

UNITED STATES VOLUNTARY NATIONAL CETACEAN CONSERVATION REPORT, 2011

Submitted by the Government of the United States to the Conservation Committee
62nd Annual Meeting of the International Whaling Commission
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1. Legal and other developments

1.1 *The Marine Mammal Protection Act*

All cetaceans in U.S. waters are protected under the *Marine Mammal Protection Act (MMPA)*. It is illegal for any person or vessel subject to U.S. jurisdiction to take any marine mammal, subject to certain exceptions. Take is defined as "to harass, hunt, capture, or kill, or attempt to harass, hunt, capture or kill any marine mammal." The objectives of the MMPA are to maintain the health and stability of marine ecosystems and to obtain an optimum sustainable population level for all marine mammal stocks, taking into account the carrying capacity of the ecosystem.

Cetacean species or stocks that are below the optimum sustainable population level are considered "depleted" under the MMPA. Species listed under the Endangered Species Act (ESA) are also considered depleted under the MMPA. Fourteen cetacean stocks in U.S. waters are currently listed as depleted under the MMPA, including the ten species listed in section 1.2. The four cetacean species considered depleted under the MMPA that are not listed under the ESA are:

- Pantropical spotted dolphin, Northeastern offshore stock
- Spinner dolphin, Eastern stock
- Killer whale, AT1 transient stock
- Bottlenose dolphin, Western North Atlantic coastal stock

Permits or other authorizations are required under the MMPA to conduct activities that are likely to result in the "taking" of a marine mammal. When applicable requirements are met, the U.S. National Oceanic and Atmospheric Administration (NOAA) Fisheries Service can, *inter alia*, authorize the take or import of cetaceans for scientific research, enhancing the survival or recovery of a marine mammal species or stock, commercial and educational photography, public display, and incidental take during commercial fishing operations and non-fishery commercial activities.

The MMPA also established the Marine Mammal Commission as an independent federal agency. The Commission advises and makes recommendations to both the executive and legislative branches of the U.S. government regarding measures needed to promote the policies and provisions of the Act, which are intended to conserve marine mammals and marine ecosystems. In addition, the Commission supports a research program to identify and guide marine mammal conservation measures at local, regional, national, and international levels.

1.2 *The Endangered Species Act*

In the United States, a cetacean species deemed to be "in danger of extinction throughout all or a significant portion of its range" is protected as "endangered" under the *Endangered Species Act (ESA)*. Cetacean species which are likely to become endangered within the foreseeable future are protected as "threatened." The ESA prohibits the taking of any endangered or threatened species, subject to certain exceptions. Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Cetacean species found in U.S. waters, which are currently listed under the ESA include:

- Beuga whale, Cook Inlet Distinct Population Segment (endangered)
- Blue whale (endangered)
- Bowhead whale (endangered)
- Fin whale (endangered)
- Humpback whale (endangered)
- Killer whale, Southern Resident Distinct Population Segment (endangered)
- North Atlantic right whale (endangered)
- North Pacific right whale (endangered)
- Sei whale (endangered)
- Sperm whale (endangered)

The ESA requires the federal government to scrutinize activities that may adversely affect threatened or endangered species and their critical habitats. Accordingly, all U.S. federal agencies must consult with NOAA Fisheries Service on activities they directly carry out, authorize, or fund that may affect a listed marine or anadromous species. These interagency, or section 7, consultations assist federal agencies to ensure that their actions do not jeopardize the continued existence of a species or destroy or adversely modify designated critical habitat. Biological opinions document NOAA Fisheries Service's opinion as to whether the federal action is likely to jeopardize the continued existence of listed species, or result in the destruction or adverse modification of critical habitat. Biological opinions may authorize limited "take" of listed species while specifying the amount or extent of take anticipated and the measures necessary to minimize impacts from the federal action.

For threatened or endangered marine mammals that spend time outside U.S. waters, the United States works with other nations to promote the recovery of the shared stocks. In particular, NOAA Fisheries Service coordinates closely with the Canadian Department of Fisheries and Oceans on efforts to recover endangered North Atlantic right whales and Southern Resident killer whales.

