

United States Voluntary National Cetacean Conservation Report, 2014

Submitted by the Government of the United States to the Conservation Committee
65th 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 maintain marine mammal stocks at optimum sustainable population levels, 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. The cetacean species considered depleted under the MMPA that are not listed under the ESA (see section 1.2) are:

- Spotted dolphin, Northeastern offshore stock
- Spinner dolphin, Eastern stock
- Killer whale, AT1 transient stock
- Bottlenose dolphin, coastal migratory stock (along the U.S. mid-Atlantic coast)

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 or non-fishery activities.

The MMPA also established the Marine Mammal Commission (Commission) as an independent agency of the U.S. government. 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 U.S., 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:

- Beluga whale, Cook Inlet Distinct Population Segment (endangered)
- Blue whale (endangered)
- Bowhead whale (endangered)
- Fin whale (endangered)
- Gray whale , all stocks except the eastern North Pacific stock(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 U.S. 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 (e.g., dredging, bridges, and port expansions), seismic surveying, military exercises and scientific research activities.

1.4 The National Marine Sanctuaries Act

The U.S. 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. In June, President Obama announced that the United States will consider how it might expand the Pacific Remote Islands Marine National Monument in the South Central Pacific.

2. Current Government programs related to cetacean conservation

The U.S. conducts population abundance and distribution surveys within the US EEZ and Eastern Tropical Pacific (ETP) waters, which aid in management actions to prevent or reduce human-caused injury and mortality of various cetacean species.

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

To respond to cetacean strandings, NOAA Fisheries Service partners with stranding network organizations in all coastal states and is developing capacity in some U.S. 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. In 2013, NOAA Fisheries Service awarded 12 Prescott grants to stranding network organizations from 10 states totaling \$1,046,417.

2.3 National Initiatives

NOAA Fisheries Service and the U.S. Fish and Wildlife Service are responsible for developing Stock Assessment Reports (SAR) for each marine mammal stock that occurs

in waters under the jurisdiction of the U.S. 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. Three regional scientific review groups advise NOAA Fisheries Service and the U.S. Fish and Wildlife Service on the status of marine mammal stocks, research needs for stocks, impacts to stocks, and methods to reduce 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 may be removed from the list; and 3) estimates of the time and costs required to achieve the plan's goal. NOAA Fisheries Service has published final recovery plans for endangered blue, humpback, North Atlantic right, North Pacific right, fin, sperm, sei, and killer whales (southern resident distinct population segment). NOAA Fisheries Service is in the process of updating the recovery plan for endangered blue whales, and developing recovery plans for endangered Cook Inlet beluga whales and insular false killer whales. All recovery plans can be found at: <http://www.nmfs.noaa.gov/pr/recovery/plans.htm>.

2.4 Research

The U.S. Government conducts and sponsors a wide variety of cetacean conservation research. Research projects include, *inter alia*: 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); studies on the impacts of anthropogenic noise; and studies to assess the effectiveness of ship strike reduction strategies; 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, depending on funding availability.

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 in the Pacific Ocean). NOAA Fisheries Service works with the fishing industry and other experts 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 U.S. subsequently released a National Bycatch Report; the most recent update was published in 2013 and is based on data from 2010. The National Bycatch Report provides a comprehensive quantification of bycatch estimates in U.S. commercial fisheries and may provide a basis for setting bycatch management goals in the future. The 2013 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. The 2013 National Bycatch Report can be found at: <http://www.st.nmfs.noaa.gov/Assets/Observer-Program/bycatch-report/NBR1stEdUpdate1FactSheet.pdf>.

Please also see section 6.5 below for information on U.S. participation and leadership in IWC conservation initiatives related to bycatch and disentanglement of large whales.

3.2 Marine Acoustics

Anthropogenic underwater sound has the potential to cause mortality, injury, 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 (for more information, see <http://www.nmfs.noaa.gov/pr/acoustics/guidelines.htm>). 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 issue of commercial shipping noise and its contribution to the ambient acoustic environment (i.e., voluntary guidelines for vessel quieting MEPC.1/Circ.833, approved by IMO 7 April 2014), 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.

