SPECIAL MMPA REAUTHORIZATION ISSUE

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Overview of the MMPA Amendments of 1994

The Marine Mammal Protection Act (MMPA) reauthorization in 1994 introduced substantial changes to the provisions of the MMPA. One of the more notable changes involved replacing the Interim Exemption for Commercial Fisheries (section 114) with a long-term strategy for governing interactions between marine mammals and commercial fisheries (sections 117 and 118). Other amendments in 1994 included modifications of: section 101(a)(5) regarding the taking of marine mammals listed under the Endangered Species Act (ESA); sections 102 and 104 regarding NMFS oversight of captive marine mammals; section 120 dealing with increasing pinniped populations; sections 110 and 120 regarding ecosystem research; and section 119 on co-management agreements with Alaska Native organizations. For a description of NMFS activities to implement these amendments, see page 5.

Governing Incidental Take in Fisheries

The 1994 amendments replaced the Interim Exemption for Commercial Fisheries (section 114) with a long-term regime for reducing interactions between marine mammals and commercial fisheries (sections 117 and 118). Following is a summary of how the amendments specified that the new program work.

Stock Assessments. The amendments required NMFS to complete a draft assessment for every population, or stock, of marine mammals in U.S. waters by August 1, 1995. The assessment had to include a wide variety of information about each stock, including: its range; an estimate of its minimum population and its net productivity (population growth rate); estimates of human-caused deaths within the stock; a description of the commercial fisheries that are likely to have contact with a particular stock; and an estimate of the potential biological removal (PBR) level for the stock, or the number of animals that can be removed from the stock without interfering with its ability to reach or maintain its optimum sustainable population level.

The assessments were required to identify "strategic stocks" as those stocks that have a level of human-caused mortality likely to reduce or keep the stock below its optimum sustainable population. Strategic stocks are also those stocks that are listed as endangered or threatened under the ESA, listed as depleted under the MMPA, or that are declining and likely to be listed as threatened in the future. Stock assessments for strategic stocks must be reviewed at least annually; other stocks, every three years.

Scientific Review Groups. The 1994 amendments also required NMFS to establish three regional scientific review groups, representing Alaska, the Pacific Coast (including Hawaii), and the Atlantic Coast (including the Gulf of Mexico). The scientific review groups review draft stock assessments and advise NMFS

In This Issue ....

The MMPA Amendments of 1994 prompted the first issue of the MMPA Bulletin in September 1994. For over five years, NMFS has worked to implement the amendements, and this issue of the MMPA Bulletin is dedicated to describing NMFS' implementation of programs and policies enacted by the MMPA Amendments of 1994, as well as to presenting issues relevant to 1999 MMPA Reauthorization. This issue will also contain an additional "NMFS Hears from Stakeholders" feature article to offer multiple constituent perspectives on MMPA issues.

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National Marine Fisheries Service, Office of Protected Resources

concerning marine mammal population status, trends, stock identity, and dynamics; uncertainty and research needed on the marine mammal stocks and research needed to identify methods to reduce incidental mortality and injury; impacts of habitat degradation and appropriate measures to reduce impacts; and any other issue NMFS or the groups consider appropriate for pursuing the goals of the MMPA. The groups must consist of individuals with expertise in marine mammal biology and ecology, population dynamics and modeling, commercial fishing technology and practices, or marine mammal stocks taken for subsistence by Alaska Natives, and must represent to the extent feasible, a balance of viewpoints.

Registration and Authorization. The 1994 amendments further required NMFS to publish proposed revisions to the annual List of Fisheries, describing the marine mammal stocks involved and the number of vessels in each fishery. Each fishery is categorized by whether its rate of incidental mortality or serious injury to marine mammals is frequent, occasional, or has only a remote likelihood of occurring (corresponding to a Category I, Category II or Category III designation, respectively). Vessels engaged in commercial fisheries included in Categories I or II must register with NMFS, and are authorized to take non-listed marine mammals in the course of fishing. Each registered vessel receives a decal that should be displayed while the registration is current. In addition, the amendments allowed NMFS to permit the taking of endangered and threatened marine mammals incidental to commercial fishing for three-year periods provided that, in addition to other restrictions, the taking will have a neglible impact on the stock, and that a recovery plan has been or is being developed for the species.

Take Reduction Teams/Plans. Pursuant to the 1994 amendments, NMFS must establish take reduction teams to develop take reduction plans to assist in the recovery or prevent the depletion of strategic stocks that interact with a Category I or Category II commercial fishery. Take reduction plans may also be developed for certain other marine mammal stocks that interact with commercial fisheries. Take reduction teams must be convened within 30 days of the issuance of final stock assessment reports. Take reduction teams must submit their plans within six months of their convening for strategic stocks and within 11 months for non-strategic stocks.

Monitoring of Incidental Takes. The 1994 amendments required NMFS to establish a program to monitor marine mammal mortalities and serious injuries incidental to commercial fishing operations. The program combines information from on-board observers and voluntary reporting by vessel owners of incidental takes. All owners or operators of commercial vessels in all fisheries must report incidental death or injury of marine mammals to NMFS on a postage-paid form within 48 hours after the end of each fishing trip.

Zero Mortality Rate Goal. Since enactment, one of the primary goals of the MMPA has been to reduce incidental death and serious injury of marine mammals taken in the course of commercial fishing operations to insignificant levels approaching zero. The 1994 amendments reaffirmed this Zero Mortality Rate Goal (ZMRG) and specified that all fisheries must attain the goal within seven years. NMFS was required to review progress toward the ZMRG and report the results of the study to Congress.