1.3 The National Environmental Policy Act

Federal activities that may affect cetacean and other wildlife species, or their habitats, or other components of the human environment must undergo an environmental analysis under the *National Environmental Policy Act (NEPA)*. Key activities regularly assessed for impacts on cetaceans are coastal development (dredging, bridges, port expansions), seismic surveying, military exercises and scientific research activities.

1.4 The National Marine Sanctuaries Act

The United States also protects cetaceans and their habitat through the designation of national marine sanctuaries, authorized under the *National Marine Sanctuaries Act*. National marine sanctuaries, as well as the Papahānaumokuākea and Rose Atoll Marine National Monuments, manage and protect designated areas of the nation's oceans and Great Lakes and provide habitat for multiple cetacean and other protected species. One of the 13 designated sanctuaries, the Hawaiian Islands Humpback Whale National Marine Sanctuary, was designated specifically to protect humpback whales present in Hawaiian waters each year from November to May. Other sanctuaries provide important habitat for other large and small cetaceans.

2. Current Government programs related to cetacean conservation

The United States is constantly conducting population abundance and distribution surveys throughout its waters, assessing the health of cetacean populations, and managing human-caused injury and mortality.

2.1 Cooperation with States and Alaska Native Organizations

Under the ESA, NOAA Fisheries Service enters into agreements with states that establish and maintain an "adequate and active" program for the conservation of endangered and threatened species. Once a state enters into such an agreement, NOAA Fisheries Service provides federal funding for implementation of the state's conservation program. States use federal funding to support management, outreach, research, and monitoring projects with direct conservation benefits for threatened and endangered species.

NOAA Fisheries Service also has cooperative agreements with Alaska Native organizations to conserve marine mammals and co-manage subsistence hunting of cetaceans and other marine mammals. Cooperative agreements may include federal grants to Alaska Native organizations for collecting and analyzing marine mammal population data, monitoring the harvest of cetaceans for subsistence use, participating in cetacean research, and developing marine mammal co-management structures with government agencies.

2.2 Cooperation with Non-Governmental Organizations

NOAA Fisheries Service formed a partnership in 2002 with a non-profit organization, the National Fish and Wildlife Foundation (NFWF), to coordinate two grant programs to further conservation efforts for critically endangered North Atlantic right whales. Through the National Whale Conservation Fund, NOAA Fisheries Service provides grants on a competitive basis for proposals designed to support research, management, recovery, and education/outreach activities related to the conservation of whale species.

To respond to cetacean strandings, NOAA Fisheries Service supports volunteer stranding networks in all coastal states and is developing capacity in all US territories. NOAA Fisheries Service coordinates, develops best practices, assists with diagnostics and research, provides training and provides some financial support through the John H Prescott Marine Mammal Rescue Assistance Grant Program for the stranding network personnel to detect, respond to and collect data and tissue samples from stranded cetaceans for analysis to determine the cause

of death and the presence of toxins, chemical contaminants, infectious disease, and indications of human interactions.

2.3 National Initiatives

NOAA Fisheries Service develops Stock Assessment Reports (SAR) for each stock of cetacean that occurs in U.S. waters. Each stock assessment, as data availability allows, describes the stock's geographic range, abundance estimates (including a minimum population estimate), current population trends, current and maximum net productivity rates, status with respect to optimum sustainable population levels and allowable removal levels, and estimates of all annual human-caused mortality and serious injury. This information is used, among other things, to evaluate the progress of U.S. commercial fisheries in reducing the incidental mortality and serious injury of marine mammals. NOAA Fisheries Service established three regional scientific review groups to advise and report on the status of marine mammal stocks, research needs for stocks, impacts to stocks, and methods to reduce incidental mortality of marine mammals incidental to fishing operations within Alaskan waters, along the Pacific Coast (including Hawaii), and the Atlantic Coast (including the Gulf of Mexico).