Further, NOAA, the U.S. Navy, and the U.S. Bureau of Ocean Energy Management collaborated on a May 2012 symposium, “Mapping Cetacean and Sound: Modern Tools for Ocean Management.” This symposium brought together two data and product-driven working groups, the Underwater Sound-field Mapping Working Group (SFMG) and the Cetacean Density and Distribution Mapping Group (CetMap), to work towards improving the tools used to evaluate the impacts of human-induced noise on cetacean species. The specific objective of the SFMG is to create mapping methods to depict the temporal, spatial, and spectral characteristics of underwater noise; while the specific objective of the CetMap is to create regional cetacean density and distribution maps that are time- and species-specific, using survey data and models that estimate density using predictive environmental factors. At the May 2012 symposium, the products of these working groups were presented, integrated, and interpreted in the context of management applications by members of each working group and a larger audience of scientists, environmental non-government organizations, industries, federal agencies, and conservation managers. The final products and analyses will provide a more robust, comprehensive, and context-specific biological and acoustic basis by which to inform subsequent management decisions related to: 1) cumulative noise impacts; 2) anthropogenic impacts to marine mammals, and, specifically; 3) the potential effects of man-made noise on cetaceans. Please go to the following link for additional information: <http://www.st.nmfs.noaa.gov/cetsound/>.

Please also see section 6.5 below for information on U.S. participation and leadership in IWC conservation initiatives related to marine acoustics.

3.3 Ship Strike Reduction

Ship strikes are a significant threat to large whales. In the U.S., vessel collisions are a leading human-caused source of mortality for the endangered North Atlantic right whale. To address this threat, NOAA 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 December 2008, the U.S. implemented vessel speed restrictions to reduce the threat of ship collisions with North Atlantic right whales and the risk of serious injury or 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 Service also establishes temporary voluntary speed limits at other times when the presence of a group of three or more right whales is confirmed. In these areas, 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 Service monitors vessel operations in these management areas for the purposes of enforcing and evaluating the effectiveness of the regulations.

The U.S. Coast Guard (USCG) and NOAA Fisheries Service have established other protective measures to reduce the threat of vessel collisions with North Atlantic right whales, including International Maritime Organization-endorsed (a) Area To Be Avoided (2009) for the waters of Great South Channel; (b) two modifications (in 2007 and 2009) to the Traffic Separation Scheme (TSS) that services Boston, Massachusetts; and (c) two Mandatory Ship Reporting systems in key right whale aggregation areas (1999). In addition, the U.S. established a set of recommended vessel routes in four locations off the U.S. East Coast in November 2006. Information on these measures and the vessel speed restrictions is available at: <http://www.nmfs.noaa.gov/pr/shipstrike/>

The U.S. submitted proposals to the IMO to amend the existing TSS in the Santa Barbara Channel and for the approach to San Francisco to reduce the likelihood of ship strike deaths and serious injury to blue and other whales. Backed by a 2011, USCG Port Access Route Study (PARS) that concluded that the burden imposed on shipping by the proposed amendment is minimal while the potential benefits to large whales, particularly blue whales, may be significant, the IMO approved both measures and they went into effect on June 1, 2014. The width of the Santa Barbara Channel TSS separation zone from four nautical miles to three nautical miles. This will move the inbound lane further from the Channel Islands and decrease the co-occurrence of vessels and blue and fin whales. New lanes were added to, and existing lanes were modified in, the San Francisco TSS which will serve to reduce the risk of marine casualties, reduce the likelihood of ship strikes with cetaceans, and avoid interaction between fishing and commercial vessels.

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 reduce the likelihood of collisions with humpback whales.

Please also see section 6.5 below for information on U.S. participation and leadership in IWC conservation initiatives related to ship strike reduction.

4. Whale Watching Management and Relevant Actions Under the 5-Year Strategic Plan for Whale Watching (IWC/63/CC 3)

This section outlines U.S. domestic efforts related to the IWC's 5-Year Strategic Plan for Whale Watching. Please also see section 6.5 below for information on U.S. participation and leadership in IWC conservation initiatives related to whale watching.

4.1 Research

The U.S. regularly conducts research on the impacts of vessels on marine mammals directly with government scientists, in collaboration with University scientists, and by providing funding, through grants, to support research of independent scientists and graduate students. This research occurs through regular assessments of marine mammal population abundance and trends, studies on the impacts of human activities on marine mammals, and directed research on the impacts of whale watching activities. This information will be used to assess the potential effects of ecotourism activities, including whale watching, on those populations. The U.S. uses existing and ongoing research efforts to inform management of whale watching activities, including regional voluntary viewing guidelines and regulations (described in section 4.5).

4.2 Assessment (Monitoring)

The U.S. conducts population abundance and distribution surveys throughout its waters, assessing the health of cetacean populations, and managing human-caused injury and mortality. As described in section 2.3, NOAA Fisheries Service develops annual Stock Assessment Reports (SAR) for cetaceans that occur in U.S. waters. These annual reports assist in assessing the status of stocks. Further, as described in section 4.1, the U.S. regularly collaborates with independent scientists, increasing the chance that the U.S. is able to detect adverse impacts on populations through current and ongoing research studies. This information is used, among other things, to evaluate the progress of U.S. management of human interactions with marine mammals, including vessel interactions (through viewing guidelines and/or regulations).

