Director of the Fish and Wildlife Service, after consultation with the Commission, published notice on 2 August 1979 of his decision to disapprove Alaska's walrus regulations and suspend the waiver of the moratorium

and return management of the other species were deferred until the questions relating to the native exemption clause were resolved.

Research and Management Efforts in 1980

The effect of the series of actions described above was to return responsibility for managing walrus back to the Fish and Wildlife Service and to leave responsibility for other species with the Fish and Wildlife Service and the National Marine Fisheries Service, with a moratorium on all but native taking under the native exemption clause of the Act. No progress was achieved in resolving these issues during 1980 and, in the absence of the waiver and return of management to the State, the Commission transmitted recommendations relating to essential research and management efforts relating to walrus and polar bears, as discussed below.

Walrus

In recognition of the need to continue monitoring the harvest of walrus by natives, the Commission wrote to the Fish and Wildlife Service on 30 October 1979 noting the need to make the necessary logistical and funding arrangements for the conduct of a well-designed and coordinated harvest monitoring and sampling program. The Commission recommended that the Service commit funds for the support of such a program and make arrangements for its design and conduct and, for this purpose, that it explore the feasibility of providing funds to the Eskimo Walrus Commission to design and conduct the program in consultation with and with the assistance of representatives of the State of Alaska and the Service. In addition, the Commission noted that the broader and more difficult walrus management issues also warranted attention and that some fundamental decisions needed to be made to resolve the problems relating to walrus and other species in Alaska. The Commission suggested that the Service convene a meeting of interested persons in Alaska to discuss these issues frankly and in sufficient detail to provide a basis for the necessary decisions and actions.

In its letter to the Commission of 7 October 1980, the Fish and Wildlife Service summarized its efforts to monitor the walrus harvest during the spring of 1980, noting that: Fish and Wildlife Service personnel monitored portions of the spring harvest at Nome, Little Diomed, Savoonga, Gambell, and Wales and collected biological samples and harvest data at all five villages; the purpose of these efforts was not to estimate the total harvest but to collect biological samples to provide insight into the health of the walrus

population summering in the northern Bering and southern Chukchi Seas; a total of 2,321 walrus were estimated to have been taken at the five villages while Fish and Wildlife personnel were present; in addition to those animals killed and reported at the five villages, more than 500 carcasses were counted by the third week of July; analyses of the samples had begun and were expected to be completed in December 1980; and, if funds were available, similar monitoring efforts would be conducted during 1981 at the same villages and possibly additional villages adjacent to Bristol Bay with the specific intent to obtain estimates of the total harvest of walrus.

Polar Bears

On 3 March 1980 the Commission wrote to the Fish and Wildlife Service to express its concern about the potential adverse impact of unregulated taking of polar bears in Alaska. The Commission noted that recent reports suggested that the unregulated taking of polar bears may be resulting in the taking of increased numbers of females with young and that the Commission was uncertain as to whether or not the Service had been conducting a program to monitor the taking of polar bears by Alaskan natives. The Commission therefore requested that the Service provide as much information as possible on: (1) the number, age, sex, location of kill, etc., of polar bears taken in Alaska for the years following those for which information was presented during the 1976 proceedings associated with return of management to the State of Alaska; (2) its best estimate of the impact of such taking on the polar bear population; (3) its evaluation as to whether or not the affected polar bear population should be designated as "depleted" under the Marine Mammal Protection Act and regulations promulgated so as to regulate taking; and (4) if the Service concluded that such designation would be appropriate, its schedule for proposing and implementing such designation and regulations. The Commission recommended that, if the Service did not have the information necessary to determine whether or not the polar bear populations were depleted, it establish procedures to monitor the harvest and to obtain such information.

The Service responded to the Commission's request for information by letter of 29 April 1980 indicating that based upon the available information, it could not form an opinion as to whether or not the polar bear populations should be designated as depleted. The Service noted that: information on the number of polar bears killed since 1975 would be sought from the Alaska Department of Fish and Game; assessing the impact of such killing since 1975 was difficult since reliable information on total take, age, and sex composition of the kill does not exist; the Service was preparing regulations to initiate its own sealing/marking program; there was no consensus on the magnitude of the recent take, and

there was no statistically valid estimate of polar bear populations in Alaska; a computer model was being refined by the Fish and Wildlife Service to utilize available data and those being gathered through the Service's mark/recapture program; it is likely that proportionately as many or more females have been taken since 1977 than in previous years and this kill could indeed have reduced the population if the take had been sufficiently great; the Service believed that it would be inappropriate to declare a population "depleted" on the basis of pure conjecture; the Service considered the Commission's recommendation "with the implied specific purpose of gathering data to declare polar bears depleted" to be inopportune and inappropriate; Fish and Wildlife personnel would start monitoring polar bear take in the spring of 1980; a prototype contract for this purpose with the Alaska Department of Fish and Game had been developed but had not yet been concluded; and other monitoring contracts might be negotiated for subsequent years.

The Commission responded to the Service by letter of 11 July 1980 indicating that the Service's interpretation of the Commission's recommendation with respect to designating the polar bear population as depleted had been incorrect. The Commission noted that it had asked the Service for its view as to whether or not the population should be designated as "depleted" and had recommended that if the Service did not have the necessary information to make that determination, it establish procedures to monitor the harvest and obtain information concerning the status of the polar bear population. The Commission noted that its recommendation implied no pre-judgment of the status of the polar bear population and it again recommended that the Service establish procedures to monitor the harvest and obtain information needed to determine the status of the polar bear populations. The Commission also requested that the Service provide any available additional information on the sex ratio of animals taken, the taking of females, females with cubs, and cubs, and information on the status of the Service's efforts to develop regulations on marking marine mammals, its harvest monitoring program, its mark/recapture work, and its efforts relating to improving the available data base and the computer model.

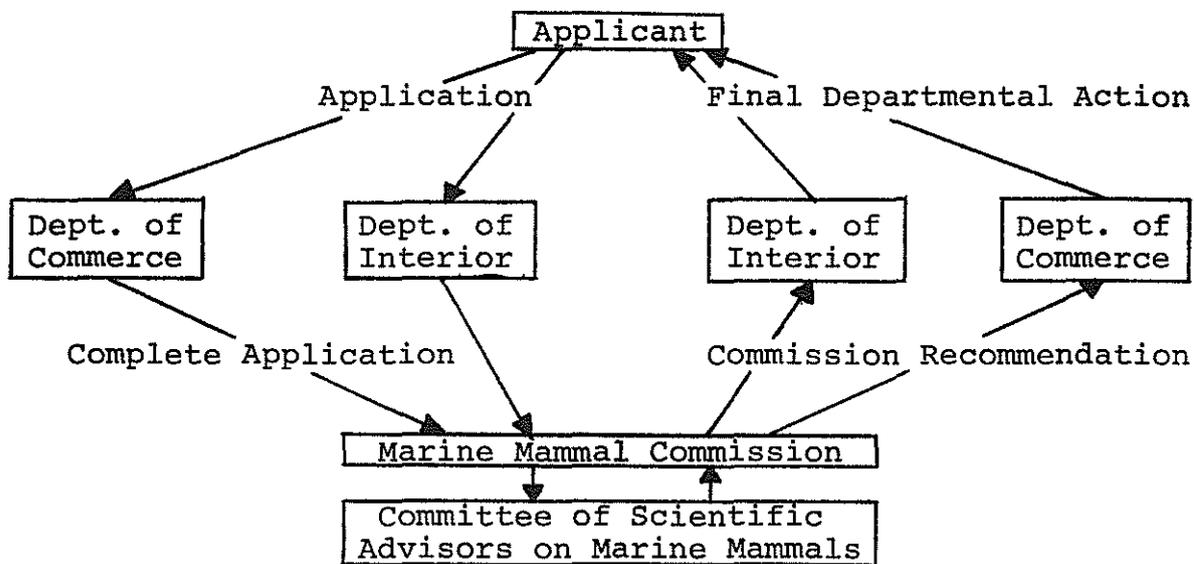
The Fish and Wildlife Service responded by letter of 7 October 1980 summarizing the available information and noting that: information on the number, age, sex, and location of bears killed had been requested but not yet received from the State of Alaska; the Service did not have information and therefore could not comment on the sex ratio of animals taken in recent years; the Service accepted the Commission's recommendations that it take the necessary steps to gain the requisite information for determination

as to the status of polar bears in Alaska; the Service felt that harvest monitoring warranted high priority; the Service was preparing draft regulations on marking and tagging marine mammal parts; no contract had been signed with the Alaska Department of Fish and Game for monitoring harvests; acceptably reliable estimates of the size of polar bear populations in Alaska were not possible based upon the available information; and the results of current and planned research efforts should enable the Service to develop estimates for the northern and western populations of polar bears and to determine the status of those populations in the future.

The Commission will continue to consult with representatives of the Federal and State agencies as well as other interested groups and individuals during 1981 as part of its continued efforts to resolve the problems described above and facilitate the establishment of an effective marine mammal management program in Alaska.