Ecosystem Activities

The 1994 amendments called for the initiation of several ecosystem-oriented studies under sections 110 and 120. NMFS was required to develop a scientific research program to monitor the health and stability of the Bering Sea Ecosystem and consult with the Secretary of the Interior, the Marine Mammal Commission, the State of Alaska, and Alaska Native groups as part of the plan's formulation. NMFS was also required to convene a workshop on the Gulf of Maine Ecosystem to assess human-caused factors affecting the health of the ecosystem. NMFS was also required to examine whether California sea lions and Pacific harbor seals are having a significant negative impact on: 1) the recovery of salmonid fishery stocks that are listed as threatened or endangered under the ESA or that are approaching endangered on threatened status, and 2) or the fish and shellfish communities in the coastal/estuarine systems of Washington, Oregon and California.

Scientific Research, Public Display and Enhancement Permits

The 1994 amendments made significant changes to sections 102 and 104 of the MMPA governing permits for public display, scientific research, and enhancement activities of marine mammal species and stocks. Among other things, the amendments added new provisions and prohibitions for scientific research and enhancement; substantially reduced NMFS' jurisdiction over marine mammals held in captivity for public display; and established a new permit category for photographing marine mammals.

The amendments also provided new definitions of "harassment": *Level A harassment* is defined as "any act of pursuit, torment, or annoyance which has the potential to injure a marine mammal or marine mammal stock in the wild." *Level B harassment* is defined as "any act of pursuit, torment, or annoyance which has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns including, but not limited to migration, breathing, nurs-

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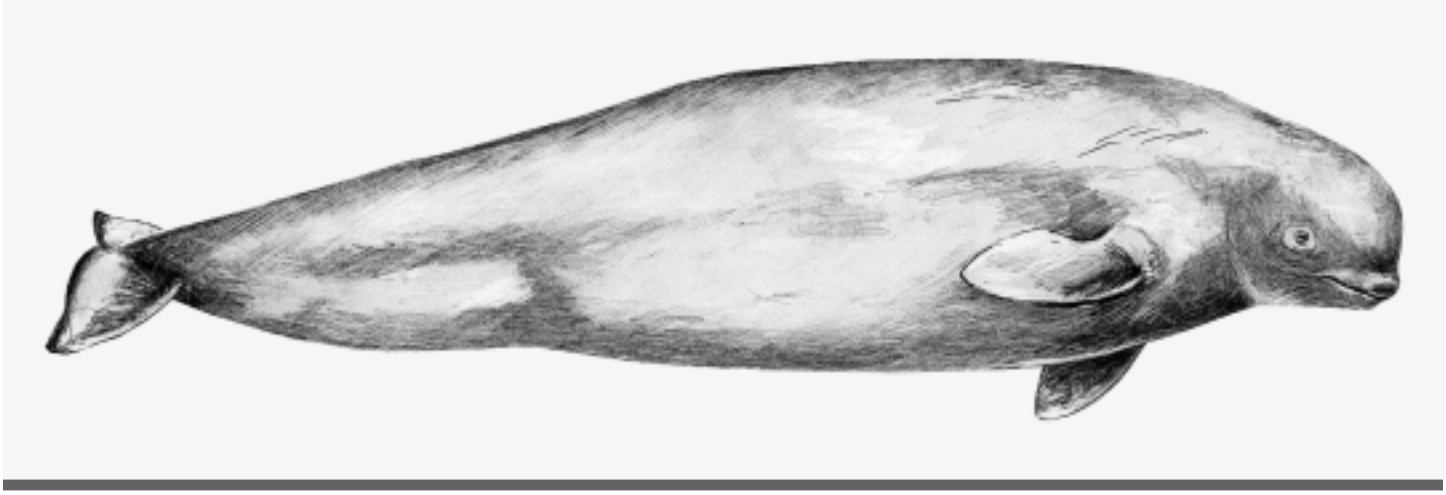

ing, breeding, feeding, or sheltering."

General Authorization for Scientific Research. The 1994 amendments eliminated the requirement that research not be duplicative and allowed NMFS to waive the 30-day comment period in certain "emergency" circumstances. For permitting purposes, scientific research was divided into two categories: those activities for which a permit is required and those involving only Level B harassment of non-ESA listed species that may be conducted under the General Authorization for Level B harassment for Scientific Research. Such research now may be conducted following a letter of intent and letter of confirmation process.

Permits for Export of Marine Mammal Parts. The amendments added a new prohibition on the export of marine mammals and marine mammal parts, and required that a permit be issued for exports pertaining to scientific research or enhancement activities. However, a special right to export live marine mammals for purposes of public display was provided, thereby eliminating the need for a permit for such animals.

Public Display: Captive Care and Maintenance. Under the amendments, NMFS' authority to condition public display permits by specifying methods of supervision, care, and transport was limited to marine mammals being captured from the wild or imported for the first time without benefit of a previously issued permit. The USDA's Animal and Plant Health Inspection Service, which previously had concurrent jurisdiction with NMFS, was given sole responsibility over the care and maintenance of marine mammals held in public display pursuant to the Animal Welfare Act.

Transfer of Marine Mammals Held for Public Display. In general, the 1994 amendments allowed persons holding marine mammals for public display, the right to take, sell, export, or otherwise transfer possession of a marine mammal without any additional permit or authorization to any person who meets required public display criteria. A letter of notification is required 15 days in advance of any transportation, sale, purchase, or export of a marine mammal for public display, scientific research, or enhancement purposes.

Inventory of Marine Mammals in Captivity. The 1994 amendments required NMFS and the U.S. Fish and Wildlife Service to maintain an inventory of marine mammals held in captivity. The amendments changed NMFS' inventory by limiting it to the animal's name, sex, date of birth, source, acquisition, disposition, name of recipient, and its date of death and cause of death when determined.