NOAA Fisheries Service makes all SARs and the information from its research and monitoring programs easily accessible to the public through the internet (<http://www.nmfs.noaa.gov/pr/sars/>). NOAA Fisheries Service and each Regional Office maintains websites dedicated to providing information on whale watching in the region, the status of species most popular to the whale watching industry, and information on viewing guidelines and regulations.

4.3 Capacity Building

The U.S. works with the whale watching operators and interest group domestically and internationally to support the development of responsible whale watching practices and the associated benefits to local communities. Further, the U.S. regularly supports and participates in international workshops on whale watching. Most recently, the U.S. provided financial support and chaired the May 2013 IWC Whale Watching Working Group meeting with international whale watch operators in Brisbane, Australia.

In April/May 2014, under its International Visitor Leadership Program, the Department of State brought 9 eco-tourism operators and museum professionals from Iceland to the United States to explore the policy, economics and science for the non-lethal economic use of whales. During the 10-day trip, the participants met with policy experts, conservationists, and eco-tourism companies in Washington D.C., New Hampshire, and eastern Massachusetts. Discussions took place at the U.S. Capital, the Smithsonian Institution, the White House, and other U.S. Federal Agencies. Additional activities

included visiting whale watching companies and whaling museums, marine research institutes, and meeting with environmental non-governmental organizations.

4.4 Development

The U.S. works regularly with the whale watching industry to assist in the development of a sustainable industry that operates in a manner that is not detrimental to marine mammals. Most notably, the NOAA Fisheries Service collaborated with partners in the U.S. Office of National Marine Sanctuaries, Whale and Dolphin Conservation Society, Dolphin Ecology Project, and commercial tour operators to launch the “Dolphin SMART” program in 2007. This program is a voluntary recognition and education program encouraging responsible viewing by commercial businesses operating in the Florida Keys National Marine Sanctuary and portions of the Gulf of Mexico. By becoming a “Dolphin SMART” operator and maintaining participation, businesses gain a competitive edge by offering customers an enhanced tour, while demonstrating their commitment to dolphin conservation. The “Dolphin SMART” program was so successful in Florida, NOAA Fisheries Service launched “Dolphin SMART-Hawaii” in 2011.

NOAA Fisheries Services also partnered with the Whale and Dolphin Conservation Society and NOAA Stellwagen Bank National Marine Sanctuary to develop a similar program to Dolphin SMART, “Whale SENSE”, to engage the whale watching industry for humpback, fin, minke, and sei whales in the U.S. Mid-Atlantic and New England, and to foster guideline compliance. Since its launch in 2009, the Whale SENSE program has gained momentum and credibility within the whale watching industry, expanding in the U.S. and gaining international recognition.

Businesses participating in the “Dolphin SMART” and “Whale SENSE” programs are provided with outreach materials for their customers, including educational brochures, posters, and a flag and/or sticker decal to advertise on their vessel.

4.5 Management

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 U.S. is managed mainly through viewing guidelines that include region-specific information for local species and habitats. These guidelines can be found at: <http://www.nmfs.noaa.gov/pr/education/viewing.htm>. NOAA Fisheries Service develops and provides multiple training and education tools for industry practitioners and the public, include brochures, posters, and websites. 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” and “Whale SENSE” programs discussed in section 4.4.

While the majority of whale watching in the U.S. 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.

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.

5. Reporting systems for cetacean injuries/mortality/strandings

5.1 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. In addition, NOAA Fisheries Service's Regional Fishery Observer Programs, Marine Mammal Health and Stranding Response Program, and large whale entanglement response programs document and report marine mammal bycatch incidental to commercial fishing operations. Information on marine mammal interactions with commercial fisheries collected under these programs 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.

5.2 Marine Mammal Health and Stranding Response Program

The MMPA was amended in 1992 to establish the 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; and
- Information Management Program.

The National Marine Mammal Stranding Network consists of over 120 organizations, including other federal agencies, nonprofit organizations, aquaria, universities, and state and local governments, partnered with NOAA Fisheries Service to investigate marine mammal strandings. In addition to the collection of health and disease information from 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 studies, bycatch monitoring programs working with fisheries observers, subsistence monitoring programs, and free swimming assessments such as remote biopsies. 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 determining the causes of strandings and mortalities, 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.

