AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

H.R. 2693, A BILL TO REAUTHORIZE THE MARINE MAMMAL PROTECTION ACT OF 1972

LEGISLATIVE HEARING

BEFORE THE

SUBCOMMITTEE ON FISHERIES CONSERVATION, WILDLIFE AND OCEANS

OF THE

COMMITTEE ON RESOURCES
U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED EIGHTH CONGRESS

FIRST SESSION

Thursday, July 24, 2003

Serial No. 108-46

Printed for the use of the Committee on Resources

Available via the World Wide Web: http://www.access.gpo.gov/congress/house
or
Committee address: http://resourcescommittee.house.gov

U.S. GOVERNMENT PRINTING OFFICE

88-531 PS WASHINGTON : 2003

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2250 Mail: Stop SSOP, Washington, DC 20402–0001

COMMITTEE ON RESOURCES

RICHARD W. POMBO, California, *Chairman*
NICK J. RAHALL II, West Virginia, *Ranking Democrat Member*

Don Young, Alaska
W.J. "Billy" Tauzin, Louisiana
Jim Saxton, New Jersey
Elton Gallegly, California
John J. Duncan, Jr., Tennessee
Wayne T. Gilchrest, Maryland
Ken Calvert, California
Scott McInnis, Colorado
Barbara Cubin, Wyoming
George Radanovich, California
Walter B. Jones, Jr., North Carolina
Chris Cannon, Utah
John E. Peterson, Pennsylvania
Jim Gibbons, Nevada,
Vice Chairman
Mark E. Souder, Indiana
Greg Walden, Oregon
Thomas G. Tancredo, Colorado
J.D. Hayworth, Arizona
Tom Osborne, Nebraska
Jeff Flake, Arizona
Dennis R. Rehberg, Montana
Rick Renzi, Arizona
Tom Cole, Oklahoma
Stevan Pearce, New Mexico
Rob Bishop, Utah
Devin Nunes, California
Randy Neugebauer, Texas

Dale E. Kildee, Michigan
Eni F.H. Faleomavaega, American Samoa
Neil Abercrombie, Hawaii
Solomon P. Ortiz, Texas
Frank Pallone, Jr., New Jersey
Calvin M. Dooley, California
Donna M. Christensen, Virgin Islands
Ron Kind, Wisconsin
Jay Inslee, Washington
Grace F. Napolitano, California
Tom Udall, New Mexico
Mark Udall, Colorado
Aníbal Acevedo-Vilá, Puerto Rico
Brad Carson, Oklahoma
Raúl M. Grijalva, Arizona
Dennis A. Cardoza, California
Madeleine Z. Bordallo, Guam
George Miller, California
Edward J. Markey, Massachusetts
Rubén Hinojosa, Texas
Ciro D. Rodriguez, Texas
Joe Baca, California
Betty McCollum, Minnesota

Steven J. Ding, *Chief of Staff*
Lisa Pittman, *Chief Counsel*
James H. Zoia, *Democrat Staff Director*
Jeffrey P. Petrich, *Democrat Chief Counsel*

SUBCOMMITTE ON FISHERIES CONSERVATION, WILDLIFE AND OCEANS

WAYNE T. GILCHREST, Maryland, *Chairman*
FRANK PALLONE, JR., New Jersey, *Ranking Democrat Member*

Don Young, Alaska
W.J. "Billy" Tauzin, Louisiana
Jim Saxton, New Jersey
Mark E. Souder, Indiana
Walter B. Jones, Jr., North Carolina
Randy Neugebauer, Texas
Richard W. Pombo, California, *ex officio*

Eni F.H. Faleomavaega, American Samoa
Neil Abercrombie, Hawaii
Solomon P. Ortiz, Texas
Ron Kind, Wisconsin
Madeleine Z. Bordallo, Guam
Nick J. Rahall II, West Virginia, *ex officio*

C O N T E N T S

	Page
Hearing held on Thursday, July 24, 2003	1
Statement of Members:	
Gilchrest, Hon. Wayne T., a Representative in Congress from the State of Maryland	1
Prepared statement of	2
Pallone, Hon. Frank, Jr., a Representative in Congress from the State of New Jersey	3
Prepared statement of	4
Rahall, Hon. Nick J. II, a Representative in Congress from the State of West Virginia, Prepared statement of	11
Statement of Witnesses:	
Cottingham, David, Executive Director, Marine Mammal Commission	29
Prepared statement of	30
Response to questions submitted for the record	154
Hayes, Robert G., General Counsel, Coastal Conservation Association	69
Prepared statement of	71
Johnson, Charlie, Executive Director, Alaska Nanuuq Commission	79
Prepared statement of	80
Jones, Marshall, Deputy Director, Fish and Wildlife Service, U.S. Department of the Interior	22
Prepared statement of	24
Response to questions submitted for the record	101
Lent, Dr. Rebecca, Deputy Assistant Administrator for Fisheries, National Marine Fisheries Service, U.S. Department of Commerce	13
Prepared statement of	15
Response to questions submitted for the record	110
Steuer, Karen, Senior Policy Advisor, National Environmental Trust	72
Prepared statement of	74
Response to questions submitted for the record	128
Tyack, Dr. Peter, Senior Scientist and Walter A. and Hope Noyes Smith Chair, Department of Biology, Woods Hole Oceanographic Institution	37
Prepared statement of	39
Response to questions submitted for the record	132
Wells, Dr. Randall, Conservation Biologist, Chicago Zoological Society, Mote Marine Laboratory	81
Prepared statement of	83
Response to questions submitted for the record	141
Worcester, Peter F., Ph.D., Research Oceanographer, Scripps Institution of Oceanography, University of California at San Diego	49
Prepared statement of	51
Response to questions submitted for the record	148
Zuanich, Robert, Board Member, United Fishermen of Alaska	88
Prepared statement of	89
Additional materials supplied:	
Riedel, Monica, Executive Director and CEO, Alaska Native Harbor Seal Commission, Statement submitted for the record	98

LEGISLATIVE HEARING ON H.R. 2693, A BILL TO REAUTHORIZE THE MARINE MAMMAL PROTECTION ACT OF 1972, AND FOR OTHER PURPOSES.

Thursday, July 24, 2003
U.S. House of Representatives
Subcommittee on Fisheries Conservation, Wildlife and Oceans
Committee on Resources
Washington, DC

The Subcommittee met, pursuant to notice, at 10:05 a.m., in Room 1324, Longworth House Office Building, Hon. Wayne T. Gilchrest [Chairman of the Subcommittee] presiding.

Present: Representatives Gilchrest, Pallone, Abercrombie, and Kind.

Also present: Representative Pombo.

Mr. GILCHREST. The Subcommittee on Fisheries Conservation, Wildlife and Oceans will come to order. We want to thank all of you for coming this morning and we really look forward to the testimony of each and every witness for us to try to find some realistic consensus on the problems of the issue of marine mammals.

STATEMENT OF HON. WAYNE T. GILCHREST, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MARYLAND

Mr. GILCHREST. Earlier this month I introduced H.R. 2693, with Chairman Richard Pombo, to reauthorize the Marine Mammal Protection Act. This bill is similar to H.R. 4781, which the Subcommittee approved last Congress. There were a few provisions that were not included in H.R. 4781: changes to the definition of harassment and to the incidental take section; language to authorize the disentanglement of marine mammals in the stranding program; and modifications to the time lines in the take reduction team process.

I think we have made good progress in H.R. 2693; however, the bill is a starting point, a product to generate discussion. To develop the language in the bill, I had meetings with scientists and agency staff to better understand our current state of knowledge, to hash out various terms proposed for the definition of harassment, and to devise a process by which scientific research can move forward in a timely manner without unnecessary and significant delays. Most

recently, yesterday in fact, I met with representatives of some environmental groups to discuss their thoughts on the bill's language.

What I have found most interesting in this process is how everyone refers back to the National Research Council's recommended definition of harassment. Everyone says their definition is based on the NRC definition. I can say that H.R. 2693 used the NRC used the NRC definition as a template, but has some modifications. The administration's definition is said to have the intent of the NRC definition, but was reworked to be defensible in court and structured to allow for better enforcement. The environmental community also has its own definition, which also modifies the NRC definition. There is common ground in each of these proposals, the NRC definition. We just need to word-smith more to get a compatible resolution.

And going through this process a little bit in the last few days, I wish now I had paid much more attention to my seventh grade English teacher's diagramming of what modifies what.

But I think we can work through this process to ensure that the language is appropriate for the Navy, the language is appropriate—and the process—the language is appropriate for research scientists, and the process, and the language is appropriate to meet all of the constituency problems that there are out there in the oceans.

I think today we are going to look forward to your analysis of the definitions of harassment, of incidental take, of the process that people have to go through with NMFS in order to get that permit to do what they need to do. And our intent here, Mr. Pallone and myself, our intent is to ensure that—like somebody told me just 2 days ago in this, in Congress, a member: So, you want to save a whale and kill a soldier.

We want to make sure that the impression and the reality is that the oceans will be better off, the ecosystem will improve, marine mammals will be protected, and the military can train its soldiers to defend America. But we also want to make sure that a scientist that needs to fly an airplane over the North Atlantic to observe right whales will not have a more difficult time getting a permit to do that than the general understanding that long lines are OK for the fishing industry. Now, I don't want to downgrade long lining for the fishing industry. That is a whole other issue that we will deal with in the Magnuson Act. But to do research that is important for the preservation of right whales and marine mammals, we have got to work for that process and make it much more legitimate.

So I look forward to everyone's testimony today. And I would like to yield to the gentleman from New Jersey, Mr. Pallone.

[The prepared statement of Mr. Gilchrest follows:]

Statement of The Honorable Wayne T. Gilchrest, Chairman, Subcommittee on Fisheries Conservation, Wildlife and Oceans

Good morning. Today, we will hear testimony on issues pertaining to the reauthorization of the Marine Mammal Protection Act.

Earlier this month I introduced H.R. 2693,with Chairman Richard Pombo, to reauthorize the MMPA. This bill is similar to H.R. 4781, which the Subcommittee approved last Congress. There are a few provisions that were not included in H.R. 4781: changes to the definition of harassment and to the incidental take section; language to authorize the disentanglement of marine mammals in the

stranding program; and modifications to the time-lines in the take reduction team process.

I think we've made some good progress in H.R. 2693; however, the bill is a starting point, a product to generate discussion. To develop the language in the bill I had meetings with scientists and agency staff to better understand our current state of knowledge, to hash out various terms proposed for the definition of harassment, and to devise a process by which scientific research can move forward in a timely manner without significant delays. Most recently, yesterday in fact, I met with representatives of some environmental groups to get their thoughts on the bill language.

What I've found most interesting in this process is how everyone refers back to the National Research Council's (NRC) recommended definition of harassment. Everyone says their definition is based on the NRC definition. I can say H.R. 2693 used the NRC definition as a template, but has some modifications. The Administration's definition is said to have the intent of the NRC definition, but was reworked to be defensible in court and structured to allow for better enforcement. The environmental community also has its own definition, which also modifies the NRC definition. There is common ground in each of these proposals, the NRC definition, we just need to word-smith some more to get a compatible resolution.

I look forward to today's testimony. Each witness brings a slightly different perspective to the table and differing views can lead to productive and lively discussions.

I know recognize the Ranking Democrat, Mr. Pallone for his opening statement.

STATEMENT OF HON. FRANK PALLONE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mr. PALLONE. Thank you, Mr. Chairman, for holding this hearing on your legislation to reauthorize the Marine Mammal Protection Act.

Much has been said recently about the MMPA, both inside and outside this Committee. And while reasonable people can agree to disagree about policy, there should be no doubt about members of this Committee, whether Democrat or Republican, that it is the sole jurisdiction of this Committee to reauthorize and amend the MMPA.

And that is why I wanted to commend you, Mr. Chairman, for forcefully reinforcing at Tuesday's meeting of the Conference Committee to the Defense Authorization Bill of the proper authority of this Committee regarding the MMPA. I can only hope that the conferees will have been persuaded by arguments to remove all provisions concerning the MMPA from the final conference report.

And I know this is not on the same subject, but I see the Chairman of the full Committee here. And I just want to say I have witnessed several times over the last few weeks where you have had to reinforce the Committee's jurisdiction. And I appreciate the fact that you have been out there doing that as well. I think it is very important.

Even within the Committee, changes to the definition of harassment will continue to be a contentious item of discussion. I do believe, however, that we now have the chance to frame whatever changes should be made within the proper context of an overall MMPA reauthorization.

As we consider how best to reauthorize the bill, be assured that I will arrive at the table ready to work with you in a true sense of comity and cooperation. And it is with this spirit that I look at your bill, H.R. 2693, as an honest starting point, but not a conclusion to our work. Also, realize that I will vigorously oppose any attempt to weaken or walk away from the fundamental protections

afforded to marine mammals under the act, for animals either in the wild or in captivity.

As much as we should celebrate the fact that the MMPA has prevented the outright extinction of many marine mammals, we should not be blind to the compelling reality that many marine mammal populations today face growing human threats from ship strikes, acoustic impacts, marine debris and other land-based pollutants. And in the end, our success at addressing these threats will likely determine whether marine mammals can maintain their vital roles in oceanic and coastal environments.

Thank you again, Mr. Chairman.

[The prepared statement of Mr. Pallone follows:]

Statement of The Honorable Frank Pallone, a Representative in Congress from the State of New Jersey

Thank you, Mr. Chairman, for holding this hearing on your legislation to reauthorize one of our Nation's most important statutes protecting the ocean environment, the Marine Mammal Protection Act.

Much has been said recently about the MMPA, both inside and outside of this Committee. And while reasonable people can agree to disagree about policy preferences, there should be no light between members of this Committee, whether they are Democrat or Republican, on the fact that it is the sole jurisdiction of this Committee to reauthorize the MMPA.

That is why I commend you, Mr. Chairman, for forcefully re-informing the conference committee to the Defense Authorization bill at yesterday's conference meeting of the proper authority of this Committee regarding the MMPA. We can only hope that the conferees will have been persuaded by your arguments to remove all provisions concerning the MMPA from the final conference report.

Even within this Committee, changes to the definition of "harassment" will continue to be a contentious item of discussion. I do believe, however, that we now have the chance to frame whatever changes should be made within the proper context of an overall MMPA reauthorization.

As we roll up our sleeves to sit down and consider how best to reauthorize the MMPA, be assured that I will arrive at the table ready to work with you in a true sense of comity and cooperation. And it is with this spirit that I look at your bill, H.R. 2693, as an honest starting point but not a conclusion to our work.

Also realize that I will vigorously oppose any attempt to weaken or walk away from the fundamental protections afforded to marine mammals under the Act, for animals either in the wild or in captivity.

As much as we should celebrate the fact that the MMPA has prevented the outright extinction of many marine mammals, we should not be blind to the compelling reality that many marine mammal populations today face growing human threats from ship strikes, acoustic impacts, marine debris and land-based pollutants.

In the end, our success at addressing these threats will likely determine whether marine mammals remain a vibrant part of our ocean and coastal environment. Thank you.

[Information submitted for the record by Mr. Pallone follows:]

Statement submitted for the record on behalf of: Animal Protection Institute; Cetacean Society International; Earth Island Institute; International Wildlife Coalition; Society for Animal Protective Legislation; The Fund for Animals; The Humane Society of the United States; Whale and Dolphin Conservation Society; and World Society for the Protection of Animals

The above signatory groups, together representing approximately 9 million members and constituents, thank the Subcommittee Chairman for the opportunity to submit a statement for the record on the reauthorization of the Marine Mammal Protection Act (MMPA). We appreciate the opportunity to present these comments to the Subcommittee. Our concerns relate to the sport hunting of polar bears and the public display of marine mammals.

Sport Hunting of Polar Bears

The signatory groups oppose the provisions of Section 10 in H.R. 2693. In addition, we request that Congress maintain the prohibition on the sport hunting of polar bears in Alaska and repeal Section 104(c)(5) of the MMPA, which allows the import of polar bear trophies from Canada. The MMPA prohibition against take is universal—the exemptions are for purposes that serve the public good, with the sole exception of the import of sport-hunted polar bear trophies from Canada, which is for personal use. Section 104(c)(5) was added to the MMPA during the 1994 reauthorization. To allow exemptions for personal use is counter to the spirit of this groundbreaking legislation.

Furthermore, the signatory groups believe commercial sport hunts provide a dangerous incentive to over-exploit this vulnerable and naturally rare species, as was historically the case. Sport hunting and its negative impacts on polar bear populations were among the primary reasons the five polar bear nations (Denmark [for Greenland], the Russian Federation [then the USSR], Norway, Canada, and the U.S.) originally negotiated and signed the 1973 Agreement on the Conservation of Polar Bears.

To date, Canada continues to be the only country that allows the sport hunting of polar bears under the 1973 Agreement. In 1994, Congress passed an amendment, Section 104(c)(5), which allowed the import into the U.S. of trophies legally taken in Canada. Many of the signatory groups actively opposed this amendment during the 1994 reauthorization, in part because we believe the hunt in several populations of Canadian polar bears was (and continues to be) unsustainable. Allowing the import of trophies would (and now does) provide a strong incentive for Canada to maintain or increase already unsustainable quotas because more American hunters would seek to purchase subsistence hunt tags from Canadian Inuit villages.

Validating our concerns, the U.S. Fish and Wildlife Service (FWS) initially approved the M'Clintock Channel polar bear population for imports under Section 104(c)(5). In early 2001, the agency published an emergency rule reversing that approval because a recent study by the Canadian authorities indicated that there were far fewer bears than originally estimated in the M'Clintock population, making the quota not only unsustainable, but actually an extirpation risk for the population.

Some of the population data used to calculate this new population estimate were apparently available to the Canadian authorities as early as 1978. In addition, the population estimate was always rated as "poor" and even after the results of the first two years of a three-year study (1998, 1999, and 2000) showed that there were almost certainly far fewer bears in the population than previously estimated, Canada did not change the quota until the study's final year of results was analyzed. (The 1998/1999 hunting season, therefore, removed nearly 10% of the population and the unfulfilled quota was for more than 10% of the population.) In short, managers could have and should have foreseen the actual status of the population as early as 20 years ago and certainly two years ago.

The signatory groups have always been critical of the potential for mismanagement under Canada's management regime. The situation in M'Clintock Channel is a classic example of a worst-case scenario under this regime, which, inter alia, relies on population estimates that are qualitatively rather than quantitatively characterized. The quota for this population was driving the M'Clintock Channel bear population inexorably toward extirpation for several years before managers detected this trend.

It is impossible to know whether those populations that the FWS has not approved for import but which are still subject to legal hunts under Canadian law are experiencing similar negative impacts because of hunting under Canada's management regime. If they are, this reflects on Canada's entire management program. As for those six populations currently with full FWS approval for import, their status is arguably just as questionable, as they are being managed under the same regime. Given how long M'Clintock Channel's dire situation escaped Canada's notice, and given the uncertain quality of some of the population data from the other approved populations, there is simply no assurance that any polar bear population in Canada is being managed sustainably.

The signatory groups believe strongly that Section 104(c)(5) should be repealed. Polar bears are uniquely unsuited to being sport-hunted. Establishing accurate population estimates and life history parameters upon which commercially-driven hunts can be sustainably based is extremely difficult, given their remote and marginal habitat.

Public Display of Marine Mammals

In 1994, Congress amended the MMPA to eliminate certain aspects of the law's applicability to marine mammals used for public display. These changes weakened

the law without justification, and there is no basis for further changes to the law that would result in even less protection for these animals. The relevant provisions within the MMPA for public display fall under Sections 101 and 104. H.R. 2693 addresses public display only once, in Section 11, the captive release prohibition.

The MMPA provides for the public display of marine mammals by special exemption. Because of the continued existence of trade (import/export) in wild-caught and captive-born marine mammals between U.S. facilities and foreign facilities, and the proliferation of unregulated interactive programs (e.g., swim-with-the-dolphin programs; "petting" pools) in public display facilities worldwide, we believe Congress must re-examine some of the provisions of the MMPA, and the implementing regulations relating to the public display exemption.

Export Permits

The MMPA should be amended to restore the requirement for a permit to export marine mammals for the purpose of public display. The 1994 Amendments removed this requirement from the law and currently a 15-day notification to the National Marine Fisheries Service (NFMS) or FWS and a determination, through a Letter of Comity, that the receiving facility meets standards comparable to those required under the Animal Welfare Act (AWA) and the MMPA are the sole requirements. In other words, holders of captive marine mammals have the right to transport, sell, export, purchase or transfer an interest (e.g., breeding loans) without seeking authorization and without any public oversight. The signatory groups have serious concerns regarding the ability of the agencies under such a short notification regime and without public input to ensure the well-being of marine mammals leaving this country for foreign, and often substandard, facilities not under the jurisdiction of U.S. law.

In the wild, marine mammals are under national jurisdiction in domestic waters, while on the high seas they are considered a "global commons." We believe that their status should not change when removed from the wild and kept in captive facilities, and we oppose the private ownership of captive marine mammals. We believe that the public should be treated as stakeholders and should have a key consultative role concerning the destination, distribution, supervision and management of these species. We believe that the public often holds critical information that should be reviewed and evaluated prior to a transfer. Therefore, we urge Congress to reinstate the export permit requirement, which would provide for public notice and comment.

Comity and Comparability Provisions

The MMPA should confirm the requirement for a letter of comity from a foreign facility's government regarding marine mammal protection laws, and strengthen this provision by requiring on-site inspections. The signatory groups are deeply concerned with the proliferation of substandard captive display facilities around the world. We are not satisfied that the requirement for a Letter of Comity from the receiving nation provides adequate protection for marine mammals being exported from the US. Because U.S. agencies must accept these letters on their face, they are rendered almost meaningless. National agencies all too frequently provide letters of comity with no substance underlying them. The MMPA permit process, which includes public notice and comment, as applied to export would allow a greater—and more protective—degree of scrutiny of a receiving facility and the laws to which it is subject. For example, certain Japanese facilities participate in "drive fisheries" to capture dolphins. This practice does not meet U.S. capture standards for humaneness and would not be allowed under the MMPA. Any facility associated with this practice should not be allowed to receive marine mammals from the US; whether a facility acquires animals from drive fisheries may be information only public comment could uncover.

As part of the comity process and under the 1994 Amendments, foreign facilities must demonstrate that they meet standards that are comparable to those under the AWA. The U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS) has concluded that facilities may demonstrate this solely through providing the agency documentation and certified assurances, rather than through on-site inspections. As a result, the determination of comparability is being made by the receiving facility itself, through its expressions of comity, and through the documentation it chooses to provide to APHIS, which is a clear conflict of interest. Therefore, the MMPA should be amended to clarify Section 104(c)(9) that the determination of comparability must be made through first-hand knowledge, i.e., on-site inspections, by the relevant U.S. agency. All facilities seeking to acquire marine mammals from the U.S. should be pre-inspected by a qualified U.S. official before

animals are exported pursuant to any MMPA authorization, including transfer pursuant to an existing permit under section 104(c).

Marine Mammal Inventory Report

The MMPA should retain the requirement for captive display facilities to maintain an inventory of marine mammals in their collections, and should broaden the information reporting requirements to include necropsy, injury and disease reports indicative of marine mammals health status. The U.S. is one of the only countries in the world with legislation requiring the maintenance of an inventory of marine mammals held in captivity. Without an inventory, the status of captive marine mammals can be impossible to determine, as it is the only means for allowing outside scientific review of issues relating to the health and survivorship of captive marine mammals. In addition, with the increase in marine mammal interactive programs in the U.S. and elsewhere, there is a need for the disclosure of information pertinent to the health and welfare of marine mammals in these programs. Information, including disease transmission and physical injuries sustained by marine mammals in interactive programs, must be collected in order for all stakeholders to evaluate the safety and value of these programs.

Educational Programs

Section 104(c)(2)(A)(i) of the MMPA should be revised to provide for the evaluation of education and conservation programs on a periodic basis. Currently, educational standards within most public display facilities are based on standards established and recommended by the public display community itself. Because the effectiveness and legitimacy of an educational program cannot be determined at its inception and by its description on paper, and because the statute requires only a "professionally recognized" educational or conservation program, there is little to protect the precautionary intent of the MMPA. According to information provided by NMFS, a permit for the public display of cetaceans or pinnipeds has never been denied or revoked on the grounds of insufficient educational value or content. This blanket exemption is not monitored or enforced by any independent public institution or regulatory agency.

We recommend that public display facilities that are granted an exemption permit must be motivated to continually improve their educational and conservation programs. There are currently no requirements for updates to educational programs or facility plans once a permit is granted. Periodic assessments should be required to ensure that facilities do not stray from their original "educational mission statement" in the course of their commercial development or expansion into a public entertainment venue or amusement park, as many have. The MMPA should require that the relevant Secretary approve public display education and conservation programs, with periodic review of these programs as they develop and evolve.

Authority over Captive Marine Mammals

Authority over captive marine mammals should be transferred from APHIS in the Department of Agriculture to the same agencies (NMFS and FWS) with jurisdiction over marine mammals in the wild. APHIS, under the AWA, has not demonstrated that it can adequately ensure the humane treatment and welfare of marine mammals used for the purpose of public display. For example, after taking more than three years from the date of reauthorization to finalize the regulations for the operation of swim-with-the-dolphin programs, APHIS then suspended the regulations' enforcement only six months later, in April 1999. To date, these specialized and proliferating programs are to all intents and purposes unregulated, beyond basic care and maintenance standards.

In addition, in a highly-publicized case in Puerto Rico, APHIS was unable to remedy the inhumane treatment of seven polar bears held in the Mexican-based Suarez Brothers Circus, revealing an agency unable to fulfill the objectives of the MMPA. It was the FWS that finally rescued these beleaguered animals from their untenable situation (six of the seven are now doing well in U.S. zoos after confiscation—one unfortunately died), citing violations of the MMPA. APHIS has limited expertise among its staff in the biology and handling of marine mammals. Its veterinary inspectors receive some training regarding the specialized needs and requirements for these animals, but this training is often inadequate. Facilities are allowed numerous opportunities to correct violations, and in some instances, violations are never corrected. The specialized biology, ecology, and captive maintenance requirements of marine mammals, specifically recognized by Congress when it passed the MMPA in 1972, overtax APHIS' staff. It would be sensible for marine mammal species under the jurisdiction of NMFS (and the FWS for polar bears, walruses, manatees and sea otters) when wild to continue under the jurisdiction of NMFS/FWS when captive—

these wildlife species do not transform into livestock by virtue of entering a tank or sea pen.

Traveling Shows

The MMPA should be amended to specifically prohibit the use of marine mammals in traveling shows. The signatory groups support the sections in the Administration's bill that prohibit traveling cetacean shows and would like to see H.R. 2693 include this provision, but apply it to all marine mammals. Circuses and itinerant performances cannot maintain the highly specialized conditions necessary to ensure the health and well-being of marine mammals. The high-profile case in Puerto Rico involving the Suarez Brothers Circus, as noted above, highlights that traveling shows featuring marine mammals inevitably violate the spirit and very often the letter of the MMPA, which is designed to conserve species and stocks and ensure humane treatment of these animals.

"Petting" Pools

The MMPA should be amended to prohibit interactive programs involving the feeding of captive marine mammals. In the wild, feeding marine mammals is prohibited by regulation, as this activity clearly constitutes harassment. Feeding wild marine mammals (or any wild predator) can result in the gross disruption of foraging behavior, malnourished animals, injured animals through vandalism, nuisance behavior in animals that have become habituated to handouts, and other negative impacts. While public feeding of captive marine mammals in so-called "petting" pool exhibits is undoubtedly less disruptive, it still can lead to numerous problems, including obesity, the ingestion of foreign objects (which can lead to injury and even death of the animal), altered socialization patterns, and injury to the public (e.g., being bitten). However, more to the point, feeding captive marine mammals leads to a fundamental disconnect in the purported educational mission of public display—the classic "Do as I say, not as I do" syndrome. If feeding marine mammals in captivity is allowed, it becomes extremely difficult and confusing for the public to recall and follow the prohibition on feeding marine mammals in the wild. The signatory groups strongly urge Congress to amend the MMPA to prohibit "petting" pools.

Capture from the Wild

The MMPA should be amended to prohibit the capture of marine mammals from the wild for use in public display facilities. Captive populations of marine mammals have been maintained and grown through captive breeding, imports, and the retention of non-releasable stranded animals. The U.S. public display industry frequently tells the public that it has not captured any cetaceans from the wild since 1993. Given this successful maintenance of captive populations without removing animals from the wild, it is entirely unnecessary for any marine mammals to be captured in the wild for the purposes of public display.

Conclusion

The signatory groups once again thank the Subcommittee Chair for allowing our special concerns regarding the sport hunting of polar bears and the public display of marine mammals to be submitted for the record on the reauthorization of the MMPA. We urge Congress to consider our views on these two issues, as we seek to bring all marine mammals once again within the truly protective and precautionary embrace of the MMPA.

April 24, 1997

U.S. Fish and Wildlife Service
Office of Management Authority
4401 N. Fairfax Dr., Room 430
Arlington, VA 22203

TRANSMITTED BY FACSIMILE: 703/358-2281

RE: 62 FR 14437, Notice of Receipt of Applications for Permit

On behalf of the more than 4.5 million members and constituents of The Humane Society of the United States (HSUS), I am submitting these comments regarding 27 applications received by the U.S. Fish and Wildlife Service (the Service) for import permits for sport-hunted polar bear trophies from the Northwest Territories, Canada.

For the record, The HSUS strongly objects to the Service's consideration of these permit applications. We believe that the Service's final rule is in error and that

three of the four statutory requirements cannot be met (i.e., Canada's program does not comply with the International Agreement on the Conservation of Polar Bears; Canada's program is not scientifically sound; and polar bear trophy imports will contribute to the illegal trade in polar bear parts—please see our comments of March 6, August 31, and November 6, 1995). We are also aware that Representative Don Young (R-AK) has introduced House Joint Resolution 59 seeking to overturn the Service's final rule and that a hearing on this matter will be held on April 30, 1997. Finally, one or more of several parties may initiate legal action in the near future to overturn the Service's final rule. Therefore, given the current uncertain status of the final rule, we believe it is inappropriate for the Service to consider these permit applications at this time.

However, if the Service processes these permits regardless of the uncertain status of the final rule, my comments are as follows: To my understanding, Baffin Bay and the Gulf of Boothia populations have been deferred for approval by the Service. Therefore, the permit applications of Robert Kuykendall (Baffin Bay) and Lee Adam (Gulf of Boothia) should be denied on their face. In addition, Mr. Adam's application fails to provide the size of the tanned hide, information he must provide to answer question #9 on page 2 of the application form (without this information, it is impossible to determine if the male bear killed by Mr. Adam meets the minimum size restriction to avoid having to provide documentation that the bear was not part of a family group). I also note that Mr. Adam has failed to answer question #6 on page 2 of the application form, although this information is provided in the attached Northwest Territories Wildlife Export Permit #7728.

After examining the remaining 24 applications (apparently one application was returned to the applicant), I find that more than half (14), for one reason or another, are incomplete or inaccurate. It may be that these applicants have since provided information to the Service that completes their applications, but it concerns me that the applications were published in the Federal Register prior to the applicants providing complete and accurate applications to the Service. Also, since the applications were distributed to the public in this condition, it leaves the public in the position of having incomplete paperwork upon which to base its comments (for example, I will not be able to evaluate whether the documentation eventually provided by several applicants [regarding whether a female bear or male bear under six feet was part of a family group] is acceptable).

In alphabetical order:

Horst Baier—Did not answer question #8, page 1

Larry Bennett—Did not complete question #8, page 1 (did not provide license or permit number)
Did not answer question #10, page 1
Did not answer question #9, page 2 (i.e., did not provide size of tanned hide in question #3, page 2)

Jerome Bofferding—Did not indicate a designated port for wildlife in question #6, page 1 (although did indicate Designated Port Exception permit number)
Did not answer question #9, page 2 (i.e., did not provide size of hide in question #3, page 2)—the Service's attached notice to this effect expires on approximately May 10

Dan Fox—Did not answer question #8, page 1
Did not answer question #9, page 2 (i.e., did not provide size of tanned hide in question #3, page 2)

John Hoyer—Provided incorrect information in question #7, page 1 (gave Northwest Territories hunting licence number, rather than Federal fish and wildlife license or permit number)
Did not complete question #8, page 1 (did not provide license or permit number)
Did not answer question #9, page 2 (i.e., did not provide documentation that the female bear killed was not part of a family group)—the Service's attached notice to this effect expires on approximately May 10

Jerry Imperial—Provided invalid information in question #10, page 1 (date provided does not correspond to question)
Did not answer question #9, page 2 (i.e., did not provide size of tanned hide in question #3, page 2)

Craig Leerberg—Did not answer question #8, page 1
Did not answer question #8, page 2 (the Service's notice, which expires approximately May 10, incorrectly requested a response to question #9, page 2)—this female bear was hunted before January 1, 1986 (the applicant did not provide the month in question #5, although the attached hunting license indicated the hunt may have occurred in March 1983)

Jack Leuenberger—Did not answer question #10, page 1

Did not answer question #9, page 2 (i.e., did not provide documentation that the female bear killed was not part of a family group)—the Service's attached notice to this effect expires on approximately May 10

Lee Lipscomb—Provided an incorrect answer ("N/A") to question #9, page 2 (i.e., did not provide documentation that the female bear killed was not part of a family group)—the Service's attached notice to this effect expires on approximately May 10

Torry Lofgreen—Did not complete question #8, page 1 (did not provide license or permit number)

Did not answer question #9, page 2 (i.e., did not provide size of hide in question #3, page 2)

Perry Segura—Provided incorrect information in question #7, page 1 (gave Northwest Territories hunting licence number, rather than Federal fish and wildlife license or permit number)

Carl Strawberry—Did not indicate a designated port for wildlife in question #6, page 1 (provided invalid information)

Robert Van Horn—Did not indicate a designated port for wildlife in question #6, page 1

Charles Whitlow—Did not answer question #9, page 2 (i.e., did not provide size of tanned hide in question #3, page 2) Of the remaining 10 applications, no obvious errors or incomplete information were noted.

I would like to note that five of the applications that failed to answer question #9, page 2 did not have Service notices to that effect attached to them. This appears to be an oversight on the Service's part. Failure of the Service to provide these notices means either that these applications will be processed exceptionally slowly or that they will be improperly processed and possibly approved without ever having provided this necessary information.

I would also like to note that of the three applications that provided the requested documentation regarding female bears (in response to either questions #8 or #9 on page 2), it is literally impossible to evaluate this documentation properly. In each case, an official of the Northwest Territories certified that the female bear was alone, but whether this certification was based on the certifying official's (or other official's) direct observation or the word of the applicant or guide is unknown. This is a point The HSUS made in its August 31, 1995 comments to the Service on the proposed rule; this method of certification is apparently based entirely (and inappropriately) on the honor system.

Again, The HSUS feels the Service published 16 of these applications in the Federal Register inappropriately, either because they referred to trophies taken from deferred populations or because they provided inaccurate, incorrect, or incomplete information. We strongly recommend that permit applications not be published in the Federal Register until they are complete and accurate, so that only complete and accurate applications are provided to the public for comment.

Once again, The HSUS wishes to express our objection to the processing of these permit applications at this time. Under no circumstances should the applications of R. Kuykendall and L. Adam be approved.

Thank you for the opportunity to comment on this matter.

Sincerely,

Naomi A. Rose, Ph.D.
Marine Mammal Scientist
Wildlife and Habitat Protection

May 12, 1997

U.S. Fish and Wildlife Service
Office of Management Authority
4401 N. Fairfax Dr., Room 430
Arlington, VA 22203
Attn: Lynn Noonan

TRANSMITTED BY FACSIMILE: 703/358-2281

RE: 62 FR 14437, Notice of Receipt of Applications for Permit 62 FR 17199, Notice of Receipt of Applications for Permit

Dear Ms. Noonan:

Thank you for forwarding the supplemental information provided to your office by several permit applicants pursuant to 62 FR 14437. Thank you also for the seven

permit applications pursuant to 62 FR 17199. I believe I am one day late with these comments (in both cases), but nevertheless I am submitting them for the record.

My only comment concerning the supplemental information refers to the information provided by Mr. Craig Leerberg, regarding his 1983 female polar bear trophy. He originally failed to respond to questions #8 and #9 on page 2 (I mistakenly commented on April 24 that he had only failed to respond to question #8—as your office correctly noted, he also failed to respond to question #9). His subsequent submission, a letter to you on his personal stationery, stating that the female bear was hunted in March 1983 and was alone and not nursing, is not sufficient to satisfy the regulations.

While his hunting license date-of-issue is arguably sufficient to satisfy the documentation requirements of question #8 (since it was issued on March 1, 1983 and expired on June 30, 1983, the bear was not shot in the months of October, November, or December of that year), he has not provided any independent verification that the bear was not a part of a family group. His personal statement that the bear was alone and not nursing is not sufficient. His statement that "[whether the bear was part of a family group or not] was evidently not an issue with [the Game Department in Inuvik]" is completely irrelevant to the current requirements under the regulations. Mr. Leerberg must make an effort, as have several others, to acquire any records from the Inuvik officials that in some way indicate that this bear was alone when shot. He must also get their concurrence that the bear was not nursing; his statement alone does not satisfy the regulations.

For the record, this is a perfect example of why the "honor system" is not adequate to prevent violations of the regulations. I am in no position to judge Mr. Leerberg's veracity regarding the statements in his April 3 letter to you and neither are you. It is troublesome enough that certification from Canadian officials may be based merely on the word of the hunter and/or the hunt guide; it is certainly unacceptable for the hunter to bypass certification altogether merely because he "[does] not recall" an official recording the circumstances of his hunt.

As for the permit applications pursuant to 62 FR 17199, I have no comments regarding the six applications that were complete. I await receipt of the supplemental information to be provided by Mr. David Anaman, regarding certification that the female bear he killed was not part of a family group.

Again, I apologize for the tardiness of these comments and I hope your office will still consider them. Thank you for the opportunity to comment on this matter.

Sincerely,

Naomi A. Rose, Ph.D.
Marine Mammal Scientist
Wildlife and Habitat Protection

Mr. GILCHREST. Thank you, Mr. Pallone.

The Chairman of the full Committee, Mr. Pombo.

Mr. PALLONE. Mr. Chairman, could I ask that the statement of our Ranking Member for the full Committee, Mr. Rahall, be submitted at this time? I ask unanimous consent.

Mr. GILCHREST. Without objection.

[The prepared statement of Mr. Rahall follows:]

Statement of The Honorable Nick J. Rahall, II, Ranking Democrat, Committee on Resources

Mr. Chairman, long gone are the days of the leviathan portrayed in Melville's Moby Dick, when whole towns were built on the wealth that whale oil could provide. Long gone are the days when it was morally justifiable to hunt a species like the blue whale to within a blink of extinction.

Today, humankind's relationship with the ocean is defined by the sense of wonder that whales, dolphins, and other marine mammals inspire and by a conviction to protect this natural biodiversity.

When the Marine Mammal Protection Act (MMPA) was enacted in 1972, it was with this vision of protection and precaution. It was to right the ecological wrongs wreaked by generations of wanton slaughter driven by our collective greed for the products that marine mammals supplied.

It was to provide a moratorium on the taking of marine mammals, in order to maintain and rebuild healthy populations of whales and dolphins, seals and sea

lions, and other marine mammals, except in certain very specific and tightly regulated instances.

To a noteworthy extent, protection and precaution have paid off. We should celebrate that some marine mammal species have recovered to estimated pre-harvest levels. But we should not be lulled into a false sense of complacency, allowing Flipper and Keiko to survive only in animation.

Many populations, such as North Atlantic right whales and bowhead whales in the Arctic, remain endangered. We also cannot ignore that the full breadth and intensity of human activity in the ocean, including shipping, oil and gas exploration, and military activity, has a profound effect on marine mammals, even if we do not seek to kill them outright.

Our nation is at a critical crossroads of how we define our relationship to the ocean. The report just released by the Pew Commission in June challenges the United States to develop a new ocean ethic and to treat the ocean as a public domain that we, as a Congress and as a people, hold in trust for future generations. How we re-define our relationship to marine mammals is central to establishing this new ethic.

The reauthorization of the MMPA provides us the immediate opportunity to preserve and uphold an important precedent. Hundreds of years of harvesting the ocean have taught us valuable lessons, one being that the ocean is not provided solely for human use, or that marine resources are available in infinite abundance. We should cast off and discard permanently the idea of consumptive use of marine mammals, except in legitimate circumstances for native subsistence.

We need an MMPA that embraces the success of precautionary protection and links it with our enhanced understanding of the ocean environment and the magnitude of our disruption of ocean ecosystems.

We can accomplish this by identifying and mitigating a wider range of human activities in the oceans that can harm marine mammals. We should critically evaluate activities such as shipping, which contribute to the overall level of noise in the ocean and often steer a collision course through pods of endangered whales.

We need to understand and better control how pollution from land ends up in the ocean and accumulates in the tissues of marine mammals. We must fund basic research on marine mammals from sources other than the Navy, to enhance our understanding of marine mammal abundance, biology, and ecology and to apply the best available science to our management decisions.

We need to bolster our support for the Marine Mammal Commission and for programs such as the Stranding and Entanglement Response Network, to ensure that emerging threats to marine mammals can be dealt with expeditiously.

Unfortunately, H.R. 2693, the bill before the Fisheries Conservation, Wildlife, and Oceans Subcommittee today, would undercut the MMPA's broad mandate for protection. It would allow the Secretary alone to grant a general authority for a range of unspecified "activities" that could harass, injure, or even kill a marine mammal. It would also revise the definition of "harassment" to make it less protective of marine mammals in instances that might cause direct injury.

I am certain that Congress can unite in improving the MMPA. All of America loves Flipper and Keiko. Whale watching brings $1 billion to the global economy each year, and is worth hundreds of millions of dollars annually in the United States. Sea World alone nets $12 million each year.

Rather than decimating whale stocks as we did in the 1800s to satisfy our greed for their oil and fur, we should strive to maintain healthy populations both in the wild and in captivity to benefit both the animals themselves and our economy as a whole.

Some critics might argue for the "sustainable use" of marine mammals, a concept enshrined for fisheries under the Magnuson-Stevens Fisheries Conservation and Management Act.

But rather than consumptive use at all, I urge a true "sustainable use" of marine mammals through whale watching, carefully regulated public display, enhanced public education and outreach, and robust scientific inquiry that would best serve the long-term interests of both marine mammals and humankind.

We should not demote majestic and intelligent marine mammals to the status of cold-blooded fish. Few fish have been both the stars of TV shows and comrades in combat to U.S. soldiers in foreign countries.

The Marine Mammal Protection Act has always recognized that important fundamental distinction. It will be our challenge to keep that perspective foremost in our thoughts as we look to reauthorize and modernize this landmark environmental statute.

Thank you.

Mr. GILCHREST. The witnesses this morning will be Dr. Rebecca Lent, Deputy Assistant Administrator for Fisheries, National Marine Fisheries Service; Mr. Marshall Jones, Deputy Director, U.S. Fish and Wildlife Service—we may have some questions to you about Nutria. I am not sure if you are going to deal with that issue. [Laughter.] Make sure all the funding goes to where it is supposed to go. The intent of Congress seems to disappear once the bill leaves the Hill.

Mr. David Cottingham, Executive Director, Marine Mammal Commission, welcome. And Dr. Peter Tyack, Conservation Biologist, Woods Hole Oceanographic Institution in Massachusetts. Thank you, sir. And Dr. Peter Worcester—that is just like the county in Maryland. Dr. Peter Worcester, Oceanographic Researcher, Scripps Institution of Oceanography, University of California at San Diego. Welcome.

We look forward to your testimony. Dr. Lent, you may begin.

STATEMENT OF DR. REBECCA LENT, DEPUTY ASSISTANT ADMINISTRATOR FOR FISHERIES, NATIONAL MARINE FISHERIES SERVICE

Dr. LENT. Thank you, Mr. Chairman, members of he Subcommittee. I want to commend you and your staff for your hard work and dedication to the improvement of marine mammal conservation and management, as evidenced in H.R. 2693. My testimony today will focus on H.R. 2693 and the administration's MMPA bill.

I also want to focus right up front here on an issue that has arisen to the forefront of the reauthorization discussion, and that is scientific research permits.

NOAA Fisheries issues scientific research permits to scientists who want to conduct marine mammal and endangered species research. Because the topic of permits can be quite confusing, I want to point out two distinctions. First, there is a difference between permits that are for activities directed at marine mammals and incidental take authorizations for activities that may incidentally or indirectly affect marine mammals, such as seismic exploration or naval training exercises.

Second of all, there is an important difference between scientific research permits that pertain to marine mammals that are not listed as threatened or endangered under the Endangered Species Act, or ESA, and those that are under ESA. Permits and general authorizations that deal with non-ESA-listed marine mammals, such as bottlenose dolphins, are almost always issued in a timely manner and generally are not controversial. We strongly feel that these types of permits do not present problems that need to be addressed during reauthorization.

The challenges we face in recent years with issuing scientific permits are related to endangered marine mammals, such as right whales and Stellar sea lions. For ESA-listed species, we have to meet our statutory obligations under ESA by doing Section 7 analyses, or biological opinions. In addition, we have to look at the potential impacts of the research under the National Environmental Policy Act, or NEPA. In the future, we plan to develop programmatic NEPA and ESA documents which we hope will help

front-load these processes and give us some more streamlined permitting process. But we don't see any need to make changes on the MMPA scientific research permitting process, because it is working well.

Let me turn to the definition of harassment. We are pleased that H.R. 2693 recognizes the need to clarify that definition and to focus on the impacts that are biologically significant. We have had difficulties at NOAA Fisheries in interpreting, implementing, and enforcing the current harassment definition, and we are seeking to address those problems in our bill. We support many of the changes in H.R. 2693, such as deleting the term "pursuit, torment, or annoyance," and the clarification that harassment can be any act; and also, addressing activities that are directed at marine mammals.

Regarding the changes that H.R. 2693 would make to Level A harassment, we would like to work with you to get clarification on the term "probability to injure." We are concerned that "probability" may imply that a particular outcome is more likely to occur than not. This might create too high of a standard for—a threshold to get Level A harassment, and make it difficult for us to regulate certain acts.

Again, we support the intent of the bill's proposed changes to the current definition of Level B harassment, but we note that we are concerned about "potential to disturb."

Regarding incidental—

Mr. GILCHREST. Dr. Lent, did you say you were OK with Level B harassment in H.R. 2693?

Dr. LENT. We support the intent of the bill's proposed changes to the current definition of Level B harassment. We appreciate the fact, Mr. Chairman, that you started off by saying this is a starting point and issues for discussion. We look forward to working with you on that.

Incidental takings of marine mammals, we support H.R. 2693's deletion of the terms "small numbers" and "specified geographic region." It is not going to change the applicant's requirements to show that their activities are having a negligible impact, and it won't change our evaluation of applications based on the biological significance of the action.

Regarding take reduction teams and take reduction plans, we support a number of the marine mammal bycatch provisions in H.R. 2693, including the expansion of Section 118 requirements to allow consideration of all important fishery-related consequences of marine mammal bycatch, or sources of marine bycatch.

We do have concerns about provisions that might limit our authority to monitor bycatch in certain fisheries. We also are concerned about mandatory Federal Government representation on take reduction teams, and potentially requiring reconvening take reduction teams after the plan development is complete.

There is more detail in my written testimony, but I want to note that we also support—NOAA also supports a number of other provisions in H.R. 2693, including those that deal with prohibiting the release of captive marine mammals without prior authorization, language to improve marine mammal stranding and entanglement response. However, we do have concerns about the Section 14 lan-

guage regarding the general authorization process. And again, we would appreciate an opportunity to work with you on this language.

Additionally, there are some provisions in the administration's bill that were not addressed in H.R. 2693. We want to draw your attention to those quickly, including other marine mammal bycatch reduction initiatives, improving harvest management agreements, enhancing enforcement, dealing with ship strikes of large whales, prohibiting traveling cetacean exhibits, and correcting inconsistencies in the export prohibition language.

In closing, I would like to note that H.R. 2693 takes many important steps toward improving the policies that cover marine mammal conservation, and we look forward to working with you.

Thank you, Mr. Chairman.

[The prepared statement of Ms. Lent follows:]

Statement of Dr. Rebecca Lent, Deputy Assistant Administrator for Fisheries, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce

Mr. Chairman and Members of the Subcommittee, I am Dr. Rebecca Lent, Deputy Assistant Administrator for Regulatory Programs at the National Oceanic and Atmospheric Administration (NOAA). Thank you for inviting me to testify before you today on H.R. 2693 and other Marine Mammal Protection Act (MMPA) reauthorization issues. Additionally, special thanks to you and your staff for your hard work and dedication to the improvement of marine mammal conservation and management policies in the development of H.R. 2693.

NOAA Fisheries administers the MMPA, the principal Federal legislation that guides marine mammal protection and conservation policy in U.S. waters, in conjunction with the U.S. Fish and Wildlife Service (FWS). The MMPA provides NOAA with conservation and management responsibility for more than 140 stocks of whales, dolphins, porpoises, seals, and sea lions.

The Administration strongly supports the conservation and management principles embodied in the MMPA and the need to reauthorize this important legislation. As you know, the Department of Commerce and NOAA have worked closely over the past three years with the Department of the Interior, Department of Defense, Marine Mammal Commission, and others to develop a sound Administration proposal to reauthorize the MMPA. In February 2003, we transmitted this Administration bill to Congress. My testimony today includes NOAA Fisheries' views on H.R. 2693, as well as a description of some elements of the Administration's MMPA reauthorization bill that we hope the Subcommittee will take into further consideration. I would like to begin my testimony today, however, by discussing an emerging issue that has recently risen to the forefront of the MMPA reauthorization discussion—that of scientific research permits and the process of issuing those permits.

Scientific Research Permitting Process

NOAA Fisheries is a science-based agency. We conduct marine mammal research and stock assessments at all of our regional science centers and we help fund and support marine mammal research projects conducted by many scientists outside the agency. Our Marine Mammal Permits, Conservation and Education Division is part of our headquarters Office of Protected Resources. This Division issues scientific research permits to conduct marine mammal and endangered species research by all scientists.

There is a distinction between permits that are for activities directed at marine mammals and incidental take authorizations for activities that may indirectly or incidentally affect marine mammals through activities such as seismic exploration or naval training exercises. Sections 101 and 104 of the MMPA lay out different authorization processes for activities involving incidental and directed impacts. It is logical to handle these processes separately, since the intent and type of impact associated with incidental vs. directed activities is different. Activities that are directed at marine mammals involving scientific research, for instance, by their nature are repetitive. Incidental activities involve indirect, unavoidable impacts on marine mammals that often must be looked at on a different scale. We are also working to improve the information underlying such permits. For example, we have

held several meetings with stakeholders to ascertain how marine mammal stock assessments can be improved to meet regulatory compliance needs.

It is also very important to recognize the distinction between scientific research permits that pertain to marine mammals that are not listed as threatened or endangered under the Endangered Species Act (ESA) and those permits that address ESA-listed species. Permits and General Authorizations that deal with non-ESA-listed marine mammals, such as bottlenose dolphins, are almost always issued in a timely manner and are generally not controversial. We feel strongly that these permits present no problems that need to be addressed during reauthorization.

The challenges that we have had in recent years with issuing scientific research permits are related to endangered marine mammals, such as right whales, other large whales, and Steller sea lions. For these ESA-listed species, we need to meet our statutory obligations under the ESA by conducting ESA Section 7 analyses. In addition, the potential impacts of the research are analyzed under the National Environmental Policy Act (NEPA). While we conduct NEPA analyses for non-listed species, the analyses and corresponding documents are more complex when the species in question is listed under the Endangered Species Act. In order to consider the cumulative and synergistic impacts of all the research conducted on these species, it might be necessary to prepare an Environmental Assessment or full Environmental Impact Statement. This has presented the agency with significant challenges.

For example, there has been much criticism of the time it has taken to issue a right whale research permit for the New England Aquarium. NOAA Fisheries must review research permits involving right whales with particular scrutiny because these animals are critically endangered. In addition to the New England Aquarium's proposed research, there have been a number of other right whale research proposals that have been submitted to NOAA Fisheries, some of which contained a number of controversial research activities. The Permits Division staff have been working closely with NOAA Fisheries marine mammal scientists and with the Marine Mammal Commission to determine how best to address these issues. The intent is to complete all the necessary analyses under Section 7 and NEPA, so that permit decisions can be made in advance of the upcoming fall/winter field season in the Atlantic.

In the interim, NOAA Fisheries has made arrangements to accommodate most of the New England Aquarium's research in U.S. waters under existing scientific research permits such that field opportunities are not lost. In addition, this and other research critical to the protection of right whales, including disentanglement efforts and aerial surveys needed for the Early Warning System, have been continuing under existing permits.

In addition, on more than one occasion, we have been able to expedite scientific research applications for ESA-listed species of marine mammals on very short notice when valuable research opportunities would otherwise be lost. For instance, we recently processed an application for a study involving acoustic research on endangered sperm whales within 42 days (including the statutorily mandated 30-day public comment period) of receipt of the complete application, well under the typical 225-day timeframe allotted for processing this type of permit.

In summary, we face significant challenges in addressing endangered marine mammal research permits because of the sometimes complex and time-consuming ESA and NEPA requirements and the importance of the analysis when the research, which sometimes involves direct contact with the animal, is conducted on highly endangered animals. We attempt to address these requirements as thoroughly as possible to ensure that we can use information from the analyses as the basis for sound decision-making, as well as to prevent legal vulnerabilities that may further delay the permitting process. Additionally, addressing these requirements enables us to integrate public input into our analyses. In the future, we plan to develop programmatic NEPA and ESA documents that would help front-load these processes, and allow a much more streamlined permitting process. However, we see no need to make changes in the MMPA scientific research permitting process, because that process works well.

NOAA Fisheries has been criticized over the time it takes to process requests for authorizations to take marine mammals incidental to activities they are undertaking. We believe, however, that we have a good record of working with a varied group of interests, including seismic operators conducting oil and gas-related activities, military agencies, state transportation agencies, and others, to authorize incidental taking, when they come to us early in their project planning. The Act establishes various standards that must be met, which require a variety of findings to be made. When the marine mammals to be taken are listed under the Endangered Species Act, that law applies as well. In each case, we initiate public review and

some level of NEPA analysis. For projects that are likely to take marine mammals, we encourage potential applicants to inquire early about our procedures for authorizing incidental takings as they are planning these projects.

H.R. 2693

Definition of Harassment

NOAA Fisheries is pleased that the need to clarify the definition of harassment has been addressed in H.R. 2693. We have experienced difficulties interpreting, implementing, and enforcing the current harassment definition and have sought to address these problems in the Administration's reauthorization bill in a similar manner as H.R. 2693.

The current definition of harassment impedes NOAA's ability to adequately enforce the MMPA's take provisions. As the definition is currently written, only those acts involving "pursuit, torment, or annoyance," terms that are undefined in the MMPA, can be addressed. Additionally, these terms in the current definition establish a difficult two-tiered standard that the agency must meet before it can prosecute anyone who takes a marine mammal by harassment. First, the agency must prove that an individual act was one of "pursuit, torment, or annoyance." Then, the agency must prove that the act has the potential either to injure or disturb a marine mammal. We support H.R. 2693's deletion of the terms "pursuit, torment, or annoyance" in the current definition, eliminating the two-tiered standard. We also support the clarification that harassment can be "any act." The Administration bill proposes the same change, and we feel this will aid enforcement of the harassment standard.

We support H.R. 2693's inclusion of the second tier of the Level B harassment definition similar to the Administration's reauthorization bill, which makes explicit that activities that are directed at individual or groups of marine mammals that are likely to disrupt important marine mammal behaviors constitute harassment. Members of the public and commercial operators who intentionally interact with wild marine mammals either by boat, in the water, or on land can disturb the natural behavior of the animals. They can also do a great disservice to these animals over time by habituating them to humans and vessels. In addition, humans who attempt to closely approach, chase, swim with, or touch wild marine mammals place themselves at risk, since wild animals are unpredictable and can inflict serious injury if threatened or afraid.

We also conceptually support the proposed changes H.R. 2693 would make to Level A and B harassment. The current definition of harassment is broad and lacks precision, thereby failing to create a clear threshold for acts that do and do not constitute harassment. As a result, it is difficult for the agency to prioritize its resources to deal with the types of harassment that have the most negative effects on marine mammals. With regard to the changes H.R. 2693 would make to Level A harassment, we ask for clarification of the intent of the term "probability to injure." Specifically, we are concerned that since "probability" often implies that a particular outcome is more likely to occur than not, this standard may create too high a threshold for an act to constitute Level A harassment and make it difficult for the agency to regulate some acts that may have important negative impacts on marine mammals. We support the intent of the bill's proposed changes to the current definition of Level B harassment. These changes will help NOAA Fisheries and the regulated community focus on activities that result in biologically significant, harmful effects rather than those activities that result in de minimus impacts on marine mammals. Overall, the proposed definition of harassment contained in H.R. 2693 is similar in intent to the one in the Administration's proposal. Both proposed definitions will result in more meaningful protections for marine mammals and apply a clearer standard of harassment to the entire regulatory community.

We are concerned about the "potential to disturb" threshold set forth in the second clause of the proposed harassment definition. The agencies that developed the Administration's proposed definition rejected this language as being overly broad, inasmuch as it would include even a very remote possibility that disturbance might occur. We believe that the standard included in the Administration's proposal, "disturbs or is likely to disturb," provides a more appropriate delimitation concerning what activities should be covered under this part of the harassment definition.

Incidental Takings of Marine Mammals

H.R. 2693 would amend several parts of the current legislative requirements that authorize incidental take (Section 101(a)(5) of the MMPA). Incidental takes are those that are unintentional and may occur during otherwise lawful activities.

Under the present scheme, NOAA Fisheries is directed to authorize the takes of small numbers of marine mammals if the takings will have no more than a negligible impact on those marine mammal species or stocks, and will not have an

unmitigable adverse impact on subsistence harvests of these species. Through regulation, NOAA Fisheries has defined "negligible impact" as "an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival."

H.R. 2693 would delete the "small numbers" standard in Section 101(a)(5) of the MMPA and would no longer require that activities authorized under this section be limited to a "specified geographic region." These proposed amendments do not change the applicant's requirement of having to show that their activities are having a negligible impact on the marine mammal species and populations before they can be authorized. Nor do they change the requirement for the applicant to demonstrate that their activities will not have an unmitigable adverse impact on the availability of such species or stocks for subsistence uses pursuant to the MMPA. These analyses are the key elements to maintaining the health of marine mammal species and are the premise for incidental take authorizations under the MMPA. Applicants seeking incidental take authorizations for their activities will still have to submit sufficient information to provide for compliance with all requirements of the ESA, NEPA, and the Administrative Procedure Act (APA), where they apply.

Thus, to make the requisite negligible impact determination and to comply with other environmental laws, NOAA Fisheries would still have to know what activities would be taking place, as well as when and where they would occur under the language proposed by H.R. 2693. Incidental take applications are currently evaluated based on the biological significance of the effect that their actions would have on marine mammals. This will not change under the amendments proposed in H.R. 2693. NOAA Fisheries supports these amendments.

General Authorization Process

NOAA Fisheries appreciates the attention towards the authorization process for activities involving incidental takes in Section 14 of H.R. 2693. Nonetheless, we have several questions and concerns about the effect of this section on the incidental take authorization process. Specifically, it is not clear what is the intended interplay between this section and the bill's proposed amendments to the harassment definition. In addition, it is not clear what is the intended interplay between this subsection and subsections related to incidental take and harassment authorizations. It is also not clear how NOAA Fisheries could make the requisite negligible impact determinations and comply with other laws such as NEPA and the APA within the timelines provided. We would like to request follow-up discussions with you and your staff to better understand the intent behind this section of the bill and its effect on implementation before we provide further comment on these amendments.

Take Reduction Plans

The incidental take of marine mammals in the course of fishing operations continues to be a large source of marine mammal mortality and serious injury. The 1994 amendments to the MMPA outlined an effective approach to monitoring and addressing the incidental take of marine mammals by commercial fisheries. NOAA Fisheries appreciates the steps that H.R. 2693 takes toward improving the approach to marine mammal bycatch reduction efforts.

Expansion of Sec. 118 Requirements to Allow Agency to Address All Important Sources of Marine Mammal Bycatch

The Administration bill contains several amendments aimed at better managing and monitoring marine mammal bycatch. For example, the Administration bill would expand the Section 118 requirements, which outline a program for monitoring, tracking, and reducing marine mammal bycatch in commercial fisheries, to non-commercial fisheries that result in frequent or occasional incidental mortality and serious injury of marine mammals. Some non-commercial fisheries, including recreational fisheries, use gear that is identical to that used by commercial fishermen and deploy it in the same manner. As a result, they can be an important source of incidental mortality and serious injury of marine mammals. Nonetheless, the MMPA currently only authorizes the agency to place observers and use the take reduction process outlined in Section 118 of the Act to monitor and address marine mammal bycatch resulting from commercial fisheries. We are pleased that H.R. 2693 contains amendments similar to those proposed in the Administration bill that would allow NOAA Fisheries to address all important fishery-related sources of marine mammal bycatch and to treat different fishing sectors more equitably.

Increased Flexibility to Establish Take Reduction Plans, Prepare Take Reduction Plans, Meet Bycatch Reduction Goals

H.R. 2693 would give NOAA Fisheries increased flexibility in the time allotted to convene a Take Reduction Team (TRT) following issuance of final Stock Assessment Reports. It would also increase the time within which Take Reduction Plans (TRPs) must meet the short-term goal of Section 118—reducing marine mammal mortalities and serious injuries in the course of fishing operations to levels below a marine mammal stock's potential biological removal (PBR)—from 6 months to 9 months. Additionally, the bill would give TRTs additional time to submit draft TRPs to NOAA Fisheries, and the agency more time to prepare and publish proposed and final regulations implementing TRPs. We support these amendments. The amended deadlines are more achievable than the current statutory deadlines and they would not compromise efforts to conserve marine mammal stocks in a substantial way. In addition, the proposed statutory deadlines would make it easier for the agency to comply with other statutory requirements, such as NEPA and ESA.

Limited Authority to Monitor Bycatch in Some Fisheries

We do have a few concerns about the effect of the proposed language in Section 6 of H.R. 2693. For example, the portions of H.R. 2693 that amend the portion of the MMPA dealing with monitoring of incidental takes would limit the agency's ability to monitor Category III fisheries, those that have a remote likelihood of or no known incidental mortality of marine mammals. Several fisheries currently listed as Category III have historically taken marine mammals, or are very close to the threshold between Category III and Category II. Thus, it is important for NOAA Fisheries to have the ability to continue monitoring marine mammal bycatch in these fisheries at least on some basis to ensure that takes are kept at low levels. Additionally, there may be some unintended effects in other parts of this section that could result from different terms describing the types of fisheries in conforming amendments to this section. NOAA Fisheries is also concerned with the compressed timeline for us to develop new information for any necessary changes to the list of fisheries under this section.

Required Representation on Take Reduction Teams

H.R. 2693 would require NOAA Fisheries staff with specific responsibilities or expertise to serve as formal members of TRTs. While it is useful to have such expertise available to the TRT, NOAA Fisheries does not feel it is necessary to require in the statute such representation on TRTs for a number of reasons. First, the agency already has the authority and flexibility to place representatives of Federal agencies, including NOAA Fisheries, on take reduction teams when necessary. Second, TRTs as currently constructed offer a unique opportunity for public stakeholders and other entities to advise NOAA Fisheries on ways to address incidental take of marine mammals. Third, NOAA General Counsel, and NOAA Fisheries Regional Administrator representatives, scientists, and enforcement specialists are already actively involved in the take reduction plan development process and routinely attend TRT meetings, offering their expertise as needed. Requiring their membership on TRTs could pose potential problems to the viability of the process if personnel and resources are limited. Rather than making their membership on TRTs a strict legal requirement, we recommend changing H.R. 2693 to simply encourage that such staff be present and active in TRT meetings, which is already the case. If the Committee does not feel that the current practice has produced the needed level of technical expertise available to the TRT, we would be happy to work with you to resolve this issue.

Requirement to Reconvene TRT after Take Reduction Plan Development

H.R. 2693 would require the Secretary to reconvene the TRT and explain differences between draft and final Take Reduction Plans (TRPs) before publishing any TRP that is different from the draft plan proposed by the TRT. NOAA Fisheries believes that it is important to conduct the TRP development process in as open a manner as possible, however the proposed language in H.R. 2693 is unnecessarily restrictive, as it could require the agency to reconvene the TRT regardless of the degree of change between the draft and proposed plans. NOAA Fisheries already provides the TRT all the scientific and other information used to develop the final regulations implementing a TRP throughout the process. Additionally, we actively encourage TRT members to comment on the proposed regulations to implement the TRT, and will often hold meetings during the public comment period to alert TRT members to the content of the final TRP.

Since TRTs do not submit their recommendations in regulatory form, some alteration is inevitable during this process. While it is possible that changes may be sub-

stantial, the vast majority of changes made to a TRT's recommendations have historically been technical in nature, and therefore, relatively minor. Under H.R. 2693, NOAA Fisheries would be required to reconvene a TRT even for minor or trivial changes to a TRP. Such a requirement could lead to unnecessary delays in finalizing and implementing a TRP, and unnecessary expense. NOAA Fisheries recommends altering this section to give the agency the flexibility to either reconvene, or otherwise consult with, the TRT regarding changes to the TRP during the public comment period soliciting comments on the proposed TRP. This would allow the agency to choose the most suitable type of communication with the TRT based on the nature of changes between draft and proposed TRPs, and would allow us to address TRT concerns with potential changes before the proposed TRP becomes final. Alternatively, the Subcommittee may wish to qualify what degree of change would require NOAA Fisheries to reconvene the TRT.

Pinniped Research

H.R. 2693 would require NOAA Fisheries to initiate a research program to investigate non-lethal methods to remove or control nuisance pinnipeds. We agree that such a research program would be beneficial. NOAA Fisheries issued a Report to Congress in 1999 entitled, Impacts of California Sea Lions and Pacific Harbor Seals on Salmonids and West Coast Ecosystems. Among other things, that study concluded that, "[T]here is a pressing need for research on the development and evaluation of deterrent devices and further exploration of other non-lethal removal measures...." While we are pleased that certain stocks of marine mammals are healthy, we recognize the problems that increasing pinniped populations pose, especially on the West Coast.

Captive Release Prohibition

NOAA Fisheries supports H.R. 2693's amendment clarifying that it is unlawful to release any captive marine mammal without prior authorization, with the understanding that it should not involve releases from temporary captivity or holding during permitted research; releases related to strandings; releases or disentanglements from fishing gear or line that are covered under other authorities of the MMPA; or the temporary release of marine mammals, or the progeny of marine mammals, maintained by the Department of Defense for military and research purposes if the animals involved are maintained under the authority of 10 U.S.C. § 7524. Within the scientific community, the release of marine mammals held in captivity for extended periods of time is regarded as potentially harmful to both the animals released, as well as the wild populations they encounter. Fundamental questions remain as to the ability of long-captive marine mammals to forage successfully, avoid predators, and integrate with wild populations. Unauthorized releases pose serious risks of disease transmission, inappropriate genetic exchanges, and disruption of critical behavioral patterns and social structures in wild populations. NOAA Fisheries supports this proposed statutory change, and notes that the Administration bill contains a similar amendment.

Stranding and Entanglement Response

NOAA Fisheries scientists must often respond immediately to marine mammal stranding and entanglement events to attempt to rescue and rehabilitate animals in jeopardy. These events provide the agency with opportunities to save individual animals, as well as to conduct close-up research on animal behavior, biology, and physiology. The MMPA currently provides for a comprehensive program to address stranded marine mammals, but does not specifically give NOAA Fisheries the authority to address marine mammals that have become victims of entanglement in fishing gear or other materials. NOAA Fisheries supports amendments contained in H.R. 2693 that would add a definition of entanglement to the Act and would require NOAA Fisheries to collect information on rescue and rehabilitation of entangled marine mammals in addition to stranded animals. We also support amendments to expressly enable the Secretary to enter into agreements with individuals to respond to entangled marine mammals in addition to stranded marine mammals. The Administration bill includes similar amendments, which will enhance stranding and entanglement response efforts.

Limited Authority to Export Marine Mammal Products

The 1994 MMPA amendments authorized imports of marine mammal products in conjunction with travel outside the United States by a U.S. citizen, or for purposes of cultural exchange between Native inhabitants of Russia, Canada, or Greenland and Alaska Natives. However, the provision did not accommodate corresponding exports. We support the proposed amendment in Section 4 of H.R. 2693 that would clarify that exports, as well as imports, are permissible under the MMPA subject

to certain conditions. We suggest the bill clarify that exports shall be limited to non-commercial purposes in conjunction with travel outside the United States. Additionally, we note and ask the Subcommittee to consider that other sections of the MMPA could also be affected by this proposed change including, but not limited to, the legal sale of handicrafts sold by Native Alaskans intrastate but not allowed for export. The Administration's proposal contains technical amendments that ensure consistency throughout the statute. We stand ready to work with the Subcommittee on these and other issues relating to Section 4 of the bill.

Other MMPA Reauthorization Issues

NOAA Fisheries encourages the Subcommittee to consider several additional important reauthorization issues contained in the Administration bill. Each of these areas is described below.

Other Marine Mammal Bycatch Reduction Initiatives

Again, we support amendments in H.R. 2693 that will allow the agency to address marine mammal bycatch from all important fishery sources. We request that other bycatch reduction initiatives that are contained in the Administration bill are considered, in particular, the following amendments: 1) Section 409, which aims to improve information on marine mammal bycatch by directing the agency to explore new technologies to provide statistically reliable data on marine mammal bycatch levels; 2) Section 516, which directs the Secretary of Commerce to undertake a research and development program to encourage development of fishing gears and methods that reduce marine mammal bycatch; and 3) Section 402(f), which requires NOAA Fisheries to include technical liaisons with expertise in commercial fishing practices as members of take reduction teams (TRTs).