CHAPTER VII
PERMIT PROCESS

The Marine Mammal Protection Act places a moratorium, with certain exceptions, on the taking and importing of marine mammals and marine mammal products. One exception is the provision for the issuance of permits by either the Secretary of Commerce or the Secretary of the Interior, depending upon the species of animal involved, for the taking of marine mammals for purposes of scientific research or public display. Prior to the issuance of a permit, the application is reviewed by the Commission in consultation with its Committee of Scientific Advisors on Marine Mammals. The following is a schematic representation of this permit review process.



Application Review

The permit application and review process involves three stages: 1) receipt and initial review of the application at the Department, publication of a notice of receipt of application in the Federal Register, and transmittal to the Commission; 2) review of the application by the Commission and transmittal of its recommendation to the Department; and 3) final processing by the Department, including consideration of all comments and recommendations of the Commission and

the public, resulting in the approval or denial of the application. The total review time (initial receipt of application until final Departmental action) depends on many factors including: the sufficiency of the information provided by the applicant; special actions, such as inspecting an applicant's marine mammal holding facilities, that may be warranted before reaching a decision; and the efficiency and thoroughness of those responsible for review.

During 1980, the Commission made recommendations on 33 applications submitted to the Department of Commerce and 5 applications submitted to the Department of the Interior. The Commission's average review time for complete applications was 32 days (median, 30.5 days). Not included in the preceding statistics are recommendations on six applications which were still awaiting final action by the Department of Commerce at the end of 1980 and four applications which were under Commission review at year's end.

The Commission, in consultation with its Committee of Scientific Advisors, also made recommendations on three requests to modify permits and two requests to modify and proceed with the next phase of authorized activities after review of the permittee's progress reports by the Department, in consultation with the Commission. The average time required for Commission review of these matters was 16 days.

Based upon applications on which the Commission and the Departments took final action in 1980, the 33 applications submitted to the Department of Commerce were processed in an average of 117 days (median, 82 days) from the date received at the Department until final action was taken. The five permit applications submitted to the Department of the Interior were processed in an average of 112 days (median 111 days). These figures, when compared to the 1979 figures of 73 days for the Department of Commerce and 89 days for the Department of the Interior, represent increases in processing time of 60 percent and 26 percent (difference between 1980 and 1979 figures divided by 1979 figures), respectively. These increases were, in most cases, the result of the comparatively greater complexity of the applications considered in 1980 and the lengthy delays required while awaiting receipt of necessary additional information and clarification from certain permit applicants, both foreign and domestic.

If calculated from the date of receipt of a complete application, the average processing times for the Departments of Commerce and the Interior were 87 and 65 days, respectively, compared to 62 and 55 days, respectively in 1979.

Administration of the Permit Process

As noted in the Commission's previous Annual Report, efforts undertaken in 1979 to improve the administration of the permit system resulted, among other things, in the development of a standardized reviewer's checklist to be utilized by both the Fish and Wildlife Service and the National Marine Fisheries Service in reviewing applications and advising applicants of needed information before transmitting them to the Commission and the public for review and comment. Plans by the Fish and Wildlife Service also included incorporating the checklist, as well as proposed revised permit regulations, into an application information package for prospective marine mammal permit applicants which would be similar to that already utilized by the National Marine Fisheries Service.

On 14 March 1980, the Commission wrote to the Fish and Wildlife Service regarding the status of the application information package. The Commission noted the increasing need for a summary, by species, of marine mammals permanently removed from the wild under Fish and Wildlife Service permits and requested that a synopsis, similar to that developed by the National Marine Fisheries Service, be prepared.

The Fish and Wildlife Service responded by letter of 30 April acknowledging the need for such a summary, but citing lack of available staff time and computer capability as obstacles to compiling the necessary information. The Service suggested, however, that the information could possibly be gathered by an additional temporary employee to be hired later in the summer of 1980. With regard to the status of the proposed application package, the Service indicated that although copies of the reviewer's checklist had been sent to a few applicants as an aid in completing their applications, work on the information package and related permit regulations had been temporarily suspended in order to complete other, higher priority projects. The Service indicated that work on both the information package and revised regulations would be resumed at the earliest possible date. The Commission had received no further information concerning actions taken by the Service on any of the three projects by the end of 1980.

In contrast to the Department of the Interior, the Department of Commerce continued to expand its computer-based management information system for marine mammals and endangered species permit data. The system provides useful information for statistical and management needs, including data necessary for the determination of permit application processing time and preparation of summary reports on the

number of animals removed from the wild. The National Marine Fisheries Service also developed an inventory system to monitor the status of individual animals taken from the wild for maintenance at research and public display facilities. Such a computer-generated inventory will be sent annually to all facilities holding animals under permit, agreement, or letter of exemption to be confirmed, corrected, or updated, thereby avoiding the need for numerous reports and making it feasible to utilize one annual report from each facility regarding the condition of all marine mammals maintained. This verified inventory will provide management information on a continuing basis for all marine mammals maintained, and will serve as an aid to both the Service and the Commission in the review of permit applications.

By mid-1980, the annual limits previously established for Atlantic bottlenose dolphins (Tursiops truncatus) in the waters of the Indian/Banana River complex and west coast areas of Florida had been reached and collection of dolphins from these areas was not permitted. On 22 July and 15 September, the National Marine Fisheries Service sought the Commission's ad hoc guidance regarding the revision of those limits and establishment of revised appropriate levels of take for Tursiops in the waters off the west coast of Florida. On both occasions, the Commission indicated that data available as a result of recent research efforts appeared to indicate that increases in the estimated minimum population sizes and the annual limits for collection of Tursiops in certain areas of Florida's west coast region were warranted and it offered tentative recommendations based upon that preliminary information. The Commission noted, however, that the responsibility for on-going, detailed review and analysis of Tursiops population data rests with the Service's Southeast Fisheries Center and it therefore recommended that the Center evaluate all information available on the abundance, distribution, and productivity of Tursiops populations for those areas to which such data apply and, based upon such evaluation, revise present estimates of minimum population size and determinations of annual limits, as appropriate. Information received in late 1980 from the Southeast Fisheries Center indicated that the Center planned to develop estimates of certain Tursiops populations in the southeast region during fiscal years 1981 and 1982 and to complete estimates of Tursiops populations in the area during fiscal years 1983 and 1984.

CHAPTER VIII

MARINE MAMMAL MAINTENANCE STANDARDS AND REGULATIONS

On 20 September 1979, the Department of Agriculture Standards and Regulations for the Humane Handling, Care, Treatment, and Transportation of Marine Mammals went into effect. These Standards, promulgated by the Department of Agriculture under the Animal Welfare Act in response to the Commission's recommendations of 20 October 1975, were the subject of lengthy and extensive correspondence, consultation, and rulemaking which are discussed in the Commission's previous Annual Reports, and include most of the Commission's recommendations transmitted in the course of that process.

The Standards require dealers, research facilities, exhibitors, operators of auction sales, carriers, and intermediate handlers to comply with minimum standards relating to the various aspects of maintenance and transportation of marine mammals in captivity. All such persons or facilities maintaining marine mammals in captivity in the United States must obtain a license from the Department of Agriculture Animal and Plant Health Inspection Service and must maintain those marine mammals in compliance with the Standards unless a variance has been obtained to allow a limited time for modification or construction of new facilities or other actions necessary to achieve full compliance. Persons and facilities were required to apply for variances within 60 days of the effective date of the Regulations and variances were granted by the Animal and Plant Health Inspection Service for a period of up to three years to allow for the necessary modifications or construction of new facilities. It was anticipated that this variance period would also provide an opportunity to observe and evaluate the practical effects of application of the Standards and to make appropriate changes, as necessary, based upon that experience.

Although administration and enforcement of the Standards and Regulations are the direct responsibility of the Animal and Plant Health Inspection Service under the Animal Welfare Act, coordination of these activities and those of the National Marine Fisheries Service and Fish and Wildlife Service relating to scientific research and public display permits was considered both necessary and desirable. For this purpose, a cooperative agreement was concluded among the Animal and Plant Health Inspection Service, the National Marine Fisheries Service, and the Fish and Wildlife Service on 20 September 1979. This cooperative agreement, detailing each agency's responsibilities and authorities under the

Animal Welfare Act and the Marine Mammal Protection Act has facilitated coordinated administration and enforcement of the provisions of the two Acts, ensured uniformity, and avoided duplication of effort relating to the maintenance of marine mammals in captivity.

During 1980, representatives of the Commission consulted with representatives of the three other agencies concerning the implementation of the Standards and, on 19 November 1980, met with representatives of the agencies to consider the experience with and the need for changes in the Standards. On 30 December 1980, the Commission wrote to the Animal and Plant Health Inspection Service suggesting that certain changes in the Standards concerning the average adult size of animals, the required haul-out area, and a mechanism for dealing with animals maintained in isolation appear to be warranted and could be developed relatively quickly with the help of knowledgeable individuals. The Commission noted that it was important that the government move as quickly as possible to develop and propose such changes, several of which would relax the requirements of the Standards, so that affected persons have an opportunity to comment and so that the affected facilities have an opportunity to adjust any plans for modification well before the expiration of the variance period in the fall of 1982. For this purpose, the Commission recommended that the Animal and Plant Health Inspection Service convene a working group of representatives of the involved agencies and knowledgeable individuals to attempt to develop appropriate proposals to resolve those issues. The Commission noted that such a working group would provide an efficient and effective means of dealing with the issues and suggested that it be convened in mid-February 1981.