NOAA Fisheries Service also develops and implements recovery plans for cetaceans listed as threatened or endangered under the ESA. Recovery plans incorporate: 1) a description of site-specific management actions necessary to achieve recovery of the species; 2) objective, measurable criteria which, when met, would result in a determination that the species being removed from the list; and 3) estimates of the time and costs required to achieve the plan's goal. Many recovery plans are written by recovery teams, comprised of representative stakeholders. NOAA Fisheries Service has published final recovery plans for endangered blue, humpback, North Atlantic right, fin, sperm, and killer whales (southern resident distinct population segment). NOAA Fisheries Service is in the process of updating and revising recovery plans for endangered sei and Cook Inlet beluga whales.

2.4 Research

The U.S. Government conducts and sponsors a wide variety of cetacean conservation research. Research projects include: surveys to assess population abundance and population dynamics; satellite tagging to ascertain cetacean movement patterns and habitat use; behavioral studies; biopsy collections to provide tissue samples for genetic research on population structure; fisheries bycatch mitigation efforts (including research on fishing gear modification and acoustic deterrent devices); field studies on the impacts of anthropogenic noise; studies to assess the effectiveness of ship strike reduction strategies; and toxicology and disease assessments. In addition, NOAA Fisheries Service partners with scientists worldwide to conduct health assessment studies of wild marine mammal populations to develop baseline data, monitor trends, and investigate the impacts of disease, natural toxins, and pollution.

3. Current threats to cetacean conservation and management measures taken/proposed

3.1 Fisheries interactions

Interaction with fishing gear can incidentally injure and kill cetaceans and is a leading human-related cause of serious injury and mortality for multiple cetacean species (including North Atlantic right whales and harbor porpoise in the Atlantic Ocean, bottlenose dolphins in the Atlantic Ocean and Gulf of Mexico, humpback whales in the Eastern Pacific Ocean, and false killer whales around the Hawaiian Islands). NOAA Fisheries Service works with the fishing industry to develop or modify fishing gear and practices to minimize bycatch. The MMPA requires NOAA Fisheries Service to reduce the incidental serious injury and mortality of marine mammals in commercial fishing operations to insignificant levels approaching a zero mortality and serious injury rate. NOAA Fisheries Service publishes an annual List of Fisheries classifying each commercial fishery based on whether it has frequent (Category I), occasional (Category II), or a remote likelihood of or no known (Category III) incidental mortality and serious injury of marine mammals. Fishermen operating in Category I or II fisheries must register with NOAA Fisheries Service, carry an observer if requested, and comply with any applicable take reduction plan regulations.

NOAA Fisheries Service develops and implements take reduction plans (TRP) to reduce the serious injury and mortality of strategic marine mammal stocks that interact with Category I and II fisheries to a zero mortality and serious injury rate. A strategic stock is one which is listed as threatened or endangered under the ESA, is declining and likely to be listed under the ESA, is listed as depleted under the MMPA, or has direct human-caused mortality which exceeds the stock's "Potential Biological Removal (PBR) level" (defined as the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population). NOAA Fisheries Service convenes Take Reduction Teams, which consist of a balance of representatives from the fishing industry, fishery management councils, State and Federal resource management agencies, the scientific community, and

conservation organizations to prepare TRPs. Once a TRP becomes effective, the team meets periodically to monitor the implementation and effectiveness of the plan. There are currently seven active take reduction teams.

In 2004, NOAA Fisheries Service published a report titled, "Evaluating Bycatch: A National Approach to Standardized Bycatch Monitoring Programs." The report describes a National Bycatch Strategy for monitoring bycatch in U.S. fisheries. The United States subsequently released a National Bycatch Report in May 2011 that provides a comprehensive quantification of regional and national bycatch estimates in U.S. commercial fisheries and may provide a basis for setting bycatch management goals in the future. This report discusses impacts of bycatch on protected species, including cetaceans, in U.S. federal and select state commercial fisheries where data and estimation procedures are available to support the development of bycatch estimates.