Harvest Management Agreements

The 1994 MMPA amendments gave NOAA Fisheries and the FWS authority to enter into cooperative agreements with Alaska Native Tribes or Tribally Authorized organizations to conserve marine mammals and co-manage subsistence use by Alaska Natives. These amendments provided a great beginning and the program has yielded some successes, evidenced by the agreements that we have reached to co-manage subsistence harvest of harbor seals, beluga whales, and other marine mammals. Nonetheless, the effectiveness of these agreements at this point relies on voluntary compliance by Alaska Natives, since there is no mechanism under the MMPA to enforce any restrictions developed through harvest management agreements for subsistence purposes. Additionally, the other provisions of the Act enable effective regulation of subsistence harvest only after designation of a marine mammal stock as depleted. The Administration bill would authorize co-management partners to develop a management plan through which cooperative agreements could be enforced. Thus, it would enable the parties to effectively manage subsistence harvest prior to a depletion finding, and ensure the greatest conservation benefit to the marine mammal stock.

Enhancing Enforcement

While several sections of the MMPA have been updated since the Act was first passed in 1972, some areas remain extremely outdated. One such area is the penalties that may be imposed for violations of the MMPA. Currently, individuals who violate the MMPA are subject to civil penalties of up to $10,000 and criminal fines of up to $20,000. These penalties have remained unchanged since 1972. While these levels may be appropriate in some instances, they have proven grossly inadequate in others, undermining effective enforcement of the Act. To enhance enforcement of the Act, the Administration bill would authorize the Secretary to impose a civil penalty of up to $50,000 for each violation. Fines of up to $100,000 for each criminal violation would also be available in suitable cases.

The Administration bill would also aid enforcement efforts by explicitly stating that individuals who interfere with on-board investigations by enforcement agents or submit false information are in violation of the MMPA. In addition, the Administration bill would expand enforcement capabilities by directing the Secretary to take steps to enter into cooperative enforcement agreements with states.

Ship Strikes

Ship strikes continue to be a leading source of mortality of the critically endangered North Atlantic right whale and other large whales. Between 1970 and 2000, there were 48 known right whale mortalities, of which 16 were determined to be due to ship strikes. This number may be significantly higher, inasmuch as we were unable to attribute a cause to 13 other right whale mortalities known to have occurred during this period. The Administration bill would authorize the Secretary to

use the various authorities available under the MMPA to reduce the occurrence of ship strikes of whales and to encourage the development of methods to avoid ship strikes.

Traveling Exhibits

We remain concerned about the risks posed to cetaceans by traveling exhibits. Unlike some marine mammals, such as seals and sea lions, which spend time in both aquatic and terrestrial environments, cetaceans must remain buoyant at all times. Therefore, their health and survival depends heavily on having a continuously clean and safe aquatic environment, conditions that are difficult to maintain when transport is frequent. Because transporting cetaceans is difficult and risky, traveling exhibits would place these animals under enormous stress. The Administration bill would reinstate the ban on traveling exhibits for cetaceans, originally instituted in the mid-1970s.

Export Prohibition

As part of a package of permit-related amendments, the 1994 MMPA amendments added a prohibition on exporting marine mammals. However, the language of this prohibition has created some difficulties in enforcement and inconsistencies with other provisions of the MMPA, especially provisions related to permits. Therefore, the Administration bill would revise the export prohibition and make corresponding changes to other provisions of the MMPA to clearly identify those instances when export, transport, sale, or purchase of a marine mammal or marine mammal product is prohibited or may be authorized.

Conclusion

Reauthorization of the MMPA provides an important opportunity to further strengthen efforts to conserve and recover marine mammals. H.R. 2693 takes many important steps toward improving the policies that govern marine mammal conservation and recovery and I thank you and your staffs again for all your hard work and dedication to these important issues. Additionally, my staff and I look forward to future coordination with you and interested members of the public to meet the challenges that face us in better protecting marine mammals, while balancing human needs, throughout the reauthorization process.

This concludes my testimony. Thank you again for the opportunity to testify before your Subcommittee today. I would be happy to answer any questions you may have on H.R. 2693, the Administration's MMPA reauthorization bill, or any other related matters.

Mr. GILCHREST. Thank you, Dr. Lent.

Mr. Marshall Jones.

STATEMENT OF MARSHALL JONES, DEPUTY DIRECTOR, U.S. FISH AND WILDLIFE SERVICE

Mr. JONES. Thank you, Mr. Chairman, Mr. Pallone, and Mr. Chairman, for giving us this opportunity to testify today on reauthorization of the Marine Mammal Protection Act.

As you have heard, Mr. Chairman, the administration strongly supports reauthorizing the MMPA and we very much appreciate your continued leadership in the effort to do this with the introduction of H.R. 2693. Today I would like to comment on some of the provisions of H.R. 2693 which are of most importance to us in the field and also to say few words about some of the provisions of the administration's reauthorization proposal which are not included in H.R. 2693.

I will start with Section 4 of H.R. 2693, which addresses the limited authority to export marine mammal products. We appreciate your initiative to address this. We do have some technical issues which we would like to discuss with you and your staff to ensure that there is consistency throughout the act.

Mr. Chairman, the marine mammal act, in my experience, is one of the most complicated pieces of legislation that we deal with. And

getting all of the sections to line up just right is kind of like trying to line up the lemons on the slot machine sometimes, I think. And so we want to make sure that we can get the best possible dialog to help make sure that the regulated public and everyone knows exactly what is and is not prohibited, what is authorized under the permit provisions, and have all that streamlined.

Mr. GILCHREST. I hope our process is a little more sophisticated than the randomness of a slot machine.

Mr. JONES. Much more sophisticated, Mr. Chairman.

Secondly, polar bear permits. As we stated in previous testimony, in general we are opposed to legislative exemptions to allow importation of sport hunter trophies outside of established regulations. In this case, however, we fully agree with the proposed amendment, which would change the date and allow the importation of polar bear trophies legally taken in Canada during the period between enactment of the MMPA amendments in 1994 and the adoption of the final Fish and Wildlife Service's regulations in 1997. We understand that we were part of the process which created confusion on the part of hunters who legitimately took trophies in Canada, and we be we should make it possible for those trophies to come in. Then we will have a clean break and we can proceed with our regular process under our existing regulations for all future trophy imports.

We also support the proposed amendment to Section 104, which would remove the requirement to publish two notices in the Federal Register regarding each polar bear permit—trophy permit application. We have never received a single public comment in response to any of the Federal Register's notices that we publish, either about the receipt of the applications or about the issuance or denial of the permits.

Then, Mr. Chairman, regarding Section 13, as you heard from Dr. Lent, the definition of harassment. The administration's goal is to provide a definition that is more enforceable, that would provide a greater notice and predictability to the regulated community by presenting a clear threshold for what activities do or do not constitute harassment, without compromising the conservation of marine mammals. Mr. Chairman, we appreciate your efforts to address these difficulties within the existing definition, but like NOAA Fisheries, we do have some questions in our own mind about exactly how the semantics of the definitions match up, and we would welcome the opportunity to work with you and your staff to develop a definition that meets our mutual goals.

Next, Mr. Chairman, regarding Section 14 on incidental takings of marine mammals. Section 14 is consistent with the administration's Readiness and Range Preservation Initiative, and we support ensuring that there is a single standard for incidental take of all marine mammals. And we note, Mr. Chairman, your comment that that is, indeed, the jurisdiction of this Committee. Both the RRPI and H.R. 2693 retain the negligible-impact standard, which we believe is a key to ensuring that authorized take has a minimal effect on all of these species.

Now, Mr. Chairman, very briefly, regarding the administration's bill. The administration's bill includes a provision for development of harvest management agreements with Alaska Native organiza-

tions. We believe that is a very important provision which will enhance the conservation of marine mammals and help Native organizations take more responsibility for being a partner with us in that process.

We also would call to your attention, Mr. Chairman, the provisions in the administration bill which would improve the collection of information about sea otters by requiring the Secretary of Commerce to include sea otters in the list of fisheries published under Section 118; and an amendment in Section 110 to reauthorize research grants.

In closing, Mr. Chairman, we thank you again for having this opportunity. We want in particular to express our appreciation to you and to all of those who have worked with us, including, particularly, the Alaska Native community and the effort that they are making. And we believe that working together, we can achieve a meaningful and constructive reauthorization of the Marine Mammal Protection Act in this session of Congress.

I would be happy to answer any questions you may have, Mr. Chairman.

[The prepared statement of Mr. Jones follows:]

Statement of Marshall Jones, Deputy Director, Fish and Wildlife Service, U.S. Department of the Interior

Mr. Chairman and Members of the Subcommittee, I thank you for the opportunity to provide the Department of the Interior's (Department) views regarding reauthorization of the Marine Mammal Protection Act (MMPA or Act) of 1972 and H.R. 2693, the Marine Mammal Protection Act Amendments of 2003. I am Marshall Jones, Deputy Director of the U.S. Fish and Wildlife Service (Service).

The MMPA was the first of the landmark conservation laws enacted in the 1970s; it turned thirty years old in 2002. The Act established an ongoing federal responsibility, shared by the Secretaries of the Interior and Commerce, for the management and conservation of marine mammals. The Secretary of the Interior, through the Service, protects and manages polar bears, sea and marine otters, walruses, three species of manatees, and the dugong.

Mr. Chairman, we commend you for your continued leadership in the effort to reauthorize the MMPA, including the many oversight and legislative hearings you have chaired, and your introduction of H.R. 2693. Over the past few years, this Subcommittee has held several hearings that have served to frame the issues of importance in reauthorization, and bring forward concepts to address those issues.

The Administration strongly supports reauthorizing the MMPA. Thirty years of implementation have demonstrated the Act's effectiveness in conserving and replenishing marine mammal populations. In addition to its support of reauthorization, the Administration and its partners have identified several areas of the Act that will benefit from well-considered changes. To this end, we have crafted a comprehensive set of amendments that represents a real step forward for marine mammal conservation, as well as makes corrections and adjustments to the legislation based on our experience in implementing the Act since the last reauthorization in 1994. These amendments are contained in a legislative proposal to reauthorize the MMPA, which was transmitted by the Administration to Congress in February of this year. The proposal reflects the diligent and coordinated work of the Department, the National Oceanic and Atmospheric Administration (NOAA) in the Department of Commerce, the Marine Mammal Commission (Commission), our partners in the Alaska Native community, and other federal and non-governmental partners.

We look forward to working with you and members of the Subcommittee during this session of Congress in a dedicated effort to reauthorize the MMPA and enact amendments that improve our ability to conserve and manage marine mammals. My testimony will provide the Department's comments on H.R. 2693, focusing on issues that relate to the Service's implementation of the MMPA. My testimony will also briefly discuss, as the Subcommittee requested, the Minerals Management Service's (MMS) interaction with the MMPA.

I will first discuss some of the key amendments proposed by the Administration that are not included in H.R. 2693. These amendments were developed by the Serv-

ices in the context of our experience in implementing the MMPA. We believe these amendments will enhance the effectiveness of the MMPA in its stated goals, and we urge you to consider adopting them as H.R. 2693 moves through the legislative process.

Amendments proposed by the Administration not included in H.R. 2693

Harvest Management Agreements

An important component of the Administration's reauthorization proposal is an amendment to expand the authority of section 119 of the MMPA, which relates to cooperative agreements with Alaska Natives, to authorize harvest management agreements between the Secretary and Alaska Native Tribes or Tribally Authorized Organizations. These agreements would be designed to prevent the depletion of marine mammal stocks in Alaska and would demonstrate the commitment of the federal government to continuing to develop our important partnership with these organizations.

The MMPA prohibits the taking (e.g., harassing, hunting, capturing or killing) of all marine mammals. However, the Act provides exceptions to the prohibition. One of these exceptions allows take of marine mammals by Alaska Natives for subsistence purposes. Subsistence harvest is not subject to regulation, unless the harvested animals are from a population that is depleted, or if the harvest is wasteful.

Following the dramatic decline of Beluga whales in Cook Inlet due to over-harvest, representatives of the Native community expressed their desire to develop a cooperative management structure for regulating harvest of marine mammal stocks. In response to the interest of the Native community in developing such a harvest management structure, the responsible federal agencies, including the Service, NOAA, and the Commission, cooperatively developed a proposed amendment with the Alaska Native community. The amendment would allow regulation of subsistence take of non-depleted marine mammal stocks, and would thus provide substantial conservation benefits to marine mammals.

Under the proposal, harvest management regimes would be initiated and developed using existing governmental authorities of Tribes and Tribally Authorized Organizations. If the responsible federal agency agrees to, and adopts, a harvest management regime, the agency would be authorized to make assistance available to implement and enforce the management provisions. The proposal provides new responsibilities and a meaningful role for the Native community in resource management.

The proposed amendment requires that harvest management plans be designed to maintain a sustainable harvest. Each plan must describe the following: the entities involved in developing the plan; the geographic scope of the plan; enforcement authorities; the biological and management basis for harvest restrictions; the duration of the agreement; and the agreement's review provisions. Entities eligible to enter into such agreements are specifically defined as "Alaska Native Tribes or Tribally Authorized Organizations." The intent of this definition is to specifically identify the types of organizations that are qualified, because implementation would rely on existing Tribal authorities, rather than creating new federal authorities.

A harvest management agreement would initially be negotiated between the appropriate federal agency and the eligible entity. Public involvement would then be solicited through a notice and review process. The proposed amendment specifically identifies the existing authorities for these provisions and makes clear that this approach creates no new sovereign, Tribal authorities.

We believe that this amendment will create a strong conservation tool to ensure the long-term conservation of marine mammal populations in Alaska. The amendment's cooperative approach will facilitate partnerships to avert management crises that can arise under the current system. Without the proposed amendment, additional species may become depleted through excessive subsistence harvest. Activities by some individual hunters could continue to create conflict that the community would like to address but cannot under current law. We have worked closely with Alaska Native representatives on this proposal and strongly endorse its enactment.

Southern Sea Otter—Fishery Interaction Data

Southern sea otters are incidentally taken in fishing operations, but the extent of this take is not known. Pursuant to Section 118 of the Act, which addresses the take of marine mammals incidental to commercial fishing operations, the Department would like to gather information on fishery interactions with southern sea otters in California. MMPA reauthorization provides an opportunity to address this need by providing for enhanced efforts to assess the impact of commercial fisheries on this threatened sea otter population.

The Administration's MMPA reauthorization proposal includes an amendment to section 118(a)(4) of the Act that would require the Secretary of Commerce to include

information concerning California sea otters in the list of fisheries published under section 118. In addition, California sea otters would be included in determinations pursuant to section 118(d) of the Act regarding establishment of monitoring programs and placement of on-board observers on fishing vessels to monitor interactions and assess the levels of mortality and serious injuries in the population.

Presently, section 118 specifically excludes California sea otters from the incidental taking authorization, and nothing in this amendment is intended to change that. The proposed language is solely intended to enhance efforts to assess impacts that commercial fisheries may be having on this threatened sea otter population in order to provide a more informed basis for recovery efforts.

Research Grants

The Administration also continues to be interested in the potential for research grants as described in Section 110(a) of the MMPA. A proposed amendment to this section would reauthorize research grants, and would make clear that grants under this provision may be targeted at plant or animal community-level problems (i.e., ecosystem problems).

The Secretaries would be given flexibility to determine which research projects to fund. However, the proposed amendment highlights the following ecosystems as high priorities for research grants.

Bering Sea - Chukchi Sea Ecosystem—The Bering and Chukchi Seas have extensive, shallow shelves and, as a result, are some of the most productive areas in the world's oceans. These regions offshore of Alaska are undergoing significant environmental changes, including rapid and extensive sea ice retreat, extreme weather events, and diminished benthic productivity. Such dynamics are likely having ecosystem-wide effects. As such, there is a pressing need to monitor the health and stability of these marine ecosystems and to resolve uncertainties concerning the causes of population declines of marine mammals, sea birds, and other species. As residents of the region largely depend upon marine resources for their livelihood, research on subsistence uses of such resources and ways to provide for the continued opportunity for such uses must be an integral part of this effort.

California Coastal Marine Ecosystem—The southern sea otter, listed as threatened under the Endangered Species Act, has been experiencing an apparent population decline since the mid-1990s. The reasons for the decline, however, remain uncertain. Possible reasons include: introduction of new or unusual diseases; exposure to new or higher levels of chemical pollutants; incidental take in new or relocated fisheries; and decreases in key prey species due to temporary El Nino effects, long-term climate fluctuation, or otter densities exceeding carrying capacity levels within their current range.

These ecosystems are of great importance to marine mammal populations and would benefit from system-wide studies.

H.R. 2693, the "Marine Mammal Protection Act Amendments of 2003"

Again, we commend you Mr. Chairman, for introducing a bill to reauthorize the MMPA. My comments on H.R. 2693 are limited to provisions which relate to the Department of the Interior, and the Department of Commerce and the Marine Mammal Commission will present the Administration's views on other provisions.

Section 5: Miscellaneous Authorizations of Appropriations

The Service appreciates that Section 5(c) of H.R. 2693 includes specific authorizations for Section 119 of the MMPA. These authorizations are important because they make clear that funding may be directed to support Cooperative Agreements in Alaska. As we have stated in previous testimony before this Subcommittee, the Service recognizes the accomplishments achieved to date through our existing cooperative agreements and hopes to continue participating in these important agreements.

Section 10: Polar Bear Permits

As we stated in previous testimony before the Subcommittee on June 13, 2002, as a general rule the Department is opposed to legislative exemptions that allow importation of sport-hunted trophies outside of established regulations. However, in this case, the Department supports the bill's proposed amendment to extend the time-frame for such importations as established in the 1997 amendments. This would allow for the importation of polar bear trophies legally taken in Canada during the period between enactment of the 1994 amendments and the issuance of final the implementing regulations on February 18, 1997.

We note with approval, however, that under H.R. 2693, imports of polar bear trophies taken since February 18, 1997, would continue to be allowed only from approved populations. U.S. trophy hunters should only take bears from those popu-

lations which have been found to be sustainable. The February 18, 1997, final regulations establish clear importation requirements for trophies. Trophies taken after that date can only be imported in compliance with those regulations. H.R. 2693 would not change this fact.

The Department also supports the proposed amendment to Section 104 which would remove the requirement to publish two notices in the Federal Register for each permit application to import polar bear trophies. The Administration's proposal contains a similar amendment. The Service has processed on average 90 applications for polar bear permits annually for the past six years and received no comments in response to the Federal Register notices. The proposed amendment would streamline the permitting process and reduce the administrative expense of publishing notices. The public would still be given the opportunity to comment on findings to approve new Canadian polar bear populations for import, and would continue to have access, on a semiannual basis, to current information on permits.

Since H.R. 2693 would no longer require the publication of Federal Register notices for each individual application, the Service notes that there is one other subsection in the current law that requires amendment so that all subsections of the MMPA reflect the proposed change. To fully accomplish this change, the phrase, "expeditiously after the expiration of the applicable 30 day period under subsection (d)(2)," would need to be deleted from the first sentence of subsection 104(c)(5)(D).

Section 13: Definition of Harassment

In revising the definition of harassment, the Administration's goal is to provide a definition that is more enforceable and that would provide greater notice and predictability to the regulated community by presenting a clear threshold for what activities do or do not constitute harassment, without compromising the conservation of marine mammals. For Level B, for example, the Administration bill moved from including any activity that has the "potential" of disturbing a marine mammal, to an activity that is "likely" to disturb. The concern was that arguably many activities could have the potential, no matter how remote, of causing a negative response, whereas likelihood indicates a level of certainty that the event actually will occur. Thus, the regulated public will better be able to gauge when they should apply for an incidental take authorization. Also, likelihood is a legal standard that already appears elsewhere in the statute (e.g., the standard for issuing an enhancement permit and the section 118(c) commercial fisheries list) and is recognized in common law.

Mr. Chairman, we appreciate your efforts to address the difficulties with the existing harassment definition through MMPA reauthorization. The amendment to revise the definition in H.R. 2693 is similar in concept to the Administration's proposed amendment. Both versions focus on those activities that would cause disruption of key biological behaviors, whereas some have suggested that the current definition could include activities that cause any negative behavioral reaction, no matter how temporary or how minor. We also agree that the definition should apply to "any act" rather than the current statutory definition, which is limited to acts of "pursuit, torment, or annoyance."

However, we are concerned with some of the terms in the proposed definition in H.R. 2693. For example, H.R. 2693 uses the term "probability" in Level A harassment and we are concerned that this may create standard that would not apply to some activities that may have negative impacts on marine mammals. We are also concerned about the "potential to disturb" threshold in the second clause of the proposed harassment definition in H.R. 2693. The Service and the other agencies involved in developing the Administration's proposed definition considered this language to be overly broad. We believe that the standard included in the Administration proposal, "disturbs or is likely to disturb," provides a more appropriate standard for what activities would be covered under this part of the harassment definition. We would welcome the opportunity to explore these issues and concepts with your staff as you work to craft a definition that meets our mutual goals of providing a clear, focused definition that adequately protects marine mammals.

Section 14: Incidental Takings of Marine Mammals

H.R. 2693 amends the MMPA's provisions that authorize incidental takings of marine mammals that may occur during otherwise lawful activities. Under the current law, the Secretary may authorize take of small numbers of marine mammals in a specified geographic region if the Secretary determines that such take will have no more than a negligible impact on the marine mammal species or stocks, and will not have an unmitigable adverse impact on subsistence harvest of those species or stocks. H.R. 2693 amends this provision by removing the terms "small numbers" and "specified geographic region."

We note these changes are consistent with the Administration's Readiness and Range Preservation Initiative (RRPI) amendment to the MMPA contained in its proposed National Defense Authorization Act for Fiscal Year 2004. However, the RRPI language pertains only to military readiness activities. We support ensuring that there is a single standard for all regulated entities. Both the RRPI and H.R. 2693 retain the negligible impact standard, which is key to ensuring that authorized take has a minimal effect on these species. Furthermore, under this amendment, incidental take authorization can still only be granted if the take will not have an unmitigable adverse impact on the availability of the marine mammal species or stocks for subsistence uses. These standards are important to ensuring that take authorizations do not degrade the ability of the Service to effectively conserve, protect, and/or restore marine mammal populations.

H.R. 2693 also adds a new general take authorization process. This language is new to us, and we respectfully request more time to analyze its implications, and would like to meet with your staff to discuss the purpose of the amendment. We did, in our initial analysis of this general authorization language, identify one concern. The amendment requires the Secretary to issue implementing regulations for this general authorization no later than 120 days after enactment. We are concerned that this statutory deadline could result in ineffective and ill-conceived regulatory language.

Technical Issues Related to H.R. 2693

Section 4 of H.R. 2693, as proposed, may inadvertently confuse the regulated public by changing one aspect of the MMPA's import/export provisions, without making similar necessary changes elsewhere in the statute. The Administration's proposal contains additional technical corrections that ensure consistency throughout the statute.

An additional provision in the Administration's proposal that we believe is critical, but that is not included in H.R. 2693, would amend 102(a)(4) of the MMPA. This provision makes clear that the Service can prosecute an unlawful transport, purchase, sale, or export of a marine mammal or marine mammal product, without having to first demonstrate that the original take of the marine mammal was not lawful.

The Minerals Management Service's Interaction with the MMPA

As noted above, at the Committee's request the Department offers the following comments on the MMS's interaction with the MMPA.

MMS is the Nation's manager of energy and non-energy mineral resources on the Outer Continental Shelf (OCS). MMS has the responsibility to ensure environmentally sound exploration, development, and production activities on the OCS. That responsibility is carried out, in part, by managing operations for the continued protection of marine mammal species under the MMPA. In its efforts to ensure the protections required under the MMPA, MMS analyzes impacts, designs mitigation and monitoring guidelines, and defines how activities are to be carried out to minimize the potential for harassment or injury to marine mammals. As noted above, the proposed changes to the definition of harassment provide more clarity, which facilitates MMS' efforts and provides a greater level of certainty and predictability to the regulated community. MMS also identifies, funds, and participates in research necessary for the protection and enhancement of protected marine mammal species and their habitat, and provides the information necessary for NOAA or the Service to issue small take authorizations and promulgate regulations.

While MMS has coordinated with the Service and NOAA for decades on matters related to the MMPA and the Endangered Species Act, in the past two years it has enhanced its communication and coordination with the Service, NOAA, and with industry. For example, an Interagency Agreement with NOAA to conduct marine mammal surveys was modified to bring together an international team of experts which included both researchers and industry representatives to develop new field methods and a research protocol for controlled exposure experiments on sperm whales in the Gulf of Mexico. This renewed focus on improved collaborative efforts has improved MMS's working relationship with the Service and NOAA on MMPA issues, and has established a process that works well for the federal agencies as well as the regulated public.

Conclusion

Mr. Chairman, in closing I would like to again commend you for your leadership on reauthorizing the MMPA. We are committed to conserving and managing marine mammals by working with our partners in a cooperative fashion. In particular, I want to emphasize our commitment to continued collaboration with our partners in Alaska to further enhance their role in the conservation and management of marine

mammals. We believe that the changes we have proposed will allow us to be more effective in addressing our responsibilities in marine mammal management. We look forward to working with you and members of the Committee to enact meaningful improvements to the MMPA during this Congress and to demonstrate to the Nation our shared commitment to conserving marine mammals. We believe that H.R. 2693 and the Administration's proposed amendments provide the Department with a solid foundation from which to proceed.

Mr. Chairman, this concludes my remarks. I am happy to answer any questions that you might have.

Mr. GILCHREST. Thank you very much, Mr. Jones.

Mr. Cottingham?

STATEMENT OF DAVID COTTINGHAM, EXECUTIVE DIRECTOR, MARINE MAMMAL COMMISSION

Mr. COTTINGHAM. Thank you, Mr. Chairman. Mr. Chairman, Mr. Pallone. We appreciate the opportunity to be here today to discuss this with you. As you mentioned, this statute has, as Mr. Jones mentioned, it has—the Marine Mammal Protection Act has become complicated over the last 30 years, but it has also accomplished a great deal. And I think I would just like to take a few moments and talk about some of the things that it has accomplished.

Of course, the statute passed in 1972 and was signed then, so we just celebrated the 30th anniversary. Since that time, numerous species of dolphins in the eastern tropical Pacific, the incidental catch rate is way, way down. Several gray whales have been delisted. And this statute has really been on the forefront of leading the conservation effort, not just for marine mammals but other marine species as well. And it has been very forward looking. And I think it is—we shouldn't—we need to take advantage of this opportunity to look back at the last 30 years, and this statute has really accomplished a lot in terms of reducing incidental catch, not just in the tuna fishery, but other fisheries as well.

Of course, there are new challenges with anthropogenic sources—some of the things that are going on with sea otters right now, and other sources. So there are still some challenges, and we look forward to addressing those with our counterparts and colleagues in the other agencies and in academia.

In your letter if invitation, you specifically asked us to discuss the noise issues and the dialogs we are having. We appreciate Congress' providing us some funds in this year's Fiscal Year 2003 appropriation to convene a series of conferences to discuss this anthropogenic sound in the marine environment. And we are in the process of doing that right now. We are—we have—we are about to hire some professional facilitation groups, and we will probably end up chartering a Federal advisory Committee on that to solicit the advice of experts in this country and several from around the world so that we can address this, identify some of the research needs, the top-priority research that was pointed out in the National Research Council's recent report, as well as some of the mitigation aspects. And do that. So we will be in touch with your staff on that as we progress.

Now if I could turn to the comments on H.R. 2693. We truly appreciate your leadership on this, both the Chairmen. I am not sure what the—is it plural "Chairmen" here, is that the way you say

that? —on this. It is a very good start, and I appreciate you saying it was a starting point.

Very much like Mr. Jones and Dr. Lent have said, we worked very hard on the administration bill, and I am sure that some of the debates that you are now having amongst yourselves over some of the semantics and diagramming sentences, as you mentioned, are very similar to some of the debates that went on within the administration as we chose our words. So we welcome the opportunity to work with you on a number of those issues. And we think you have really come a long way. This is a much better, much more comprehensive bill than the last time.

The—it is almost—as we get into the details of harassment and things like this, I just would ask that you work very closely in developing report language, explaining what you mean on these things, even with specific examples. Because regardless of what final words end up in the statute for definitions like "harassment," we will—if we take yours or the administration's bill or the NRC's bill, the agencies will end up putting out guidelines or regulations on "potential to disturb" or "biologically significant"—"biologically significant disruption" as opposed to "disruption of natural behavioral patterns." So it is going to be very important for those of us in the executive branch to have a clear understanding of what you mean as precisely as you can. I think good report language on that will be absolutely essential.

Our written testimony goes into detail in a section-by-section. Primarily we agree with the concepts you are trying to do and have some little questions on the take reduction plan portions, the captive release requirements, the harassment definition, the export-import provisions for handicrafts, the waivers, the permits. I would like to second what both Mr. Jones and Dr. Lent have raised here with regard to the things that were not in the bill—the Alaska Native harvest, the ship strikes, the traveling cetacean exhibits. There used to be a prohibition for traveling cetacean exhibits, and we thought that should be put back in there. It was part of the administration's bill as well.

I see my time has run out, so with that, Mr. Chairman, we appreciate the opportunity to be here today and look forward to working with all of you as we proceed to reauthorize this important legislation.

Thank you, sir.

[The prepared statement of Mr. Cottingham follows:]

Statement of David Cottingham, Executive Director, Marine Mammal Commission

Thank you for providing the Marine Mammal Commission with the opportunity to present its views on H.R. 2693, the Marine Mammal Protection Act Amendments of 2003, and to share its thoughts on other issues related to reauthorization of the Marine Mammal Protection Act that currently are not addressed in the bill. You also requested that the Commission provide you with an update of its progress toward convening an international conference, or series of conferences, to survey acoustic threats to marine mammals and develop means of reducing those threats, as called for under the Fiscal Year 2003 omnibus appropriations legislation enacted earlier this year.

As noted in your invitation to testify, H.R. 2693 has many similarities to H.R. 4781, which was passed out of this Subcommittee during the last session of Congress. The current bill also contains several important improvements that respond to concerns expressed by the Commission and others at the 13 June 2002 re-

authorization hearing. Among these are extension of the proposed amendments to section 101(a)(6) of the Act to include export authorizations that would conform with all of the import provisions enacted in 1994; provision of specific authorizations for cooperative agreements under section 119 of the Act; expansion of the proposal to include certain recreation and subsistence fisheries under the incidental taking regime established under section 118 of the Act; amendments to various provisions of Title IV of the Act to clarify that they apply to entanglements, as well as strandings; and a redefinition of the term harassment. In addition, H.R. 2693 includes proposed amendments to section 101(a)(5) of the Act that respond to problems with the existing provisions raised by the Administration earlier this year in the context of the Department of Defense's Readiness and Range Preservation Initiative.

Although H.R. 2693 includes several of the key elements contained in the Administration bill transmitted to Congress last February, it also omits some of the recommended amendments. Foremost among these is the proposal worked out jointly by the Commission, the Fish and Wildlife Service, the National Marine Fisheries Service, and representatives of the Alaska Native community to expand the existing section 119 authority to enable the parties to enter into enforceable harvest management agreements. It is not clear whether these omissions reflect determinations by the Committee that certain issues should not or need not be addressed during the reauthorization process, or whether the Committee intends to pursue these other issues, but has yet to develop specific language. We encourage the Committee to give additional consideration to including all of the Administration's recommended amendments in the legislation. Regardless of whether they represent major substantive changes, such as management of subsistence harvests, or mere technical corrections, each is expected to improve or clarify the Act. In this regard, we remain available to work with the Committee and its staff and would welcome the opportunity to provide additional explanation of the rationale behind these proposals or otherwise respond to any concerns that you may have with respect to any of the elements in the Administration's bill.

I will begin by discussing the Commission's observations regarding the provisions included in H.R. 2693.

Section 3—Technical Corrections

The Commission concurs that the proposed corrections are appropriate and should be made. It is unclear, however, why other technical amendments are not also being proposed. We believe that other such corrections are in order, such as the deletion of section 114 and references thereto made in other sections of the Act, deletion of section 120(j), and those corrections set forth in section 520 of the Administration's proposed bill. Also, the change that would be made under section 3(b) of the bill appears to duplicate the amendment set forth in section 6(5)(B) of the bill. Presumably one of these provisions should be deleted.

Section 4—Limited Authority to Export Marine Mammal Products

As noted in previous Commission testimony, several provisions of the Act were not revised in 1994 to reflect the prohibition on exporting marine mammals that was added at that time. One of these is section 101(a)(6), which authorizes the import, but not the export, of marine mammal products for purposes of cultural exchange and by U.S. citizens in conjunction with travel abroad. As such, the Commission agrees that an export authorization needs to be added to this section. At the previous reauthorization hearing before this Committee, the Commission recommended that the export authorization contained in H.R. 4781 be expanded to include exports of legally possessed marine mammal products by U.S. citizens traveling abroad. We are pleased that the current bill has adopted this recommendation. We are concerned, however, with the specific language of that provision. Unlike the Administration's proposal, the provision in H.R. 2693 would allow exports, but would not require that the marine mammal item exported by the U.S. citizen be returned to the United States upon completion of the travel. This could result in enforcement problems by creating a significant loophole that would allow for the export and subsequent sale of marine mammal products once they are outside the jurisdiction of the United States. In this regard, we note that, unlike the proposed cultural exchange provision, there is nothing that limits such exports to noncommercial purposes. Further, we note that the statutory definition of the term "marine mammal product" includes any item of merchandise that consists of, or is composed of, any marine mammal part, and would include items such as tanned, but unworked, seal skins; raw walrus ivory; marine mammal bones; and, perhaps, even polar bear gallbladders. This would go far beyond what was envisioned under the 1994 amendment pertaining to imports, which, as explained in the House report, was included primarily to enable U.S. citizens who obtain marine mammal handicrafts in Alaska

to return home via Canada without encountering problems when they re-enter the United States.

Section 6—Take Reduction Plans

Although structured somewhat differently than the Administration's proposal to expand the section 118 incidental take regime to include recreational and subsistence fisheries that frequently or occasionally kill or seriously injure marine mammals, this section of H.R. 2693 incorporates most of the substance of that proposal. The Commission believes that this proposal is significantly improved over the one included in H.R. 4781. This is much more comprehensive. It would include these fisheries under the section 118 incidental take authorization and, in so doing, would make them subject to the registration, monitoring, reporting, and take reduction requirements applicable to their commercial counterparts.

There are, however, some differences between the proposed amendments in H.R. 2693 and the Administration's proposal that merit discussion. For example, section 404(h)(5) of the Administration bill would add the word "commercial" to section 118(c)(3)(E) to clarify that this provision applies only to category III commercial fisheries. By not incorporating such a change to this subparagraph, H.R. 2693 could be interpreted as including non-commercial fisheries (other than those listed under section 118(c)(1)(A)(i) and (ii)), thereby allowing incidental taking by participants in those fisheries, but also requiring those fishermen to report any incidental marine mammal mortalities or injuries that may occur. Although we have no objection to placing such a requirement on those non-commercial fisheries not included on the expanded list of fisheries, this may not have been the intent of the drafters of the bill.

Consistent with the Administration's proposal, H.R. 2693 would amend subparagraphs (A) and (B) of section 118(d)(4), which pertain to priorities for placing observers on vessels engaged in category I and II fisheries, to apply to both commercial and non-commercial fisheries. No similar amendment to subparagraph (C) is included in the bill. Presumably this third-tier criterion should similarly factor in taking from all category I and II fisheries, not just commercial fisheries.

The proposed expansion of section 118 to include some recreational and subsistence fisheries has ramifications for other provisions of the Act as well. Recommended changes to these other provisions that we believe should be made to conform them to the proposed amendments to section 118 are set forth in section 404 of the Administration bill. We believe that the Committee should give further consideration to including these conforming amendments as it considers H.R. 2693. For example, unless section 101(a)(5)(E) is modified, there would be no mechanism for authorizing the incidental taking of marine mammals listed under the Endangered Species Act by non-commercial fishermen, even when such taking would have a negligible impact on the species.

Section 7—Pinniped Research

The Commission agrees that more needs to be done to develop effective, non-lethal methods for deterring pinnipeds from engaging in harmful interactions with fishing operations. Presumably this is the focus of the proposed amendment, inasmuch as paragraph (2) of the proposed provision would require the Secretary to include representatives of the commercial and recreational fishing industries among those tasked with developing the research program. However, by referring more generally to "nuisance pinnipeds," the provision suggests that its intent is broader than just fishery interactions. It therefore would be helpful if the Committee, in its report on the bill, were to provide additional guidance as to what constitutes "nuisance pinnipeds" and the types of problems it expects the program to address.

Section 8—Marine Mammal Commission

We appreciate the Committee's interest in providing the Commission with greater flexibility in allocating its resources to meet its responsibilities. However, the appropriation levels that would be authorized under subsection (c) should be made consistent with the levels contained in the President's Budget.

As reflected in the Administration bill and past Commission testimony, the limitation on the daily amount that the Commission can spend on experts or consultants has effectively precluded us from using such services for some time. We appreciate the Committee's recognition of this problem and welcome the amendment in subsection (b), which will put the Commission on an equal footing with other agencies in our ability to make use of such services.

Section 10—Polar Bear Permits

As the Commission has noted in previous testimony before the Committee concerning reauthorization of the Marine Mammal Protection Act, there is little pur-

pose served by the notice and comment requirements of section 104 as they pertain to the issuance of permits authorizing the importation of polar bear trophies from Canada. The only question for the Service to consider at the application stage is whether the bear was legally taken from an approved population. As such, the Commission supports the intent of the proposed amendment. We do, however, have two drafting suggestions. In proposed paragraph (3), the phrase "required to be" should be inserted after the words "application was" to clarify that this provision applies whenever a notice should have been published, whether or not publication actually occurred. Also, a conforming amendment is needed to the first sentence of section 104(c)(5)(D) to delete the phrase ", expeditiously after the expiration of the applicable 30 day period under subsection (d)(2),".

Section 11—Captive Release Prohibition

This provision is patterned on a proposed amendment contained in an earlier version of the Administration bill. Since that time, the Administration has tried to tighten-up its proposal to clarify that it applies only to marine mammals maintained in captivity at a facility and that it does not apply to temporary releases of marine mammals for military and research purposes by the Department of Defense. We suggest that the Committee consider including similar limitations in its proposal.

Section 12—Stranding and Entanglement Response

This section incorporates most of the provisions pertaining to Title IV of the Marine Mammal Protection Act recommended in the Administration bill. As such, it is a welcome addition to the House bill as compared to the bill introduced in 2002. The one substantive difference is the omission in H.R. 2693 of the amendment proposed in section 511 of the Administration bill. This amendment to section 405 of the Act would provide the National Marine Fisheries Service the flexibility to use other funds appropriated under the Act, not just those specifically earmarked for addressing unusual mortality events, when needed to respond to such events. We believe that this is a worthwhile amendment and encourage the Committee to give it additional consideration.

Section 13—Definition of Harassment

The proposed redefinition of the term "harassment" in H.R. 2693 is similar, but not identical, to that included in the Administration bill. As such, there are elements with which we agree, but parts that we think may cause problems if enacted. For example, for an act to constitute Level A harassment under the introduced bill, there must be "the probability" that a marine mammal or marine mammal stock will be injured. The inclusion of this threshold suggests that it must be more likely than not that an injury will result from the particular action being considered. That is, if there is a 25 percent chance that a marine mammal will be injured by exposure to a particular stimulus, a one-time exposure would not necessarily be considered harassment, even though the risk of injury is substantial. As such, we recommend replacing the word "probability" in the Level A harassment definition with a more inclusive phrase such as "significant potential," as used in the Administration's proposal.

Like the existing definition of Level B harassment and that recommended by the Administration, the proposal in H.R. 2693 contains a list of behaviors that, if disrupted to the extent specified, would constitute harassment. We are concerned, however, that the list of specifically identified behaviors in the House bill does not include sheltering, which is an element of both the existing definition and the Administration's proposal. For example, the resting behavior of spinner dolphins in Hawaii, in secluded, inshore areas clearly fits within the notion of sheltering. It is not as clear that such behavior would be encompassed by the terms "care of young, predator avoidance, or defense," which are the closest associated terms under the proposed harassment definition in H.R. 2693. Further in this regard, we note that the terms "care of young," "predator avoidance," and "defense" included in the proposed definition of Level B harassment are not very precise terms. Absent clarification, their inclusion in the definition may lead to implementation difficulties and, perhaps litigation.

We are also concerned about the "potential to disturb" threshold set forth in the second clause of the proposed harassment definition. The agencies that developed the Administration's proposed definition rejected this language as being overly broad, inasmuch as it would include even a very remote possibility that disturbance might occur. We believe that the standard included in the Administration proposal, "disturbs or is likely to disturb," provides a more appropriate delimitation concerning what activities should be covered under this part of the harassment definition.

The Commission is pleased that the Committee has recognized the value of including a directed taking provision in the definition of Level B harassment, as recommended by the Administration. Absent this second prong, it would be much more difficult, if not impossible, for the regulatory agencies to bring enforcement cases in response to activities that traditionally have been considered harassment. Even in a case when a marine mammal had been intentionally pursued, the government, to prevail, would need to show not only that the animal was disturbed by the pursuit, but that the resulting disruption was somehow "biologically significant." For example, is the disturbance that results from chasing a dolphin along a beach for a few hundred yards with a jet ski biologically significant? Arguably not. Nevertheless, it should be considered harassment.

We are concerned, however, about the inclusion of the phase "is likely to impact the individual" in this second part of the Level B harassment definition (clause iii). It raises a possible defense in a traditional harassment case that, even though a marine mammal was clearly disturbed by the directed activities of the defendant, the disturbance somehow did not have any impact on the health or well-being of the animal. It may be that the intent of the provision is to include all directed activities that are likely to disrupt one of the listed marine mammal behaviors. If this is the case, it should be clarified, either in the statutory language or the accompanying legislative report.

Section 14—Incidental Takings of Marine Mammals

The first three parts of the section parallel amendments to section 101(a)(5) of the Act proposed by the Administration in the context of the Department of Defense's Readiness and Range Preservation Initiative. They address the so-called "small numbers" and "specified geographical region" limitations of those incidental taking provisions. Recognizing that any incidental taking authorizations issued under section 101(a)(5) would still require a negligible impact determination, the Commission has no objection to these amendments.

The fourth paragraph of this section introduces a new element to section 101(a)(5)—a general authorization for certain activities that will have a negligible impact on the affected marine mammal stocks. The Commission supports the idea of including a general authorization provision for certain types of activities that have low-level impacts on marine mammals that do not merit the more rigorous authorization processes established under section 101(a)(5)(A) and (D). We are concerned, however, that the proposed general authorization included in H.R. 2693 is overly broad and apparently would include all activities that currently receive authorizations under the existing provision (i.e., those determined to have a negligible impact).

Before we can comment further, additional description of the proposal is needed. For example, how would the general authorization relate to the existing authorization provisions? Existing section 101(a)(5)(A), which requires the issuance of regulations, allows for the authorization of all types of incidental taking (including mortalities), provided that a negligible impact finding is made and certain other requirements are met. Section 101(a)(5)(D) provides a streamlined, notice-and-comment procedure for takings by harassment. It would follow that a general authorization would apply to some further subset of activities, such as those that involve taking only by Level B harassment, or those that so clearly meet the negligible impact requirement that a more involved authorization process is not warranted. If this is the intention of the provision, we do not think that it is reflected in the language of the bill. Even if the provision were limited to takings by Level B harassment, we may have concerns about using a truncated authorization procedure, inasmuch as the proposed redefinition of that term under section 13 of the bill, would include only biologically significant disruptions of marine mammal activities. That is, there would no longer be a de minimus aspect to Level B harassment that would warrant a general authorization of all such activities.

We are also concerned with the extent of the information that those seeking coverage under the general authorization would be required to submit. For instance, there is no requirement that the "applicant" provide a description of the activities that will be conducted. Without such information, it is not clear how the Services can determine whether the activities fit within the scope of the general authorization.

Depending on what activities and levels of taking would be included under the general authorization, we also may have concerns about the anticipated public involvement in the authorization process. Currently, all incidental take authorizations under section 101(a)(5) are subject to substantial public notice and review requirements. Although the public apparently would have such opportunities at the stage where the general authorization and implementing regulations are issued, no simi-

lar opportunity appears to be provided for determinations as to whether specific activities fit within the scope of the general authorization. This could be a major shortcoming of the proposal if negligible impact determinations will be deferred until specific activities are reviewed at this later stage.

* * * * *

The issues not addressed in H.R. 2693 that we believe merit consideration by the Committee as it considers reauthorization of the Marine Mammal Protection Act are, by and large, those included in the Administration bill transmitted to Congress earlier this year. A brief summary of those provisions follows.

As previously discussed before this Committee, we and others believe that there is a need to expand the existing authority of section 119 of the Act to enable the National Marine Fisheries Service and the Fish and Wildlife Service to enter into cooperative harvest management agreements with Alaska Native tribes and Native organizations authorized by those tribes. The Commission believes that such a provision, if carefully crafted, would help guarantee that conservation measures, when necessary, can be implemented before a marine mammal population has been reduced to a point where it is depleted. We note that such a provision, although generally supported by diverse constituencies, has been omitted from the introduced bill. We hope that this does not reflect a determination that a harvest management amendment does not merit further consideration.

In addition to the proposal to expand the section 118 incidental taking regime to include some non-commercial fisheries, which has been adopted in H.R. 2693, we believe that certain other clarifying amendments to this section are in order. Section 118 currently requires that a take reduction plan be developed for each strategic stock that interacts with a category I or II fishery, regardless of the level of such interactions or whether the reason the stock is considered to be strategic is largely independent of fisheries interactions. The Commission recommends that the Committee consider an amendment to specify that a take reduction plan need not be prepared for those strategic stocks for which mortality or serious injury related to fisheries is inconsequential. The Commission also believes that further consideration should be given to an amendment proposed by the Administration to clarify that it constitutes a violation of the Act to participate in any category I or II fishery without having registered under section 118, regardless of whether incidental takes occur. A related amendment that also needs to be considered would specify that all participants in category I or II fisheries, whether registered or not, are subject to the observer requirements of section 118. The Commission also believes that revisions to this section are needed to enable the responsible agencies to obtain reliable information on the numbers and types of fishery-related mortalities and injuries involving California sea otters. Previous Commission testimony has noted that available funding has not always been sufficient to place observers within all fisheries that need to be monitored or to place them at levels needed to provide statistically reliable information. We again call this issue to your attention and recommend that you consider possible solutions, including securing contributions from the involved fisheries.

The draft bill has picked up on some, but not all, of the permit-related issues highlighted by the Commission and others during previous hearings on Marine Mammal Protection Act reauthorization. The Commission continues to be concerned about the appropriateness of maintaining certain marine mammals—most noticeably cetaceans—in traveling exhibits, which present special problems for successful maintenance. We again encourage the Committee to look at this issue more closely. Further, we believe that sections 101(a)(1) and 104 of the Act need to be amended to specify that export permits can be issued directly to foreign facilities.

We also are concerned that the current system for authorizing exports of marine mammals to foreign facilities does not work particularly well. We believe, as we recommended in a 3 April 2002 letter commenting on the National Marine Fisheries Service's proposed public display permit regulations, that it would be useful if Congress and the interested parties reviewed the current system to identify whether there are better ways to achieve the goal of providing reasonable assurance that marine mammals exported from the United States will be well cared for throughout the duration of their maintenance in captivity, and that realistically reflect the ability of U.S. agencies to identify and correct deficiencies at foreign facilities, while not establishing unnecessary barriers to the exchange of marine mammals among qualified facilities. We hope that this is an undertaking that the Committee will want to endorse.

There is also a need to review the issue of exports in contexts other than permits and cultural exchanges. For example, the Act's waiver provisions under section 103

do not specifically provide for the authorization of exports. Likewise, section 101(b) of the Act, which relates to taking by Alaska Natives, authorizes the manufacture and sale of traditional handicrafts, but does not specifically authorize exports of such items.

On a related point, we continue to believe that there is a need to revise section 102(a)(4) of the Act, which, as amended in 1994, reinstituted an once-jettisoned impediment to effective enforcement of the Act. That section requires the government, in an enforcement proceeding under the provision, to show not only that the transport, purchase, sale, or export of a marine mammal or marine mammal product was unauthorized, but also that the taking underlying such actions was in violation of the Act. This problem had previously been recognized and rectified by Congress in 1981. The Commission urges the Committee to remedy this problem once again.

The penalties that may be assessed for violations of the Act have not been increased since its original enactment 30 years ago. This being the case, the maximum penalties available under the Marine Mammal Protection Act are quite low as compared to other natural resources statutes. We encourage the Committee to review the penalties available under sections 105 and 106 and consider increasing them to reflect changes in economic circumstances since 1972. The Commission also encourages the Committee to give consideration to amending the forfeiture provisions of section 106 to allow the seizure and forfeiture of a vessel's cargo (i.e., catch) for fishing in violation of section 118.

Another enforcement-related amendment that the Committee might want to consider concerns how penalties assessed under the Act may be used. A freestanding amendment, enacted in 1999 and codified as part of the Marine Mammal Protection Act, authorizes the Fish and Wildlife Service to use fines collected under the Act for activities directed at the protection and recovery of marine mammals under the agency's jurisdiction. We believe that similar authority for the National Marine Fisheries Service would likewise benefit that agency's ability to carry out its responsibilities under the Act.

Another provision that merits review by the Committee is section 110, which identifies specific research projects to be carried out by the regulatory agencies. The time frames for completing the existing activities set forth in this section have elapsed. As such, those provisions that are no longer operative should be deleted. In their place, the Committee should consider a more generic directive to the agencies, enabling the agencies to pursue pressing, broad-scale projects. Among the studies that might be worthwhile are an investigation of ecosystem-wide shifts in the Bering and Chukchi Seas and an examination of possible changes in the coastal California marine ecosystem that may be contributing to the recent declines in the California sea otter population.

As noted above, section 405 of the Act allows appropriations to be placed in the Marine Mammal Unusual Mortality Event Fund only if specifically earmarked for use with respect to unusual mortality events. Thus, funds generally appropriated to the National Marine Fisheries Service for implementing the Marine Mammal Protection Act may not be used for such purposes, even in years when a large number of unusual mortality events might occur. The Commission recommends that greater flexibility be provided in how unusual mortality responses can be funded.

Although the Marine Mammal Protection Act establishes explicit procedures to address lethal takes and serious injuries due to fisheries, it is important to note that there are other ways by which marine mammals are lethally taken or seriously injured incidental to human activities. The Committee may wish to consider whether activities such as, for example, boat or ship strikes of whales might be dealt with more effectively through a take reduction process or some other mechanism.

* * * * *

The Commission appreciates the inclusion in our FY 2003 budget of an appropriation to conduct "...an international conference, or series of conferences, to share findings, survey acoustic "threats" to marine mammals and develop means of reducing those threats while maintaining the oceans as a global highway of international commerce." Since the appropriation passed in March, we have been busily working on this important project.

We have met with Senate and House to solicit their advice and to clarify the intent behind the legislative directive. We have also met with a wide range of affected interests such as the oil and gas industry, oceanographers from major research institutions, the environmental community, and Federal agencies including the National Science Foundation, the Minerals Management Service, the Navy (both its operations and research components), the National Marine Fisheries Service, the Coast Guard, and the State Department. From these meetings, we developed a good

understanding of potential environmental threats that might be caused by sound in the oceans and how to produce a series of reports to address research priorities and appropriate mitigation measures. We hope the reports will be useful to Congress, federal agencies, and the public.

We plan to hold a series of policy dialogues in which various interests will participate. We entered into an agreement with the U.S. Institute for Environmental Conflict Resolution (also known as the Udall Center) in Tucson, Arizona, to assist us with the dialogues. We are about to select a team of professional facilitators to help with the dialogues. We are exploring whether there will be a need to charter the group holding the dialogues as a federal advisory committee under the Federal Advisory Committee Act. We will hold the first meeting of the group as soon as possible, probably early in 2004.

We appreciate the Committee staff's help in discussing this project as it has evolved. We will remain in contact with them as we progress.

* * * * *

This concludes my testimony. The Commission appreciates the opportunity to provide testimony to the Committee on H.R. 2693, and to update you on our progress in convening the conferences called for under the Commission's FY 2003 appropriation. I would be pleased to try to answer any questions that you may have.

Mr. GILCHREST. Thank you very much, Mr. Cottingham.

Dr. Tyack. Welcome.

STATEMENT OF DR. PETER TYACK, CONSERVATION BIOLOGIST, WOODS HOLE OCEANOGRAPHIC INSTITUTION

Dr. TYACK. Mr. Chair, Mr. Pallone, and Mr. Chair, my name is Peter Tyack. I am a biologist at the Woods Hole Oceanographic Institution, and I thank you for the opportunity to provide my views on H.R. 2693.

I was a member of two of the Committees of the National Research Council on marine mammals and ocean noise, and I would like to reiterate some of the repeated suggestions of the NRC committees for changes to the Marine Mammal Protection Act.

When the MMPA was first written, it emphasized takes in commercial fisheries. The NRC committees argue that the incidental take authorizations need to be updated for new issues, such as the effects of noise. As long as a sharp focus is maintained on the issue of negligible impact, I support the deletion in Section 14 of H.R. 2693 of the conditions for small numbers and specified geographical region for these incidental take authorizations.

I also support the definition for Level B harassment in Section 13 of H.R. 2693, which, to my take, follows the NRC definition much more closely than the definition in either H.R. 1588 or H.R. 1835. I must point out that I do disagree with H.R. 2693's retaining the old definition for activities directed at marine mammals. This has the perverse result of holding research designed to protect marine mammals to a higher standard than activities that do not benefit them.

As the impacts of pervasive and subtle human influence, such as contaminants and noise, have become more important compared to whaling and bycatch, our biggest problem involves our ignorance of how exposed marine mammals are to these risks and our ignorance of the relationship between exposure and adverse impacts. I urge Congress to establish a concerted research program to address these issues. Without this research, regulators will have to guess in the dark about the best balance between protecting marine

mammals and interfering with activities, such as oil exploration and naval sonars, that are high national priorities.

Lack of resources is not the only problem for research to protect marine mammals. The current regulatory process itself threatens urgently needed research. Let me illustrate with an example from the leader in protecting right whales. Scott Kraus has been waiting 23 months for a renewal of his permit to test whale-safe fishing gear while NMFS tries to finish environmental analyses under NEPA. While he waits, at least 10 right whales have been tangled in fishing gear and six are thought to have died. Fishermen continue to place lethal fishing gear where it can kill whales, but Kraus cannot test new ideas for whale-safe gear because the environmental paperwork for his research is not completed even after almost 2 years of delay.

I have also personally experienced the mad world where Federal actions block the research needed to protect marine mammals. Whale-finding sonars that work like fish-finders have recently been developed to harmlessly detect whales. A study I developed to test how well they can detect whales at sea was delayed by a last-minute nuisance lawsuit. In the end, the judge ruled that the amendment to my permit was invalid because the NMFS permit division had not prepared a new environmental assessment under NEPA.

The failure of NMFS to prevail in recent court challenges suggests the need for programmatic environmental assessments or impact statements for each activity that may be permitted. And I would like to second Dr. Lent's comments on this. I think that I am very happy to hear that the Agency is pursuing this tack, because I think it is the only path they can take to resolve this issue.

However, I would like to point out that it typically takes several months and about $100,000 to produce an environmental assessment, and up to a million dollars and one to 2 years to produce an environmental impact statement. The NMFS Office of Protected Resources will require a considerable injection of funds and highly skilled personnel to oversee the production of the required NEPA documents while expediting the flow of scientific permits.

The time required to obtain a research permit, particularly those in important conservation issues with endangered species, has swelled from 3 months to 6 months to 23 months and counting. These delays can kill critical research. I urge Congress to follow the recommendation of the NRC and set deadlines of three to 4 months for issuing a permit for scientific research.

Congress is now evaluating proposals for specific exemptions to the MMPA, such as H.R. 1588. Clearly, there are problems with the act, but I believe that tailoring exemptions for each special interest is not the right solution. One of the most important NRC suggestions was to create a uniform process for all activities, allocating regulatory effort to situations most likely to risk adverse impacts to marine mammals.

I applaud the House Resources Committee for its efforts to establish a general authorization in Section 14 of H.R. 2693. However, I believe that the rapid response critical for the general authorization would not work without prior programmatic analyses under NEPA to determine negligible impact, which is critical for this au-

thorization. Congress should require NMFS to develop a consultation process, determining for each seafaring activity whether marine mammals are taken and, if so, what the impact is. NMFS should list activities with no takes expected under a de minimis standard for harassment takes. Activities that may take marine mammals but have negligible impact should obtain a general authorization exactly of the sort proposed in H.R. 2693. I believe that other activities can be authorized on a case-by-case basis, given the modifications of H.R. 2693 for existing incidental take authorizations.

I hope that this kind of triage can ease the regulatory burden where little impact is expected and much can be gained for marine mammal conservation, and can focus the regulatory resources for activities with the most adverse effects.

Thank you very much for your attention.

[The prepared statement of Dr. Tyack follows:]

Statement of Peter Tyack, Biology Department, Woods Hole Oceanographic Institution

Mr. Chair and distinguished members of the Committee, my name is Peter L. Tyack. I am a Senior Scientist and Walter A. and Hope Noyes Smith Chair in the Biology Department of the Woods Hole Oceanographic Institution in Woods Hole, Massachusetts. Thank you for the opportunity to provide my views on H.R. 2693, a bill to reauthorize the Marine Mammal Protection Act (MMPA).

I have been fascinated since I was a child with the social behavior of marine mammals and how they use sound to communicate and explore their environment. I have spent much of the last 25 years following these animals at sea, listening to their sounds and watching their behavior. As I started my career in basic research it never occurred to me that chasing my personal interests would ever become central to such an important policy issue.

In my testimony I address issues concerning section 13 of H.R. 2693 on the definition of harassment takes under the MMPA, especially those for scientific research and section 14 on incidental takings of marine mammals, with special reference to incidental effects of manmade noise. I would like to start my testimony by congratulating the House Resources Committee for correcting what I consider to be serious problems with the definition of harassment in H.R. 1835 and 1588 and for correcting problems with the authorization process for incidental takes. I still have some suggestions for improvements in both areas, but I believe that this bill corrects problems with the current MMPA and is much better than the changes proposed under H.R. 1835 and 1588.

Introduction

Three committees of the National Research Council (NRC) of the National Academy of Sciences have reviewed issues concerning low frequency sound and marine mammals. Each of these NRC committees has published a report:

National Research Council (NRC). 1994. Low-Frequency Sound and Marine Mammals: Current Knowledge and Research Needs. National Academy Press, Washington, D.C.

National Research Council (NRC). 2000. Marine Mammals and Low-Frequency Sound: Progress Since 1994. National Academy Press, Washington, D.C.

National Research Council (NRC). 2003. Ocean Noise and Marine Mammals. National Academy Press, Washington, D.C.

I was a member of the first two committees and reviewed for the NRC the report produced by the third committee. I would like to take this opportunity not only to give my personal views, but also to reiterate some of the repeated suggestions of the NRC committees for changes to the MMPA.

Suggested rewording of incidental take authorization for effects of noise.

When the MMPA was first written, it emphasized takes in commercial fisheries. Certainly no one at that time was thinking about whether the regulatory process would work for issues such as incidental harassment takes resulting from unintentional exposure to noise. Nor was there much experience with issues under NEPA of whether the impacts of entire activities needed to be evaluated together, or whether it was better to authorize each time a "take" was possible.

Since the MMPA was passed, many studies have demonstrated that marine mammals respond to ships, dredging, icebreaking and construction, and sound sources such as pingers, air guns, and sonars. Most of these sound sources are currently unregulated simply because NMFS chooses not to enforce the prohibition against taking marine mammals by harassment. I doubt that many of these activities could find a regulatory procedure under the current wording of the Marine Mammal Protection Act that would allow activities with negligible impact while controlling those that might have an adverse impact. As has been pointed out by each of the three National Academy reports on this topic, the dominant source of manmade noise in the ocean is the propulsion sounds from ships. Yet this has not been regulated by NMFS. As the National Academy 2000 report Marine Mammals and Low-frequency Sound put it:

> If the current interpretation of the law for level B harassment (detectable changes in behavior) were applied to shipping as strenuously as it is applied to scientific and naval activities, the result would be crippling regulation of nearly every motorized vessel operating in U.S. waters. (p. 69)

One response to this conundrum is for each activity to seek special exemptions if their activities become targets of regulation. However, the National Academy 1994 report Low-Frequency Sound and Marine Mammals discouraged that approach:

> "However, it seems unreasonable that an exemption from the "take" prohibitions of the MMPA should be available for some human activities, including some that kill marine mammals, without being available for other human activities whose goal may include the acquisition of information of potential value for the conservation of marine mammals." (p 38)

The first two reports of the National Academy of Sciences on Marine Mammals and Low Frequency Sound specifically suggest a broader solution to this problem: removing the requirements for small numbers of takes, while retaining a criterion of negligible impact:

> Reword the incidental take authorization to delete references to "small" numbers of marine mammals, provided the effects are negligible. (p. 39)
>
> Low frequency Sound and Marine Mammals (1994)
>
> In addition to making the suggested change in the level B harassment definition, it would be desirable to remove the phrase "of small number" from MMPA section 1371(a)(5)(D)(i). If such a change is not made, it is conceivable under the current MMPA language there would be two tests for determining takes by harassment, small numbers first, and if that test were met, negligible impact from that take of small numbers. The suggested change would prevent the denial of research permits that might insignificantly harass large numbers of animals and would leave the "negligible impact" test intact. (p. 71)
>
> Marine Mammals and Low-frequency Sound (2000)

My understanding of the judge's preliminary ruling in the legal challenge to operation of the SURTASS LFA sonar, NRDC v Evans, is that the judge ruled against the interpretation followed by NMFS that "small" can be interpreted in terms of population size, and exactly following the fears of the National Academy panel, ruled that the current MMPA language does require both negligible impact and small numbers, where the meaning of the word small could not be interpreted in terms of size and status of populations.

The restriction in the MMPA authorizations for incidental takes to "a specified geographical region" may also rule out this authorization process for most impacts of noise. If "specified geographical region" is taken to mean areas small enough to involve the same assemblage of species and oceanographic conditions, then the requirements of the incidental take authorizations may be incompatible with the NEPA requirement to consider all cumulative uses of a system. Many kinds of sound sources are installed on a large number of vessels, each of which may cross the ocean in weeks. Many marine mammals also migrate thousands of miles through very different habitats. This makes it difficult to specify a geographical region for a whale that may be in the Caribbean one day, and off New England a few weeks later. Different marine mammal populations have boundaries that differ according to the ecology and migratory patterns of the species. This makes it impossible to identify a unique region that is homogeneous for all marine mammals, much less other aspects of the marine ecosystem. If the wording specifying a geographical region is to be reconciled with the potential numbers and movements of both the animals and the noise sources, then the region must be specified in terms of the scope of the activity, not homogeneity of the ecosystem.

The propulsion sounds of ships elevate the ambient noise over the world's oceans, and this global impact is likely to reduce the ability of whales to detect calls at a distance. I see no process by which such takes could be authorized under the cur-

rent wording of the MMPA. Depth sounders and fish finders have sounds that do not carry as far, but they are used by tens of thousands of vessels. These sounds have the potential to disturb marine mammals, and therefore may take animals by harassment, but did Congress intend to require authorization for each user? How far could a vessel go before its takes move out of the "specified geographical region?" Oceanographic research, much of which uses motorized vessels and uses sound as a tool to explore the ocean, also has a global scope, and may be difficult if not impossible to authorize under the current regulatory procedures.

I support the changes proposed in H.R. 2693 to remove the conditions of "small numbers" and "specified geographical region" in the wording of the incidental take provisions of the MMPA. I believe that as long as a sharp focus is maintained on the issue of negligible impact, these changes would make the process work for effects of noise on marine mammals, while still protecting marine mammal populations from adverse impacts. Since millions of sound sources such as depth sounders and the propulsion noises of every motorized vessel could cause harassment takes under the current definition, I believe that it will be essential for the process to authorize general activities, rather than individual vessels or sound sources. This is incompatible with restricting the authorization to "small numbers," if this is taken literally to mean just a few individuals, or "specified geographical region," if this is taken to mean small areas.

Definition of harassment

The current definition of level B harassment in the MMPA is:

> "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, nursing, breeding, feeding, or sheltering."

The 1994 NRC report on Low Frequency Sound and Marine Mammals succinctly reviewed the problem of how harassment has been interpreted under the MMPA:

> Logically, the term harassment would refer to a human action that causes an adverse effect on the well-being of an individual animal or (potentially) a population of animals. However, "the term "harass" has been interpreted through practice to include any action that results in an observable change in the behavior of a marine mammal "." (Swartz and Hofman, 1991). (p. 27)

The 1994 NRC report goes on to note that many minor and short-term behavioral responses of marine mammals to manmade stimuli are simply part of their normal behavioral repertoire. There is clearly a need for some standard of negligible effect, below which a change in behavior is not considered harassment.

The change in the definition of level B harassment proposed by the Administration and in H.R. 1835 is:

> "disturbs or is likely to disturb a marine mammal or marine mammal stock in the wild by causing disruption of natural behavior patterns, including, but not limited to, migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where such behavioral patterns are abandoned or significantly altered."

As a biologist who has studied the behavior of marine mammals for more than 25 years, I find this wording confusing, and I do not see how it addresses the problem identified by the NRC. The last phrase added to the definition does add a criterion of significant alteration. However the point of the NRC reports was biological significance, a disruption that could have an adverse impact. My dictionary defines significant as "likely to have influence or effect." The addition of the word "significant" in the new definition therefore does not give the same standard as suggested by the NRC. As our techniques to study marine mammals have grown in sophistication and sensitivity, it is now possible to demonstrate statistically significant alerting or orienting responses that in my opinion fall well below the negligible impact standard.

I find the addition of the word "abandoned" particularly confusing in the new definition. It certainly makes sense to add a criterion for abandonment of critical habitat, but what does this wording mean for behavior patterns? A sperm whale or elephant seal can dive for an hour or more, but any marine mammal that abandons surfacing behavior cannot breathe. If it abandons surfacing for more than a few hours, it is certainly dead. If a sperm whale group is sheltering a young calf from a killer whale attack, even a momentary abandonment of the behavior could be lethal. Calves may be able to survive for days or weeks if their mother abandons nursing, and many whales could survive for years without feeding, but what is the time period implied by "abandon." My understanding of "abandon" is that it means a permanent change. By this definition, the "abandonment" wording turns level B harassment into a lethal take. Far from distinguishing negligible from potentially significant effects, it muddies the waters further.

Another problem with the use of the term "abandon" is that I take it to mean "giving up"—a 100% cessation of an activity. Yet since the definition of harassment also applies to stocks, this definition is not conservative enough for actions that may affect a large portion of a stock. For example, suppose an activity caused a 50% reduction in foraging rates in a majority of the population, or caused animals to be 50% as effective in finding a mate for breeding. Such reductions would not "alter" the form of the behavior, nor would they meet an abandonment criterion, but few populations could sustain such changes on a long term basis.

I support the definition of harassment proposed for section 3(18)(A) (i) and (ii) in section 13 of H.R. 2693. The definition in section (ii) closely follows the NRC definition. The primary difference is the replacement of "meaningful" as a modifier for disruption with "biologically significant" and deleting the phrase "biologically significant" from the modifier for the kinds of activities. I believe that this follows closely the meaning of the definition written by the NRC committee.

I am however very concerned that the harassment definition proposed for section (iii) retains the problematic old harassment definition for activities directed at marine mammals, including scientific research directed at marine mammals. While there is a process to permit such research, retaining the old definition for activities directed at marine mammals will hold scientific research that enhances the survival or recovery of species or stocks to a stricter standard than activities that harm marine mammals and do not help them. This does not make sense. The only case that in my opinion justifies a lower level of regulation involves takes for scientific research that enhances the survival or recovery of species or stocks. The proposed changes in the definition of harassment for activities directed at marine mammals will perversely have the opposite effect.

NMFS has suggested retaining the old harassment definition for activities directed at marine mammals so that they can more easily prosecute cases against businesses such as those that charge tourists to swim with wild dolphins. I believe that any of the proposed harassment definitions fit very well these cases where people intentionally pursue marine mammals and annoy them with clear disruption of behavioral patterns. It is particularly strange that NMFS suggests retaining the old broad definition, when a senior NMFS enforcement attorney stated to the 2002 Annual Meeting of the Marine Mammal Commission "the potential to disrupt behavioral patterns, at one level, it is a great definition because you go out, you know, we can get whatever we want because it is a very broad definition, but when you get down to the prosecution level, it is too broad." The real problem with harassment in my opinion is that NMFS has not shown the will to enforce the prohibition against harassment and to prosecute cases against growing industries based upon harassing marine mammals in the wild. It would be a tragedy for scientific research to be excluded from corrections in the definition of harassment as cover for NMFS' unwillingness to enforce the prohibition against harassment. If the definition of harassment causes problems with prosecution against commercial activities directed at marine mammals, which I contest, then the solution should be limited to this narrow situation and should be worded so as not to impact research directed at marine mammals.

I would like to take this opportunity to reiterate the suggestion of the National Academy of Sciences second report (2000) on Marine Mammals and Low Frequency Sound on the definition of level B harassment:

> "NMFS should promulgate uniform regulations based on their potential for a biologically significant impact on marine mammals. Thus, level B harassment should be redefined as follows:
>
> > Level B—has the potential to disturb a marine mammal or marine mammal stock in the wild by causing meaningful disruption of biologically significant activities, including, but not limited to, migration, breeding, care of young, predator avoidance or defense, and feeding.
>
> The Committee suggests limiting the definition to functional categories of activity likely to influence survival or reproduction. Thus, the term "sheltering" that is included in the existing definition is both too vague and unmeasurable to be considered with these other functional categories." (p 69)

This definition was written by scientists. Since "meaningful disruption" is not defined, and since "biologically significant" has a more specific meaning to biologists, I have no problem with the minor changes in wording proposed in H.R. 2693 to fit legal and legislative requirements.