The Commission will participate in the meeting of the working group and continue to consult and cooperate with the Animal and Plant Health Inspection Service as well as the National Marine Fisheries Service and Fish and Wildlife Service during 1981 concerning the implementation of the Standards and Regulations.

CHAPTER IX
INTERNATIONAL ASPECTS OF MARINE MAMMAL PROTECTION
AND CONSERVATION

Section 108 of the Marine Mammal Protection Act directs that the Departments of Commerce, Interior, and State, in consultation with the Commission, seek to further the protection and conservation of marine mammals under existing international agreements and take such initiatives as may be necessary to negotiate additional agreements required to achieve the purposes of the Act.

The Commission's activities in 1979 with respect to conservation and protection of marine mammals in the Southern Ocean, the International Whaling Commission, the Interim Convention for the Conservation of North Pacific Fur Seals, and the Convention on International Trade in Endangered Species of Wild Flora and Fauna are discussed below.

Conservation and Protection of Marine Mammals
in the Southern Ocean

The Southern Ocean supports at least thirteen species of seals and whales, several of which are or were in danger of extinction as a consequence of unregulated or poorly regulated sealing and whaling. Commercial sealing in the Southern Ocean has ceased, at least temporarily, and regulation of whaling has improved so that these activities no longer pose as serious a threat as they once did to either the continued existence or the well-being of these species. On the other hand, developing fisheries, particularly the fishery for Antarctic krill (Euphausia superba), and the developing interest in possible offshore oil and gas resources in the Antarctic pose new and perhaps more serious threats to marine mammals and other biota of the Southern Ocean.

The biology and ecology of krill and krill-dependent species are not well documented and it is not possible, at present, to accurately predict how krill or krill-dependent species might be affected by various levels of krill harvest and/or by activities and events associated with the exploration and development of possible offshore oil and gas resources.*

* For more detailed information, see a "Review of Information Regarding the Conservation of Living Resources of the Antarctic Marine Ecosystem", a report prepared under contract to the Marine Mammal Commission and available through the National Technical Information Service (see Appendix B).

Likewise, available baseline information and existing monitoring programs are insufficient to detect changes in the distribution, abundance, or productivity of krill, whales, seals, etc., that may result from fisheries or associated activities, or from activities and events, such as oil spills, that may be associated with the exploration for and possible exploitation of offshore oil and gas resources.

To facilitate the conservation and protection of Antarctic whales and seals, the Commission has undertaken since 1975 a continuing review and made numerous recommendations concerning the needs for a comprehensive, biological/ecological research program and international agreements to regulate both fisheries and offshore oil and gas exploration and exploitation in the Southern Ocean. Activities undertaken from 1975 through 1979 are described in earlier Annual Reports; activities undertaken in 1980 are described below.

The Living Resources Convention

In 1977, the Consultative Parties to the Antarctic Treaty resolved at the IXth Antarctic Treaty Consultative Meeting that a definitive regime for the conservation of Antarctic living marine resources should be concluded and that a special consultative meeting should be convened to draft a convention for consideration at a formal diplomatic conference. In response to these resolutions, special consultative meetings were held in Canberra, Australia (27 February to 16 March 1978) and Buenos Aires, Argentina (17-28 July 1978), and informal consultations were held in Washington, D.C. (September 1978), Bern, Switzerland (March 1979), and during the Xth Antarctic Treaty Consultative Meeting held in Washington, D.C. (17 September to 5 October 1979). These consultations produced a draft convention which was finalized at a diplomatic conference held in Canberra, Australia, 7-20 May 1980. The Convention was signed in September 1980, and forwarded to the Senate for consideration on 2 December 1980.

Representatives of the Commission participated in preparations for and served on the delegations to the special consultative meetings and the Canberra Conference on the Conservation of Antarctic Marine Living Resources. Through its representatives, the Commission advocated the strong, ecosystem-oriented, conservation approach outlined in its Annual Report for 1978. This approach is reflected in the title, as well as the text of the Convention, and represents a significant departure from the traditional, single-species approach to marine mammal and fishery management.

The Convention applies to all species of living organisms which occur south of the Antarctic Convergence and, among other things, provides for the establishment of a Scientific Committee, Commission, and Executive Secretariat to identify and take such actions as may be necessary to conserve these species and the ecosystem of which they are a part. It will come into force thirty days following ratification by eight of the fifteen signatory nations, and the first meeting of the Commission will be held within three months following entry into force, provided the ratifying parties include at least two states involved in harvesting activities in the Convention Area, or within one year if the ratifying parties do not include at least two states engaged in harvesting activities in the Convention Area. The first meeting of the Scientific Committee will be held within three months following the first meeting of the Commission.

The headquarters of the Commission will be in Hobart, Tasmania, Australia. To facilitate implementation of the Convention, the Depository Government (Australia) has indicated its intent to convene a meeting in August or September 1981 for the purpose of considering steps which might be taken to facilitate the early operation of the Commission, Scientific Committee, and Executive Secretariat to be established by the Convention. Since decisions made at this meeting will profoundly affect the ultimate success or failure of the Convention itself, the Commission, in consultation with its Committee of Scientific Advisors on Marine Mammals, intends to provide whatever assistance it can to help ensure the success of the meeting.

Development of a Regime for the Conservation of Non-Living Resources

As noted above, activities and events associated with the exploration for and development of non-living resources (particularly offshore oil and gas resources) could have direct and indirect effects on whales, seals, krill, and other components of the Southern Ocean ecosystem. The Antarctic Treaty Consultative Parties recognize the risks associated with the exploration for and development of non-living resources and, at the Xth Antarctic Treaty Consultative Meeting in 1979, Representatives of the Consultative Parties recommended, among other things, that their governments: facilitate the development of research programs which would contribute to an improved understanding of relevant aspects of the Antarctic and its environment; include the subject "Antarctic resources - the question of mineral exploration and exploitation" on the agenda for the XIth Antarctic

Treaty Consultative Meeting; and hold a meeting before the XIth Consultative Meeting to consider the ecological, political, technological, legal, and other aspects of a regime for Antarctic mineral resources. The representatives also noted that: "An agreed regime on Antarctic mineral resources should include inter alia means for:

- (i) assessing the possible impact of mineral resource activities on the Antarctic environment in order to provide for informed decision-making;
- (ii) determining whether mineral resource activities will be acceptable;
- (iii) governing the ecological, technological, political, legal, and economic aspects of those activities in cases where they would be determined acceptable; including:
 - (a) establishing, as an important part of the regime, rules relating to the protection of the Antarctic environment;
 - (b) requiring that mineral resource activities undertaken pursuant to the regime be undertaken in compliance with such rules."

The meeting on Antarctic mineral resources was held in Washington, D.C., from 8 to 12 December 1980. It facilitated an exchange of views which should contribute to the ability of the Consultative Parties to consider and address the issue at the XIth Consultative Meeting to be held in Buenos Aires, Argentina in late June and early July 1981. Commission representatives participated in preparations for and served on the delegation to the December meeting, and will assist in preparing for the XIth Consultative Meeting. Through its representatives, the Commission has advocated, and will continue to advocate, a strong, ecosystem-oriented conservation approach consistent with the Marine Mammal Protection Act.

Research-Related Issues

The living resources convention and the non-living resources regime, presently being discussed, provide a mechanism for conserving Antarctic resources, both living and non-living, and for protecting the ecosystems of which they are a part. Available information on the nature, extent, and interrelationships of these resources is insufficient, however, to accurately predict and mitigate

the possible adverse effects of development and development-related activities. Likewise, baseline information and on-going monitoring programs are insufficient to detect the possible adverse effects of development and development-related activities before they reach significant levels. Therefore, it will be difficult, if not impossible, to achieve the purposes of either the living resources convention or a non-living resources regime if existing research programs and research capabilities are not expanded substantially.

In December 1978, the Commission recommended to the National Science Foundation, the agency responsible for the management of the U.S. Antarctic Research Program, that, among other things, the Foundation constitute one or more groups of experts to provide advice concerning the nature of research programs and capabilities needed to assess and monitor the possible direct and indirect effects of resource-related activities in the Antarctic (see pp. 57-61 in the Commission's Annual Report for 1979).

The recommendations were eventually met when the National Oceanic and Atmospheric Administration and the National Science Foundation joined the Commission in providing support for the National Academy of Sciences Polar Research and Ocean Affairs Boards to form a committee to evaluate and make recommendations regarding marine ecosystem research in the Antarctic. In 1980, the Academy's committee, under the chairmanship of Dr. John H. Steele (Director of the Woods Hole Oceanographic Institution), met a number of times to review and evaluate marine ecosystem research in the Antarctic, and its report is expected in the summer of 1981. This report and related information being developed by the agencies will be used to identify the research programs and research capability needed to meet U. S. interests and to take advantage of unique research opportunities in the Antarctic.