In 2013 and 2014 energies were focused on emergency response efforts including updating the oil spill response guidelines for marine mammals, continued UME responses to four on-going cetacean events occurring along the Atlantic coast and in the Gulf of Mexico, and participation in the on-going Natural Damage Resource Assessment (NRDA) post-Deep Water Horizon Oil Spill. Additionally, NOAA Fisheries Service along with our partners led by the Virginia Aquarium and Marine Science Center, held a workshop and published a technical report on recommendations for euthanasia of stranded cetaceans. Lastly, a pilot project was begun recently to create a Marine Mammal Health Map (MMHM) to develop a national marine mammal health tracking program for the United States that is web-based and readily accessible to scientists, managers, and the general public. This mapping tool will allow detection of spatiotemporal changes in marine mammal health that will enable early prioritization of management and conservation efforts to mitigate mortality and identify potential public health risks. In addition, this project will contribute to the detection of climate change impacts on marine mammal health.

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. Since 1987, tissue samples have been 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 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. Recently, the Tissue Bank has expanded to include banking of samples for other purposes such as infectious disease and biotoxin detection or studies from the NRDA investigation and several UMEs.

NOAA Fisheries Service leads the investigations of Unusual Mortality Events (UMEs), which are declared when a stranding event or disease outbreak is unexpected, involves a significant die-off of any marine mammal species, and demands an immediate response. 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 thorough investigations of such unusual stranding events. As of July 2014, the program has investigated 60 unusual mortality events in marine mammals in the U.S. with four events declared in 2013-2014. Currently the program has seven active investigations as shown in the following table and at <http://www.nmfs.noaa.gov/pr/health/mmume/>.

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. Of particular importance for 2013-2014, the program investigated the role of emerging infectious diseases on marine mammal health, the transport of terrestrial pathogens to marine mammals, and the risk of animal to human and human to animal transmission of shared pathogens or emergence of pathogens in marine foodwebs. NOAA signed a Memorandum of Agreement with the Centers for Disease Control and Prevention to enhance collaboration. For instance, studies are underway on several emerging infectious diseases such as *brucella*, *coxiella*, *influenza*, *leptospira*, protozoal diseases and the re-occurrence of morbillivirus. Detection and response to emerging infectious diseases continues along all coasts of the U.S.

As part of efforts to monitor and mitigate the impacts of naval training activities on marine mammals, the NOAA and US Navy signed a Memorandum of Understanding (MOU) in 2011 that outlines communication and assistance between the agencies relative to stranding response and investigations associated with Major Training Exercises in specific Navy training ranges. In 2013, six regional agreements under the MOU were signed that outline specific types of assistance the US Navy may provide to NOAA and the stranding network for stranding responses along the coasts. With collaboration of the U.S. Navy, the NMFS and stranding network partners investigated the deaths of three common dolphins during an time delayed underwater detonation training exercise in a

Navy training range in 2011 and determined the types of injuries resulting in the immediate deaths of these animals.

Finally over the last four years, the MMHSRP has continued to work 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 UME and NRDA investigations include stranding response and necropsies and coastal bottlenose dolphin studies using photo-ID, remote biopsies, and dolphin live capture release health assessments. 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. Finally the MMHSRP continues to support training, capacity building, and response assistance for marine mammal health issues in other countries.

6. International cooperation activities

6.1 International Research and the U.S. International Marine Mammal Action Plan

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 human-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 observer and stranding response networks. On October 22, 2012, NMFS released the *International Marine Mammal Action Plan* to fulfill the U.S.’s international obligations to protect and conserve marine mammals, reduce the impacts of human activities on marine mammals, and ensure that the agency’s efforts are coordinated in a strategic fashion. The Action Plan includes seven strategic priorities to improve research and understanding of marine mammal biology, advance the conservation and management of marine mammals globally, and increase cooperation and collaboration with national and international partners. The *International Marine Mammal Action Plan* can be viewed at http://www.nmfs.noaa.gov/ia/species/marine_mammals/marine_mammals_home.html.

6.2 U.S.-Russia Agreement on Cooperation in the Field of Environmental Protection

Since 1995, the U.S. 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 150 animals.

6.3 Multilateral Agreements

In 1992, the U.S. 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 U.S. 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.

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

- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES);
- South Pacific Regional Environmental Program and United Nations (UN) Environmental Program's Specially Protected Areas and Wildlife Protocol for the Wider Caribbean;
- Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR);
- Convention on Migratory Species Memorandum of Understanding for the Conservation of Cetaceans and their Habitats in the Pacific Islands Region; and
- Several other regional fishery management organizations (RFMOs).