3.2 Marine Acoustics

Anthropogenic underwater sound has the potential to cause behavioral changes and other adverse effects on cetaceans, including population-level effects. To better assess these potential impacts, NOAA Fisheries Service is working to develop guidance for assessing acoustic effects of anthropogenic sound on marine mammals. In addition, NOAA Fisheries Service works with various industries and the U.S. Navy to establish plans to monitor and mitigate the use of underwater sound sources, works within the International Maritime Organization (IMO) to address the emerging international issue of commercial shipping noise and its contribution to the ambient acoustic environment, funds research to improve understanding of the potential impact of sound on marine mammals and other marine protected species, and works with federal partners to address scientific issues relating to marine anthropogenic sound. As an example of recent efforts, NOAA Fisheries Service, in conjunction with other partners, has been conducting behavioral response studies (BRS) for three years (2007/2008) in the Bahamas and Mediterranean Sea (2009) and this past year (2010) off southern California on beaked whales and other species to better understand behavioral impacts of noise exposure.

3.3 Ship Strike Reduction

Ship strikes are a significant threat to large whales. In the United States, collision with vessels is a leading human-caused source of mortality for the endangered North Atlantic right whale. To address this threat, the United States has developed regulatory and non-regulatory measures to reduce ship strikes, including modification of vessel operations, education and outreach programs, and research and monitoring activities. In 1999, NOAA Fisheries Service and the U.S. Coast Guard implemented two Mandatory Ship Reporting systems, endorsed by the International Maritime Organization (IMO), for ships 300 gross tons or greater in two key right whale habitats—one off the northeast United States and one off the southeast United States. NOAA Fisheries Service and other state and federal agencies conduct extensive aircraft surveys for right whales. From these, right whale "alerts" and ship speed advisories are issued through multiple media outlets, in areas and at times where right whales occur. In November 2006 the United States established a set of recommended vessel routes in four locations off the U.S. East Coast to reduce the likelihood of ship collisions in key North Atlantic right whale habitats. The United States submitted a proposal to the IMO to reconfigure the East-West leg of the Traffic Separation Scheme (TSS) that services Boston, Massachusetts, which was approved in December 2006 and implemented in July 2007. The U.S. subsequently submitted a proposal to the IMO to reconfigure the North-South leg of the TSS, which was subsequently approved and went into effect in June 2009. Also proposed to, and approved by, the IMO in 2008 was a U.S. proposal to establish an area to be avoided (ATBA) in the Great South Channel off Massachusetts. This seasonal, voluntary ATBA was implemented in June 2009. These modifications are expected to significantly reduce the risk of ship strikes to baleen whales in this area.

In December 2008, the United States implemented speed restrictions to reduce the threat of ship collisions with North Atlantic right whales and the risk of death should a collision occur. These regulations require ships 65 feet or longer to travel 10 knots or less in certain areas at certain times of the year. NOAA Fisheries also calls for temporary voluntary speed limits in other areas or times when the presence of a group of three or more right whales is confirmed. Mariners are expected, but not required, to either avoid these areas or travel through them at 10 knots or less. NOAA has developed and distributed a Compliance Guide for Mariners for this rule. NOAA Fisheries is monitoring vessel behavior in these management areas for the purposes of enforcing and evaluating the effectiveness of the regulations.

In January 2010, NOAA Fisheries convened a workshop and panel discussion in Long Beach, California to, among other things, identify research needs and management options to reduce ship strikes of large whales (primarily blue, fin, and humpback whales) inhabiting waters off the U.S. west coast. The United States Coast Guard is currently conducting a Port Access Route Study of key ports in both southern and northern California to assess the feasibility of modifying shipping routes, which will, among other things, assess possible adverse affects the moving of routes will have on large whale species.

In Glacier Bay National Park, Alaska, the National Park Service limits the speed of cruise ships to 13 knots and the number of ships entering the park to protect humpback whales.