International Whaling Commission (IWC)

Representatives of the Marine Mammal Commission consulted with the U.S. Commissioner to the IWC and others in preparation for the thirty-second annual meeting of the IWC in Brighton, England (21-26 July 1980) and attended the meetings of the IWC and its Scientific Committee during 1980. The Commission's activities in 1980 relating to the IWC and the bowhead whale issue are discussed in Chapter VI. A summary of the Commission's activities relating to other aspects of IWC action in 1980 is set forth below.

July 1980 Meeting

The decisions of the IWC members at their July 1980 meeting resulted in the continuation of the reduction in the total number of whales that may be killed throughout the world and the passage of several measures designed to further improve the IWC's management regime. The number of member nations increased from 23 to 24 since the 1979 meeting. Panama withdrew from the Convention in June 1980, while Oman and Switzerland, both non-whaling nations, joined the IWC and participated in the 1980 meeting.

As in previous years, the major issue relating to commercial whaling before the IWC in 1980 was the proposed moratorium which was presented to the members in the form of two proposals. The U.S. and France proposed a worldwide moratorium on all commercial whaling, to be implemented immediately and to last until serious flaws in the design and practice of the IWC's conservation program were remedied, while the Seychelles proposed a worldwide moratorium on sperm whaling. The first proposal for a moratorium on all commercial whaling received the necessary simple majority in Technical Committee but failed to gain the necessary three-fourths majority in plenary session (13 in favor, 9 opposed, and 2 abstaining) and was therefore not adopted. Following the failure of the proposal for a moratorium on all commercial whaling, the Technical Committee considered and passed by the necessary simple majority the proposed three-year moratorium on sperm whaling. That proposal and an amended proposal to delay the effective date of the moratorium until the 1981/82 season in the southern hemisphere and the 1982 season in the northern hemisphere, however, both failed to receive the necessary three-fourths majority in plenary session (14 in favor, 6 opposed, and 4 abstentions) and they were therefore not adopted.

After considering and failing to adopt the moratorium proposals, the members of the IWC considered and set commercial whaling quotas for individual stocks of whales that resulted in a reduction from the total limit of approximately 15,650 set at the IWC's 31st meeting to approximately 14,500 of which no more than 13,851 are likely to be taken because of the ban on taking some of those whales with a factory ship, because of prohibitions on whaling within the Indian Ocean Sanctuary, and as a result of statements by member nations of their intention to refrain from taking all of the permissible quotas. The reduction in quotas for sperm whales to a total of 1,320 compared to 2,203 set last year and 13,037 set at the 29th meeting in 1977 was especially significant. In particular, the quota for North Pacific sperm whales was reduced from 1,350 last year to 890, a level below the 900 sperm whales that Japan has claimed to be necessary to sustain its commercial sperm whaling operations. The quota for sperm whales in the southern hemisphere was reduced from 580 to 300 for the coming season and zero for the 1982 season. Quotas for minke whales, believed to be the most abundant of the whales subject to IWC regulation, were reduced from 8,102 to 7,072 for the southern hemisphere while remaining constant at 1,361 in the North Pacific and at 2,554 in the North Atlantic. Quotas for fin whales in the North Atlantic were increased from 661 to 701. This figure includes the quota for the Spain-Portugal-British Isles stock of fin whales for which the IWC set a combined quota of 440 for 1980 and 1981 with a maximum annual limit of 240, thereby obviating the need for Spain's objection to the previously established 1980 quota of 143 which was discussed in the Commission's previous Annual Report. Quotas of 179 gray whales and 10 humpback whales for aboriginal/subsistence whaling were continued and the IWC set a three-year quota for bowhead whales of 45 landed or 65 struck with a maximum annual limit of 17 landed.

In addition to the establishment of the quotas described above, the IWC adopted several measures designed to improve various aspects of its management regime. In response to a U.S. proposal, the members resolved an ambiguity in the language of the factory ship moratorium to make it clear that killer whales may not be taken with factory ships. The USSR took 916 killer whales with factory ships last year and this measure will prevent a recurrence of such activities. The members also adopted a ban on the use of cold grenade (non-explosive) harpoons to kill for commercial purposes any whales except minke whales beginning in the 1980/81 pelagic and 1981 coastal seasons. The members also passed resolutions supporting the Scientific Committee's continuing review of and recommendations concerning the status of all whales, including small cetaceans, established working groups on

non-member whaling activities, on revision of the management procedures for commercial whaling, on development of management principles, and on guidelines for aboriginal subsistence whaling, and also passed resolutions relating to data requirements and non-member whaling activities.

Post-Meeting Decisions

Under the terms of the Convention for the Regulation of Whaling, decisions of the IWC at its July 1980 meeting setting quotas and otherwise amending the Schedule of regulations governing whaling activities did not become effective until 26 November 1980, 90 days after they were formally transmitted to the members. Any member nation that filed an objection within that 90-day period would not be legally obligated to comply with any Schedule change to which it objected. In 1980, two issues relating to the decisions at the July 1980 meeting arose during the 90-day period following the meeting.

First, upon review of the text of amendments to the Schedule that was transmitted to members by the Secretary of the IWC following the July 1980 meeting, the United States noted that, as a result of an apparent oversight during the course of the extensive and often complex discussions at the meeting, the members had neglected to vote to establish quotas for sperm whale stocks in Divisions 1 through 8 of the southern hemisphere. In order to remedy this oversight, the United States wrote to the Chairman of the IWC to request a postal vote under the IWC's Rules of Procedure on its proposal to set quotas of zero for sperm whales in each of the eight Divisions. This proposal by the United States received the necessary three-fourths majority favorable vote (18 in favor, 2 abstentions, and 4 not responding) and will become binding on all member nations on 22 February 1981 unless a member nation files an objection to the amendment before that date.

A second issue arising within the 90-day period following the July 1980 meeting related to the IWC decision to ban the use of cold grenade (non-explosive) harpoons to kill for commercial purposes any whale except the minke whale from the beginning of the 1980/81 pelagic and 1981 coastal seasons. By Circular Communication of 26 November 1980, the Secretary of the IWC advised all Contracting Governments that the Republic of Korea had filed an objection to this decision within the 90-day period because of "the peculiar difficulties such a ban would impose on Korean whalers". Under the terms of the Convention, this objection had the effect of delaying the effective date on the ban of the use of cold grenade harpoons for any member for at least an additional 90 days (until 23 February 1981) and providing an additional period

during which other members could also file objections to the ban.

In response to this action by the Republic of Korea, the United States communicated its concern to the Government of the Republic of Korea about its objection to the ban on cold grenade harpoons which had been adopted because of the inhumane nature of such harpoons. The United States noted that the Republic of Korea had been certified under the Pelly Amendment in 1978 for its whaling activities but that no embargo on importation of its fish products was imposed because of its intention to join the IWC and the assumption that it would adhere to IWC decisions. The United States requested detailed information on when Korea's whaling activities would begin, its intentions concerning the use of cold grenade harpoons, and how Korea's whaling activities would be monitored, noting that Korea does not participate in the IWC's International Observer Scheme and that it has not submitted the required information on whaling operations for review by the IWC. The United States indicated that it will review Korea's whaling operations using the cold grenade for possible certification and imposition of sanctions under the Pelly Amendment to the Fishermen's Protective Act of 1967 and the Packwood-Magnuson Amendment to the Fishery Conservation and Management Act of 1976 and urged Korea to withdraw its objection and comply with the ban on the use of cold grenade harpoons.

The Commission will continue to consult and cooperate with other agencies and interested groups and individuals during 1981 concerning these and other issues relating to the International Whaling Commission.

Interim Convention on the Conservation
of North Pacific Fur Seals

The Interim Convention on the Conservation of North Pacific Fur Seals calls for cooperative research and management efforts by the U.S., Japan, Canada, and the USSR to achieve the maximum sustainable productivity of the fur seal resources of the North Pacific Ocean so that the fur seal populations can be brought to and maintained at the levels which will provide the greatest harvest year after year, with due regard to their relation to the productivity of other living marine resources of the area. Harvesting of fur seals at sea has been prohibited by agreement of the parties to the Convention and an average of 32,278 fur seals have been harvested annually in recent years -- 26,507 on the Pribilof Islands of the U.S. and 5,771 on the Commander and Robben Islands of the USSR. The Convention entered into force in 1957 and has been extended by three Protocols. The most recent extension in 1976 provided for the expiration of the Convention in October 1980 unless it was renegotiated or extended again by the parties.

As part of the process leading to development of the U.S. position as to whether to renegotiate, extend, or allow the Convention to expire, the National Marine Fisheries Service issued a Draft Environmental Impact Statement (DEIS) in July of 1979 and the Commission submitted detailed comments and recommendations by letter of 12 September 1979 which are described in its previous Annual Report. Based upon the comments received on the DEIS and the result of informal discussions with representatives of other parties to the Convention, the Administrator of the National Oceanic and Atmospheric Administration recommended to the Department of State on 8 January 1980 that the Convention be extended by protocol for a period of four years with only minor modification to recognize the extended fisheries jurisdiction of the parties. The Administrator noted that: the result of consultations with the other parties indicated that renegotiation of the Convention so as to achieve significant alterations of the arrangement was not a realistic option; scientific data indicate that a significant portion of the fur seal population migrates through waters beyond U.S. jurisdiction and U.S. domestic legislation would therefore not be adequate to protect the population throughout its range; and pelagic sealing may be resumed by some parties if the Convention were allowed to expire. The Administrator did recommend, however, that efforts be continued to incorporate the concept of optimum sustainable population into the Convention and that the U.S. propose the establishment by the North Pacific Fur Seal Commission of an international

group of experts to study the concept of optimum sustainable population and its relation to fur seal conservation. The Administrator also recommended that the U.S. explore with the other parties the matter of taking fur seals incidental to commercial fishing operations.