Photography Permits. The amendments also added a new category of permits to allow marine mammals in the wild to be photographed for educational and commercial purposes. These permits are limited to Level B harassment and non-ESA listed species, and require that the photographic products be made available to the public.

Other Aspects of the 1994 Amendments

Deterrence Guidelines. The amendments allowed persons to prevent marine mammals from damaging private or public property, or from endangering personal safety, as long as the animal is not killed or injured. NMFS was required, after consultation with experts and after notice and opportunity for comment, to develop guidelines for use in deterring marine mammals, and to prohibit certain forms of deterrence that may significantly harm marine mammals.

Small Incidental Take. The amendments allowed NMFS to authorize annually, the harassment of small numbers of marine mammals incidental to activities other than commercial fishing (*e.g.*, seismic activities and offshore oil and gas exploration. Other forms of small, incidental take (other than fishing) remain subject to the MMPA's previous requirement for rulemaking.

Pinniped-Fishery Interaction Task Force. The amendments allowed states to apply for permission to lethally remove individually-identified pinnipeds that are having a significant negative impact on the decline or recovery of certain salmonid fishery stocks, and gave NMFS the authority to allow such killing. Once a state's application is received, NMFS must determine whether to establish a Pinniped-Fishery Interaction Task Force to recommend to the agency whether to approve or deny the application and to suggest non-lethal alternatives. *(continued on page 7)*

Statutory Requirements of the MMPA Amendments of 1994

Statutory Deadline	Statutory Requirement	Date of NMFS Action
07/01/94	Establish regional scientific review groups	06/30/94
08/01/94	Publish proposed changes to the List of Fisheries	09/01/94
08/01/94	Complete draft stock assessments	08/09/94
09/01/94	Issue General Authorization for scientific research	10/03/94
11/01/94	Initiate program to monitor health and stability of the Bering Sea ecosystem	early 1995
01/01/95	Publish proposed implementing regulations for the 1994 amendments	06/16/95
02/01/95	Publish final stock assessments	1995
03/01/95	Establish take reduction teams for strategic stocks	
	Harbor Porpoise TRT	02/12/96
	Pacific Offshore Cetacean TRT	02/15/96
	Mid-Atlantic TRT	02/25/96
	Atlantic Offshore Cetacean TRT	05/23/96
	Atlantic Large Whale TRT	08/06/96
05/01/95	Convene workshop on Gulf of Maine ecosystem	09/95
09/01/95	Develop draft take reduction plans for strategic stocks for which human-caused deaths exceed PBR	
	Harbor Porpoise TR	08/08/96
	Pacific Offshore Cetacean TRP	08/15/96
	Mid-Atlantic TRT	08/25/96
	Atlantic Offshore Cetacean TRT	02/05/97
	Atlantic Large Whale TRT	11/25/96
09/01/95	Publish final regulations implementing section 118	08/30/95
09/01/95	Issue an interim permit to fisheries that have negligible impacts on marine mammals listed as threatened or endangered under the Endangered Species Act, to allow for incidental, but not intentional, taking in commercial fishing operations	08/31/95
10/01/95	Report on investigations of impacts of California sea lions and harbor seals on salmonids and West Coast ecosystems	02/99
01/01/96	Report to Congress on Gulf of Maine workshop	01/23/96
02/01/96	Develop draft take reduction plans for non-strategic stocks and strategic stocks where human-caused takes are less than PBR	not yet accomplished
04/01/96	Complete take reduction plans for strategic stocks for which human-caused deaths exceed PBR	
	Pacific Offshore Cetacean TRP	10/03/97
	Harbor Porpoise TRP	12/02/98
	Atlantic Large Whale TRP	02/16/99
05/01/96	Report on interactions between pinnipeds and Gulf of Maine aquaculture operations	06/23/97
07/96	Complete final take reduction plans for non-strategic stocks and strategic stocks where human-caused takes are less than PBR	not yet accomplished
05/01/97	Initiate review of progress of fisheries toward reducing incidental mortality and serious injury to insignificant levels approaching a zero rate	09/97
05/01/98	Report to Congress on progress of fisheries toward reducing incidental mortality and serious injury to insignificant levels approaching a zero rate	not yet accomplished
04/30/01	Achieve reduction of incidental mortality and serious injury to insignificant levels approaching a zero rate in all commercial fisheries	

NMFS Implementation of the MMPA Amendments of 1994

In accordance with the MMPA Amendments of 1994, NMFS has completed almost all of the requirements and is currently implementing many of the new provisions. A brief overview of NMFS' implementation of the MMPA Amendments of 1994 follows.

Stock Assessments. NMFS was required to complete stock assessments for every marine mammal stock in U.S. waters, and the first stock assessment reports were completed in 1995. These assessments provide NMFS with a scientific basis for the implementation of the commercial fisheries incidental-take regime. To date, NMFS scientists have completed stock assessments for 147 stocks of marine mammals in U.S. waters.

Scientific Review Groups. The 1994 amendments required NMFS to establish three regional scientific review groups, representing Alaska, the Pacific Coast (including Hawaii), and the Atlantic Coast (including the Gulf of Mexico). The first scientific review group was established on June 30, 1994. Since then, the regional Scientific Review Groups have met on an almost annual basis, meeting a total of six times in 1998 alone.

The Annual List of Fisheries. NMFS was required to publish, at least annually, a List of Fisheries that places all U.S. commercial fisheries into one of three categories based on the level of incidental serious injury and mortality of marine mammals in each fishery. On September 1, 1994, NMFS published the 1995 List of Fisheries based on new provisions within the 1994 amendments. The fishery classification scheme consists of a two-tiered, stock-specific approach that first addresses the total impact of all fisheries on each marine mammal stock, and then addresses the impact of individual fisheries on each stock. The 1999 List of Fisheries identifies a total of 186 fisheries: six Category I fisheries, 23 Category II fisheries, and 157 Category III fisheries.