In spring 2007, Stellwagon Bank National Marine Sanctuary and its partners implemented a new program to reduce the threat of ship strikes to endangered large whales that could result from transport of Liquefied Natural Gas (LNG) in waters off New England. Licenses granted to develop two LNG sites were conditioned upon the use of three passive acoustic monitoring arrays to reduce the threat of ship strikes. Use of these arrays was initially recommended by the NOAA's National Marine Sanctuary Program (NMSP) as part of formal consultations for these projects under the *National Marine Sanctuaries Act* (NMSA, 1972 amended 1992). Permitting was coordinated through NOAA Fisheries and the NMSP, and was the subject of a biological opinion rendered by the Fisheries Service under the Endangered Species Act via consultations with the U.S. Maritime Administration and the U.S. Coast Guard, acting jointly. The program establishes three passive acoustic arrays for detecting calling whales. Two of the arrays include real-time auto detection buoys, first at the site of port and pipeline construction, and later within the Boston shipping lanes or TSS. The buoys automatically detect northern right whale contact calls and transmit alerts in real-time via satellite connections.

In a separate document, the USA provides annual updates on the above-described programs to the Conservation Committee and its Subcommittee on Ship Strikes. The Subcommittee hosted a meeting in France in September 2010 on reducing ship strikes of large whales. The USA participated and provided perspectives on its efforts to reduce ship strikes in US waters.

3.4 Whale Watching Regulations and Guidelines

NOAA Fisheries Service prohibits viewing of marine mammals in a manner that can cause "harassment" of the animal, including feeding or attempting to feed an animal. Whale watching in the United States is managed mainly through viewing guidelines that include region-specific information for local species and habitats.¹ These viewing guidelines, which vary by region and species, promote a "Code of Conduct" that recommends approach distances for vessels and aircraft, methods for vessel and aircraft approach, speed limits for vessels in areas with high numbers of cetaceans, not swimming with marine mammals in the wild, and maximum viewing time limits. In addition, NOAA Fisheries Service and the NOAA's National Marine Sanctuary Program have developed a broad-based "Ocean Etiquette" program to promote ocean stewardship by providing the public with guidance on minimizing impacts to marine life and habitats, including the "Dolphin SMART" program, which is a voluntary recognition and education program encouraging responsible viewing by commercial businesses conducting and booking wild dolphin viewing tours in the Florida Keys National Marine Sanctuary and portions of the Gulf of Mexico, and the similar "Whale SENSE" program in the U.S. mid-Atlantic and New England areas.

While the majority of whale watching in the United States is managed through voluntary guidelines, whale watching is managed under regulations for endangered humpback whales in Alaska and Hawaii, endangered North Atlantic right whales, and endangered Southern Resident killer whales. Regulations specific to humpback whales in Hawaii and Alaska prohibit vessels from approaching within 100 yards (91.4 m) of any humpback whale, including placing a vessel in the path of an oncoming humpback whale so that the whale surfaces within 100 yards (91.4 m) of the vessel. In Hawaii, aircraft are also prohibited within 1,000 feet (300 m) of any humpback whale. In Alaska, the U.S. National Park Service has additional regulations that prohibit the operation of a vessel within one-quarter nautical mile of a humpback whale and limits the speed of cruise ships to 13 knots in Glacier Bay National Park. Glacier Bay National Park also limits the number of cruise ships allowed in parts of the park when humpback whales are present.

The critically endangered status of North Atlantic right whales has prompted regulations that prohibit vessels conducting whale watching activities from approaching (including by interception) within 500 yards (460 m) of a right whale by vessel, aircraft, or any other means. When within 500 yards (460 m) of a right whale, a vessel must steer a course away from the right whale and immediately leave the area at a slow safe speed and any aircraft must take a course away from the right whale and immediately leave the area at a constant airspeed.

¹ <http://www.nmfs.noaa.gov/pr/education/viewing.htm>

The identification of the effects of vessels, including physical interference and sound, as a potential contributing factor in the decline of the endangered Southern Resident killer whales promoted NOAA Fisheries Service to issue regulations to protect the whales. These regulations prohibit vessels from approaching any Southern Resident killer whale closer than 200 yards and forbid vessels from intercepting a Southern Resident killer whale or positioning the vessel in its path. The regulations apply to all types of boats, including motor boats, sail boats, and kayaks.