On 14 May 1980, the Commission wrote to the National Marine Fisheries Service noting that the Commission supported the proposed extension of the Convention based largely upon its judgement that the available information and analyses were insufficient to determine how the residents of the Pribilof Islands, the fur seals, and other living resources of the Bering Sea ecosystem, and the United States' efforts to conserve those resources would be affected by termination or substantial revision of the Convention. In order to avoid a similar dilemma when the proposed four-year extension expires, the Commission recommended that the National Oceanic and Atmospheric Administration/National Marine Fisheries Service, in consultation with the Department of State, Department of the Interior, representatives of the residents of the Pribilof Islands, and such other Federal and state agencies and groups as may be appropriate, take immediate steps to: (1) complete the analysis of existing research data collected from fur seals at sea, particularly as they relate to feeding habits, food requirements, and at-sea distribution of various age/sex classes of fur seals; (2) determine and evaluate the possible effects on fur seals of past, current, and proposed fisheries activities in the Bering Sea; (3) determine the optimum sustainable population(s) of fur seals; (4) identify possible additional or alternative sources of income for the residents of the Pribilof Islands and evaluate the effects of those alternatives on those people, the fur seals, and the other species that are components of the Bering Sea ecosystem; (5) determine the likelihood that pelagic sealing would be resumed if the Convention were terminated and the likelihood of successfully negotiating with the other parties to effectively ban pelagic sealing if the Convention were terminated as well as the effects, if any, of termination or substantial revision of the Convention on United States' efforts to conserve other species; (6) determine the nature and costs of the research programs that would be necessary in conjunction with the extended Convention and the alternative arrangements described above; and (7) evaluate the relative merits of extending, renegotiating, or terminating the Interim Convention. The Commission also asked that the Service provide a schedule for the conduct and completion of the recommended studies and analyses.

The National Marine Fisheries Service responded to the Commission's recommendations by letter of 4 November 1980 providing information on current and planned scientific

research, much of which was applicable to several of the Commission's recommendations. The Service indicated that most of the useful results of the scientific research efforts should be available for review prior to the expiration of the proposed four-year extension of the Convention and also provided brief summaries of some relevant socio-economic studies, the status of efforts to prepare an environmental impact statement on development of a harbor at one of the Pribilof Islands, and on the international implications of alternative arrangements, based largely upon the discussion in the DEIS.

Although several of the Commission's recommendations were not addressed in the Service's letter of 4 November and no schedule for the conduct and completion of the studies and analyses was provided, the Commission determined that before responding to that letter, it would be desirable to discuss and attempt to resolve those issues during the course of consultations at a meeting on the Service's northern fur seal scientific program which was held on 17-18 December 1980 in Seattle, Washington. Those discussion did not, however, resolve several issues relating to the Commission's recommendations and the Commission will transmit additional comments and recommendations to the Service in early 1981.

During the course of the correspondence described above, the National Marine Fisheries Service issued a Final Environmental Impact Statement in September 1980 and a Protocol amending the Convention by extending it for four years and recognizing extended fisheries jurisdictions was signed by the United States and other parties on 14 October 1980. The Protocol, which will enter into force upon ratification by the parties, was transmitted to the Senate by the President on 12 November 1980 for consideration.

Convention on International Trade
in Endangered Species of Wild Fauna and Flora (CITES)

The United States is a party to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) which is designed to control trade in animal and plant species which are or may become threatened with extinction. The extent of trade control depends upon the extent to which the species is endangered, as reflected by inclusion in one of three appendices which can be modified by agreement of the parties. Appendix I includes species threatened with extinction that are or may be affected by trade. Appendix II includes species that although not necessarily currently threatened with extinction, may become so unless trade in them is strictly controlled, as well as species that must be regulated so that trade in "look alike" species that are endangered may be brought under effective control. Appendix III includes species that any party identifies as being subject to regulation within its jurisdiction for the purpose of preventing or restricting exploitation, and for which the party needs the cooperation of other parties in controlling trade.

The Department of the Interior Fish and Wildlife Service has overall responsibility for developing the U.S. positions and implementing the provisions of CITES. In preparation for the third biennial meeting of the parties in February 1981, the Service requested comments from the Commission by letter of 30 May 1980 as to whether or not the United States should propose any amendments of Appendix I or II and on the proposed amendments of Appendix II to include the harp seal, hooded seal, and Northern fur seal.

The Commission responded by letter of 1 August 1980 recommending, as it had in the past, that the United States propose including in Appendix I all the stocks of whales that are protected from commercial whaling by the regulations of the International Whaling Commission. The Commission noted that including such zero quota stocks on Appendix I of CITES would complement and help ensure the effectiveness of the International Whaling Commission's conservation measures and that it would be desirable to annotate those listings to explain that they were being included for that reason rather than because each stock has been determined to be in danger of extinction on the basis of affirmative scientific evidence. With respect to the proposals to list the harp, hooded, and Northern fur seals on Appendix II, the Commission suggested that a decision on these proposals be deferred and that representatives of the Fish and Wildlife Service, National Marine Fisheries Service, and the Commission meet to discuss

the issues further and determine the best course of action after gathering and evaluating technical information on trade in Northern fur seals and the Canadian research and management programs and plans relating to harp and hooded seals.

The Service responded to the Commission's recommendations and suggestions by letter of 7 October 1980 indicating that the Service had decided not to propose the listing in Appendix I of all stocks of whales that are protected from commercial whaling by the International Whaling Commission because those zero quota stocks did not meet the criteria for listing on Appendix I. Notwithstanding this statement in the letter, however, the copy of the proposal which had been submitted to CITES on behalf of the United States which was enclosed with the letter did, in fact, propose listing in Appendix I all those stocks for which the International Whaling Commission allows no commercial harvest, as the Commission had recommended. With respect to the harp, hooded, and Northern fur seals, the meeting that the Commission had suggested was not convened and the Service indicated in its letter that it had decided not to submit proposals to include those species on Appendix II, based upon available information and the recommendations of the National Marine Fisheries Service, the International Convention Advisory Commission, and the Government of Canada.

By letter of 27 October 1980, the Service transmitted copies of proposals submitted to CITES by the French Republic and the Federal Republic of Germany for review and comment by the Commission. The Federal Republic of Germany submitted proposals to add all stocks of fin, sei, and sperm whales to Appendix I, including some stocks for which the International Whaling Commission allowed a commercial catch, while the United States as noted above had proposed listing in Appendix I only those stocks for which the International Whaling Commission allows no commercial catch. The French Republic proposed including all stocks of gray seals and harbor seals in Appendix II. Based upon preliminary consultations with representatives of the Commission and other interested agencies and individuals, the Service transmitted comments to CITES indicating that the United States' proposal should be clarified to call for listing of each species of whale followed by the statement "all stocks for which the International Whaling Commission allows no commercial catch, as specified in the 1980 Schedule". The Service indicated that the United States continued to seek a moratorium on commercial whaling which would be supported by the German proposals, but that the United States would withhold further comment on the German proposals pending resolution of issues concerning

the relationship between CITES and the International Whaling Commission and concerning satisfaction of the Appendix I listing criteria for some of those stocks.

The Commission will continue to consult and cooperate with the Fish and Wildlife Service and other agencies in the course of developing positions for the forthcoming meeting of the CITES parties.

CHAPTER X

OUTER CONTINENTAL SHELF OIL AND GAS DEVELOPMENT

Activities and events associated with the exploration and development of offshore oil and gas resources may have direct and indirect effects on marine mammals and the ecosystem of which they are a part. The Bureau of Land Management has been delegated responsibility by the Secretary of the Interior under the Outer Continental Shelf (OCS) Lands Act, as amended, for predicting, mitigating, and detecting the adverse effects of OCS oil and gas development. The National Marine Fisheries Service and the U. S. Fish and Wildlife Service are responsible, under the authority of the Marine Mammal Protection Act and the Endangered Species Act, for reviewing proposed actions and advising the Bureau as to measures that may be needed to assure that the proposed actions will not be to the disadvantage of marine mammals and other wildlife. The Commission reviews the relevant policies and activities of these agencies, and recommends actions that appear necessary to conserve marine mammals and their habitats. The Commission's activities in this regard during 1980 are discussed below.

Proposed OCS Lease Sale #60, Lower Cook Inlet - Shelikof Strait

The proposed sale, tentatively scheduled to be held in September 1981, includes 153 tracts (349,917 hectares) of submerged lands in the Lower Cook Inlet/Shelikof Strait area of Alaska. The area is inhabited, either seasonally or permanently, by twenty-one species of marine mammals, seven of which are listed as "endangered" under the Endangered Species Act.