Determination of Serious Injury. The 1994 amendments mandated that NMFS use the concept of "serious injury" as a measure of fishery classification in the List of Fisheries and in the development of take reduction plans. To clarify the meaning of this term, NMFS convened the Serious Injury Workshop in April 1997 and developed draft guidelines for determining what constitutes a serious injury to a marine mammal. NMFS' draft guidelines are based on the results of the workshop and will be used in assessing fisheries beginning in 2000.

Reporting and Registration. In accordance with the 1994 amendments, NMFS formalized the use of data from fishers' reports through the Marine Mammal Authorization Program (MMAP), effective with the 1996 List of Fisheries. Under the MMAP, vessels engaged in Category I or II fisheries must register with NMFS and are authorized to take non-endangered or threatened marine mammals in the course of fishing. In 1998, NMFS received reports of incidentally injured or killed marine mammals from 113 fishers in 13 different fisheries.

Zero Mortality Rate Goal. NMFS was required to review fisheries' progress toward the ZMRG and report the results to Congress. Development and implementation of the take reduction plans has required considerable effort, and the results of the take reduction plans are just now becoming available. NMFS has reviewed the fisheries' progress and is currently in the process of preparing this report. NMFS expects a report to be finalized and forwarded to Congress in 2000.

Monitoring Programs. The MMPA requires NMFS to conduct fishery monitoring programs to: obtain statistically reliable estimates of incidental mortality and serious injury of marine mammals in commercial fisheries; to determine the reliability of fishers' reports; and to identify changes in fishing methods or technology that may decrease incidental mortality and serious injury. Category I fisheries have generally received priority for observers, and NMFS currently operates observer programs for four Category I and five Category II fisheries. However, due to limited funds, NMFS is unable to observe the remaining 25 Category I and II fisheries. In June 1998, NMFS held a workshop to develop a process for the long-term monitoring of MMPA Category I and II commercial fisheries.

Take Reduction Plans. Take reduction teams are established to develop take reduction plans that will assist in the recovery or prevent the depletion of strategic stocks that interact with Category I or Category II commercial fisheries. The first take reduction plan was finalized in 1997.

Over the last two years, NMFS has fully implemented three take reduction plans and partially implemented a fourth in conjunction with fisheries management. NMFS is currently reviewing available information on other marine mammal stocks with significant levels of fisheries interactions to assist in the establishment of future take reduction teams.
(continued on page 6)

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Authorization for the Incidental Taking of Threatened or Endangered Marine Mammals. In order to determine whether commercial fishing activities are having a negligible impact on endangered and threatened stocks of marine mammals, NMFS evaluated the total number of all incidental serious injuries and mortalities due to commercial fishing for each such stock on August 30, 1995. On May 27, 1999, NMFS published a notice of proposal for issuance of permits to take threatened or endangered marine mammals. In this notice, NMFS proposed to issue permits for those fisheries that have negligible impacts on marine mammal stocks listed as threatened or endangered under the ESA for a period of three years.

Ecosystem Research. In 1995, NMFS developed a comprehensive ecosystem study plan to define research, monitoring and assessment priorities in the Bering Sea to contribute to a better understanding of the ecosystem and potential declines in living marine resource populations. The plan was developed by NMFS, other federal agencies, State of Alaska, and Alaska Native groups. NMFS also convened a workshop in September 1995 to assess human-caused factors affecting the health of the Gulf of Maine ecosystem. A summary report of the workshop, as well as major conclusions and NMFS recommendations on research, management and legislation, was forwarded to Congress on January 23, 1996.

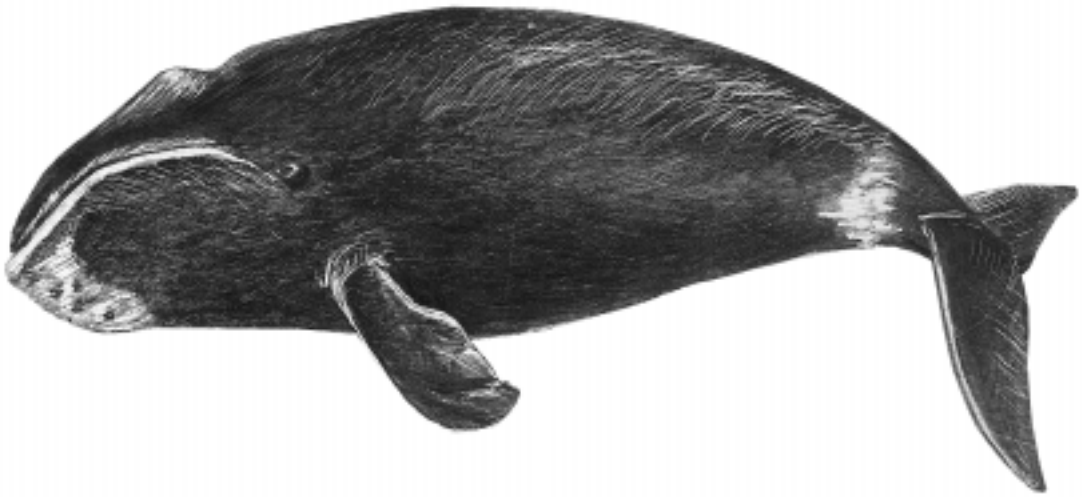
Permitting the Take of Marine Mammals. Under the MMPA, permits may be issued for public display, scientific research, enhancement, and photography of marine mammals. NMFS issues an average of 28 permits per year. Since 1994, 140 new permits have been issued. Of these, 122 were for scientific research and enhancement, ten were for photography, and eight were for public display. Under the new streamlined process for authorizing research activities involving only Level B harassment, the General Authorization for Scientific Research, 48 projects have been authorized since 1994.