The definition of harassment must take into account our lack of knowledge about the ways in which behavioral changes may influence marine mammals. For example, prolonged or repeated harassment may lead to physiological changes that do not qualify as injury, but that may indicate the potential for adverse effects. Prolonged

changes in behavior that are outside of the normal behavioral repertoire of a species may also trigger concern even if the effect on health is not immediately obvious. But if the definition of harassment is to be changed, the primary focus should be on biological significance in a way that clarifies the need for a negligible impact standard. I do not think that the changes proposed by the Administration, in H.R. 1588 and in H.R. 1835 for the definition of harassment succeed in this task, but I support the definition of harassment in (18)(A)(ii) of section 13 of H.R. 2963, which closely follows that suggested by the National Research Council in any amendments to the MMPA.

Problems with permitting scientific research on marine mammals.

As a biologist personally concerned with protecting marine life, I believe that double standards in the MMPA have led to a particularly counterproductive situation for permitting scientific research designed to protect marine mammals. The permitting process was created to allow an exemption for scientific research from the MMPA prohibition on taking marine mammals. The dirty secret of the MMPA is that the prohibition on unintentional takes is ignored more often than it is regulated and enforced. For example, ships regularly collide with marine mammals and often kill them. So many highly endangered right whales are killed by vessel collision, that population models predict this additional mortality may drive the species to extinction. Yet there is no regulation of this risk, nor to my knowledge has any ship been prosecuted for striking a whale and killing it. It is ironic that far from exempting research from an effective prohibition, NMFS has grown an elaborate process for permitting negligible harassment takes by researchers, while ignoring widespread and predictable lethal takes caused by activities that do not benefit marine mammals.

As early as 1985, NMFS stated in its Annual Report on the MMPA that "one of the most extensive administrative programs in NMFS is the permit system that authorizes the taking of marine mammals for scientific research and public display." I understand that today the NMFS Permit Office has 7 personnel devoted to research permits, but only two devoted to all other authorizations for incidental taking. From my perspective, this is backwards. Scarce regulatory resources should only be devoted to minor harassment takes for research after the much more significant takes of activities that do not benefit marine mammals are controlled by regulations that are effectively enforced.

It has been recognized for over a decade that the regulatory focus on research activities is interfering with research needed to obtain critical information to evaluate risk factors for noise exposure in the sea. As the 1994 National Academy report on Low-frequency Sound and Marine Mammals put it:

> Scientists who propose to conduct research directed toward marine mammals are aware of the permitting requirements of the MMPA and of the Endangered Species Act (ESA) and the associated regulations. Most of their research can be conducted under the scientific permitting process. They routinely apply for and obtain such scientific research permits. However, the lengthy and unpredictable duration of this process can create serious difficulties for research". In addition to permit delays, certain types of research that are considered "invasive" or "controversial" either are not allowed under the current permitting process or may require an Environmental Assessment or even an Environmental Impact Statement under the National Environmental Protection Act (NEPA). Such a regulatory burden actively discourages researchers from pursuing those lines of study. (p 29)
>
> The committee strongly agrees with the objective of marine mammal conservation, but it believes that the present emphasis on regulation of research is unnecessarily restrictive. Not only is research hampered, but the process of training and employing scientists with suitable skills is impeded when research projects cannot go forward. Experienced researchers are the ultimate source for expanding our knowledge of marine mammals. A policy that interferes with the development of this resource appears to be self-defeating. (p 30)

Things were bad in 1994, but they have recently become much worse. The delays for permitting have become much longer, over 21 months in some cases. Ironically, the more serious the conservation problem addressed by a research project, the more likely the project is to be delayed. In addition, the judge in a recent court case involving my research permit ruled that all acoustic research on marine mammals is controversial. This led him to rule that any permit for acoustic research requires an accompanying Environmental Assessment or Environmental Impact Statement. This decision means that all of the research that can help resolve the marine mammal issues raised by the National Academy reports is subject to much more regu-

latory burden than before. Unless Congress changes the regulatory process or provides new funds to the NMFS Office of Protected Resources to conduct the analyses required under NEPA, the permitting process will not only discourage research, but may make it almost impossible to conduct some research that has negligible effects and is urgently needed for conservation biology.

Let me illustrate with an example from the research of Scott Kraus, a biologist at the New England Aquarium who has studied North Atlantic right whales for decades under a series of research permits from NMFS. In August of 2001, he applied for a new permit, as his old one was set to expire 31 December 2001. In November 2001, after the end of the public comment period, the Permit Division received a letter from a self-styled "environmental warrior" claiming, incorrectly in my belief, that the research would harm right whales. In early December 2001, operating under his old permit, Kraus started aerial surveys to keep ships from hitting whales, and he was told the biological opinion for the new permit was almost done. Kraus never received his permit by the time his old one expired, and on 24 January 2002, NMFS informed him that they would defer decisions on a permit until an Environmental Assessment was conducted following NEPA rules. This was a complete surprise for Kraus, who had to cancel a research program designed to develop whale-safe lines for fishing gear. During 2002, at least eight right whales entangled in fishing gear, and six were thought to have died. It is now July 2003. Kraus had to cancel another attempt to repeat the whale-safe fishing line project in 2003, and he still has no prediction from the NMFS Permit Division as to when his permit will be issued. There may be a new determination of a need under NEPA for an Environmental Impact Statement for his permit, not just an Environmental Assessment.

Let me recap. The survival of right whales in the North Atlantic is threatened because so many are killed from entanglement in fishing gear and from vessel collision. Unlike any airline, as a scientist, Kraus needs a permit to fly over right whales, in case the whales might hear the plane and somehow be disturbed. Delays in permitting endanger his ability to fly surveys designed to warn ships of the presence of whales. The ships that regularly kill whales are subject to no regulation, and travel wherever they please at any speed through critical habitats of the most endangered whale in U.S. waters. In spite of some fisheries regulations, whales are dying in fishing gear at alarming rates. Fishermen can continue to place lethal fishing gear where it can kill whales, but Kraus cannot test new ideas for whale-safe fishing gear, because the environmental paperwork for his research is not sufficient, even after 23 months of delay. Is there something wrong with this picture?

I have also personally had experience with the mad world in which Federal actions block the research needed to protect marine mammals from poorly regulated impacts of human activities. We cannot protect marine life from intense underwater noises until we get better at detecting when a marine mammal or sea turtle is in the danger zone. Recently, there have been promising developments for whalefinding sonars. These are high frequency sonars that work like fish finders to detect echoes from animals close enough to be harmed by unintentional exposure to intense sounds. When these whalefinding sonars reached the point in their design process where they were ready to be tested at sea, I submitted an application to amend my research permit to test how well a whalefinding sonar could detect migrating gray whales. We know how migrating gray whales respond to noise, and I expected little if any behavioral response to the whalefinding sonar. The study was designed with very sensitive methods to detect whether whales avoided the sound source by a hundred meters or so, and I requested permission to "take" the whales by harassment.

The Permit Division of NMFS issued the amendment to my permit in a timely fashion, but only after deciding that the amendment did not require a new environmental assessment. The environmental assessment conducted by NMFS for my original permit had already covered testing a whalefinding sonar on whales. The wording allowing "takes" of gray whales alarmed an animal rights advocate in Australia, who gathered a few small fringe groups in the U.S. to request an injunction against the research the day before the study was to begin. The study was delayed by a temporary restraining order and the entire field team and one of the research vessels in our national oceanographic fleet were tied up for most of the month planned for the research. In the end, the judge ruled that the amendment to my permit was invalid because the NMFS Permit Division had not prepared a new Environmental Assessment under NEPA not just for my original permit, but for each major amendment to the permit. Hundreds of thousands of taxpayer dollars were wasted and we are a year behind in developing more effective methods for monitoring marine mammals.

The NMFS Permit Division of the Office of Protected Resources has just nine personnel and is increasingly inundated. In 2001 they advised scientists applying for a permit to expect processing times of at least 90 days for most marine mammal permits with an additional 135 days for permits affecting endangered species. However, some permits have been subject to greater delays. NMFS currently advises scientists to allow at least 6 months for processing a permit, longer for research involving endangered species. In the cases of my and Kraus' permits, it appears that last minute complaints by a fringe extremist could trigger a "public controversy" condition requiring exhaustive environmental assessments. Given these precedents, I consider that only permits backed by environmental analyses acceptable under NEPA are solid enough to protect research from nuisance lawsuits. Due to the increasing number of scientific research permits, and the renewed emphasis on NEPA analysis, some permit applications may be delayed much beyond 6 months, with dramatic increases in the burden on the Permit Division and on the applicants. I can personally attest to the heroic efforts of the staff of the Permit Division to cope with this disastrous situation, but the Division requires additional support and staff to keep the permitting process afloat.

Congress has in the past few years taken strong steps to fund research on urgent conservation problems such as declining populations of Steller sea lions, or the threat of extinction for the North Atlantic right whale, and I applaud these actions. Yet both of these research efforts were delayed by more than a year because of delays in the permitting process for scientific research. If Congress wants to support critically needed conservation research, it is not enough to fund the science. Congress will also have to authorize significant increases in funding to the Permit Division.

The time required to obtain a research permit has swelled from 3 months to 6 months to 21 months and counting. A very important change suggested by the NRC would be for Congress to specify a fixed maximum time for NMFS to process permits and authorizations. The 1994 NRC report suggested 10 days for initial processing, 30 days for the public comment period, and 10 days to issue or deny a permit for scientific research. The Permit Division used to use a more liberal 30 days for initial review, 30 days for the public comment period and a concurrent 45 days for review by the Marine Mammal Commission, and 30 days to issue or deny the permit. This totals to 105 days. I urge Congress to follow the recommendation of the NRC and set deadlines of 3-4 months for issuing a permit for scientific research.

The failure of NMFS to prevail in recent challenges to their attempts to exempt the permitting process from further environmental review under NEPA suggests the need for Environmental Assessments or Environmental Impact Statements for each activity that may be permitted or authorized. I cannot imagine that even a newly invigorated Permit Office could perform these analyses for every project. The only way for the permitting process to proceed in a timely fashion given the requirements for environmental analyses under NEPA will be for the Permit Division to conduct programmatic environmental analyses for most typical research activities well before applicants request a permit. My understanding is that it typically takes several months and $50,000-$100,000 to produce an Environmental Assessment, and $500,000-$1,000,000 and 1-2 years to produce an Environmental Impact Statement. This additional workload must be met while the ongoing flow of permit applications is expedited. If NMFS is to issue timely and legally defensible permits, the permit division and other supporting divisions in the Office of Protected Resources will need additional program staff, with specialists in many areas such as environmental law, NEPA, marine mammal population biology, acoustics, animal health and welfare. Congress will also have to authorize significant increases in funding for the Office of Protected Resources to hire contract personnel or to outsource the analyses required under NEPA and the ESA.

In order for research not to be over-regulated compared to activities with adverse impacts and no benefit to marine mammals, these kinds of programmatic environmental analyses are urgently needed for setting regulatory priorities not just for research, but for all incidental taking. The suit against my test of a whalefinder sonar shows how important it could be to researchers for non-research activities to undergo similar NEPA review. The whalefinding sonar has a frequency range and source level similar to many depthsounding and fishfinding sonars. If these other sonars had undergone programmatic NEPA analyses, these would have shown that the whalefinder would have even less impact because of the way it was operated.

One suggestion for reducing the regulatory burden on scientific research involves including scientific research under the definition of harassment for military readiness. This is not helpful for research on marine mammals, and could create new problems for marine mammalogists. The U.S. Office of Naval Research is the primary funding agency for basic marine mammal research in the US. In spite of the

excellent reputation of ONR as a science agency, the location of this agency in the Navy has led to controversy about whether the Navy biases the research effort or compromises the integrity of the scientists it funds. Fringe groups have even tried to drum up support by conjuring up conspiracy theories claiming that critical conservation biology projects are secret Navy projects to target marine mammals. If Congress were to change the wording of the MMPA to lump scientific research under military activities, this would increase concern about the relationship between the military and marine mammal research, and could accelerate the attacks by anti-research animal rights groups.

I must emphasize that many of the most serious problems with marine mammal research permits have not been MMPA problems as much as NEPA problems. Changing the definition of harassment will not affect the need for marine mammal researchers to obtain permits for their scientific research. Whatever the definition of harassment, I would apply for a permit for my research on marine mammals. Most scientific journals require permits as a condition of publication. The details of the definition of harassment are not the main problem for research permits; the problems I face as a scientist involve the significant cost of preparing permit applications, the uncertain delays of the permitting process, and the vulnerability of the permits to procedural challenges. As I mentioned above, the Office of Protected Resources will require a considerable injection of funds and highly skilled personnel to be able to issue permits in a timely fashion while overseeing the timely production of the NEPA documentation required to back up research permits.

Special exemptions are not the solution to problems with the MMPA

During the past several years, there have been efforts to address very real problems with the MMPA. Congress today is attempting to fix demonstrated problems with authorization under the MMPA of incidental takes, especially harassment takes. One way to deal with this problem is to tailor special exemptions for groups that have regulatory problems. From 1972-2002, this process has created a complex tangle of different authorizations for taking marine mammals under the MMPA. The basic goals of the Act clearly have not been well served by this proliferation of different standards for regulating takes for different activities. As the NRC said in 1994, "it is difficult to understand applying different, and less stringent, rules to activities that kill marine mammals than to activities that are known to benefit them or to have negligible effects on them."

I do not think that complicating the Act by creating yet another harassment definition for military readiness is the best answer. I strongly urge Congress to respond to the problems highlighted by DOD by trying to fix the underlying flaws in the regulatory procedures of the MMPA for all activities before granting a special exemption that does nothing for marine mammal conservation and leaves many other producers of sound in the sea with no way to meet the regulatory requirements. If Congress restricts this year's solution to military readiness, next year they will be likely to have to respond to similar requests from some other group such as the seismic or shipping industries. I believe that it would be much better if Congress rejects the special exemption approach, and instead corrects the deficiencies in the MMPA so that one or two simple regulatory processes for authorizing incidental takes could be applied evenly to all seafaring activities.

If done correctly, the regulations might be able to include all activities in a streamlined regulatory approach that focuses attention on those situations that pose the most risk to marine mammal populations. I believe that the provisions of sections 13 and 14 of H.R. 2693 go a long way to addressing the problems that have been identified in the MMPA. These provisions are much closer to the recommendations of the NRC than the provisions of H.R. 1588. I applaud the Resources Committee for resisting the drive to add special exemptions to the MMPA for specific activities, but instead for considering more general modifications that correct problems for regulating harassment and incidental takes.

Regulations to protect marine mammals need to be drawn to focus scarce regulatory resources on situations where "takes" are most likely to risk adverse impacts to marine mammals.

One of the most important suggestions of the NRC reports on marine mammals and ocean noise is to regulate harassment in the same way for all activities, allocating regulatory effort where harassment takes are most likely to risk adverse impacts to marine mammals. Currently we are far from this goal. For commercial fisheries, section 118 of the MMPA allows incidental taking of marine mammals as long as there is negligible impact from incidental mortality and serious injury. NMFS interprets this as an exemption for commercial fisheries from the prohibition of harassment. Harassment takes are also ignored for effects of propulsion noise from ves-

sels, which accounts for more than 90% of the acoustic energy humans put into the sea. Many other users of sound in the sea, from the Navy to geophysical contractors to academic oceanographers, find themselves in a no-man's land, where the appropriate regulatory process for incidental harassment takes is obscure. So far the solutions of the regulatory agencies have fared poorly in court.

In my opinion, the best way to direct NMFS to allocate its regulatory efforts to the most significant problems is to require evaluation of the potential impacts of all seafaring activities on marine mammals. A consultation process is needed to tier all sea-faring activities into categories for potential harassment: activities unlikely to take, activities with takes of negligible impact, and activities where the takes might have more than negligible impact in some settings. As I discussed in the section on scientific research above, this kind of NEPA analysis is required to protect activities from nuisance litigation. I believe that in the current climate, even harmless activities are vulnerable to legal challenge unless covered by this kind of NEPA analysis and MMPA authorization. The provisions of H.R. 2693 could be improved by adding a requirement that all activities that might take marine mammals should consult with NMFS, so that all potential takes to be accounted for.

The provisions of H.R. 2693 are well suited to creating a simple streamlined process for authorizing low impact activities, with increased regulation scaling with increased probability of impact. Each kind of sea-faring activity that might take marine mammals by harassment should be required to consult with NMFS to perform an environmental assessment to evaluate the potential for taking, and if there are takes, their impact on the population. NMFS should issue rules indicating which activities have a remote enough likelihood of takes not to require any regulation. A general authorization process is essential for activities that may take marine mammals, but that would have negligible impacts. Activities that are not eligible for this general authorization would need to go through an incidental take authorization process on a case-by-case basis. For activities that might cause harassment takes beyond the range of detection of the vessel, a monitoring program could be established to study animals at different ranges from the activity in order to better estimate the number of harassment takes. As long as the restrictions on "small numbers" and "specified geographic region" are removed from the existing incidental take authorizations, as proposed under H.R. 2693, I believe that these existing procedures would work for this kind of case-by-case authorization.

I applaud the House Resources Committee for its efforts to establish this kind of streamlined general authorization process in section 14 of H.R. 2693. My primary concern about this proposal is that I doubt the rapid response mandated for the authorization would be possible without prior programmatic analyses under NEPA to determine negligible impact. I believe that this general authorization procedure would work best after earlier consultation and programmatic environmental review of the potential for different kinds of activities to cause adverse impacts.

I urge Congress to develop a consultation process to require NMFS to tier activities by expected impact with a streamlined process for general authorization of activities with negligible impact and a requirement for regulatory effort to be directed to cases with the highest expected adverse impact. The NMFS Office of Protected Resources will require a considerable injection of funds and skilled personnel to participate in these broad NEPA analyses.

Suggested unified procedure for authorizing incidental takes under the MMPA

The consultation and authorization procedure I have just outlined bears similarities with the incidental take provisions of the MMPA for commercial fisheries. This regime for regulating fishery takes that may kill animals has been quite successful in highlighting situations where populations are threatened by fishing. NMFS is required to categorize fisheries as to whether they have frequent, occasional, or remote likelihood of causing mortality or serious injury. Each fishing vessel receives an authorization for incidental takes subject to conditions. As long as a fisher registers with this authorization process, complies with the conditions, and reports any takes, s/he is exempt from the prohibition against taking. Fishers in low impact fisheries have a simple and streamlined regulatory process that protects them from prosecution in case of an unlikely accident, and regulation ramps up corresponding to the threat, up to closing down fisheries that threaten the survival of marine mammal populations.

The 1994 National Academy Report on Low-frequency Sound and Marine Mammals approves of the way this regime sets priorities for regulation:

> The proposed regime is designed to redirect regulation to focus on human activities with the largest impact on marine mammal populations, scaling the extent of regulation to the risk the activity poses to populations. (p 35)

However, the regime for regulating lethal takes or serious injury under section 118 of the MMPA has a flaw that may prove fatal to some marine mammal populations, such as right whales, where significant incidental mortality stems from activities other than fishing. The solution to this problem suggested by the NRC 2000 report is to broaden this regime to include other activities that might kill or seriously injure marine mammals. Obvious examples include vessel collision, underwater explosions, and spills of toxic compounds. The MMPA as currently written specifies a process to reduce takes from fisheries whose lethal take exceeds PBR, but it is silent as to how to regulate incidental lethal takes from activities other than fishing. If there are situations where non-fishery takes may be as significant as takes by fisheries, the MMPA must be modified to clarify how to regulate all lethal takes and serious injury, whether from fisheries or other sources. When vessels strike and kill whales, for example, this mortality must either be subtracted from the PBR or these non-fishing activities must be incorporated into a process for allocating takes.

Section 118 of the MMPA includes a comprehensive program to monitor takes from fisheries, but there is no such program to guarantee that stock assessments accurately estimate mortality from non-fishery activities. If mortality caused by these non-fishing activities is not included in the PBR regime, then the regime will not work properly to protect marine mammal populations. The strict monitoring requirements for fisheries will not protect populations from the effect of non-fishery mortality unless these sources of mortality are as well documented as mortality from fisheries.

Keeping the MMPA up to date with the threats to marine mammals of the 21st century

The impacts of pervasive and subtle human influences such as contaminants and noise are much more difficult to identify than death by harpoon or injury in nets. As these impacts become more important compared to whaling and bycatch, the MMPA must be adjusted to deal with these forms of habitat degradation that cannot always be easily or effectively regulated under the prohibition on taking. The PBR process limits lethal takes to a number small enough not to threaten the population. It is more difficult to set a limit on harassment takes, since these may vary greatly in impact, and since the effect on population growth may be difficult to predict. Exposure to contaminants is even more difficult to treat as a take. Ultimately, the significance to the population of any take is the effect on the demography of the population, the ability of the population to grow or remain a healthy size.

I strongly encourage Congress to adopt wording requiring NMFS to account for harassment or effects of contaminants conservatively in terms of demographic effects on growth, survival or reproduction of individuals and populations. As I discussed in the section of my testimony on the definition of harassment, the best way to do this is to define harassment in terms of biological significance of the take. This is currently a challenging scientific problem, but the correct wording should stimulate the appropriate science, while focusing attention on the critical issue of keeping marine mammal populations healthy. Ultimately a demographic accounting of harassment takes or other threats would require population modeling that relates the dosage of exposure to population parameters. There has been great progress in this kind of population modeling in the past decade. However, right now the critical analyses could not be performed for harassment takes because we know so little about the extent of the exposure or its impact.

The criteria for harassment takes need to acknowledge our ignorance of the scope of exposure to harassing stimuli, and our ignorance of many of the effects harassment may have on individuals and populations. If we wait until the population has measurable declines, it is too late. Therefore it is important to include indicators of adverse impact in the criteria. These indicators may be physiological, behavioral, or ecological, but must be linked to potential to affect demography.

Before we can estimate the impacts of subtle threats to marine mammals, we must understand the extent of exposure, and the relationship between exposure and impact. A critical aspect of the PBR regime is that it exempts registered fishers from the prohibition on taking as long as they accurately and fully report any takes. A similar clause for all vessels that may be involved in harassment would ultimately give scientists data needed to estimate exposures that may cause harassment. A timely reporting requirement might also make it easier to prosecute cases of intentional harassment, as failure to report would violate the terms of the authorization.

Understanding the relationship between exposure to threats and adverse impacts caused by the exposures will require a concerted research program. I urge that Congress help streamline the regulatory obstacles to this kind of research, and also to

carefully consider the best way to fund and organize this kind of research effort. This must include a mechanism to encourage young scientists to become involved in this critical area.

This kind of program would allow NMFS to identify situations where

1. A stock was at risk from a particularly high number of takes.
2. An area or activity caused a high number of takes for a variety of species.
3. There were particular hot spots of takes.
4. The cumulative takes pose a risk to the population

Where the sum of takes, lethal, injury, or harassment, pose a risk to a population, this regime should require something like the take reduction plans used to reduce the problem of fisheries takes. This kind of regulatory regime would reduce the burden on activities that pose little risk, while focusing attention on species, areas, or activities that pose the greatest risk to the most endangered populations.

Some may be concerned that the regulatory process I sketch out would lead to reduced protection. It would certainly streamline the regulatory process and make it more predictable for most activities, but I agree with the National Academy (2000) report on Marine Mammals and Low-frequency Noise that such a change would, if done correctly, increase protection from the status quo. The current MMPA has unbalanced criteria for authorization, allowing some fisheries to kill animals with no requirement beyond reporting, while having no procedure available to other activities to authorize more than a small number of insignificant harassment takes. This does not meet the conservation goals of the Act.

Conclusion

Mr. Chair, I sincerely appreciate your attention to this difficult and complex issue. There are real problems with current implementation of the MMPA in our changing environment. I believe that H.R. 2963 goes a long way to fixing these problems, and I am convinced that Congress and the responsible federal agencies can make real progress to create permitting and authorization processes that are more predictable and efficient, while improving the protection for marine mammals from adverse impacts of human activities.

Thank you, and I look forward to your questions.

Mr. GILCHREST. Thank you, Dr. Tyack.

Dr. Worcester?

STATEMENT OF DR. PETER WORCESTER, OCEANOGRAPHIC RESEARCHER, SCRIPPS INSTITUTION OF OCEANOGRAPHY, UNIVERSITY OF CALIFORNIA AT SAN DIEGO

Dr. WORCESTER. Mr. Chairman, distinguished members of the Committee, my name is Peter Worcester. I am a research oceanographer at the Scripps Institution of Oceanography of the University of California, San Diego. I very much appreciate the opportunity to testify before the Committee on my views on the Marine Mammal Protection Act reauthorization as it relates to ocean science and the use of sound in the sea.

Any discussion of the use of sound in the sea must start from one basic fact: The ocean is largely transparent to sound, but opaque to light and radio waves. What does this mean? It means that all of the tasks for which we use light and radio waves in the atmosphere must be done using sound in the sea.

Some examples might help here. We assess fish stocks, measure ocean bathymetry, communicate under water, transmit data from sub-sea instruments, navigate, profile ocean currents, and measure large-scale temperatures and currents. Sound in the sea is not just noise. It is used for a wide variety of valuable and important purposes.

With all of that said, what is the problem? The problem is that the current regulatory procedures do not adequately differentiate between activities that cause minor changes in marine mammal be-

havior, having no adverse impact, and activities that cause significant disruption of behaviors critical to survival and reproduction. Further, as Dr. Tyack noted, the current regulatory procedures are complex, fraught with delays, costly in both time and money, and uncertain in their outcome. The current regulatory structure makes obtaining the necessary authorizations for using sound in the sea so arduous that it is having a chilling effect on a wide variety of important and valuable uses of sound in the sea as well as on the research needed to improve our understanding of the impacts of underwater sound on marine life.

Let me give you an example from a project in which I am involved called the North Pacific Acoustic Laboratory. As one component of this project, we sought the authorizations needed to operate a low-frequency sound source off the north shore of Kauai. The source had previously been operated for 2 years as part of the Acoustic Thermometry of Ocean Climate Project, which included an extensive marine mammal research program to determine the effects, if any, on marine mammals. The short summary of that research is that subtle effects were detected—large whales could clearly hear the source—but none of the marine mammal experts involved with the program felt that the observed effects were biologically significant.

We started the process of seeking the required authorizations in the spring of 1999. We finally completed the process and were able to resume transmissions in late January of 2002. It took nearly 3 years of my life and cost in excess of half a million dollars to get the required permits.

I hope that this is an extreme example. Nonetheless, it is clear that it is simply impractical for a single researcher or small research group to undertake such an effort. I personally would be unwilling to devote another 3 years of my life to such an effort. I doubt that any funding agency would do so. Research dollars are simply too scarce.

So what is the solution? First, the definition of Level B harassment needs to be modified to focus on the biologically significant disruption of behaviors critical to survival and reproduction; that is, on adverse impacts rather than simply undetectable changes in behavior.

Second, the provisions of the MMPA that limit requests for an incidental taking or harassment authorization to small numbers in a specified geographical region need to be removed, while retaining the essential provision that the species or stock must be negligibly impacted by the authorized activity.

Third, the MMPA needs to be modified to provide for the issuance of general authorizations allowing for the use of oceanographic instrumentation that is in widespread and ongoing use for marine research and other valuable purposes; provided, again, that any taking by harassment is unintentional and will have a negligible impact on the affected species and stocks.

Finally, it would be helpful for the definition of research for which scientific research permits can be issued to be broadened to include all legitimate scientific research activities, rather than being limited to research on or directly benefiting marine mam-

mals. Further, scientific research permit procedures should be simplified and streamlined.

The revised definition of harassment and the amendments concerning the incidental taking of marine mammals contained in H.R. 2693 are largely in accord with the majority of the recommendations given above. I therefore strongly support H.R. 2693. I believe it would facilitate the constructive use of sound in the sea, focus regulatory efforts on activities that have biologically significant impacts on marine mammals, and make it easier to do the research needed to improve our understanding of the impacts of underwater sound on marine life while continuing to protect marine mammals.

Although the MMPA changes discussed above are important, they are not sufficient in and of themselves to address the issues now facing the ocean science community with respect to marine mammals. The current understanding of the effects of sound in the ocean on the behavior and health of marine mammals needs to be improved. A robust marine mammal research program is absolutely essential to protecting marine mammals and conducting other essential research in our oceans. As you undertake the reauthorization process for MMPA, you should consider the authorization of such a program.

I would like to close by stating that I sincerely appreciate your attention to this complex and highly emotional issues. I look forward to your questions.

[The prepared statement of Dr. Worcester follows:]

Statement of Peter F. Worcester, Ph.D., Research Oceanographer, Scripps Institution of Oceanography, University of California, San Diego

Mr. Chairman and distinguished members of the Committee, I am Peter Worcester, a Research Oceanographer at the Scripps Institution of Oceanography of the University of California, San Diego. I very much appreciate the opportunity to testify before the Committee on my views on the Marine Mammal Protection Act (MMPA) reauthorization as it relates to ocean science.

Last year I testified before the Subcommittee on H.R. 4781, the Marine Mammal Protection Act Amendments of 2002. In my testimony I discussed the impact of the MMPA on oceanographic research using acoustic methods and suggested amendments to the act intended both to facilitate the constructive use of sound in the sea and to improve regulatory efforts by focusing them on activities that cause biologically significant disruption of marine mammal behaviors critical to survival and reproduction, i.e., on adverse impacts.

Since that time others in the oceanographic community, including Scripps Institution of Oceanography, Woods Hole Oceanographic Institution, Lamont-Doherty Earth Observatory of Columbia University, and the Consortium for Oceanographic Research and Education (CORE) have expressed concerns similar to mine in testimony to Congress. The recommendations made in their statements closely parallel those that I made last year.

The revised definition of harassment and the amendments concerning the incidental taking of marine mammals contained in H.R. 2693 are largely in accord with the recommendations that I and others in the oceanographic community have made, as will be discussed in detail below. If enacted, I believe that they will both facilitate the constructive use of sound in the sea and improve regulatory efforts by focusing them on activities that have biologically significant impacts on marine mammals.

I therefore strongly support H.R. 2693.

Sound in the Sea

Any discussion of the use of sound in the sea must start from one basic fact:

> *The ocean is largely transparent to sound, but opaque to light and radio waves.*

Light travels only a few hundred meters in the ocean before it is absorbed. Sound can travel long distances and with great speed underwater. Marine mammals—

whales, dolphins, seals—therefore rely on sound to sense their surroundings, to communicate, and to navigate. Similarly, oceanographers, fishermen, and submariners—in short, all who work in the ocean—rely on sound to sense their surroundings, to communicate, and to navigate. Fishermen, for example, use acoustic fish finders to locate schools of fish. Oceanographers use sound in the sea for a wide variety of purposes, including assessing fish stocks, measuring ocean bathymetry, communicating underwater, transmitting data from subsea instruments to the surface, navigating underwater, profiling ocean currents, and measuring large-scale ocean temperature variability. The U.S. Navy uses sound for many of these same purposes, as well as to detect and track submarines and to locate mines.

Sound in the sea is not just noise. It is used for a wide variety of valuable and important purposes.

With all of that said, what is the problem? The problem is that the current regulatory procedures do not adequately differentiate between activities that cause minor changes in marine mammal behavior having no adverse impact and activities that cause significant disruption of behaviors critical to survival and reproduction. Further, the current regulatory procedures under the MMPA are complex and fraught with delays, costly in both time and money, and uncertain in their outcome. The current regulatory structure makes obtaining the necessary authorizations for using sound in the sea so arduous that it is having a chilling effect on a wide variety of important and valuable uses of sound in the sea, as well as on the research needed to improve our understanding of the impacts of underwater sound on marine life.

A project in which I am involved, called the North Pacific Acoustic Laboratory, provides an example of the current regulatory process. As one component of this project we sought the authorizations needed to operate a low-frequency sound source off the north shore of Kauai. The source had previously been operated for two years as part of the Acoustic Thermometry of Ocean Climate (ATOC) project, which included an extensive marine mammal research program to determine the effects, if any, on marine mammals. The short summary of that research is that subtle effects were detected. Large whales could clearly hear the source, but none of the marine mammal experts involved with the program felt that the observed effects were biologically significant.

We started the process of seeking the required authorizations in the spring of 1999. We finally completed the process and were able to resume transmissions in late January of 2002 (Fig. 1). It took nearly three years and cost in excess of half a million dollars to get the required permits!

I believe—hope?—that this is an extreme example. Nonetheless, I believe that it is clear that the regulatory burden in this case bore little relation to the potential environmental impacts of the project.

Our understanding of the effects of underwater sound on marine mammals and the impact of the existing regulatory structure on oceanographic research has been discussed in three recent National Research Council reports:

National Research Council (NRC). 1994. Low-Frequency Sound and Marine Mammals: Current Knowledge and Research Needs. National Academy Press, Washington, D.C.

National Research Council (NRC). 2000. Marine Mammals and Low-Frequency Sound: Progress Since 1994. National Academy Press, Washington, D.C.

National Research Council (NRC). 2003. Ocean Noise and Marine Mammals. National Academy Press, Washington, D.C.

These reports provide an important service in considering how the MMPA could be modified "for facilitating valuable research while maintaining all necessary protection for marine mammals" (NRC, 1994). The suggestions made in these reports also provide useful guidance on how the MMPA could be modified to facilitate other valuable uses of sound in the sea, while maintaining protections for marine mammals.

Definition of Level B Harassment

The 1994 amendments to the MMPA included a definition of harassment as "any act of pursuit, torment, or annoyance which:

Level A—has the potential to injure a marine mammal or marine mammal stock in the wild; or

Level B—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, nursing, breeding, feeding, or sheltering."

Unfortunately this definition of harassment is somewhat ambiguous and has at times been interpreted to mean that any detectable change in behavior constitutes

harassment. NRC (1994) notes that as "researchers develop more sophisticated methods for measuring the behavior and physiology of marine mammals in the field (e.g., via telemetry), it is likely that detectable reactions, however minor and brief, will be documented at lower and lower received levels of human-made sound." NRC (2000) concludes that it "does not make sense to regulate minor changes in behavior having no adverse impact; rather, regulations must focus on significant disruption of behaviors critical to survival and reproduction." NRC (2000) suggests that Level B harassment be redefined as follows:

"Level B—has the potential to disturb a marine mammal or marine mammal stock in the wild by causing meaningful disruption of biologically significant activities, including, but not limited to, migration, breeding, care of young, predator avoidance or defense, and feeding."

NRC (2003) expands on, rather than replaces, the recommendations contained in the previous reports. All three NRC committees are therefore in agreement that the definition of Level B harassment should be modified to focus on the biologically significant disruption of behaviors critical to survival and reproduction, i.e., on adverse impacts rather than simply on any detectable change in behavior.

The revised definition of Level B incidental harassment proposed in H.R. 2693 is:

"... any act that—

(ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing biologically significant disruption of activities, including, but not limited to, migration, breeding, care of young, predator avoidance, defense, or feeding..."

This definition is fully consistent with that recommended by the NRC. I therefore strongly support the proposed change.

Incidental Takings—"Small Numbers"

Another key recommendation made in NRC (2000) is to remove the term "small numbers" from MMPA provisions that deal with the authorization of incidental takings. Under current law, requests for an incidental taking or harassment authorization apply to "small numbers" of marine mammals of a species or stock of which the Secretary of Commerce must find will be negligibly impacted by the authorized activity.

Until now, federal managers essentially have interpreted this as a single requirement in the authorization process for incidental takes or harassment of marine mammals. However, recent court decisions have called that interpretation into question and if such a change is not made, it is conceivable there would be two distinct and separate tests for determining takes—small numbers first, and if that test were met, negligible impact from the take of small numbers. The NRC-suggested change would prevent the denial of research permits that might insignificantly harass large numbers of animals and would leave the "negligible impact" test intact. The goal is to focus our efforts to protect marine mammals on avoiding adverse impacts.

H.R. 2693's proposed removal of language concerning "small numbers" responds to concerns raised by the NRC. I therefore strongly support the proposed change.

Incidental Takings—"Specified Geographical Region"

Under current law, requests for an incidental taking or harassment authorization apply to marine mammals in a "specified geographical region." The Secretary of Commerce must find marine mammals in a specified geographical region will be negligibly impacted by the authorized activity.

As was the case for "small numbers," it is conceivable there could be two distinct and separate tests for determining takes—specified geographical region first, and if that test were met, negligible impact. The suggested change would prevent the denial of research permits that might insignificantly harass animals in more than one geographical region and would leave the "negligible impact" test intact. The goal once again is focus our efforts to protect marine mammals on avoiding adverse impacts.

I therefore strongly support H.R. 2693's proposed removal of "specified geographical region" from the MMPA provisions that deal with the authorization of incidental takings.

Establishing Timely and Less Burdensome Permitting and Regulatory Guidance

The complex and lengthy permitting process under the MMPA has become a major impediment to conducting ocean research, hindering even the research needed to understand better the effect of human-generated sound on marine mammals. This problem has been exacerbated in recent months by legal decisions that could require extensive analyses under the National Environmental Policy Act (NEPA) for any research that may affect marine mammals, even in situations where there is widespread agreement among federal managers and scientists that the research activity

has no potential to cause harm. As in the example given above, scientists now face lengthy delays and significant additional expense that threaten their ability to conduct research. In addition, the situation is placing new burdens on the already stretched resources of the National Marine Fisheries Service. The ocean science community is urgently in need of a timely and predictable permitting or authorization process that is not unnecessarily burdensome and provides them with assurances that research will proceed in compliance with all applicable laws, when the permit is issued.

One option may be to broaden the relatively streamlined Scientific Research Permit procedure for research on or directly benefiting marine mammals under section 104 of the MMPA. This procedure is currently available only for marine mammal research, and any other scientific research affecting marine mammals falls under the Incidental Harassment Authorization (IHA) procedure or the lengthy rule-making procedure leading to a Letter of Authorization (LOA). These procedures are time consuming and burdensome at best, and the NRC (1994) has recommended that the definition of research for which Scientific Research Permits can be issued be broadened to include a wider range of research activities.

Although such a change would be an important step toward a more predictable process for ocean research, the existing procedure for obtaining scientific research permits still is enormously time-consuming and expensive for individual researchers. Today's experience is that the costs of permitting and associated legal fees can become as expensive as the research investment itself, leading inevitably to less ocean research and a slowdown in scientific advancement and the benefits that come from it. In addition, the chilling effect of this overly-burdensome process is discouraging new researchers from pursuing marine science, potentially weakening our human resource capabilities in an area that has great potential for new discoveries and large information deficits. I would ask that the Committee look at ways to further simplify and streamline the process and address the concern of the NRC (1994) that "the lengthy and unpredictable duration of this process can create serious difficulties for research."

A closely related issue is that oceanographers and other marine operators routinely use underwater sound for a wide variety of important purposes. However, the MMPA does not provide guidance to govern its application to instrumentation that is in widespread and on-going use, nor does it include a mechanism for allowing for such on-going uses other than through exemptions that must be applied for on a case-by-case basis. I recommended last year either that the National Marine Fisheries Service clarify its position on the use of a wide variety of routinely used sound sources or that the act be modified to provide for the issuance of general authorizations allowing for the use of instrumentation that has the potential for taking by harassment in situations in which the taking will be unintentional and will have a negligible impact on the affected species and stocks. NMFS should be tasked with issuing regulations providing general authorizations for uses of sound that meet appropriate criteria. Such regulations could include provisions excluding critical habitat from the general authorization, if appropriate, for example.

H.R. 2693's proposed provision for a general authorization responds to these concerns. I therefore strongly support the proposed change.

Scientific Research on Marine Mammals and Sound

While the MMPA changes discussed above are important, they are not sufficient in and of themselves to address the issues now facing the ocean science community with respect to marine mammals. In its reports, the NRC makes it clear that the current understanding of the effects of sound in the ocean on the behavior and health of marine mammal needs to be improved. Different sound frequencies and intensities have different effects on various species, and those effects change with location in the water column and characteristics of the sea floor. It is clear that increasing our scientific understanding would clarify and narrow the need to obtain permits and authorizations under the MMPA, as well as making it easier for researchers to include effective mitigation measures in their experimental plans. A robust marine mammal research program is absolutely essential to protecting marine mammals and conducting other essential research in our oceans.

Funding and scientific leadership in this area to date has come from the United States Navy. Over the years, the Navy has supported the efforts of pioneers like Sam Ridgway and Ken Norris to expand the boundaries of our knowledge about these unique animals. Today, the Office of Naval Research maintains a substantial research program on underwater sound and marine mammals.

I believe that an enhanced research program on the effects of underwater sound on marine mammals is needed. It is important that this program be independent and peer-reviewed. It should be broadly based, with participation from funding

agencies in addition to the Office of Naval Research, including the National Science Foundation, the National Oceanic and Atmospheric Administration (NOAA), and the Minerals Management Service. Support from private industry and non-governmental organizations for research managed in such a manner should be encouraged. The National Oceanographic Partnership Program offers a potential mechanism to bring these entities together in a process that provides both needed coordination and scientific independence. As you undertake the reauthorization process for the MMPA, you should consider authorization of such a program.

Conclusion

Mr. Chairman and members of the Committee, I sincerely appreciate your attention to this complex and emotional issue. Both marine mammals and people use sound in the sea for a wide variety of important purposes. I believe that the H.R. 2693 responds in a meaningful way to the suggestions provided above. If enacted, it will facilitate the constructive use of sound in the sea, focus regulatory efforts on activities that have biologically significant impacts on marine mammals, and make it easier to do the research needed to improve our understanding of the impacts of underwater sound on marine life, while continuing to protect marine mammals.

Thank you, and I look forward to your questions.

Mr. GILCHREST. Thank you, Dr. Worcester.

I yield first to—if he has any questions—to the Chairman of the full Committee, Mr. Pombo.

Mr. POMBO. Well, thank you. I would like to get back to Dr. Tyack, if I can. You talked about the problems and delays in getting a research permit, and I would like you to expand on that a little bit for me. Why would it take 18 months or 2 years to get a permit?

Dr. TYACK. Yes. I think that not all of these problems are problems with the MMPA. They are problems with Endangered Species consultations and with NEPA. One of the things that is causing more delays than there were in the past is that court case that I was involved with hinged on the question of whether an amendment to my research permit to do something that had already been permitted required a full environmental assessment. And the judge ruled that, yes, each amendment requires an environmental assessment to back it up.

Mr. POMBO. So any change in the research you are doing would require you to go back and do another environmental assessment?

Dr. TYACK. Or require NMFS to do the assessment. And they simply don't have the staff. The Office for Protected Resources that does permitting is not geared up to be able to do this. These are very difficult time-consuming processes under NEPA. And I strongly support the suggestion that Dr. Lent made of trying to get ahead of this by doing programmatic environmental assessments. But it is going to take a significant effort for them to be able to do that and keep the research process going on at the same time.

And I would also like to second Dr. Lent's points that there are many research permits for non-endangered species that are not involved in the important conservation issues that can move very quickly. And there is a general authorization process that seems to work quite well for these. The thing that is a problem here is that research on endangered species, and particularly those that are most involved in tough conservation issues like right whales, are the ones that get the most delayed. And they are the ones that I think Congress ought to focus on trying to support the most. They

are the most essential for helping resolve the problems that have been brought up here.

Mr. POMBO. What change do we have to make, either in the Marine Mammal Protection Act or in the ESA or other laws—because, I mean, we can blame them, but the truth is, we are the ones that pass the laws. So, you know, whether we point fingers or not, it is our responsibility.

What changes would you recommend in existing laws to try to speed up that process or eliminate the red tape that exists, or the bureaucratic delays that exist?

Dr. TYACK. I think that giving the resources to do the programmatic assessments under NEPA is probably the most important step. I personally feel that actually creating a deadline would be very important. This was a recommendation of the National Research Council, to actually create a deadline of three to 4 months, something like that, for issuing the permits. The required steps that they need to take can easily fit into that time period. And if there were an actual deadline that scientists could count on, that would be very helpful. Right now, it is a completely open-ended process. So when we apply for a permit, we always try to give it about 6 months, but we can't know when we will actually receive our permit. And very often it involves frantic phone calls by satellite phone from a research vessel to D.C. to try to get the permit faxed to the ship.

Mr. POMBO. But—I think we need to think this through a little bit more, because it is not just a matter of them carrying out the environmental assessments and having the people. I think—my question is, is all of that absolutely necessary to go through? If you are out and you have been permitted to go out and do a research project, if there is a minor change in that research, is it really necessary to do another environmental assessment, or is this just a full employment act to keep more people doing more things?

Dr. TYACK. This is why I was suggesting at the end of my testimony about this triage process. I think if NMFS were able to work with a clear de minimis kind of standard for harassment and for takes under the MMPA, and publish a list of activities that they do not estimate cause takes, then that could maybe account for a lot of these kinds of issues. That doesn't occur right now. I also think the general authorization process, which has been included in H.R. 2693, if that were linked, again, to some kind of up-front NEPA kind of analysis showing that certain kinds of activities are expected in general to have negligible impacts, would streamline it greatly. And if the research permits were limited to other activities, I think that may both reduce the burden on scientists and on the permitting agencies. But there is a considerable amount of analysis up front to be able to get to that point.

Mr. POMBO. And finally, if we were to look at it on the broad sense and take research and the activities that you and your colleagues have, but to look at all of the activities and just come up with these broad definitions of activities that would be permitted—because, you know, obviously we get complaints from industry, we get complaints from the researchers, everybody. Wouldn't it make sense just to come up with these broad areas that are considered to have a negligible impact and say that if it falls within these

areas, it is OK and you don't have to go through, you know, a multi-year process in order to get a permit. Would that make sense to you?

Dr. TYACK. Absolutely. And that follows the recommendations of NRC to try to have a uniform process applying the same standards. Right now, I would say the reason there is so much effort—I should be corrected by the Federal agencies if I am wrong with the numbers—but I think that seven people are involved in authorizing scientific research versus two people for everything else. That clearly does not balance the amount of impacts caused on these animals. And I think that having some process that is streamlined for negligible impact and applied uniformly to all activities would greatly help this problem.

Mr. POMBO. Thank you. Thank you, Mr. Chairman.

Mr. GILCHREST. Thank you, Mr. Pombo.

Mr. Pallone?

Mr. PALLONE. Thank you, Mr. Chairman. I guess I am really asking, well, either Dr. Tyack or Worcester or David Cottingham these questions about the harassment definition. The proposed change the to the definition of Level B harassment in H.R. 2693 would require that an activity cause a biologically significant disruption of activities including, not limited to, migration, breeding, care of young, predator avoidance, defense, or feeding. In contrast, the definition proposed earlier by the NRC would require that an activity cause a disruption to biologically significant activities.

Now, I know it might not seem like they are not that different, but I just wanted to ask if this inversion of the words is important and is something that we should be concerned about.

Dr. TYACK. I would be happy to start on this. I think that the critical issue, if this hadn't been copy-edited carefully, would be something like biologically significant disruption of biologically significant activities.

Mr. PALLONE. OK.

Dr. TYACK. But since there is a—because the point to be emphasized is that you want to have a standard that focuses on something that could affect growth, reproduction, survival of the animals. That should be the standard. And I think since there is a list of the activities, and they are obviously selected to be biologically significant, as opposed to random, I think that if there is only going to be one use of the modifier, it is probably more important to be in front of "disruption" than in front of the activities. So I actually support the way H.R. 2693 does this. And I don't think that that is a particularly problematic change of the exact text in the NRC language.

Mr. PALLONE. Does anybody else want to comment on the same issue?

Mr. COTTINGHAM. Let me just add a little bit to that. The other part of it is what is in your list. Surfacing was in the administration's bill. I don't think surfacing is in—I mean, these are really very minor points. The terms and the other things that are listed—

Mr. GILCHREST. If the gentleman will yield just for a second?

Mr. COTTINGHAM. Yes, sir.

Mr. GILCHREST. Instead of "surfacing," we use the word "breathing."

Mr. COTTINGHAM. OK. Sorry. "Breeding" or "breathing"?

Mr. PALLONE. "Breathing".

Mr. GILCHREST. "Breathing"?

Mr. COTTINGHAM. I don't think that is in there, sir, but I stand to be corrected.

Mr. PALLONE. "Breeding."

Mr. COTTINGHAM. "Breeding" is there, but I don't believe "breathing" is. But I—

Mr. GILCHREST. You are right.

Mr. COTTINGHAM. These are the kind of very detailed comments that we want to have the chance to work with the Committee on.

Mr. PALLONE. But you don't feel there is a difference between the inversion of the words, though?

Mr. COTTINGHAM. I really think that is almost insignificant.

Mr. PALLONE. OK. All right, what about the—

Mr. GILCHREST. Will the gentleman yield—and I will yield you a little bit more time. Just on this point, "disruption"—we looked at this yesterday. And "significant biological disruption," we had some understanding, was not as protective as—this is "significant biological disruption" versus "disruption of biologically significant activities." "Disruption of biologically significant activities," as I understood it, was more oriented toward the cautionary approach, based on the emphasis, as opposed to "significant biological disruption." And, you know, I am beginning this word-smithing, but we might as well word-smith now as opposed to, you know, two, 3 years from now.

Mr. COTTINGHAM. I actually think you are right, sir, in terms of the disruption of those key biological activities, of which I think surfacing and breathing would be one.

Mr. PALLONE. I hope I don't regret having asked this question.

Mr. GILCHREST. I will yield you some of my time.

Mr. PALLONE. No, that is all right. If anyone else wants to answer it, I —yes, go ahead.

Dr. WORCESTER. Yes, if I might comment on that. Not speaking as a lawyer, but to talk about the meaningful disruption of biological important activities, "meaningful" seems to be a slightly ambiguous standard; whereas if the goal is to make sure we focus on biologically significant activities, I would agree with Dr. Tyack that it is better to have it modify the term "disruption." I mean, really, the goal here is to get away from worrying about merely detectable changes and to focus on biologically significant ones.

Mr. PALLONE. OK.

Dr. TYACK. If I could comment just briefly on why this has come up after 30 years of the act. I think in the early years of the act, our techniques for following behavior were so weak that the assumption was if we could detect any change in behavior, it probably was important. And now we have developed very sensitive methods to detect does an animal slow its fluke beat, does it turn its head when it hears something. Those quantify as changes, detectable changes in behavior, and in many cases they can be significantly—statistically significantly predictable in terms of response to a particular sound.

But it seems like that is not the intent of Congress to regulate, an animal turning its head when it detects a signal. And, at least

the suggestion of the NRC panels was that the criterion to use was "could it" potentially affect these biologically significant activities? Was it a disruption of feeding that would actually slow the process for the animal getting energy. Was it a disruption of mating behavior that might affect reproduction in the population. And that seemed to be the criterion to use, rather than "detectable," which the Marine Mammal Commission, in the early 1990's, suggested had been the standard up to that point.

Mr. ABERCROMBIE. Would the gentleman yield?

Mr. PALLONE. Oh, sure.

Mr. ABERCROMBIE. I just want to make sure. Who is speaking?

Dr. TYACK. My name is Peter Tyack.

Mr. ABERCROMBIE. I am sorry. I thought it was you, but I couldn't see. I just want to make absolutely sure, then. So you are saying that—and I think this is important for what the Chairman was moving toward, too, that if we change from "detectable" and make the changes that are suggested, this is as a result of experience over the past 30 years, which allows us to have not necessarily a more sophisticated definition, but a definition which gets at what we are really aiming for. After all, this is the Marine Mammal Protection Act. And you think this will accomplish what both Mr. Pallone and Mr. Pombo are inquiring of you with regard to the legislation itself?

Dr. TYACK. Yes. I think it is very important to remain precautionary, but I think the standard should move beyond "detectable changes of behavior."

Mr. ABERCROMBIE. Which is what we are trying to legislate, so that we can put this right.

Dr. TYACK. Exactly.

Mr. ABERCROMBIE. Thank you.

Mr. PALLONE. Mr. Chairman, I just want to ask one more question about this harassment definition, then I will move on—or you can move on.

The definition for Level A, "potential to injure" harassment proposed in H.R. 2693, requires that an activity have the probability to injure a marine mammal. And I was wondering if it seems that this change would require a higher burden of proof for a given activity's likelihood of causing harm. In other words, does the word "probability"—you know, what is the distinction from "potential"? Does the word "probability" have a clear and commonly understood legal definition? Do you think this change would make the definition less protective of marine mammals? Or do you even understand what I am talking about? [Laughter.]

Dr. TYACK. Well, as a scientist I prefer to use numbers for quantitative issues like this, but clearly there seems to be a spread between "potential," which can and has at times been interpreted to be the most sensitive animal within a large population, which is very protective, but may be very difficult to determine empirically. And "probable," which to me seems like it is more than 50 percent, which almost certainly is not protective enough.

So I would assume that there ought to be a middle ground in there, which is a bit of a judgment call, but it seems to me that these are bound to extremes of probability that I wouldn't want to use here. I think something like "beyond a remote possibility"

seems reasonable; "more than half of the animals being disrupted" seems not precautionary enough. But just "potential" by itself has in the past occasionally been interpreted as an exceedingly low level of potential for risk, one that is almost impossible to measure.

Mr. PALLONE. Could I ask Dr. Lent to respond to it?

Dr. LENT. Yes. Thank you. As I mentioned in my testimony, we do have concern that the term "probability" might have some people thinking it would have to be at least 50-50 or more than 50 percent. So, again, we welcome an opportunity to discuss this language. This is where all of our English classes indeed do come in handy.

Mr. PALLONE. OK. Thank you. Thank you, Mr. Chairman.

Mr. ABERCROMBIE. Do you think Portuguese would help? [Laughter.]

Mr. GILCHREST. There you go.

How about "the potential probability"? [Laughter.]

I yield to the gentleman—did you need any more time, Frank?

Mr. PALLONE. No.

Mr. GILCHREST. Yield to the gentleman from Hawaii.

Mr. ABERCROMBIE. No more. Thank you.

Mr. GILCHREST. No questions?

So, Dr. Lent, the—and, you know, we are eager to absorb the kind of information to create a situation where we have fundamentally sound—at this point, because it will change in 20 years, but at this point we have fundamental sound science recommendations from the broad community to make it "significantly potential" or "potential" or "probable" or "potentially probable" or whatever it is. So we want to continue to work on those issues. But we are getting some type of a consensus here.

Mr. ABERCROMBIE. Would you yield, Mr. Chairman, on that?

Mr. GILCHREST. Just let me finish that sentence and I will yield. We are getting to a point, I think now, that we are looking at a consensus out there in the broader community that the word "probable" may not be the word we want to use because it isn't protective enough. We had some sense that "significant potential" was not protective enough. And we might just go back to not changing the Level A definition. I am not sure yet, but that is what we are trying to work our way through.

The gentleman from Hawaii.

Mr. ABERCROMBIE. Yes, thank you. The reason I didn't ask a question was, as I probably should have mentioned—what I think needs to be done—and this testimony verifies if for me, and I will just it out there for your consideration—I think we should, the word that needs to come is "likely."

Mr. GILCHREST. We will test that out.

Mr. ABERCROMBIE. And I am deadly serious about that. Because I have been thinking on this for a long time, particularly in the context of the Navy experiments with sound and all this other. And I think "likely" is the thing that handles the word—it handles "probability," it handles "potential." And I think we have reached a level of sophistication with respect to scientific research in which there is—and I think of it in terms of accident. I am not thinking about it in terms of cold-hearted people who are out there saying,

you know, we're just going to go ahead and do this and to hell with the animals, or the mammals.

What I mean by "likely," is if you—I will draw a rough parallel, not necessarily an analogy, that if you are driving an automobile at a certain speed and under certain conditions and so on, it is—you can use the would with some degree of certainty that it is likely an accident will occur, likely that you will go into a spin with your car on the ice, likely—

So if it is likely or unlikely, I think that that is not something that is vague. I think it is something that is achievable scientifically in terms of determination, and I think it stands up in terms of legal definitions that we need in order to make a solid legislative judgment. And I think it can get beyond the propaganda and the accusations and the emotions that can color this kind of consideration legislatively.

Mr. GILCHREST. I thank the gentleman. I am not sure that we will ever get free of emotions and propaganda.

Mr. ABERCROMBIE. That is the reason I think we should—legislatively, I think we should think in terms of the word "likely" and ask our scientific friends—our friends who have a scientific background as well as some experience in terms of administration of the law to think as to whether or not that might be legislatively useful to us.

Mr. GILCHREST. We will pursue that line of thinking. Thank you very much. I think the—part of what we are trying to do is what Dr. Tyack and Dr. Worcester made reference to, and that is if the gray whale or other marine mammal moves as a result of a ship passing, let's say a Navy ship, we want to get away from the idea that that is a process that needs a permit, or that is harassment, when that might be normal behavior as the result of a whole range of noise in the ocean, not just because that particular ship used that particular sonar in that particular place; but to the fact that there will be some behavior change that will be damaging to that group of marine mammals. And that is the fine-tuning that I think we are trying to proceed with here.

And I think we will definitely work on trying to put into the language of this reauthorization the recommendations that you are making here today, including the ones from Fish and Wildlife. We will also try to make, as we work through this process and with you, a regulatory regime that is befitting a Nation like ours that can focus attention on highly sophisticated science that will, in the long term, benefit our relationship with marine mammals in the oceans.

I do want to just focus for a minute on a couple of other words dealing with this issue of harassment. The administration has used the word "abandoned," as opposed to some of the other terms that we have been kicking around here—"disruption of biologically significant activities." and I would like the administration—well, maybe Mr. Cottingham and Dr. Lent to explain the difference between the word "abandoned" as opposed to "disruption of biologically significant activities," if I could put those two in alignment. And then maybe the other members of the panel, Dr. Tyack, Dr. Worcester, and maybe Mr. Jones.

Mr. COTTINGHAM. Thank you, Mr. Chairman. My—when the administration was pursuing this tack, they developed this language, or we developed this language with the idea that it wasn't just a temporary change. And it was very much like you were just bringing up—if a ship goes by and there is a slight movement or something. So we went with the approach that the change in that behavioral pattern would have to be significant. It would have to be more than just a temporary change.

Mr. GILCHREST. "Abandon" is complete.

Mr. COTTINGHAM. Well, yes, sir. And we have discussed is it abandoned right here, is it abandoned—if the animals move a mile and start taking up that activity again, is that considered "abandoned"? These are things that we have recently been—you know, is it—there's both a spatial and a temporal part of abandonment. Is it a 15-minute, is it an hour, is it a 1-mile, is it a 5-mile? We have actually been in discussions like this with our colleagues at National Marine Fisheries Service in the Navy and other agencies to talk about both the spatial and temporal types of abandonment.

Mr. GILCHREST. Dr. Lent?

Dr. LENT. Thank you. I might just add that in our definition, we also say—the complete phrase is "to a point where such behavioral patterns are abandoned or significantly altered." So it doesn't have to be completely abandoned to meet that level.

Mr. GILCHREST. Is there a reason you— All right, I am not going to kick a dead whale here. [Laughter.] But we do have some concern even if it is abandoned or—

Dr. LENT. Or significant.

Mr. GILCHREST. —or significant. We are trying to work through the word "abandoned." And we know what the administration is trying to get at, which is what we are trying to get at with "disruption of biologically significant activities," so the small turn of the head is not considered harassment.

Mr. COTTINGHAM. Mr. Chairman, if I may—

Mr. GILCHREST. Yes, sir.

Mr. COTTINGHAM. One other thought just came in. There may be instances where a single instance of a ship going past would have a momentary disruption, and that would not be considered, under our definition or yours, a biologically significant activity. But numerous, cumulative, repeated, you know, every day, every hour, every 15 minutes types of activities, we want to make sure that whatever definition we come up with has the potential for assessing the cumulative impacts of that, repeated instances of harassment as well. So I think that is just one more point that could get to the "abandoned" or "significantly altered." Because there are a lot of times when one vessel or one activity wouldn't do something, but if they did it every day, it might.

Mr. GILCHREST. So you are saying that the word "abandoned," in a broader sense from your perspective, would be more protective of marine mammals because it focuses in or you can collect data which determines the cumulative impact of that activity on marine mammals?

Mr. COTTINGHAM. No, I didn't mean it particularly like that as much as this is all in the context of authorizations or getting permits. And there may be activities that you could do, whether it is

a research permit or an incidental activity, that one researcher going in and collecting samples or doing fly overs might not create a big problem. But the problem could come if you had 50 researchers who wanted to go on that one beach and collect samples from a seal. And there are only so many seals, and so they could go in and drive the seals into the water when they landed and went onshore.

If it only happened once during a summer, it probably wouldn't have any effect at all, and the researcher would be permitted for that. But if they, over the course of a summer, researchers or others went ashore to collect samples, pretty those seals or sea lions may not haul out on that particular breeding beach. And that would be an abandonment of that beach.

Mr. GILCHREST. We will have to work through that.

Mr. COTTINGHAM. OK. I hope I didn't add confusion.

Mr. GILCHREST. I hope that word "abandoned," then, doesn't make it more difficult for researchers to pursue their studies. We will work with you on that word "abandoned."

I want to ask a final question to whoever wants to answer this, I guess. If you look at the ocean as a whole and you look at the noise in the ocean as a whole, let's say prior to human activities, before there ships, what was the noise in the ocean, the natural noise in the ocean? And can you compare the natural noise in the ocean to human noise in the ocean—that is commercial shipping, recreational boating, seismic activities from marine exploration, to the Navy? And if you were to rank that as to what is all this noise—and I guess natural noise—I don't know what natural noise is, wave action, volcanoes, lightning strikes, you know, those kinds of things, natural noise; and what is—we are looking at—I don't want to say we are looking at nature harassing marine mammals, or orcas harassing marine mammals, or whatever, but we have—you know, the noise in the ocean: Where does most of the noise come from, given the fact that marine mammals have evolved with that natural noise or there is some resiliency to it? But natural noise in the ocean, what is the next noisiest thing in the ocean? Do you have that information?

Dr. WORCESTER. That is a rather complicated question. The most recent NRC report was, in fact, in large measure devoted to just that issue. There are few simple comments one can make. At low frequencies, below a few hundred Hertz, probably the best measure we have is by comparing the background ambient noise levels in the Northern Hemisphere to those in the Southern Hemisphere. And those in the Northern Hemisphere are about 20 dB higher—there is about 100 times more power in the Northern Hemisphere, predominantly due to shipping. So sort of the general background noise in the ocean has increased substantially because of mankind's activities.

At higher frequencies, up around a few kilohertz, wind and wave action is typically the dominant source of noise. Rain falling on the ocean makes substantial noise, raising the level, really, above background wind-and-wave noise. So—

Mr. GILCHREST. I am just going to interrupt real quick. I will end, because maybe Mr. Chairman and Mr. Pallone have other questions to follow up.

I guess what I am looking for is, in a lot of the testimony that we read, a lot of the noise, especially human activity noise, has an effect on the marine mammals' ability to use their acoustics; it interferes, all of this—whether it is shipping or seismic or sonar or whatever, it interferes with that. So I guess maybe this would be something Mr. Cottingham is going to pursue as far as anthropogenic sound and what the marine mammals can tolerate.

So if it is raining, you have big storm out there, that is high frequency, versus heavy shipping lanes, which is low frequency—does that have an impact on marine mammals in general? Does it determine, the marine mammal as far as the frequency is concerned, what could be biologically disruptive? Those kinds of things. Do we have those—is that scientifically discernable now, or is that something that we are not sure of?

Mr. COTTINGHAM. Mr. Chairman, there are—and Dr. Tyack has been on several of these National Research Council panels that he mentioned looking into this. And that is exactly the sorts of things we will be working with, a group, to not only talk about the background sources of noise as—both the chronic and the acute sounds, because what Dr. Worcester was talking about is really a lot of the background noise that is there. Some of the most recent problems or incidences of problems have come from the much more acute that are—they only last a short—you know, an hour or a day or a few minutes, as with the sonar-type activities. We will be looking at that in talking about research activities and ways to mitigate those potential acute sounds as well.

Mr. GILCHREST. Thank you very much.

Mr. Pombo?

Mr. POMBO. Thank you, Mr. Chairman. I have a lot of questions that I would like to ask, but I think this is something that over the course of time we need to kind of work through a lot of what we mean in terms of definition, so that we all understand exactly where we are going.

But there is one question that somewhat perplexes me, and that is—under the general idea of the Marine Mammal Protection Act, we give a higher level of protection to marine mammals. Should there be a different interpretation or a different level of protection when we are talking about a population that may be overpopulated in a certain area versus one that is endangered or more threatened in terms of an overall population? Should there be a different level of protection or a different level of what we mean by "harassment" or what we mean by all of these protections that we have put in in this law?

In California we have areas where we have overpopulation of certain marine mammals, and there is increasing conflict with human activity because of that. And I am just not sure if we should have that difference in there or not.

Dr. Lent?

Dr. LENT. Thank you, Mr. Chairman. Increasing populations of marine mammals is a happy problem, but it is a problem that we are very much aware of, particularly from our recreational constituents on the West Coast. I think it is important to note that when we make a determination of negligible impact, we certainly take into account the number of animals in the population—is it

going to have an impact or not? It is very different for Hawaiian monk seals than it would be for pinnipeds off the coast of California.

So whether or not we need to have different definitions of harassment determining the level of population or depending on the level of population, I don't know if that is necessary given the process we go through to say is it or is it not having a significant biological impact on the animal.

I just want to note that we are very aware and working very closely with our constituents in the recreational community, in particular on the West Coast, dealing with ways to handle this happy problem of too many animals out there. When we have a limited number of staff and budget, we have to focus on getting those populations that are in bad shape back up, and hopefully we will have enough funding eventually to focus on dealing with too many animals in certain closed areas. Thank you.

Mr. POMBO. I agree with you that your focus should be on the threatened or more problematic species. There is no question that that is where your focus should be.

Somebody recently handed me a news article about—I believe it was in La Jolla, in Southern California, where some guys went on to the beach and chased—I don't know if it was sea lions or seals or what it was they chased off the beach, and they were all arrested and fined $1,000 for doing it. I have a hard time putting together your description of not having enough money and personnel to take care of things. If that is a priority and you can dispatch people to take care of somebody doing something like that, I don't—I think maybe you have too many people, if that is what you are doing.

Do you follow what I am saying?

Dr. LENT. Thank you, Mr. Chairman. I understand the case of the children's pool in La Jolla. The folks that were issuing the citations were from the enforcement side of the Agency. They were not the scientists who were out working with the populations that are in trouble. We try very hard to use outreach and education and having docents there on the beach to inform people that this is not something that we want to have happen, rather than to have to issue citations. One of the persons that had a citation was in fact injured by the mammals, so it is not just for the mammals' protection, but also the folks using the beach. Thank you.

Mr. POMBO. Well, I am going to yield back, Mr. Chairman, but I really do think that we need to pursue this a little bit in terms of the differences in areas that may be overpopulated versus areas that aren't, and look at what we mean in terms of harassment of those species. I think that is a big part of the conflict that we are having, at least on the West Coast, where, you know, people—my average constituent goes down there and there are seals all over the beach and they are not supposed to use the beach because the seals are there. And it is a conflict that I think is unnecessary and causes us problems.

You know, when we talk about some of these highly valuable research projects that are going on and our desire to further that research and to protect those marine mammals, I think my constituents and others look at that very differently than they do a beach

that is full of seals. And I think there should be some rationale in that whole thing.

Thank you, Mr. Chairman.

Mr. GILCHREST. Thank you, Mr. Pombo.

Mr. Pallone, any more questions?

Mr. PALLONE. Thank you, Mr. Chairman. I just wanted to ask a couple of questions about the captive animal welfare, either for Rebecca Lent or David Cottingham. In 1994, the changes to the Marine Mammal Protection Act gave APHIS the authority for captive marine mammal welfare inspections. And I wondered if APHIS has demonstrated the requisite expertise and ability to—oversee marine mammals in captivity. And in addition, you know, how many inspectors do they deploy to inspect display facilities? Have they promulgated specific care standards? Any oversight or reports requirements for APHIS? I am just kind of lumping these all together. If either of you would like to respond.

Mr. COTTINGHAM. Thank you, Mr. Pallone. I don't have the specific numbers on how many APHIS inspectors there are. Of course, this—I believe that APHIS started a negotiated rulemaking process and they got part of the way through it and in 1998 or 1999, they came up with some of the proposals to implement those. But I think some of the most contentious aspects were not finally finished.

Of course, the Commission was on record urging APHIS throughout some incidences recently with some polar bears, that the situation was such that the APHIS folks were saying that the person who was inspecting those facilities had no real training in polar bears, they didn't get there very often. And it really was quite contentious. It has been resolved, and most of the polar bears are now in good—

Mr. PALLONE. Well, let me—maybe what I can do, the more specific questions are about the inspectors and the other things. Maybe I can ask you those in writing.

Mr. COTTINGHAM. Right.

Mr. PALLONE. But if either of you could just tell in general your opinion about whether you think APHIS has demonstrated requisite expertise and ability to do the inspection and to oversee the captive marine mammals. I can ask those other questions more specific in writing, with your permission. But just in general, if you could comment on APHIS's ability in that regard, either you or Rebecca Lent.

Mr. COTTINGHAM. My comment would be that the Commission has urged on a number of occasions that APHIS take some more training with marine mammals, and with vets who were specifically trained in marine mammalogy and dealing with animals that are in either public display or research institutions.

Mr. PALLONE. OK. Dr. Lent?

Dr. LENT. Thank you. I don't have anything to add. Thank you.

Mr. PALLONE. OK, we will just add those—if we could ask those other questions in writing.

But let me just ask about the polar bears. As you know, the traveling exhibit of marine mammals, a number of them gained national attention with the Suarez polar bears incident last year. I guess one of the polar bears died, in fact. And is there a need to

include not just—now, cetaceans are what? Those are the whales? Dolphins and whales. Boy, you are getting me technical here. Is there a need to include not just cetaceans but all marine mammals in a prohibition on transportation for traveling exhibits? And specifically in regard to those Suarez bears, what is their current legal status? And you know, I think you were hinting about them being located to appropriate institutions. Do you want to comment on what happened in that regard?