With a few exceptions, the Draft Environmental Impact Statement, which was prepared by the Bureau of Land Management, provided a reasonably thorough and accurate assessment of the possible direct and indirect effects of the proposed action on marine mammals. It concluded, among other things, that activities and events associated with the proposed action are not likely to have significant direct or indirect effects on any endangered species or populations of marine mammals, but they could have significant direct or indirect effects on non-endangered populations of sea otters, harbor seals, sea lions, beluga whales and, perhaps, other marine mammals that occur in or near the proposed lease sale area.

It did not identify or provide a thorough assessment of the specific measures that would be taken to assure that sea otters, harbor seals, sea lions, beluga whales, and other non-endangered marine mammals will not be affected adversely. Additionally, it did not indicate whether the Bureau of Land Management had consulted, or intended to consult, with the National Marine Fisheries Service and the U.S. Fish and Wildlife Service to determine measures needed to provide the necessary assurances. Therefore, by letter of 31 October 1980, the Commission noted the need for additional consideration of the potential adverse effects described above and recommended that, if it had not already done so, the Bureau of Land Management consult with the National Marine Fisheries Service and the U.S. Fish and Wildlife Service to identify measures that may be needed to assure that the proposed action is not contrary to the intents and provisions of the Marine Mammal Protection Act as well as the Endangered Species Act.

Proposed OCS Lease Sales #72 and #74
in the Gulf of Mexico

By letter of 11 August 1980, the Bureau of Land Management New Orleans OCS Office advised the Commission that, in accordance with the Department of the Interior's approved 1980-1985 Oil and Gas Leasing Schedule, it was beginning the planning process for proposed Gulf of Mexico OCS Lease Sales 72 and 74. The letter also requested that the Commission provide information on the species and populations of marine mammals that inhabit and/or migrate through the proposed lease sale areas and that it suggest or recommend measures that might be taken to prevent or mitigate possible direct and indirect effects on marine mammals should the action proceed as proposed.

The Commission, in consultation with its Committee of Scientific Advisors, considered these requests and, by letter of 7 November 1980, advised the New Orleans OCS Office that: twenty-seven different species of marine mammals have been reported to occur in, or migrate through, the Gulf of Mexico; eight of those species are listed as "endangered" under the Endangered Species Act; the habitat requirements and habitat-use patterns of those species are not well documented and, with only a few exceptions, available information is insufficient to identify sites which are essential or critical to their well-being and survival; and, likewise, available information on the possible effects of disturbance, noise and oil, and other pollutants is insufficient to accurately predict how the various species and their

habitats might be affected by activities and events which would or could be associated with the proposed lease sale. The Commission also noted that: because they occur infrequently in and near the proposed lease sale areas, endangered species of cetaceans are not likely to be affected adversely by the proposed action; possible direct and indirect effects on the endangered West Indian manatee could be prevented or mitigated by adopting the measures recommended by the U.S. Fish and Wildlife Service pursuant to Section 7 of the Endangered Species Act; and, to ensure that non-endangered as well as endangered species and populations of marine mammals are not affected adversely by activities and events that would or could be associated with the proposed action, the Bureau should consult with the National Marine Fisheries Service to identify such additional information, lease stipulations, monitoring programs, or other measures as may be needed to assure that populations of bottlenose dolphins and other non-endangered marine mammals would not be affected adversely should the sales proceed as proposed.

The Bureau of Land Management
Environmental Studies Program

As noted above, the Bureau of Land Management has been delegated responsibility by the Secretary of the Interior under the Outer Continental Shelf Lands Act, as amended, for protecting and mitigating the possible adverse effects of activities and events associated with the exploration and development of offshore oil and gas resources. To provide the biological, ecological, and technical information needed to meet this responsibility, the Bureau has established regional environmental studies programs which are administered by the Bureau's OCS Offices in New York, New Orleans, Los Angeles, and Anchorage. The Bureau has also contracted with the National Oceanic and Atmospheric Administration to plan and administer the Alaska Outer Continental Shelf Environmental Assessment Program (OCSEAP).

To assist the Bureau in developing and implementing the research programs needed to assess and monitor the effects of OCS oil and gas development on marine mammals and their habitats, the Commission has: reviewed and commented on relevant plans and requests for proposals developed by the Bureau; participated in meetings of Technical Proposal Evaluation Committees convened by the Bureau to review proposals; and helped to organize several meetings to review and coordinate relevant research programs being conducted and planned by the Bureau and the National Marine Fisheries Service.

In 1979, the Commission initiated a general assessment of the Bureau's Environmental Studies Program as it related to marine mammals. The assessment was completed in early 1980 and the Commission transmitted its comments and recommendations for improving the program to the Director of the Bureau of Land Management by letter of 7 May 1980. The Commission indicated the types of determinations that should be made by the Bureau in carrying out the program so as to meet the intents of the Marine Mammal Protection Act, identified the information needed to make those determinations, and noted the need to strengthen certain aspects of the Bureau's environmental studies and assessment programs. In order to achieve these goals, the Commission recommended that the Bureau:

- . designate appropriately qualified persons in its Washington, D.C. office and each of the regional OCS offices to be responsible for planning, coordinating, and overseeing marine mammal-related studies;
- . in consultation with the National Marine Fisheries Service, the U.S. Fish and Wildlife Service, and such other agencies as may be appropriate, develop a plan and schedule for intra- and inter-agency meetings to plan and coordinate marine mammal-related studies on both national and regional levels;
- . initiate Endangered Species Act consultations, when appropriate, sufficiently in advance of contemplated actions so that recommendations can be incorporated into environmental studies plans and lease sale schedules;
- . evaluate and, if necessary, revise existing guidelines and procedures used to develop and up-date regional studies plans so as to ensure that program needs are being identified and met effectively;
- . engage appropriately qualified marine mammal biologists to help prepare and review all marine mammal-related sections in environmental assessment documents before they are issued so as to ensure that the findings and conclusions contained therein are justified and based upon the best available information; and

- . in consultation with such other agencies as may be appropriate, determine and make provisions for implementing the monitoring programs that will be needed to detect the effects of exploratory and developmental activities on marine mammals and their habitats.

The Bureau responded to the Commission's recommendations by letter of 18 September 1980. In its response, the Bureau indicated that: each of its regional offices and the Washington, D.C. office had been requested to designate an individual to be responsible for planning, coordinating, and overseeing marine mammal studies; each regional OCS office would be requested to submit a schedule of FY 1981 coordination meetings related to marine mammal studies; a draft schedule for Endangered Species Act, Section 7 consultations had been developed for FY 1981, in consultation with the National Marine Fisheries Service; the guidelines for development of regional studies plans were under continuing review and there seemed to be no need for major changes at that time; OCS-related environmental assessments and impact statements are prepared by permanent environmental assessment staffs in each of the four OCS regions and these staff professionals are qualified to prepare their respective environmental impact statement sections; although the Secretary of the Interior is required to monitor the impacts of the OCS oil and gas program, the responsibility for conducting monitoring studies has not been defined clearly; and a long-term monitoring program may well result from on-going efforts to coordinate relevant research programs being conducted by the Bureau of Land Management and the National Marine Fisheries Service.

The Commission responded by letter of 17 December 1980 noting the significant positive steps that the Bureau had taken. The Commission requested additional information concerning the specific duties and authorities of the designated marine mammal coordinators, the Bureau's plans to consult with the National Marine Fisheries Service and/or the U.S. Fish and Wildlife Service, and the steps the Bureau was taking to resolve the questions about responsibilities for environmental monitoring. The Commission also recommended that the Bureau: take such steps as may be necessary and possible to define its and other agencies' responsibilities relative to environmental monitoring; consider long-term monitoring needs in the development of the regional and overall environmental studies plans for marine mammals; and, in consultation with the National Marine Fisheries Service,

The U.S. Fish and Wildlife Service, the U.S. Geological Survey and such other agencies as may be appropriate, develop a standard procedure and schedule for reviewing plans for, and the results of, monitoring studies. In support of these recommendations, the Commission noted that a substantial cost savings might be realized, in the long-term, by considering and factoring possible long-term monitoring needs into the regional environmental studies plans for FY 81 and beyond and that development of a coordinated, comprehensive monitoring program could help to facilitate offshore oil and gas development by providing assurance that possible adverse effects can be detected and avoided.

Inter-agency Review/Coordination Meetings

As noted above, the Commission's 7 May 1980 letter recommended, among other things, that the Bureau of Land Management, in consultation with the National Marine Fisheries Service, the U.S. Fish and Wildlife Service, and such other agencies as may be appropriate, develop a plan and schedule for intra- and inter-agency meetings to plan and coordinate marine mammal-related studies on both national and regional levels. The recommendation was based upon the Commission's determinations that there had been some duplication in the bowhead whale research programs being conducted by the National Marine Fisheries Service and the Bureau and that the programs, independently and collectively, were not providing all of the information needed to ensure that bowhead whales and other species of marine mammals will not be affected adversely by activities and events associated with offshore oil and gas development.