NOAA Fisheries Service's Pacific Islands Region is currently considering regulations for viewing activities that may result in harassment of Hawaiian spinner dolphins. In the meantime, NOAA Fisheries Service continues to promote the recommended regional viewing guidelines for the species.

4. Reporting systems for cetacean injuries/mortality/strandings

4.1 Fisheries bycatch reporting

All U.S. fishing vessel owners or operators must report all incidental injuries and mortalities of marine mammals that occur during commercial fishing operations under the Marine Mammal Authorization Program (MMAP). In addition, NOAA Fisheries Service's Regional Fishery Observer Programs, Marine Mammal Health and Stranding Response program, and large whale disentanglement programs document and report marine mammal bycatch incidental to commercial fishing operations. Fisheries that result in frequent or occasional incidental mortality and serious injury of marine mammals are subject to observer and registration requirements under the MMAP. Information on marine mammal interactions with commercial fisheries collected under this program and other sources provides the basis for determining whether the incidental serious injury and mortality of marine mammals in commercial fishing operations has been reduced to insignificant levels approaching a zero mortality and serious injury rate.

4.2 Marine Mammal Health and Stranding Response Program

The Marine Mammal Protection Act was amended in 1992 to establish NOAA Fisheries Service's Marine Mammal Health and Stranding Response Program (MMHSRP) to: 1) facilitate collection and dissemination of reference data on the health of marine mammals and to assess health trends of marine mammal populations in the wild; 2) correlate marine mammal health with available data on physical, chemical, and biological environmental parameters; and 3) coordinate effective responses to unusual mortality events. The MMHSRP has several components including:

- National Marine Mammal Stranding Network
- Marine Mammal Unusual Mortality Event Response and Investigation Program
- John H. Prescott Marine Mammal Rescue Assistant Grant Program
- National Marine Mammal Archiving Program
- National Marine Mammal Entanglement Response Program
- Marine Mammal Biomonitoring, Surveillance, and Investigation Program
- Marine Mammal Analytical Quality Assurance Program
- Information Management Program

The National Marine Mammal Stranding Network consists of over 120 organizations, including nonprofit organizations, aquaria, universities, and state and local governments, partnered with NOAA Fisheries Service to investigate marine mammal strandings. In addition to the stranding response activities, NOAA Fisheries Service works with partners to evaluate the health and disease status of marine mammals in the wild through live capture release programs, by-catch monitoring programs, subsistence monitoring programs and free swimming remote assessments. The MMHSRP oversees the activities of the national stranding and entanglement response networks through a national coordinator and six regional coordinators. Every rescue and detailed study of stranded marine mammals yields information on species, sex, length, location, and any evidence of human interaction, as well as tissues and specimens for use in scientific research, for determination of the causes of stranding and death, for educational purposes, for life history investigations and for biological or health research needs. With these data, along with data from other sources, NOAA Fisheries Service and its partners gain insight into the causes of strandings, the health and health trends of cetacean populations, and the identification of factors that may impact the health of wild marine mammal populations. NOAA Fisheries Service leads the investigations of Unusual Mortality Events (UMEs), which are declared when a stranding event is unexpected, involves a significant die-off of any marine mammal species, and demands an immediate response. Unusual Mortality Events have occurred for a number of reasons. A Working Group on Marine Mammal Unusual Mortality Events, comprised of experts in marine mammal health, conservation medicine, biology, toxicology, and marine science, aids NOAA Fisheries Service and the Stranding Network in conducting more thorough investigations of such unusual stranding events.