I guess that is Mr. Jones, because you did a very good job in trying to take care of the bears. So I am asking you that question.

Mr. JONES. All right, thank you, Mr. Pallone. Let me start with the specific situation with the Suarez bears first, if I could, and then answer the first part of your question.

As you noted, we first became aware of issues regarding the conditions under which the bears were being kept in 2002—or late 2001. But we had had even before that a question about the documentation. We initially issued a permit for all these bears to come in based on our believe that everything was right with their paperwork. But in March of 2002, we decided that one of the bears, in fact, was not the bear that was identified on the documentation we were provided. So we seized that bear. That bear is now in the Baltimore Zoo and doing well.

Mr. PALLONE. —go see him.

Mr. JONES. In November of 2002, we decided that we would seize the remaining six bears because of the fact that the bears had come into Puerto Rico, into the United States, under the conditions that they would be maintained for public display. And the circus was no longer displaying them. There certainly were questions about the conditions under which the bears were kept. Those issues were the responsibility, first, of APHIS but also of the Commonwealth of Puerto Rico. We felt finally that regardless of the other issues, the bears simply were not being used in the way that the permit required, and that there were in addition these other issues about care of the bears, and we certainly felt a responsibility.

So we seized those bears. Unfortunately, one of the bears died during the transport. The remaining bears, one is at the Point Defiance Zoo in Tacoma, Washington; two are—sorry, two are at Point Defiance, two are at the North Carolina Zoo in Asheboro, North Carolina, and one went to the Detroit Zoo.

Now, the—we have litigation ongoing on this issue. The Suarez Circus has sued the Government and we have actions taking place, and I am not able to comment on the details of the matters that are pending in court. But I will say that we believe that the actions that we took were completely appropriate in this case.

Now to your first question.

Mr. PALLONE. About the prohibition on transport.

Mr. JONES. It is clear that there is a different level of risk to whales, dolphins, porpoises, those species that we are not responsible for in the Fish and Wildlife Service that have to be maintained in water all the time. And so that is the reason that the administration bill focused on these other species. The administration does not have a position regarding the inclusion of additional species. I will just say personally, Mr. Pallone, that I would not object to a broadening of that prohibition in the law. But for an ad-

ministration position, we would probably have to provide you with that.

Mr. PALLONE. All right, thank you very much and thank you for all your help in helping the bears. Appreciate it.

Mr. JONES. And Mr. Pallone and Mr. Chairman, if I could add one other thing, because I was remiss in my opening statement not to note something else. I am accompanied here by Judy Wilson from the Minerals Management Service, who is the endangered species coordinator for MMS. And while most of the issues we have discussed this morning regarding oceanic species are within the purview of the Fish and Wildlife Service, the fact is that MMS is involved through its seismic activities and through its regulation of oil and gas development offshore. And MMS takes these responsibilities very seriously.

And while it may not be the place here during this hearing today, we are—the Department of Interior would certainly be pleased to provide any information to you and your staff that you would like to have about MMS and its activities and its interactions with marine mammals. MMS does have an active research program, and we work closely with them where we can help to accomplish those things. And we would be pleased to provide you with any information you would like to have.

Mr. GILCHREST. Thank you very much.

Mr. PALLONE. Thank you.

Mr. GILCHREST. Thank you, Mr. Pallone.

Just a final brief question for this panel. I know it is getting late. Everybody wants lunch and we have another panel to go through and we have to be out of here by 1 o'clock.

But anyway, Dr. Lent. "Little 3(i)," that is what I am calling it. Sounds like an Indian name. The paragraph in Level B harassment that starts "is directed toward a specific individual" is still making a number of constituencies a little bit uneasy. We understand why the Agency wants this language to prosecute those non-permitted activities that harass marine mammals. We include the language in our bill to address the concerns of the Agency. However, we are questioning the need for that paragraph now, since the phrase "pursuit, torment, and annoyance" has been deleted from the definition. Can't the Agency prosecute those non-permitted activities without this added paragraph?

If you need time to ponder that.

Dr. LENT. Yes, I am waiting for that little song to go that gives me time to think, right?

Mr. GILCHREST. OK, Frank and I could sing some Irish songs. [Laughter.]

Dr. LENT. That would be good.

Mr. GILCHREST. Frank, you are Irish, aren't you?

Dr. LENT. Thank you, Mr. Chairman. I think the important thing is we really feel that it is important to have something in this bill that allows us to go straight to the activities that are directed on marine mammals. It is clear, it is something that is in there, in the law, so that we can get regulations in place to address things like jet skis and swim-with programs, things that clearly for us are going to alter the behavior.

So we still think it is necessary. Again, as we mentioned, we look forward to talking to you about that definition and making sure that is the best way to go.

Mr. GILCHREST. Thank you. And we will pursue that.

We are going to have votes around 12:00, five votes. They will take a lot of time out of here.

So, I enjoyed this panel. Hope we can get together again. But thank you very much for your testimony.

The second panel today— Dr. Lent, that might not be a bad idea. I know which song you are thinking of. We will bring that in here the next time. "Jeopardy," yes—is that "Jeopardy"? I will have a little tape recording.

Our second panel will be Mr. Robert Hayes, General Counsel, Coastal Conservation Association; Ms. Karen Steuer, Senior Policy Advisor, National Environmental Trust; Mr. Charlie Johnson, Executive Director, Alaska Nanuuq Commission—welcome; Dr. Randall Wells, Conservation Biologist, Sarasota Dolphin Research Program, Mote Marine Lab; Mr. Robert Zuanich, Board Member, United Fishermen of Alaska.

I want to welcome all of you. If there are no seats in the back, for the people that are standing, since I don't think we will have any more members, you can sit in the lower dais if you so choose. Make it a little bit more comfortable.

We will start with Mr. Hayes. Folks, thank you for your attendance here this morning. We look forward to your testimony. Mr. Hayes.

STATEMENT OF ROBERT HAYES, GENERAL COUNSEL, COASTAL CONSERVATION ASSOCIATION

Mr. HAYES. Well, I would like to begin by thanking you for pulling together a bill that, from our view—that would be the recreational fishermen's view—begins to address potential interactions between recreational fishermen and marine mammals, but does it in a way that might actually apply a little bit of common sense.

I would like to say that I am here today on behalf of the Coastal Conservation Association. But in addition to my remarks today on behalf of them, I should point out that I have discussed this testimony with the Recreational Fishing Alliance and with the American Sport Fishing Association, and they share similar views for this testimony.

You know, Congress in 1972 decided that marine mammals were going to take a special position in this world. And recreational fishermen certainly support that point of view. Recreational fishing, however, has over the last few years, 30 years, grown to a substantial size industry in volume. The National Marine Fisheries Service presently estimates that there are 12 to 17 million marine recreational anglers in the United States. We think, actually, that number is a little bit low. So that is a substantial involvement in the marine environment.

When we first got involved with this concept of how we interacted with marine mammals, frankly it was not through anecdotal evidence that there was actually an involvement; it was through a reading of the administration's bill, which referred to us, I think, as non-commercial fishermen. We didn't know what that

was, exactly, but we assumed it was us. I am sure there may be others at the table that it referred to in addition, but we assume it referred to us.

And so we appreciate the approach that you have taken in your bill. Your bill basically directs this incidental take activity to, really, what the problem is. And the problem, it seems to me, is relatively simple. It is not commercial fishermen or recreational fishermen that are the problem; it is the gear that they use. If you look at the activity of fishing, which is essentially what you have done in Section 118, and you look at the kinds of activities that the normal, average recreational fisherman is involved in, he has very little interaction with the marine mammal. He is out there with a rod and a reel, he has control of it, he has the ability to see what he is doing. He knows what that interaction is. So an incidental interaction is, frankly, going to be—not "remote," but it certainly is infrequent, and it certainly is never intentional.

However, there are—I actually have a report of these things—there are reports of recreational fishermen using commercial gear. And there is commercial gear which clearly has an interaction with marine mammals. Gill nets is my favorite. I found a report from the State of North Carolina—I am sorry Mr. Jones isn't here—but there is a report from the State of North Carolina that there are over 100,000 trips by recreational fishermen in 2001 with recreational gill nets. Now, I didn't know what a recreational gill net was. I knew what a gill net was, but I had a little trouble figuring out what a recreational gill net was.

But the reason I bring that up is that that apparently is the impetus, or the largest impetus, for the administration's view that non-commercial fishermen ought to be involved in the Marine Mammal Protection Act.

I can point out this—and that is why I like your version of the bill: Your bill looks at the problem. The problem is the gear that interacts with marine mammals and the significant impact, if there is a significant impact, on those marine mammals. If it is the gear that interacts, it is the gear we ought to focus on. It is not the activity of recreational fishing. It is the activity of using a destructive gear.

And I will point out one other thing, which I found remarkable in this North Carolina study. There are 190 trips in 2001 that are still being used by electric shock by recreational fishermen. Now, I thought that was banned everywhere, but apparently not in the State of North Carolina. And for those folks who are sitting here going what in the world is he talking about, it is an old way to catch catfish, frankly, is the way they used to do it. You stick an electric line down in the water, and over here you have an old crank telephone, and you crank the telephone around and it kills lots of fish.

Lord knows, when I was listening to this sound discussion, I was thinking, boy, wait till they hear about this.

But that kind of gear. That kind of gear is clearly destructive. It is the thing that we ought to be focusing on. But at the same time, I don't think we ought to be engaging, frankly, the largest sector of the recreational community and the vast of majority of it that uses rod and reel. And so what we would like to work with

you on your bill, is we would like to work on a provision that essentially makes clear that rod and reel activity by recreational fishermen is a activity that is not going to have very many interactions and is not going to get involved, in the normal course of events, with a very cumbersome Section 118 process—which I can actually assure you, no recreational fisherman I know is going to be able to muster the kind of attention that it is going to take to go through that process.

So that is what we would like to work with you on.

[The prepared statement of Mr. Hayes follows:]

Statement of Robert G. Hayes, General Counsel, Coastal Conservation Association

Good morning Mister Chairman:

My name is Bob Hayes and I am the general counsel for the Coastal Conservation Association ("CCA"). We appreciate being asked to testify about the amendments to section 118 of the Marine Mammal Protection Act ("MMPA"), which as enacted in 1994 focused entirely on commercial fisheries.

The Coastal Conservation Association is the leading marine recreational fishing group in the United States. Formed by a small group of sport fishermen in Houston in 1978, CCA has grown to a fifteen-state operation with over 90,000 members. Each of our states operates somewhat independently focusing on issues in the state that are important to marine recreational fishermen. However, like so much in oceans management, conservation issues encompass a regional and national perspective, therefore, CCA learned long ago that federal and international fisheries management were just as important to the local marine recreational fishermen as the conservation of the most local fish population.

CCA pursues conservation policies set by our state and national Boards of Directors. These boards are made up of active volunteers concerned about the health of the nation's marine fisheries. CCA has been active in a number of conservation issues in the last twenty years, which include: all of the east and gulf coast net bans; gamefish status for redfish, speckled trout, tarpon, striped bass, river shad, marlins, spearfish and sailfish; and, the reduction of bycatch through the use of closed areas and technology. We have also pushed for the improvement of the management system through the restructuring of state and federal management systems; the elimination of conflicts of interests by decision-makers, and the active involvement of our membership in the management process.

The interaction of recreational fishermen and marine mammals has not been a CCA priority until recently. In the last three years we have been involved in the management of Manatees in the Florida. There the interaction of boaters and manatees have resulted in a series of regulations issued by the federal government and the State of Florida. The most prevailing regulatory concept has been the imposition of slow speed zones. The timing and location of the areas is a good example of the violation of a management principle CCA has long endorsed. Management of fisheries and fishermen is best done at the lowest possible level of government. Local officials are more responsive to the needs of the public and far informed about what works for the impacted resources than officials in the federal government. Despite years of interaction with federal fishery managers, I am still astonished by the federal decision makers general lack of practical answers to easy questions.

I know that the subject of this hearing and my testimony today is not manatees but I would ask the Committee to consider the possibility of amending the Act to instill the principle we are endorsing. Where a State can manage a resource consistent with all the responsibilities of the MMPA then it ought to be allowed to do so, without third party recourse to the federal government. Such a delegation would provide greater confidence in the regulations controlling the problem and at the same time insure the same level of protection required by the Act itself.

Congress and the American public made a policy decision in 1972 to protect marine mammals in a way that no other non endangered species received protection. As a result of this decision, marine mammals have prospered and in some cases have filled ecological niches that have resulted in increased interaction with man. Much of that interaction has focused previously on commercial fishing which, because of the size and location of its operations, has received the most Congressional attention. The first of course was the tuna porpoise problem. Increasingly however there have been minor interactions between marine mammals and other commercial fisheries and in some cases with some recreational fisheries.

Section 118 as enacted provides for an extensive process to determine which commercial fisheries interact with marine mammals and a process to determine the appropriate regulatory measures to reduce those interactions. The Chairman's amendments to section 118 recognize that there may be instances where fisheries other than commercial interact with marine mammals. It provides the same process for those fisheries for a permitted incidental take as is presently provided for commercial fisheries. The process is still highly bureaucratic and cumbersome.

There are 12 million saltwater recreational fishermen in the United States. The vast majority of them fish with traditional recreational rods and reels. They have a very remote, if any, possibility of an injurious interaction with marine mammals. Placing them in the section 118 process would subject them to a new regulatory burden, which I doubt very much the average recreational fishermen would find easy to participate in. Nor would it be a process that would provide much benefit to the marine mammals being protected. A little common sense needs to be applied here. Recreational fishing done with rod and reel ought to be an exempt activity under the MMPA. Barring that Congress ought to make it very clear that rod and real recreational fishing ought to be classified by NOAA Fisheries as a category (1) (A) (iii) activity.

We are aware that there may be recreational activities like gill netting for spot in North Carolina which may have a higher incidence interaction with marine mammals. Clearly that kind of activity ought to be included within the section 118 process. It is my understanding that recreational gill netting in North Carolina may involve as many as 100,000 trips a year. Personally I don't think of it as a recreational activity and would ban it entirely. But that is a decision best left to the fine folks in North Carolina. To my knowledge this kind of activity only occurs in North Carolina and Alabama. If there is an interaction with marine mammals then the participants ought to be regulated to reduce that interaction. Congress does not however need to open the door to including 12,000,000 anglers into the mix. A simple clarification in HR. 2693 would ensure this result.

Again, I appreciate the opportunity to be here this morning and I would be happy to answer any questions the Committee members may have.

Mr. GILCHREST. Thank you very much, Mr. Hayes.

Mr. HAYES. Thank you.

Mr. GILCHREST. We look forward to that.

Ms. Steuer.

STATEMENT OF KAREN STEUER, SENIOR POLICY ADVISOR, NATIONAL ENVIRONMENTAL TRUST

Ms. STEUER. Thank you, Mr. Chairman—both Mr. Chairman—and Mr. Pallone. I am a senior policy advisor to the National Environmental Trust, but I am testifying today on behalf of organizations that are supported by millions of Americans from Maine to Hawaii. We appreciate the opportunity to provide you with our views on H.R. 2693.

While we support some of the provisions in the legislation and appreciate being able to work with you on it, there are critical changes from existing law that we believe would significantly weaken current levels of protection for marine mammals. And it is those provisions that I want to focus on today.

We have concerns about some of the bill's proposed changes for take reduction plans. The goal of a take reduction plan, under current law, is to reduce the mortality of marine mammals to sustainable levels within 6 months of its implementation. H.R. 2693's combined changes to the current time lines would delay this objective by approximately a year. And in some areas, that means that potentially hundreds of additional marine mammal deaths will occur.

Although NMFS's record on meeting the exist act's time lines is abysmal, we have to mention that many of the delays have been

caused actually by political intervention in the process. And extending the timeframes, as H.R. 2693 does, will not facilitate better implementation or conservation.

The intention behind the procedures established in Section 118 in 1994—and I am helped to write them, so I am guilty—was to bring all the stakeholders together, and to bring them together in a consensus-building process, with the single goal of reducing unsustainable incidental takes. But this approach is only successful if stakeholders enter the negotiations in good faith and if they believe that the consensus-building process is their only option.

Rather than amend the act to modify the deadlines, we would really like to urge Members of Congress and State officials to refrain from intervening in the Section 118 process once it is under way, and allow it to proceed with its current statutory requirements. Under these circumstances it will work, and actually has worked very well on the West Coast. The Pacific Coast team has done a great job on take reduction and putting a plan together and beginning its implementation. So we know that the process can work.

H.R. 2693 fails to address the greatest remaining threat to the most endangered large whale in U.S. waters, the North Atlantic right whale, which was already mentioned in earlier testimony today. NMFS regulates, or at least tries to regulate fishermen whose gear causes approximately half of the human-induced mortalities of this species, through the take reduction team process. However, the Agency has to date made no attempts to regulate shipping traffic, even though we have solid documentation that ship strikes cause the other 50 percent of the mortalities.

We would therefore urge that the Committee consider including language in the bill that creates a ship-strike mortality reduction plan, using the take reduction plan model. And we would be happy to work with the Committee on language to this effect.

On to harassment. The bill changes what we believe is the most fundamental provision of the MMPA by amending this definition. As previously discussed, it shifts the burden for Level A harassment from "potential to injure" to "probability to injure," which we believe is a far more ambiguous and less protective threshold than currently exists. H.R. 2693 also changes the existing definition of Level B harassment by requiring a biologically significant disruption of activities, but it doesn't define what biologically significant disruption means. Nor is that a commonly used scientific term.

The bill also adds a proposed third tier of harassment, as we discussed earlier, for activities directed toward specific animals. The permitting standard in that tier of harassment is one of "disrupting behavior," which is different from the other standard of Level B harassment of a "biologically significant disruption." So in effect, if you adopt this approach, you have created three different standards of harassment, but you haven't defined any of the terms included in those standards. And we think that is a very dangerous way to go.

We would instead urge the Committee to retain the current definition of Level A, and to amend Level B harassment as follows: Any act that disturbs or has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disrup-

tion of biologically significant activities, including, but not limited to— and then going on to list the activities.

And I know you have heard this before, but this definition almost exactly mirrors the definition proposed by the National Research Council. It replaces your "biologically significant disruption" with what we believe is the far more scientifically definable "biologically significant activities." And considering that the NRC has just begun plans to undertake a new study entitled, "Describing biologically significant marine mammal behavior"—and they are about to convene a panel to do so—we believe it would be far wiser to use this wording, if indeed it is prudent to amend the definition at all at this time when the NRC is undertaking this study.

Finally, H.R. 2693 proposes to establish a general authorization for incidental takes. Unlike other general authorizations in the MMPA, whose scope is limited to a particular activity and type of take, such as commercial fishing, the current language that you propose applies to any activity. It doesn't restrict the scope of the take, it is of unlimited duration, it has no requirement for the applicant to provide information on the type of activity or the number of animals impacts, and it has no requirements for reporting.

As currently written, this is a broad authorization that would effectively create an escape clause that allows user groups to bypass the incidental take permitting process entirely. I believe that—

Mr. GILCHREST. Karen, I am just going to— We have potential for votes very soon, and so I am going to have to limit the testimony to as close to 5 minutes as possible. And we will continue to talk to you about the words and the placement of the adverbs, adjectives, pronouns, dangling participles. We are going to do all that. And that is why we are going through this process.

So I am really going to have to ask you to just finish up with your last sentence so we can move on.

Ms. STEUER. The last sentence is that we want to work with you on trying to make this better, and we will do everything we can from here on in to do that.

[The prepared statement of Ms. Steuer follows:]

Statement of Karen Steuer, Senior Policy Advisor, National Environmental Trust, on behalf of the Following Organizations: American Cetacean Society; Animal Protection Institute; Cetacean Society International; Defenders of Wildlife; Greenpeace; Humane Society of the United States; International Marine Mammal Project of Earth Island Institute; International Wildlife Coalition; National Environmental Trust; Natural Resources Defense Council; Oceana; Society for Animal Protective Legislation; Seaflow; The Ocean Conservancy; Whale and Dolphin Conservation Society; and World Wildlife Fund

Mr. Chairman and Members of the Resources Committee:

My name is Karen Steuer. I am a Senior Policy Advisor to the National Environmental Trust, and I am testifying today on behalf of organizations supported by millions of Americans from Maine to Hawaii. Our groups represent a broad range of marine mammal expertise, including experience in field research on cetaceans and pinnipeds, working with whale watching operations, rescuing stranded whales and dolphins, participating in court-related actions to defend U.S. marine mammal protection laws, serving on take reduction teams, and drafting previous legislative changes to the Marine Mammal Protection Act (MMPA.)

We appreciate the opportunity to provide you with our views on H.R. 2693, and have the following comments on the provisions contained in the legislation, and on additional provisions we believe should be included in the reauthorization of the Act. The following analysis follows the structure of H.R. 2693.

Section 4: Limited export authority. The bill corrects a problem created by the 1994 amendments to the Act, which allowed a Native of Canada, Greenland, or Russia to import legally obtained marine mammal products into the United States as part of personal travel or cultural exchange, but failed to address the export of those products at the end of the travel. We support this correction.

Section 5: Authorization of appropriations. We would strongly urge that the Committee consider increasing the authorization levels in H.R. 2693, which are considerably less than the agencies require to properly fulfill their obligations under the MMPA. In previous testimony before this Committee regarding changes to the statute proposed by the Department of Defense, we emphasized that in our view the arguments and characterizations raised by DOD did not arise from the language of the statute, but instead reflected process problems residing within the wildlife agencies. It would be disingenuous to insist that the agencies correct these problems, take on the additional burdens contained in this legislation and recommended elsewhere, and refuse to provide them with the funding necessary to complete those tasks. Increasing their obligations without concurrently increasing the authorization levels is a recipe for disaster—for the agency, the statute, the stakeholders, and marine mammal conservation.

Section 6: Take reduction plans.

Non-commercial fisheries: We recognize that some non-commercial fisheries use gear similar or identical to commercial fishing gear and, as a result, are taking marine mammals at rates potentially equal to or greater than those in commercial fisheries. The 1994 amendments to the MMPA added Section 118 to the Act as a new bycatch management regime for commercial fisheries. In order for these provisions to be accurately and fairly implemented, they must now be extended to non-commercial fisheries where appropriate. However, we are concerned that the amendments proposed in H.R. 2693 are too narrowly focused and do not include all the references necessary to bring this subset of non-commercial fisheries under the authority of the MMPA's Section 118. The intention behind the language in H.R. 2693 is unclear; if the Committee's intention is to apply the Act equally to all fisheries which incidentally take marine mammals, we would recommend that the bill be amended to use the approach contained in sections 403 and 404 of the Administration's proposal.

Timelines: The goal of a take reduction plan is to reduce, within six months of implementation, the mortality or serious injury of marine mammals accidentally entangled in fishing operations to sustainable levels. H.R. 2693 would (1) delay this objective by three months; (2) nearly double the period for review and finalization of a take reduction plan; and (3) remove the existing requirement that a take reduction team be convened no later than 30 days following the publication of a stock assessment indicating that incidental takes for that stock exceed the Potential Biological Removal. These delays will result in potentially hundreds of additional marine mammal deaths, and we strongly oppose these amendments.

Unfortunately, NMFS' record on following the existing time frames and procedures for take reduction plans mandated by the Act is abysmal. For example, shortly after the 1994 amendments were enacted, NMFS stated that reduction of harbor porpoise bycatch was a priority, given the high levels of mortality and the likelihood that an Endangered Species Act listing was imminent. Regardless of their stated intentions, NMFS convened the team far behind the mandated schedule and, although the team reached consensus on a take reduction plan, the agency delayed publishing the plan for more than 18 months, during which time dozens, if not hundreds, more harbor porpoise were needlessly lost to incidental take.

In another example, NMFS did not convene a take reduction team for large whales until forced to do so through a lawsuit, although it was widely recognized that one of the species involved, the North Atlantic right whale, was highly endangered and clearly subject to unsustainable incidental takes in fishing gear. In response to the lawsuit, NMFS submitted a plan to the court. Political intervention resulted in NMFS substantially weakening the plan to the point at which it merely allowed existing fishing practices as bycatch reduction measures. As a result, incidental takes remain at unsustainable levels, and again the agency finds itself in court.

The agency can and should meet the current deadlines mandated by the Act. Extending the timeframes as H.R. 2693 does will resolve none of these problems, nor will it facilitate better implementation or conservation. The intention behind the procedures established in Section 118 was to bring all stakeholders together to reach consensus on methods of reducing unsustainable levels of incidental takes of marine mammals within a relatively short time frame. However, this approach can only be successful when stakeholders enter the negotiations in good faith, under-

standing that the consensus-building process is the best option, and when the agency meets its statutory mandates. Rather than amend the Act to modify deadlines, we urge that Members of Congress and state officials refrain from intervening in the take reduction team process, and allow it to proceed with current statutory requirements. Under those circumstances, there is every reason to believe it will work.

Take reduction team members: We support the amendments in H.R. 2693 that would add broader agency representation to take reduction teams, including representatives from the office of NOAA General Counsel, law enforcement, NMFS fisheries scientists, and a representative of the appropriate NMFS Regional Administrator. We believe these changes can serve to provide crucial guidance to the team to ensure that the proposed measures can be easily translated into regulatory language, are enforceable, and are not in conflict with other fishery management measures. Adding this additional expertise during the early stages of the take reduction plan process should also assist the agency in ensuring more timely review and implementation of proposed take reduction plans.

Changes to take reduction plans: We support the amendment in H.R. 2693 requiring the Secretary to reconvene take reduction teams to explain differences between the draft plan proposed by the team and the published plan approved by the Secretary.

Support for take reduction efforts: The MMPA currently authorizes the Secretary to accept gifts, devises, and bequests to carry out Section 118, and H.R. 2693 clarifies that this authorization extends to observer, research, and education and outreach programs. It is our view that this provision will help to provide NMFS with the ability to work cooperatively and effectively with various user groups in the implementation of take reduction plans, and we support its inclusion.

Right whales and ship strikes: There is currently no provision in H.R. 2693 to address one of the greatest conservation threats to the most endangered large whale found in U.S. waters, the North Atlantic right whale. NMFS currently regulates fishermen, whose gear causes approximately 50% of the human-induced mortalities of this species, through the take reduction team process. However, the agency has to date made no attempts to regulate shipping traffic, even though ship strikes have been documented to cause just as many right whale deaths. We therefore propose including language in the reauthorization that would create a ship strike mortality reduction plan, using the take reduction plan model. We would be happy to provide the Committee with draft language.

Section 7: Pinniped research. Pinnipeds have never been the primary cause of the decline of a salmonid, nor has it been scientifically demonstrated that they have been a primary factor in the delayed recovery of a depressed salmonid species. Non-lethal deterrents hold the most promise to resolve the problems of "nuisance" animals and should be the first line of defense. NMFS has failed, however, to publish final guidelines on acceptable non-lethal deterrents. NMFS has also failed to give sufficient priority to dedicated research into the development of safe and effective non-lethal deterrents. Development of such deterrents will aid in reducing not only predation on threatened and endangered salmonid stocks, but also other conflicts between pinnipeds and humans.

We support H.R. 2693's proposed amendment to provide for research into non-lethal removal and control of nuisance pinnipeds. We recommend, however, that this section of the bill be amended to: (1) require the Secretary to develop a research plan to guide research on the non-lethal removal and control of nuisance pinnipeds; (2) clarify that the development and testing of safe, non-lethal removal, deterrence and control methods shall provide for the humane taking of marine mammals by harassment; (3) include other organizations and individuals, such as the conservation community, in addition to representatives of commercial and recreational fishing industries, in the development of the research program; (4) require the Secretary to make the annual report to Congress available to the public for review and comment; and (5) authorize the Secretary to accept contributions to carry out this section, as in Section 118.

Section 8: Marine Mammal Commission. We oppose the provision in H.R. 2693 that states: "except that no fewer than 11 employees must be employed (by the Marine Mammal Commission)—at any time." Removing this lower threshold may provide some members of Congress with an incentive to decrease appropriations and, in turn, staff capacity on the Marine Mammal Commission. Congress should instead rely on the Commission to fulfill the role for which it was originally created: to provide crucial expertise and guidance in the oversight and implementation of the Act. The Commission should be empowered to expand its authority to promote and undertake visionary dialogues and strategic thinking that will advance the purposes and policies of the MMPA.

We support the provision to change the per diem rate in the Act, which in our opinion is too low. Consequently, the current provision precludes the Marine Mammal Commission from securing the services of most experts and consultants. By removing this restriction, the Commission will be brought under the government-wide restrictions for the payment of experts and consultants.

We recommend that the authorization of appropriations proposed for the Marine Mammal Commission be increased to a more realistic figure of $3,400,000.

Section 9: Scrimshaw exemption. We do not oppose this provision, which extends the permits for individuals with pre-ESA ivory, to allow them to continue to possess, carve, and sell the ivory until 2007.

Section 10: Polar bear permits. In 1994, Congress provided for the issuance of permits authorizing the importation of trophies of sport-hunted polar bears taken in Canada, subject to certain findings and restrictions. The amendments required the public to be given notice prior to and after issuance or denial of such permits. H.R. 2693 proposes to change this public notification process to a semiannual summary of all such permits issued or denied. We oppose this provision, as it would establish a blanket exemption to the notice and comment requirement and institute a dangerous precedent under which permits could be issued or denied without much-needed public scrutiny. The public comment process surrounding the issuance of a permit to import polar bear parts is needed to provide public oversight to verify that a permit is tied to tagging that clearly demonstrates when, and from what stock, the polar bear was taken. Rather than removing the public comment process, the Fish and Wildlife Service should work to ensure that these provisions are effectively enforced and do not result in the illegal take or a negative change in the status of stocks that are currently depleted.

Section 11: Captive release prohibition. We support the provision in H.R. 2693 amending the MMPA to clarify that the Act expressly prohibits any person subject to the United States' jurisdiction from releasing a captive marine mammal unless specifically authorized to do so. In the absence of mandatory precautionary measures established as conditions of a captive release permit, potential harm might result, to both the animals released and to wild populations they encounter, in the form of disease transmission, inappropriate genetic exchanges, or disruption of critical behavior patterns and social structures in wild populations. Any such permit requirement must be subject to the same jurisdictional and public review requirements that apply to other MMPA permits.

Section 12: Stranding and entanglement response. Each year a growing number of marine mammals become entangled in fishing gear and other marine debris. It is important that NMFS and FWS have the explicit authority to collect information on these entanglements and to grant authorization to selected organizations or individuals to disentangle animals whose lives are threatened. Disentanglement has proven to be an effective mitigation measure for humpback whales, northern fur seals, California sea lions, and Hawaiian monk seals, and has proven to be significant to the survival of the North Atlantic right whale. These efforts promote the conservation and recovery of these species and should continue as a matter of priority. To improve efforts to monitor and respond to entanglement threats to marine mammals, we support the proposed amendments to Title IV of the MMPA to include entanglement situations and to define the term "entanglement".

Section 13: Definition of harassment. On May 6 the Resources Committee held a hearing on changes proposed to the MMPA by the Department of Defense, among them a change to the definition of harassment. During that hearing, many of the organizations represented by this testimony expressed grave concerns regarding the proposed changes. We noted that in our view any problems with the existing harassment definition are not due to ambiguities in the statutory language, but to fundamental process problems, including: inconsistency in reviews of permit applications, conflicts in the process that dovetails the MMPA with the National Environmental Policy Act, and a lack of cooperation among federal agencies. If the problem lies in process issues that go uncorrected, changing the definition is likely to result only in more confusion, more delays in granting permits, and more lawsuits. Nothing will be gained, and marine mammal conservation will undoubtedly suffer as a result.

The current definition of "harassment", added to the Act in 1994, is "

"The term "harassment" means any act of pursuit, torment, or annoyance which—

(Level A) has the potential to injure a marine mammal or marine mammal stock in the wild; or

(Level B) 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, nursing, breeding, feeding, or sheltering."

H.R. 2693 would shift the burden for Level A harassment from "has the potential to injure" to "has the probability to injure." We oppose this change, and are of the view that the proposed language is far more ambiguous than the existing definition. The term "potential" is clear and requires no further evaluation of the probability of injury, whereas "probability" is undefined, subjective, and likely to result in confusion among potential permittees. An example of the inherent difficulty with the "probability" would be the issue of ships entering Boston Harbor, transiting a National Marine Sanctuary and habitat for a number of endangered or threatened large whales. Evidence shows that ships entering Boston do occasionally strike and kill whales: the potential for ship strike is clear, and dictates that preventative measures should be mandated to the extent practicable. But the probability of an individual ship striking and injuring a whale varies tremendously, depending on season, ship speed, number of ships entering the harbor on any given day, and other factors. It would be virtually impossible to determine or enforce, resulting in even more confusion among stakeholders.

H.R. 2693 also weakens the existing definition of Level B harassment by requiring a "biologically significant" disruption of activities, including, but not limited to, migration, breeding, care of young, predator avoidance, defense, or feeding. The legislation does not define the term "biologically significant disruption," nor is it a commonly used scientific term..." The insertion of this term would add harmful and unnecessary ambiguity to the definition, increasing regulatory uncertainty for regulated entities, and potential risk for protected marine mammals.

Finally, the bill would add the Administration's proposed third tier of harassment to include activities "directed toward" a specific animal or group of animals and "likely to impact" those animals by "disrupting behavior". While we recognize the intent in using this tier to regulate activities such as dolphin feeding, we would reiterate previously expressed concerns regarding "directed" activities. In our view, this definition would also apply to scientific research and whale watching operations. We would also note that the permitting standard included in this provision of "disrupting behavior" differs from the standard included in the other section of Level B harassment, which requires a "biologically significant disruption."

If the Committee adopts this approach, it has in effect created three different standards of ambiguously defined harassment without any clarification as to which standards would apply to whom and under what circumstances. If enacted, we have little doubt that this definition will result in far more confusion, more lawsuits, and less protection for marine mammals, and that we will be debating yet another approach to the definition in the next reauthorization of the MMPA.

Our organizations urge the Committee to instead retain the current definition of Level A harassment, and to amend Level B harassment as follows:

> any act that disturbs or has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of biologically significant activities, including, but not limited to, breathing, communication, sheltering, migration, breeding, care of young, predator avoidance or defense, and feeding or foraging.

This definition is similar to that proposed by the National Research Council, and has the added advantage of replacing the Committee's proposed "biologically significant disruption" with the far more easily understood and scientifically definable "biologically significant activities." It also clarifies the concern expressed by others that the current definition could apply to de minimus activities—with the addition of the descriptive term "biologically significant activities," de minimus activities are specifically excluded from consideration. In addition, by defining harassment as "any act that" there is no need for a separate clause related to directed activities, as any act includes both incidental and directed activities.

Section 14: Incidental takings of marine mammals. H.R. 2693 proposes to eliminate key conservation elements that restrict the scope of incidental take to "small numbers" of marine mammals while engaging in a specified activity "within a specified geographic region." We oppose the removal of these provisions.

Retention of these limitations is a vital component of the conservation principles embodied in the MMPA. Under the current language, regions of operation and numbers of animals impacted are drawn as narrowly as possible to accomplish the proposed activity; environmental review then takes place on that basis. The status of marine mammal conservation varies from species to species and from ocean to ocean, and requires that activities be considered on a case-by-case basis. Geographic regions serve different biological purposes for different species, and actions that have little or no impact on one species within a specified region may have grave consequences for another.

Finally H.R. 2693 proposes to establish a general authorization for incidental takes. The intent of this provision is unclear. Unlike other general authorizations

in the MMPA that limit the scope of the authorization to a particular activity and type of take (such as commercial fishing), this authorization applies to any activity; does not restrict the scope of the take; is of unlimited duration; has no requirement for the applicant to provide information on the type of activity or number of animals impacted, proposed monitoring and mitigation measures; and has no requirements for reporting. In effect, this broad authorization creates an escape clause that allows user groups to bypass the incidental take permitting process entirely, and we believe there is no basis for a general authorization of this scope, which would render the MMPA's conservation goals and mandates virtually meaningless.

Conclusion. It is our view that many of the most important provisions of the MMPA, including the harassment definition and conditions for incidental takes of marine mammals, would be significantly weakened by H.R. 2693. We urge the Committee to consider these concerns, and look forward to working cooperatively with the Members and staff on these issues in the future.

Mr. GILCHREST. Thank you very much.

Ms. STEUER. Thank you.

Mr. GILCHREST. Mr. Johnson, welcome, sir.

STATEMENT OF CHARLIE JOHNSON, EXECUTIVE DIRECTOR, ALASKA NANUUQ COMMISSION

Mr. JOHNSON. Thank you, Mr. Chairman. I am the executive director of the Alaska Nanuuq Commission, and I am also representing the Indigenous Peoples Council on Marine Mammals, which was formed in 1994 to fight for co-management.

We have worked very diligently the last 2 years with the U.S. Fish and Wildlife, the National Marine Fisheries, and the Marine Mammal Commission to come up with a language for the reauthorization of MMPA. This is very different from a few years ago. When we first got together, we had somewhat of an adversarial relationship, but we have learned to work together and to trust each other.

The language that we have worked up with these agencies is largely reflected in the administration bill. And I notice in reading your bill that it also puts in most of the language that was in the administration bill, and we thank you for that.

The particular points that we were working on were the ability for us to manage before depletion and to enforce regulations, that is presently absent in the MMPA. And I notice you included those in this bill, and we thank you for that.

One thing that we would like to see, however, in this bill is the disclaimer language that is in the administration bill, in that Alaska Natives live in a situation where we have over 200 political tribes and we, as Alaska Native Marine Mammal commissions, get our authority through these tribes. And for that reason, we would like to see disclaimer language in there that says something to the effect that nothing in this bill affects the political status or the authorities of the tribes. And that was in the administration bill. We would like to see that.

Also missing from the administration bill, which we see you have put back in—and we want to thank you for that—and that is the cultural exchange between indigenous peoples of the Arctic. And we thank you for doing that.

We, however, would like to also see in the bill a ban on the use of aircraft and a ban on the sale of gall bladders. We feel that that is necessary for the protection of marine mammals that we depend upon heavily for subsistence.

Mr. GILCHREST. Mr. Johnson, the ban on aircraft in—'

Mr. JOHNSON. In hunting. That is not necessarily for—we understand that there is a need for aircraft for doing research.

One other thing that we would like to see, for the Alaska Nanuuq perspective, we are working with polar bears, which are the U.S. Fish and Wildlife. You know, 95 percent of the polar bears' diet is seals. And ice seals are in NMFS. And we would like to work with ice seals, but it is very difficult to get a permit from NMFS to even take samples off of harvested animals. The Alaska Native Harbor Seal Commission, for example, has been trying to get a permit to take samples off of harvested animals for years and still has not been able to get a permit. Now, I can go out and shoot a seal, I can take it home and eat it, dry it, trade it, whatever, but I can't send a sample to the University of Alaska, for example, to have it tested for nutritional values or contaminants without a permit. And to us, it doesn't make any sense to have a separate agency manage—it makes ecological sense for ice seals, in particular, and harbor seals to be under Fish and Wildlife, for there is little interaction with fisheries.

Thank you.

[The prepared statement of Mr. Johnson follows:]

Statement of Charles Johnson, Alaska Nanuuq Commission, on behalf of the Indigenous Peoples Council on Marine Mammals (IPCoMM)

Mr. Chairman, I am Tomungnique, Executive Director of the Alaska Nanuuq Commission, which represents the polar bear villages in Alaska on matters concerning the conservation of nanuuq, the polar bear. I am also representing the Indigenous Peoples Council on Marine Mammals or IPCoMM.

IPCoMM, the Indigenous Peoples Council on Marine Mammals, was formed in 1994 to fight for co-management of marine mammals which coastal native people of Alaska heavily depend on for subsistence. IPCoMM also serves as a sub-committee of the Alaska Federation of Natives. Our dependence on marine mammals is more than for food and the making of handicrafts handicrafts, it is cultural, spiritual and essential to our well being. In 1994 we sometimes had an adversarial relationship with the management agencies. That has changed into a cooperative relationship as we have learned to trust each other. IPCoMM represents most if not all of the Alaska Native marine mammal subsistence commissions.

During the last two plus years IPCoMM has worked diligently with the U.S. Fish and Wildlife Service, the National Marine Fisheries Service and the Marine Mammal Commission to develop mutually agreeable language that meets all of our needs for the reauthorization of the MMPA. This language is contained in the Administration bill that we strongly support. The key points that we have worked on will allow us to work with the agencies to develop regulations that allow management before depletion and methods for enforcement of these regulations. Alaska Natives want our descendants until at least the seventh generation to enjoy the use of marine mammals as we have. The Native community in Alaska has expressed its strong support for the harvest management provisions of the Administration's bill, as reflected in the 2002 AFN Resolution attached to my testimony.

The language in the Administration bill also recognizes the political reality that Alaska Natives live in, but at the same time contains disclaimer language that is intended to neither add to, or take away from or change that political situation. We have developed efficient state wide organizations for the co-management of marine mammals for subsistence purposes. We recognize that single village agreements for co-management is unrealistic and have developed on our own these broad representative commissions.

From the Alaska Nanuuq Commission perspective we would like to see a reorganization of management of those species that Alaska Natives use for subsistence purposes. It makes no sense for seals to be in NMFS when polar bears are in Fish and Wildlife Service. NMFS has stated that co-management is not one of their priorities because they are constantly dealing with crises". Seals, in particular ice seals, which make up 90-95% of polar bear diets have little or no interaction with commercial fisheries. We feel it makes ecological sense for management of seals used for

subsistence to be under Fish and Wildlife, where co-management would be efficient. At a meeting on July 10, 03, IPCoMM voted to also seek this move of seal management.

Additionally it has been very difficult to obtain a permit from NMFS to collect samples from harvested animals. The Alaska Native Harbor Seal Commission has been seeking a permit for several years and is now collecting samples under the University of Alaska permit. Obtaining a permit from the U.S. Fish and Wildlife Service is as simple as getting a letter.

Alaska Natives have also developed a trust with the major environmental organizations who support our efforts to conserve our marine resources for future generations. The progress we have made in working with them and the management agencies is reflected in the language regarding harvest management in the Administration bill.

However the Administration bill took out the provisions allowing Alaska Natives to culturally exchange marine mammal products with Native peoples of Canada, Greenland and Russia as we have traditionally. Also taken out was the provision that allows Alaska Natives and Natives of Canada, Greenland and Russia to take in and out of Alaska our traditional clothing made of marine mammal products, We urge you to put back in these provisions.

Also missing is the ban on the use of aircraft while hunting and a ban on the sale of ball bladders. We feel that these prohibitions are necessary for the conservation of marine mammals.

We urge you to consider our efforts while you contemplate reauthorization of MMPA. THANK YOU and I will answer any questions.

Mr. GILCHREST. Thank you very much, Mr. Johnson. You gave us a very specific, concise list, and that will be very helpful.

Dr. Wells?

STATEMENT OF DR. RANDALL WELLS, CONSERVATION BIOLOGIST, CHICAGO ZOOLOGICAL SOCIETY, MOTE MARINE LABORATORY

Dr. WELLS. Thank you, Mr. Chairman, Mr. Pallone. My name is Randall Wells. I am a conservation biologist with the Chicago Zoological Society based at Mote Marine Laboratory in Sarasota, Florida, where I also serve as director of Mote's Center for Marine Mammal and Sea Turtle Research.

I began studying dolphins 2 years before the implementation of the Marine Mammal Protection Act and I have seen many of the accomplishments of this act since that time. Our understanding of the scope of threats to which marine mammals are exposed has changed over the years. We need to be able to adjust protection measures in response to a changing world. Proposed changes to the act make some of these adjustments, expanding the scope of protection beyond that related to directed takes and commercial fisheries. I am honored to have been invited to provide testimony in support of reauthorization of this important act.

Much of the basis for my testimony is derived from research on bottlenose dolphins in Sarasota Bay, Florida. Thirty years ago, we discovered that at least some in-shore dolphins live in resident communities. We are now studying four generations of residents, including many known since 1970, along with their calves, grandcalves, and great-grandcalves. Knowledge of multi-generational residency provides important perspective for understanding exposure to threats and can be key to providing appropriate protection. In-shore dolphins arguably face a larger variety and greater intensity of human impacts than many marine mam-

mals because of their proximity to where we live, work, and recreate.

I am pleased that recreational fisheries with incidental mortality and serious injury of marine mammals will now be held accountable for their takes. When recreational fishers are using the same gear as commercial fishers in the same waters, comparable mortalities and serious injuries are to be expected. Including recreational fisheries in the list, leading to observer coverage, will yield a more complete basis for managing stocks and should be more equitable for commercial fishers.

The prohibition on releasing captive marine mammals is also needed. We can't necessarily assume that releasing animals into the wild is in the individual's or the host population's best interest. My experience from my own dolphin-release experiment and from serving as an expert witness for NOAA in a case involving a failed dolphin release point to the need for requiring scientific research permits.

Increased support for the Marine Mammal Health and Stranding Response Program is also needed. This program provides a window to serious threats that are less obvious than fishing gear. The first indications of marine mammal health problems come from stranded animals. The program brings much-needed coordination to stranding response and health research.

Strandings and health research have demonstrated accumulation of pervasive pollutants in marine mammals. PCB concentrations greater than those of concern for human health have been documented. In bottlenose dolphins, high PCB concentrations apparently correlate with increased first-born mortality, reduced immune system function, and reduce male reproductive hormones.

Congress should consider funding a research program to quantify the impacts from pervasive environmental threats. Looking at chemical concentrations in the environment in order to establish their effects on marine mammals. Other pervasive threats, such as noise, could also be included. Cumulative risks could then be considered along with more direct takes, leading to improved stock assessments.

The Marine Mammal Health and Stranding Response Program is on the front line for detecting emerging toxic chemicals, diseases, and pathogen pollution. The authorization for annual funding from MMPA funds into the Marine Mammal Unusual Mortality Event Fund is essential for emergency responses. I hope you will also consider reauthorizing complementary funding for the John Prescott Marine Mammal Rescue Assistance Grant Program, which supports non-emergency stranding response operations and research. Together, these funds allow consideration of marine mammals as sentinels of ocean and human health.

Proposed harassment definition changes should reduce human interactions, such as touching, feeding, or swimming with wild marine mammals. For example, since 1990 we have observed Beggar and his associates, wild dolphins fed by boaters. Law enforcement has been limited because the harassment and feeding prohibitions already in the regulations were considered unenforceable. With NOAA Fisheries Protect Wild Dolphins program, we evaluated the effectiveness of education in reducing this problem, and

determined that law enforcement was also needed. The new definition should provide sufficient clarity to support prosecutions.

The new harassment definition still requires scientists to apply for research permits. This is a burdensome but necessary process. My own research activities, ranging from observations to hands-on sampling of bottlenose dolphins, are considered harassment. While developing ten permit applications since 1984, I can't say that my research has ever been delayed by the permitting process.

Some other harassment issues are particularly vexing with regard to practical regulatory solutions. Boats cause disturbance and injuries. About 4 percent of Sarasota Bay dolphins bear propeller scars acquired during periods of heavy boat traffic and boat races, which attract thousands of spectator boats. During a typical dolphin's day, powerboats pass within 100 yards every 6 minutes, leading to significant changes in dive patterns and acoustic communication. The cumulative effects of repeated disturbance are unknown.

In conclusion, the proposed changes to the MMPA include significant advances. I hope that this momentum continues for further adjusting our management approaches to respond to emerging threats to marine mammals. Fishery impacts have not been eliminated, but many mitigation measures have been developed during the first 30 years of the MMPA. Similarly, we should begin to look for solutions to some of the emerging and potentially equally dangerous pervasive threats to marine mammals and consider a more complete set of threats in stock assessments.

This concludes my testimony. I would be pleased to respond to your questions.

[The prepared statement of Dr. Wells follows:]

Statement of Randall S. Wells, Conservation Biologist, Chicago Zoological Society, and Director, Center for Marine Mammal and Sea Turtle Research, Mote Marine Laboratory

Mr. Chairman and distinguished members of the Committee, my name is Randall S. Wells. I am a Conservation Biologist with the Chicago Zoological Society, and I am based at Mote Marine Laboratory, in Sarasota, Florida, where I serve as Director of Mote's Center for Marine Mammal and Sea Turtle Research. I began my career of studying dolphins, whales, and manatees in 1970, two years before the implementation of the Marine Mammal Protection Act. I have therefore had opportunity to monitor the many accomplishments of this Act over time. I have also seen our understanding of the scope of threats to which marine mammals are exposed change during this same period. The ability to adjust marine mammal protection measures in response to a changing world is crucial. A number of the proposed changes to the Act make these much-needed adjustments. I am truly honored to have been invited here today to provide testimony in support of reauthorization of this important Act.

Introduction

Much of the basis for my statements today is derived from my long-term study of bottlenose dolphins in Sarasota Bay, Florida. This ongoing research is conducted by a large team of collaborating scientists and students from around the world. In the early 1970's my colleagues and I discovered that, at least in some parts of the species' range, bottlenose dolphins in bays, sounds, and estuaries live in year-round resident communities. We are currently monitoring about 140 resident dolphins of four generations in Sarasota Bay, including about 30% of those we first identified in 1970, as well as their calves, grand-calves, and great-grand-calves. This community is one piece of a mosaic of such communities along the central west coast of Florida. Knowledge of the long-term, multi-generational association between dolphins and specific geographic ranges provides important perspective for understanding the exposure of these animals to a variety of threats, and can be key to

providing appropriate protection. Inshore bottlenose dolphins arguably face a larger variety and greater intensity of human impacts than many marine mammal stocks in United States waters because of their proximity to where we live, work, and recreate.

Marine mammals are complex creatures living in complex ecosystems. It would be unreasonable to expect that a given stock of marine mammals is typically exposed to only a single threat from human activities at any given time. Depending on where they live, stocks of marine mammals may be faced with a suite of threats of human origin, including chemical and noise pollution, habitat degradation or loss, fisheries interactions, and harassment. The proposed language continues to expand the scope of protection for these animals beyond that related to directed takes and incidental takes in commercial fisheries.

Marine Mammal Bycatch Reduction Initiatives

The inclusion of recreational fisheries in the lists of fisheries that have frequent or occasional incidental mortality and serious injury of marine mammals is an important step forward. As a charter member, and former Chair, of the Atlantic Scientific Review Group, a panel established under the 1994 amendments to the Marine Mammal Protection Act to provide guidance to NOAA Fisheries and the U.S. Fish and Wildlife Service regarding the scientific basis for management of marine mammal stocks in the Atlantic Ocean and Gulf of Mexico, I am well aware of complications imposed by the previous exemption of recreational fisheries from marine mammal regulations governing commercial fisheries in the same waters. When recreational fishers are using much the same gear as the commercial fishers, comparable mortalities and serious injuries are to be expected, but identification of the specific source of the mortality or injury when examining a carcass or injured animal is often impossible. Evaluation of fishery takes of marine mammals relative to Potential Biological Removal typically involves extrapolation from data from observers placed on commercial fishing boats. Observer data from commercial vessels alone lead to underestimates of mortality and serious injury because they do not include takes in recreational fisheries. Regulations limited to commercial fisheries only deal with a portion of the problem. Inclusion of recreational fisheries in the list of fisheries, with associated observer coverage as appropriate, will provide a much more complete and accurate basis for managing impacted stocks, and will create a more equitable situation for commercial fishers. While this change to the list of fisheries is an important and overdue step, it is only one step toward considering all sources of lethal take or serious injury for effective management of marine mammal stocks, as I will discuss later.

Captive Release Prohibition

The prohibition on captive release is a welcome addition to the Act. It cannot necessarily be assumed that releasing a captive marine mammal into the wild is in the individual's or host population's best interests. My experience with this issue includes conducting the first (and one of very few) systematic study of the release of captive dolphins back into the wild, with the release of two bottlenose dolphins back into their native waters of Tampa Bay in 1990. This release was well-documented and successful, and the dolphins have been observed more than 10 years post-release, apparently fully-integrated into local dolphin communities.

In addition, I served as an expert witness for NOAA Fisheries in its 1999 case involving the illegal release of two dolphins into the waters of the Florida Keys. The releasers argued that NOAA Fisheries could not require them to operate under the conditions of a Scientific Research Permit. The two ex-Navy dolphins were not properly prepared for release, nor did they receive appropriate care at the holding facility. When the releasers learned that the government was planning to confiscate the animals because of animal welfare violations, the dolphins were taken offshore and released in waters hundreds of miles away from their original capture site, in unfamiliar habitat. The release occurred in front of a foreign film crew that paid for the opportunity. The release failed. The dolphins had separated and were found near shore, in poor condition, seeking contact with humans. The individuals responsible for the release were found guilty by a Federal Administrative Law Judge of violating the MMPA and were ordered to pay $59,500 in civil penalties.

The release of long-term captive marine mammals into the wild can pose serious threats to the release candidates and to the host wild populations. Released dolphins may bring new diseases to wild populations, diseases they have obtained while in captivity, but to which the wild populations have had no previous exposure and therefore no immunity. Dolphins released outside of their original range may affect the genetic structure of the wild populations through interbreeding. Our research has demonstrated significant genetic differences across bottlenose dolphin

habitats, reflecting long-term adaptations to specific suites of ecological influences. Released dolphins may also disrupt stable social structures in wild populations, established over many generations. Prior to release of captive animals, safeguards must be in place to ensure that: 1) the risks of disease transmission and inappropriate genetic exchange are minimized, 2) adequate preparations have been made and optimal conditions are established for the release candidate to survive upon return to the wild, 3) an adequate follow-up monitoring program is in place to track the released animal as well as any impacts it may be having on the wild population, and 4) contingency plans are in place to recover the released animal should it fail to thrive. The limited state of our knowledge in the area of release of long-term captive marine mammals into the wild is such that all releases must be considered experimental, and as such should only be conducted under a Scientific Research Permit.

Marine Mammal Health and Stranding Response

Increased support for the activities of the Marine Mammal Health and Stranding Response Program should be considered a high priority. This program is crucial for providing a window to some of the serious threats to marine mammals that are less obvious than fishing gear, but of equal concern for the future of marine mammal stocks. As a result of my involvement with marine mammal strandings for more than 33 years, and my field research on dolphin health during the last 15 years, I fully appreciate the challenges of understanding the role of human activities in marine mammal health and reproduction problems. Some of our first indications of large scale health problems in marine mammals come from examination of sick or dead animals that wash up on shore. From examination of these cases and tissues collected from the animals, scientists can begin to understand relationships between marine mammal health and human activities. The Marine Mammal Health and Stranding Response Program brings a much-needed level of coordination to stranding response, including oversight of: 1) the activities of the people and institutions that volunteer to participate in the U.S. Stranding Network, 2) disentanglement of marine mammals from lines or gear, 3) rehabilitation and subsequent release of stranded marine mammals, 4) identifying and responding to unusual marine mammal mortality events, and 5) developing and engaging in research focused on health-related hypotheses resulting from stranding findings. I will provide more detail on the last two activities, as these are two of the areas with which I am most familiar from recent interactions with the program.

Large scale, "unusual" marine mammal mortality events were first noted in the U.S. in the late 1980s. I learned from serving on subsequent review panels that responses to these events were sometimes delayed or incomplete due to logistical or other constraints, limiting the information that could be derived. The Marine Mammal Health and Stranding Response Program came about in part in response to the need to improve responses to these events, and it has done much to meet this goal. As a charter member of the Working Group on Unusual Mortality Events (constituted under the Marine Mammal Health and Stranding Response Program), I have seen the value of advance preparations for responding to unusual stranding events. Preparations include having appropriately-trained field personnel on call, laboratories identified to process samples expeditiously, a panel of consultants to aid in the design of the response and interpretation of the findings, and appropriate financial support. It is critical to be able to mount a systematic response in a timely manner in order to ensure the collection of the appropriate sample materials of sufficient quality to offer the greatest chance of accurately determining cause of death.

Stranded marine mammals have provided us with much insight into the factors that can affect their populations. Among the more important findings in recent years has been that of the accumulation of high concentrations of environmental contaminant residues in the tissues of stranded marine mammals such as dolphins. Humans have released more than 10,000 chemicals into the environment. This pollution is pervasive in the marine environment, and many of the chemicals of concern are very persistent, remaining active in the environment for years or decades. It has been suggested that marine mammals such as dolphins can serve as sentinel species for the toxic effects of contaminants on the marine environment, because of their position as top predators in the marine food web. However, our understanding of the toxic effects of these contaminants on marine mammals is incomplete. The harmful health and/or reproductive effects of specific concentrations of some of these chemicals on selected terrestrial mammals are known from carefully controlled studies in which the animals are given measured doses of contaminants. Such cause and effect relationships are largely undetermined for marine mammals because of ethical considerations and logistical difficulties for conducting dosing studies.

In lieu of dosing studies, ecotoxicologists, biologists, and veterinarians working in collaboration with the Marine Mammal Health and Stranding Response Program are taking a "weight of evidence" approach. Such an approach requires the collection of large enough numbers of samples to be able to identify strong correlations between contaminants and health or reproductive effects. Research involving carcasses from strandings and field studies of free-ranging populations are beginning to provide some of the requisite information to identify apparent relationships between some contaminants and health or reproductive effects. For example, concentrations of PCBs and related organochlorine compounds well in excess of what would be of concern for humans are being documented in a variety of dolphins, including killer whales and bottlenose dolphins. In bottlenose dolphins, high concentrations appear to be correlated with high levels of first-born mortality, declines in immune system function, and reduced reproductive hormone concentrations in males.

More research is needed. Consistent significant correlations from a number of parallel tracks of investigation can provide sufficient confidence in findings to warrant management action. To address the threats of the new century, Congress should consider funding a major research program to identify and quantify the impacts from pervasive environmental threats to marine mammals, such as chemical contaminants and noise. This program could be directed to look at the concentrations of noise and chemicals of concern in the environment in order to establish the effects they have on growth, survival, and reproduction of marine mammals and stocks.

The ubiquitous nature of chemical pollutants in the marine environment creates severe challenges for management. Many of the compounds of current concern have already been regulated, but they persist in the environment. Beyond regulation of chemicals of documented concern, direct mitigation through removing compounds already in the environment may not be practical. It is important, however, to assess the risks to specific stocks posed by chemical pollutants and other pervasive threats, so that the cumulative impacts of these and more directed takes can be considered in stock assessments. The research program proposed above should provide the quantitative basis for improving the resolution of threat evaluations in stock assessments. Responses to threats posed at the population level by pervasive environmental threats may require modification of the concept of the Take Reduction Team.

The Marine Mammal Health and Stranding Response Program is the front line for identifying the occurrence and scale of current and developing situations regarding marine mammal health and many of the pervasive environmental threats. Monitoring of stranded animals and research on wild populations provide the basis for detecting emerging toxic chemicals, diseases, and pathogen pollution. The authorization in H.R. 2693 for annual funding from MMPA funds into the Marine Mammal Unusual Mortality Event Fund is a very positive step toward ensuring that we can optimize our response to acute, large-scale marine mammal health situations. Alternative funding for emergency response is not available from any other sources, and grants programs, such as the John H. Prescott Marine Mammal Rescue Assistance Grant Program, do not work, and were not designed, for this kind of immediate response.

The Prescott grant program is very valuable, and its strength lies in maintaining and enhancing the capabilities and operations of stranding response programs around the country, and to provide research opportunities, to facilitate making important advances in our understanding of marine mammal health issues. I would like to take this opportunity to recommend reauthorization of the Prescott program, which is due to expire at the end of 2003. Marine mammals are closely tied to the health of the oceans, and demonstrate tremendous potential to serve as sentinels of ocean and human health.

Definition of Harassment

The proposed changes to the definition of harassment are most welcome. The proposed definitions should provide sufficient clarity to facilitate permitting and enforcement actions. The changes to the harassment definitions should be especially helpful in controlling burgeoning human interactions with wild marine mammals such as touching, feeding, or swimming with them. For example, since 1990 my colleagues and I have been monitoring a dolphin known as "Beggar", aptly named from his behavior of popping up with his mouth open alongside slow-moving boats in a narrow portion of the Intracoastal Waterway south of Sarasota Bay. Beggar ingests a wide variety of non-dolphin-food items that are dropped into his mouth, and bites many of the people who reach down to touch him without offering food. There are serious concerns about the spread of this behavior, as a number of other dolphins that pass through Beggar's range have begun to beg as well.

Over the years, law enforcement activity to control interactions with Beggar and other dolphins has been minimal due to a shortage of NOAA enforcement agents,

other priorities within the agency, and a stated reluctance to commit resources because the harassment and feeding prohibitions already in the regulations were considered unenforceable. Working with the NOAA Fisheries "Protect Wild Dolphins" program, we participated in a program of educating the public through brochures, posters, signage, town hall meetings, and public service announcements. We also conducted a docent program in which people approaching Beggar were provided with explanations of the problems associated with feeding wild dolphins. Only about 1.3% of passing boaters interacted with Beggar in the presence of the docent boat. Boaters who interacted with Beggar were interviewed, and 60% acknowledged that they knew such activities were illegal. Following cessation of the docent program, the numbers of interactions increased by a factor of four. Thus, it appears that the educational messages were received, but in the absence of adequate law enforcement and the consequences thereof, the problem persists. Similar findings have been made by other Chicago Zoological Society scientists working at other sites around the world. The new definitions should provide sufficient clarity to support prosecutions for this kind of harassment, but increased support for law enforcement activities along with continuing educational efforts will be necessary to begin to control these kinds of situations that are clearly harmful to marine mammals.

The new definitions of harassment still lead to requirements for scientists to apply for permits for their research activities involving marine mammals. This is a burdensome process in terms of time required for preparation of applications and response to questions, but it is a necessary process for establishing standards for impacts of research on the animals. Questions about the over-regulating nature of the process are raised when researchers observe members of the general public engaging without legal consequences in the very activities for which the researchers had to apply for a permit, or when the process interferes with the timely implementation of research of importance to marine mammal conservation. The latter case is often related to research situations requiring NEPA and/or ESA compliance, rather than simply MMPA considerations. Fortunately, most of my research is with animals for which the ESA does not apply and involves activities that have not required the preparation of an Environmental Assessment or Environmental Impact Statement under NEPA. In the course of developing more than ten permit applications since 1984, implementation of my research has never been held up due to delays from the permitting process.

There remain many other human-induced threats to marine mammals for which practical regulatory solutions are not immediately evident. Noise in the marine environment can interfere with marine mammal communication or feeding, but the risks in terms of costs to the animals have not been fully investigated, and practical means of controlling the widespread noise produced by vessels have not been identified. Vessel traffic can lead to disturbance responses, and in some cases serious injuries from collisions. For example, about 4% of the bottlenose dolphins in Sarasota Bay bear scars from collisions with vessels, all of which have been acquired during periods of heavy holiday boat traffic and boat races that attract thousands of spectator boats. Under normal circumstances, these dolphins have powerboats passing within 100 yards of them once every six minutes, leading to significant changes in dive patterns and acoustic communication. This disturbance occurs during daylight hours every day throughout the lives of the animals. It has not been possible to evaluate the cumulative effects of these repeated disturbance responses.

Recreational fishing involving rods, reels, and monofilament line is another widespread activity, also with serious consequences for marine mammals. In Sarasota Bay, nearly 5% of the 125 stranding cases for which cause of death could be determined with confidence by the Mote Marine Laboratory Stranding Investigations Program involved recreational fishing gear. One young female dolphin was found swimming slowly in Sarasota Bay with 1,600 feet of heavy fishing line trailing from and cutting through her flukes. If not for rescue actions such as those by our research team removing this line, the toll from this kind of recreational fishing would be higher.

In the new century, we have the opportunity to adjust our management approach to respond to different and emerging suites of threats to marine mammals. Fishery impacts have not been eliminated, but effective means of mitigating many of the problems have been developed during the first 30 years of the MMPA. In much the same way we should begin to look for solutions to reduce the potential impacts of some of the emerging, widespread, and equally dangerous, pervasive threats to marine mammals. Identifying technological or regulatory solutions to some of the emerging problems from environmental contaminants, noise, vessel disturbance, oil and gas exploration and development, military activities, habitat loss, recreational fishing, pathogen pollution, emerging diseases, and other issues may appear highly challenging now, but that does not mean that these threats can be ignored.

Cumulatively, these threats have the potential to have significant effects on stocks. An important and feasible first step would be to educate stakeholders and members of the public to be aware of their potential impacts on the animals, and to make appropriate changes to their behavior and use of the habitats that form the animals' homes. This approach has been exemplified by the NOAA Fisheries "Protect Wild Dolphins" campaign. In addition, every effort should be made to obtain the requisite information to evaluate risks such that they may be considered in stock assessments along with other forms of "take" for determination of the status of specific stocks.

Conclusion

The Marine Mammal Protection Act remains a model around the world for marine mammal conservation. The process of this reauthorization exemplifies the flexibility of this Act to adjust to changing conditions. The shift over the last 10 years to consider more of the non-fishery-related threats to marine mammals is a very welcome and important improvement.

This concludes my testimony. Thank you very much for the opportunity to appear before you today. I would be pleased to respond to your questions.

Mr. GILCHREST. Thank you very much, Dr. Wells. You have broadened our perspective on another dimension of the problem.

Mr. Zuanich. Did I pronounce that right?

Mr. ZUANICH. Perfect.

Mr. GILCHREST. Thank you.

STATEMENT OF ROBERT ZUANICH, BOARD MEMBER, UNITED FISHERMEN OF ALASKA

Mr. ZUANICH. Mr. Chairman, I want to take the opportunity to thank you and your Committee for allowing us to provide our views on reauthorization of the Marine Mammal Protection Act.

There is little dispute that the act is necessary to protect marine mammals from adverse human activities. However, we believe there are a few very real problems that your Committee must address in considering reauthorization legislation.

First and foremost, the act has the practical effect of elevating marine mammals above all others in ocean management by imposing upon commercial fishermen a requirement to reduce their mortality and injury of marine mammals to a level approaching a zero mortality. This zero mortality rate goal, or ZMRG, has the practical effect of treating all marine mammals as if they were listed as endangered under the Endangered Species Act, even if a population is healthy and growing at a significant rate.

We believe, as a biological management tool, the ZMRG distorts the ocean ecosystem by giving marine mammals primacy in the ocean without fully considering the needs of other species. And I would like to give you a few examples.

There is ample evidence that sea lions and harbor seals, whose populations are now at or exceed historic levels, are preying heavily on endangered Columbia River salmon. In southeast Alaska and in California, sea otters are changing the ecosystem by eating large numbers of sea urchins and abalone. Again in Alaska, a recent University of Alaska study concludes that expanding sea otter populations may soon decimate Glacier Bay crab stocks. And similarly, Canada has come out and concluded that mammals are hindering the recovery of depressed cod stocks.

Simply put, the we believe the ZMRG is an unrealistic management tool and must be redefined or eliminated.

We believe this ZMRG should be replaced by a standard applied by many other environmental protection statutes. That is, that the regulated industry—in this case, commercial fishing—should be required to use the best practicable and economically feasible technology to avoid marine mammals. After all, this was the standard when the act was first enacted, to apply to the Eastern tropical tuna fishery. And it should again be the standard, particularly with regard to Alaska's commercial fisheries.

If, however, we elect to—or you elect to retain the ZMRG, then all ocean users who interact with marine mammals should be subject to the same standard. Testimony presented last week at the MMPA hearing before the Senate Commerce Committee stated that sport fishing and recreational and commercial vessel activity can significantly impact marine mammals. If ZMRG is the right policy, then why is it only applicable to small fishermen?

Finally, we also note that the act requires commercial fishermen to place observers upon their vessels when the Fisheries Service so demands. Many fishing vessels are small and cannot accommodate an observer, which can affect their efficiency and their ability to safely operate. For small fishing vessels, all observers should be staged on Fisheries Service vessels. If this is not possible, then we would ask that the Fisheries Service should be required to indemnify the vessel owner for many third-party claims associated with the observer requirement.

Again, I want to thank the Committee for the opportunity to present the views of the United Fishermen of Alaska on this very important legislation.

[The prepared statement of Mr. Zuanich follows:]

Statement of Robert P. Zuanich, on behalf of the United Fishermen of Alaska

As you may know, the Alaskan commercial fishing industry has been gravely impacted by lawsuits brought against the National Marine Fisheries Service ("NMFS") for alleged violations of the Marine Mammal Protection Act ("MMPA") and the Endangered Species Act. More such suits loom threateningly on the horizon.

A central problem that your Subcommittee needs to address in considering legislation reauthorizing the MMPA is that the MMPA creates serious ocean management issues by elevating one species above all others in oceans management. We support amendments to the MMPA that will allow the Act to achieve its important objectives while also preventing distortions in the ocean ecosystem—- distortions caused by the fact that the MMPA calls for the oceans to be managed for the benefit of only one species.

Because of the inherent problems in the management philosophy embedded in the MMPA, the following issues must be addressed in any MMPA reauthorization.

1) Zero Mortality Rate Goal ("ZMRG"). The Act requires that commercial fishermen reduce the incidental mortality and serious injury of marine mammals to an insignificant level approaching a zero mortality and serious injury rate. No one advocates unnecessary incidental injuries and mortalities and every Alaskan commercial fisherman seeks to prevent that. The problem is not with that goal. The problem is with the MMPA's philosophy that the ocean is to be managed by placing marine mammals above all other species and that anything above a zero mortality and injury rate is unacceptable. Indeed, a zero mortality policy is the equivalent of treating all marine mammals as if they have been listed as endangered under the Endangered Species Act, even if the population is healthy and growing at a significant rate.

As a biological management tool, ZMRG creates distortions in the ecosystem. In a terrestrial context, the Forest Service, for many years, managed the National Forest System by identifying the primary species it wished to benefit in each national forest and then managing the forest for the benefit of those species. That system of giving management priority to a limited number of species is similar to the

MMPA which gives marine mammals primacy in the ocean. In contrast to the MMPA, the Forest Service generally abandoned this single species policy because it adversely affected biodiversity by attempting to manage the environment for the benefit of a few species without full consideration of the needs of other species. Similarly, managing the ocean environment for the benefit of one species places other species at a disadvantage and threatens biodiversity. Endangered salmon, for example, a food source for certain marine mammals, have been harmed by this policy.