Captive Care of Marine Mammals. The MMPA Amendments of 1994 significantly changed the scope and extent of NMFS' permitting authority for public display purposes. NMFS published a final rule in May 1996 to establish basic reporting, record-keeping, and other permit requirements under the MMPA to take, import, and export marine mammals for purposes of scientific research, enhancement, photography, and where captures and initial imports are involved, for public display. On July 21, 1998, NMFS, the USDA's Animal and Plant Health Inspection Service, and the U.S. Fish and Wildlife Service signed a Memorandum of Agreement to ensure consistent implementation of public display requirements. In 2000, NMFS intends to publish a proposed rule on public display requirements.

Deterrence Guidelines. NMFS was required to develop guidelines for use in deterring marine mammals and to prohibit certain forms of deterrence that may significantly harm marine mammals. On May 5, 1995, NMFS published proposed deterrence guidelines, which would provide guidance for U.S. citizens to non-lethally deter marine mammals from: 1) endangering public safety; 2) damaging fishing gear and catch; or 3) damaging public or private property.

Small Take. On May 31, 1995, NMFS amended the "small take" regulations to implement the process for issuing harassment authorizations without the need to issue specific regulations governing the taking of marine mammals for each and every activity. These new regulations set forth the process for: applying for and obtaining an authorization; the time limits set by the statute for NMFS review, publication, and public notice

and comment on any applications for authorization that would be granted; and the potential requirements for submission of a plan of cooperation and for scientific peer review of an applicant's monitoring plans. On April 10, 1996, NMFS again amended the small take regulations to clarify the requirements for obtaining a small take authorization and for requesting NMFS' concurrence that no marine mammal takes are likely.



Pinniped Interactions. As mandated by the 1994 amendments, NMFS conducted a scientific investigation and prepared two Reports to Congress to recommend measures to address pinniped issues in the Gulf of Maine and along the West Coast of the United States. Both reports included recommendations to Congress to streamline the process to allow lethal taking of certain pinnipeds and to take other actions to understand the impacts of pinnipeds on other activities or components of the ecosystem and to mitigate these impacts. The Gulf of Maine report was submitted to Congress in June 1997 recommending that the aquaculture industry perform several actions to reduce or mitigate seal predation. NMFS submitted the West Coast report in February 1999 after receiving thousands of comments. The Report contained four recommendations: 1) a framework for site specific management to reduce pinniped predation on salmonids and reduce human/pinniped conflict (the framework addresses lethal removal of certain pinnipeds); 2) selective reinstatement of the authority for fishermen to lethally remove certain pinnipeds in the course of commercial fishing operations (consistent with NMFS' 1992 legislative proposal); 3) development and implementation of non-lethal deterrence technologies; and 4) a list of research needed to address uncertainties related to pinniped effects on salmonid stocks and the status of pinniped stocks.

Co-Management. In April 1996, the Indigenous People's Council for Marine Mammals (IPCMM) expressed to NMFS and U.S. Fish and Wildlife Service (FWS) its concern about the need to develop a framework for governing the development of cooperative agreements for individual species of marine mammals. In response to this concern, an official Memorandum of Agreement was signed by NMFS, FWS, the U.S. Geological Survey, and IPCMM on August 27, 1997. This umbrella agreement was designed to assist in the development and implementation of section 119 agreements and promote the sustained health of marine mammal populations utilized for subsistence. In addition, NMFS and the Alaska Native Harbor Seal Commission signed an agreement to work together in developing a co-management plan for harbor seals throughout their Alaskan range on April 29, 1999. NMFS is also currently in negotiation with the Alaska Beluga Whale Committee to develop a mutually satisfactory agreement that would affect conservation of four of the five stocks of beluga in Alaska, except Cook Inlet. Because of the dramatic decrease in abundance of the Cook Inlet stock of belugas, a co-management agreement to set harvest limits is particularly important, and NMFS initiated negotiations with the Cook Inlet Marine Mammal Council to achieve this goal.

("Overview of the MMPA Amendments of 1994" continued from page 3)

Gulf of Maine Task Force. NMFS was required to establish a Pinniped-Fishery Interaction Task Force to advise the agency on issues arising from pinnipeds acting in dangerous or damaging ways with aquaculture operators in the Gulf of Maine. NMFS was required to submit to Congress a report on interactions between pinnipeds and aquaculture activities in the Gulf of Maine.

Marine Mammal Cooperative Agreements in Alaska. The amendments provided for cooperative agreements between NMFS and Alaska Native organizations to conserve marine mammals and provide co-management of subsistence use by Alaska Natives. The amendments specifically provided NMFS with the authority to provide grants to Alaska Native organizations to:

1) collect and analyze data on marine mammal populations;
2) monitor the harvest of marine mammals for subsistence use;
3) participate in marine mammal research; and
4) develop co-management structures with Federal and state agencies.

NMFS Hears from Stakeholders

In the spirit of cooperation, stakeholders in marine mammal conservation issues are given the opportunity to use the MMPA Bulletin as a forum to express their views about working toward common goals. Guest authors from other government agencies, the fishing industry, or conservation groups may contribute, and letters written to NMFS by general constituents may also appear. The views expressed by the guest authors are solely their own and do not necessarily reflect NOAA's postions or policies.