In the UN General Assembly resolution on Sustainable Fisheries and the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, adopted on December 6, 2011, the U.S. was successful in adding language expressing concern about the bycatch of marine mammals. In addition language was also added urging States and regional fisheries management organizations to strengthen or establish data-collection programs to obtain reliable estimates of shark, marine turtle, fin fish, marine mammal and sea bird by-catch, to promote research on selective fishing gear and practices and research on bycatch mitigation measures. The inclusion of marine mammals in this resolution is a significant step toward the UN recognizing marine mammal bycatch as a global threat.

At the 2011 annual meeting of the International Commission for the Conservation of Atlantic Tunas (ICCAT) a US-initiated measure was adopted by ICCAT to harmonize requirements for parties to collect data on by-catch and discards in their waters and report this information to ICCAT, including means for artisanal fisheries in developing coastal States to develop alternative methods for data collection. This measure will improve data collection on the bycatch of marine mammals.

At the July 2012 and 2014 COFI meetings, the United States noted its ongoing efforts to assemble information on the mitigation of marine mammal bycatch in commercial fisheries through a series of international workshops, and signaled its desire to develop international guidelines to reduce the bycatch of marine mammals in commercial fisheries similar to existing guidelines for sea turtles and seabirds.

In 2011, the Western Central Pacific Fisheries Commission adopted a conservation and management measure to prohibit vessels from setting purse seines on a school of tuna associated with a cetacean. In the event a cetacean is unintentionally encircled in a purse seine net, the vessel captain must take steps to ensure the cetacean's safe release.

In May 2012, NMFS organized a special session on marine mammal bycatch at the 63rd Annual Tuna Conference, an open and informal forum for scientists, engineers, managers, fishermen, and NGOs from around the world to exchange information and ideas including recent research findings on tunas and "tuna-like" species. The session reviewed what is known about marine mammal bycatch in global tuna fisheries, discussed available mitigation measures within purse seine and longline fisheries to reduce bycatch, and identified data gaps and research needs.

6.4 Capacity-Building Activities

Since the 2012 IWC meeting, the U.S. has worked with international partners to reduce bycatch of marine mammals through gear modification and to support capacity-building activities to better understand and mitigate serious injuries and mortalities of marine mammal.

6.4.1 Reducing Anthropogenic Impacts to Large Whales in the Southeast Pacific

In August 2013, the Executive Secretariat of the Pacific Action Plan Southeast with the cooperation of NOAA Fisheries Service convened the International Workshop to Develop Management Approaches to Reduce Anthropogenic Impacts to Large Whales in the eastern Pacific, in Salinas, Ecuador. In the Southeast Pacific there are eight species of large whales, all highly migratory. Some species are more likely than others to interact with fishing gear or be vulnerable to ship strikes, particularly in critical breeding and foraging habitat. This is the case of humpback whales in the coastal areas of Peru, Ecuador, Colombia and Panama, and blue whales along the coasts of Chile and Peru. The main objective of the workshop was to share the new tools available to identify areas of whale concentration and conduct risk analysis with government officials responsible for planning and management of marine biodiversity. In addition to assessing the risk, these tools enable managers to explore alternatives and identify information gaps. These analyses will allow participants to prioritize management measures, future research

efforts, and data collection needs.

6.4.2 International Workshop on Reducing Bycatch in Longlines

In October 2013, NOAA Fisheries Service and New England Aquarium's Consortium for Wildlife Bycatch Reduction convened an international workshop to review research on reducing bycatch of odontocetes in longline fishing operations worldwide. Participants discussed time-area closures and several methods under evaluation in different parts of the world for reducing the bycatch and subsequent mortality of odontocetes in longline gear, including acoustic deterrents, weak hooks, and net sleeves. Project outputs will consist of best practices guidelines for reducing marine mammal bycatch in longline fisheries, peer-reviewed publications and an on-line clearinghouse of information on research carried out to date, synthesizing our current understanding about the most effective bycatch mitigation methods and identifying critical research needs.

6.4.3 Workshop Address Bycatch in the Pacific

In November 2013 NOAA Fisheries Service hosted a workshop: "Addressing bycatch in fisheries in the Pacific". The workshop convened experts currently working on marine mammal or related bycatch issues in the Pacific Islands region. Workshop participants (1) summarized what is known about marine mammal bycatch in their region; (2) identified key informational needs and initial actions required to reduce marine mammal bycatch in fisheries, (3) identified regions, fisheries, or situations that are unsustainable; and (4) identified regions, fisheries, or situations that are ripe for testing mitigation strategies or develop pilot programs to assess and mitigate marine mammal bycatch.