The National Marine Mammal Tissue Bank was established in collaboration with the National Institute of Standards and Technology (NIST) and provides protocols and techniques for the long-term storage of tissues from marine mammals for retrospective contaminant analyses. Tissue samples are contributed from several sources, including the Stranding Network, fisheries bycatch, health assessment studies and legal subsistence hunts. The Tissue Bank uses the network of partners including other trained personnel to collect tissues from specific indicator species (including, but not limited to, pilot whales, harbor porpoises, Atlantic white-sided dolphins, pygmy sperm whales, bottlenose dolphins, rough-toothed dolphins, common dolphins, beluga whales, and bowhead whales), animals from mass-stranding events, and from mortality events. In the upcoming year, the Tissue Bank will be expanding to include banking of samples for other purposes such as infectious disease and biotoxin detection or studies.

Over the last several years the program has documented an increase in Harmful Algal Bloom (HAB) related biotoxins in marine mammals (in new species and new geographic areas),² new hot spots and populations with very high levels of anthropogenic chemicals and an increase in detection of or geographic expansion of infectious diseases of concern for population and human health. Scientists now recognize a link between these HAB related biotoxins and marine mammal mortality events as well as environmental influences on infectious agents that contribute to epidemics due to cycling pathogens.³ For instance, over the last several years, NOAA Fisheries Service's collaborations with partners have documented new viruses, new bacterial diseases, and new fungal diseases in cetaceans in the wild. With an increase in collaboration with the U.S. Navy, the MMHSRP is investigating strandings that occur coincident to Navy training exercises in US waters as well as emerging infectious diseases of pinnipeds and cetaceans. Over the last year, the MMHSRP has worked with numerous partners to respond to and investigate the impacts of the Deepwater Horizon Oil Spill on cetacean populations in the Gulf of Mexico. The MMHSRP will be updating their Marine Mammal Oil Spill Response Guidelines based on the activities in the recent large oil spill response in the Gulf. All of these studies contribute to a growing, worldwide effort of marine mammal biomonitoring not only to assess the health and contaminant loads of marine mammals, but also to assist in determining anthropogenic impacts on marine mammals, marine food chains and marine ecosystem health. In addition these efforts are collaborative with the growing international effort on One Health. NOAA Fisheries Service provides participants in the program with training and some financial support through a grant program. Finally the MMHSRP continues to support training, capacity building, and response assistance for marine mammal health issues in other countries.

5. International cooperation activities

The U.S. Government, through the NOAA Fisheries Service, the Marine Mammal Commission, and other Federal agencies, undertakes a number of research projects on cetaceans in U.S. waters and overseas. NOAA Fisheries Service also collaborates with non-U.S. scientists on a wide variety of cetacean research activities. Generally, these efforts include collaboration on assessments of stock status and genetic structure, bycatch assessments and mitigation efforts, evaluations of the impacts of man-made sound, assessments of contaminant loads in tissues, and capacity building and training efforts on a variety of topics – most notably training and development of stranding response networks. NOAA Fisheries Service currently is developing an International Marine Mammal Action Plan to guide its efforts to protect and conserve marine mammals outside U.S. waters.

In 1992, the United States joined various Latin and South American countries to form the *La Jolla Agreement and the International Dolphin Conservation Program*, which established conservative species/stock specific annual dolphin mortality limits and represented an important multilateral step toward reducing bycatch of dolphins in commercial Eastern Tropical Pacific (ETP) tuna purse seine fisheries. In 1995, the United States and the Governments of Belize, Colombia, Costa Rica, Ecuador, France, Honduras, Mexico, Panama, Spain, Vanuatu and Venezuela came together and negotiated the Panama Declaration, which in turn led to the negotiation of the Agreement on the International Dolphin Conservation Program (AIDCP). This treaty aims to reduce incidental dolphin mortalities in the tuna purse-seine fishery through the setting of annual limits, seeks alternative means of capturing large yellowfin tunas not in association with dolphins, and ensures the long-term sustainability of tuna stocks and marine resources in the ETP. To date, Costa Rica, Ecuador, El Salvador, European Union, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru, United States, Vanuatu, and Venezuela have ratified or acceded to the AIDCP. Bolivia and Colombia are applying the Agreement provisionally.