Harassment of Hawaiian Spinner Dolphins by the General Public

By Ania Driscoll-Lind and Jan Östman-Lind

The practice of swimming with wild dolphins has increased greatly in the last few years, especially in Hawaii, where the target species generally is the Hawaiian spinner dolphin *(Stenella longirostris*). Spinner dolphins are especially vulnerable to human disturbance. Of the nine commonly seen delphinid species found in Hawaiian waters, only spinner dolphins rest near-shore during the day. Spinners follow a predictable pattern of traveling offshore in the late afternoon to dive down and feed on the deep-scattering layer animals that rise from the midwater regions towards the surface at night. In early morning, spinners move in towards shore, particularly on the leeward sides of the islands. After traveling along the coastline during the morning, the spinners go into rest during the middle of the day.

Spinner dolphins are known for their aerial behaviors. (photo by Jan Östman-Lind)

It has been known for several decades that there are particular bays in the Hawaiian islands that are critical resting areas for this species. Spinners utilize these bays throughout the year and continue to return to them even when repeatedly disturbed by either boats or by swimmers and kayakers. This makes them the main target species for the commercial swim-with-wild-dolphins tours. Companies are currently offering such tours for hundreds or several thousands of U.S. dollars and promise their patrons interactions with the dolphins that will lead to life- and/or mind-altering experiences. There is intense pressure on the tour operators to deliver on their promises of dolphin interactions every day throughout the year.

During the resting period, human swimmers and/or vessels can easily disturb the spinner dolphin school. When approached, the dolphins may respond in a variety of ways depending on the nature of the disturbance. Contrary to popular belief, it is entirely possible for a single swimmer to repeatedly disturb a spinner school that is attempting to rest. The dolphin school will swim in a regular, predictable pattern, generally trying to stay in the same small area. A swimmer attempting to get close can anticipate where the school is heading and get there first, or even cut them off. The problem is exacerbated when several swimmers simultaneously try to approach the dolphin school. Another consideration is the cumulative effect on the school. Although a specific swimmer or group of swimmers may try to approach a school for a limited amount of time, others may attempt to do the same later. It is thus possible, and in some areas even likely, that a school of spinners may have humans trying to approach and interact with them during most of their resting period throughout the day.

In recent years this effort to interact with the dolphins has expanded to include the entire leeward coast of the island of Hawaii. Spinners are now being approached by boat while traveling or milling outside of resting areas. Both boats and swimmers can cause a school of dolphins that is traveling to completely change its direction and speed to avoid interaction. There is also a human safety concern that needs to be addressed: vessel operators are dropping people into the water with the dolphins, even in areas of high boat traffic, which places swimmers increasingly at risk of accidentally being hit by a boat.

We do not know, at this time, to what extent disturbances affect the dolphins health and well-being, much less what the cumulative effect may be of repeated disturbances over several weeks or months. A comparison of the residency of the spinners in one of their main resting areas on the island of Hawaii, Kealakekua Bay, shows a decrease in the proportion of days the

dolphins occupy the bay. The dolphins were present in the bay on 58% of the days in 1993-94 (A. Forest, pers. comm.) as compared to 74% in 1970-73 (Norris and Dohl 1980) and 79% in 1979-80 (Norris *et al.* 1994). This means that the occupancy rate dropped by more than 1/4 between the last two studies, a highly significant change ($P << 0.001$). During the 13 years between the last two studies, there was a tremendous growth in swim with dolphin activities in Kealakekua Bay. The evidence is mounting that although this is a critical resting area for these dolphins and they have shown site fidelity for at least 50 years, they are no longer utilizing this bay to the same extent. There is a real need for more information about where and for how long the dolphins are found in their resting areas, as well as documenting the type and extent of human disturbances to these animals.

In addition, there is presently a lack of education for the public about these dolphins (and marine protected species in general) and about how to view marine mammals in the wild safely and responsibly. There is a general lack of knowledge about the federal guidelines developed by NMFS that recommend viewing wild dolphins in Hawaii from a distance of at least 50 yards and from on-board a vessel (NMFS Hawaii marine mammal and sea turtle viewing guidelines) for dolphins. There is also a lack of enforcement of the Marine Mammal Protection Act, which is supposed to protect these animals from harassment.

In order to remedy this situation, better education programs are needed both at the national and local levels, and will require some assistance both in information and in funding from state and federal agencies if they are to succeed. And, while education programs will be the most effective way of changing the behavior of the majority of people who are presently seeking to interact with the dolphins, there will always be a component of the population who will only respond when they realize that the laws forbidding the harassment of marine mammals are actively being enforced, cases are being prosecuted, and fines are being assessed. In this regard, there is a tremendous need for more specific laws (such as set distance limits) governing the interactions of people with dolphins just as there are for humpback whales *(Megaptera novaeangliae)* in Hawaii.

There are several important steps that also need to happen at the local level. We need to develop a system that allows for greater community input and provides more education about marine protected species. There needs to be community involvement in several areas: 1) gathering more accurate information and data on the behavior and biology of these animals; 2) developing a working group composed of the various user groups that are involved or interact with marine protected species; 3) developing education programs for all segments of the community (*i.e.,* for boat captains, natural history classes, tourist-focused lectures, as well as programs for elementary, high school and university students); and 4) establishing more direct and effective communication between members of the community and state and federal agencies that are involved in the management and conservation of these dolphins. One such project that should be pursued in the near future is to place interpretive signs and spotting scopes in Kealakekua Bay and other major resting areas that will enable people to learn more about these dolphins and to view them at a safe distance without causing disturbance.