6.4.4 Mekong River Irrawaddy River Dolphins

In May 2014 the Marine Mammal Commission supported the participation of international scientists and attended a meeting on Mekong River Irrawaddy River dolphins hosted by the Cambodian Fisheries Administration and WWF-Cambodia. The panel of national and international experts put forward key recommendations for conservation action, which include strengthening enforcement against the use of illegal gillnets, continued efforts to identify sources of mortality, and implementing a 10-year moratorium on mainstream dams pending completion of independent, comprehensive, and scientific trans-boundary studies, including transparent consultations with governments, civil society, and communities that would be affected by the proposed dam just north of dolphin habitat in Laos.

6.4.5 Vaquita

The U.S. has strong interest in the conservation of all cetaceans, especially those that are considered critically endangered by the IWC. In May 2014 NOAA Fisheries Service's Southwest Fisheries Science Center assisted Mexico in efforts to analyze data on the trends of the vaquita population in the northern Gulf of California collected using a passive acoustic monitoring array in the Upper Gulf of California. Following initial analyses, which showed evidence of a startling acceleration in the decline of the vaquita, the Marine Mammal Commission funded a group of experts to review the findings of the monitoring program. The panel confirmed that the decline was real. Subsequently, the Marine Mammal Commission and NOAA Fisheries Service provided funding for the

Fifth Meeting of the International Committee for the Recovery of the Vaquita (CIRVA) in July 2014, which reported to Mexico's Advisory Commission of the Presidency of Mexico for the Recovery of the Vaquita later that month.

For many years, the U.S. Marine Mammal Commission has provided support to Mexico for efforts to develop and deploy fishing gear that does not entangle the critically depleted vaquita, as an alternative to using gillnets. This support has been used to design and test alternative fishing gear as well as to promote market incentives for the sale and purchase of shrimp harvested with alternative, "vaquita-safe" fishing gear.

6.4.6 Western Gray Whales: Multiple NOAA scientists are currently serving on the International Union for Conservation of Nature (IUCN) Western Gray Whale Advisory Panel (WGWAP). This panel provides independent scientific and technical advice to decision makers in industry, government and civil society with respect to the potential effects of human activities, particularly oil and gas development activities, on the Western Gray Whale population. The panel also coordinates research to, among other objectives, minimize disturbance to Western Gray Whales and identify and mitigate potential risks associated with scientific research activities.

6.5 Participation and Leadership in IWC Conservation Initiatives

Since the 2012 IWC meeting, the U.S. has worked with partner IWC member nations and international partners on a wide variety of conservation initiatives.

6.5.1 Technical Expert to the IWC

From 2011-2014, NOAA demonstrated its dedication to conservation through the IWC by placing a NOAA employee (currently at the Alaska Fisheries Science Center) from the Hawaiian Islands Humpback Whale National Marine Sanctuary, Mr. David Mattila, on detail with the IWC. NOAA has volunteered Mr. Mattila's time and expertise over the last 3 years to advance the IWC's initiatives on humpback whale research, entanglement prevention and disentanglement training, ship strike issues, and marine mammal protected areas. Mr. Mattila began his detail in 2011 by convening the second workshop of global disentanglement experts, where the group developed consensus best practices, a capacity building strategy, and a curriculum for that capacity building. That group now acts as an expert advisory group to the IWC. Through his work with the IWC, Mr. Mattila has conducted seminars and trainings for large whale entanglement response for over 400 participants in Argentina, Brazil, Chile, Colombia, Costa Rica, Panama, Peru, Dominican Republic, French, English and Dutch Caribbean, Norway, Mexico, Samoa, Canada, Australia, New Zealand, Korea, and Tonga. He had also assisted with planning and leading multiple important workshops, all of which the U.S. took leadership and participation roles: 2012 English-Spanish bycatch workshop in Mexico; 2013 English-French bycatch workshop in St. Martin; 2014 ship strike workshop in Panama; and 2013 and 2014 marine debris workshops, both hosted in the U.S.

6.5.2 Ship Strikes

A number of NOAA Fisheries and Marine Mammal Commission personnel participated in a workshop convened jointly by IWC and the United Nations Environment

Programme's Protocol Concerning Specially Protected Areas and Wildlife (SPAW) and Caribbean Environment Programmes in Gamboa, Panama in June 2014. The goal was to assess measures for mitigating collisions between marine mammals and vessels by placing a priority on local and regional topics that may have broader global applications, while also focusing on global topics, especially those with applicability to the region. Workshop participants reviewed regional data, including any data gaps, along with existing and planned research and mitigation actions. The workshop also sought to review vessel-strike reduction measures from around the globe and consider their relative effectiveness particularly as they apply to the areas of technological, operational, educational, and legal solutions. The report of this workshop can be found at <http://iwc.int/private/downloads/a2tfyoe00igcc0go4cw8k8ok8/65-CCRRep01.pdf>.