A technical report titled "Effects of Marine Mammals on Columbia River Salmon Listed Under the Endangered Species Act," prepared under contract for the Department of Energy, concluded that sea lions and harbor seals, whose populations are now at or exceed historic levels because of the MMPA, are "preying heavily" on endangered Columbia and Snake River salmon. The report, issued before the last MMPA reauthorization, found that "pinnipeds are taking a disproportionate number" of Columbia and Snake River salmon listed under the Endangered Species Act and concluded: "Threatened and endangered salmon must have representation in the [MMPA] reauthorization process." They did not, and the problem grows worse. In testimony presented to the House Resources Committee in October, 2001, NMFS asserted there are "serious concerns about . . . the impacts of pinnipeds on salmon listed under the Endangered Species Act." NMFS also testified that marine mammals may be impairing the recovery of certain endangered and threatened salmon. The policy question is whether the MMPA's requirements for marine mammal protection should have priority over all other management decisions, including the protection and recovery of endangered species.

In Alaska, scientists for the U.S. Geological Survey studying the Glacier Bay ecosystem have stated that the expanding sea otter population will have a "very large impact on the crab population. We would expect the number of crabs to decline dramatically." A University of Alaska scientist studying sea otters concluded that in Glacier Bay "it's just a matter of time before the otters put fishermen out of business. . . ." That scientist also found that sea otters are changing the ecosystem in other ways by eating large numbers of sea urchins, which eat macro algae, which means a significant increase in the amount and the density of kelp.

In California, sea otters eat abalone. But they eat such large quantities of mature abalone that the ecosystem is left with significantly reduced quantities and the remaining abalone are small juveniles.

The Canadian Department of Fisheries and Oceans has concluded that growing marine mammal populations in that country are hindering the recovery of depressed cod stocks. Indeed, some experts have commented that marine mammals consume between three and six times the entire worldwide commercial fisheries catch.

Our point is that there are consequences for other ocean species that flow from the MMPA's decision to manage the oceans by giving marine mammals the first and highest priority.

We want to emphasize that we do not support or condone actions which lead to marine mammal mortality and injury, but ZMRG is an unscientific and an unrealistic management tool. It should be replaced by a concept applied in many other environmental protection statutes—- that the regulated industry should use the best practicable and economically feasible technology to avoid and minimize adverse environmental impacts. Indeed, this was the policy of Congress when ZMRG was first enacted and applied to the eastern tropical tuna fishery. See H. Rept. 92-707 (1971) at 24 and S. Rept. 92-863 (1972) at 6. See also H. Rept. 97-228 (1981) at 17. But Congress has allowed NMFS to move away from that standard. Today NMFS defines ZMRG in a way that is intended to return marine mammal populations to their pristine levels.

The ZMRG methodology starts with the minimum marine mammal population estimate. This number is multiplied by 50% of the expected annual net reproduction rate. The resulting number is half of what NMFS estimates as the annual net reproduction of the minimum population. That number is then reduced by multiplying it by a recovery factor of 0.1 for endangered species, 0.5 for threatened or status uncertain species and 1.0 for others. NMFS then reduces the resulting number by 90%. Any fishery taking fewer than this final number is at ZMRG. This ZMRG formula is designed to return marine mammal populations to the levels that would exist in a pristine environment. It places marine mammal populations above all others.

2) End Discrimination. All users of ocean resources should be subject to the same standards. If ZMRG is the proper ocean management policy, then every user of ocean resources who interacts with marine mammals should be held to that standard. However, as now written, ZMRG applies only to commercial fishermen. Yet, recreational boating activities, large and concentrated recreational fisheries, and merchant shipping can each have a significant impact on marine mammals.

Recreational boating activities in Florida, for example, have a major impact on manatees, but no ZMRG is applied to this activity. Testimony presented at last week's MMPA hearing conducted by the Senate Commerce Committee showed that merchant ships collide with marine mammals, often killing them. In fact, the testimony stated that so many endangered right whales are killed by vessel collisions that population models predict this additional mortality may drive the species to extinction. If ZMRG is the correct policy, why isn't it applicable to everyone?

3) Fisheries Categorization. To achieve ZMRG, the MMPA requires NMFS to categorize commercial fisheries into three groups. Category i fisheries are those with a frequent incidental mortality and serious injury of marine mammals. Fisheries having only an "occasional" incidental mortality or serious injury of marine mammals are considered category ii fisheries. For any fishery placed into category i or ii, NMFS must develop a formal marine mammal take reduction plan whose objective is to achieve ZMRG. Only a category iii fishery, one which has a "remote likelihood or no known incidental mortality or serious injury" of marine mammals, escapes the requirement for a take reduction plan to achieve ZMRG.

These statutorily created categories again underscore the fact that the MMPA establishes a goal of managing the ocean for marine mammals above all other creatures. The categories do not reflect any realistic set of management priorities based on the true impact of an action on marine mammals. Instead, only those fisheries with a remote or no interaction with marine mammals escape the ZMRG regulatory process. In other words, if you have already achieved ZMRG then no further regulation is applied. And, once again, the take reduction plan process only applies to commercial fishermen—- it does not apply to other ocean users.

Further exacerbating this problem is the fact that the process by which NMFS assigns commercial fisheries to various categories is unscientific and arbitrary. For example, the southeast Alaska salmon purse seine fishery is listed as a category ii fishery based solely on the fact that several years ago one humpback whale swam through a seine net ripping apart the net. Similarly, the Cook Inlet set gillnet salmon fishery was classified by NMFS as a category ii fishery despite vigorous protest from the fishermen about the absence of any sighting of marine mammal interactions. When NMFS actually gathered incidental take information based on NMFS observer data, NMFS discovered that the fishermen were correct and the fishery belonged in category iii. Categorization of fisheries must be based on sound science, not isolated examples and conjecture.

4) Potential Biological Removal ("PBR"). A first blush, the concept of PBR appears to provide a management concept similar to that contained in the Magnuson-Stevens Fishery Conservation and Management Act where managers determine the allowable biological catch. However, under the Magnuson-Stevens Act, management decisions are based on preventing removals from exceeding a biologically safe amount. In stark contrast, the PBR concept in the MMPA seeks to continue building all marine mammal populations, even healthy stocks, to their optimum sustainable population ("OSP"). NMFS defines OSP as a range between the largest possible population and the maximum possible net reproduction rate. The MMPA's concept of PBR as a management tool is, once again, premised on giving marine mammals the primary place in the ecosystem. As noted above, this distorts ocean management to the disadvantage of other species and to the disadvantage of persons whose livelihood depends on a balanced ecosystem.

Compounding these problems is the fact that, far too often, PBR determinations and decisions are made based on weak and limited data. This lack of data serves only to complicate ocean management issues when all other species are secondary and all doubts are resolved in favor of the primary species.

5) Liability In Any Observer Program. The MMPA requires commercial fishermen to accept an observer when NMFS so demands. The problem is that many vessels are too small to accommodate another person. Vessel captains are often required to reduce crew size, which affects the ability to operate the boat safely, or to add another person. The observer, whose presence on board a small vessel inhibits crew movement, thereby impacting safety. For the small vessel fleets, all observers should be staged in a NMFS vessel. If that is not possible, the program should indemnify the vessel owner from any third-party claims associated with the requirement to have an observer onboard.

We look forward to working with the Committee to amend the MMPA so that it is a balanced and responsible law that relies on sound science, requires the use of the best practicable commercially and economically feasible technology in mitigating impacts to marine mammals, treats all ocean users the same, and does not impose requirements which jeopardize human safety.

Mr. GILCHREST. Thank you very much. We will try to get through some of these questions before the vote.

Ms. Steuer, your approach to the problem of the right whales in the Atlantic Ocean, where you say fishermen cause half of the mortality, and there is a regulatory process that is in effect right now; ship strikes cause the other 50 percent of the mortality, and there is no regulatory regime to deal with that issues. There has been—it is my understanding, and maybe it would have been better if NMFS—I see some NMFS people peppered out through the audience there, so maybe they can answer this question.

The IMO, with the help of our National Marine Fisheries Service, it was my understanding, developed a process for international shipping, when they approach the U.S. coastline, to work with our Coast Guard and NOAA—I guess it is a voluntary thing—to avoid right whales, or to report right whales. But there was a system put into place. And I understand it is a voluntary system. If you are aware of that system with the IMO, is there some—is there something we can do with that structure, do more with that structure to help with the right whale situation? And there was—or there is research going on with Dr. Tyack with those fish-finders being used on ships to maybe locate right whales or other marine mammals as the ships go through.

So a quick comment on what IMO is doing, and is that research by Dr. Tyack something that you think would be worthwhile pursuing?

Ms. STEUER. On the research end, all of it is worthwhile pursuing, because we don't know, frankly, why so many right whales get hit by ships. We hate to say it, but maybe they are just so dumb they can't avoid them.

The IMO system, as I understand it, is an information-gathering system only. It does not obligate a vessel owner or a captain to move his vessel—slow down, avoid, or do any of the things that are necessary to protect right whales. What we don't have at the moment is an approach that, like the TRT—

Mr. GILCHREST. I do think, though, that there is some communication between—and I know it is a voluntary thing, but I do think there is some communication between the ship captain, the pilot, and the Coast Guard, where the Coast Guard can actually contact that ship that there's right whales in the vicinity.

Ms. STEUER. In the area. Right. But there is no process that forces the shipping companies to come to the table, as with fishermen, and say, OK, here is what we can and can't do, here is what we should and shouldn't do to reduce ship strikes. And that has to happen, and it has to happen soon. Because every single loss of a right whale is a detriment to the species, that is so much on the edge.

So I think NMFS needs to—and we appreciate that it is a tough one with the IMO involved, but Canada just did it. They moved traffic, shipping traffic lanes in and out of the Bay of Fundy through an IMO process in an attempt to reduce right whale strikes. And my view of that is if Canada can do it, we can sure do it.

Mr. GILCHREST. So Canada changed the route upon which ships travel to that port?

Ms. STEUER. Yes. They moved their shipping lanes, and I believe there are also speed reductions involved.

And so I know it is a complicated process, but I think that sets a model for us that can be done. And one of the researchers involved is actually working in Massachusetts. So we have the model set up and we should be looking at it.

Mr. GILCHREST. Well, thank you very much.

Mr. Johnson, how was your trip from Alaska?

Mr. JOHNSON. I was here last week, and I went back home. It is a 2-day trip coming here, so it is a long trip.

Mr. GILCHREST. Are you going to stay a couple of days now?

Mr. JOHNSON. Well, I am here. Every time I come back, I try to make as many visits to as many different offices as possible because it is so long. You know, we complain in Alaska—I deal a lot with polar bears in Russia, and they claim the same problems that we have.

Mr. GILCHREST. What, going to Moscow?

Mr. JOHNSON. They say it is both a good thing and a bad thing to be so far away from your capital. [Laughter.]

Mr. GILCHREST. We hope you are finding it a good thing right now.

Could I ask about—you made a comment about sale of gall bladders and the ban on airplanes, and the permits for seals with Fish and Wildlife as opposed to just National Marine Fisheries Service. Those are three very specific recommendations. Do you see us—And we would like to help with that, and I am just wondering if—and, you know, we will talk to staff and counsel and all those other things. Do you see those three recommendations being specific in the language of this reauthorization in the report language? How would we actually, from your perspective, implement a ban on gall bladders, no airplanes can do any hunting? Is it in this—is the Senate dealing with this issue as well?

Mr. JOHNSON. Yes, the Senate is dealing with the ban on airplanes for polar bear hunting. That is in the treaty that we just negotiated with Russia. And the ban on the sale of gall bladders has been in, I think, in the past—in the language. Or else it has been in regulations.

As far as the management of species, that was in the original 1972 act, where it put seals under management of Department of Commerce. And we have a good relationship with NMFS. I am not, you know, saying that we don't like NMFS. but the fact of the matter is they have told us that, you know, they are constantly dealing with crisis situations and lawsuits, and because of that co-management with Alaska Natives is not a priority. That is their words almost—

Mr. GILCHREST. I think that is something that we can probably change through the regulatory process, or in this bill, the relationship between the permits for what you would like to do with the seals, between NMFS and Fish and Wildlife, I think we can deal with that in this legislation. The treaty, I guess, with the gall bladders, with Russia is something that we will pursue here and continue to look at. I don't know if that is something that we could actually put in this legislation. But I appreciate you raising it to

us here this morning. And I also think we can work on the airplanes, no hunting from airplanes.

We may have a second round if we have enough time, but my time has expired, so I am going to yield now to Mr. Pallone.

Mr. PALLONE. Thank you, Mr. Chairman. I wanted to ask Ms. Steuer, because I know she was a former staffer to the Merchant Marine and Fisheries Committee—I wish we still had the Committee, but such is life.

Mr. GILCHREST. We are working on it.

Mr. PALLONE. Are we working? Oh, that is right, you are working on it. Oh, well, I hope you succeed. And I will help you, if I can—I don't know if what I say matters.

Mr. GILCHREST. Maybe Karen can come back as a Republican staffer this time. [Laughter.]

Ms. STEUER. For you, Mr. Gilchrest, anything.

Mr. PALLONE. Anyway, Karen, you were an active participant when the new definition of harassment was created, because I know you mentioned it before. Would you comment on the original intent of providing such a specific definition for this one aspect of take?

Ms. STEUER. What happened in 1994, Mr. Pallone, is that we were actually approached by the scientific community with the very same complaints that we are hearing this time around. Prior to 1994, there was no definition. And so we created the two-tiered definition with the intention of having a tier—that is, Level B harassment—that would apply to incidental takes, like those of the scientific community, which were clearly to be of negligible impact. And we were relying on NMFS to set up a process to make their lives easy.

Unfortunately, that didn't happen. And so here we are again. And it is one of the reasons why I, at least, would—I don't think that I could give any stronger advice to the Committee on the definition this time than to say that no matter what language you use, you define every single term in the statute; or you direct NMFS to do a rulemaking within a specified period of time to define the terms. Because that is where we were negligent in 1994, and that is what needs to happen now.

And when I testified a few months ago on the DOD bill, I believe, I said the same thing; and that is that it is not—that the language of the statute alone isn't going to resolve any of the problems we have heard today unless we have a clear process that resolves all the process problems that we have seen, that resolves all the conflicts on ambiguous terms, and that sets up the proper standards for scientists, fishermen, or anybody else. And so you have to have that in combination with whatever language you put in Level A and Level B harassment.

Mr. PALLONE. Well, this is related or, you know, I wanted to ask you specifically, though, the language in Section 14, which provides a general authorization for incidental take at the discretion of the Secretary, you know, would that produce the desired outcome, or do you feel it opens an unrestricted loophole for a variety of other activities in the ocean that may also cause the incidental taking of a marine mammal, such as offshore oil and gas exploration, for example?

Ms. STEUER. I think, as it is currently worded, the problem is that it is a big loophole. And I am sure that is not the intention in the bill. And it seems to me that some of the testimony that we heard on the first panel might be very useful in that regard, in terms of the agencies setting up, perhaps, the equivalent of a programmatic review process in which certain activities can be determined to be of de minimis impact. Others can be moderate impact, or however they want to go through it. But to set up a general authorization that doesn't more clearly define its intent in terms of reference I think would be a mistake.

Mr. PALLONE. Let me ask about this new World Wildlife Fund study that was released in June. This is again for you, Karen. Released in June, conducted by both American and Scottish biologists, suggests that accidental capture of bycatch by the fishing industry may be the biggest immediate threat to the survival of some marine mammals, especially large whales. And it analyzed bycatch mortality affecting 125 marine mammal populations over 10 years. It estimates that 1,000 whales, dolphins, and porpoises drown every day, annually approximately 308,000 marine mammals die unintentionally.

Are there any conclusions that can be drawn about the effectiveness of Section 118, take reduction team process, because of this study? Maybe others might want to answer this. I know Mr. Hayes talked about the fishing gear, whether specific types of fishing gear should be permanently retired due to their associated level of bycatch.

Ms. STEUER. Yes. I mean, there is no doubt that incidental bycatch in fishing gear is the largest single threat globally, particularly to what we call small cetaceans, small whales and dolphins. Absolutely no doubt about it. And at a paper presented to the Scientific Committee of the International Whaling Commission this year, the global estimate number is now up to more than 300,000 whales and dolphins a year, 600,000 pinnipeds a year. The numbers are huge. And certainly type of gear is the bottom line. As Mr. Hayes was saying, it is not about the fishermen, it is about the gear they use.

And in that regard, Section 118 has been extremely helpful. Because what Section 118 allows the agencies to do is collect data on which gears and how many and when and how and on what mitigation measures work. And in fact, that data was used in the International Whaling Commission discussions this year in terms of how do we now get that kind of data out to the rest of the world so that they can follow the kinds of practices that we are trying to set up with Section 118.

Mr. PALLONE. Thank you. I don't know if Mr. Hayes wants to say anything. You kind of already addressed it, I guess.

Mr. HAYES. I think I addressed it. It is a huge problem.

Mr. PALLONE. OK. Thank you, Mr. Chairman.

Mr. GILCHREST. Thank you, Mr. Pallone.

This is—we are working on a series of definition changes and in our bill we have, if I could use—I guess it is one-i, two-i, three-i, or A, B, and C. But what we have attempted to do is to focus on the problem areas of the difference between a minor change in the behavior which is not significant, to a significant change that we

really need to focus in on with our limited resources, to help the scientists improve their research without dealing with the whole disruptive, fragmented, underfunded regulatory process, and to find a way to get at some of the harassment of marine mammals that we don't have the ability to do now. And also what you said, Ms. Steuer, we can't do it all with the definition of harassment; there has to be some really comprehensive, competent regulatory regime. And whether we come up with a rulemaking process, whether we define those very specifically now, we want to do that.

And we are hearing all this, and we are going to do our best to accomplish this task, including helping the fishermen catch their fish without making a priority within the creation of God's Earth that a porpoise is better than a salmon—or any of that. Balance all of this.

I guess the question I have, though, here is specific to Level 3, which are trying to create to get at the—where there is feeding, swimming problems, where you want to swim with the dolphins, you want to feed the dolphins, you want to drive your jet ski around the dolphin. So it is our understanding right now that Level C harassment, little three-i, helps get at that particular problem, though there is some feeling that it doesn't, that it is not a good provision to put into the statute.

So I guess I would ask does the present language, without this reauthorization, give the enforcement agencies the ability to stop that type of harassment? Is it presently—does it presently exist, or do we need to change it? And if Level C that we have in there is not adequate, or doesn't help that, what in fact should we do?

And Dr. Wells, in your scientific research—and you mentioned—I think you may have been the one that mentioned feeding and swimming—do you see the present language in MMPA as OK to enforce that? Apparently you didn't. Do you see our language as directed toward those activities more helpful?

Dr. WELLS. Thank you. My background certainly is not in the legal profession, so I am not sure I am going to have a lot of valid input on this, but it has been my experience to date with my own research situation in Florida in dealing with NOAA Fisheries personnel that the current definition doesn't work. It is not a strong enough definition to get the legal counsel and law enforcement wings of NOAA to be able to act on a number of these situations that you describe.

In talking with the same NOAA Fisheries staff about the proposed definition, it seems like something that they would feel comfortable would allow them to move forward with prosecutions much more effectively.

Mr. GILCHREST. Ms. Steuer?

Ms. STEUER. It is not clear to me why language that says "any act," eliminating "of torment or annoyance," doesn't allow NOAA Fisheries to enforce any act of harassment.

The concerns that we have about "directed toward" are that it is unclarified. I mean, as I read it, and we mentioned this before, at the moment, if you are directing an activity toward marine mammals, that includes scientific research. So you now fall under that standard, unless something in the statute or in regulation is going to clarify that you don't.

Jet skis doing recreational running around marine mammals within an activity that is not directed toward them specifically, it doesn't seem to me that this would necessarily cover that.

And if what the Agency wants to do is regulate dolphin feeding, dolphin swimming, and jet skis, then it seems to me that we ought to have the nerve to put into the statute "an act"—we would say, "dolphin feeding, dolphin swimming, and jet ski activity around"—

Mr. GILCHREST. Is a prohibited activity.

Ms. STEUER. Is prohibited activity or shall be regulated differently. If that is how clear we need to be, then let's be that clear.

Mr. GILCHREST. One of the scientists, I am not sure if it was Dr. Tyack or—either here or at some other hearing, made a comment that if they tried to get a permit to ride around dolphins in a jet ski to see if they were being harassed, it would be difficult to get that permit. I guess. Although Dr. Wells said he didn't have any trouble getting permits.

Dr. WELLS. And actually, some of our work did involve looking at controlled approaches to dolphins to understand their responses.

Mr. GILCHREST. I wonder if the—well, we will have to ask some of the NMFS people later, who aren't testifying right now—is it—in the process of getting a permit for scientific research, whether it is Florida, California, Massachusetts, Alaska, or wherever it happens to be, is that—because Dr. Wells says the permitting process is fundamentally sound right now—you said it was OK—is that the problem of individuals that you work with in those regions, or do those individuals help in that process, is it Washington, is it somebody that files a lawsuit? You know, where is that stream, because we have heard some specific examples of specific scientists that had a very difficult time getting permits.

Dr. WELLS. I believe one of the differences is that most of my work is with bottlenose dolphins. Not being endangered species exempts them from some of the NEPA and ESA considerations that these other scientists have had to face. I think my experience is consistent with Dr. Tyack's in terms of dealing strictly with MMPA authorizations or permits, in that that process seems to be working well. But when you have the additional complications of NEPA and ESA considerations, that is when it starts to get difficult.

Mr. GILCHREST. So you see some streamlining with that process?

Dr. WELLS. That presumably would help out.

Mr. GILCHREST. Mr. Pallone, any further questions?

Mr. PALLONE. I just wanted to ask Mr. Johnson about, you know, when you talked about the co-management, and I know that the bill has some changes in cooperative agreements. But in terms of Native Alaskans having the capabilities to support and train enforcement operations for effective co-management, would you just comment on that? I mean, is there sufficient capabilities, or is there a greater need for other—you know, if you just mention to us about their ability to do the enforcement pursuant to these cooperative agreements.

Mr. JOHNSON. Yes, what we want is the ability to enforce regulations that we might develop for harvest limitation. For example, the villages of Gambell and Savunga on St. Lawrence Island have an unenforceable ordinance that they have developed limiting the number of walrus that can be taken. Presently that is not enforce-

able. The reason that we want the enforcement language in the bill is that legally an Alaska Native tribe can only enforce on its own members. So if a member from another tribe comes and hunts in that area, he doesn't have to abide by the same regulations that a tribal member can. The language in the bill that we would like to see in there, it allows anybody, any Alaska Native that is hunting in an area that has regulations, it forces them to live by the same regulations. We do have the capability, in most case, because we do have village peace officers in most villages in Alaska.

Mr. PALLONE. OK thank you. That is all I have, Mr. Chairman.

Mr. GILCHREST. Thank you very much, Mr. Pallone.

Prior to adjourning, I ask unanimous consent that the statement of Monica Riedel be submitted for the record. Without objection, so ordered. I have been meaning to say that for 2 hours.

[The prepared statement of Monica Riedel follows:]

Statement of Monica Riedel, Executive Director and CEO, Alaska Native Harbor Seal Commission

Thank you for the opportunity to present this testimony. My name is Monica Riedel and I am testifying in my capacity as the Executive Director and CEO of the Alaska Native Harbor Seal Commission (ANHSC). I am also a subsistence user of marine mammals, Native artist, and tribal member of the Native Village of Eyak located in Prince William Sound, Alaska.

The ANHSC spans a geographic area almost equal to the width of the United States. We encompass approximately eighty remote villages most of which are accessible only by air or water.

The commission was organized specifically to develop and implement Co-management of harbor seals and to address issues related to the Native subsistence harvest. Co-management is viewed as an effective means of addressing the decline of harbor seals in the Gulf of Alaska while providing for a continuation of traditional subsistence uses.

Importance of harbor seals to Alaska Natives

Alaska Natives have been harvesting marine mammals for centuries. Current Harvest data shows that out of an estimated population of 180,000 harbor seals in Alaska, approximately 2,500 are taken for subsistence. (Information from NMML and the Alaska Department of Fish & Game, Subsistence Division)

The nutritional value derived from the seal far exceeds any other foods introduced to Alaskan villages. The oil is unsaturated, "and is an excellent source of the long-chain omega-3 fatty acids that help prevent coronary heart disease" (Professor Fereidoon Shahidi of Memorial University, Nammco International Conference and Exhibition Nov. 1997). Furthermore, recent studies show that seal oil may contain antibiotic properties. Just 3 oz of seal meat provides 95% of a person's daily requirement of iron.(Alaska Native Health Board)

Over the past 30 years, congress has consistently recognized the use of marine mammals by Alaska Natives as an integral part of our way of life. Marine mammals, including the harbor seal, are a key source of food and clothing for Alaska Natives living throughout coastal Alaska. Alaska Natives make a wide variety of handicrafts and clothing from the marine mammals they harvest. They barter these items through traditional trading networks throughout Alaska. The sale of handicrafts made from marine mammal by-products is a crucial source of income to many who live in remote Native villages. Marine mammals also play a prominent role in Native stories, art, traditions, and cultural and spiritual activities.

Background information on ANHSC Programs:

Community-Based Harbor Seal Management and Biological Sampling

With support from the Exxon Valdez Oil Spill (EVOS) Trustee Council, the ANHSC in collaboration with the Alaska Department of Fish & Game, Subsistence Division(ADF&G) has been conducting a biosampling program to collect tissue samples from subsistence-harvested seals. The overall purpose of the program is to combine Native traditional knowledge with western science to address the restoration and recovery of the seal population impacted by the 1989-oil spill. Over the past 5 years, the project has trained and certified over 100 hunters, and subsistence users

in rural Alaskan villages. The project has collected over 500 sample sets for distribution to a wide range of researchers and for the University of Alaska Tissue Archival Project.

Youth Area Watch

Through coordination with another EVOS funded program, an additional 400 students have been exposed to the scientific methods of collecting data. During youth spirit camps the hunters teach protocols of hunting methods, as well as cultural relationships to the animal, while an ADF&G veterinarian and ANHSC staff train the youth in the scientific protocols of data collection. During the year, staff also visits elementary and high schools to educate students on Natives and marine mammal harvests.

Harbor Seal, Monitoring, Research and Management Program

With Congressional appropriations through the National Marine Fisheries Service (NMFS) in the amount of $97,000 for each of the years 1997, 1998, and 1999, and 150K for the years 2000,2001,2002 and 2003, the ANHSC has conducted a "Harbor Seal Monitoring, Research and Management" program. This program, combined with the EVOS biosampling project, has supported a full time executive director, and a contracted biologist to monitor harbor seal research on a statewide and national level. There are five main components to the program:

1. Admin support for ANHSC and Board of Directors
2. Cooperative Agreements
3. Harvest Assessment Oversight
4. Expansion of Biosampling
5. ANHSC Outreach and Education

Self-regulation and Co-management

The use of marine mammals for thousands of years has made Alaska Natives wise stewards of marine mammal populations. We bring unique knowledge and historical perspective to resource management. The National Marine Fisheries Service (NMFS), the federal agency with jurisdiction for the management of harbor seals, recognizes the advantages of direct involvement of subsistence users in managing harbor seals. Indigenous inhabitants and NMFS share the common goals of conservation and maintenance of a sustainable subsistence harvest. For that reason, the NMFS entered into a Marine Mammal Protection Act, Section 119 Co-management Agreement with the ANHSC.

Through co-management, hunters and Native Tribal representatives sit as equals within the policy-making bodies that make resource management decisions. Co-management provides an effective means of conservation without diminishing the ultimate authority or responsibility of the Secretary of Commerce.

Development of ANHSC/NMFS Sec. 119 Agreement

Co-management discussions between the Harbor Seal Commission and the National Marine Fisheries Service began in April 1995, shortly after the formation of the commission, and NMFS's proposed listing of the Gulf of Alaska harbor seal stock as "strategic".

In spite of the impediments of long distance communications between NMFS headquarters in Washington D.C. and between our remote villages, a Section 119 Co-management Agreement between the Alaska Native Harbor Seal Commission and the National Marine Fisheries Service was finalized and signed in April 1999.

Proactive management through Sec. 119 Agreements

It is envisioned that through the Co-management Committee structure established in Article V and Article VII Section B and C in the "Agreement Between The Alaska Native Harbor Seal Commission and The National Marine Fisheries Service, the ANHSC and NMFS will consult on issues relating to regulation and enforcement. Article VII Sec. C), States: As concern about any Alaska harbor seal stock arises (i.e., prior to listing as strategic or depleted under the MMPA and/or as threatened or endangered under the ESA) the Parties agree that the Co-management Committee shall:

1. Consult and recommend about a possible need to list;
2. Consult and recommend about management strategies to avoid a possible listing;
3. After listing, consult and recommend about possible regulations; and
4. After listing, consult and recommend about possible arrangements for ensuring compliance and enforcement.

Co-management Committee meetings are held on a regular basis. Specifically, we are addressing harbor seal stock delineation. The ANHSC has committed to conduct

an independent scientific review of the genetic data used by NMFS to propose new stock boundaries.

How Co-management Agreements have benefited Natives and marine mammals

Before the ANHSC was formed, hunters occasionally met with agencies to exchange information about harbor seals. Now, the dialogue is much broader. With formal and equal representation, scientific consultation, and through the co-management committee, as developed in the NMFS/ANHSC Sec. 119 Agreement, hunters and subsistence users contribute their vast traditional knowledge to address research and conservation needs. The ANHSC Board of Directors is made up of hunters and subsistence users. They are directly involved in data analysis of the seal population, harvest numbers, as well as data generated from the biosampling program. ANHSC meetings are open to the public and the organization distributes newsletters, brochures and biosampling training videos.

Room for improvement

As background, it should be noted that the ANHSC recognizes that the most important data for managing any harvested population are regular censuses and monitoring of the size and composition of the harvests. The NMFS and the ADFG are well equipped for censusing harbor seals and they have an on-going census program. The ANHSC are responsible users and recognize the importance of harvest monitoring. The ANHSC is in the best position to do so because harvests are spread over a very wide area (from Ketchikan to the western Aleutian Islands) and throughout the year, it is impractical to monitor the harvests from agency offices. The ANHSC has representatives throughout the harbor seal's range in Alaska, and those representatives are knowledgeable about local hunting practices.

We need to continue to build capacity and find long-term commitments to support conservation and local management plans. ANHSC is hard at work collecting data on the harbor seals, participating in federal, state and private research, monitoring the harvest and other activities. Adequate support would enable the commission to assist its villages in developing formal codes and ordinances, databases, and generally support the work of the commission. With the recent increase in funding, ANHSC has assumed more responsibility for monitoring the harvest of harbor seals formally done by ADF&G Subsistence Division.

General comments on the MMPA and/or ways the MMPA could be improved:

1. Section 119 needs to be amended to include language contained in the administration bill that we strongly support.
2. Full funding for Section 119A for activities such as:
   A. developing infrastructure, management plans
   B. collecting and analyzing population data
   C. harvest monitoring
   D. cross-cultural training and other educational projects
   E. biosamapling and tissue archival projects

FACA exemption for Section 119 Agreements

Mr. Chairman and members of the Subcommittee, thank you for the opportunity to testify on the 2003 amendments to the Marine Mammal Protection Act. I will be glad to answer any questions you may have.

Mr. GILCHREST. I want to thank all of you for coming this afternoon—well, it is this afternoon now. We will continue to discuss these issues with you as we move through the process. We are obviously not going to mark this up before the August recess, but it will be done, in our hopes, sometime in the September timeframe to reach the House floor for a vote. And we are working with the Senate to hope that there is some concurrent process there as well. So that in this session of the 108th Congress we will, hopefully, reauthorize the Marine Mammal Protection Act. And your contribution to this effort is vital and greatly appreciated. Thank you very much.

The hearing is adjourned.

[Whereupon, at 12:28 p.m., the Subcommittee was adjourned.]

The following individuals responded to questions submitted for the record. Their responses follow:

- Cottingham, David, Executive Director, Marine Mammal Commission
- Jones, Marshall, Deputy Director, Fish and Wildlife Service, U.S. Department of the Interior
- Lent, Dr. Rebecca, Deputy Assistant Administrator for Fisheries, National Marine Fisheries Service, U.S. Department of Commerce
- Steuer, Karen, Senior Policy Advisor, National Environmental Trust
- Tyack, Dr. Peter, Senior Scientist and Walter A. and Hope Noyes Smith Chair, Department of Biology, Woods Hole Oceanographic Institution
- Wells, Dr. Randall, Conservation Biologist, Chicago Zoological Society, Mote Marine Laboratory
- Worcester, Peter F., Ph.D., Research Oceanographer, Scripps Institution of Oceanography, University of California at San Diego

Response to questions submitted for the record by Marshall Jones, Deputy Director, Fish and Wildlife Service, U.S. Department of the Interior

Questions from Chairman Wayne Gilchrest

1. Question: The USFWS has been referred to as the agency that supported the changes to level A harassment in the Administration's bill. The level A harassment in the Administration's bill reads "injures or has the significant potential to injure a marine mammal...." Can you explain why this specific language was chosen?

Answer: The changes to Level A harassment proposed by the Administration's bill represent the combined efforts of several agencies having responsibilities under the Marine Mammal Protection Act (MMPA). The agencies crafted this language with the best interest of the public, marine mammals, and our respective agency missions in mind.

The current definition of harassment, which uses the term "potential," does not provide a clear enough threshold for what activities may constitute harassment. As currently defined, Level A harassment is any act of pursuit, torment, or annoyance, that has the "potential to injure," and Level B harassment is any such act that has the "potential to disturb." The term "potential" is too broad and would include any activity that could cause a negative response, no matter how remote the possibility. It provides little guidance to those who engage in activities that may have an effect on marine mammals for determining when their activities may result in prohibited harassment that is subject to regulation and, therefore, when it would be advisable for them to seek authorization (or modify their activities). Adding the term "significant" provides a modification that attempts to identify the appropriate level of certainty that an activity would result in harassment and could actually cause injury to the individual or stock.

2. Question: What is the status of the Polar Bear Treaty implementing legislation being developed by the Department?

Answer: The Polar Bear Treaty implementing legislation is still under review by the Administration. The Senate recently recommended ratification of the treaty (on July 31, 2003) by unanimous consent.

3. Question: The Department has asked for authorities under section 118 of the MMPA to collect information on fishery interactions with sea otters on the west coast. The Department currently has authority to collect information under P.L. 99-625, which required the Department to establish fishing areas and translocate sea otters to a special protection area. Has the agency determined whether or not the actions it has taken under P.L. 99-625 have been a failure? Why doesn't the Department collect the information it seeks under this Act?

Answer: There are no provisions within Public Law 99-625 that specifically address collection of information on fisheries interactions. This law authorizes the U.S. Fish and Wildlife Service (Service) to develop a translocation plan for southern sea otters and provides specific requirements for translocation and management of sea otters. Although this legislation clearly identifies an interest in minimizing conflicts between sea otters and fisheries, it seeks to reduce these conflicts through move-

ment of sea otters out of a designated management zone. The Administration's bill would clarify an ambiguity in the existing section 118 specific to California sea otters, noting that the provision should not be read to limit collection of information on southern sea otter/fisheries interactions. This information is important because, in recent years, fisheries that are thought to interact with sea otters have been subject to increasingly stringent regulations imposed by the State of California. With little or no information on fishery interactions with sea otters, it is difficult to determine means to minimize such interactions or to evaluate the effectiveness of any such measures that are adopted.

It is clear that the primary objectives of the translocation program have not been met. Accordingly, the Service is currently reevaluating the program, including the possibility of declaring that it has been a failure. In April 2001, the Service released a scoping report that contained comments solicited from the public in preparation for developing a Supplemental Environmental Impact Statement that will analyze the effects of alternatives to the current translocation plan.

4. Question: Has the Minerals Management Service, through the research it conducts or supports, reached any findings that would be considered surprising? For instance did a marine mammal act in a way that was not expected when a seismic activity or research activity was performed?

Answer: According to the Minerals Management Service (MMS), while there are no final results yet available for discussion, there are several important MMS-funded marine mammal-related studies underway, including Sperm Whale Seismic Studies (SWSS) and studies under the Sperm Whale Acoustic Monitoring Program (SWAMP).

The SWSS is an international collaborative effort, which includes among its participants the National Science Foundation (NSF) and industry representatives, comparing the "normal behavior" of sperm whales to that observed when seismic vessels are operating in the study areas. Controlled exposure experiments (CEE's) are planned to measure sperm whale responses to a typical air-gun array. Research vessels and remote sensing devices will also obtain ambient noise measurements and physical oceanographic data to allow a detailed habitat characterization; mapping of both physical oceanographic features and ambient underwater noise levels will be correlated to sightings of sperm whales and other observed cetaceans. In addition, methods to profile sperm whale dives using passive acoustic monitoring will be developed. For longer-term analysis of dive times and whale movement, satellite tags were tested in Fiscal Year 2001 and are being deployed through Fiscal Year 2004. Using these different study methods, whale vocalizations, dive profiles, and surface movement will be characterized and then compared to data when seismic boats are active in the area or during CEE's.

This study is intended to immediately address information necessary for informed Section 7 consultations and possible MMPA take authorizations associated with seismic survey operations. The study will also provide essential baseline information on sperm whale behavior and response to noise needed to conduct more detailed studies.

The SWAMP study focus was on obtaining a detailed characterization of Gulf of Mexico sperm whales in terms of sex and age distribution in industry-active areas, genetic profiles, habitat use, and seasonal movement patterns.

As noted above, the information collected during the MMS-funded SWAMP and the ongoing SWSS is still preliminary and requires careful analysis before any conclusions can be reached. Once the scientists analyze the data, the work will be submitted for peer-review publication and will be readily available to the public.

5. Question: In your testimony you stated MMS analyzes impacts, designs mitigation and monitoring guidelines, and defines how actions are to be carried out to minimize the potential for harassment or injury to marine mammals. Is MMS doing this on its own or is it coordinating with the NMFS when making these decisions?

Answer: MMS coordinates protected species issues with the Service and the National Marine Fisheries Service (NOAA Fisheries) on a regular basis through interagency reviews of our NEPA documents and ESA section 7 consultations. This ongoing coordination allows MMS to more effectively analyze alternatives to proposed actions, assess potential impacts of proposed actions, and to design mitigation and monitoring alternatives. For example, in addition to ongoing MMS, NOAA Fisheries, and industry collaborative research efforts, MMS has been working very closely with NOAA Fisheries Headquarters, NOAA Fisheries Southeast Region, and many representatives of the oil and gas industry for the past year and a half on mitigation, monitoring, and reporting issues related to seismic surveys and explosive removals of offshore structures in the Gulf of Mexico. Through our collaborative efforts we hope to have the most effective and reasonable mitigation and monitoring ap-

proaches to conducting seismic surveys and removing offshore structures with explosives while advancing the intent of the MMPA and the ESA.

Question from Congressman Jim Saxton

1. Question: Why has the agency refused to include in recent budgets money for the John H. Prescott Marine Mammal Rescue Assistance Grant Program—since the law was passed over two years ago? And do you have plans to include funds for a Prescott program in the 2005 FWS budget? FWS's jurisdiction covers an endangered species (manatees) and a threatened species (California sea otters). Certainly help with rescue and rehabilitation—and financial support for research benefiting these marine mammals—would be in the best interest of these declining species?

Answer: The Service supports the authority created by the Marine Mammal Rescue Assistance Act of 2000 to provide assistance to eligible marine mammal stranding network participants. Stranding network participants carry out activities—including rescue and rehabilitation of stranded marine mammals and collection of data from living and dead stranded marine mammals—that are important to the conservation and management of marine mammal species under our jurisdiction. Much of the work performed by these organizations cannot be done by the Service, which makes their contributions even more important.

The Service has not requested funding for the Prescott Grants Program due to numerous competing priorities. Nonetheless, we have been actively involved in the process through our participation in the NOAA Fisheries technical and merit review processes. The Service greatly appreciates being given the authority to request appropriations to provide assistance to stranding network participants.

Questions from Congressman Frank Pallone, Jr.

Definition of harassment

1. Question: Over the past year, Congress has been presented with several different options to re-define the definition of harassment. A new definition is being offered in H.R. 2693. Please compare the definition proposed in H.R. 2693 and discuss whether it compares positively or negatively to other proposed definitions.

Answer: In proposing the changes identified in the Administration's bill, our intent was to provide a definition that would clarify for the regulated public what activities may constitute a violation. The existing definition, which limits harassment to "any act of pursuit, torment, or annoyance," is too restrictive and may allow some actions that clearly harm marine mammals to avoid regulation. And, we felt that the unmodified form of "potential" was too broad. The modified form of "significant potential" provides greater predictability of what activities truly cause Level A harassment.

The various definitions try to better focus the agencies' resources on those activities that pose a greater risk to animals, and seek to set a more workable conservation standard as well as clarify for the regulated public what activities would constitute harassment. However, we support the clarity of the definition contained in the Administration's proposal.

For example, we believe that the use of the word "probability" as a qualifier in H.R. 2693 could be read to create a greater-than-fifty percent threshold. Such a numerical threshold would require a strict quantitative assessment, which would be difficult to conduct when considering biological behaviors, and that may be impossible to enforce. In addition, we are concerned that a greater than-fifty-percent threshold may create a standard that is too high to apply to certain activities that may have negative impacts on marine mammals. The term "significant potential" provides a clearer standard for the regulated public, as well as enforcement personnel, and a more appropriate standard that ensures all activities that could lead to negative impacts on marine mammals would constitute harassment.

2. Question: How will the proposed change to the definition of harassment affect scientific research and/or military readiness activities? Are there specific activities that might fall outside this definition?

Answer: The scientific research community and the military would be subject to the new harassment definition as would any other citizen. These groups would, appropriately, need to receive authorization before conducting activities that could injure marine mammals or significantly disrupt important biological functions. We would work with both of these groups to provide appropriate authorizations as quickly as possible. Although the only activities we would expect to fall outside of the proposed definition of harassment are those that do not have a biologically significant impact, we are unable to more definitely identify such activities because we

do not have a clear understanding of how the term "probability" in H.R. 2693 would be interpreted.

3. Question: The definition for Level A (potential to injure) harassment proposed in H.R. 2693 requires that an activity have "the probability to injure" a marine mammal. It seems to me that this change would require a higher burden of proof for a given activity's likelihood of causing harm. Do you feel that this change would make the definition of harassment less protective of marine mammals? Does the word "probability" have a clear and commonly understood legal definition? What is the distinction from "potential?" Would the addition of a modifier that explains the relative probability of injury (such as 20%, 50%, 90%) be helpful in clarifying the intent of the word "probability?"

Answer: We believe the term "probability" implies that a mathematical or statistical threshold should be employed or, at the very least, would require evidence that a response is more likely to occur than not to occur. The difficulty in using this term when referring to animal behavior, i.e., harassed or not harassed, is trying to make a numerical measurement of that animal's reaction that could be compared to some baseline level. The same difficulty applies if a modifier is added to the term. We are also concerned that this may create a standard that would not apply to some activities that may cause significant negative impacts to marine mammals.

The Service is unaware of the use of "probability" in any other wildlife conservation law. The term "potential" appears in the current definition and we believe that the term "significant potential" would be the appropriate term and one that the regulated public would understand. It provides a standard between the current definition, which uses merely "potential" and the proposed definition, which would use the term "probability."

Adding a percentage-based modifier, e.g., 20 percent, would make it even more difficult to enforce because it would indicate that evidence of that particular level must be presented before enforcement could occur. We believe this would result in less protection for marine mammals.

Permitting for Scientific Research

1. Question: It is clear to me from the testimony that we have heard today that the permitting process for scientific research is still problematic for many scientists, but I am still not clear on the root cause of the problem.

- **Is the permitting process severely limited by a lack of resources and staff?**

Answer: At the pace allowed under current priorities in the context of the President's Budget, we are making progress in our permits reform efforts to address the concerns of scientists. The Service is in the process of reviewing all of its permitting activities to determine how well they serve the public and conservation of the resources in question. We have asked the regulated public for input and developed a permits strategic vision and action plan (Leaving a Lasting Legacy: Permits as a Conservation Tool, a copy of which is enclosed for your reference) to improve permitting services, while still ensuring species conservation. One of our goals is to simplify and streamline the permitting process. For example, we have developed guidelines with NOAA Fisheries to process one joint application and issue a single permit in situations where proposed research activities include marine mammal species under both agencies' jurisdiction.

- **Would the development of a classification system identifying specific activities and their associated risk to marine mammals be a more useful approach to expedite consideration of different types of activities on a more programmatic basis?**

Answer: The Service agrees that the development of a classification system could be a useful approach to expedite different types of activities on a more programmatic basis. One of the objectives of the Service's permits action plan is to identify activities by level of risk and to develop consistent policy, guidelines, and procedures for processing permit applications based on risk. Another objective is to provide clear policies and regulations to the permitted public. To accomplish these goals, we are in the process of reviewing which permit regulations and policies need to be revised or developed.

We note that the review of a permit under the MMPA may also entail a review under the National Environmental Policy Act and the Endangered Species Act (ESA—for southern sea otters and manatees). Under some instances, this may add time to application processing.

Take Reduction Teams

1. Question: A new World Wildlife Fund study released in June conducted by American and Scottish biologists suggests that accidental capture or "bycatch" by the fishing industry may be the biggest immediate threat the survival of some marine mammals, especially large whales. This study analyzed bycatch mortality affecting 125 marine mammal populations over the period of 1990-1999. The study estimates that 1000 whales, dolphins, and porpoises drown every day. Annually, approximately 308,000 marine mammals die unintentionally.

- **In light of this information, what conclusions can be drawn about the effectiveness of the Section 118 take reduction team process?**
- **Should specific types of fishing gear be permanently retired due to their associated level of bycatch?**
- **Should a robust program be established to dedicate adequate resources and technical assistance to promote "marine mammal safe" fishing gear?**

Answer: Please see the response to the next question.

2. Question: H.R. 2693 would extend the deadlines imposed on take reduction teams and the agency for requirements under section 118, the taking of marine mammals incidental to commercial fishing operations.

- **Have these extensions been requested by the agency?**
- **Have take reduction teams been unable to meet these deadlines in the past?**

Answer: The Service supports the reduction of the incidental taking of marine mammals in the course of commercial fishing operations, and encourages efforts to diminish and ideally eliminate such taking. However, we note that Take Reduction Plans and their associated process, which are outlined in Section 118 of the MMPA, are under the purview of the Secretary of Commerce. The Service believes this issue is more appropriately addressed by our sister agency and, therefore, we defer to the NOAA Fisheries to respond to these questions.

Stock Assessments

1. Question: Why have stock assessments not been completed for all stocks of marine mammals? What is the limiting factor? How adequate are existing population estimates?

Answer: Stock assessments under the MMPA are used as a tool to assess the status of marine mammal populations and to determine acceptable levels of incidental take by fisheries. Stock assessments have been completed for all Service-managed species, however, with the exception of Alaska species, they are out of date.

Current stock assessments are available for the following stocks in Alaska: Beaufort Sea Polar Bears; Chukchi/Bering Sea Polar Bears; Pacific Walrus; Southwest Alaska Sea Otters, Southcentral Alaska Sea Otters; and Southeast Alaska Sea Otters. Of these stocks, the Southwest Alaska Sea Otter stock is considered strategic as it is currently under review for listing under the ESA and therefore, as required by the MMPA, this stock assessment will be reviewed on an annual basis.

Accurate population estimates and effective techniques for tracking population trends are critical for management of marine mammals or any other species. Population information (size, demographics) on marine mammal stocks managed by the Service in Alaska varies by species. The Pacific Walrus population has not been surveyed since 1990, and that survey was considered incomplete due to logistic and technical limitations of aerial surveys inherent to vast, remote and ice-dominated environments. The Service hosted a workshop in March 2000 to review survey techniques and identify strategies for obtaining an accurate population assessment. As a result of the workshop, the Service is working with partners to develop new survey techniques using remote sensing and satellite tracking. A comprehensive survey is tentatively planned for spring 2005. The Beaufort Sea Polar Bear population estimate will be revised upon completion of an ongoing mark-recapture study that is being coordinated with the Canadian Wildlife Service. A reliable population estimate for Chukchi/Bering Sea polar bears is not available, although crude estimates have been developed based on estimates of numbers of denning females on Wrangel Island. Existing population estimates for sea otters in Alaska will be complete and current by fall 2003. The southwest stock was surveyed in 2000 and 2001; the majority of the southcentral stock has been surveyed on an annual basis since the 1989 (following the Exxon Valdez oil spill); and a comprehensive survey of the southeast stock will be completed by fall 2003.

Regarding southern (California) sea otter, population estimates of the species are remarkably accurate, in part because of the species' distribution in nearshore waters, and in part because of the consistency of the survey methodology, which has

been in place since 1983. Because the southern sea otter is listed as a threatened species, and incidental take of southern sea otters in fisheries is not governed under Section 118 of the MMPA, the development of stock assessment reports to determine acceptable levels of incidental take of southern sea otters is not given a high priority relative to other priorities competing for the limited funds in our budget. Nevertheless, we are currently preparing an updated 2003 stock assessment report for the southern sea otter.

A stock assessment for Washington sea otters was completed in 1995. In 2001, our Western Washington Fish and Wildlife Office (WWFWO) contracted with the Washington State Department of Fish and Wildlife (WDFW) to prepare a draft stock assessment report. The WWFWO is in the process of preparing the draft stock assessment report for review and approval.

In the state of Washington, the WDFW and U.S. Geological Survey (USGS) began regularly surveying the Washington sea otter population in 1987. This population has been surveyed every year since, with a combination of aerial and ground surveys. The surveys encompass the currently known distribution of the population, with the exception of the few individuals that enter into the Puget Sound. The results of the surveys are not an exact count of the population, but serve as a minimum population estimate and provide trend information. In Washington, it would be difficult to obtain a more accurate population estimate because of the inaccessibility of the coastline.

Regarding the Florida and Antillean manatee, the most recent stock assessment was also published in 1995. Our Florida Field Office is currently revising the stock assessment to reflect the most recent scientific research concerning the status of this species. This includes the determination made as part of our recent MMPA incidental take rule-making process that the Florida manatee is comprised of four separate stocks. However, litigation driven manatee tasks are hindering our ability to finalize a draft revised stock assessment report.

A statistically robust estimate of the manatee population size does not exist. However, we do have an estimate of minimum population size based on annual synoptic surveys conducted throughout the manatee's winter habitat. Although these are unadjusted counts, we believe they provide a useful estimate of the minimum population size. The Florida Marine Research Institute and the USGS are currently conducting research into better methods for calculating manatee population size.

Zero Mortality Rate Goal

1. Question: Robert Zuanich testified that the marine mammals hold a loftier status than all other animals in the ocean. Wasn't this at least, in part, the goal of the protective approach of the MMPA? The ZMRG codifies this placement of marine mammals in the ocean by stating that anything above a zero rate mortality and injury rate is unacceptable. Although clearly intractable, this principle sets a high bar and a principle for how humans interact with marine mammals.

- **Can you comment on whether the zero mortality rate goal should be retained? What is its relation to the precautionary philosophy of the MMPA?**

Answer: The zero mortality rate goal is one of the ways that the intent of the MMPA is achieved. In enacting the MMPA, Congress found that certain species and population stocks of marine mammals are in danger as a result of human activities, and that these species and stocks should not be allowed to diminish below their optimum sustainable population levels. Congress affirmed the international, esthetic, recreational, and economic importance of these species and recognized the inadequacy of current knowledge of the ecology and population dynamics of marine mammals.

The taking of marine mammals, incidental to commercial fishing operations, remains one of the most substantial sources of human-caused mortality of marine mammals. By setting the goal that commercial fisheries shall reduce incidental mortality and serious injury of marine mammals to insignificant levels approaching zero, the ZMRG applies this goal to the management of interactions between marine mammals and commercial fishing. The ZMRG, therefore, is important and appropriate to achieving the objective of ensuring the continued existence of marine mammals and the critical role they provide to the marine ecosystem.

Harvest management agreements with Alaskan Natives

1. Question: H.R. 2693 does not revise Section 119 of the current law, which establishes the authority for marine mammal cooperative agreements in Alaska. The administration's draft bill would change the cooperative agreements to harvest management agreements.

- **Can you elaborate on why this change is important?**

Answer: The Administration's bill adds a section that provides a new framework for developing agreements for active management of subsistence harvest including development and enforcement of harvest limits. The existing provisions of Section 119 remain—they would not be changed or affected by the Administration's proposed amendment. These cooperative agreements, in general, support collection of information about subsistence harvest patterns and about the species harvested. While these existing agreements have supported increased communication within the subsistence community and provided data on harvested species, they are limited in scope as they support basic information gathering and exchange, but are not designed to address harvest management because any harvest limits would be voluntary and, therefore, unenforceable. The proposed amendment defines a new type of agreement to develop and enforce harvest restrictions prior to depletion, i.e., before a conservation problem develops. Without such an approach, the status quo is a completely unrestricted harvest unless a species is depleted under the MMPA, or listed under the ESA (which automatically confers depleted status under the MMPA), and the managing agency finds subsistence harvest is limiting population recovery, followed by a formal rule-making to limit subsistence harvest.

The Alaska Native community, recognizing the desirability of management prior to depletion, initiated the discussions to develop harvest management agreements. Their interest was in part a response to the depletion of beluga whales in Cook Inlet from over-harvest by subsistence users. Community leaders were frustrated by their inability to manage that harvest and wanted to work with the resource management agencies to develop a cooperative management capability to prevent the recurrence of such situations. Limitations of the current approach (formal rule-making for depleted and listed species) is further demonstrated by Cook Inlet beluga whales, as three years later, harvest regulations are still not finalized.

- **Do native Alaskans have sufficient capabilities to support and train enforcement operations for effective co-management?**

Answer: Generally, they have the capability to support and train enforcement operations for effective co-management; however, this varies among organizations. Agencies would be expected to provide some technical assistance and training to build capacity and ensure effective co-management. With appropriate resources, the capabilities can be developed as demonstrated by the Alaska Eskimo Whaling Commission, which recently (and effectively) disciplined a boat captain for violating harvest guidelines for bowhead whales.

- **Should future co-management agreements with native Alaskans apply to species or stocks that are already designated as strategic or depleted?**

Answer: It would be helpful to have the capability to develop agreements for all stocks regardless of status. Under current law, regulations for subsistence harvest can only be developed for depleted or listed species if the managing agency can make a positive finding that subsistence harvest is detrimental to population recovery. These conditions have only been met for one stock (beluga whales in Cook Inlet). For all species, regardless of status, the ability to manage subsistence harvest provides an additional useful management tool, whether or not harvest levels are related to population status. For example, the Alaska Eskimo Whaling Commission and NOAA have an effective agreement for the endangered bowhead whale; this agreement is a model for other agreements.

- **Is it likely or desirable for seals, currently under NOAA Fisheries' jurisdiction, that are used for subsistence to be managed under the U.S. Fish and Wildlife Service so that all species that Alaska Natives use for subsistence purposes will be under one agency?**

Answer: We assume based on this question that Congress is interested in evaluating the merits of transferring management responsibility of ice seals (beard, ringed, ribbon, and spotted seals) and harbor seals from NOAA Fisheries to the Service. Congressional action would be necessary to accomplish a change in species jurisdiction under terms of the MMPA. Several factors should be considered in evaluating a potential change in management responsibilities for seals from NOAA Fisheries to the Service. There are a number of advantages and disadvantages to be considered in making such a decision.

Initially, such a transition would be disruptive to the public, government agencies, and other interested parties. NOAA Fisheries has a long history of conducting research on and management of seals and whales in Alaska. For example, NOAA Fisheries initiated a harbor seal assessment program in Alaska in the early 1990s, and has subsequently reported on the status of this species every three years, as required by Congress. Regarding ice seal research and management, Congress ap-

propriated $250K in FY03. A research plan has been jointly implemented between NOAA Fisheries and the Alaska Department of Fish and Game.

Further, efforts are currently underway to organize an Alaska Native Organization that represents the subsistence users of ice seals. The agency has developed extensive and broad expertise in aspects of management and research related to seals, sea lions, and whales and maintaining state of the art research facilities and vessels. NOAA Fisheries also has a significantly larger overall budget for their marine mammal activities, including their current seal management responsibilities. In addition, NOAA Fisheries is currently responsible for managing the subsistence harvest of bowhead and beluga whales in Alaska. These harvests occur in many of the same villages where ice seals are harvested. Finally, NOAA Fisheries has an organizational structure that closely integrates management at their Alaska Regional Office and research at their Alaska Fisheries Science Center.

The Service has experience and expertise conducting research on and management of two other ice-dependent species of marine mammals (polar bears and Pacific walrus). Given the remote environment and logistic difficulties in conducting marine mammal studies, such efficiencies can be quite important in effectively utilizing available resources. The Service is well positioned to work with the subsistence community as the agency administers subsistence programs for waterfowl, fish, and wildlife on Federal lands as well as walrus, polar bears, and sea otters. The subsistence community is relatively small and integrated—in general the same people harvest all species in their geographic area. Having different agencies managing what is a single type of activity in a rural community can be confusing to the residents. The Service also maintains an established network throughout rural Alaska for collecting harvest information. For example, harvest of all sea otters, polar bears, and Pacific walrus is reported by regulation through the Marking, Tagging and Reporting program administered by the Service. This program could also be used to collect harvest information on ice seals and harbor seals.

We emphasize that, with any change contemplated, it is important that research and management functions remain within the same agency for greatest effectiveness. Splitting research and management functions would be confusing to user groups and the public at large and lead to inefficiencies and unnecessary complexities in addressing research and management questions.

Threats to Marine Mammals

1. Question: There seem to be many emerging threats to marine mammals that were not considered 25 years ago, when the original act was written.

- **Do you think it would be helpful for the Marine Mammal Commission to report on the magnitude of emerging and existing threats to marine mammals?**
- **Is it practical to believe that we can address these threats, and if so, what threats should be priorities for action?**
- **This might include identifying data gaps, coming up with research plans and evaluating the health of marine mammal stocks in the wild as relates to other environmental parameters.**
- **Would such an undertaking be within the scope and purview of the MMC?**
- **Has the MMC ever investigated the growing incidence of ship strikes? Would the MMC support a mandate to convene a panel to recommend steps to reduce ship strikes and report to Congress in 2 years?**
- **Should there be a similar directed program on ocean noise that would be mandated under the MMC or another program such as the National Oceanographic Partnership Program?**

Answer: We agree that marine mammals face new threats that were either not existent or not as persistent when the MMPA was first enacted to protect these species over 30 years ago. An evaluation of threats and potential management issues could be a useful tool for the managing agencies and interested public.

Identifying and determining the magnitude of existing and emerging threats to marine mammals is imperative to our abilities to provide protection to and conservation of these species. However, we must first identify the various threats and their potential impacts before we can set priorities or evaluate whether or not they can be addressed. Furthermore, understanding changes that are inevitable is useful for developing strategies to avert change, to mitigate the impacts of change, and to adapt to changes.

A comprehensive overview and planning effort to identify and evaluate emerging threats would benefit from the involvement of all parties with appropriate expertise. The Service believes that the Marine Mammal Commission (MMC) may be uniquely suited to facilitating efforts to identify data gaps and research needs for examining

these increasing threats, and to developing strategies to address these issues. Fully identifying issues and their implications for marine mammal health and survival requires involvement of the resource management agencies that have the Congressionally-delegated responsibility under the MMPA for conserving and managing marine mammals. The Service believes other interested parties, including academia and other agencies with expertise on potential threats to marine mammals, should also be included in this process. Through involvement of all those with expertise and interest in the welfare of marine mammals, a compilation and evaluation of potential threats and proposed actions could be developed and would be a useful tool for protection of marine mammals.

Captive Animal Welfare

1. Question: The 1994 changes to the Marine Mammal Protection Act gave APHIS the authority for captive marine mammal welfare inspections.

- **Has APHIS demonstrated requisite expertise and ability to inspect and oversee marine mammals in captivity?**

Answer: While there may be limitations associated with using minimum requirements under the Animal Welfare Act (AWA), the Service believes that the Animal and Plant Health Inspection Service (APHIS) has veterinarians with the expertise necessary to oversee marine mammals held in captivity. In addition, APHIS has always been responsive to our consultation requests. The Service works closely with APHIS to ensure that all marine mammal facilities are being maintained in compliance with the requirements of the Animal Welfare Act (AWA). Further, the Service meets with APHIS, MMC, NOAA Fisheries, and Department of State representatives on a monthly basis to ensure broad-spectrum oversight of captive-held marine mammals.

- **How many inspectors does APHIS deploy to inspect display facilities?**

Answer: The Service contacted APHIS in order to provide an accurate response to this question. APHIS provided the following reply:

> APHIS has 100 field inspector positions, and will add several more in the coming fiscal year. APHIS has additional staff, including nine supervisory Animal Care Specialists, at its Regional offices and headquarters.

- **To your knowledge, has APHIS promulgated marine mammal-specific care standards for captive marine mammals? And have such standards been provided to the public?**

Answer: The Service contacted APHIS in order to provide an accurate response to this question. APHIS provided the following reply:

> APHIS first proposed marine mammal specific regulations and standards under the AWA in 1978. Theses standards were finalized in 1979. All regulations and standards promulgated under the AWA follow all Administrative Procedures Act requirements, including providing a public comment period and publishing the final rules in the Federal Register. All AWA regulations and standards are found in Title 9, Code of Federal Regulations, Chapter 1, Subchapter A.

The AWA marine mammal regulations were amended from 1983-84. In 1993, APHIS published an advanced notice of proposed rulemaking to revise and amend the marine mammal standards through a process called negotiated rulemaking. All major stakeholders in the marine mammal industry were represented in this process, including animal welfare groups, the veterinary profession, the Navy, industry groups, independent marine mammal experts, NOAA Fisheries, the Service, and the MMC, although the agencies participated as non-voting members. The negotiated rulemaking process was undertaken under the Federal Advisory Committee Act, and the public was welcome to observe all meetings. The proposed rule for 13 of the 18 sections of the regulations was published in February 1999 and the final rule was published in January 2001. The sections not included in the negotiated rulemaking will be handled under more traditional rulemaking procedures.

Subsequent to the 1994 MMPA amendments, APHIS published a proposed rule for swim-with-the-dolphin programs in January 1995. A final rule was published in September 1998. Changes in the types of programs being offered and other issues raised led APHIS to suspend enforcement of the SWTD rule until the issues could be reviewed. All facilities remained regulated under the general marine mammal standards of the AWA.

In May 2002, APHIS published an advanced notice of proposed rulemaking requesting public input and information in anticipation of publishing a proposed rule to cover the marine mammal sections not covered in the negotiated rulemaking and amendments to the SWTD section of the standards. APHIS has received 365 comments on the ANPR and is currently drafting the proposed rule docket. This docket is anticipated to be published for public comment in 2004.

The rulemaking process is open to the public and APHIS makes the documents available on our Animal Care web page. Once a rule is final, the new regulations and standards are included in the CFR and on the Animal Care web page. In addition, all licensees and registrants are notified of all final rules.

- **Is there any oversight or reporting requirements for APHIS in the discharge of this responsibility? Should APHIS be required to report annually to Congress?**

Answer: The Service contacted APHIS in order to provide an accurate response to this question. APHIS provided the following reply:

> For over 30 years, APHIS submitted an annual report to Congress as required by the Animal Welfare Act (7 U.S.C. 2155). Once released by Congress, the report was posted on our website. However, the AWA annual report is no longer required to be sent to Congress as result of criteria established under P.L. 104-66. Accordingly, APHIS is exploring different formats that will allow enforcement statistics and supporting materials to be posted to our website in a more timely fashion, ensuring that all of our stakeholders have immediate access to this important information.

2. Question: The public display community has complained that NOAA Fisheries deliberately misinterpreted the intent of Congress in 1994 in its promulgation of regulations regarding permits allowing the transport and exchange of captive marine mammals.

- **Is this complaint valid?**
- **If not, what aspect of the proposed regulations should be revised?**

Answer: The Service is not aware of the particular complaint referred to in this question, and we defer to NOAA Fisheries for a response. With regard to the proposed regulation, the Service provided comments to NOAA Fisheries on the proposal relating to permits for the capture or import marine mammals, as well as the transport, transfer, and export of marine mammals. The Service will continue to consult with NOAA Fisheries as they draft their final regulations.

Captive Release Prohibition

1. Question: H.R. 2693 includes a prohibition on releasing captive marine mammals into the wild.

- **Considering the very limited space available to care for stranded marine mammals, could such a change create a situation where animals are held in captivity permanently regardless of their health and survival?**

Answer: The prohibition on the release of captive marine mammals included in H.R. 2693 would not affect stranded marine mammals being held for rehabilitation purposes under section 109(h) of the MMPA. Section 109(h) requires steps to be taken to return stranded marine mammals to their natural habitats whenever feasible, i.e., when health, behavior, and survivorship issues have been addressed. Only stranded marine mammals that are determined to be non-releasable are placed in permanent captivity. The new provision in H.R. 2693 would ensure that marine mammals, other than those undergoing rehabilitation, could be released only under a permit for scientific research or enhancement of recovery. This would protect the captive and wild animals that might be negatively impacted by a well-intentioned, but poorly conceived, release.

- **Would this provision affect NOAA Fisheries' release of the five pilot whales that were stranded on April 18, 2003?**

Answer: This question refers to animals under the jurisdiction of NOAA Fisheries, therefore, we defer to our sister Agency for a response.

- **Does this provision require a U.S. citizen to apply for a NOAA Fisheries permit to release a marine mammal in other countries' EEZ (would this apply to Keiko's release in Norway)?**

Answer: This question also refers to an action under the jurisdiction of NOAA Fisheries, and we similarly defer to them for a response.

Response to questions submitted for the record by Dr. Rebecca Lent, Deputy Assistant Administrator for Fisheries, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce

Questions Submitted by Chairman Wayne Gilchrest

1. Question: Concerns have been raised that NMFS has not done enough to address ship strikes of marine mammals. Can you tell us what the Agen-

cy has done to reduce ship strikes? Does the agency have any jurisdiction over vessel traffic?

Answer: NOAA Fisheries has a program to reduce ship strikes that has been ongoing over the last decade and has been expanded in recent years as ship strikes continue. To date, the agency has focused most of its efforts to reduce ship-marine mammal interactions on the North Atlantic right whale, due to its critically endangered status, its particular vulnerability to ship strikes, and Congressional and public interest. Efforts to address ship strikes of right whales are believed to provide ancillary benefits to other marine mammals and to serve as a template to address the issue more broadly with other marine mammals. Ongoing activities include aerial surveys to notify mariners of right whale sighting locations; operation of the northeast U.S. and southeast U.S. mandatory ship reporting systems to provide information to mariners entering right whale habitat; working with the U.S. Coast Guard (USCG) to issue periodic notices to mariners regarding ship strikes; support of Recovery Plan Implementation Teams that provide recommendations to NOAA Fisheries on recovery activities; support of shipping industry liaisons; and Endangered Species Act (ESA) Section 7 consultations. In addition, the agency funds research to investigate technological devices that may aid in reducing the likelihood of ship strikes. Since such advances may cause adverse biological effects, any approved ship strike reduction technology must also meet legal and biological criteria to ensure that it does not adversely affect an endangered species and can be permitted for use.

The agency recognizes that this is a complex problem that requires additional, more pro-active measures. In late 2001, NOAA Fisheries formed a working group to address the issue of ship strikes. This process culminated in the agency's development of a Ship Strike Reduction Strategy, approved by NOAA in May 2003. The Strategy is a multi-year blueprint of specific steps to be taken to reduce or eliminate the threat of ship strikes that incorporates regional differences in oceanography, commercial ship traffic patterns, and navigational concerns. Since interagency collaboration is key to the Strategy's success, NOAA Fisheries sent out letters to agency counterparts in August 2003 to establish an Interagency Working Group on the Reduction of Ship Strikes to Right Whales to aid in the Strategy's implementation and enforcement. The purpose of this Working Group is to review and provide comments on the Strategy, provide clearance on two proposed international measures, assist NOAA in identifying means to ensure the implementation of a robust Strategy, and establish a timeline.

NOAA Fisheries expects to publicly announce the Strategy following the initial establishment of the Interagency Working Group. The Working Group is expected to meet for 6-8 months. Initial steps have been made toward NEPA analysis, and economic impacts are being evaluated for potential regulation. Further, a ship strike outreach and education plan has been developed as an integral part of the NOAA Ship Strike Reduction Strategy; at present, the Northeast and Southeast Right Whale Recovery Plan Implementation Teams are helping NOAA Fisheries begin to implement this plan.

In response to the second part of the above question, NOAA Fisheries has responsibilities for right whales under the ESA and the Marine Mammal Protection Act (MMPA); however, the USCG is the agency with primary responsibility for the regulation of ship traffic under the Ports and Waterways Safety Act (PWSA). While it may be possible for NOAA to implement some measures of the Strategy through the ESA and MMPA, the PWSA provides more explicit statutory authority for measures contained within the Strategy that deal with ship traffic. NOAA will work closely with partners, such as the USCG, to carry out the goals of the Strategy to the fullest extent.

2. Question: It was reported at the hearing that Canada has altered its shipping traffic into the Bay of Fundy and incorporated speed reductions in certain areas to help reduce ship strikes of right whales. It was mentioned that this was done using the International Maritime Organization (IMO) process. Are you familiar with the actions taken by Canada? Did they institute these actions using national legislation or was is done solely through the IMO? Could the U.S. take similar actions? Would it require legislation?

Answer: NOAA Fisheries is aware of Canada's actions to change its shipping lanes to help reduce ship strikes of right whales. The changes approved by the IMO came about through a four-year collaborative process involving Transport Canada, industry, and research and conservation organizations. Canada's federal government Habitat Stewardship Program also provided support for initial research and consultation projects that contributed to the lane change proposal. Lane changes have

required amendments to navigational charts, vessel traffic control procedures, and distribution and notification procedures.