The first of the regional coordination meetings was held in Seattle, Washington, on 12-14 November 1980. It was organized by the Bureau and the National Marine Fisheries Service, in consultation with the Commission, and was designed to provide a broad overview of relevant statutory responsibilities and marine mammal research programs being conducted or planned by the Bureau and the Service, as well as a more in-depth review and evaluation of their bowhead whale research program and other selected research programs being conducted or supported by the Alaska OCS Office, the New York OCS Office, and the National Marine Mammal Laboratory of the National Marine Fisheries Service.

The meeting was productive and, as noted above, the Bureau is developing a plan and schedule for similar coordination meetings in the other OCS regions. The report from the Seattle meeting is being prepared by the Bureau of Land Management and should be available in early 1981.

APPENDIX A

COMMISSION RECOMMENDATIONS: CALENDAR YEAR 1980

- 7 January Commerce, scientific research permit application, Daniel P. Costa.
- 8 January Commerce, scientific research permit application, USSR Ministry of Fisheries.
- 18 January Commerce, restating a previous recommendation to the National Marine Fisheries Service that it clarify its "Section 7" recommendation to the National Park Service concerning the regulation of boating activity to protect humpback whales in the Glacier Bay National Monument.
- 4 February Commerce, scientific research permit application, National Marine Mammal Laboratory.
- 4 February Commerce, scientific research permit application, Daniel P. Costa.
- 6 February Commerce, Office of Coastal Zone Management, commenting on the "Draft Environmental Impact Statement for the Proposed Channel Islands Marine Sanctuary" and recommending that:
(1) the Office proceed with steps to designate the proposed marine sanctuary; (2) fishing activities be added to the list of activities subject to sanctuary regulations; 3) proposed regulations be modified to protect the shoreline areas of smaller offshore islands and rocks as well as the main islands within the proposed marine sanctuary boundary; and
(4) the DEIS be expanded to indicate the approximate level of personnel and funding commitments to be allocated to identified research and management tasks.
- 11 February Commerce, public display permit application, Riverbanks Zoological Park.
- 26 February Commerce, scientific research permit application, University of Guelph; modification of scientific research permit application, Brian W. Johnson and Patricia A. Johnson; and public display permit applications, Ocean Park Ltd., Ruhr-Zoo Gelsenkirchen, and Trident Television Ltd.

- 3 March Interior, expressing concern relative to the status of research and management activities for polar bears; requesting that the Fish and Wildlife Service provide information on (1) the age, sex, number, and location of polar bears killed in Alaska since 1976, (2) the Service's best assessment of the impacts of such taking on the polar bear population, (3) the Service's evaluation of whether or not the affected polar bear population should be designated as "depleted" under the Marine Mammal Protection Act and regulations promulgated to control taking, and (4) the schedule for proposing and implementing such designation and regulations if the Service believes the "depleted" status is justified; and recommending that if information is not presently available to determine whether the polar bear population is "depleted", the Service establish procedures to monitor the harvest and obtain such information.
- 7 March Commerce, expressing concern that everything necessary and possible is not being done to protect and encourage the recovery of the Hawaiian monk seal; requesting information on planning and management activities related to the monk seal; and recommending with respect to the Hawaiian Monk Seal Recovery Team and Recovery Plan that the National Marine Fisheries Service: include a person knowledgeable in marine mammal husbandry and medicine on the Recovery Team; adopt, as appropriate, the recommendations set forth in the Commission's letter and associated attachments sent to the Fish and Wildlife Service concerning the content, format, and process for updating the West Indian Manatee Recovery Plan; and make copies of that letter and attachments available to the Hawaiian Monk Seal Recovery Team for their use while developing the Monk Seal Recovery Plan.
- 19 March Commerce, public display permit applications, Delphinarium Hassloch and Dolphinarium Harderwijk.
- 24 March Commerce, scientific research permit application, Lucinda M. Slater.

25 March Commerce, scientific research permit application, USAF-HQ Space Division.

26 March Commerce, public display permit application, Henry Vilas Park Zoo.

28 March Interior, public display permit application, St. Paul's Como Zoo.

9 April Commerce, commenting on the "Draft National Plan for Gray Whale Research" and recommending that: (1) the plan be strengthened by including (a) a clearer statement of the plan's objectives, (b) a discussion of the roles of participating countries, agencies, and/or organizations, (c) a more detailed rationale for each major program element, (d) target initiation and completion dates for program elements, (e) estimates of needed funds, personnel, and equipment required to complete the various program tasks, and (f) a proposal, recommendation, or discussion of funding responsibilities among participating countries, agencies, and/or organizations; (2) the plan address questions of research funding priority relative to marine mammal species more critically endangered than gray whales; (3) gray whale research needs be listed and discussed in priority order; (4) the plan cover a fixed three- or five-year time frame and be updated annually; and (5) the next annual meeting of the Gray Whale Research Working Group be convened earlier in the year to allow time to influence that year's research activities.

11 April Defense, U.S. Air Force, commenting on a proposed study concerning the effects of noise on marine mammals at San Nicolas Island, California and recommending that the proposed experimental design be thoroughly reviewed and revised, if necessary, to ensure that the experiments will produce unambiguous results.

15 April Commerce, scientific research permit application, John M. Reinke.

15 April Commerce, modification of scientific research permit, National Marine Mammal Laboratory.

23 April Commerce, public display permit application, Zoo Duisburg.

29 April Commerce, public display permit application, Dolfirodam B.V.

7 May Interior, Bureau of Land Management, commenting on the Bureau's research and planning activities as they relate to the Marine Mammal Protection Act; identifying information needed to predict, mitigate, and detect the direct and indirect effects of OCS oil and gas development on marine mammals; and recommending that the Bureau: (1) designate headquarters and regional personnel to coordinate, plan, and overview marine mammal-related studies, (2) develop a plan and schedule for intra- and inter-agency meetings to plan and coordinate marine mammal-related studies on both national and regional levels, (3) initiate consultations under Section 7 of the Endangered Species Act sufficiently in advance of contemplated actions so that research recommendations can be incorporated into environmental studies plans and lease sale schedules, (4) evaluate and, if necessary, revise guidelines and procedures used to develop and up-date regional studies plans so as to ensure that program needs relative to marine mammals are being identified and met effectively, (5) engage appropriately qualified marine mammal biologists to help prepare and review marine mammal sections of environmental assessment documents, and (6) in consultation with other agencies as may be appropriate, provide for a monitoring program to detect the effects of exploration and development activities on marine mammals and their habitats.

8 May Interior, scientific research permit application, National Fish and Wildlife Laboratory.

9 May Commerce, scientific research permit application, Mystic Marinelife Aquarium.

9 May Commerce, public display permit application, Richard S. Borguss.

13 May Commerce, modification of scientific research permit, Southwest Fisheries Center.

- 14 May Commerce, commenting on the "Draft Environmental Impact Statement on the Proposed Designation of Critical Habitat for the Hawaiian Monk Seal, (Monachus schauinslandi), in the Northwest Hawaiian Islands"; recommending that the National Marine Fisheries Service identify and discuss an additional alternative such that critical habitat for the Hawaiian monk seal would include waters around certain islands or barrier reefs out to the 20 fathom isobath or a distance of 3 nautical miles, whichever includes more area; and expressing a preference for this additional and unconsidered option.
- 14 May Commerce, commenting on actions that should be taken in preparation for the next renegotiation of the Interim Convention on the Conservation of North Pacific Fur Seals and recommending that the National Marine Fisheries Service take immediate steps to: (1) complete the analysis of existing data from pelagic fur seal sampling; (2) determine the extent to which current and proposed fisheries affect the North Pacific fur seal population; (3) undertake such studies as may be needed to determine the optimum sustainable population(s) of fur seals; (4) undertake studies to identify possible alternative economic sources for the Pribilof Islanders; (5) consult with the Department of State on possible alternative international agreements; (6) determine the nature and costs of research programs to monitor fur seal population trends under various international agreements; and (7) undertake a coordinated and comprehensive U.S. analysis of the costs and benefits of extending, terminating, or renegotiating the Convention.
- 19 May Interior, scientific research permit application, Alaska Department of Fish and Game.
- 29 May Commerce, public display permit application, Kansas City Zoological Park.
- 30 May Commerce, scientific research permit applications, Eleanor M. Dorsey and C. A. Mayo.
- 5 June Commerce, scientific research permit application, Craig McLean and Steven Morello.

9 June Commerce, public display permit application, Acuarama, S.A.

13 June Commerce, Office of Coastal Zone Management, commenting on the "Draft Environmental Impact Statement on the Proposed Point Reyes-Farallon Islands Marine Sanctuary" and recommending that the DEIS be modified so that the FEIS includes: (1) a more complete description and analysis of proposed regulatory and management measures; (2) provisions for appropriate scientific experts as members of the proposed Sanctuary Advisory Committee; (3) a description of steps that would be taken to reduce possible impacts on marine mammals resulting from fisheries activities in the sanctuary; (4) a discussion of the rationale for excluding water areas in the Point Reyes National Seashore from sanctuary boundaries; and (5) provisions for a limited exemption from sanctuary regulations for certain military activities.