At the workshop, NOAA staff explained how they assessed the risk of ships striking large whales using three components: developing habitat models to predict whale densities, identifying management options using shipping data, and assessing risk in the identified options, and how they used fine-scale, systematic survey data to develop habitat models for humpback, blue and fin whales in the Southern California Bight, off the US west coast. They also noted that blue whale habitat models developed for the US west coast will be used to predict blue whale distributions in data poor regions, including Sri Lanka and Chile.

6.5.3 Bycatch and Disentanglement

Given the success of previous large whale entanglement capacity building workshops supported by NOAA and given numerous recent reports of unsafe responses to entangled large whales in the Wider Caribbean, the U.S. partnered with multiple IWC member nations, UNEP-SPAW, and several impacted and interested countries from the region to provide internationally recognized disentanglement training workshops based on recently-developed curriculum, for the Wider Caribbean Region. The U.S. also provided voluntary financial contributions to partially support these workshops. The first workshop was held in Spanish and English in November 2012 in Mexico; the second workshop was held in French and English in November 2013 in St. Martin. The primary goals of these workshops were to provide a global overview of the entanglement issue; to provide tools for assessing the extent and impact in the region; to train in appropriate and safe entanglement response; and to give examples of potential mitigation and/or prevention measures currently in use or in development.

6.5.4 Marine Debris

The U.S. worked with partner IWC member nations as well as representatives from multiple non-governmental organizations to host two marine debris workshops over the intersessional period, the first in May 2013 in Woods Hole, Massachusetts, and the second in August 2014 in Honolulu, HI. In addition to hosting these workshops, the U.S. also provided voluntary financial contributions to partially support these workshops. The report of the May 2013 workshop can be found at: <http://iwc.int/entanglement>. The report of the August 2014 workshop will be provided for Commission review for the 65th meeting in Slovenia.

6.5.5 Ocean Noise

Building upon the CetSound work, a recent two-day workshop (April 15-16, 2014) was planned by NOAA personnel along with European colleagues. The workshop was held in Leiden, the Netherlands and entitled “Predicting sound fields—Global soundscape modelling to inform management of cetaceans and anthropogenic noise.” It was sponsored by the International Whaling Commission (IWC), the International Quiet Ocean Experiment (IQOE), the U.S. National Oceanic and Atmospheric Administration (NOAA), Office of Naval Research Global, and the Netherlands Organization for Applied Scientific Research (TNO) and Ministry of Infrastructure and the Environment. Twenty-six international experts came together from 11 countries to discuss regional and ocean-basin scale underwater sound field mapping techniques to provide support for decision makers seeking to characterize, monitor, and manage the potential impacts of chronic or cumulative anthropogenic noise on marine animals. The workshop produced a meeting report that includes recommendations directed to sponsoring international organizations and/or their science advisory groups to support the development and implementation of soundscape modelling and mapping tools needed to make informed management decisions. The report was presented (IWC/SC65b/Rep03rev) to the 2014 meeting of the IWC Scientific Committee (SC).

6.5.6 Arctic Issues

In March, 2014, the U.S. hosted and chaired the IWC “Workshop on Impacts of Increased Marine Activities on Cetaceans in the Arctic” in Anchorage, Alaska. In addition to hosting, the U.S. largely funded this workshop through a voluntary contribution to the IWC. This workshop focused on increasing shipping and oil and gas activities, specific to their potential impacts on cetaceans, and facilitated an open dialogue amongst stakeholders on a number of relevant aspects of the issue, including: what research has been/is being conducted; what management measures have been/are being implemented; what knowledge gaps and concerns exist; and what information the IWC can provide to assist managers in preparing for these impacts. One objective for this workshop was to provide the IWC with input on how it should prioritize its future work related to the Arctic. Workshop participants included representatives from intergovernmental organizations, national governments, native organizations, environmental organizations, academia, and shipping and oil and gas industries from the U.S., United Kingdom, Norway, Greenland, Denmark, Russia and Japan. The workshop report is in development and will be provided for Commission review for the 65th meeting in Slovenia.