NOAA Fisheries was regularly consulted for advice during the development of this proposal. Through the agency's efforts, the United States Government was an active supporter of the Canadian proposal at IMO and helped Canada lobby to get the proposal approved by the Subcommittee on Safety of Navigation.

Although we are uncertain whether legislation is actually necessary under Canadian law to implement the change, action is undoubtedly required by Canada since IMO is not a supranational body. IMO only approves and adopts vessel traffic measures and it is up to the proposing government (in this case Canada) to implement the change. It should be noted that in the case of the Canadian proposal to amend the Bay of Fundy Traffic Separation Scheme that the action to be taken was in some ways much clearer than the action that should be taken to address the circumstances the United States faces off its coast. Years of research in the Bay of Fundy demonstrated that the traffic separation scheme ran directly through the highest abundance of whales and the risk could be reduced by moving the traffic toward the coast, where there was still sufficiently deep water for navigation to take place.

Measures contained within the NOAA Fisheries Ship Strike Reduction Strategy seek to reduce the overlap of ships and whales to reduce the likelihood of ship strikes, in part through routing changes. NOAA Fisheries has developed its Strategy as a multi-faceted package, elements of which may require IMO approval for effective implementation. In addition, all of these elements will require actions within the U.S. NOAA Fisheries is beginning the interagency process to determine how the Strategy will be most effectively implemented and whether the actions will require additional legislation.

3. Question: The paragraph in level B harassment that starts "is directed toward a specific individual," is still making a number of permitted constituency groups uneasy. We understand why the agency wants this language, to prosecute those non-permitted activities that harass marine mammals. We included the language in H.R. 2693 to address the concerns of the agency. However, we are questioning the need for the paragraph. Since the phrase "pursuit, torment, and annoyance" has been deleted from the definition leaving the standard as "any act—can't the agency prosecute these non-permitted activities without this added paragraph?"

Answer: Deleting the terms "pursuit, torment, or annoyance" from the definition of harassment is key to improving the harassment standard's enforceability. While deleting these terms would help, through the Administration bill's proposed Section 3(18)(B)(ii), NOAA Fisheries and the U.S. Fish and Wildlife Service seek different language for regulating harassment incidental to a particular activity and harassment that is directed at individuals or groups of marine mammals in the wild. Specifically, this language is intended to make explicit that activities such as closely approaching, swimming with, or touching marine mammals that may not overtly lead to significant alteration of the marine mammal's natural behavioral pattern at the time, but that are likely to cause disruption of natural behavioral patterns that are associated with cumulative, long-term harm to marine mammals, constitute harassment. As such, in an enforcement proceeding for harassment described in the Administration bill's proposed Section 3(18)(B)(ii), the agencies would not need to show that disruption of a behavior was significant. In addition to enhancing enforcement of the harassment standard, this paragraph will help agencies better educate members of the public about avoiding marine mammal harassment when recreating in waters used by the animals.

We would like to emphasize that this language will not adversely affect the scientific research community since there is already a process in place under Section 104 of the MMPA and its implementing regulations regarding General Authorizations for bona fide scientific research on marine mammals that results in no more than Level B harassment. This provides the scientific research community with a streamlined process to conduct such research.

4. Question: The current definition of harassment has made it difficult for the agency to prosecute certain activities that harass marine mammals. Can you tell us what activities the agency has been able to enforce under the current definition?

Answer: NOAA Fisheries has been successful in prosecuting violations involving observable actual injury of marine mammals, such as a recent case involving the shooting of a sea lion with a bow and arrow. In addition, the agency has successfully prosecuted violations involving feeding or attempting to feed marine mammals in the wild. The current definition of harassment has been an impediment to prosecu-

tions for activities such as swimming with, touching or petting marine mammals in the wild.

5. Question: How do you suggest that we protect, to the greatest extent possible, marine mammals from injury in Level A harassment within a statutory and regulatory framework?

Answer: Given that marine mammals may be injured incidental to the conduct of otherwise lawful activities (other than commercial fishing), such as commercial shipping, oil and gas exploration and development, harbor construction, and military activities, the MMPA requires that taking incidental to such activities be authorized only if it is determined that the taking will have a negligible impact on the affected populations. Further, any such authorization is to be structured to ensure that the taking is reduced to the lowest level practicable. In that regard, the incidental take authorization process would be improved by removal of the term "small numbers" because the negligible impact standard, coupled with the requirement that taking be reduced to the lowest level practicable, should be sufficient to protect marine mammals without the small numbers provision.

In addition, the current statutory framework should be supported by enforcement, educational outreach, and research to develop more effective mitigation and safe alternatives to current operating practices. Fiscal resources for these activities have been constrained in the past and the agency hopes to prioritize funds toward increased research, outreach, and education efforts in the future.

6. Question: What are some of the factors Congress should consider when crafting a final harassment definition?

Answer: We encourage Congress to consider the same factors the Administration considered when developing amendments to the harassment definition: 1) enhancing enforceability of the harassment standard; 2) clarifying the threshold for what activities do and do not constitute harassment by narrowing the breadth of the current definition to those acts that have biologically significant, harmful effects on marine mammals, rather than those that have de minimis effects; and 3) making explicit that activities directed at marine mammals in the wild that are likely to disturb the animals are considered harassment and should be avoided since this can result in harm to the animals, as well as the people who conduct these activities.

7. Question: How do we incorporate the level of current scientific knowledge about how marine mammals may be injured and at the same time protect animals from injuries we have not yet been able to measure?

Answer: Marine mammals may be injured by a variety of human activities, including shipping traffic, fishing, pollution, scientific research, and noise. While we have information on the degree and types of injuries that result from some activities, such as ship strikes and fishing gear, we are still collecting information on the types of injuries that result from others, such as noise and pollution. The important thing is to use what we do know about the impacts of some activities, combined with examination of those areas where uncertainty exists, to ensure that impacts of human activities on marine mammals are negligible where possible. In addition, the agency identifies and prioritizes research to better investigate those activities where there is a combination of uncertainty and concern about their impact on marine mammal stocks.

8. Question: How should scientific research activities with potential impacts on marine mammals be treated by the incidental permit process in statute if the activity is designed to test the level of harassment that the activity causes in certain marine mammal species?

Answer: Thus far, scientific research designed to test the level of harassment caused by a specific activity, such as use of airguns in seismic exploration, has involved direct takes of marine mammals through attachment of tags or close approaches to document changes in behavior. Such activities are authorized under permits issued pursuant to Section 104 of the MMPA (and Section 10 of the ESA where threatened or endangered species are involved). It is appropriate to continue to authorize takes for research activities directed at marine mammals under this section of the MMPA because of the distinction the MMPA makes between permits for acts that intentionally result in harassment versus authorizations for those activities that incidentally result in harassment. The distinction is very clear: If the activity does not involve scientific research on marine mammals, the researcher should apply for an incidental take authorization under Section 101(a)(5) of the MMPA. If the activity involves scientific research on marine mammals, then the researcher should obtain a scientific research permit under Section104 of the Act. Both processes work well and NOAA Fisheries is not proposing changes to these processes at the current time.

9. Question: What is the difference between "probability" and "potential" in describing the level of concern that would generate a need for an

incidental take permit under Level A harassment (injury) for a particular activity?

Answer: Because these terms are not currently included in (in the case of "probability") or defined in (in the case of "potential") the MMPA, we look to the ordinary meaning of the terms as they appear in the dictionary. Webster's New International Dictionary, 2nd ed., unabridged, provides that the term "potential" means "that which is possible." Thus "potential to" implies a greater than 0% chance of causing a particular outcome. "Probability" is that "quality or state of being probable," which implies having more evidence for than against (greater than 50% chance) the occurrence of a particular outcome. When applied to Level A harassment, the phrase "potential to injure" would mean any activity that could possibly cause injury would be considered harassment under the MMPA. The phrase "probability to injure" would mean any activity that is likely to or has greater than a 50% chance of causing injury would be considered harassment.

While the threshold for Level A harassment using the term "potential" is likely too low, the threshold using the term "probability" is too high and could result in a difficult burden of proof for NOAA Fisheries and U.S. Fish and Wildlife Service to demonstrate a certain probability of injury before the agencies could take action to address activities injurious to marine mammals. The agencies looked at a range of options in the development of the Administration bill to clarify that the appropriate threshold for an act to constitute Level A harassment was somewhere in between "probability to injure" and "potential to injure." Ultimately, the Administration decided that "significant potential to injure" achieved the appropriate balance to allow the agencies to address harassment involving injury.

10. Question: How should the broader impacts or potential impacts of sound (for example ship propellers) that may disturb or disrupt natural behaviors of marine mammals, be treated in statute?

Answer: There is a long list of the "potential" impacts of noise on marine mammals, although there is little scientific information corroborating actual impacts. We have a poor understanding of what the actual noise levels resulting from human activities are in most of the ocean, much less how they relate to pre-industrial levels. For instance, while propeller hum is highly likely to mask whale communication calls, it is unknown over what range and period of time this occurs. We have little data on how shipping causes masking of acoustic signals for marine mammals. And, we currently have no mechanism to gauge the cumulative impacts of human noise pollution on populations of animals. Given all these uncertainties, it is difficult to recommend specific statutory language addressing noise impacts. Rather, at this time what is needed is a greater emphasis on efforts to understand the nature and extent of noise impacts and sufficient flexibility in the MMPA to address ocean noise in a practical but cautious manner as we obtain more information on the nature of the noise impacts.

Question 11: How should the range of currently non-permitted activities that may be directed at marine mammals (i.e. feeding or swim with dolphin activities, or jet ski harassment) be treated by the statutory or regulatory process?

Answer: As NOAA Fisheries provided in an Advance Notice of Proposed Rulemaking on the subject, at 67 FR 4379,4380 (January 30, 2002):

Interacting with wild marine mammals should not be attempted, and viewing marine mammals must be conducted in a manner that does not harass the animals. NOAA Fisheries cannot support, condone, approve or authorize activities that involve closely approaching, interacting or attempting to interact with whales, dolphins, porpoises, seals or sea lions in the wild. This includes attempting to swim with, pet, touch or elicit a reaction from the animals. NOAA Fisheries believes that such interactions constitute "harassment" as defined in the MMPA since they involve acts of pursuit, torment or annoyance that have the potential to injure or disrupt the behavioral patterns of wild marine mammals.

We encourage Members of Congress to consider amendments to the harassment definition contained in the Administration MMPA reauthorization bill to address this issue. That language would consider as a second tier of Level B harassment, "any act which is directed toward a specific individual, group, or stock of marine mammals in the wild that is likely to disturb the individual, group, or stock of marine mammals by disrupting behavior, including, but not limited to, migration, surfacing, nursing, breeding, feeding, or sheltering." If this amendment were adopted, NOAA Fisheries would clarify its intent and application in regulations to provide further guidance to the public.

12. Question: In the definition of Level B harassment, does it make sense to qualify the activity (migration, breeding) or the effect (biologically significant disruption of behaviors) in Level B harassment? Why or why not?

Answer: The Administration bill in proposed Section 3(18)(B)(i) would qualify the effect in Level B harassment by providing that the act "disturbs or is likely to disturb a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns...to a point where such behavioral patterns are abandoned or significantly altered." [Emphasis added.] One reason that this was proposed was to clarify that Level B harassment under this subparagraph means those acts that have biologically significant, harmful effects on marine mammals rather than those that have de minimis effects.

13. Question: Which is the more scientifically used term "biologically significant activity" or "biologically significant disruption?" Should either of these terms be defined in H.R. 2693?

Answer: There is much published information on what activities would commonly be considered "biologically significant" in terms of what is necessary for an individual animal to maintain homeostasis or for a population to be maintained (e.g., sheltering, feeding, or breeding). Therefore, it would not be necessary to define "biologically significant activity" in H.R. 2693. "Biologically significant disruption" is much more subjective, especially given scientific uncertainty, and could, therefore, be more difficult to implement. It would be useful for Congress to provide guidance to the agency on the intent of this phrase.

14. Question: Is it possible to define "harassment" and still provide the agency flexibility to modify its regulations to respond to new scientific information?

Answer: Yes. For example, the Administration's proposed definition of harassment still links the level of disturbance, in the case of Level B harassment, to natural behavioral patterns such as migration, breeding, nursing, and others, such that when scientific information becomes available better demonstrating the impact of a particular disturbance on one of these activities, NOAA Fisheries could revise its regulations regarding the threshold for harassment accordingly.

15. Question: Which would you describe, feeding or foraging, as more biologically significant in terms of behaviors of marine mammals that should be listed in the definition of harassment?

Answer: Most ecologists and marine mammal scientists would consider these two terms generally synonymous. However, while foraging includes the search, pursuit, capture, handling and consumption of food items, feeding is generally viewed as actual consumption. In terms of biological significance, the entire process of foraging is important. Either could be used to represent a biologically significant marine mammal behavior. Any list of biologically significant behaviors in the harassment definition, should not be stated in such a way that it would be viewed as exhaustive. Rather, it should be clear the list of behaviors is merely illustrative, but not exclusive.

16. Question: The Administration's definition uses "surfacing" instead of "breathing" which is in the current definition of harassment. Why was this change made?

Answer: "Surfacing" is a broader term that captures a variety of important natural behavioral patterns, such as resting and avoidance of impacts at depths, in addition to breathing. As such, its use is preferable to "breathing" in the harassment definition.

17. Question: Does the agency interpret and/or implement Level A harassment for an activity interacting with marine mammals as an imminent death of the animal or as a recoverable injury?

Answer: In the context of incidental takes of marine mammals, MMPA Section 101(a)(5)(D) sets forth a streamlined process for issuing one-year authorizations for incidental taking by harassment only. The definition of Level A harassment refers to those activities that have the potential to injure a marine mammal; therefore those activities may qualify for the authorization process under Section 101(a)(5)(D). However, for activities that will result in taking by more than just harassment, take authorizations are governed by the less streamlined process under Section 101(a)(5)(A). Therefore, if an activity is likely to result in take by mortality, including through injury that is likely to result in mortality, NOAA Fisheries will treat such a take authorization request under the requirements of Section 101(a)(5)(A).

18. Question: What activities could injure an animal, but not cause a mortality?

Answer: Virtually any activity that occurs in the ocean, or causes a change in ocean micro-climates could kill or injure marine mammals; however, some are more likely to result in death or injury than others. Research activities can occur that cause injury but are not likely to result in mortality if the animal is otherwise in good health. For example, remote biopsy sampling a right whale causes a puncture wound (an injury), but it is highly unlikely that the small wound would result in

death. Other activities, such as disturbance that interferes with important behaviors like breeding or feeding may not directly cause mortality, but can have chronic or cumulative sub-lethal effects that reduce an individual's fitness (e.g., compromise its immune system, prevent it from breeding successfully). Commercial activities not directed at marine mammals, such as commercial/recreational fishing, may also incidentally injure an animal but not cause mortality. However, authorizations for these activities may include measures to mitigate potentially lethal effects. NOAA Fisheries has received reports about marine mammals that have been entangled and injured (e.g., cuts, bruises) in fishing nets but that ultimately are released or able to escape due to human intervention or gear modifications that aid escapement of entangled animals. In fact, large whales are often identified by scars from fishing gear in which they became entangled, but from which they ultimately escaped. Recreational activities directed at marine mammals (e.g., closely approaching by jet ski, swimming with wild marine mammals) can also result in both short and long term injury to an animal but are not likely to result in death.

19. Question: How much research is funded by the Agency to determine the effects of human caused sound in the ocean on marine mammals?

Answer: NOAA Fisheries supports a scientific program related to acoustics and the effects of noise on marine animals (mammals and turtles) at a level of $200,000 per year (for each of the last three fiscal years).

20. Question: Concerns have been raised regarding the scientific basis used by the agency to list fisheries as category I (frequent), II (occasional) or III (remote) under section 118 of the Act. What information does the agency use when making these determinations?

Answer: The current fishery classification system was developed by NOAA Fisheries scientists and is rooted in the relationship between allowable mortality and serious injury and the amount of time it takes a particular marine mammal stock to recover to its optimum sustainable population (OSP) level. The classification system is based on a two-tiered, stock-specific approach that first addresses the total impacts of all fisheries on each marine mammal stock and then addresses the impacts of individual fisheries on each stock. Tier 1 considers the additive fishery mortality and serious injury for a particular stock, while Tier 2 considers fishery-specific mortality for a particular stock. This approach is based on the rate, in numbers of animals per year, of serious injuries and mortalities due to commercial fishing relative to a stock's potential biological removal (PBR) level.

Under the Tier 1 analysis, if the total annual mortality and serious injury across all fisheries that interact with a stock is less than or equal to 10 percent of the PBR level of such a stock, then all fisheries interacting with this stock would be placed in Category III. Otherwise, these fisheries are subject to the next tier to determine their classification. Under the Tier 2 analysis, those fisheries in which annual mortality and serious injury of a stock in a given fishery is greater than or equal to 50 percent of the stock's PBR level are placed in Category I, while those fisheries in which annual mortality and serious injury is greater than 1 percent and less than 50 percent of the stock's PBR level are placed in Category II. Individual fisheries in which annual mortality and serious injury is less than or equal to 1 percent of the PBR level would be placed in Category III.

The threshold between Tier 1 and Tier 2 was set at 10 percent of the PBR level based on recommendations that arose from a PBR Workshop held in La Jolla, California, in June 1994. The Workshop Report indicated that if the total annual incidental serious injury and mortality level for a particular stock did not exceed 10 percent of the PBR level, the amount of time necessary for that population to achieve the OSP level would only increase by 10 percent. Thus, 10 percent of the PBR level for a particular stock was equated to "biological insignificance." This approach ensures that fisheries are categorized based on their impacts on stocks and allows NMFS to focus resources on those fisheries that have more than a negligible impact on marine mammals.

The agency uses observer program data, where available, to place fisheries into one of the three categories. Observer programs collect information on the incidental mortality and serious injury of marine mammals, in addition to other information. While the agency uses observer data to place a fishery into Category I, NOAA Fisheries regulations provide that other factors, such as fishing techniques, gear used, methods used to deter marine mammals, target species, seasons and areas fished, qualitative data from logbooks or fisher reports, stranding data, and the species and distribution of marine mammals in the area, where appropriate, may be evaluated to determine whether fisheries should be placed in Category II.

21. Question: Why did the Administration use the term "non-commercial" in its amendments to section 118? What types of fishing was this language trying to capture?

Answer: The Administration bill does not contain the term "non-commercial" fishery, but specifically would apply the Section 118 provisions to "listed fisheries," defined as a fishery included on the list of fisheries published under Section 118(c). In effect, this would enable NOAA Fisheries to address any source of fishery-related incidental mortality or serious injury of marine mammals occurring on a frequent or occasional basis. The sectional analysis describing the Administration bill refers to expanding Section 118 provisions to "non-commercial fisheries." NOAA Fisheries uses this term to include those recreational, personal use, or other fisheries that result in frequent or occasional incidental mortality or serious injury of marine mammals. The reason for these amendments is to allow NOAA Fisheries to equally address all fishing gear that is found to have frequent or occasional incidental mortality or serious injury of marine mammals and not limit the focus to commercial fisheries when other fisheries may be using the same gear in a similar manner.

22. Question: There have been a number of instances where research activities or other activities using sonar were enjoined by the courts. The reason these activities were stopped wasn't because of MMPA issues, but lack of compliance with the National Environmental Policy Act or the Administrative Procedure Act requirements. What actions has the agency taken to address these issues?

Answer: All applications for scientific research permits under the MMPA must comply not only with the requirements of Section 104(c)(3) of the Act, but with NEPA, and any other applicable laws (e.g., ESA). Environmental Assessments and Environmental Impact Statements are being prepared for any proposed research on marine mammals that would result in adverse effects on an endangered species, could result in cumulative adverse impacts on the human environment, or for which the impacts are uncertain. To "front-load" the scientific research permit process, the agency is conducting programmatic NEPA analyses on various scientific research programs including acoustics. Additionally, NOAA Fisheries recently hired national and regional NEPA coordinators to help train staff and provide expertise throughout this and other NEPA processes.

Other activities that seek authorization under Section 101(a)(5) often have a NEPA analysis conducted on the activity or authorization by a different Federal agency (for activities authorized, funded, or carried out by a Federal agency), and NOAA Fisheries continues to assist other Federal agencies in conducting these NEPA analyses.

23. Question: Questions regarding the use of observer data have been raised by a number of groups. Can observers collecting fishery data also collect marine mammal data and vice versa or are they restricted to collecting only one type of data? If so, why?

Answer: In most cases, observers collect information on all catch and bycatch (finfish, marine mammals, sea birds, sea turtles, and other species). NOAA Fisheries created its National Observer Program specifically to coordinate existing statutory requirements for monitoring fisheries and to ensure that observer programs are collecting data to fulfill all these requirements. More specifically, all observers are trained in the identification of marine mammals and other species and collect data on a range of conservation and management issues, including species composition of the catch; weights of fish caught; and bycatch of finfish, marine mammals, sea turtles, and other protected species. Observers fill out and submit forms to NOAA Fisheries that report on all of the above information.

Nonetheless, different data collection protocols are applied in terms of sampling designs for observer coverage in order to account for the differences in the nature and occurrence of marine mammal/other protected species bycatch versus finfish bycatch. Given the nature of marine mammal and other protected species bycatch, sampling methods for observer programs primarily devoted to monitoring marine mammal bycatch may vary from those primarily devoted to monitoring finfish bycatch. For example, because protected species bycatch events tend to be rarer than finfish bycatch events, marine mammal observer programs may require increased coverage and allocation of observers to vessels operating in distinct locations in order to obtain an accurate depiction of the occurrence of marine mammal bycatch. NOAA Fisheries allocates observers to fisheries to monitor incidental mortality and serious injury of marine mammals as well as to fulfill other statutory obligations as resources allow.

24. Question: How long does it take the agency to disseminate the data collected by the observers? Is there a backlog on reviewing and using this data?

Answer: Availability of data varies from program to program, but in general the data are subject to a quality control review that takes a maximum of 60-90 days

before it is made available to NOAA Fisheries scientists and managers, as appropriate.

Processing observer program data is labor-intensive. Situations in which there are delays in analyzing and processing data are usually due to human resource constraints, specifically, insufficient analytical support. Where this has been a problem, NOAA Fisheries has requested additional FTEs both for better oversight and for analytical support.

25. Question: There have been comments about the cumulative effects of activities on marine mammals. What is our current state of knowledge regarding cumulative effects? Do we currently have the ability to determine how different activities cumulatively affect marine mammals? Is it possible for any marine mammal affected by different activities to have time to recover from the first effect prior to the second effect happening?

Answer: We generally do not know the cumulative effects of many different activities on marine mammals. However, monitoring programs that are part of authorizations to take marine mammals incidental to various activities and behavioral observations have provided data upon which some estimates may be based. For example, tagging and monitoring animals over the long-term following a human interaction allows NOAA Fisheries to evaluate the impacts of various activities and to estimate whether and how soon after a certain activity marine mammals resume their normal activities (such as pinnipeds hauling out on a beach after a disturbance has displaced one or more animals).

Marine mammals affected by different activities can recover from some of the effects. For example, if an activity disturbed seals or sea lions from a haulout site, they generally return to the area after a relatively short time. On the other hand, if a marine mammal were injured incidental to a human activity, recovery, if it occurs, may be prolonged. There is insufficient information to predict how many disturbances (or how often they would have to occur) are required to cause a marine mammal to avoid a specific area due to the disturbances. Therefore, such cumulative effects must be based on what data are available and on assumptions. NOAA Fisheries is working with its partners, including the Marine Mammal Commission, to investigate the cumulative impacts of some human activities, such as noise.

26. Question: How can we manage for cumulative effects when we may not have scientific knowledge on how activities actually affect marine mammals? If we were to manage based on what we thought were the impacts, wouldn't that create havoc with the different industries and scientists that may have interactions with marine mammals?

Answer: The Findings section of the MMPA sets a high standard for marine mammal protection, stating, "Marine mammals have proven themselves to be resources of great international significance, esthetic and recreational as well as economic, and it is the sense of the Congress that they should be protected and encouraged to develop to the greatest extent feasible commensurate with sound policies of resource management and that the primary objective of their management should be to maintain the health and stability of the marine ecosystem."

While the Act does not provide specific guidance with respect to addressing cumulative impacts, it is clear in its intent that resource management policies should ensure marine mammal protection to the greatest extent feasible. Thus, NOAA Fisheries attempts to manage for cumulative effects first by using what we know in the most effective manner and making assumptions based upon what we do know to fill in gaps in scientific knowledge. In addition, we design research and monitoring measures for activities to fill in gaps in scientific knowledge. By utilizing tools like mitigation measures on authorizations, the agency strives to ensure that research and other human activities can continue, while ensuring to the greatest extent possible that the conservation of marine mammals is not compromised.

Questions Submitted by The Honorable Frank Pallone, Jr.

Definition of harassment:

1. Question: Over the past year, Congress has been presented with several different options to re-define the definition of harassment. A new definition is being offered in H.R. 2693.

- **Please compare the definition proposed in H.R. 2693 and discuss whether it compares positively or negatively to other proposed definitions.**

Answer: NOAA Fisheries is pleased that H.R. 2693 has sought to address the enforceability and clarity of the current harassment definition by proposing amendments to the definition. In particular, we support H.R. 2693's deletion of the words "pursuit, torment, or annoyance" since this phrase adds an additional hurdle the agency must meet before it can address acts involving injury or disturbance, making

it more difficult for the agency to address cases of harassment. The Administration's amendments to the harassment definition would make this same change.

We also support H.R. 2693's inclusion of a second tier for Level B harassment, which makes explicit that activities that are directed at individuals or groups of marine mammals, such as swimming with, closely approaching, touching or feeding these animals in the wild, that are likely to disrupt marine mammal behavior constitute harassment. While the language in the Administration bill differs slightly from that in H.R. 2693, the effect of this section in both bills would be similar.

We support the intent of the bill's proposed changes to the current definition of Level B harassment. These changes under the first tier of Level B harassment will clarify that Level B harassment means those acts that are likely to result in biologically significant, harmful effects rather than those activities that result in de minimis impacts on marine mammals. Overall, the proposed definition of harassment contained in H.R. 2693 is similar in intent to the one in the Administration proposal. Both proposed definitions will result in more meaningful protections for marine mammals and apply a clearer standard of harassment to the entire regulatory community. Nonetheless, we are concerned that H.R. 2693's proposal to retain the language, "potential to disturb," would perpetuate the overly broad standard of Level B harassment, inasmuch as it would include even a very remote possibility that disturbance might occur. We believe that the standard included in the Administration proposal, "disturbs or is likely to disturb," provides a more appropriate delimitation concerning what activities should be covered under this part of the harassment definition. We also note that the Administration bill does not include "care of young" or "predator avoidance in the list of behaviors in Level B harassment.

With regard to changes H.R. 2693 would make to Level A harassment, we are concerned about the use of the word "probability" in the phrase "probability to injure." Specifically, since the word "probability" implies that a particular outcome is more likely to occur than not (i.e., with greater than a 50% likelihood), we are concerned that this standard may create too high a threshold for an act to constitute harassment. The Administration bill clarifies that Level A harassment is an act with the "significant potential to injure." This term clarifies that the threshold for Level A harassment is higher than the current threshold, which implies that an act having any remote possibility to cause injury could constitute harassment, and lower than the threshold in H.R. 2693, which could exclude some important injury-related impacts on marine mammals.

2. Question: How will the proposed change to the definition of harassment affect scientific research and/or military readiness activities?

- **Are there specific activities that might fall outside this definition?**

Answer: The proposed amendments in H.R. 2693 and the Administration's bill will likely make the process easier for the scientific research community. Because the proposed amendments would raise the threshold for acts directed at marine mammals involving Level A harassment (injury), which are permitted under Section 104 of the MMPA, more scientific research applications will likely fall under Level B harassment. Scientific research involving Level B harassment would continue to be covered by the General Authorization process, a more streamlined process than the scientific research permit process under Section 104. Nonetheless, these amendments would still enable the agency to keep track of the effects of scientific research on marine mammals.

The amendments will likely clarify for the regulated community, including the Department of Defense, when their acts constitute harassment and when they do not. They will clarify that Level B harassment means those acts that are likely to have biologically significant, harmful effects on marine mammals rather than those that have de minimus effects.

By amending the definition of harassment, activities that potentially could have very minor incidental behavioral effects on marine mammals (e.g., kayakers and scientists using low intensity sonars and other instruments to map the surface of the sea floor or water current characteristics) should fall outside the definition, depending on circumstances such as duration of the activity and location of its occurrence.

3. Question: The definition for Level A (potential to injure) harassment proposed in H.R. 2693 requires that an activity have "the probability to injure" a marine mammal. It seems to me that this change would require a higher burden of proof for a given activity's likelihood of causing harm.

Do you feel that this change would make the definition of harassment less protective of marine mammals? Does the word "probability" have a clear and commonly understood legal definition? What is the distinction from "potential?" Would the addition of a modifier that explains the relative probability of injury (such as 20%, 50%, 90%) be helpful in clarifying the intent of the word "probability?"

Answer: This language could result in less protection for marine mammals. The word "probability" implies that a particular outcome has a greater chance of happening than not (i.e., greater than 50% likelihood of occurring), which may result in too high a threshold for an activity involving injury to constitute harassment.

"Probability" is not a term that is currently in the MMPA. Therefore, there is no useful legal reference for that term as it relates to the MMPA. In addition, the term "potential" is only used in the harassment definition of the MMPA, and it is not defined in the MMPA. Therefore, there is no clear definition of that term in the MMPA, and there is no ability to compare how it is used elsewhere in a similar context.

Thus, a court would likely look to the ordinary meaning of the word as it appears in the dictionary. Webster's New International Dictionary, 2nd ed., unabridged, offers two definitions of "probability" that are relevant to its application in the harassment definition: 1) The quality or state of being probable (probable means having more evidence for than against; supported by evidence strong enough to establish presumption, but not proof, of its truth); reasonable ground for presuming; true, real, or likely to occur, likelihood; and 2) That which is or appears probable.

Since "probability" means that a particular outcome has a greater chance of happening than not, in this case it would mean that those acts that have a greater than 50% of causing injury to marine mammals would constitute Level A harassment.

Webster's defines "potential" as "that which is possible." Thus, it includes everything that's probable/likely (i.e., more evidence for than against) plus things that are not probable/likely. The only thing excluded from "potential" is that which is not possible at all. The phrase, "potential to injure," in the harassment definition implies that any act that has greater than a 0% chance of causing injury could constitute Level A harassment.

While the threshold for Level A harassment using the term "potential" is likely too low, the threshold using the term "probability" is likely too high to protect marine mammals from injury. The agencies looked at a range of options in developing the Administration bill to clarify that the appropriate threshold for an act to constitute Level A harassment was somewhere in between "probability to injure" and "potential to injure." Ultimately, the Administration decided that "significant potential to injure" achieved the appropriate balance to allow the agencies to address acts involving injury.

Adding a fixed percentage to the definition to qualify the word "probability" may result in an inflexible burden on the agency given the difficulties in determining with what degree of likelihood an act will cause injury. For instance, if Level A harassment only applied when an act had a greater than 30% chance of causing injury, the agency would be forced to prove that an act had more than a 30% chance of causing injury before it could address the action. This would be difficult given the level of uncertainty that currently exists regarding the impacts of various human activities, especially those activities for which research has been limited.

Permitting for Scientific Research:

1. Question: Has the permitting process for targeted scientific research on marine mammals and oceanographic research that falls into the incidental take (Level B) category been sufficiently streamlined as a result of the 1994 amendments? What additional changes, either legislative or regulatory, are necessary? Are there still problems with the permitting process for targeted research on marine mammals that falls into the Level A (probability to injure) category?

Answer: On the first question, yes, the General Authorization for Scientific Research has worked well. Authorizations (Letters of Confirmation) have been issued, on average (1999-2002), within 33 days of the time a letter of intent is considered complete.

NOAA Fisheries does not feel that legislative or regulatory changes for targeted scientific research on marine mammals are necessary at this time. As stated in our oral testimony for the July 24, 2003 MMPA hearing, our challenges in scientific research permitting are fundamentally linked to NEPA and ESA and our fiscal and human resource constraints, and not to limitations inherent in the MMPA.

There is not a problem with the MMPA or the regulatory process regarding scientific research permits involving Level A harassment. Most applications for permits under the MMPA are processed within 90 days. This period includes a mandatory 30-day public comment period. Some delays in processing applications for permits have occurred; however, this has usually been for those applications also involving endangered or threatened species—for which an ESA permit is also required—and for which substantial NEPA analyses were necessary due to the complex or controversial nature of the research.

2. Question: How do overlapping requirements under the Endangered Species Act and NEPA interact with permitting requirements under the MMPA? What could be done to further streamline the process or coordinate timetables when a proposed project involves a threatened or endangered species? Would moving the NEPA requirement earlier in the permitting process help to expedite the final awarding of a permit? Why or why not? Would conducting programmatic NEPA reviews in various categories of frequent permit applications be helpful in eliminating individual NEPA requirements on each application?

Answer: There are separate requirements under the three Acts, but NOAA Fisheries has streamlined the permit process by issuing joint MMPA/ESA permits and by conducting simultaneous environmental analyses under ESA and NEPA.

Moving the NEPA requirement earlier in the permitting process would not help expedite the process. Under existing regulations, the NEPA requirement is already at the front end of the process, even before publication of the Notice of Receipt of the application in the Federal Register, in part to meet the MMPA requirement to make a permit decision within 30 days of the close of the public comment period. However, no matter where it goes in the process, it can be time and resource consuming because of the often complex nature of the analyses required, especially for endangered or threatened species.

Conducting programmatic NEPA reviews would help NOAA Fisheries streamline the NEPA process. The agency is proceeding with development of programmatic NEPA documents that will help front-load and streamline the process. For example, we are currently working on contracting out a programmatic NEPA analysis to investigate the effects of scientific research involving active acoustics. We have identified the need for a number of such programmatic documents, which will take several years to complete.

3. Question: It is clear to me from the testimony that we have heard today that the permitting process for scientific research is still problematic for many scientists, but I am still not clear on the root cause of the problem.

- **Is the permitting process severely limited by a lack of resources and staff?**
- **Would the development of a classification system identifying specific activities and their associated risk to marine mammals be a more useful approach to expedite consideration of different types of activities on a more programmatic basis?**

Answer: Yes. Resource and staff limitations can delay the timing of permit issuance, particularly given the current level of applications for research on endangered and threatened species and the NEPA and ESA Section 7 analyses that are required for those permits. In addition, because there is not a permit application cycle (unlike the typical grant process), applications are received throughout the year, which makes planning for and completing the necessary NEPA and ESA analyses problematic.

There is currently such a classification system in place. Activities that have the potential to disturb but not injure a marine mammal or marine mammal stock in the wild (Level B harassment) are covered by the General Authorization, an expedited process for researchers to obtain an authorization for research activities. Alternatively, researchers can obtain a scientific research permit for those activities that have the potential to injure a marine mammal or marine mammal stock in the wild (Level A harassment). In addition, we have begun to conduct programmatic NEPA and ESA analyses for certain categories of actions. Therefore, future permit applications involving only those activities would have a reduced processing time, as the NEPA and ESA analyses would already be essentially completed or would require only streamlined supplemental analyses.

A more specific classification system detailing activities could be difficult especially since the risk and impact associated with many human activities is unknown. The system currently in place is preferable because since it is based on impacts on the marine mammal—either injury or disturbance—it is flexible enough to adapt to changes in scientific information. For instance, as more information becomes available on the nature of a given activity and its impacts, then more is known about where that activity fits on the scale of injury, disturbance, and negligible impact.

Take Reduction Teams:

1. Question: A new World Wildlife Fund study released in June conducted by American and Scottish biologists suggests that accidental capture or "bycatch" by the fishing industry may be the biggest immediate threat the survival of some marine mammals, especially large whales. This study analyzed bycatch mortality affecting 125 marine mammal populations over the

period of 1990-1999. The study estimates that 1000 whales, dolphins, and porpoises drown every day. Annually, approximately 308,000 marine mammals die unintentionally.

- **In light of this information, what conclusions can be drawn about the effectiveness of the Section 118 take reduction team process?**
- **Should specific types of fishing gear be permanently retired due to their associated level of bycatch?**
- **Should a robust program be established to dedicate adequate resources and technical assistance to promote "marine mammal safe" fishing gear?**

Answer: The WWF study calculates an annual level of marine mammal bycatch occurring on a global basis, not a national basis. Most countries are not bound by the same statutory requirements as the U.S. to reduce marine mammal bycatch to biologically and socially acceptable levels. Interestingly, the study found that bycatch of cetaceans declined significantly during the period 1995-1999, as compared to 1990-1994. Inasmuch as fishing effort did not decrease during this period, the authors conclude that these reductions are likely attributable to the take reduction measures adopted pursuant to the 1994 MMPA amendments.

MMPA Section 118 provides a sound framework in which to address marine mammal bycatch concerns. While mortality and serious injury of marine mammals incidental to fishing continues to be a problematic source of marine mammal mortality nationwide, NOAA Fisheries has achieved many bycatch reduction successes as a result of the take reduction team (TRT) and take reduction plan (TRP) development process outlined in Section 118 of the MMPA. Namely, the Pacific Offshore Cetacean Take Reduction Plan (POCTRP) has successfully reduced bycatch of beaked whales, pilot whales, pygmy sperm whales, sperm whales, and humpback whales in the swordfish/shark drift gillnet fishery off California and Oregon. The POCTRP has achieved the MMPA's short-term goal of reducing incidental takes below the potential biological removal (PBR) level for all species covered under the Plan and has further reduced takes of some marine mammal stocks to below 10% of the PBR level (which is the level that NOAA Fisheries currently uses in its Stock Assessment Reports to determine whether the total fishery-related mortality and serious injury level for the stock can be considered to be insignificant and approaching a zero mortality and serious injury rate). Additionally, take reduction plans (TRPs) in the Gulf of Maine and Mid-Atlantic have successfully reduced bycatch of harbor porpoise to levels below the stock's PBR. NOAA has also experienced management challenges related to preventing entanglement of large whales in the Atlantic in certain gear types. We are currently working closely with the ALWTRP to develop viable alternatives to address these challenges and feel that Section 118 provides an effective framework in which to meet these challenges.

NOAA Fisheries plans to implement a final TRP for Western North Atlantic coastal bottlenose dolphins in early 2004. Modeling efforts show that the anticipated management measures will reduce incidental serious injury and mortality of bottlenose dolphins to levels below the stock's PBR. Over the next several years, NOAA Fisheries plans to convene TRTs to address bycatch of common dolphins and pilot whales in Atlantic longline and trawl fisheries. Thus, the agency has plans to address the instances in which incidental mortality and serious injury of marine mammals exceed PBR for a particular stock.

While Section 118 has provided a sound framework in which to address these issues in a stakeholder-inclusive process, there are still improvements that can be made in the program itself. We encourage Members of Congress to consider amendments to Section 118 proposed in the Administration bill that would include noncommercial fisheries that have frequent or occasional incidental serious injury or mortality of marine mammals in the TRT and TRP development process, as well as other amendments aimed at providing monitoring alternatives and gear innovation initiatives.

The requirements under Section 118 of the MMPA provide an adequate framework to address a variety of management challenges related to marine mammal interactions with fishing gear. The TRT and TRP development processes have allowed NOAA Fisheries to reduce marine mammal bycatch in gillnets, traps, and pots. The agency has plans to address marine mammal bycatch in pound nets, haul seines, longlines, and trawl gear via future TRTs and TRP development. The challenge is finding the right combination of management measures, and enforcement and monitoring capability, to achieve success. Section 118 provides adequate flexibility for the agency to consider a broad range of management measures, including closed areas, gear modifications, gear restrictions, and acoustic deterrent requirements, to meet the bycatch reduction goals of the Act. NOAA Fisheries is also work-

ing to reduce overcapitalization in U.S. fisheries, which should help eliminate excess fishing capacity, and thus gear, in some areas.

A program dedicated to researching and developing gear that reduces interactions with marine mammals would be helpful and would aid the agency in fulfilling the complex task of promoting fishing on the one hand, as a requirement under the Magnuson-Stevens Fishery Conservation and Management Act, and reducing the mortality and serious injury of marine mammals incidental to fishing gear on the other, pursuant to the MMPA. In fact, NOAA Fisheries' Pascagoula Lab has a dedicated gear research program that looks at modifying gear to reduce various types of bycatch.

The Administration MMPA reauthorization bill currently contains amendments (see Section 516) that would direct the Secretary of Commerce to establish a fishing gear research and development program aimed at evaluating and developing new gear technologies to reduce mortality and serious injury of marine mammals incidental to fishing. These amendments also authorize the Secretary of Commerce to establish a fishing gear buyback program through the take reduction plan development process, to work with other countries to foster gear technology transfer initiatives aimed at reducing marine mammal bycatch, and to establish a gear research mini grant program to promote the evaluation and development of fishing gear innovations.

2. Question: H.R. 2693 would extend the deadlines imposed on take reduction teams and the agency for requirements under section 118, the taking of marine mammals incidental to commercial fishing operations.

- **Have these extensions been requested by the agency?**
- **Have take reduction teams been unable to meet these deadlines in the past?**

Answer: NOAA Fisheries did not request these deadlines, and these extensions are not included in the Administration bill. However, the amended deadlines proposed in H.R. 2693 are more achievable than the current statutory deadlines in Section 118 and we do not expect that they would substantially compromise marine mammal protections.

While the agency has done its best to meet Section 118 deadlines in the past, it is often challenging to meet them given the various steps required throughout the TRP development process including, completing and analyzing stock abundance and mortality data, recruiting TRT members, holding TRT meetings, allowing the TRT time to submit a draft plan, developing proposed regulations, holding a public comment period, and finalizing regulations. Additionally, the agency must comply with NEPA and ESA requirements, among other requirements that apply to regulatory actions, and must work with the fishery management councils and state fisheries agencies to ensure that all the regulations coincide to meet a variety of statutory mandates. Another complicating factor is that this process is conducted in an environment in which data continually change and new data needs emerge.

Stock Assessments:

1. Question: Why have stock assessments not been completed for all stocks of marine mammals? What is the limiting factor? How adequate are existing population estimates?

Answer: Stock assessments have been completed for all population stocks of marine mammals that occur regularly in the EEZ of the United States; however, they have not been completed for the marine mammals that inhabit the EEZ of U.S. Territories in the Caribbean Sea or Pacific Ocean. Highest priorities have been assigned to the collection of assessment information to sustain the regime to govern interactions between marine mammals and commercial fishing operations and on those stocks where immediate threats are substantial and immediate. Thus, for some stocks (e.g., Right whales in the Western North Atlantic, Gulf of Maine harbor porpoise, Cook Inlet beluga whales, and Hawaiian monk seals), assessment information is relatively accurate, precise, and frequent. For other stocks (e.g., ice seals, which include ringed, spotted, bearded, and ribbon seals; all cetaceans in the EEZ around the Hawaiian Islands; and beaked whales, which are widely distributed and behave in such a way that assessment is difficult (dive deep and often; occur singly or in very small groups)), assessment information is incomplete.

Staff, available platforms (e.g., survey vessels), and funding limit our ability to assess marine mammal stocks. In some cases, technology to detect marine mammals that are not readily visible at the surface is not available. NOAA Fisheries continues to explore ways to improve its assessment technologies. The agency's FY 04 budget request consisted of $14,200 K for marine mammal stock assessments.

In many cases, existing population estimates are sufficient to address fundamental questions, such as whether or not human caused mortality exceeds sustain-

able limits (i.e., Potential Biological Removal levels). In other cases (e.g, short and long-finned pilot whales in the Atlantic Ocean), abundance estimates are not high enough to rule out human-caused mortality as a threat to the population; however, many of the affected marine mammal populations that would fit this situation are widely distributed in an ocean basin, and comprehensive abundance estimates would be exceedingly expensive.

Currently, NOAA Fisheries has a limited understanding of the relative impacts of ecosystem processes other than direct-human caused mortality on stock abundance and status. We are currently engaged in a Stock Assessment Improvement Plan that will help the agency investigate a broad range of factors, including natural ecosystem processes, affecting stock abundance.

Zero Mortality Rate Goal:

1. Question: Robert Zuanich testified that the marine mammals hold a loftier status than all other animals in the ocean. Wasn't this at least, in part, the goal of the protective approach of the MMPA? Can you comment on whether the zero mortality rate goal should be retained? What is its relation to the precautionary philosophy of the MMPA?

Answer: MMPA Section 2, the Findings and Declaration of Policy section, expresses the importance of marine mammals and goals for their protection relative to optimum sustainable population and the carrying capacity of their habitat. In addition, specific sections of the MMPA reflect these goals.

For example, the zero mortality rate goal (ZMRG) of the MMPA provides that commercial fisheries shall reduce the incidental mortality and serious injury of marine mammals to insignificant levels approaching a zero mortality and serious injury rate within seven years of enactment of Section 118 of the statute. This requirement demonstrates the highly protected status of marine mammals and sets a high standard for management policies designed to protect marine mammals.

The ZMRG has been a concept within the MMPA since its enactment in 1972. In 1994, the MMPA was amended to specify a specific date (April 30, 2001) by which the ZMRG would be achieved. Congress may want to examine the role of the specific date by which the ZMRG was to have been achieved and evaluate whether or not a specific date is helpful.

Reasonable evidence will be necessary to support any determination that a fishery has achieved ZMRG. Such evidence will be difficult and expensive to attain since as mortality becomes lower, the statistical precision of mortality estimates will decrease for a given level of effort (e.g., observer coverage). To detect the continued reduction in mortality and serious injury rates as incidental mortality becomes a small part of each stock's Potential Biological Removal level will be difficult and will require substantial resources.

Harvest management agreements with Alaskan natives:

1. Question: H.R. 2693 does not revise Section 119 of the current law, which establishes the authority for marine mammal cooperative agreements in Alaska. The administration's draft bill would change the cooperative agreements to harvest management agreements.

- **Can you elaborate on why this change is important? Do native Alaskans have sufficient capabilities to support and train enforcement operations for effective co-management? Should future co-management agreements with native Alaskans apply to species or stocks that are already designated as strategic or depleted? Is it likely or desirable for seals, currently under NOAA Fisheries' jurisdiction, that are used for subsistence to be managed under the U.S. Fish and Wildlife Service so that all species that Alaska Natives use for subsistence purposes will be under one agency?**

Answer: The Administration's proposed amendments to this section are important because subsistence harvest of marine mammals by Alaska Natives is not currently subject to regulation unless a marine mammal stock is designated as depleted. Additionally, there is no provision for enforcing harvest restrictions that may be established in cooperative agreements other than through voluntary compliance. The amendments contained in Section 201 of the Administration bill would allow for joint regulation of subsistence harvests prior to a depletion finding. This would provide a mechanism for Alaska Natives and NOAA Fisheries to prevent stock depletion before it becomes a more difficult and costly problem.

Alaska Native local governments have the ability to develop and train staff for enforcement operations; however, such co-management operations are not always realized due to a variety of factors. Native governments address such issues reasonably where resources are available, such as for the enforcement of whaling ordi-

nances by the Alaska Eskimo Whaling Commission, which has local government support.

Proposed section 119A would allow the Federal government to work with Alaska Natives, through co-management agreements, to effectively regulate subsistence harvest of stocks whether or not the stock is depleted. This would provide an additional process to regulate subsistence harvest of depleted stocks. The proposed section is not meant to replace existing provisions for depleted stocks; rather, it is meant to supplement regulatory authority through the co-management process.

We do not feel it is necessary or wise to transfer authority for management of seals to the U.S. Fish and Wildlife Service. NOAA Fisheries houses the majority of the technical expertise and institutional infrastructure for addressing seals. The management of seals could be compromised if such a transfer were to occur at this time.

Threats to Marine Mammals:

1. Question: Commercial fishermen rightly criticize Federal regulators for going after them and not global shipping lines to reduce marine mammal mortality.

- **What is the administration doing to engage the International Maritime Organization to reduce ship strikes in the U.S. EEZ and across the world's oceans?**

Answer: NOAA Fisheries has a program to reduce ship strikes that has been ongoing over the last decade and has been expanded in recent years as ship strikes continue. The agency has focused most of its efforts to reduce ship - marine mammal interactions to date on the North Atlantic right whale, due to its critically endangered status, its particular vulnerability to ship strikes, and Congressional and public interest. Efforts to address ship strikes of right whales are believed to provide ancillary benefits to other marine mammals and to serve as a template to address the issue more broadly with other marine mammals.

Recognizing that ship strikes account for more right whale mortalities than entanglements in fishing gear or any other human-related activity, NOAA Fisheries formed an internal working group in late 2001 and began a proactive approach to address the issue of ship strikes. This process culminated in the development of a Ship Strike Reduction Strategy, a proposed multi-year blueprint of the specific steps that could be taken to reduce or eliminate the threat of ship strikes. Measures proposed in the Strategy would reduce the overlap of ships and whales to reduce the likelihood of ship strikes. This approach allows for consideration of regional differences in oceanography, commercial ship traffic patterns, and navigational concerns. Since interagency collaboration is key to the Strategy's success, NOAA Fisheries recently established an Interagency Working Group on the Reduction of Ship Strikes to Right Whales to aid in the Strategy's implementation and enforcement. The purpose of this Working Group is to review and provide comments on the Strategy, provide clearance on two proposed international measures, assist NOAA in identifying means to ensure the implementation of a robust Strategy, and establish a timeline. Actions needed to execute the overall project include rulemaking, various analyses, and international action.

NOAA Fisheries plans to seek approval from the International Maritime Organization (IMO) for implementation of any of the proposed measures within the Strategy that would require international action. The IMO is already engaged in the right whale-ship strike issue through the recent actions of Canada to change its shipping lanes to help reduce ship strikes of right whales. After a four-year collaborative process involving Transport Canada, the federal Habitat Stewardship Program, industry, and conservation/research organizations, the IMO approved the proposal to alter shipping lanes in the Bay of Fundy in 2002.

Similar changes are sought for right whale protection under the NOAA Fisheries Ship Strike Strategy. The Strategy proposes measures that would apply to the entire eastern seaboard, and thus are significantly more complex than those facing Canada in the localized area of the Bay of Fundy. Recognizing that interagency collaboration is key for the success of the Strategy, NOAA Fisheries is currently engaged in the interagency process to begin implementation of the Strategy. After an interagency task force has been formed to address this issue, NOAA Fisheries anticipates engagement with the IMO to address the Ship Strike Strategy.

2. Question: There seem to be many emerging threats to marine mammals that were not considered 25 years ago, when the original act was written.

- **Do you think it would be helpful for the Marine Mammal Commission to report on the magnitude of emerging and existing threats to marine mammals? Is it practical to believe that we can address these threats,**

and if so, what threats should be priorities for action? Would such an undertaking be within the scope and purview of the MMC?

Answer: The Marine Mammal Commission currently reports on emerging and existing threats to marine mammals and on the agencies' (U.S. FWS and NOAA Fisheries) efforts to address these threats. During the first week in August 2003, the Commission convened a workshop of scientists and some managers to discuss future research and scientific needs for marine mammals and the ecosystems upon which they depend. Presumably, the report of this workshop will characterize research and information needs within the context of existing and emerging threats. Therefore, a special report may not be necessary; however, if such a report is necessary, the Marine Mammal Commission has the responsibility and the capability to compile one.

This undertaking would be within the scope of the Marine Mammal Commission's responsibilities under the MMPA, and they have already performed it to a certain extent in their annual reports to Congress and in specialized reports that the Commission produces.

At least some aspects of such an undertaking could also be within the purview of the three regional Scientific Review Groups established under section 117(d) of the MMPA.

3. Question: Has the MMC ever investigated the growing incidence of ship strikes? MMC-directed, Would the MMC support a mandate to convene a panel to recommend steps to reduce ship strikes and report to Congress in 2 years?

Answer: NOAA Fisheries defers to MMC for the response to this question.

4. Question: Should there be a similar directed program on ocean noise that would be mandated under the MMC or another program such as the National Oceanographic Partnership Program?

Answer: It would be useful for the Marine Mammal Commission (MMC) or the National Oceanographic Partnership Program (NOPP) to convene panels of experts to further explore the issue of ocean noise and the MMC or NOPP could make recommendations related to the protection and conservation of marine mammals. However, neither the MMC nor the NOPP is the appropriate entity to run a program or to assign national priorities for the study or management of ocean noise because neither has management responsibility for marine resources. NOAA has responsibility for the evaluation and management of ocean noise in terms of its effects on living marine resources, such as marine mammals, as well as other natural marine resources, such as benthic habitats. The agency already runs a program on ocean noise and sets priorities based on its mandates under the MMPA, ESA, and other statutes. In addition, NOAA coordinates on a regular basis with the USFWS, Minerals Management Service, Department of Defense, MMC, and NOPP.

5. Question: Two programs currently exist to respond quickly to threats to marine mammals. These include the Prescott Marine Mammal Rescue Assistance Grant Program and the Marine Mammal Health and Stranding Response Program, both authorized under Title IV of the MMPA.

- **I have heard that these programs need increased funding. Would you agree?**
- **Would it be helpful for NOAA Fisheries if the administration of Prescott grants were transferred to an outside group, such as the National Fish and Wildlife Foundation? Would this be a cost-effective way to free up biologists to do other important work?**

Answer: As mentioned, there are two emergency response funds available under the Marine Mammal Health and Stranding Response Program: the Marine Mammal Unusual Mortality Event Fund (called the Contingency Fund), which provides funds for the responses to designated unusual mortality events, and the emergency response funds under the Prescott grant program. The Contingency Fund was initially authorized for $500,000 in 1993 and was intended to be able to solicit additional funding from outside sources or donations. In 1999, NOAA Fisheries started setting aside $125,000 per year for this fund from operational funds, and these funds were transferred to the National Fish and Wildlife Foundation (NFWF). The current administrative costs for the fund are 3% per year and no solicitations for outside funding have been made. NOAA Fisheries staff provide all the coordination, review the reimbursement applications, monitor the response, and maintain current financial records for all potential recipients. During that time we have responded to several marine mammal die-offs and spent $216,389 on reimbursements to the network. The current balance in the account is $266,311 and there are four die-offs for which requests for reimbursement have not been received. There have been some problems in the reimbursements for die-off investigations. In the 1999-2000 die-off of gray whales along the west coast, the Contingency fund was restricted from reimbursing

for the significant carcass disposal costs, and therefore many animals could not be necropsied. This significantly hampered the investigation. In addition, small stranding network organizations often cannot pay for costs upfront without overwhelming the financial status of the organization.

The network would be able to respond to the mortality events more efficiently if there were more flexibility in how the money could be spent and if some costs could be paid in real time rather than as a reimbursement.

For the Prescott emergency fund, NOAA Fisheries has made available $600,000 out of funds appropriated for this assistance program and three emergency grant applications have been received, totaling $230,000.

At this time there would be no benefit to recipients in moving the whole program to NFWF and such a move would not necessarily free up biologists to do other important work. Currently NOAA Fisheries biologists are involved in the development of the request for proposals, which includes developing funding priorities, the review process (merit review), and monitoring of the facilities and organizations. Regardless of the grants administration process, NOAA Fisheries staff must oversee the network, coordinate activities of the network and work in partnership with the network and other scientists to implement the Marine Mammal Health and Stranding Response Program. NOAA Fisheries biologists will continue to be needed to set priorities, review applications, and coordinate the Prescott funded work with other portions of the stranding program. There is a real benefit to having all aspects of the program described in Title IV coordinated by NOAA Fisheries staff into an integrated program. If the grants administration were transferred to NFWF, it would still have to involve NOAA Fisheries' biologists in the development of the solicitation and the review of applications. In addition, NFWF administrative fees are higher than what is currently allowed in the legislation.

In the future, with NOAA's streamlining of the grants administration process and Prescott program's solicitation of proposals earlier in the year, we anticipate an improvement in the time it takes to get funds to recipients.

Captive Animal Welfare:

1. Question: The 1994 changes to the Marine Mammal Protection Act gave APHIS the authority for captive marine mammal welfare inspections.

- **Has APHIS demonstrated requisite expertise and ability to inspect and oversee marine mammals in captivity?**
- **How many inspectors does APHIS deploy to inspect display facilities?**
- **To your knowledge, has APHIS promulgated marine mammal-specific care standards for captive marine mammals? And have such standards been provided to the public?**
- **Is there any oversight or reporting requirements for APHIS in the discharge of this responsibility? Should APHIS be required to report annually to Congress?**

Answer: NOAA Fisheries does not have authority to participate in or review APHIS' inspections or oversight of marine mammals in captivity. Therefore, NOAA Fisheries has no basis to determine whether APHIS has demonstrated the requisite expertise and ability in these areas.

NOAA Fisheries does not know how many inspectors APHIS deploys to inspect facilities, and defers the response to this question to APHIS or the MMC.

Marine mammals are specifically addressed in 9 CFR Part 3, Subpart E, specifications for the Humane Handling, Care, Treatment, and Transportation of Marine Mammals, which was promulgated under the Animal Welfare Act (AWA). APHIS conducted negotiated rulemaking with stakeholders to revise these regulations and published a final rule with resulting revisions at 66 FR 239, January 3, 2001. APHIS is considering amendments to the regulations at 9 CFR Part 3, Subpart E to address the items that were not previously agreed to during the negotiated rulemaking process as well as standards for marine mammals used in interactive programs (i.e., "swim-with-dolphin" programs) see APHIS' advance notice of proposed rulemaking at 67 FR 37731, May 20, 2002. NOAA Fisheries respectfully suggests that requests for details regarding these rulemaking processes should be addressed to APHIS.

NOAA Fisheries is currently unaware of any reporting requirements for APHIS related to the MMPA or AWA. NOAA Fisheries defers to APHIS and the MMC to respond to this question.

2. Question: The public display community has complained that NOAA Fisheries deliberately misinterpreted the intent of Congress in 1994 in its promulgation of regulations regarding permits allowing the transport and exchange of captive marine mammals.

- **Is this complaint valid?**

- **If not, what aspect of the proposed regulations should be revised?**

Answer: The complaint is not valid. The proposed rule does not require permits for transport/transfer (including exports) of legally held captive marine mammals in U.S. facilities. The rights of legal holders of captive marine mammals are currently described in the MMPA and the proposed rule only provides a process through which holders can exercise their rights by meeting the requirements of the MMPA. Recently, holders of exported marine mammals that were loaned or leased to foreign facilities experienced problems in reasserting custody of the animals so that they could be returned to the U.S. or found that the foreign facility no longer met standards comparable to the MMPA or Animal Welfare Act. NOAA Fisheries' current policy is the best mechanism currently available for allowing the U.S. government to request the appropriate foreign agency to intercede on behalf of the U.S. and the holder to insure that these standards are met. The export procedures in the proposed rule were intended to codify this policy and address these kinds of situations for the benefit of the marine mammals and their U.S. holders. Permits are still required for capture from the wild and first-time imports into the U.S. consistent with the MMPA.

There are some needed clarifications that were identified during review of the public comments received on the proposed rule. In particular, these include specifying the need and purpose of inspections (for inventory verifications only), and clarifying or re-proposing the export provisions of the proposed rule.

Captive release prohibition:

1. Question: H.R. 2693 includes a prohibition on releasing captive marine mammals into the wild.

- **Considering the very limited space available to care for stranded marine mammals, could such a change create a situation where animals are held in captivity permanently regardless of their health and survival?**
- **Would this provision affect NOAA Fisheries' release of the five pilot whales that were stranded on April 18, 2003?**
- **Does this provision require a U.S. citizen to apply for a NOAA Fisheries permit to release a marine mammal in other countries' EEZ (would this apply to Keiko's release in Norway)?**

Answer: This provision would not affect the release of pilot whales in question. The prohibition on releasing captive marine mammals back to the wild without a scientific research permit is specifically directed at animals held at public display or scientific research facilities, including those born at the facilities or long-term captive animals. It does not include stranded animals or those in rehabilitation because it provides an exception for animals maintained in captivity under MMPA Section 109(h).

We recognize the limited resources and facilities available to respond to and care for stranded marine mammals. The release of rehabilitated stranded marine mammals is still governed by the provisions of section 109(h) of the MMPA and the implementing regulations. The primary goal of any rescue and rehabilitation program authorized under the MMPA is to return stranded animals back to their natural habitat as long as their health allows it. Otherwise, animals are euthanized or placed permanently in captivity. However, these latter options are only exercised when the animal's health and chances of survival are compromised by releasing it back to the wild.

This provision would require a permit for release of a marine mammal by a U.S. citizen on the high seas, but not inside the country's territorial sea. The Administration is currently examining the issue regarding whether the MMPA applies in other countries' EEZs. However, Keiko was being held captive in Iceland when he was released. NOAA Fisheries worked with the Government of Iceland to encourage them to adopt protocols for Keiko's release similar to those involved in issuing NOAA Fisheries permits.

Response to questions from The Honorable Frank Pallone, Jr., submitted for the record by Karen Steuer, National Environmental Trust

Definition of harassment:

1. Over the past year, Congress has been presented with several different options to re-define the definition of harassment. A new definition is being offered in H.R. 2693.

- **Please compare the definition proposed in H.R. 2693 and discuss whether it compares positively or negatively to other proposed definitions.**

On May 6 the Resources Committee held a hearing on changes proposed to the MMPA by the Department of Defense, among them a change to the definition of harassment. During that hearing, I noted that any problems with the existing harassment definition are not due to ambiguities in the statutory language, but to fundamental process problems, including: inconsistency in reviews of permit applications, conflicts in the process that dovetails the MMPA with the National Environmental Policy Act, and a lack of cooperation among federal agencies. If the problem lies in process issues that go uncorrected, changing the definition is likely to result only in more confusion, more delays in granting permits, and more lawsuits. Nothing will be gained, and marine mammal conservation will undoubtedly suffer as a result. Any definition—whether the language is that proposed by DOD, the Administration, or in H.R. 2693—should take this into consideration.

All the definition proposed to date use ambiguous language that is unlikely to correct current perceived problems. Such terms as "significantly altered" and "abandoned," (Administration proposal) or "biologically significant disruption" (H.R. 2693) will result in even more confusion and even more legal action, since their meaning varies from species to species and from behavior to behavior.

Like all the other definitions proposed to date, the definition proposed by H.R. 2693 considerably weakens the existing standard, and creates confusion as to application to various activities. By applying one standard to Level A and two different standards to Level B, the bill creates three different standards, all of which are ambiguously defined without any clarification as to which standards would apply to whom and under what circumstances.

Regarding Level B harassment, H.R. 2693 first requires a "biologically significant" disruption of activities, including, but not limited to, migration, breeding, care of young, predator avoidance, defense, or feeding. The legislation does not define the term "biologically significant disruption," nor is it a commonly used scientific term. ." The insertion of this term would add harmful and unnecessary ambiguity to the definition, increasing regulatory uncertainty for regulated entities, and potential risk for protected marine mammals.

The bill would then add the Administration's proposed third tier of harassment to include activities "directed toward" a specific animal or group of animals and "likely to impact" those animals by "disrupting behavior". While I recognize the intent in using this tier to regulate activities such as dolphin feeding, as currently written this definition could also apply to scientific research and whale watching operations. To make matters more confusing, the permitting standard included in this provision of "disrupting behavior" differs from the standard included in the other section of Level B harassment, which requires a "biologically significant disruption."

2. How will the proposed change to the definition of harassment affect scientific research and/or military readiness activities?

Please see the response above regarding some of the implications for scientific research by use of the term "directed activities."

Regarding scientific research, it is important to recognize that there are some types of research that are likely to be harmful to marine mammals. Geologic surveys, for example, use air gun arrays which blast very loud sounds into the ocean bed. Under these circumstances, a general authorization for research, as has been proposed by some in the research community, would be unwise unless accompanied by very specific standards and clarifications as to which research activities would be covered.

It should also be noted that many of the difficulties encountered by research permit applicants are not due to the language of the MMPA, but to requirements under the ESA and NEPA. Testimony presented before the Committee on Resources on July 24 clarified this critical point: research on highly endangered species is subject to more scrutiny than that on other marine mammals—as it should be.

Regarding military readiness, I see no reason why the military should be held to a lower standard than any other American. DOD has never been denied a permit or incidental take authorization by NMFS. In Congressional testimony the Navy has frequently referred to fictitious situations that have no bearing on the actual language or the agency's interpretation of the law. The often-used scenario in which a naval vessel is prevented from leaving the harbor because a sea lion on the neighboring beach will turn its head to watch the boat simply bears no resemblance to the type of activity that NMFS actually regulates. Typical of these activities are missile firings, which cause pinnipeds hauled out on nearby rocks and beaches to stampede, killing their pups; and ship-shock tests, which involve detonations of

thousands of pounds of high explosives. NMFS has never required a permit of an activity that merely caused a sea lion to turn its head.

Changing the current permitting process by instituting programmatic reviews of military activities could be extremely helpful. Planned activities could be reviewed by region and timing as to possible impacts on marine mammals, and mitigated appropriately. This approach would not require any legislative changes.

- **Are there specific activities that might fall outside this definition?**

Given the lack of clarification as to the new terms proposed for both Level A and Level B, I think it is quite likely that some activities could fall outside this definition. For example, where does shipping traffic fit? Oil and gas exploration? Until the terms are defined, it is impossible to determine whether some previously regulated activities might go unregulated.

3. The definition for Level A (potential to injure) harassment proposed in H.R. 2693 requires that an activity have "the probability to injure" a marine mammal. It seems to me that this change would require a higher burden of proof for a given activity's likelihood of causing harm.

- **Do you feel that this change would make the definition of harassment less protective of marine mammals?**
- **Does the word "probability" have a clear and commonly understood legal definition? What is the distinction from "potential?"**

I agree that this change would require a far higher burden of proof than that which currently exists. The term "potential" is clear and requires no further evaluation of the probability of injury, whereas "probability" is undefined, subjective, and likely to result in confusion among potential permittees. An example of the inherent difficulty with the "probability" would be the issue of ships entering Boston Harbor, transiting a National Marine Sanctuary and habitat for a number of endangered or threatened large whales. Evidence shows that ships entering Boston do occasionally strike and kill whales: the potential for ship strike is clear, and dictates that preventative measures should be mandated to the extent practicable. But the probability of an individual ship striking and injuring a whale varies tremendously, depending on season, ship speed, number of ships entering the harbor on any given day, and other factors. It would be virtually impossible to determine or enforce, resulting in even more confusion among stakeholders.

It is critical to recognize that all of these terms are subjective. At the Subcommittee hearing on July 24, Congressman Abercrombie expressed his view that the insertion of the term "likely" would clarify the proposed definition, as in "likely to injure". Yet "likely" can easily be construed to be the same standard as "probably", creating similar confusion to that noted in the previous paragraph.

- **Would the addition of a modifier that explains the relative probability of an injury (such as 20%, 50%, 90%) be helpful in clarifying the intent of the word "probability?"**

Marine mammal biology and habitat use would make the use of such a calculation impractical in broad legislative terms. For example: a vessel entering the shipping lanes in the Great South Channel (off Rhode Island) in late fall or early spring has a very high "probability" of encountering and possibly striking feeding right whales. However, in most years the probability lessens at other times of the year when right whales either move south to breed or north to feed, although the potential still exists. This scenario is further complicated when variations in the North Atlantic due to weather patterns result in changes in plankton production, which also result in changes in right whale behavior patterns.

It might be more practical to consider incorporating the use of relative probability modifiers in developing regulations to apply to various activities that affect marine mammal behavior.

Threats to Marine Mammals:

1. There seem to be many emerging threats to marine mammals that were not considered 25 years ago, when the original act was written.

- **Do you think it would be helpful for the Marine Mammal Commission to report on the magnitude of emerging and existing threats to marine mammals?**

Yes, such a report could be useful in determining future direction for legislative and regulatory action, and particularly for deciding priorities for appropriations. However, it may be more efficient in terms of time and effort to have the MMC work on this report in consultation with the Scientific Committee of the International Whaling Commission (IWC). Every year the IWC Scientific Committee brings together many of the best marine mammal scientists in the world to discuss research needs, results of previous research, and recommendations for future efforts on the most important issues affecting cetaceans on a global scale. The Committee and its

various subcommittees and working groups address, inter alia, climate change, habitat protection, whale watching, bycatch, and competition with fisheries. The report and recommendations of the Scientific Committee are then taken into account by the 39 member nations of the IWC when making policy decisions.

The current chair of the Scientific Committee is Dr. Douglas DeMaster from NMFS' Seattle lab, and he could certainly provide the MMC with advice on current global trends in cetacean threats and research.

- **Is it practical to believe that we can address all these threats, and if so, what threats should be priorities for action?**

It is not practical for the U.S. to believe that it can address all these threats unilaterally, since most have impacts on migratory marine mammals and require international cooperation. Certainly the most immediate priority for action should be international bycatch, or incidental take, of marine mammals in commercial fishing operations—now recognized as the single largest threat to the survival of many marine mammal populations, and particularly of small whales and dolphins. The most recent estimate of global incidental takes, as reported to the IWC Scientific Committee at its 2003 meeting, is that as many as 750,000 marine mammals are killed annually in fishing operations.

This might include identifying data gaps, coming up with research plans and evaluating the health of marine mammal stocks in the wild as relates to other environmental parameters.

- **Would such an undertaking be within the scope and purview of the MMC?**

As noted above, I would recommend that this effort be undertaken in consultation with the IWC Scientific Committee.

- **Has the MMC ever investigated the growing incidence of ship strikes? Would the MMC support a mandate to convene a panel to recommend steps to reduce ship strikes and report to Congress in 2 years?**

It is my understanding that NMFS has undertaken an internal review of the needed steps as part of the North Atlantic Right Whale Recovery Plan; the draft of that plan has not yet been made public for review. Given that the Right Whale Recovery Team has been discussing this issue and recommended actions for years, I would not recommend convening another panel to produce yet another report. NMFS should be mandated to undertake immediate actions to reduce ships strikes based on the work and recommendations made to date.

- **Should there be a similar directed program on ocean noise that would be mandated under the MMC or another program such as the National Oceanographic Partnership Program?**

The National Research Council has already convened panels and produced reports on ocean noise and its effects on marine mammals. I would recommend that prior to mandating another program, the recommendations within those reports be taken into account.