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Resting spinners should be observed from a distance of at least 50 yards and from on-board a vessel. (Photo by Ania Driscoll-Lind)

Our research has focused on the behavior and ecology of Hawaiian spinner dolphins for the past 12 years, and has been a continuation of research conducted by Dr. Ken Norris and his colleagues beginning in the late 1960s. We both obtained our graduate degrees from the University of California at Santa Cruz and are continuing our long-term research project on spinners on the island of Hawaii. We are affiliated professors in the Marine Science Department of the University of Hawaii, Hilo and have formed a non-profit foundation, The Kula Nai'a Foundation, dedicated to marine research, education and conservation. We are currently developing a marine mammal and coral reef monitoring program for high school students, an internship program for undergraduate students, and a community-based marine conservation program for the Kona-Kohola coast. We can be contacted at KulaNaia@aol.com.

NMFS Hears from Stakeholders

In the spirit of cooperation, stakeholders in marine mammal conservation issues are given the opportunity to use the MMPA Bulletin as a forum to express their views about working toward common goals. Guest authors from other government agencies, the fishing industry, or conservation groups may contribute, and letters written to NMFS by general constituents may also appear. The views expressed by the guest authors are solely their own and do not necessarily reflect NOAA's postions or policies.

Keep The "Protection" In The Marine Mammal Protection Act

by Sharon Young

In May 1999, Dr. Stephen Kellert of Yale University released a study entitled *American Perceptions of Marine Mammals and Their Management.* The study found that "despite concern for various commercially important ocean activities, including commercial fishing and oil and gas extraction, these interests did not supercede the public's inclination to protect marine mammals. Most Americans consistently indicated a desire to modify or alter these and other human activities…to protect marine mammal populations and species, even if it necessitated sacrifice on society's part."

The 1972 Marine Mammal Protection Act (MMPA) had lofty goals that reflected the public's desire to protect these charismatic animals. Amendments in 1994 provided a concrete framework to realize the general goals of reducing mortality in commercial fisheries and eliminating intentional killing of marine mammals.

The MMPA is once again due for reauthorization. When considering what, if any, changes need to be made to the MMPA, the following important components should be *maintained* or *strengthened*, not eliminated or weakened.

OSP and PBR: The MMPA mandated that formerly exploited marine mammal populations be allowed to recover and return to the carrying capacity of their ecosystem. This concept was called "Optimum Sustainable Population (OSP)." To reach OSP and prevent human-related mortality from de-stabilizing populations, each stock of marine mammals has a calculated Potential Biological Removal (PBR) level. PBR is the maximum number of animals in a population that can suffer anthropogenic mortality without causing a decline or significantly delaying recovery. We measure the impact of human activities against the PBR. The PBR for manatees is five per year. We know that approximately 80 are killed in collisions with boats, entanglement in fishing gear and entrapment in locks and water control structures; over 80 others are found each year dead from unknown causes. Knowing this provides some urgency to efforts to intervene and reduce the impacts of our activities. On the other hand, PBR for striped dolphins in the Atlantic is 445, and because only approximately seven are documented each year as human-related mortality, we can direct our attention to species with more pressing conservation needs.

ZMRG: Once we are satisfied that marine mammals are not being killed in numbers exceeding PBR, there is a second objective – the zero mortality rate goal (ZMRG). This concept is often misinterpreted to mean absolute zero. The actual language in the MMPA states that commercial fisheries should reduce mortality and serious injury of marine mammals to levels that "are insignificant and approaching zero." This reflects the desire of most Americans to have fisheries attempt to reduce marine mammal mortality to levels that are as low as feasible and well below PBR.

Prohibition on Intentional Lethal Take: Another important part of the MMPA is its ban on intentional killing of marine mammals. Public outrage at the intentional killing of seals, dolphins, and whales was one of the motivating forces behind passage of the MMPA in 1972. The ban on intentional killing was reaffirmed in 1994. Proposals to allow the intentional lethal take of pinnipeds from "robust" stocks threaten the integrity of the MMPA.

Research Funds: A critical part of on-going protection is research. We need to provide adequate funds to study marine mammal populations to determine trends in their abundance and to calculate threats to their survival. Research has shown us that many marine mammal populations are still at grave risk. North Atlantic right whales, Steller sea lions in Alaska, Hawaiian monk seals, harbor seals in the Gulf of Alaska, and sea otters in Alaska and California are all declining. Other species such as beaked whales and pygmy and dwarf sperm whales, who live off-shore and out of sight of most of us, may need our protection just as much, yet we know little about them. Adequate funding for research is vital if we wish to offer appropriate protection to marine mammals.

Another threat to marine mammals that often goes unrecognized is our participation in international trade agreements. Our marine mammal protection laws can be undermined by countries with different values if they claim that our protection of animals represents a "barrier to trade." Americans have long opposed killing marine mammals and marketing their products – international free trade must not be an excuse to weaken our domestic protection laws.

The "protection" in the MMPA is strongly supported by the American public. Congress and the agencies charged with implementing the mandates of the MMPA need to maintain the integrity of this landmark piece of environmental legislation.

Sharon Young is a marine mammal consultant working for the Humane Society of the United States and is adjunct faculty at Tufts University in the Animals and Public Policy Graduate Program. She is a member of a number of MMPA-related task forces including the Atlantic Scientific Review Group and take reduction teams for harbor porpoise, Atlantic pelagic cetaceans and endangered large whales. Sharon can be reached at sbyoung@capecod.net.

NMFS Prepares for the MMPA Reauthorization

In preparation for the reauthorization of the MMPA, the NMFS Office of Protected Resources contacted members of the MMPA Implementation Task Force (see below) and others, including: representatives from NMFS Regional Offices and Science Centers, NMFS Headquarters Offices, NOAA's General Counsel, Legislative Affairs, and the NMFS Office of Enforcement and asked them to begin evaluating the efficacy of current MMPA provisions.