² http://ocean.ceq.gov/about/sup_jsost_iwgs.html

³ Raverty, et. al., 2011. PLoS Negl Trop Dis 5(5): e142; Harms, et al, 2008 Vet Res 39(6):59; Schwacke et al 2011 Proc Biol Sci.

Since 1995, the United States has conducted joint research on the western gray whale with the Russian Federation on a project within the Marine Mammal Project under Area V: Protection of Nature and the Organization of Reserves within the U.S.-Russia Agreement on Cooperation in the Field of Environmental Protection. This project was initiated to examine the conservation status, occurrence, distribution, behavior, and potential human-related disturbance of gray whales off the northeastern coast of Sakhalin Island. Recent findings show that eastern and western gray whales can be genetically differentiated at the population level, and should be recognized as geographically and genetically isolated population units. Although 180 whales have been identified off northeastern Sakhalin Island between 1994 and 2009, not all of these individuals can be assumed to be alive today. However, the actual population size of western gray whales, based on mark-recapture estimates from photo-identification and genetic data, is estimated to be 130 animals.

The Marine Mammal Commission also supports domestic and international research that addresses important conservation issues for marine mammals or marine ecosystems. International cetacean-specific research funded in 2010 included compiling and analyzing data to assess the status of Irrawaddy dolphins in the Cambodian Mekong River; supporting the southern right whale health monitoring program and investigating potential causes of high mortality levels; developing a photo-identification catalog of killer whales in the Russian Far East region; and translating a monograph on information collected on Southern Hemisphere cetaceans during Soviet whaling expeditions that occurred from 1964 through 1975. The Commission also provided support for translation services at the Conference on Marine Mammals of the Holarctic, and for attendance of the Fifth International Marine Debris Conference. In addition, relevant domestic projects supported by the Commission include deploying a passive acoustic monitoring device in the vicinity of the leaking well to analyze cetacean presence following the 2010 *Deepwater Horizon* oil spill incident in the Gulf of Mexico; convening a workshop to develop best practices for estimating abundance of estuarine bottlenose dolphin populations in the Southeast United States; and obtaining baseline information on abundance, distribution, and behavior of spinner dolphins in Hawaii to assess the potential effects of ecotourism.

Also, the U.S. Government is a party to a number of multi-lateral agreements related to cetaceans and their marine environments, in addition to its commitments through the IWC and AIDCP:

- Convention on International Trade in Endangered Species of Wild Fauna and Flora
- South Pacific Regional Environmental Program and United Nations Environmental Program's Specially Protected Areas and Wildlife Protocol for the Wider Caribbean
- Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR)
- Several other regional fishery management organizations (RFMOs)

In the past, RFMOs have not focused much attention on assessing or mitigating bycatch of cetaceans, with the exception of the Inter-American Tropical Tuna Commission, which addresses tropical dolphin bycatch in tuna purse seine fisheries via the AIDCP. However, in June 2010, the five tuna RFMOs convened in Brisbane, Australia for a workshop focused on bycatch, including bycatch of cetaceans. The United States served as the technical host for the workshop. The workshop discussions focused on methods to better assess, reduce, and mitigate bycatch and to improve T-RFMO coordination and cooperation. The workshop's recommendations were based on a joint proposal by the United States, Brazil, Canada, Ecuador, the European Union, Peru, and Uruguay, and included calls for bycatch data collection standards, enhanced observer and port sampling programs, and stronger mitigation measures. The workshop recommendations included directives that T-RFMOs adopt bycatch conservation and management measures that are binding, clear and direct, measurable, science-based, ecosystem-based, ecologically efficient, practical and safe, economically efficient, holistic, collaboratively developed with industry and stakeholders, and fully implemented; The workshop recommendations also called upon T-RFMOs to establish a joint T-RFMO working group to investigate methods to harmonize data collection protocols, identify species of concern, review the efficacy of existing bycatch measures, and compile information on bycatch research. The terms of reference for such group can be found in the report of the workshop and the first meeting of the working group is scheduled for July 2011.