Captive release prohibition:

H.R. 2693 includes a prohibition on releasing captive marine mammals into the wild.

- **Considering the very limited space available to care for stranded marine mammals, could such a change create a situation where animals are held in captivity permanently regardless of their health and survival?**

This is unlikely. Limited space dictates that animals should be released as soon as practicable, and current law and regulations require that the holder of a marine mammal apply for a permit to keep it indefinitely. The prohibition on release would change none of the requirements.

- **Would this provision affect the NOAA Fisheries' release of the five pilot whales that were stranded on April 18, 2003?**

I am unfamiliar with the circumstances, and do not know if the release prohibition would have affected these animals.

- **Does this provision require a U.S. citizen to apply for a NOAA Fisheries permit to release a marine mammal in other countries' EEZ (would this apply to Keiko's release in Norway?)**

It is my understanding that, as currently written, the phrase "any person subject to the jurisdiction of the United States" would apply to all U.S. citizens regardless of the location of the release. However, the bill should clarify the language to ensure that any such permit requirement is subject to the same jurisdictional and public review requirements that apply to other MMPA permits.

Response to questions submitted for the record by Peter L. Tyack, Biology Department, Woods Hole Oceanographic Institution.

Questions from Chairman Wayne Gilchrest

1. The Marine Mammal Protection Coalition, a group of environmental groups, has proposed adding the word "foraging" to the definition of level B harassment. Is it necessary to include this term when "feeding" is already included? Is this term easily defined for all marine mammals? Which would you describe—feeding or foraging—as more biologically significant in terms of behaviors of marine mammals that should be listed in the definition of harassment?

My dictionary defines "forage" as "a search for food or provisions". "Feed" is defined as "to eat" or more generally "to provide something necessary for the growth, development, or existence of." It can be very difficult to define when a marine mammal is searching for food as opposed to travel for other purposes. By contrast, the act of eating is obvious. Therefore, I believe that the act of feeding is more easily defined for all marine mammals than "foraging."

While searching for food is part of the foraging process, the more critical issue for biological significance seems to me to be did the animal get the food it needed for growth and development. Therefore, while adding "foraging" is a broader and perhaps more protective definition, the "feeding" definition is closer to the intention of focusing on the biologically significant aspects of the activity as opposed to all parts of the process.

2. The Marine Mammal Protection Coalition also includes "communication" in their definition. Can you give an assessment on the inclusion of this behavior? Did the NRC discuss this behavior when determining behavior to be included in the NRC recommended definition?

This question parallels the last one. Communication can play an important role in feeding, in care of young, predator defense, or mating. Most of my own research focuses on communication, and I believe it to be a fascinating and important subject. However, it is not en end in itself from an evolutionary perspective. The NRC committees discussed communication extensively, but I do not remember whether they specifically discussed whether communication in general be included in the list. I think not, because the NRC list is selected by contrast to highlight behavioral categories that are inherently essential for growth, survival, and reproduction.

I hope an example might help highlight the critical issues. When humpback whales are exposed to the sounds of LFA sonar, their songs become longer and more redundant. This may represent a mechanism to compensate for increased noise, much as we speak differently on a walkie talkie than in person. Similarly, shipping noise increases the ambient noise, and whales may compensate by increasing the loudness of their vocalizations, much as we speak more loudly in a cocktail party or on the subway. I think that the critical issue for regulation is not whether the details of the communication signal changed, but rather whether the communicative exchange was disrupted. If the effective range of a mating signal is reduced from 100 mi to 1 mi in the presence of shipping noise, and if this means that males and females cannot get together for mating, that is a serious problem for the population. On the other hand, if animals show statistically significant changes in their signals in the presence of noise, but these changes are what allows animals to compensate for the noise, then this may not automatically qualify as harassment.

3. The NRC definition of harassment did not include "sheltering". Since you were involved with the NRC panel that recommended the proposed definition, can you explain why "sheltering" was not included?

The NRC National Academy of Sciences second report (2000) on Marine Mammals and Low Frequency Sound specifically addressed this question:

> The Committee suggests limiting the definition to functional categories of activity likely to influence survival or reproduction. Thus, the term "sheltering" that is included in the existing definition is both too vague and unmeasurable to be considered with these other functional categories." (p. 69)

4. The NRC definition of harassment did not include "surfacing", which is contained in the Administration's definition. The current MMPA definition contains "breathing". Was there a reason why the NRC did not include either of these behaviors?

Many earlier studies of "harassment" counted blows or timed surfacing of marine mammals, testing for statistical significance of differences in control vs disturbed settings. This is the classic example where studies need to change to focus on biological significance vs statistical significance. Surfacing and breathing were chosen because they were easy to measure, not because the studies could evaluate the func-

tional significance of disruption. Clearly breathing at the surface is a critical behavior. However, any acute effects caused by a disturbance preventing an animal from surfacing to breathe should be viewed in terms of injury or lethal take, not just disruption of behavior. I would have to strain to find an example where disruption of breathing would have a biologically significant behavioral effect with no physiological injury. On the other hand, animals may modify their surfacing behavior to adapt to changing circumstances in ways that may not pose any risk of harm.

5. The Marine Mammal Commission had some concerns with certain words contained in the level B definition of harassment in H.R. 2693, specifically "care of young, predator avoidance, defense" saying that these terms are not very precise and without clarification could lead to implementation difficulties and possibly lawsuits. Why did the NRC recommend these biological activities and can they be defined?

The NRC selected these activities precisely because they identify some of the critical behavioral functions that if disrupted would prevent animals from meeting critical goals. The distinguished panel of biologists on the NRC panel challenged the term "sheltering" precisely because it was "too vague and unmeasurable to be considered with these other functional categories." It can be more difficult to give an operational description of a functional category than a purely descriptive one, but the NRC panel carefully and intentionally made the list a functional one to highlight that this list was closely tied to the concept of biological significance. The House committee will simply have to decide whether they consider an expert panel of outside experts selected by the National Academy of Sciences to be more or less competent than the Marine Mammal Commission in making decisions about scientific precision.

6. The current definition of level B harassment has "nursing" as a listed behavior. However, the NRC recommended "care of young". Why was this change recommended? What other activities fall under "care of young" that may not be covered under "nursing"?

I consider "nursing" to be imprecise and ambiguous. It could be taken to be restricted to suckling the young, or might more broadly be interpreted as providing care to the young in general. The NRC panel chose to be more precise in making the definition a broader more functional one. For example, newborn whales cannot swim as well as the mother. They often position themselves to take advantage of the slipstream of the mother. If a mother's swimming behavior were disrupted and the calf could not keep up with her, then this would be likely more threatening than a brief hiatus of suckling.

7. What are some of the factors Congress should consider when crafting a final harassment definition?

The goal of the definition should be to include any non-lethal effect that might pose adverse impacts to marine mammals, while clarifying the exclusion of minor effects with negligible impact. The definition must also decide and define what level of probability for the effect would trigger regulation. I personally believe that few of the problems identified with the definition will be resolved simply by redefinition. This definition falls under the prohibition on taking whales, a prohibition that is ignored for most takes by most human activities. Problems of cumulative effects of lots of "takes" simply cannot be regulated effectively using a prohibition. Congress should consider other regulatory mechanisms for dealing with this kind of habitat degradation, much as we deal with the effects of small levels of chemical contaminants with humans. We use criminal penalties to deal with poisoning, but regulatory solutions to deal with chronic effects of everyday exposure that might pose long term risks.

8. How do we incorporate the level of current scientific knowledge about how marine mammals may be injured and at the same time protect animals from injuries we have not yet been able to measure?

At its most basic, this is a question about the appropriate balance between being precautionary and practical. It cannot be answered in black and white. If injury is defined as a detrimental physiological change, we can never prove absence of injury. Nor can we prohibit all seagoing activities on the basis of an unknown potential to injure.

However this is an academic question, far removed from the urgent needs of conserving whales today. Right now, we know that some populations such as right whales of the NW Atlantic are threatened with extinction because they are killed by vessel collision. We know exactly how these animals are killed by ships, and we know that this level of mortality is likely to make the difference between survival and extinction of the right whale. At its most basic, we know that keeping lethal ships away from whales can solve the problem, albeit at great cost. Yet NMFS has done nothing to regulate shipping to reduce, much less eliminate the risk.

In terms of effects of noise, we are at the opposite end of this spectrum. Scientists can measure subtle, fully recoverable changes in hearing after noise exposure. We humans have these temporary shifts in our ability to hear (TTS) every time we go on a loud subway or plane, or go to a rock concert. These subtle changes clearly identify levels of sound that could, after repeated exposure, cause more permanent injury. As we humans age, these exposures couple with the natural aging process so that our hearing sensitivity decreases with age. Yet there has been heated debate about whether these painless reversible changes constitute injury itself for marine mammals. This kind of sophistry will not protect real marine mammals in the real world. The NRC report specifically recommends the following de minimis standard for level A acoustic harassment: "any sound that produces a TTS of 10 dB or less in exposure episodes that are separated by non-exposure intervals that are ample to allow full recovery (at least 24 hours) does not constitute a major risk to the auditory system of a marine mammal." (NRC 2000; p 68) This is designed as a highly conservative scientific standard that is safe in the face of most reasonable uncertainty.

9. In the definition of Level B harassment, does it make sense to qualify the activity (i.e. biologically significant activities, including, but not limited to, migration, breeding..) or the effect (biologically significant disruption of behaviors) in Level B harassment? Why or why not?

The NRC qualified both the disruption and the activity: "meaningful disruption of biologically significant activities." I think that the main reason they did not suggest "biologically significant disruption of biologically significant activities" is the copy editing motive of not being so repetitive. If one had to choose either the effect or the activity, I believe that it makes more sense to qualify the effect, especially if the list of activities is chosen to emphasize functional categories selected for their inherent biological significance. If the disruption is biologically significant, then clearly the activity that was disrupted must also be. On the other hand, it is certainly possible to have trivial disruptions of biologically significant activities.

10. Which is the more scientifically used term—"biologically significant activity" or "biologically significant disruption"? Should either of these terms be defined in H.R. 2693?

The phrase "biological significance" has been developed by scientists dealing with environmental issues, similar to the concept of "adverse impact", or "injury" and "disease," in medical science. The main reference book on Marine Mammals and Noise has an entire chapter on "significance of responses and noise impacts." This chapter uses the concept of biological significance for the actual disruption response rather than for the activity. I personally agree with this usage: if one must choose whether to apply "biological significance" to disruption or activity, the best choice is to qualify the effect "biologically significant disruption."

It would be extremely useful for the MMPA to define its usage of "biological significance." In my opinion, the same definition could be applied to both the disruption and the activity.

Questions from The Honorable Frank Pallone, Jr.

Definition of harassment:

1. Over the past year, Congress has been presented with several different options to re-define the definition of harassment. A new definition is being offered in H.R. 2693.

- **Please compare the definition proposed in H.R. 2693 and discuss whether it compares positively or negatively to other proposed definitions.**

The current definition of level B harassment in the MMPA is:

> "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, nursing, breeding, feeding, or sheltering."

The 1994 NRC report on Low Frequency Sound and Marine Mammals succinctly reviewed the problem of how harassment has been interpreted under the MMPA:

> Logically, the term harassment would refer to a human action that causes an adverse effect on the well-being of an individual animal or (potentially) a population of animals. However, "the term "harass" has been interpreted through practice to include any action that results in an observable change in the behavior of a marine mammal "." (Swartz and Hofman, 1991). (p. 27)

The 1994 NRC report goes on to note that many minor and short-term behavioral responses of marine mammals to manmade stimuli are simply part of their normal behavioral repertoire. There is clearly a need for some standard of negligible effect, below which a change in behavior is not considered harassment.

The change in the definition of level B harassment proposed by the Administration and in H.R. 1835 is:

> "disturbs or is likely to disturb a marine mammal or marine mammal stock in the wild by causing disruption of natural behavior patterns, including, but not limited to, migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where such behavioral patterns are abandoned or significantly altered."

As a biologist who has studied the behavior of marine mammals for more than 25 years, I find this wording confusing, and I do not see how it addresses the problem identified by the NRC. The last phrase added to the definition does add a criterion of significant alteration. However the point of the NRC reports was biological significance, a disruption that could have an adverse impact. My dictionary defines significant as "likely to have influence or effect." The addition of the word "significant" in the new definition therefore does not give the same standard as suggested by the NRC. As our techniques to study marine mammals have grown in sophistication and sensitivity, it is now possible to demonstrate statistically significant alerting or orienting responses that in my opinion fall well below the negligible impact standard.

I find the addition of the word "abandoned" particularly confusing in the new definition. It certainly makes sense to add a criterion for abandonment of critical habitat, but what does this wording mean for behavior patterns? A sperm whale or elephant seal can dive for an hour or more, but any marine mammal that abandons surfacing behavior cannot breathe. If it abandons surfacing for more than a few hours, it is certainly dead. If a sperm whale group is sheltering a young calf from a killer whale attack, even a momentary abandonment of the behavior could be lethal. Calves may be able to survive for days or weeks if their mother abandons nursing, and many whales could survive for years without feeding, but what is the time period implied by "abandon." My understanding of "abandon" is that it means a permanent change. By this definition, the "abandonment" wording turns level B harassment into a lethal take. Far from distinguishing negligible from potentially significant effects, it muddies the waters further.

Another problem with the use of the term "abandon" is that I take it to mean "giving up"—a 100% cessation of an activity. Yet since the definition of harassment also applies to stocks, this definition is not conservative enough for actions that may affect a large portion of a stock. For example, suppose an activity caused a 50% reduction in foraging rates in a majority of the population, or caused animals to be 50% as effective in finding a mate for breeding. Such reductions would not "alter" the form of the behavior, nor would they meet an abandonment criterion, but few populations could sustain such changes on a long term basis.

I support the definition of harassment proposed for section 3(18)(A) (i) and (ii) in section 13 of H.R. 2693. The definition in section (ii) closely follows the NRC definition. The primary difference is the replacement of "meaningful" as a modifier for disruption with "biologically significant" and deleting the phrase "biologically significant" from the modifier for the kinds of activities. I believe that this follows closely the meaning of the definition written by the NRC committee.

I am, however, very concerned that the harassment definition proposed for section (iii) retains the problematic old harassment definition for activities directed at marine mammals, including scientific research directed at marine mammals. While there is a process to permit such research, retaining the old definition for activities directed at marine mammals will hold scientific research that enhances the survival or recovery of species or stocks to a stricter standard than activities that harm marine mammals and do not help them. This does not make sense. The only case that in my opinion justifies a lower level of regulation involves takes for scientific research that enhances the survival or recovery of species or stocks. The proposed changes in the definition of harassment for activities directed at marine mammals will perversely have the opposite effect.

NMFS has suggested retaining the old harassment definition for activities directed at marine mammals so that they can more easily prosecute cases against businesses such as those that charge tourists to swim with wild dolphins. I believe that any of the proposed harassment definitions fit very well these cases where people intentionally pursue marine mammals and annoy them with clear disruption of behavioral patterns. It is particularly strange that NMFS suggests retaining the old broad definition, when a senior NMFS enforcement attorney stated to the 2002 Annual Meeting of the Marine Mammal Commission "the potential to disrupt behavioral patterns, at one level, it is a great definition because you go out, you know, we can get whatever we want because it is a very broad definition, but when you get down to the prosecution level, it is too broad."

The real problem with harassment in my opinion is that NMFS has not shown the will to enforce the prohibition against harassment and to prosecute cases against growing industries based upon harassing marine mammals in the wild. It would be a tragedy for scientific research to be excluded from corrections in the definition of harassment as cover for NMFS' unwillingness to enforce the prohibition against harassment. If the definition of harassment causes problems with prosecution against commercial activities directed at marine mammals, which I contest, then the solution should be limited to this narrow situation and should be worded so as not to impact research directed at marine mammals. If the problem for NMFS is prosecuting cases where commercial enterprises are feeding wild marine mammals or taking customers to swim with them, I suggest that the solution is a ban on these activities. Such a ban would serve the interests of protecting the public as well as the animals.

I would like to take this opportunity to reiterate the suggestion of the National Academy of Sciences second report (2000) on Marine Mammals and Low Frequency Sound on the definition of level B harassment:

> "NMFS should promulgate uniform regulations based on their potential for a biologically significant impact on marine mammals. Thus, level B harassment should be redefined as follows:
>
> > Level B—has the potential to disturb a marine mammal or marine mammal stock in the wild by causing meaningful disruption of biologically significant activities, including, but not limited to, migration, breeding, care of young, predator avoidance or defense, and feeding.
>
> The Committee suggests limiting the definition to functional categories of activity likely to influence survival or reproduction. Thus, the term "sheltering" that is included in the existing definition is both too vague and unmeasurable to be considered with these other functional categories." (p. 69)

This definition was written by scientists. Since "meaningful disruption" is not defined, and since "biologically significant" has a more specific meaning to biologists, I have no problem with the minor changes in wording proposed in H.R. 2693 to fit legal and legislative requirements. It would be helpful to define "biological significance" in this amendment of the MMPA.

The definition of harassment must take into account our lack of knowledge about the ways in which behavioral changes may influence marine mammals. For example, prolonged or repeated harassment may lead to physiological changes that do not qualify as injury, but that may indicate the potential for adverse effects. Prolonged changes in behavior that are outside of the normal behavioral repertoire of a species may also trigger concern even if the effect on health is not immediately obvious. But if the definition of harassment is to be changed, the primary focus should be on biological significance in a way that clarifies the need for a negligible impact standard. I do not think that the changes proposed by the Administration, in H.R. 1588 and in H.R. 1835 for the definition of harassment succeed in this task, but I support the definition of harassment in (18)(A)(ii) of section 13 of H.R. 2963, which closely follows that suggested by the National Research Council in any amendments to the MMPA.

2. How will the proposed change to the definition of harassment affect scientific research and/or military readiness activities?

Since the new definition retains the old version for activities directed at marine mammals, I do not think it will improve the situation for marine mammal research. Both military training and other forms of scientific research that may incidentally take marine mammals will have improvements in the definition and in the language for authorizing incidental takes. I believe that the modifications in the authorization language are much more important than the changes in the definition.

• **Are there specific activities that might fall outside this definition?**

The activities that apply for scientific research permits are directed at marine mammals. Therefore the proposed change in the definition of harassment retains the problematic old harassment definition for activities directed at marine mammals, including scientific research directed at marine mammals. While there is a process to permit such research, retaining the old definition for activities directed at marine mammals will hold scientific research that enhances the survival or recovery of species or stocks to a stricter standard than activities that harm marine mammals and do not help them. This is perverse. The only case that in my opinion justifies a lower level of regulation involves takes for scientific research that enhances the survival or recovery of species or stocks. The proposed changes in the definition of harassment for activities directed at marine mammals will have the opposite effect.

If NMFS supports this "directed" language to facilitate prosecution against swim programs with wild marine mammals etc, then I suggest the inclusion of a prohibition on swimming with or feeding wild marine mammals. This is important to protect both wild animals and also humans.

3. The definition for Level A (potential to injure) harassment proposed in H.R. 2693 requires that an activity have "the probability to injure" a marine mammal. It seems to me that this change would require a higher burden of proof for a given activity's likelihood of causing harm.

- **Do you feel that this change would make the definition of harassment less protective of marine mammals?**

One could view the suggested initial phrases in the definitions of level A or B harassment as lying on a continuum of probability:

Potential (>0) more than a remote possibility (>1) significant potential (??) probable, likely (>50%)

The term "potential" has been interpreted as such a vanishingly small probability that I think it is open to abuse. However, this does not mean that one must swing all the way to "probable" or "likely" both of which I take to mean >50% chance of occurring.

- **Does the word "probability" have a clear and commonly understood legal definition? What is the distinction from "potential?"**

I am not a lawyer, so I cannot answer this personally. However, I can offer this advice. The noise issue is very similar to effects of toxic compounds on humans. I suggest that the Committee staff research the case law and legislative language for toxicology to suggest an appropriate language for the intended level of probability.

- **Would the addition of a modifier that explains the relative probability of injury (such as 20%, 50%, 90%) be helpful in clarifying the intent of the word "probability?"**

Absolutely. As a quantitative scientist, I can only look with wonder at all the misunderstandings when words are used to describe numbers. If Congress intends a specific level of probability, the only way to prevent misinterpretation is to state the number.

4. The proposed change to the definition of Level B harassment would require that an activity cause a "biologically significant disruption" of activities including, but not limited to, migration, breeding, care of young, predator avoidance, defense, or feeding. In contrast, the definition proposed earlier by the NRC would require that an activity cause a "disruption to biologically significant" activities.

- **Is this inversion of words important? Why?**

I do not think this is a critical difference. The NRC said "meaningful disruption to biologically significant activities." I think the main reason the NRC did not say "biologically significant disruption to biologically significant activities" was copy editing.

5. It seems to me that it would be easier to define a disruption to a biologically significant activity than it would be to determine what constitutes a biologically significant disruption to that activity.

- **If this is true, would the proposed change in the definition make it less protective of marine mammals?**

The NRC definition qualified both the disruption and the activity. Removing either qualification would make the definition broader and therefore, in principle, more protective. However, the point of the NRC definition was to focus regulation on "takes" that might pose an adverse impact. There are many minor changes in biologically significant activities that would not meet this standard. The main point of NRC was that the conservation goals of the act would be better met if uniform regulation would target takes with the highest risk of adverse impact. Applying the biological significance qualifier to the disruption would achieve this goal better than applying it to the activity.

6. How would the change in the definition of Level B (potential to injure) harassment affect scientific permitting?

Level B involves behavioral harassment not injury, which is level A. If this question refers to potential to injure, then I think that the change from "potential to injure" to "probability to injure" would likely reduce the number of activities requiring a permit. My understanding of "probability to injure" means more than a 50:50 chance of injuring, while "potential to injure" means even a remote chance to injure. On the other hand, I doubt any marine mammal scientist conducting research that might injure a marine mammal would split hairs and not apply for a permit based on the difference between "potential" and "probability." If an animal is injured in the course of the research, the permit would be very important.

If the question refers to behavioral disruption, the change in the definition would have next to no benefit for scientific permitting. All research on marine mammals that is permitted is directed at them. The H.R. 2693 definition retains the problematic definition for directed activities, so retains a higher standard for research directed at protecting marine mammals than activities that incidentally harm them with no benefit. This is perverse.

7. Are there activities, such as 'sheltering' or 'resting', that are missing from the list of "migration, breeding, care of young, etc."? If so, which behaviors are missing and why are they important to explicitly mention in the proposed definition?

Most definitions of harassment have something of a hodge-podge list of activities, which must be why the list is qualified "including, but not limited to." The NRC list was carefully crafted to include all of the major classes of behavior that directly impact survival, growth, and reproduction in mammals. I do not believe that any critical classes are missing from this list.

8. Would this revised definition still allow for the consideration of the cumulative negative impact on an individual or population of marine mammals?

The definition of harassment comes into play regarding the prohibition of taking marine mammals. I cannot see how regulation and enforcement of the prohibition on individual acts of taking is the place to deal with cumulative impacts. NEPA analyses are the well-tested existing method to deal with cumulative impacts. I believe that adding a requirement for all seafaring activities to consult with NMFS to do NEPA analyses would be the best way to address the issue raised by this question.

9. If the consideration of small numbers and geographic area were to be eliminated, how would this affect the ability to determine the potential negative impact for an activity?

The critical issue for negative impact is the well established finding of no significant impact. Whether numbers are small or area is specified, is simply not important except to the extent necessary to make a determination about adverse impact. To the extent this information is used to determine the potential negative impact, it should be required, but it need not be a separate requirement on top of negligible impact.

10. Has NOAA Fisheries or USFWS contemplated regulating truly incidental activities that have little if any direct effect on marine mammals, such as boat wakes?

I am not aware of this. However, NOAA Fisheries clearly regulates scientific research to much higher standards than other activities not designed to benefit marine mammals. The majority of NMFS staff working on MMPA issues, regulate research, even though this has a tiny impact compared to other human activities.

Permitting for Scientific Research

1. Has the permitting process for targeted scientific research on marine mammals and oceanographic research that falls into the incidental take (Level B) category been sufficiently streamlined as a result of the 1994 amendments?

Oceanographic research not on marine mammals is not eligible for scientific research permits. The first NRC report on Low-Frequency Sound and Marine Mammals recommended that research permits be made available to a broader range of oceanographic research.

The 1994 amendments added a streamlined general authorization process for research involving only level B takes to marine mammals that were not endangered. My understanding is that this system works well for this limited category. However, research on endangered species, which is often the most critical for conservation, can be delayed for years. The ironic situation today is the more important the research is for conservation, the more delay in permitting.

- **What additional changes, either legislative or regulatory, are necessary?**

One of the simplest and most helpful changes would require NMFS to issue permits within a fixed deadline of 3-4 months. This is compatible with the normal planning and funding cycle for research. In general, both research and the cause of marine mammal conservation would best be served by uniform standards for regulating all activities, with regulation and enforcement targeting those situations that pose the highest risk of adverse impact.

- **Are there still problems with the permitting process for targeted research on marine mammals that falls into the Level A (probability to injure) category?**

I am not aware of many applications being held up on this ground. Obviously every vessel that maneuvers around marine mammals has a potential to injure, so there might be potential to harass researchers on those grounds. Luckily it has not happened yet.

2. How do overlapping requirements under the Endangered Species Act and NEPA interact with permitting requirements under the MMPA? What could be done to further streamline the process or coordinate timetables when a proposed project involves a threatened or endangered species?

ESA species trigger a section 7 consultation. When I have called about delays in processing my permit, the personnel from the Permit Division who I deal with often state that the permit is delayed in the section 7 office. This office appear impervious to the urgency of impending field seasons. It would help if the MMPA specified a timetable for this section 7 consultation, and required the permit office to notify the applicant when the application was sent to the section 7 division. The applicant should have some way to obtain compensation if either the permit division or the section 7 section did not meet the statutory deadlines. In my experience, NMFS may not decide whether to conduct a NEPA analysis until after receiving comments from the Marine Mammal Commission, which is often a month or so after submission at the earliest. An EA can take several months, and an EIS a year or more. One way to expedite the NEPA paperwork would be to require NMFS to develop background NEPA documentation for all research. Then only completely new techniques would trigger these delays of a year or more.

- **Would moving the NEPA requirement earlier in the permitting process help to expedite the final awarding of a permit? Why or why not?**

Absolutely. Recent court cases have challenged NMFS' usual reliance on a categorical exclusion from NEPA for research permits. This means that Environmental Assessments or Impact Statements will need to be prepared for many if not most research permits. EAs typically take several months to complete, and EIS's often take more than a year. Delays of a year or more will kill most research projects. Therefore NMFS must develop a proactive strategy to meet NEPA requirements for common research methods in advance of permit applications. They need to advise scientists developing new methods of the requirement to prepare new NEPA documentation if the method is not covered under existing paperwork.

- **Would conducting programmatic NEPA reviews in various categories of frequent permit applications be helpful in eliminating individual NEPA requirements on each application?**

Absolutely. I am extremely pleased at Rebecca Lent's testimony to the committee stating that NMFS is planning to conduct programmatic NEPA reviews. Unless Congress finds a way to reverse the higher standards applied to research compared to activities that do not benefit marine mammals, I believe that this is the only way for Congress to protect marine mammal research from the crushing burdens of time and money imposed by Federal regulation. This commitment will require considerable funding from Congress, especially in the first few years as NMFS must prepare the NEPA documents while continuing to process permits.

A more ambitious approach to require uniform standards for regulation might meet the needs of research without requiring this extra bureaucracy. I think that Chairman Pombo was exploring this issue in his questioning at the hearing. Most challenges under MMPA now are procedural, so the very act of requesting a permit or authorization triggers threats that do not exist for activities that violate the MMPA but never ask for permission to "take." If fisheries, commercial shipping, etc were all required to adhere to the same standards as research, I am confident that researchers would quickly find themselves with a workable regulatory process. From my perspective, uniform standards would also better meet the conservation goals of the Act, than the current system of proliferating loopholes. Perhaps the best way to achieve this would be to require each seafaring activity or user group to consult with NMFS to perform a NEPA analysis of the risks of adverse impact.

Section 14- Incidental Taking of Marine Mammals

1. Why does the scientific community seek a general authorization for marine mammal research activities, in both the Level A and Level B category?

The 1994 amendments to the MMPA created a general authorization process for level B harassment involving non-endangered species. I am not aware that the scientific community has requested that this be broadened to include level A harassment. What I have supported is for a streamlined general authorization be made available to any activity that after NEPA analysis has been found to have a negligible impact.

2. Would the language in Sec. 14 (which provides a general authorization for incidental take at the discretion of the Secretary) produce the desired outcome? Do you feel that it opens an unrestricted loophole for a variety of other activities in the ocean that may also cause the incidental taking of a marine mammal, such as off shore oil and gas exploration?

Under the current regime, most of the effort goes into the mechanics of the authorization process, which is so difficult, expensive, and restrictive, that most activities try to avoid it altogether. As long as the new GA is restricted to activities demonstrated to have "negligible impact," I favor a streamlined process. What is missing from section 14 is the necessary requirement for all seagoing activities to consult with NMFS under NEPA to assess the broad impacts of their activities. If this were added to section 14, this would redirect regulatory effort to the area where it would do the most good. Once activities are determined to have negligible impact, in a well-defined NEPA process, why not streamline authorization?

Threats to Marine Mammals:

1. There seem to be many emerging threats to marine mammals that were not considered 25 years ago, when the original act was written.

- **Do you think it would be helpful for the Marine Mammal Commission to report on the magnitude of emerging and existing threats to marine mammals?**

There have been more than a dozen such reports. I do not believe that we need more workshops on the problem. We require focused efforts to suggest new regulatory mechanisms to protect marine mammals from these more diffuse and pervasive threats, which often can better be viewed as forms of habitat degradation rather than acute "takes."

- **Is it practical to believe that we can address these threats, and if so, what threats should be priorities for action?**

This might include identifying data gaps, coming up with research plans and evaluating the health of marine mammal stocks in the wild as relates to other environmental parameters.

Yes. Right now Federal actions stifle research on impacts of human activities on marine mammals, and the worse the problem, the more difficult it is to conduct critical research. Each of the three NRC panels on the effects of noise on marine mammals list the same data gaps, and suggest basically the same research. Now what is needed is a commitment from Congress to correct the regulatory obstacles, and to fund a research program following these suggestions. I strongly urge Congress to request similar NRC panels on the impact of chemical contaminants on marine mammals, and on the impact of fisheries modifying marine ecosystems to the detriment of marine mammals. Once these panels develop research programs, they would likely require similar levels of funding. Prior to crises such as the Steller sea lion or northern right whale, great progress could be made with budgets of several million dollars per year. After this kind of crisis, costs go up and benefits drop rapidly. One important area for Congress lies in the decision of how to organize the research program. I favor an open peer-reviewed process overseen by a review board of groups that fund the science and that are concerned about the policy and regulatory priorities.

- **Would such an undertaking be within the scope and purview of the MMC?**

The MMC is a small commission with primarily an oversight role. Its primary activity is review, writing letters, and issuing a handful of grants at about $10k apiece. It would have to be changed and expanded considerably to take on the role of a science funding agency at a level commensurate with the research needs. I believe that it would be more efficient to identify an existing successful program that selects and funds science research projects at a level of several million dollars annually. It should also involve larger partnerships on the funding side and on the science performer side than is common in marine mammal research today.

- **Has the MMC ever investigated the growing incidence of ship strikes? Would the MMC support a mandate to convene a panel to recommend steps to reduce ship strikes and report to Congress in 2 years?**

Yes the Commission investigated the ship strike issue and David Laist of the Marine Mammal Commission has shown a steadfast involvement in this problem. However, this issue has moved well beyond the government panel of experts stage. NGOs such as the International Fund for Animal Welfare have consulted with the shipping industry in an attempt to find workable solutions. Where Congress could help would be to require relevant agencies to take part in this broader search for solutions. Obvious Federal agencies include NMFS, the Coast Guard, and any agencies involved in establishing or maintaining shipping channels. These channels rep-

resent Federal actions that may direct ships to areas where they may collide with whales. It would be worth inquiring whether shipping channels go under NEPA review, and if not, why not. This is an international problem; Congress could help by supporting international efforts to resolve this issue, with the IMO and other organizations.

- **Should there be a similar directed program on ocean noise that would be mandated under the MMC or another program such as the National Oceanographic Partnership Program?**

The group tasked with running this research program should have demonstrated competence with the relevant administrative resources already in place. It makes little sense to spend money duplicating administrative overhead, especially for an organization without proven abilities to run this kind of research program. As I mentioned above, I do not believe the MMC is set up to run a research program on ocean noise of the scale suggested by the NRC. By contrast, NOPP routinely runs research programs on exactly the scale suggested by NRC. They maintain open peer review of proposals, and have a mechanism to involve partners from academia, government agencies, and industry. The one area where it may need slight modification is the addition for research so directly relating to policy, of an executive oversight board, to ensure that the science is as focused as possible on the critical issues.

Captive release prohibition:

H.R. 2693 includes a prohibition on releasing captive marine mammals into the wild.

- **Considering the very limited space available to care for stranded marine mammals, could such a change create a situation where animals are held in captivity permanently regardless of their health and survival?**

No. H.R. 2693 allows release under sections 104 and 109 of the MMPA. There have been irresponsible releases, and the few that have been demonstrated to have succeeded have involved close follow through from researchers. Release remains an experimental approach, best permitted as a research activity.

- **Would this provision affect NOAA Fisheries' release of the five pilot whales that were stranded on April 18, 2003?**

I do not know

- **Does this provision require a U.S. citizen to apply for a NOAA Fisheries permit to release a marine mammal in other countries' EEZ (would this apply to Keiko's release in Norway)?**

NMFS views research activities in territorial waters of other countries as under the jurisdiction of other countries. However, my understanding of the CBD vs NSF case is that if the vessel came from the U.S. or was funded by US, requirements for permitting may extend to the territorial seas of other countries. This is an area where Federal courts in some districts may disagree with current NMFS policy, so the safe approach would be to apply for the permit.

Response to questions submitted for the record by Randall S. Wells, Conservation Biologist, Chicago Zoological Society, and Director, Center for Marine Mammal and Sea Turtle Research, Mote Marine Laboratory

Questions submitted by The Honorable Wayne Gilchrest

1) Do you think marine mammals immune systems are affected by human activities? If so, which activities would cause such a reaction?

Yes. Research is underway to investigate relationships between human activities and marine mammal immune system function. I am not an immunologist, but several work in collaboration with my long-term bottlenose dolphin research program in Sarasota Bay, Florida. Preliminary findings indicate that declines in dolphin immune system function are correlated with elevated concentrations of some environmental contaminants, such as PCB's and DDT and its metabolites. This finding is consistent with those from studies of effects of these man-made chemicals on terrestrial mammals.

2) Is it possible to determine if a marine mammal is having immunological effects from an activity by observing the animal?

To the best of my knowledge, the identification and measurement of immunological effects requires collection of samples from the animal, especially blood samples. Marine mammals such as dolphins are very adept at hiding health problems until they become severe—an ability that is very useful if you do not wish to appear vulnerable to a potential predator. While at some point in the course of condition development it may become possible to determine from observations that

a marine mammal is ill, the specific root of that illness (immunological vs. some other cause) would likely have to be determined through veterinary examination and sampling.

3) Can you determine such effects by taking a blood or biopsy sample from the animal? How would taking a sample from an already immunologically affected animal impact the animal? Would it cause any additional harm? If so, how can we properly address this issue?

Small blood samples can be used in a variety of tests to evaluate immune system function. The collection of blood from small cetaceans (from a vessel in the tail flukes) is a relatively simple and straight-forward process that should have minimal impact on the animal. The potential impacts from the capture process itself would depend on the species and the animal's condition. Some species, such as bottlenose dolphins, can typically handle such activities with few if any problems, while other dolphin and porpoise species are more highly-strung and do not respond as well to the capture process. As an individual's condition worsens, it should be expected to be less tolerant of any stress that might be associated with capture. Thus, selecting relatively hardy species for evaluation of effects of activities/pollution on immune system function would be a reasonable approach—balancing minimizing risk with the ability to detect indications of immunological effects.

4) You mention reauthorizing funds for the Prescott Marine Mammal Rescue Assistance Grant Program. Have you received grants under this program? If so, have you had any difficulties in receiving the funds? Has the agency been helpful to you in the grant process?

I have not personally received any grants through this program, but in my role as Director of Mote Marine Laboratory's Center for Marine Mammal and Sea Turtle Research, I oversee scientists who have received such grants. They have experienced no problems in receiving the funds, and have found the agency to be helpful in the process. This program has been much-appreciated by the members of the stranding response network that has been established around the country. This is a volunteer network, with most of the resources provided by the members themselves. Stranding response can be a very expensive operation—federal support through the Prescott Program has been most welcome.

5) There are a number of different behavioral terms recommended by the NRC, environmental groups, and the Administration for a revised definition of level B harassment. Here is a list of terms used: "breathing" or "surfacing"; "feeding" or "foraging"; "communication"; "migration"; "breeding"; "nursing" or "care of young"; "predator avoidance" or "defense"; and "sheltering". Can you give us your opinion on what terms are biologically significant and should be used in a revised definition of level B harassment to more appropriately address those activities that cause more than a minor disturbance?

Most of these terms identify significant activities in an animal's life. The relative importance of some of the terms may vary from species to species (for example, a pinniped or otter on a beach is not concerned with surfacing). A swimming and diving marine mammal must breathe, and in order to do this it must surface. Either foraging or feeding can be an inclusive term that summarizes the process of searching for, capturing, handling, and consuming prey—each component is integral to the animal meeting its energetic requirements. Of the two, foraging might be considered the broader term, whereas feeding often is considered in the narrower context of ingesting food. Communication is very important among many of the cetaceans, and can be crucial to coordination of groups. The importance of communication to pinnipeds, sea otters, or manatees, for example, outside of breeding or rearing contexts is less the clear. Some marine mammals migrate, while others do not. For migratory species, successful completion of the migration can be crucial to survival. Some of these species are pushing energetic limits (i.e., they do not feed again until they complete the return migration, or they need to move ahead of temperature changes) such that disruptions to their normal migration may drain resources to the point of compromising the animals. Breeding is absolutely necessary to continue the species. Nursing is one aspect of care of young, reflecting simply the nutritional requirements. Caring for young involves more than simply providing milk for many species. Maternal care includes protecting them from predators and other members of the same species in some cases, and teaching them what it will take to survive as an independent individual. For some species of dolphins, calves will remain in their mothers' care for 3-6 years or more. With regards to activities relative to predators, there are several biologically important components. Predators must first be detected, which can be done acoustically (active or passive) or visually, depending on the habitat and the nature of the predator. The most common marine mammal predators are large sharks, killer whales, or polar bears. If a predator is detected,

most marine mammals' first response is to try to avoid the predator. In some cases, an active defense might be mounted, but this depends on the relative size and numbers of predators and marine mammals, and the nature of the habitat and predator. I have never used the term "sheltering" and therefore can not comment on the original intent of the term, nor its importance for inclusion in the definition.

6) It has been suggested by some scientists that in order to get a better understanding of the hearing ranges of marine mammals rarely seen by man, that a hearing device similar to those used to test the hearing in newborns should be used on stranded marine mammals. What are your thoughts on this? Is this technology currently being used on stranded marine mammals? Has it been successful in gaging the hearing range of stranded animals? Have there been any problems using this technology, either with the animals or getting permits to use the device?

Given the increasing concerns about the effects of anthropogenic sounds on marine mammals, it is crucial that hard data be gathered on the hearing capabilities of the animals, and how these capabilities may have changed as a result of human activities. Stranded individuals provide some of our only access to marine mammals that inhabit deep, offshore waters. It should be stressed that acoustic impacts are not just limited to marine mammals rarely seen by man. More common coastal species, such as bottlenose dolphins, are also subject to much anthropogenic sound, through boat traffic, coastal construction, and industrial activities. While some of the deep-water species may face more acute trauma from sound (such as military sonars or seismic exploration), the more subtle but chronic impacts on coastal species must also be considered. In both cases, data on hearing capabilities are needed, and non-invasive techniques are available to obtain the necessary data. I have been working with colleagues from the University of South Florida to evaluate wild bottlenose dolphin hearing capabilities through measurements of auditory brainstem response (ABR). This is, I believe, the technology to which you are referring. The process involves placing 3 suction-cup-mounted electrodes on the head and body of a dolphin (in our case, the dolphin is resting on a foam pad on our veterinary examination boat), and then playing back a range of sounds through another small suction cup, recording the ABR on an attached computer. The entire process takes about 5-10 minutes, and there have been no adverse effects on the dolphins. I do not know if this technique has been used on stranded marine mammals, but I can think of no reason why it should not. There is no risk to the individual, and there is great potential for gathering information of benefit to entire populations. We encountered no difficulties in modifying our Level A permit to include this procedure for wild bottlenose dolphins.

Questions submitted by The Honorable Frank Pallone, Jr.

Definition of harassment:

1. Over the past year, Congress has been presented with several different options to redefine the definition of harassment. A new definition is being offered in H.R. 2693.

- **Please compare the definition proposed in H.R. 2693 and discuss whether it compares positively or negatively to other proposed definitions.**

In general, I consider the definition proposed under H.R. 2693 to be reasonable, and a significant improvement over the current definition in the Act. It is a simplified, more direct definition that, with slight modifications, should greatly facilitate interpretation and enforcement. I would suggest clarifying (i) by changing it to: "(i) injures or has the potential to injure a marine mammal or marine mammal stock in the wild;" The phrase "has the probability" is essentially meaningless. All actions have a probability for an effect, some low, some high. If an activity has been demonstrated to cause injury to marine mammals, or if such a demonstration is lacking but the activity includes components that clearly could injure a marine mammal, and it is likely (more than 50% probability) that marine mammals will be exposed to this activity, then it should be considered as Level A harassment.

2. How will the proposed change to the definition of harassment affect scientific research and/or military readiness activities?

- **Are there specific activities that might fall outside this definition?**

The effectiveness of the Act is directly related to its inclusivity. As proposed in H.R. 2693, the definition of Level A harassment would seem to provide opportunities for exemptions of some activities that should be of concern, but for which insufficient evidence is available to demonstrate a "probability to injure." Though I am not a legal expert, the proposed definition (with my modifications) should cover most eventualities of concern.

3. The definition for Level A (potential to injure) harassment proposed in H.R. 2693 requires that an activity have "the probability to injure" a marine mammal. It seems to me that this change would require a higher burden of proof for a given activity's likelihood of causing harm.

- **Do you feel that this change would make the definition of harassment less protective of marine mammals?**

Yes, I agree that the proposed wording in H.R. 2693 would be less protective, as it would seem to allow activities that have not yet been demonstrated to cause harm, and for which insufficient data are available to demonstrate a likelihood that harm would occur. The precautionary principle should be applied, providing protection for the animals until such time as sufficient information is available to make an informed decision relative to risks.

- **Does the word "probability" have a clear and commonly understood legal definition? 'What is the distinction from "potential?"**

I am not a legal expert, but it seems to me that the phrase "has the probability" is essentially meaningless. All actions have a probability for an effect, some low, some high. Without a quantitative modifier, the term is no more clear than "potential," which appears to be used in a sense of indicating the existence of a possibility that an impact could occur.

- **Would the addition of a modifier that explains the relative probability of injury (such as 20%, 50%, 90%) be helpful in clarifying the intent of the word "probability?"**

The inclusion of a quantitative modifier would help to clarify the meaning of "probability"—leading to useful distinctions between a possibility (any probability) vs. a likelihood (more than 50% probability). There would need to be further clarifications of how such probabilities should be measured and expressed. For example, how would the probability of injury be calculated for an activity that was very likely to injure a marine mammal if it occurred within 100 meters of an animal, but the activity is unlikely to take place within such close range? What would happen in the case of an activity that had never been used with marine mammals (so no information is available on the likelihood of injury that would allow quantification of a probability), but which will definitely occur in close proximity to marine mammals? Would the percent probability refer to injury to any individual? I would prefer to return to more basic language, such as: "(i) injures or has the potential to injure a marine mammal or marine mammal stock in the wild;" This language is more in accordance with the precautionary principle, and presumably would place the burden on those desiring to conduct an activity to collect the data demonstrating the level of risk, before exposing the animals to the activity.

4. The proposed change to the definition of Level B harassment would require that an activity cause a "biologically significant disruption" of activities including, but not limited to, migration, breeding, care of young, predator avoidance, defense, or feeding. In contrast, the definition proposed earlier by the NRC would require that an activity cause a "disruption to biologically significant" activities.

- **Is this inversion of words important? Why?**

The NRC definition is much more in concordance with the precautionary principle. It appears to presume that any disruption to a biologically significant activity is of concern. This definition is fairly straight-forward for enforcement action in terms of defining harassment as any demonstrable disruption of normal activities. The proposed definition in H.R. 2693 would require clear definitions of what constituted "biologically significant" disruption before enforcement action could be taken. This is a less conservative approach, providing reduced protection for the animals.

5. It seems to me that it would be easier to define a disruption to a biologically significant activity than it would be to determine what constitutes a biologically significant disruption to that activity.

- **If this is true, would the proposed change in the definition make it less protective of marine mammals?**

As I indicated in response to the previous question, I agree. The proposed change in H.R. 2693 would make the Act less protective.

6. How would the change in the definition of Level B (I assume you mean Level A?) (potential to injure) harassment affect scientific permitting?

I do not foresee any major changes to the permitting process for scientific activities with the potential for injury.

7. Are there activities, such as 'sheltering' or 'resting', that are missing from the list of "migration, breeding, care of young, etc."? If so, which behaviors are missing and why are they important to explicitly mention in the proposed definition?

Marine mammals engage in a wide variety of activities, and engage in them in a continuous string that forms their daily lives. It would be very difficult to identify the relative importance of different activities, because the behavioral patterns that we see are the result of millions of years of evolution—each behavioral component is an integral part of the whole of the animals' activity patterns that are required for survival and continuity of the populations. While some activities are easy to identify, others are less conducive to definition. Thus, keeping the list open-ended is important. I would suggest adding several terms, because they can be clearly identified:

Resting—Resting is important to all mammals, to recover from activity. Many marine mammals rest in places where they are exposed to human activities, so protection during this important period may be necessary.

Socializing—Many marine mammals are very social, and periods of intense social activity (not just breeding) are important for the development and strengthening of social bonds and coordination of activities (development and refining of the relationships that are needed to facilitate coordinated feeding, for example, on fish schools). In some species, socializing is a regular component of the daily activity cycle. This period often includes many activities that are very visible, such as leaping and other aerial behavior. These behaviors attract people, and therefore may lead to the need to protect the animals during this activity state.

Communicating—Communication is crucial for all marine mammals, whether it be limited to breeding and calf rearing, or whether it includes complex communication among members of large groups of the more social species. The acoustic mode is the primary communication means in the aquatic environment, and human activities can mask important components of acoustic communication.

Traveling—Many marine mammals move through daily ranges. These daily movements should be considered separately from longer-distance migrations, but they are equally important as they get the animals between different habitats where different activities occur.

Foraging—I would add this to feeding, as it includes the stages of searching for prey, capturing prey, and handling prey, leading up to ingestion—the actual act of feeding.

8. Would this revised definition still allow for the consideration of the cumulative negative impact on an individual or population of marine mammals?

It is not clear to me how the revised definition considers cumulative effects. Explicit consideration of cumulative effects would be an important advance in protection of the animals.

9. If the consideration of small numbers and geographic area were to be eliminated, how would this affect the ability to determine the potential negative impact for an activity?

Most marine mammal stocks are defined at least in part by geographical criteria. It is crucial for stock assessments and evaluation of potential Biological Removals that takes be able to be assigned to specific stocks. It seems that elimination of consideration of geographic area would unnecessarily complicate this process.

10. Has NOAA Fisheries or USFWS contemplated regulating truly incidental activities that have little if any direct effect on marine mammals, such as boat wakes?

I do not feel that I can speak to the contemplations of the agencies.

Permitting for Scientific Research:

1. Has the permitting process for targeted scientific research on marine mammals and oceanographic research that falls into the incidental take (Level B) category been sufficiently streamlined as a result of the 1994 amendments?

- **What additional changes, either legislative or regulatory, are necessary?**

I have not encountered any problems with obtaining scientific research permits/authorizations for Level B activities since 1994. The idea that researchers must put the time and effort into applying for authorization to do what in some cases members of the general public do without any such authorization is sometimes frustrating, especially when the researchers likely are more aware of, and more sensitive to, the needs of the animals than are most members of the public.

- **Are there still problems with the permitting process for targeted research on marine mammals that falls into the Level A (probability to injure) category?**

I have not encountered any problems with obtaining scientific research permits/authorizations for Level A activities since 1994.

2. How do overlapping requirements under the Endangered Species Act and NEPA interact with permitting requirements under the MMPA? What could be done to further streamline the process or coordinate timetables when a proposed project involves a threatened or endangered species?

- **Would moving the NEPA requirement earlier in the permitting process help to expedite the final awarding of a permit? Why or why not?**

I have no first-hand experience with the NEPA process, and therefore do not feel that I can comment meaningfully on this.

- **Would conducting programmatic NEPA reviews in various categories of frequent permit applications be helpful in eliminating individual NEPA requirements on each application?**

This would seem to make sense, but again, I have no first-hand experience with the NEPA process, and therefore do not feel that I can comment meaningfully on this.

Section 14 -- Incidental Taking of Marine Mammals:

1. Why does the scientific community seek a general authorization for marine mammal research activities, in both the Level A and Level B category?

I am not familiar with the specific origin of this effort, but my best guess would be that this is an effort to streamline the process of seeking authorization for generic activities, rather than considering separately a number of requests by individual researchers to conduct similar research. In theory, this would reduce the workload of the agency, and would allow researchers to better predict the probability of implementing a research project on time.

2. Would the language in Sec. 14 (which provides a general authorization for incidental take at the discretion of the Secretary) produce the desired outcome? Do you feel that it opens an unrestricted loophole for a variety of other activities in the ocean that may also cause the incidental taking of a marine mammal, such as off shore oil and gas exploration?

This clause has the potential to meet the presumed need, but it does raise concerns about providing loopholes for a variety of activities that could be authorized at the discretion o the Secretary. The key to the effectiveness of this clause is in how it will be determined that the generic activity "will have a negligible impact on such species or stock." If the initial process of permitting the generic activity is one that follows the lines of permit reviews, with public comment, then this may work. If it is simply at the discretion of the Secretary, then it does not provide appropriate or adequate safeguards for the animals.

Threats to Marine Mammals:

There seem to be many emerging threats to marine mammals that were not considered 25 years ago, when the original act was written.

- **Do you think it would be helpful for the Marine Mammal Commission to report on the magnitude of emerging and existing threats to marine mammals?**

I understand that this is in progress. The Marine Mammal Commission just sponsored a workshop in Portland, Oregon, on future directions in marine mammal research. The workshop was intended to identify threats to the animals and the research needed to address these issues.

- **Is it practical to believe that we can address these threats, and if so, what threats should be priorities for action?**

It is essential to marine mammal conservation that we address these threats. Though many of the threats may appear at this time to be of a scope or nature as to be impractical to address, or incapable of being mitigated, we should not be deterred in our efforts to begin to address them. When the Marine Mammal Protection Act was first implemented, the ideas that commercial whaling could be fully controlled, or fisheries could be managed to reduce marine mammal takes without complete closures likely also seemed impractical. We have made much progress in 30+ years under the Act, and these advances have come through the dedicated efforts of a number of bright, capable, and creative minds. If these same kinds of resources are directed toward the emerging issues, then we will likely find workable solutions.

The threats that should receive immediate attention include:

1. Environmental contaminants—including existing and emerging contaminants of concern to marine mammal health and reproduction (such as persistent organic pollutants, heavy metals, pathogens). Information is needed on the effects of specific contaminants relative to specific concentrations. Parallel efforts are needed to assess the risks to specific stocks of marine mammals, and identifying mitigation measures.

2. Anthropogenic sounds in the environment—including military, scientific, and industrial acoustic activities, industrial noise, shipping noise, boat traffic, and marine construction.
3. Vessel traffic—as it relates to collisions with marine mammals and disturbance.
4. Habitat loss and/or degradation.
5. Recreational fishing activities.
6. Human interactions with wild marine mammals, including feeding and swimming with them.

A parallel effort needs to be undertaken to determine the best method to integrate risks from these emerging threats with consideration of fishery takes through the Potential Biological Removal process, to arrive at more complete and meaningful stock assessments. Work will need to be done to begin to identify cumulative, long-term effects of some of these threats.

This might include identifying data gaps, coming up with research plans and evaluating the health of marine mammal stocks in the wild as relates to other environmental parameters.

- **Would such an undertaking be within the scope and purview of the MMC?**

The Marine Mammal Commission (MMC) is an oversight agency, without the resources or personnel to engage in large-scale research or conservation action. It would seem more reasonable to task NOAA Fisheries and the U.S. Fish and Wildlife Service with these responsibilities, with MMC oversight.

- **Has the MMC ever investigated the growing incidence of ship strikes? Would the MMC support a mandate to convene a panel to recommend steps to reduce ship strikes and report to Congress in 2 years?**

The MMC has a long-standing interest in the ship strike issue and MMC staff members have been involved in scientific publications and other efforts to address this problem, especially as it relates to the endangered Northern Right Whale.

- **Should there be a similar directed program on ocean noise that would be mandated under the MMC or another program such as the National Oceanographic Partnership Program?**

I understand that the MMC is currently funded to hold a series of workshops on ocean noise. The specific topics of the workshops are currently under consideration, but will likely cover a wide range of issues, including the acute trauma to deep-diving marine mammals exposed to military sonar and seismic exploration, as well as the more subtle, but chronic, and perhaps more serious effects of noise on coastal species of marine mammals.

Captive release prohibition:

H.R. 2693 includes a prohibition on releasing captive marine mammals into the wild.

- **Considering the very limited space available to care for stranded marine mammals, could such a change create a situation where animals are he1d in captivity permanently regardless of their health and survival?**

The proposed language allows for release of captive marine mammals under a scientific research permit. In the past, this process has sometimes been followed voluntarily, but in other cases marine mammals have been released without such authorization, with near-tragic consequences. My understanding is that this language has been developed to provide more control over future releases to ensure the welfare of the release candidates and potential host populations, and to increase the probability of obtaining high quality data from releases that can inform future efforts.

My understanding is also that this prohibition does not refer to stranded marine mammals. Determination of the releasability of stranded marine mammals undergoing rehabilitation is based on criteria established in a set of release guidelines prepared by NOAA Fisheries and the U.S. Fish and Wildlife Service. There should not be any impact on rehabilitation facilities. Accepted practice for rehabilitation of marine mammals is to care for them in isolation from captive marine mammals, in order to minimize the potential for transfer of disease. Thus, stranded and captive marine mammals should be maintained in separate pools and enclosures, with separate life support systems, and ideally separate staff caring for them.

- **Would this provision affect NOAA Fisheries' release of the five pilot whales that were stranded on April 18, 2003?**

I do not believe that this provision would have affected the release of the five stranded pilot whales, as they were not considered captives.

- **Does this provision require a U.S. citizen to apply for a NOAA Fisheries permit to release a marine mammal in other countries' EEZ (would this apply to Keiko's release in Norway)?**

I would defer to legal experts for interpretation relative to this question. I would like to see such a requirement in order to provide greater assurance that releases are conducted in the most humane manner, optimizing the potential for gaining information.

Response to questions submitted for the record by Peter F. Worcester, Ph.D., Research Oceanographer, Scripps Institution of Oceanography, University of California, San Diego

Questions submitted by The Honorable Wayne T. Gilchrest, Chairman, Subcommittee on Fisheries Conservation, Wildlife and Oceans

1. There have been comments made that with a revised definition of harassment, which would create a de minimis standard, a general authorization under section 101(a)(5) is not necessary? What are your thoughts on this?

I believe that adoption of a revised definition of harassment that focuses regulatory efforts on the biologically significant disruption of behaviors critical to survival and reproduction, i.e., on adverse impacts rather than simply on any detectable change in behavior, is the single most important change needed in the Marine Mammal Protection Act (MMPA).

Nonetheless, I feel that it would still be very useful to include provision for a general authorization in the MMPA. The problem is that oceanographers and other marine operators routinely use underwater sound for a wide variety of important purposes. Even with a revised definition of harassment, the MMPA would not provide explicit guidance to govern its application to instrumentation that is in widespread and on-going use. Without a general authorization it is conceivable that it might be necessary to prepare Environmental Assessments for a large fraction of oceanographic research cruises, for example, even if the ultimate conclusions were that the activities would not result in harassment under a revised definition. There is also no mechanism under the MMPA for allowing for on-going activities that might have biologically significant effects on only a small fraction of a population, other than through exemptions that must be applied for on a case-by-case basis. It is possible that there are activities that might cause the biologically significant disruption of behaviors critical to survival and reproduction for such a small fraction of the population that these activities would have a negligible impact on the affected species and stocks. It would therefore be helpful to modify the act to provide for the issuance of general authorizations allowing for the use of instrumentation that has the potential for taking by harassment in situations in which the taking will be unintentional and will have a negligible impact on the affected species and stocks.

2. Your research focuses on how sound travels through water at different water temperatures. When a sound is made and it travels through the ocean, does it travel throughout the water column or only through certain portions? Do different sounds travel in similar ways through the ocean? For instance, we hear a lot about sonar in the ocean and there is a perception that the sound as it travels through the ocean is at the same sound level as when it first was emitted from its source. Is this true?

Sound in the ocean initially spreads out in all directions from a source (except for special cases in which the source is specifically designed to transmit in only certain directions). As the sound travels to long ranges in deep water, however, it is affected by the ocean sound channel. In the ocean the lowest sound speed typically occurs at depths of 800 to 1000 m, with faster sound speeds above and below this depth. Sound tends to be focused near the sound speed minimum because sound waves are continually bent, or refracted, towards the depth with the lowest sound speed. Sound that travels upward from a source at the sound speed minimum is bent back towards the minimum. Similarly, sound that travels down from the source is bent back up toward the minimum. The result is that sound can travel long distances, cycling above and below the sound speed minimum without hitting the seafloor or ocean surface. The sound therefore travels throughout the water column. Sound tends to be loudest near the depth of the sound speed minimum for a source located near the minimum, however.

Different sounds spread out from a source in the same way. Sounds of different frequencies are absorbed at very different rates, however. High frequency sounds are absorbed much more rapidly than low frequency sounds. This means that, under

the same conditions, a high frequency sound will not travel as far as a low frequency sound.

The combination of spreading and absorption mean that sound rapidly gets weaker as it travels away from a source in the ocean. This effect is of course familiar from every day experience, in which sounds in air become weaker the further one is from the source. The magnitude of the effect can be surprising, however. For the situation in which sound spreads uniformly in all directions from a source, the sound intensity100 m (328 feet) distant from the source is only 1/10,000 of the sound intensity one meter from the source, for example.

Many of these questions are addressed more fully at a new web site, entitled "Discovery of Sound in the Sea (DOSITS)," which is located at http://omp.gso.uri.edu/dosits/dosits.htm. The web site has a section on the Science of Sound in the Sea, which includes discussions of why sound gets weaker as it moves and of how sound travels long distances in the ocean.

3. You encountered delays in getting your permit issued. Were these delays due to MMPA requirements or National Environmental Policy Act requirements?

The rule-making process required to obtain a Letter of Authorization (LOA) under the MMPA involves the complex interplay of National Environmental Policy Act (NEPA), MMPA, and Endangered Species Act (ESA) requirements. NEPA documents, including the Draft and Final Environmental Impact Statements, are needed at various points in the MMPA rule-making process, for example. A Section 7 consultation under the ESA, involving a Biological Assessment and a Biological Opinion, is needed before the MMPA rule-making process can be completed. It is therefore difficult to assign the delays as due specifically to NEPA, MMPA, or ESA requirements. It would clearly help in any event to have a revised definition of harassment that focuses regulatory efforts on the biologically significant disruption of behaviors critical to survival and reproduction, i.e., on adverse impacts rather than simply on any detectable change in behavior.

4. The bill has language to create a general authorization process for section 101(a)(5), which allows the Secretary to issue authorizations for incidental takings of marine mammals. Some provisions will need to be added to this language to clarify a time limit, reporting, monitoring and require a description of the activity to be authorized. Can you make any recommendations for a time limit, reporting, and monitoring requirements?

My principal concern with the language creating a general authorization process is that I believe it is unrealistic to expect that NOAA Fisheries could issue a general authorization and implementing regulations within 120 days after the enactment of the amendments. The issues involved in the impact of undersea sound on marine mammals are complex, and considerable care and effort will be required to ensure that the activities allowed under the general authorization will have a negligible impact on the species or stock. A one-year deadline for issuing a general authorization and the associated implementing regulations might be more realistic.

It is, of course, essential that the general authorization process be clearly defined. I am afraid that I do not feel that I can provide useful guidance here. It might well be valuable to obtain some input from NOAA Fisheries, as they must deal with the permitting process on a daily basis.

Questions submitted by The Honorable Frank Pallone, Jr.

Definition of harassment

1. Over the past year, Congress has been presented with several different options to re-define the definition of harassment. A new definition is being offered in H.R. 2693.

- **Please compare the definition proposed in H.R. 2693 and discuss whether it compares positively or negatively to other proposed definitions.**

The appropriate definition for Level B harassment has been discussed in three recent National Research Council reports:

National Research Council (NRC). 1994. Low-Frequency Sound and Marine Mammals: Current Knowledge and Research Needs. National Academy Press, Washington, D.C.

National Research Council (NRC). 2000. Marine Mammals and Low-Frequency Sound: Progress Since 1994. National Academy Press, Washington, D.C.

National Research Council (NRC). 2003. Ocean Noise and Marine Mammals. National Academy Press, Washington, D.C.

All three NRC committees are in agreement that it "does not make sense to regulate minor changes in behavior having no adverse impact; rather, regulations must

focus on significant disruption of behaviors critical to survival and reproduction" (NRC, 2000). In my mind the starting point for any discussion of an appropriate definition for Level B harassment is therefore that offered by NRC (2000):

> "Level B has the potential to disturb a marine mammal or marine mammal stock in the wild by causing meaningful disruption of biologically significant activities, including, but not limited to, migration, breeding, care of young, predator avoidance or defense, and feeding."

The definition of Level B harassment contained in H.R. 2693 is:

"(A) The term "harassment" means any act that—

(i) has the probability to injure a marine mammal or marine mammal stock in the wild;

(ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing biologically significant disruption of activities, including, but not limited to, migration, breeding, care of young, predator avoidance, defense, or feeding; or

(iii) is directed toward a specific individual, group, or stock of marine mammals in the wild and is likely to impact the individual, group, or stock of marine mammals by disrupting behavior, including, but not limited to, migration, breeding, care of young, predator avoidance, defense, or feeding.

(B) The term "Level A harassment" means harassment described in subparagraph (A)(i).

(C) The term "Level B harassment" means harassment described in subparagraph (A) (ii) or (iii)."

Subparagraph (A) (ii) is very close to the NRC definition. One difference is that H.R. 2693 replaces the phrase "meaningful disruption" with "biologically significant disruption," making somewhat clearer the sense in which the disruption must be "meaningful." A second difference is that H.R. 2693 replaces the phrase "biologically significant activities" with "activities," presumably because it is implicit that the activities must be biologically significant if the disruption is to be biologically significant. In my view the two definitions are consistent, although the H.R. 2693 definition is perhaps somewhat less ambiguous.

My personal preference for the definition of Level B harassment would be to combine the two definitions:

> "(ii) is likely to disturb a marine mammal or marine mammal stock in the wild by causing biologically significant disruption of biologically important activities, including, but not limited to, migration, breeding, care of young, predator avoidance, defense, or feeding."

The use of the word "biologically" may seem somewhat repetitive, but the result is unambiguous.

Of more concern to me is Subparagraph (A) (iii) in H.R. 2693. The reason for this is that subparagraph (A) (iii) retains the existing standard for harassment for activities "directed toward a specific individual, group, or stock of marine mammals..." The existing standard has been interpreted to mean that any detectable change in behavior constitutes harassment. Ironically, this standard would presumably apply to marine mammal research, which would then be regulated more stringently than other activities, including other oceanographic research. I recommend that Subparagraph (A) (iii) be deleted. If the goal is to regulate activities directed toward specific individuals or groups of marine mammals, such as whale watching and swimming with dolphins, the act should explicitly provide for this, rather than defining harassment in a way that would place marine mammal research, whale watching, and swimming with dolphins in the same category.

2. How will the proposed change to the definition of harassment affect scientific research and/or military readiness activities?

- **Are there specific activities that might fall outside this definition?**

I believe that the revised definition of Level B harassment proposed in H.R. 2693 would facilitate the constructive use of sound in the sea, focus regulatory efforts on activities that have biologically significant impacts on marine mammals, and make it easier to do important oceanographic research, while continuing to protect marine mammals. If Subparagraph (A) (iii) were deleted, it would also make if easier to do the research needed to improve our understanding of the impacts of underwater sound on marine life.

3. The definition for Level A (potential to injure) harassment proposed in H.R. 2693 requires that an activity have "the probability to injure" a marine mammal. It seems to me that this change would require a higher burden of proof for a given activity's likelihood of causing harm.

- **Do you feel that this change would make the definition of harassment less protective of marine mammals?**

- **Does the word "probability" have a clear and commonly understood legal definition? What is the distinction from "potential?"**
- **Would the addition of a modifier that explains the relative probability of injury (such as 20%, 50%, 90%) be helpful in clarifying the intent of the word "probability?"**

Assessing the legal definition of the word "probability" is outside my area of expertise. In common English, I personally feel that "the probability to injure" sets a higher standard than "the potential to injure." I would tend to favor the phrase "the likelihood to injure," as being somewhere in between. I am dubious that it will be possible to make numerical assessments of the relative probability of injury that are scientifically meaningful in the near term.

4. The proposed change to the definition of Level B harassment would require that an activity cause a "biologically significant disruption" of activities including, but not limited to, migration, breeding, care of young, predator avoidance, defense, or feeding. In contrast, the definition proposed earlier by the NRC would require that an activity cause a "disruption to biologically significant" activities.

- **Is this inversion of words important? Why?**

Please see my response to item 1.

5. It seems to me that it would be easier to define a disruption to a biologically significant activity than it would be to determine what constitutes a biologically significant disruption to that activity.

- **If this is true, would the proposed change in the definition make it less protective of marine mammals?**

Please see my response to item 1.

6. How would the change in the definition of Level B (potential to injure) harassment affect scientific permitting?

Please see my response to item 1.

7. Are there activities, such as "sheltering" or "resting", that are missing from the list of "migration, breeding, care of young, etc.?" If so, which behaviors are missing and why are they important to explicitly mention in the proposed definition?

Assessment of the behaviors critical to survival and reproduction is outside the area of my expertise.

8. Would this revised definition still allow for the consideration of the cumulative negative impact on an individual or population of marine mammals?

The revised definition of harassment would not affect the consideration of cumulative impacts, as cumulative impacts are considered as part of the NEPA process.

9. If the consideration of small numbers and geographic area were to be eliminated, how would this affect the ability to determine the potential negative impact for an activity?

Under current law, requests for an incidental taking or harassment authorization must apply to "small numbers" of marine mammals of a species or stock, which the Secretary of Commerce must find will be negligibly impacted by the authorized activity. Similarly, requests for an incidental taking or harassment authorization must be for marine mammals in a "specified geographical region," which the Secretary must find will be negligibly impacted by the authorized activity.

Until now, federal managers essentially have interpreted the requirements for small numbers, specified geographically region, and negligible impact as a single requirement in the authorization process for incidental takes or harassment of marine mammals. However, recent court decisions have called that interpretation into question and if such a change is not made, it is conceivable there would be three distinct and separate tests for determining takes—small numbers and specified geographical region first, and if that test were met, negligible impact from the take. The proposed change would prevent the denial of research permits that might insignificantly harass large numbers of animals or animals in more than one geographic region, while leaving the key "negligible impact" test intact. The goal is to focus our efforts to protect marine mammals on avoiding adverse impacts.

10. Has NOAA Fisheries or USFWS contemplated regulating truly incidental activities that have little if any direct effect on marine mammals, such as boat wakes?

This question should be directed to NOAA Fisheries and USFWS.

Permitting for Scientific Research

1. Has the permitting process for targeted scientific research on marine mammals and oceanographic research that falls into the incidental take

(Level B) category been sufficiently streamlined as a result of the 1994 amendments?

- **What additional changes, either legislative or regulatory, are necessary?**

The permitting process for scientific research on marine mammals was streamlined as a result of the 1994 amendments by the establishment of a Scientific Research Permit procedure for research on or directly benefiting marine mammals. No special provision was made for other oceanographic research, Any other scientific research affecting marine mammals falls under the Incidental Harassment Authorization (IHA) procedure for activities lasting less than one year or the lengthy rulemaking procedure leading to a Letter of Authorization (LOA) for longer term activities, such as those needed for monitoring climate change. These procedures are time consuming and burdensome at best.

The complex and lengthy permitting process under the MMPA has become a major impediment to conducting both the research needed to understand better the effect of human-generated sound on marine mammals and other oceanographic research. This problem has been exacerbated in recent months by legal decisions that could require extensive analyses under the National Environmental Policy Act (NEPA) for any research that may affect marine mammals, even in situations where there is widespread agreement among federal managers and scientists that the research activity has no potential to cause harm. In addition, the situation is placing new burdens on the already stretched resources of the National Marine Fisheries Service. The ocean science community is urgently in need of a timely and predictable permitting or authorization process that is not unnecessarily burdensome and provides them with assurances that research will proceed in compliance with all applicable laws, when the permit is issued.

- **Are there still problems with the permitting process for targeted research on marine mammals that falls into the Level A (probability to injure) category?**

This question is outside the area of my expertise.

2. How do overlapping requirements under the Endangered Species Act and NEPA interact with permitting requirement under the MMPA? What could be done to further streamline the process or coordinate timetables when a proposed project involves a threatened or endangered species?