6.5.7 Whale Watching

In 2011, the IWC endorsed a 5-Year Strategic Plan (Plan) for whale watching. At the same time, the IWC created the Working Group on Whale Watching (WGWW), for which the United States serves as Chair, to provide oversight of the delivery of actions and products under the Plan. One of the primary deliverables under the Plan is the development of a web-based living handbook, which will provide advice on governance, capacity building, monitoring, compliance, business, community and communication for stakeholders around the globe. In 2013, the WGWW began the process of gathering input for the handbook by holding an operator-based workshop, for which the U.S.

contributed \$40,000, to obtain wider industry input on what would be useful to include in the handbook. The report of this workshop can be found at <http://iwc.int/now-published--report-of-the-iwc-whale-watch-oper.>

In April/May 2014, under its International Visitor Leadership Program, the Department of State brought 9 eco-tourism operators and museum professionals from Iceland to the United States to explore the policy, economics and science for the non-lethal economic use of whales. During the 10-day trip, the participants met with policy experts, conservationists, and eco-tourism companies in Washington D.C., New Hampshire, and eastern Massachusetts. Discussions took place at the U.S. Capital, the Smithsonian Institution, the White House, and other U.S. Federal Agencies. Additional activities included visiting whale watching companies and whaling museums, marine research institutes, and meeting with environmental non-governmental organizations.

6.5.8 Southern Ocean Research Program (SORP)

SORP is a non-lethal, at-sea research program funded primarily by Australia. NOAA provides financial and staff support for research to help with data analysis and review of manuscripts. The IWC SC received 22 documents at its 2014 meeting detailing progress on the five major projects conducted as part of SORP. . Because funding for the immediate future of SORP is in doubt, in 2014 the SC urged the IWC to review the funding status and to facilitate sustainable support for long-term research initiatives.

6.5.9 Cooperative Research with Chile on Blue Whales

Scientists from NOAA conduct research on Chilean blue whales and pygmy-type blue whales. The results of this research were reported to the SC at its 2014 meeting. This research is conducted by a number of government and NGO scientists, and includes scientists from NOAA. The research includes surveys, genetic research to investigate the stock structure of blue whales from Chile, Eastern Tropical Pacific, and Antarctic regions. Work is also underway to examine the problem of ship strikes on baleen whales, including blue whales in southern Chilean waters

6.5.10 Pacific Ocean Whale and Ecosystem Research (POWER) Program

Large whale IWC-POWER cruises are scheduled to be conducted in the North Pacific between 2014 and 2016. After the surveys are completed in 2016, and including efforts from past years, nearly all of the North Pacific will have been surveyed. The Government of Japan has provided most of the resources to carry out these non-lethal surveys for cetaceans in the North Pacific. Over the past few years NOAA scientists have also participated in these cruises, which has allowed the authorization and collection of biopsy samples from large whales throughout the survey area. The current survey was completed in August 2014.

6.5.10 Review of the 2008 Stranding Event in Madagascar

In February 2013 the U.S. Marine Mammal Commission convened a meeting of a five-member panel to conduct an independent scientific review as part of the formal examination of the available facts surrounding the 2008 stranding of approximately 100 melon-headed whales in the Loza Lagoon system in Madagascar. The IWC facilitated

the review of the circumstances of the stranding in conjunction with the Marine Mammal Commission, the National Oceanic and Atmospheric Administration, the Bureau of Ocean Energy Management, ExxonMobil Exploration and Production (Northern Madagascar) Ltd, the International Fund for Animal Welfare, the Wildlife Conservation Society, and the Government of Madagascar. The report became available on 25 September 2013 and is posted on the website of the IWC Scientific Committee.

6.6 Our Ocean Conference

In June 2014, Secretary of State John Kerry hosted more than 400 policymakers, ocean scientists, thought leaders, entrepreneurs, environmentalists, and philanthropists from nearly 90 countries to discuss some of the primary challenges facing the ocean today: ocean acidification, sustainable fisheries, and marine pollution. Participants announced new partnerships and initiatives valued at over \$1.8 billion as well as new commitments on the protection of more than 3 million square kilometers of the ocean. President Obama announced that the Administration will immediately begin planning to expand protections for ocean habitats under U.S. jurisdiction in the Pacific and to deter illegal fishing through a new national program that will address seafood fraud and prevent illegally caught fish from entering into the U.S. marketplace. In closing remarks, Secretary Kerry outlined an action plan of policy goals, best practices, and benchmarks aimed at translating the initiatives announced at the conference into a unified global ocean policy. Summaries of initiatives announced at the Conference and the Plan of Action can be found at the Conference website: www.state.gov/ourocean. Chile offered to host a second Our Ocean conference in 2015.