In January, 1999, this group was asked to provide preliminary recommendations for changes to the MMPA. Since then, there have been numerous detailed discussions on individual provisions and mandates within the MMPA. As a result, NMFS has determined that the vast majority of the MMPA provisions are sufficient, and in practice work well. However, there are areas of concern that NMFS believes could be improved through streamlining or other relatively minor adjustments to allow for more effective implementation of the MMPA mandates.

As indicated in *MMPA Bulletin No. 15, "Congress Holds MMPA Oversight Hearing"*, NMFS testified before the House Subcommittee on Fisheries Conservation, Wildlife and Oceans, Committee on Resources on June 29, 1999. NMFS outlined its implementation of the MMPA Amendments of 1994 and raised several issues for discussion during reauthorization. Some of these issues include:

- *Zero Mortality Rate Goal (ZMRG)*
- *Fisheries monitoring programs*
- *Definition of "harassment"*
- *Release of captive marine mammals into the wild*
- *Export of marine mammals to foreign countries*
- *Deterrence measures*
- *Streamlining the small take authorization process*
- *Clarifying vessel registration and monitoring requirements*
- *Increasing penalties for violation of MMPA*

Other issues likely to be raised during the course of the MMPA Reauthorization are:

- Recommendations outlined in the West Coast Pinniped Report to Congress (see *MMPA Bulletin* No. 14, *"NMFS Submits Recommendations to Congress on West Coast Pinniped Issues"*); and

- The Marine Mammal Rescue and Assistance Act (H.R. 1934) (see *MMPA Bulletin* No. 16, *"H.R. 1934: The Marine Mammal Rescue Assistance Act of 1999"*).

Two additional oversight hearings were held on April 6, 2000: on section 118 and 119 of the MMPA (the take reduction team process and co-management of marine mammals with Alaska Native organizations). However, a final schedule has not yet been set for reauthorization.

NMFS will continue to prepare for the MMPA Reauthorization and will monitor its progress. Once the MMPA Reauthorization begins, NMFS will likely submit a legislative proposal to Congress.

For additional information on the MMPA Reauthorization, contact Nicole R. Le Boeuf at (301) 713-2322, ext. 156 or Frank Lockhart at (301) 713-2263.

The MMPA Implementation Task Force

With the 1994 MMPA Reauthorization, Congress amended the MMPA to include a new regime to govern marine mammal/fishery interactions. This new regime replaced the interim exemption for commercial fisheries established in the 1988 amendments to the MMPA. The new regime mandated that NMFS: develop stock assessment reports, develop short- and long-term research priorities, establish and convene take reduction teams, continue and modify existing observer programs, modify the current registration and authorization system, develop a system for reporting mortality of marine mammals, as well as establish and convene a pinniped interaction task force.

Because these new tasks would place such a large administrative and operational burden on NMFS and would require close coordination of efforts between NMFS Headquarters and its Regions and Centers, NMFS called for the establishment of a task force to coordinate the development and execution of a strategy for implementing the new regime in March 1994.

Individual task force members were chosen by each NMFS Regional and Science Director, as well as by the NMFS Office of Enforcement, with one person having primary responsibility from each office. Their role in the implementation of the new amendments required substantial effort over the next few years. In addition to being responsible for various tasks to implement the new regime, the MMPA Implementation Task Force representatives serve to keep Regional, Science, and Office Directors, and other appropriate regional entities, informed of task force activities and communicate office concerns to the Task Force. Currently, the MMPA Implementation Task Force consists of approximately 16 members, although this number may vary.

The Task Force has been key in the development of the recommendations on the upcoming MMPA reauthorization and will likely be involved in the implementation of new provisions in the MMPA.

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From the Editors...

With the MMPA Reauthorization around the corner, we invite all of our constituents to learn more about the MMPA itself, related issues, and the legislative process involved with MMPA Reauthorization. Not surprisingly, there are many sources of information on these topics on the World Wide Web, and we've listed a few that are useful.

For information on Congressional involvement, you can visit the U.S. House Committee on Resources, Subcommittee on Fisheries Conservation, Wildlife & Oceans' web site at: **www.house.gov/resources/fisheries.** You can also go to the Senate Subcommitte on Oceans and Fisheries portion of the U.S. Senate Commerce, Science, and Transportation Committee web site at: **www.senate.gov/committees.**

Helpful web sites for finding out about the MMPA and other marine-related statutes include: the Library of Congress web site at: **thomas.loc.gov**, the Committee for the National Institute for the Environment web site at: **www.cnie.org**, and the United States Code, Office of the Law Revision Counsel's web site at: **uscode.house.gov/usc.htm**.

Finally, the NMFS Office of Protected Resources web site has the full text of the MMPA (as amended in 1994) in PDF at: **www.nmfs.gov/prot_res/mmpatext/mmpacont.html**. The site also has a web page devoted to the MMPA Reauthorization that and can be found at: **www.nmfs.gov/prot_res/mammals/1999reauthorization.htm.** This page will be continually updated throughout the MMPA Reauthorization process with information on upcoming hearings, NMFS testimony, and any legislative proposals that are submitted to Congress.

Specific constituent interest groups, such as conservation organizations and commercial fishing industry associations, will likely be keeping track of the MMPA Reauthorization as well.

As MMPA Reauthorization gets underway, we will work to keep the *MMPA Bulletin* readership informed of developments. However, for more timely information on MMPA Reauthorization events, visit these web sites often, as many of them will be frequently updated to reflect the progress of reauthorization.

As always, thank you for your interest and support, the *MMPA Bulletin* editorial team.

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