- **Would moving the NEPA requirement earlier in the permitting process help to expedite the final awarding of a permit? Why or why not?**
- **Would conducting programmatic NEPA reviews in various categories of frequent permit applications be helpful in eliminating individual NEPA requirements on each application?**

The various permitting processes under the MMPA involve the complex interplay of NEPA, MMPA, and ESA requirements. NEPA documents are needed at various points in the MMPA permitting process, for example. For activities that might affect endangered species, a Section 7 consultation under the ESA, involving a Biological Assessment and a Biological Opinion, is often needed before the MMPA permitting process can be completed. It is difficult to assign delays in the permitting process as due specifically to NEPA, MMPA, or ESA requirements when they are so interrelated. I am therefore dubious that somehow moving the NEPA requirements earlier in the permitting process would help expedite the final awarding of a permit under the MMPA. Conducting programmatic NEPA reviews in various categories of frequent permit applications might well be helpful if doing so eliminated individual NEPA requirements on each application.

Section 14 -- Incidental Taking of Marine Mammals:

1. Why does the scientific community seek a general authorization for marine mammal research activities, in both the Level A and Level B category?

I believe that adoption of a revised definition of Level B harassment that focuses regulatory efforts on the biologically significant disruption of behaviors critical to survival and reproduction, i.e., on adverse impacts rather than simply on any detectable change in behavior, is the single most important change needed in the MMPA.

Nonetheless, I feel that it would still be very useful to include provision for a general authorization in the MMPA. The problem is that oceanographers and other marine operators routinely use underwater sound for a wide variety of important purposes. Even with a revised definition of harassment, the MMPA would not provide explicit guidance to govern its application to instrumentation that is in widespread and on-going use. Without a general authorization it is conceivable that it might be necessary to prepare Environmental Assessments for a large fraction of

oceanographic research cruises, for example, even if the ultimate conclusions were that the activities would not result in harassment under a revised definition. There is also no mechanism under the MMPA for allowing for on-going activities that might have biologically significant effects on only a small fraction of a population, other than through exemptions that must be applied for on a case-by-case basis. It is possible that there are activities that might cause the biologically significant disruption of behaviors critical to survival and reproduction for such a small fraction of the population that these activities would have a negligible impact on the affected species and stocks. It would therefore be helpful to modify the act to provide for the issuance of general authorizations allowing for the use of instrumentation that has the potential for taking by harassment in situations in which the taking will be unintentional and will have a negligible impact on the affected species and stocks.

2. Would the language in Sec. 14 (which provides a general authorization for incidental take at the discretion of the Secretary) produce the desired outcome? Do you feel that it opens an unrestricted loophole for a variety of other activities in the ocean that may also cause the incidental taking of a marine mammal, such as off shore oil and gas exploration?

As noted above, I believe that a general authorization such as that specified in Section 14 of H.R. 2693 would be very helpful to the scientific community. I feel that it is unrealistic to expect that NOAA Fisheries could issue a general authorization and implementing regulations within 120 days after the enactment of the amendments, however. The issues involved in the impact of undersea sound on marine mammals are complex, and considerable care and effort will be required to ensure that the activities allowed under the general authorization will have a negligible impact on the species or stock. A one-year deadline for issuing a general authorization and the associated implementing regulations might be more realistic.

Threats to Marine Mammals:

1. There seem to be many emerging threats to marine mammals that were not considered 25 years ago, when the original act was written.

- **Do you think it would be helpful for the Marine Mammal Commission to report on the magnitude of emerging and existing threats to marine mammals?**
- **Is it practical to believe that we can address these threats, and if so, what threats should be priorities for action?**

This might include identifying data gaps, coming up with research plans and evaluating the health of marine mammal stocks in the wild as relates to other environmental parameters.

- **Would such an undertaking be within the scope and purview of the MMC?**
- **Has the MMC ever investigated the growing incidence of ship strikes? Would the MMC support a mandate to convene a panel to recommend steps to reduce ship strikes and report to Congress in 2 years?**

These questions should be directed to the MMC.

- **Should there be a similar directed program on ocean noise that would be mandated under the MMC or another program such as the National Oceanographic Partnership Program?**

Our understanding of the effects of underwater sound on marine mammals is discussed in the three recent NRC reports referenced above. In its reports, the NRC makes it clear that the current understanding of the effects of sound in the ocean on the behavior and health of marine mammal needs to be improved. Different sound frequencies and intensities have different effects on various species, and those effects change with location in the water column and characteristics of the sea floor. It is clear that increasing our scientific understanding would clarify and narrow the need to obtain permits and authorizations under the MMPA, as well as making it easier for researchers to include effective mitigation measures in their experimental plans. A robust marine mammal research program is absolutely essential to protecting marine mammals.

Funding and scientific leadership in this area to date has come from the United States Navy. Over the years, the Navy has supported the efforts of pioneers like Sam Ridgway and Ken Norris to expand the boundaries of our knowledge about these unique animals. Today, the Office of Naval Research maintains a substantial research program on underwater sound and marine mammals.

I believe that an enhanced research program on the effects of underwater sound on marine mammals is needed. It is important that this program be independent and peer-reviewed. It should be broadly based, with participation from funding agencies in addition to the Office of Naval Research, including the National Science Foundation, the National Oceanic and Atmospheric Administration (NOAA), and the

Minerals Management Service. Support from private industry and non-governmental organizations for research managed in such a manner should be encouraged. The National Oceanographic Partnership Program offers a potential mechanism to bring these entities together in a process that provides both the needed coordination and scientific independence.

Captive release prohibition:

H.R. 2693 includes a prohibition on releasing captive marine mammals into the wild.

- **Considering the very limited space available to care for stranded marine mammals, could such a change create a situation where animals are held in captivity permanently regardless of their health and survival?**
- **Would this provision affect NOAA Fisheries' release of the five pilot whales that were stranded on April 18, 2003?**
- **Does this provision require a U.S. citizen to apply for a NOAA Fisheries permit to release a marine mammal in other countries' EEZ (would this apply to Keiko's release in Norway)?**

The issues raised by the prohibition on releasing captive marine mammals contained in H.R. 2693 are outside the area of my expertise.

Response to questions submitted for the record by the Marine Mammal Commission

Questions from Chairman Wayne Gilchrest

1. You mention in your testimony how you met with federal agencies and affected interests and from these meetings developed a good understanding of potential environmental threats that might be caused by sound in the oceans. Can you go into more detail on what these threats are?

Response: Potential threats to marine mammals caused by anthropogenic sound in the marine environment can be categorized as direct or indirect. Direct threats include the following:

- Disruption of normal behavior—Such disruptions may be brief in duration or may extend over long periods, thereby having more significant consequences. If animals are disturbed once or twice at a single site, they may leave the area temporarily. If they are disturbed repeatedly, they may abandon the area permanently. For example, if pinnipeds are disturbed during the reproductive season, they may abandon primary pupping habitat. In such cases, disturbance could reduce their reproductive success. Similarly, marine mammals may abandon primary feeding habitat or change migratory routes, with multiple consequences to their health and condition and, ultimately, to their ability to survive and reproduce. We have limited ability to predict the nature and severity of an animal's response to a particular stimulus because it is a function not only of the perturbing activity, but also of the animal's perception of the threat posed by that activity.
- Masking—Marine mammals use sounds for a variety of purposes (e.g., communication, prey detection, navigation). Their ability to do so depends on their ability to distinguish useful sounds from background or ambient levels of noise. If anthropogenic sound levels increase to the point that marine mammals are no longer able to make those distinctions, then masking occurs, which may have a variety of significant consequences.
- Physiological stress and injury—If sound levels are sufficiently intense, they may result in significant physiological responses and injury. Such effects may result in stress and may lead to more severe consequences if, for example, distressed animals beach themselves. Temporary and permanent hearing threshold shifts are examples of such stress and injury.
- Death—Postmortem examinations of marine mammals that have died from stranding on beaches—for example episodes involving beaked whales in the Bahamas and Canary Islands—have revealed trauma to the ears of some individual animals. Although it is not yet possible to understand fully the sequence of events that led to their deaths, some of these strandings have occurred following exposure to certain types of anthropogenic sounds introduced into the marine environment.

Detrimental indirect effects may occur when anthropogenic sounds adversely affect elements of marine ecosystems (e.g., prey) upon which marine mammals are ecologically dependent. Scientists are just beginning to study the potential effects

of sound on other marine vertebrates and invertebrates, and it is premature to characterize the risks to them.

2. How soon will you determine whether or not you will need to charter the group holding the meetings as a federal advisory committee?

Response: The Commission has worked with the U.S. Institute for Environmental Conflict Resolution to procure facilitation services from Suzanne Orenstein, Lee Langstaff, and Linda Manning. The team will be assessing the situation by interviewing people who represent diverse interests on the effects of sound in the ocean on marine mammals. The purpose of the assessment is to determine the likelihood of a successful policy dialogue and the format that such a dialogue should take, assuming we pursue one. The consultants completed their assessment in December and the Commission has chartered the advisory committee. The Commission will continue to provide Congress with periodic updates on the progress being made on the project.

3. What interest groups will you have participating in these workshops or as a member of the advisory committee? Will there be an equitable distribution of affected constituencies?

Response: The Commission is keenly aware of the diverse interests among many stakeholders in this process. We have discussed the project with more than 80 representatives of various groups. To foster early acceptance of the process, the Commission and the Institute invited representatives of the oil and gas seismic industry, academic/research institutions, environmental groups, and federal agencies (Navy operations and research, the Minerals Management Service, the Fish and Wildlife Service, and the National Marine Fisheries Service) to advise us on the selection of facilitators. Six people not associated with the Commission participated in the interviews and advised the Commission and Institute about potential facilitators.

The Commission has balanced representation on the advisory committee, as required by the Federal Advisory Committee Act. Representatives of the following interests are participating:

- oceanographic research institutions,
- various sectors of the oil and gas industry,
- shipping industry,
- environmental organizations, and
- federal agencies including the National Marine Fisheries Service, the Minerals Management Service, the Navy, the Fish and Wildlife Service, and the National Science Foundation.

4. It was reported at the hearing that Canada has altered its shipping traffic into the Bay of Fundy and incorporated speed reductions in certain areas to help reduce ship strikes of right whales. It was mentioned that this was done using the International Maritime Organization (IMO) process. Are you familiar with the actions taken by Canada? Did they institute these action using national legislation or was is done solely through the IMO? Could the U.S. take similar actions? Would it require legislation?

Response: The U.S. Coast Guard serves as the lead agency representing the United States at meetings of the IMO and would be the most appropriate agency to answer this question. However, the Commission is familiar with the Canadian action to shift the designated shipping lanes and the process used to do so.

Action to reconfigure or move a designated shipping lane within the jurisdictional area of a nation is done under domestic laws and regulations. Canada, like the United States, is a member of the IMO and is obligated to ensure that any actions affecting international vessel traffic are consistent with regulatory standards and provisions agreed to by the IMO. In this case, the Canadian Coast Guard proposed to shift an established shipping lane in the Bay of Fundy eastward so as to reduce its overlap with known right whale feeding areas. The proposal (and the action subsequently implemented), however, did not incorporate any speed restrictions. If that was suggested during the hearing, it was done so in error. Once the proposed action was agreed to domestically, the Canadian Coast Guard, which represents Canada at meetings of the IMO, presented it to the IMO to ensure consistency with the international measures agreed to by IMO members. Canada's proposal was subsequently reviewed by at least two IMO committees—the Marine Environment Protection Committee and the Marine Safety Committee—both of which approved the action. The U.S. Coast Guard expressed support for the action at meetings of both committees when the matter was considered. With IMO's approval, the Canadian Coast Guard then implemented the measure under its domestic authority and regulations.

The U.S. Coast Guard has similar authority to designate and change shipping lanes under U.S. law (the Ports and Waterways Safety Act), and we do not believe that additional legislation would be needed to take an action similar that which

Canada took. It is somewhat less clear whether such an action could be taken under U.S. law in areas outside of territorial waters but within the U.S. Exclusive Economic Zone for the purpose of protecting right whales in high-use feeding habitats or whether moving shipping lanes would be an appropriate action. For example, in the Great South Channel off Massachusetts and Rhode Island, shipping lanes cross a designated right whale critical habitat. Shifting those lanes to avoid the critical habitat would expose ships to shoals that would pose a navigational safety problem and is not practical. Additional legislation may be needed to provide authority for establishing mandatory routing and speed measures, which were not part of Canada's action. The National Marine Fisheries Service has, for several years, been studying whether to address ship strikes of large whales by regulating vessels speeds but to date has not proposed a regulatory program to do so.

Because of the uncertainty concerning what actions can be taken under existing law, the Commission is currently supporting an analysis by independent legal experts of U.S. and international authorities regarding such measures. We expect the analysis to be completed soon and will provide a copy to you when it is available.

5. How do you suggest that we protect, to the greatest extent possible, marine mammals from injury in Level A harassment within a statutory and regulatory framework?

Response: The current definition of Level A harassment includes activities that have the potential to injure a marine mammal or marine mammal stock in the wild. The agencies charged with implementing the MMPA believe that this definition is too broad and would include activities with any potential to injure a marine mammal, no matter how remote. Therefore, in crafting the Administration's proposed definition, we sought to exclude potential injuries that are highly unlikely to occur. This was done by requiring that there be a "significant potential" for injury. The definition originally proposed in H.R. 2693 would have established a higher standard by requiring that there be a "probability" of injury. As reflected in the Commission's testimony, we are concerned that this would be interpreted as meaning that injury would be more likely than not to occur. As we indicated at the 24 July hearing, this is not a protective enough standard. We are pleased that the Committee adopted a more inclusive term at mark-up, but continue to believe that defining Level A harassment as "any act that has [any] potential to injure a marine mammal..." is overly broad.

In crafting the definition that ultimately is adopted, Congress should be mindful not only of the definition itself, but how it fits within the overall framework of the Act. That is, the definition acts as the initial filter for identifying those activities that merit greater scrutiny. We believe that when an activity poses more than a remote threat of injury (i.e., that there is a significant potential for injury), either to individual animals or to marine mammal populations, review by the responsible resource agencies during an authorization process is warranted. This does not mean that the activity cannot go forward. It merely means that agency examination and authorization are needed. If, for example, an activity has a significant potential of causing incidental injuries, the agency would need to determine that, should such an injury occur, it would have a negligible impact on the stock. The agency would also consider whether mitigation measures could reasonably be taken to reduce the frequency or magnitude of any such injuries.

6. What are some of the factors Congress should consider when crafting a final harassment definition?

Response: A good and usable definition should meet several objectives. First and foremost, it should provide sufficient clarity such that the regulatory agencies, those whose actions might harass marine mammals, and the general public have a common understanding of what activities would or would not constitute harassment. There should be clear guidance as to when an authorization for taking marine mammals is needed and when enforcement actions are warranted.

An appropriate definition also needs to be sufficiently protective of marine mammals. That is, it should be broad enough to include all actions that can be expected to adversely affect marine mammals or marine mammal populations. At the same time, the definition should not be so broad that it places undue burdens on the regulatory agencies and the public. It makes no sense to expend agency resources and to require someone to obtain an authorization when the expected impact on marine mammals is truly de minimis.

The definition should also provide a mechanism for considering the cumulative impacts of activities that may individually have only minor impacts on marine mammals but that collectively could have significant effects on those animals and on marine mammal populations. For example, a flight response of a marine mammal to a passing vessel may be relatively benign, but if it happens frequently in response to repeated exposures, or in conjunction with other types of disturbance,

it could significantly alter the animal's behavior in ways that could affect its health or survival or that could lead to population-level effects, such as changes in distribution patterns.

Another consideration in crafting a harassment definition is its adaptability to a variety of situations. It needs to recognize the diversity among marine mammals. For example, the response of a manatee to a particular stimulus may be quite different than that of a baleen whale, which might vary considerably from the response of a pinniped, polar bear, or sea otter. There should also be a recognition that a marine mammal's response, and the importance of that response, may vary depending on a variety of factors, including age, seasonal behavioral patterns, or the activity in which the animal is engaged.

7. How do we incorporate the level of current scientific knowledge about how marine mammals may be injured and at the same time protect animals from injuries we have not yet been able to measure?

Response: Marine mammals may be injured by a variety of human activities including, among other things, boat or ship strikes, entanglement with actively fishing gear as well as fishing and other debris, illegal shooting, exposures to intolerable levels and types of anthropogenic sounds, and injuries that occur when pinnipeds are disturbed on land and injure themselves in their efforts to escape to the sea. Because it is difficult to examine injured animals at sea, the full nature and extent of such injuries and their eventual consequences are difficult to evaluate. Injuries from shooting, entanglement, and propeller strikes may be less difficult to detect because they result in consequences that can be observed visually. Blunt-force injuries or those that occur as a result of sound may be less easily detectable because they are internal. If injuries result in decreased survival or reproduction, then they are significant not only for the affected animal but also may have significant population-level effects. Although research has been conducted to understand the effects of injury on individuals and populations, we are still considerably limited in our ability to fully and reliably characterize the significance of such injuries.

8. How should scientific research activities with potential impacts on marine mammals be treated by the permit process in statute if the activity is designed to test the level of harassment that the activity causes in certain marine mammal species?

Response: The Commission believes that well-designed research into the effects of various activities on marine mammals can provide valuable information that would be useful for implementing the provisions of the MMPA. For example, rather than relying on extrapolations from tests using sound levels well below those that would be used in operating the LFA SURTASS sonar to predict the likely effects on marine mammals, the Commission encouraged the Navy to conduct additional research to test the reactions of marine mammals to the louder source. We also encouraged the Navy to conduct additional experiments to test the effectiveness of other sonars in locating marine mammals for use as a possible mitigation measure. A permit was issued by the National Marine Fisheries Service to authorize this additional research but was later enjoined because of problems with compliance with the National Environmental Policy Act in issuing the permit.

The Commission believes that additional research into the potential effects of various human activities on marine mammals is needed and will help us make the determinations required under the MMPA. Currently there is no impediment under the Act to authorizing such research provided that it is bona fide and, if lethal taking is involved, it meets the other requirements of section 104(c)(3). The Commission recommends that the availability of such authorizations remain unchanged.

9. What is the difference between "probability" and "potential" in describing the level of concern that would generate a need for an incidental take permit under Level A harassment (injury) for a particular activity?

- **Does the word "probability" have a clear and commonly understood legal definition? What is the distinction from "potential"?**

Response: The word "probability" has a common dictionary definition as something that is probable—i.e., it is more likely than not to occur. The word also has a meaning in a statistical sense to mean the likelihood with which something will happen, e.g., there is a 30 percent chance that it will rain tomorrow. Absent some indication that we intend it to mean a lower likelihood in the particular instance, however, it is generally interpreted to mean more than a 50 percent likelihood.

"Potential," on the other hand, is a much more inclusive term. It is generally defined to mean something that is capable of happening, even something with a very low probability of occurrence.

As reflected in our testimony at the July 24 hearing, the Commission believes that the probability standard used in the definition of Level A harassment establishes too high a threshold for defining what constitutes taking by injury. In this

regard, the common understanding of the term probability, absent any modifier (e.g., a 10 percent probability [1]), is that something is more likely than not to happen. When addressing possible injuries to marine mammals and marine mammal populations, this is not a very protective standard.

10. How should the broader impacts or potential impacts of sound (for example ship propellers), that may disturb or disrupt natural behaviors of marine mammals, be treated in statute?

Response: We are just beginning to understand the potential impacts of anthropogenic sound in the marine environment. If we are to ensure that marine mammals are protected, we must recognize the uncertainties associated with such potential effects, carry out research to resolve those uncertainties, and manage cautiously to minimize the risk to marine mammals while avoiding undue constraints on activities (e.g., shipping) that are deemed essential to national needs for security, energy, food, and commerce. The effects of human activities must be evaluated in the context of all factors that may threaten marine mammals (e.g., contaminants, diseases, direct and indirect fisheries interactions, coastal development, and habitat loss). Such effects may be evident only when viewed over the long term. The single occurrence of a ship passing an important marine mammal foraging area may have no significant effect on those animals. The establishment of a shipping lane through that same area may have significant effects if animals eventually abandon the site due to repeated disturbance. Therefore, we believe that statutes should recognize the potential for long-term, cumulative effects of such sounds, provide for essential research into those effects, and provide a cautious management approach that recognizes the uncertainties.

11. How should the range of currently non-permitted activities that are directed at marine mammals (i.e., whale watching, swim with dolphin programs, or jet ski harassment) be treated by the statutory or regulatory process?

Response: The Commission believes that such activities, if they disturb marine mammals, should be prohibited unless specifically authorized. In this regard, we believe that the current definition of harassment is sufficiently broad to encompass most of the activities of concern. Nevertheless, enforcement of the definition as it applies to such activities would likely be improved if were more explicit that actions directed at marine mammals in the wild that are likely to disturb the animals constitutes harassment. Although the Commission has recommended that the National Marine Fisheries Service promulgate regulations to establish objective criteria for determining when a taking by harassment has occurred as one way to address interaction problems at specific sites where problems are particularly acute (e.g., the dolphin resting bays in Hawaii), a statutory change in the definition would provide a clearer and more comprehensive solution.

The Commission continues to be concerned that activities that disturb marine mammals, if not checked, have the significant potential to alter marine mammal behavior in detrimental ways and, if persistent, can cause marine mammals to abandon important areas used for feeding, resting, or other essential activities. The Commission therefore recommends that, whatever definition of harassment is ultimately adopted, it be sufficiently broad to provide an effective mechanism for addressing sources of disturbance targeted at marine mammals. As reflected in the Administration's proposed definition of Level B harassment, we believe that, for these generally avoidable sources of disturbance, enforcement actions should be based simply on the fact that the animals were disturbed without requiring an additional showing that the disturbance somehow adversely had significant impacts—e.g., that it adversely affected the survival or reproduction of the marine mammal or marine mammal stock.

12. In the definition of Level B harassment, does it make sense to qualify the activity (i.e. migration, breeding) or the effect (biologically significant disruption of behaviors) in Level B harassment? Why or why not?

Response: What we should be striving for is the inclusion in the definition of those responses and effects that have some biological significance either at the individual or the population level. There nevertheless needs to be a recognition that predicting what activities will result in biologically significant effects, or even in determining whether a particular response is biologically significant, may be difficult. Making such determinations when marine mammals are exposed to multiple activities that may not individually result in biologically significant disruption, but which cumula-

[1] This value is used for illustrative purposes only. The Commission recommends against including any such value, because it goes beyond the level of resolution that available science and data can provide. For further discussion, see our response to question 3 from Congressman Pallone.

tively exceed that threshold, is likely to be even more difficult. Whatever definition is adopted, it needs to be broad enough to include such situations.

Although less ideal in the theoretical sense, a definition based on the disruption of biologically significant activities would likely be easier to implement. That is, once these important activities are identified, the only determination to make is whether such an activity were being disrupted—there would be no value judgment to make as to whether or not the disruption were biologically significant. Because of this, however, the definition in some cases would likely be overly broad by including de minimis disruption of important behaviors.

13. Which is the more scientifically used term—"biologically significant activity" or "biologically significant disruption"? Should either of these terms be defined in H.R.2693?

Response: Neither of these phrases are generally used scientific terms of art. As a result, there will still be a need for additional interpretation, be it in statutory language, regulatory definition, or case-by-case implementation. We believe that under most of the definitions that have been proposed there is a fair amount of latitude in how they might be interpreted. That is, there is no unanimity as to what would constitute a biologically significant disruption of a particular activity or behavior, or even as to what activities should be considered to be biologically significant. Thus, we believe that, whatever definition is ultimately adopted, additional guidance concerning its implementation and interpretation would be useful. This could be provided either through additional statutory definitions or through more detailed guidance in the committee reports and other legislative history of the provision.

14. Is it possible to define "harassment" and still provide the agency flexibility to modify its regulations to respond to new scientific information?

Response: Virtually all of the definitions being debated provide some such flexibility. Under the Administration's proposed definition, harassment would include those activities with a significant potential to injure a marine mammal or marine mammal stock or that is likely to disturb a marine mammal or marine mammal stock by causing disruption of natural behavior patterns to a point where those patterns are significantly altered or abandoned. The interpretation of what activities would fit under this definition is subject to change as new information is gathered. For example, as we obtained additional information to refine our understanding of the intensities and types of sounds that pose threats to various taxa of marine mammals, the definition would adapt accordingly. Similarly, the regulatory agencies would likely alter the way they implement the definition of Level B harassment as more is learned about the specific types of activities that are likely to cause significant disruption or how various activities would cumulatively affect marine mammal behavioral patterns.

Latitude would also be provided under the other proposed definitions as we gained additional insights into the types of disruptions that would have significant effects, which behaviors or activities are significant to marine mammal survival and well-being, or what constitutes a meaningful disruption of a biologically significant activity.

15. Which would you describe—"feeding" or "foraging"—as more biologically significant in terms of behaviors of marine mammals that need protection through the incidental take permitting process?

Response: The terms "feeding" and "foraging" are closely related and in some cases are used interchangeably. However, we suggest that "foraging" is the broader term and includes not only the act of "feeding" but associated activities such as transiting to and from sites where prey may be found, carrying out of various behaviors related to searching for prey (e.g., dive patterns), and an overall "foraging" strategy such as focusing on benthic- or bottom-associated prey (as do elephant seals), surface skimming to collect zooplankton (as do large baleen whales), and so on.

The intent of all these behaviors is to achieve the same goal: the securing of sufficient energy and nutrition to maintain health and promote survival and reproduction. Foraging success may be significantly altered not only when feeding is disrupted, but also when associated activities (e.g., transiting to and from feeding sites) are affected. Because scientists are not yet able to determine the relative significance of each element of a foraging strategy, it is difficult to say with confidence how much or what kinds of disturbance may be tolerated. For that reason, protection of "foraging-related behaviors" rather than simply "feeding" appears to provide greater assurance that human activities will not cause disruption of biologically significant behavior. At the same time, identifying and understanding all behaviors associated with foraging is a more difficult task than identification of the act of feeding.

16. The Administration's definition uses the term "surfacing" instead of "breathing," which is in the current definition of harassment. Why was this change made?

Response: Although some have equated these terms, they in fact are not equivalent. One of the key reasons that marine mammals surface is to breathe, but they may surface for a variety of other important reasons. The wording change proposed in the Administration bill addresses this distinction by using the more inclusive term.

17. Why did the Administration use the term "non-commercial" in its amendments to section 118? What types of fishing was this language trying to capture?

Response: While the term "non-commercial" captures the thrust of the Administration's proposal, the Administration bill does not in fact use that term. Rather, it uses the term "listed fishery" to mean all fisheries that qualify for inclusion in the list of fisheries as category I and II and those commercial fisheries listed as category III fisheries.

As reflected in the Administration bill and the testimony presented by the Commission and others, there is a need to expand the coverage of section 118 to include all fisheries that frequently or occasionally take marine mammals. Originally, we had focused on adding recreational fisheries to the commercial fisheries currently included under the incidental take regime. However, the terms "commercial" and "recreational" may not cover the full range of fisheries that may be of concern. For example, subsistence fishermen may not fall into either category. Thus, the term "non-commercial" or its equivalent is needed to ensure that all fisheries that result in frequent or occasional incidental mortality or serious injuries of marine mammals are covered under section 118, regardless of what is done with the catch.

18. There have been comments about the cumulative effects of activities on marine mammals. What is our current state of knowledge on cumulative effects? Do we currently have the ability to determine how different activities cumulatively affect marine mammals? Is it possible for any marine mammal affected by different activities to have time to recover from the first effect prior to the second effect happening?

Response: The well-being of individual marine mammals and marine mammal populations is affected by a variety of factors, both natural and anthropogenic. Animals that carry large contaminant burdens, for example, may be more susceptible to disease. Similarly, animals that are subject to competition for prey from fisheries may be required to spend more time foraging and therefore may be more vulnerable to predation. Considerable progress has been made in recognizing the potential for such cumulative effects on marine mammals and, to a limited extent, in modeling those effects. Less progress has been made in actually describing the relative roles of such factors in wild marine mammal populations. Investigating the effects of multiple factors may be seriously confounded because it may be difficult to assess the significance of individual factors, and those individual factors may interact synergistically or antagonistically. Concerted, long-term multi-factor research is needed to provide managers with the information needed to manage cumulative effects. In the absence of such information, scientists and managers are limited largely to educated speculation about such effects.

The extent to which an animal or a population of marine mammals is affected by cumulative factors depends on the nature, timing, and persistence of those factors and their effects and the nature and persistence of the response of individual animals. When such factors are relatively short-lived and the response they elicit is correspondingly short-lived, it is more likely that affected animals will be able to recover from the effects of an initial factor prior to being challenged by the effects of a second factor.

19. How can we manage for cumulative effects when we may not have scientific knowledge on how activities actually affect marine mammals? If we were to manage based on what we thought were the impacts, wouldn't that create havoc with the different industries and scientists that may have interactions with marine mammals?

Response: In the three decades since the passage of the Marine Mammal Protection Act, considerable progress has been made in studying and conserving marine mammals. That progress includes a stronger science-based understanding of their natural history and their interactions with human activities. Where such progress has been made, it has been facilitated by careful identification of the problems affecting their conservation, development of adequate research programs to assess those problems and their effects, and implementation of management approaches that facilitate further research while minimizing risk by avoiding, minimizing, or mitigating the factors that may affect them. For example, observations that large

numbers of animals were being killed incidentally by direct interactions with fisheries led to the development of observer and research programs, adjustments in fisheries management such as time-area closures and changes in fishing practices and gears, and the development of a stock assessment approach to put current levels of mortality and injury in perspective. We believe a similar approach is needed for addressing the potential effects of cumulative factors, i.e., a combination of careful detection and description of the problems, research to provide information needed to solve the problems, and cautious management to avoid, minimize, or mitigate potentially adverse effects.

There is no doubt that such an approach will require adjustments from industries and, on occasion, scientists to ensure that the conservation goals of the Marine Mammal Protection Act are met. Nonetheless, the approach has been effective in certain specific circumstances and is likely to be effective for cumulative effects. There are, at present, successful mechanisms for limiting many forms of incidental take and for providing permits for research while ensuring that such research does not cause unacceptable impacts on marine mammals. Over time, we expect such an approach to be more successful if the burden of research into potential adverse effects is placed on those whose activities may lead to adverse effects. Because successful management regimes are in place to address incidental takes and the effects of research, we do not expect that management based on potential impacts will cause havoc for industries or scientists but rather will lead to more proactive, thoughtful research to enhance our conservation objectives.

20. If we apply the precautionary approach to the level that some groups have suggested, how will marine mammal researchers be able to gather information on marine mammal physiology and the effects of human activities (such as sonars) on marine mammals?

Response: The MMPA, since its inception, has included a moratorium on the taking and importation of marine mammals. The moratorium, however, is not absolute, and the taking of marine mammals is allowed or may be authorized for a variety of purposes. The showings that must be made to obtain an authorization to take marine mammals varies depending on the activity (and the value Congress has placed on it) and the level of risk it poses to marine mammals.

Permits for purposes of scientific research are issued to applicants that demonstrate that the proposed taking is needed to further a bona fide scientific purpose. If lethal taking is involved, the applicant must demonstrate that a non-lethal method of conducting the research is not feasible. And, before lethal taking of a depleted marine mammal can be authorized, the applicant needs to demonstrate that the results of the research will directly benefit the species or stock or will fulfill a critically important research need. The Marine Mammal Commission does not believe that these are overly burdensome or unreasonable criteria.

The Commission strongly supports the reasonable application of a precautionary approach regarding activities that affect marine mammal populations. This is a prudent and fundamental tenet of the Act. The Commission does not believe that application of that approach would preclude scientists from studying the effects of various activities on marine mammals. In fact, good science is critical to improving our understanding of how human activities may affect individual marine mammals and populations of marine mammals.

The Commission carefully reviews all permit applications for scientific research and incidental harassment authorizations that the National Marine Fisheries Service and the Fish and Wildlife Service propose to issue. We scrutinize what applicants submit to determine whether the proposed research or activities meet the requirements of the Act as to its potential to expand knowledge about marine mammals or their habitats. The Commission also recommends that scientists undertake their research in the most humane ways possible and that federal permit-granting agencies coordinate activities of multiple researchers to reduce duplication of marine mammal exposure to interference.

It should also be kept in mind that legal challenges to scientific research by environmental groups have focused more on whether the National Marine Fisheries Service satisfied the requirements of the National Environmental Policy Act (NEPA) than on the Marine Mammal Protection Act. The two cases that have successfully challenged MMPA scientific research permits (one challenging a permit to biopsy killer whales in Puget Sound and the other a more recent case challenging research associated with LFA sonar) both turned on the adequacy of NEPA compliance, rather than on MMPA considerations. In another recent case challenging seismic research not involving marine mammals, the researchers had not applied for a an incidental harassment authorization under the MMPA and had not prepared any NEPA analysis.

The Commission is aware of no proposals being made that would change the MMPA requirements pertaining to permitting scientific research. Thus, permits would still be available to scientists seeking to conduct bona fide research to gather information on marine mammal physiology and on the effects of human activities on marine mammals. This could include research that might injure or even kill depleted marine mammals (e.g., research to establish the sound levels from sonars or other sources that pose physical threats to marine mammals), provided that a sufficient case were made as to how this would benefit the stock or fulfill a critically important research need.

21. Should the MMPA be interpreted to protect each and every individual marine mammal or to protect marine mammal populations?

Response: The Marine Mammal Protection Act creates broad prohibitions against "taking" individual marine mammals or congregations of marine mammals. People doing the taking can apply for and receive various types of authorizations to engage in specific activities that both directly and incidentally take individuals or groups of marine mammals.

The Commission supports the approach currently in the statute. Unless you maintain the specific standard of prohibiting all takes, it will be virtually impossible to distinguish and codify when numerous individual takes will cumulatively add to potentially significant impacts on marine mammal populations.

22. Should the Act be changed to accommodate concerns about increasing conflicts between non-endangered marine mammals and humans?

Response: At the outset, it should be noted that the MMPA currently includes a mechanism for authorizing the taking of marine mammals in a variety of situations, including the reduction of burgeoning populations. The Act provides for waiving the moratorium on taking marine mammals if the species or stock is within its optimum sustainable population and will not be disadvantaged by the taking, and the taking is in accord with sound principles of resource conservation and will be consistent with the purposes and policies of the Act. The Act even anticipates that one reason for authorizing such taking is the overpopulation of a particular species or stock. Before authorizing taking for this reason, however, the Secretary is required to consider whether it would be more desirable to transplant animals to a location historically, but not currently, inhabited by the species or stock.

It needs to be recognized that culling expanding populations will not necessarily solve the identified problems, particularly competition for fishery resources. This would be the case if marine mammal abundance and prey consumption are not linearly related. That is, feeding efficiency of individuals may decline as competition with con-specifics increases. Thus, reducing a population by 50 percent will not necessarily reduce fish consumption by 50 percent. In fact, it may reduce consumption only marginally.

In certain instances, the Commission could support amending the Act to provide additional mechanisms to address concerns with respect to conflicts between people and healthy marine mammal populations. The Commission would want to work with Congress to develop precautions to ensure that marine mammal populations remain stable and that federal agencies would continue to oversee marine mammal conservation and management unless management authority is returned to a state government pursuant to section 109. In such instances, the Commission would want to ensure that the state program meets similar standards.

The Commission is pleased that some marine mammal populations have responded to protection afforded by the Act and increased to the point that they have reached their optimal sustainable population (OSP) level as defined in the Act. We believe that OSP would be a better management standard than whether a population qualifies for listing under the Endangered Species Act as endangered or threatened or has been identified as a candidate species.

Questions from The Honorable Frank Pallone, Jr.

Definition of harassment:

Over the past year, Congress has been presented with several different options to re-define the definition of harassment. A new definition is being offered in H.R. 2693.

- **Please compare the definition proposed in H.R. 2693 and discuss whether it compares positively or negatively to other proposed definitions.**

Response: Several different definitions of the term harassment have been proposed by various interests as the Marine Mammal Protection Act is being considered for reauthorization. All of them are based to one degree or another on the existing definition and the proposed changes suggested by a National Research Council panel that considered issues related to marine mammals and ocean noise. They dif-

fer primarily in four respects—the degree of likelihood that the covered activities will injure or disturb a marine mammal or marine mammal stock; the types of behaviors or activities that are explicitly covered; whether a significance threshold is established before disturbance or disruption of those activities would constitute harassment; and whether special provision is included to address activities directed at marine mammals. With respect to the first element, for example, there is a continuum in the proposals running the gamut from activities having any potential for disturbance to those that present a probability or likelihood that certain types of responses will be evoked, with several intermediate standards falling in between. These proposals reflect differing perceptions with respect to how inclusive we should be in order to protect marine mammals from any sort of disturbance versus how much we should seek to disencumber those who engage in activities that might have only minor effects on marine mammals from the requirements of the MMPA.

The various definitions that have been considered are, by and large, permutations of these four elements. We believe that the Administration's proposed redefinition strikes a better balance of addressing these considerations than does the definition proposed in H.R. 2693.

As noted in our testimony at the July 24 hearing, there are aspects of the harassment definition in H.R. 2693 that we believe may cause problems if enacted. For example, for an act to constitute Level A harassment under the introduced bill, there must be "the probability" that a marine mammal or marine mammal stock will be injured. The inclusion of this threshold suggests that it must be more likely than not that an injury will result from the particular action being considered. That is, if there is a 25 percent chance that a marine mammal will be injured by exposure to a particular stimulus, a one-time exposure would not necessarily be considered harassment, even though the risk of injury is substantial. As such, we recommend replacing the word "probability" in the Level A harassment definition with a more inclusive phrase such as "significant potential," as used in the Administration's proposal.

Like the existing definition of Level B harassment and that recommended by the Administration, the proposal in H.R. 2693 contains a list of behaviors that, if disrupted to the extent specified, would constitute harassment. We are concerned, however, that the list of specifically identified behaviors in the House bill does not include sheltering, which is an element of both the existing definition and the Administration's proposal. For example, the resting behavior of spinner dolphins in Hawaii in secluded, inshore areas clearly fits within the notion of sheltering. It is not as clear that such behavior would be encompassed by the terms "care of young, predator avoidance, or defense," which are the closest associated terms under the proposed harassment definition in H.R. 2693. Further in this regard, we note that the terms "care of young," "predator avoidance," and "defense" included in the proposed definition of Level B harassment are not very precise terms. Absent clarification, their inclusion in the definition may lead to implementation difficulties and, perhaps, litigation.

In addition, as was pointed out at the July 24 hearing, any list of specifically identified behaviors in the definition should include surfacing or breathing. As reflected in the Administration bill, we prefer the term "surfacing" over "breathing" inasmuch as it is the more inclusive term. For unexplained reasons, neither term was included in the definitions set forth in H.R. 2693.

We are also concerned about the "potential to disturb" threshold set forth in the second clause of the proposed harassment definition. The agencies that developed the Administration's proposed definition rejected this language as being overly broad, inasmuch as it would include even a very remote possibility that disturbance might occur. We believe that the standard included in the Administration proposal, "disturbs or is likely to disturb," provides a more appropriate delimitation concerning what activities should be covered under this part of the harassment definition.

The Commission is pleased that the proposed definition in H.R. 2693 recognizes the value of including a directed taking provision in the definition of Level B harassment, as recommended by the Administration. Absent this second prong, it would be much more difficult, if not impossible, for the regulatory agencies to bring enforcement cases in response to activities that traditionally have been considered harassment. Even in a case when a marine mammal had been intentionally pursued, the government, to prevail, would need to show not only that the animal was disturbed by the pursuit, but that the resulting disruption was somehow "biologically significant." For example, is the disturbance that results from chasing a dolphin along a beach for a few hundred yards with a jet ski biologically significant? Arguably not. Nevertheless, it should be considered harassment.

We are concerned, however, about the inclusion of the phase "is likely to impact the individual" in this second part of the Level B harassment definition (clause iii). It raises a possible defense in a traditional harassment case that, even though a marine mammal was clearly disturbed by the directed activities of the defendant, the disturbance somehow did not have any impact on the health or well-being of the animal. It may be that the intent of the provision is to include all directed activities that are likely to disrupt one of the listed marine mammal behaviors. If this is the case, it should be clarified, either in the statutory language or the accompanying legislative report.

How will the proposed change to the definition of harassment affect scientific research and/or military readiness activities?

Response: Without additional description of the terms used in the proposed definition of harassment, it remains unclear how they will affect scientific research, military readiness, or other activities. Currently, there is no unanimity as to how the various terms (e.g., biologically significant disruption and potential to disturb) would be interpreted. Although we can say that some of the activities that are considered to constitute harassment under the current definition will likely fall outside of the new definition, we cannot predict how extensive the differences will be. For example, some may argue that the testing of low-frequency sonar by the Navy would no longer be considered to be harassment while others are likely to argue that it would be under the definition included in H.R. 2693. Similarly, without additional guidance, either in the statutory provision itself, in report language or other legislative history, or through agency regulations and policy statements, it is difficult at this stage to predict exactly how the proposed changes in the definition would affect research activities.

A further confounding issue is how cumulative impacts would be addressed under the any of the proposed definitions that have been put forward. Under the definition proposed in the House bill, for example, it is unclear how activities that individually would not be considered to cause biologically significant disruption but that collectively could have significant impacts would be treated. Would each activity be considered to constitute harassment? Would none? Or would only those activities beyond the critical point where the disruption becomes significant be considered harassment, and if so, how would that point be ascertained? The answers to these questions likely would profoundly affect what is and is not considered to be harassment.

- **Are there specific activities that might fall outside this definition?**

Response: Although there no doubt are some such activities, we are unable to identify them with any certainty because of the ambiguities inherent in all of the definitions currently under consideration. For example, some have suggested that a pinniped turning its head, of even fleeing into the water temporarily from its haul-out site, in response to a passing boat would fall outside of the definition. However, if that boat were only one of many that passed the location prompting such a response, they could cumulatively cause significant disruptions, even causing the animal to abandon preferred habitat.

The definition for Level A (potential to injure) harassment proposed in H.R. 2693 requires that an activity have "the probability to injure" a marine mammal. It seems to me that this change would require a higher burden of proof for a given activity's likelihood of causing harm.

- **Do you feel that this change would make the definition of harassment less protective of marine mammals?**

Response: Yes. As reflected in our testimony at the July 24 hearing, the Commission believes that the probability standard used in the definition of Level A harassment establishes too high of a threshold for defining what constitutes taking by injury. In this regard, the common understanding of the term "probability," absent any modifier (e.g., a 10 percent probability), is that something is more likely than not to happen. When addressing possible injuries to marine mammals and marine mammal populations, this is not a very protective standard.

- **Does the word "probability" have a clear and commonly understood legal definition? What is the distinction from "potential"?**

Response: The word "probability" has a common dictionary definition as something that is probable—i.e., it is more likely than not to occur. The word also has a meaning in a statistical sense to mean the likelihood with which something will happen, e.g., there is a 30 percent chance that it will rain tomorrow. Absent some indication that we intend it to mean a lower likelihood in the particular instance, however, it is generally interpreted to mean more than a 50 percent likelihood.

"Potential," on the other hand, is a much more inclusive term. It is generally defined to mean something that is capable of happening, even something with a very low probability of occurrence.

As noted above, there is a continuum of terms that could be used to describe the level of certainty that is being incorporated into the harassment definition. A possible progression from most inclusive to that requiring the highest level of probability would be as follows: possible, potential, significant potential, plausible, probable/likely, highly likely, certain. We believe that using the terms on the extreme ends would result in a definition that is either overly inclusive or too restrictive.

- **Would the addition of a modifier that explains the relative probability of injury (such as 20%, 50%, 90%) be helpful in clarifying the intent of the word "probability"?**

Response: As discussed above, the common understanding of the word "probability" absent any such modifier is that something is more likely than not to occur. Such a standard, in the Commission's view, is not protective enough, particularly when we are addressing injuries to marine mammals and marine mammal populations. This being the case, it would help to clarify the intent of Congress if more specific guidance concerning the degree of probability were included in the definition. Nevertheless, we recommend against including a specific numerical standard in the statute itself. It would create a level of specificity that, at least in some cases, would likely be beyond the resolution that available science and data could provide. Thus, in all but the most clear-cut cases, litigation could result as to whether the probability were above or below the statutory threshold. Recognizing the limitations of available science, a qualitative, rather than a quantitative, standard would be preferable. We continue to believe, however, that there needs to be clear guidance and general understanding as to how such a qualitative standard is to be interpreted and implemented.

The proposed change to the definition of Level B harassment would require that an activity cause a "biologically significant disruption" of activities including, but not limited to, migration, breeding, care of young, predator avoidance, defense, or feeding. In contrast, the definition proposed earlier by the NRC would require that an activity cause a "disruption to biologically significant" activities.

- **Is this inversion of words important? Why?**

Response: Clearly, the inversion of these words is important. What we should be striving for is the inclusion in the definition of those responses and effects that have some biological significance, either at the individual or population level. There nevertheless needs to be a recognition that predicting what activities will result in biologically significant effects, or even in determining whether a particular response is biologically significant, may be difficult. Making such determinations when marine mammals are exposed to multiple activities that may not individually result in biologically significant disruption, but which cumulatively exceed that threshold, will likely be even more difficult. The definition needs to be broad enough to include such situations.

While less ideal in the theoretical sense, a definition based on the disruption of biologically significant activities would likely be easier to implement. That is, once these important activities are identified, the only determination to make is whether such an activity were being disrupted—there would be no value judgment to make as to whether or not the disruption were biologically significant. Because of this, however, the definition in some cases is likely to be overly broad by including de minimis disruption of important behaviors.

It seems to me that it would be easier to define a disruption to a biologically significant activity than it would be to determine what constitutes a biologically significant disruption to that activity.

- **If this is true, would the proposed change in the definition make it less protective of marine mammals?**

Response: As discussed above, it likely would be easier to identify a disruption of a biologically significant activity than to determine what constitutes a biologically significant disruption. This does not necessarily make the definition more protective, however. This would depend on what behaviors were identified as being biologically significant and on how biologically significant disruptions were defined and identified.

How would the change in the definition of Level B (potential to injure) harassment affect scientific permitting?

Response: Under either the Administration's proposed definition or the one included in H.R. 2693, there should be few, if any, changes with respect to scientific research permits issued under section 104(c)(3) of the MMPA. Although certain activities may no longer fit within the first prong of the proposed Level B definitions, which has a significance threshold, they would continue to be covered under the second, directed activities prong. Research that involves taking only by Level B harassment would continue to be covered under the streamlined procedures of the general

authorization established under the 1994 amendments. Researchers would still be required to demonstrate that their activities constituted bona fide scientific research. Activities directed at marine mammals listed as endangered or threatened, even if they would result only in taking by Level B harassment, would remain subject to the full permit requirements of the Endangered Species Act.

Activities that have potential to injure (or, under the Administration's proposal, a significant potential to injure) would constitute Level A harassment and would remain subject to the full permitting requirements of the MMPA.

Other types of research (e.g., seismic surveys) not directed at marine mammals but that might incidentally take marine mammals by Level B harassment would require an incidental taking authorization under section 101(a)(5) of the Act. It is possible that some activities that currently require such an authorization would no longer be considered harassment under the new definition and hence would not require an authorization.

Are there activities, such as "sheltering" or "resting," that are missing from the list of "migration, breeding, care of young, etc."? If so, which behaviors are missing and why are they important to explicitly mention in the proposed definition?

Response: There are two significant omissions from the list of activities specifically identified in the definition of Level B harassment included in H.R. 2693. The first one is "sheltering." Although sheltering may be important for predator avoidance or care of young, which are included activities under the introduced bill, it also has other facets, such as resting. Absent the opportunity to rest in these areas undisturbed, the animals may abandon certain locations or may be adversely affected through increased stress levels.

The second omission is "surfacing," which the Administration bill uses as a more inclusive substitute for "breathing" (the most closely associated term included under the existing definition). Obviously, the ability of marine mammals to surface when and where necessary to breathe, associate with conspecifics, etc., is important to their health and well-being.

Would this revised definition still allow for the consideration of the cumulative negative impact on an individual or population of marine mammals?

Response: As discussed in the response to question 2, it remains unclear how cumulative impacts would be treated under the proposed harassment definitions. From the Commission's perspective, it is critical that the definition and/or its legislative history not only clearly indicate that the cumulative impacts of various activities will be factored into determining what constitutes harassment but also provide direction as to how such determinations should be made. For example, will each activity that contributes to what cumulatively results in significant disruption of important activities be considered harassment? If not, clear guidance needs to be provided as to which activities would be considered harassment and which ones would not, and how those distinctions would be drawn.

If the consideration of small numbers and geographic area were to be eliminated, how would this affect the ability to determine the potential negative impact for an activity?

Response: The key finding for issuing an incidental taking authorization under section 101(a)(5) of the MMPA is whether the taking will have a negligible impact on the affected species and stocks. This would not change under the proposed amendments. Although it is true that the "small numbers" and "specified geographic region" requirements provide additional mechanisms for helping to ensure that the scope of an activity is limited, and therefore more likely to have only negligible effects, this should not be necessary, provided that findings of negligibility are well justified in other contexts.

Has NOAA Fisheries or USFWS contemplated regulating truly incidental activities that have little if any direct effect on marine mammals, such as boat wakes?

Response: The Commission is unaware of any plans by either the NMFS or the FWS to regulate or prosecute those whose activities have only de minimis incidental effects on marine mammals. This would not be a wise use of limited agency resources. Nevertheless, as discussed elsewhere, there may be instances when seemingly trivial or benign types of disturbance may be so ubiquitous that they merit greater concern.

Permitting for Scientific Research:

It is clear to me from the testimony that we have heard today that the permitting process for scientific research is still problematic for many scientists, but I am still not clear on the root cause of the problem.

- **Is the permitting process severely limited by a lack of resources and staff?**

Response: Lack of resources and staff likely contribute to some permit processing delays. Other factors also may be involved, such as the submission of an incomplete application or a poorly described or inadequately justified research proposal. More often, difficulties encountered with the issuance of scientific research permits stems not from the requirements of the MMPA but from those of related statutes such as NEPA and the Endangered Species Act. Making the additional assessments under the Endangered Species Act, conducting section 7 consultations, and preparing environmental impact statements or assessments no doubt slow down the process in certain instances.

- **Would the development of a classification system identifying specific activities and their associated risk to marine mammals be a more useful approach to expedite consideration of different types of activities on a more programmatic basis?**

Response: The 1994 amendments to the Marine Mammal Protection Act added a general authorization, with streamlined procedures, for scientific research involving taking only by Level B harassment. Thus, one form of classification system currently exists. The general authorization could be expanded to include other categories of research, or separate authorization systems for certain categories of activities could be designed. Using the general authorization as a template, the applicant would still be required to demonstrate that the proposed activities constituted bona fide research. Thus, case-by-case consideration would be necessary. Also, if taking by other than Level B harassment would be involved (i.e., if there is the potential to injure or kill animals, or animals will be captured) greater scrutiny, including an opportunity for public review and comment, would probably be warranted.

As noted above, some of the delay involved in processing scientific research permits is attributable to the requirements of other statutes such as the National Environmental Policy Act. Therefore, an additional streamlining measure that could be taken would be the preparation of programmatic analyses to meet the requirements of NEPA to identify activities that would have no significant impacts or from which individual environmental assessments could be tiered.

If endangered or threatened species will be taken, additional time may be needed to comply with the requirements of the Endangered Species Act. Heightened scrutiny is probably warranted when invasive research is being conducted on such species. However, there may be ways to streamline the authorization process, akin to the general authorization under the MMPA, when only low-level impacts are expected. This would require a statutory change.

Take Reduction Teams:

1. A new World Wildlife Fund study released in June conducted by American and Scottish biologists suggests that accidental capture or "bycatch" by the fishing industry may be the biggest immediate threat the survival of some marine mammals, especially large whales. This study analyzed bycatch mortality affecting 125 marine mammal populations over the period of 1990-1999. The study estimates that 1000 whales, dolphins, and porpoises drown every day. Annually, approximately 308,000 marine mammals die unintentionally.

- **In light of this information, what conclusions can be drawn about the effectiveness of the Section 118 take reduction team process?**
- **Should specific types of fishing gear be permanently retired due to their associated level of bycatch?**
- **Should a robust program be established to dedicate adequate resources and technical assistance to promote "marine mammal safe" fishing gear?**

Response: The section 118 take reduction team process has been effective for addressing fisheries bycatch of marine mammals in U.S. waters. The study described pertained to fisheries worldwide. Although large numbers of marine mammals have died incidentally in U.S. fisheries, corrective actions have been taken that have effectively reduced the number of animals killed or seriously injured. At present, there are relatively few marine mammal populations in U.S. waters for which incidental mortality and serious injury exceed potential biological removal levels. Six take reduction teams have been convened to address remaining problems. The degree of success achieved by these teams has varied, but the process provides a useful means of bringing together representatives of all stakeholder groups. At present, we believe that U.S. efforts to reduce marine mammal bycatch have been generally

successful. Although refinements in the management process are still needed, the take reduction team process should remain an important element of that process.

The study described indicated that the vast majority of marine mammals killed incidentally in fisheries are captured in gillnets. There is no doubt that gillnets are problematic in that they are non-specific with regard to their catch. This indicates that efforts are needed to modify them or the manner in which they are used if efforts to reduce bycatch are to be successful. In the past, other gear types also have resulted in large numbers of marine mammal deaths, but those gear types and the manner in which they are deployed have been successfully modified to reduce take levels. Similar efforts are needed for gillnets.

Zero Mortality Rate Goal:

Robert Zuanich testified that the marine mammals hold a loftier status than all other animals in the ocean. Wasn't this at least, in part, the goal of the protective approach of the MMPA?

The ZMRG codifies this placement of marine mammals in the ocean by stating that anything above a zero rate mortality and injury rate is unacceptable. Although clearly intractable, this principle sets a high bar and a principle for how humans interact with marine mammals.

- **Can you comment on whether the zero mortality rate goal should be retained? What is its relation to the precautionary philosophy of the MMPA?**

Response: The MMPA recognized that—"marine mammals have proven themselves to be resources of great international significance, esthetic and recreational as well as economic, and it is the sense of Congress that they should be protected and encouraged to develop to the greatest extent feasible commensurate with sound policies of resource management and that the primary objective of their management should be to maintain the health and stability of the marine ecosystem. Whenever consistent with this primary objective, it should be the goal to obtain an optimum sustainable population keeping in mind the carrying capacity of the habitat."

Therefore, the primary objective of the Act is to "maintain the health and stability of the marine ecosystem," which is composed of multiple forms of marine life. Only when consistent with this objective are marine mammals to be maintained at optimum population levels. Even then, it needs to be recognized that the optimum level for each stock is defined as a range from its maximum net productivity level to the carrying capacity of its ecosystem. Thus, the goal with respect to marine mammals is to maintain stocks at "healthy" levels, not necessarily maximal levels. As such, it is not clear that marine mammals are given a "loftier" status than other forms of marine life.

Nevertheless, the zero mortality rate goal set a relatively high standard with regard to the reduction of marine mammal mortality and serious injury incidental to commercial fisheries. (It is not applicable to other types of taking or to taking in other contexts.) We believe, however, that, because it is described as a "goal" of the Act and because the requirement is to approach this goal, there is a recognition that this standard may not be possible to achieve in all cases. That achieving this goal is not absolute is reflected in the take reduction plan requirements of section 118 of the MMPA. While the long-term goal of such plans is to reduce incidental mortality and serious injury to insignificant levels approaching a zero mortality and serious injury rate, the plans are also to take into account the economics of the involved fisheries and the technological limitations for achieving the goal. Viewed in this way, the zero mortality rate goal is not intractable but simply requires continued vigilance to reduce mortality and serious injury to the greatest extent possible, keeping in mind competing economic and technological factors. When viewed in this light, we believe that a more appropriate characterization of the rationale behind the ZMRG is a belief that, even when removals from a stock incidental to commercial fishing operations can be tolerated at the population level, everything that reasonably can be done to reduce the mortality and serious injury of individual marine mammals should be done.

The zero mortality rate goal is consistent with a precautionary approach to the extent that it provides a level of insurance against unknown sources of human-related mortality and serious injury. Management of marine mammals requires judgments about their status and tolerance for human-related mortality. Some of these judgments will underestimate the significance of human-related mortality and, under such circumstances, successful efforts to approach a zero mortality and serious injury rate will provide a buffer against adverse levels of impact. In that sense, the admonition to approach a zero mortality and serious injury rate is consistent with and fosters a precautionary approach to marine mammal management.

Threats to Marine Mammals:

1. There seem to be many emerging threats to marine mammals that were not considered 25 years ago when the original act was written.

- **Do you think it would be helpful for the Marine Mammal Commission to report on the magnitude of emerging and existing threats to marine mammals?**
- **Is it practical to believe that we can address these threats, and if so, what threats should be priorities for action?**
- **This might include identifying data gaps, coming up with research plans and evaluating the health of marine mammal stocks in the wild as relates to other environmental parameters.**
- **Would such an undertaking be within the scope and purview of the MMC?**

Response: In its testimony before various Congressional committees over the past few years, the Marine Mammal Commission has noted the importance of a proactive, anticipatory approach to research and conservation of living marine resources, including marine mammals. By using such an approach, managers can not only reach more effective conservation decisions that balance the needs of people with protection of resources, but can also make cost-effective decisions before the onset of crises or litigation. Therefore, with Congressional support, the Commission organized and held a consultation entitled "Future Directions in Marine Mammal Research" on 4-7 August 2003 in Portland, Oregon. The consultation involved 54 scientists and other experts from six countries, who were charged with the following tasks:

- review the status and trends of various anthropogenic and natural threats to marine mammals;
- articulate comprehensive research recommendations to further our understanding of such threats and methods to mitigate them; and
- encourage new, creative, interdisciplinary approaches for resolving current and future issues related to conservation of marine mammals and their environment.

To facilitate discussions at the consultation, the Commission contracted for several background documents that would summarize the status of important ongoing or future-oriented issues that could compromise effective conservation of marine mammals. The issues considered by the documents and the participants included, but were not limited to the following:

- infectious diseases,
- underwater sound levels and types,
- chemical contamination,
- harmful algal blooms,
- dead (anoxic/hypoxic) zones,
- effects of expanding populations of some pinnipeds,
- bycatch, depredation and other direct interactions with fisheries,
- indirect effects (e.g., competition) with fisheries,
- habitat transformation,
- environmental change,
- effects of human population growth,
- how to define appropriate conservation units in the face of scientific uncertainty, and
- how to better develop regulatory standards and decision rules for management.

We expect to have the initial report of the consultation ready shortly. This will be followed with a more detailed report, which we plan to have available a few months later. In addition, we are exploring ways to publish a peer-reviewed version of the background documents prepared for the consultation. Such a publication is anticipated in a year or two.

The Commission appreciates the support of Congress as it endeavors to take this and other proactive steps to facilitate marine mammal conservation. Participants at the future directions meeting viewed the consultation to be a great success. The Commission is anxious to provide a summary to Congress soon.

- **Has the MMC ever investigated the growing incidence of ship strikes? Would the MMC support a mandate to convene a panel to recommend steps to reduce ship strikes and report to Congress in 2 years?**

Response: In 1999 the Commission asked a member of its staff to organize and carry out a review aimed at compiling and evaluating available information on collisions between ships and whales. The result was a paper published in early January 2001 (attached) in Marine Mammal Science. To date, this is the most comprehensive summary and evaluation of information available on the subject.

At present we do not believe that convening a panel to recommend steps to reduce ship strikes is necessary. By far the most pressing need with regard to this issue concerns collisions with North Atlantic right whales. A report putting forth recommendations to mitigate collisions with right whales was completed in the late summer of 2001 and provided to the National Marine Fisheries Service at that time. The report, entitled "Recommended Measures to Reduce Ship Strikes of North Atlantic Right Whales" by Bruce Russell, was prepared under the auspices of two regional right whale recovery plan implementation teams with funding provided largely by the National Marine Fisheries Service and the International Fund for Animal Welfare with some seed money provided by the Marine Mammal Commission. In our view, that report provides a good set of recommended actions and solid basis for developing regulatory and non-regulatory management actions. We do not believe a panel would be necessary at this time to review those recommendations or develop a new set recommendations. The National Marine Fisheries Service has been developing a proposed management program based on that report. What is most important now is for the Service to move ahead expeditiously with the process of developing and implementing those actions.

- **Should there be a similar directed program on ocean noise that would be mandated under the MMC or another program such as the National Oceanographic Partnership Program?**

Response: In response to a congressional directive to the Commission enacted in March 2003, the Commission is organizing a series of meetings to bring together representatives of the environmental community, ocean industries that produce sound in the marine environment, the academic community, and key federal management agencies to review and identify priority research and management needs bearing on the effects of anthropogenic sound on marine mammals. The Commission has recently completed the process for contracting with a professional facilitation team to convene those meetings, and we expect the first of three or four meetings to be held early in 2004. As research priorities are examined during the course of this policy dialogue, we expect that the need for developing a directed program on ocean noise will be considered. At this time, the Commission has not formed an opinion on how best to proceed with regard to such a directed program. We believe it would be appropriate to await results of the impending policy dialogue before making recommendations on such an important issue.

Captive Animal Welfare:

The 1994 changes to the Marine Mammal Protection Act gave APHIS the authority for captive marine mammal welfare inspections.

- **Has APHIS demonstrated requisite expertise and ability to inspect and oversee marine mammals in captivity?**

Response: APHIS inspections are conducted by veterinarians on a regional basis. These inspections cover a broad range of facilities and species. As such, many of the inspectors, although trained veterinarians, are not marine mammal specialists. Because marine mammals are unlike the other animals covered under the Animal Welfare Act, all of which are terrestrial animals, the Marine Mammal Commission in 1995 recommended that APHIS develop a core group of veterinarians, with specialized training, to conduct all inspections of marine mammal facilities. APHIS declined to adopt this recommendation, opting instead to hold periodic training sessions to familiarize its general corps of inspectors with legislation, regulations, and issues specific to marine mammals. While this is an improvement, APHIS does not employ marine mammal specialists to inspect marine mammal facilities.

Marine mammal specialists are important when the applicable standards are imprecise, requiring the inspector to judge the health, comfort, and well-being of the animals. For example, under the applicable standards, there is no clear-cut demarcation of what constitutes the acceptable temperature ranges for maintaining the various species of marine mammals. Rather, the standards require only that air and water temperatures be maintained within a range that does not adversely affect a marine mammal's health or comfort. Without specialized knowledge about the life histories of marine mammals, possible signs of compromised health or discomfort, or the literature related to the veterinary medicine and husbandry of marine mammals, an inspector may not be well situated make these and other similar determinations. The problems with having such subjective standards are highlighted by the recent events surrounding the maintenance of polar bears at a facility in Puerto Rico, a situation in which there were decidedly different views on the health status of the animals and the stress placed on them by exposure to temperatures well in excess of those normally encountered by the species.

- **How many inspectors does APHIS deploy to inspect display facilities?**

Response: The Commission understands that APHIS has 100 field inspector positions and is planning to add several more in the coming fiscal year. We also understand that, in addition to its field inspectors, APHIS has additional staff, including nine supervisory animal care specialists, at its regional offices and headquarters.

- **To your knowledge, has APHIS promulgated marine mammal-specific care standards for captive marine mammals? And have such standards been provided to the public?**

Response: APHIS established standards for the humane handling, care, treatment, and transportation of marine mammals under the Animal Welfare Act in 1979. These are codified at 9 C.F.R. § 3.100 et seq. As such, the standards are available to the public. Although the standards were amended slightly in the mid-1980s, they have not been comprehensively revised to reflect advances in veterinary science and animal husbandry in the past 25 years. For this reason, the Marine Mammal Commission, beginning in 1990, recommended that APHIS along with the National Marine Fisheries Service, the Fish and Wildlife Service, and the Commission work cooperatively to review and update the standards. Ultimately, APHIS decided to revise the standards using negotiated rulemaking. A final rule amending certain portions of the marine mammal standards was published in 2001. However, only the less contentious portions of the standards were revised. APHIS decided to consider amendments to the remaining parts using traditional notice and comment procedures. APHIS originally indicated that it would publish a proposed rule by mid-2000. Instead, however, APHIS published an advance notice of proposed rulemaking in 2002, soliciting additional input on the remaining parts, including (1) whether maximum temperature ranges for air and water should be established for each species; (2) whether noise thresholds should be established for each species; (3) what criteria should be considered when determining space requirements for each species; (4) whether the average adult lengths used to determine space requirements under the existing regulations should be revised; (5) whether minimum water depths should be established for each species; (6) whether minimum width or longest straight line swimming distance is more important; (7) whether there are other interactive activities not identified by the Service in its notice; and (8) how interactive activities should be regulated. Thus, although there has been some progress, it has been 13 years since APHIS initially committed to updating its marine mammal standards, and we have yet to see a proposed rule to amend the most important sections.

- **Is there any oversight or reporting requirements for APHIS in the discharge of this responsibility? Should APHIS be required to report annually to Congress?**

Response: Up until December 1999, when the Federal Reports Elimination and Sunset Act of 1995 took effect, APHIS was required to submit an annual report on its activities under the Animal Welfare Act concerning all animals (the report is not specific to marine mammals) regulated under the Act. Specifically, the Act required that "[n]ot later than March of each year, the Secretary [of Agriculture] shall submit to the President of the Senate and the Speaker of the House of Representatives a comprehensive and detailed written report with respect to—(1) the identification of all research facilities, exhibitors, and other persons and establishments licensed by the Secretary under section 3 and section 12 of this Act; (2) the nature and place of all investigations and inspections conducted by the Secretary under section 16 of this Act, and all reports received by the Secretary under section 13 of this Act; (3) recommendations for legislation to improve the administration of this Act or any provision thereof; and (4) recommendations and conclusions concerning the aircraft environment as it relates to the carriage of live animals in air transportation." The Commission understands that APHIS is currently exploring different mechanisms for continuing to provide such information to Congress, stakeholders, and the public.

With enactment of the 1994 MMPA amendments, responsibility for virtually all matters related to the care and maintenance of marine mammals was placed under the sole jurisdiction of APHIS under the Animal Welfare Act. This vests primary oversight for such matters in Congress to the Agriculture committees, which may not have much expertise or focus on marine mammal issues. Thus, the Commission believes that it is important for the committees with primary jurisdiction for marine mammal issues to continue to monitor actions taken under the Animal Welfare Act as they relate to this specialized group of animals.

- **The public display community has complained that NOAA Fisheries deliberately misinterpreted the intent of Congress in 1994 in its promulgation of regulations regarding permits allowing the transport and exchange of captive marine mammals.**
- **Is this complaint valid?**

Response: Although the Marine Mammal Commission did not agree with much of the discussion in the proposed rule regarding exports of marine mammals for purposes of public display, we do not believe that the NMFS "deliberately misinterpreted" the intent of Congress in passing the 1994 amendments to the MMPA. In this regard, several of the provisions of section 104 of the Act that pertain to exports are unclear, and some are internally inconsistent. A full discussion of these provisions, the possible interpretations, and the Commission's recommended reconciliation of conflicting provisions are provided in the discussion on pages 2 through 8 of the Commission's 3 April 2002 letter (attached) commenting on the Service's public display rule.

We also call your attention to the observation made by the Commission on page 8 of that letter suggesting that other schemes for authorizing exports of marine mammals to foreign facilities may be more workable than the current one and the recommendation that the Service work with the interested parties to design a system that (1) achieves the goal of providing reasonable assurance that marine mammals exported from the United States will be well cared for throughout the duration of their maintenance in captivity, (2) more realistically reflects the ability of the Service and other U.S. agencies to identify and correct problems at foreign facilities, and (3) does not establish unnecessary barriers to the exchange of marine mammals among qualified facilities.

Captive release prohibition:

H.R. 2693 includes a prohibition on releasing captive marine mammals into the wild.

- **Considering the very limited space available to care for stranded marine mammals, could such a change create a situation where animals are held in captivity permanently regardless of their health and survival?**

Response: No. The captive release provision included as section 502 of the Administration bill is not absolute. For example, it would not apply to rescued and rehabilitated marine mammals captured and maintained under the authority of section 109(h) of the Act. It would only apply to the release of long-term captive marine mammals, which present special problems associated with their ability to adapt successfully to life in the wild and pose possible threats to wild populations. Thus, it is only those rehabilitated marine mammals that do not meet the release criteria developed by the NMFS that would not qualify for release.

As for marine mammals being maintained in captivity under other authorities (e.g., a public display permit), release would still be possible. It would, however, require authorization under a scientific research or species enhancement permit that presumably would be conditioned to ensure that the animal had been properly prepared for return to the wild and that monitoring would be adequate to track the fate of the animal.

- **Would this provision affect NOAA Fisheries' release of the five pilot whales that were stranded on April 18, 2003?**

Response: The provision would not be applicable to the five pilot whales, which were rescued and recently released under the authority of section 109(h).

- **Does this provision require a US, citizen to apply for a NOAA Fisheries permit to release a marine mammal in other countries' EEZ (would this apply to Keiko's release in Norway)?**

Response: Although not explicit on the face of the proposed amendment, applicable law provides that, absent some specific indication of Congressional intent to the contrary, U.S. statutes are not given extraterritorial applicability. Thus, there is no reason to believe that, unless Congress provides otherwise, this prohibition would be applicable to the release of marine mammals outside of waters subject to U.S. jurisdiction. This being said, the situation with respect to Keiko is more complicated. Keiko was imported into the United States and maintained in captivity under a U.S. public display permit. That permit required that, before release of the animal to the wild could be attempted, a scientific research permit governing the release had to be obtained. This permit was issued prior to enactment of the 1994 MMPA amendments, which made several changes to the Act's permit provisions. It is unclear whether the permit conditions concerning the release of Keiko remain applicable in light of those amendments and the subsequent export of the whale to Iceland and Norway. If they remain in force, the facility maintaining Keiko may have a continuing obligation to obtain a scientific research permit authorizing the release irrespective of the proposed captive release prohibition.

○