16 June Commerce, modification of scientific research permit, Northwest and Alaska Fisheries Center.

19 June Commerce, public display permit application, Quinlan Marine Attractions.

2 July Commerce, public display permit application, Sea Lions Promotions Limited.

2 July Commerce, public display permit application, Adriatic Sea World.

10 July Commerce, public display and scientific research permit application, Mystic Marinelife Aquarium.

11 July Interior, repeating the Commission's 3 March 1980 recommendations that the Fish and Wildlife Service establish procedures to monitor the harvest of polar bears and obtain such information as may be necessary to determine whether the polar bear population should be designated as "depleted" under the Marine Mammal Protection Act.

23 July Commerce, public display permit application, Marine Animal Productions.

- 1 August Interior, commenting on species being considered as proposed additions to Appendices I and II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora; repeating a recommendation that all stocks of whales protected from commercial whaling by International Whaling Commission regulations be proposed by the U.S. for listing on Appendix I of the Convention; and also recommending that: (1) the proposal to list the northern fur seal on Appendix II of the Convention be given serious consideration, (2) action to propose listing of the harp seal and hood seal on Appendix II of the Convention be deferred, and (3) a meeting of representatives from the National Marine Fisheries Service, the Fish and Wildlife Service, and the Commission be convened to consider how best to proceed with actions to propose these species as additions to the Convention's Appendices.
- 4 August Interior, scientific research permit application, National Fish and Wildlife Laboratory.
- 5 August Commerce, noting that new information has been submitted to the National Marine Fisheries Service concerning bottlenose dolphin populations along the west coast of Florida and elsewhere and recommending that the Service, through the Southeast Fisheries Center, review and evaluate this new information in order to revise minimum population estimates and determinations of annual take quotas for bottlenose dolphins along the west coast of Florida and other areas where the new data apply.
- 13 August Commerce, scientific research permit application, Gregory D. Kaufman, American Cetacean Society, Maui Chapter.
- 21 August Commerce, Scientific research permit applications, National Marine Mammal Laboratory, and Marine World-Africa U.S.A. and public display permit application, Tel-Aviv Dolphinarium.
- 10 September Commerce, scientific research permit application, Washington Department of Game.

11 September Commerce, scientific research permit application, Barbara A. Kuljis and C. Scott Baker.

15 September Commerce, public display permit application, Quinlan Marine Attractions.

18 September Commerce, restating the Commission's 5 August 1980 recommendation that the Southeast Fisheries Center evaluate new information on the abundance, distribution and productivity of Tursiops populations along the west coast of Florida and, based on that evaluation, revise estimates of the minimum population size and determinations of appropriate annual take quotas.

6 October Commerce, scientific research permit application, Daniel P. Costa, and public display permit application, Mystic Marinelife Aquarium.

10 October Commerce, public display permit application, Marineland New Zealand.

10 October Commerce, modification of scientific research permit, National Marine Mammal Laboratory.

10 October Commerce, authorization to proceed with activities under scientific research permit, Southwest Fisheries Center.

16 October Commerce, public display permit application, G & G Enterprises, Ltd.

16 October Interior, scientific research permit application, National Fish and Wildlife Laboratory.

20 October Commerce, public display permit application, Marine Animal Productions.

22 October Commerce, scientific research permit application, University of Guelph.

30 October Commerce, modification of scientific research permit, National Marine Mammal Laboratory.

30 October Commerce, scientific research permit application, Gerald L. Kooyman.

31 October Interior, Bureau of Land Management, commenting on the "Draft Environmental Impact Statement for the Lower Cook Inlet-Shelikof Strait Alaska Outer Continental Shelf Oil and Gas Lease Sale Number 60" and recommending that the Bureau consult with the National Marine Fisheries Service and the Fish and Wildlife Service, if it has not already done so, to determine the precise measures and monitoring program(s) that would be needed to provide the necessary assurance that the proposed action would not be contrary to the intents and provisions of the Marine Mammal Protection Act.

6 November Commerce, scientific research permit application, USSR Ministry of Fisheries.

7 November Commerce, public display permit application, Baltimore Aquarium, Inc.

7 November Interior, Bureau of Land Management, commenting on the planning process for proposed Gulf of Mexico offshore oil and gas lease sales numbers 72 and 74 and recommending that the Bureau: (1) incorporate certain provisions recommended by the Fish and Wildlife Service for the protection of the West Indian manatee into lease sale stipulations; (2) consult with the National Marine Fisheries Service to identify stipulations, monitoring programs and other measures necessary to protect bottlenose dolphins and other non-endangered marine mammals; (3) modify the proposed action(s) and undertake such research and monitoring programs as may be needed to assure that there would be no significant direct or indirect effect on marine mammal populations; and (4) consult with both Services to determine whether and how existing research and monitoring programs might be coordinated and integrated to meet data needs more effectively and at less cost.

7 November Commerce, transmitting the results of a review of the National Marine Fisheries Service's tuna-porpoise research program and recommending that the Service: take steps to articulate the tuna-porpoise research program to be conducted during the next five years; schedule regular reviews of the various aspects of that

research program; and also: (1) document existing methodology and reanalyze estimates of school size and species proportions, (2) give high priority to improving vessel survey methods, (3) convene a workshop to review alternative aggregation techniques, and to explore alternative fishing methods and required research, (4) conduct certain field experiments involving satellite tagging to delineate relationships between northern and southern offshore spotted porpoises, (5) analyze porpoise stomach collections and develop a stomach collection program, and (6) make a decision on a possible 1983 full-scale survey in late 1981.

- 19 November Commerce, scientific research permit application, Randall Davis.
- 21 November Commerce, scientific research permit application, USAF-HQ Space Division.
- 21 November Commerce, modification of scientific research permit, Bruce R. Mate.
- 2 December Interior, expressing concern that progress to resolve the California sea otter problem has been less encouraging than had been expected and recommending that the Service adopt and implement an approach which recognizes the ultimate need for "zonal management" of the California sea otter and the need to establish at least one additional group of sea otters as soon as possible at a site secure from the threat of oil spills.
- 3 December Defense, Corps of Engineers, commenting on the "Draft General Design Memorandum and Draft Environmental Impact Statement for the Lower Rio Grande Basin Texas Flood Control and Major Drainage Project" and recommending that the Corps consult with the National Marine Fisheries Service to determine the nature, likelihood, and significance of possible direct and indirect effects of the proposed action on the bottlenose dolphin population in the Port Mansfield Pass area and to identify mitigation measures that may be necessary and appropriate.

- 3 December Commerce, Office of Coastal Zone Management, commenting on the report of the Hawaiian Humpback Whale Sanctuary Workshop Committee and recommending that the Office: (1) continue with its analysis of the proposed sanctuary; (2) evaluate the proposed actions, administrative arrangements, resource commitments, and benefits of the proposed sanctuary in comparison with those that would be available for protecting humpback whales in Hawaii without a sanctuary under existing authorities; and (3) consult with the National Marine Fisheries Service to identify the precise actions that might be undertaken if a sanctuary is established and to coordinate those possible actions with the Service's efforts to protect humpback whales in Hawaii.
- 4 December Commerce, public display permit application, Clacton Pier, Ltd.
- 17 December Interior, Bureau of Land Management, commenting on the responsibilities of the Bureau with respect to assuring that offshore oil and gas development will not be contrary to the intents and provisions of the Marine Mammal Protection Act and Endangered Species Act and recommending that the Bureau: (1) take steps as may be necessary to define its and other agencies' responsibilities relative to environmental monitoring; (2) consider long-term monitoring needs in the development of regional and overall environmental studies plans for marine mammals; and (3) consult with the National Marine Fisheries Service, Fish and Wildlife Service, U.S. Geological Survey, and other agencies to develop a standard procedure and schedule for reviewing plans for, and results from monitoring studies.
- 29 December Commerce, noting that on-going studies to assess marine mammal-fisheries interactions on the Columbia River and adjacent waters are extremely important and recommending to the National Marine Fisheries Service that: (1) the scheduled February project review be held before the end of January 1981; and/or 2) the Service identify and take such steps as may be necessary to ensure an adequate program of studies in advance of and during the spring Chinook salmon run.

30 December

Agriculture, commenting on the need for changes in the "Standards and Regulations for the Humane Handling, Care, Treatment, and Transportation of Marine Mammals" and recommending that the Animal and Plant Health Inspection Service convene a working group of representatives of involved and knowledgeable individuals to attempt to develop appropriate proposals to resolve issues concerning the average adult size figures, the requirements for haul-out area, and a mechanism for dealing with animals maintained in isolation.

APPENDIX B
REPORTS ON COMMISSION-SPONSORED RESEARCH ACTIVITIES
AVAILABLE FROM THE
NATIONAL TECHNICAL INFORMATION SERVICE (NTIS) ^{1/}

- Ainley, D.G., H.R. Huber, R.P. Henderson, and T.J. Lewis. 1977. Studies of marine mammals at the Farallon Islands, California, 1970-1975. Final report for MMC contract MM4AC002. NTIS PB-274 046. 42 pp. (\$6.50)
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