



Marine Mammal Commission

An independent agency of the U.S. Government

Performance and Accountability Report

Fiscal Year 2017



November 1, 2017

Background: About the Marine Mammal Commission

The Marine Mammal Commission is an independent government agency charged by the Marine Mammal Protection Act (MMPA) to further the conservation of marine mammals and their environment. We work to ensure that marine mammal populations are restored and maintained as functioning elements of healthy marine ecosystems in the world's oceans. We provide science-based oversight of federal domestic and international policies and actions related to marine mammals and their environment. Our role is unique—we are the only U.S. government agency that provides comprehensive oversight of all government science, policy, and management actions affecting marine mammals. To learn more [please visit our website](https://www.mmc.gov/about-the-commission/)¹.

Overview of Commission Finances in FY 2017

Annual appropriations and distribution of funds

Congress is the sole source of base funding for the Commission. Total annual appropriations for the Commission from FY 2013 to 2017 are listed in Table 1. In FY 2017 the Commission's appropriation was \$3,431,000. Approximately 68 percent was used for salaries and benefits (including salaries for Commissioners and non-federal Committee members), 18 percent for administration and rent, 8 percent for the Science Program and research grants, and 6 percent for travel (Figure 1). The Commission used its FY 2017 appropriation to meet its general oversight responsibilities as mandated by the MMPA.

Table 1. Annual Appropriations for the Marine Mammal Commission, FY 2013 to 2017

| Fiscal Year | Appropriation |
|-------------|---------------|
| 2013 | \$2,864,948* |
| 2014 | \$3,250,000 |
| 2015 | \$3,340,000 |
| 2016 | \$3,431,000 |
| 2017 | \$3,431,000 |

* Reflects sequestration of funds

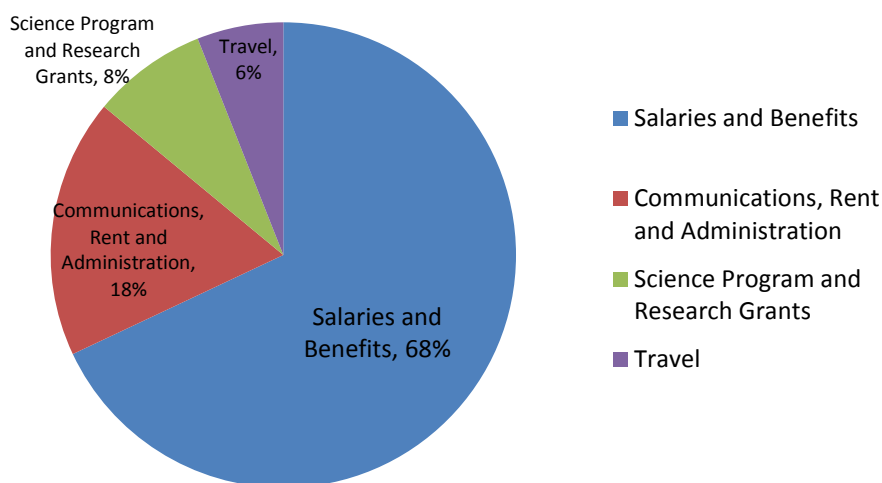


Figure 1. Distribution of Funds Appropriated to the Marine Mammal Commission for FY 2017

¹ <https://www.mmc.gov/about-the-commission/>

Management of Commission Finances

The Executive Director oversees and assumes responsibility for the Commission's financial administration and transactions. The Chief Administrative and Financial Officer manages and is responsible for day-to-day budgetary matters, including issuing purchase orders and processing time cards and invoice payments. The Chief Administrative and Financial Officer also works with the Directors of the Science Program and the International and Policy Program to oversee their expenditures. The Staff Assistant completes all paperwork related to travel expenses and assists the Chief Administrative and Financial Officer in day-to-day management of the Commission's budget. The Research Program Officer oversees fiscal transactions related to Commission-sponsored research. The Executive Director works with a Senior Leadership Team of Commission staff to address key issues, including budget planning and management of the Commission's finances. An independent, certified public accountant examined all financial systems and controls and completed a comprehensive audit for FY 2017. The audit found no material internal weaknesses in financial systems and controls and no areas where improvement was required.

Commission Accomplishments in FY 2017

The work performed by the Commission is centered on the five strategic objectives outlined in the Commission's [Strategic Plan for 2015-19](#)². Below is a summary of accomplishments for FY 2017 given under the respective strategic objective.

Strategic Objective 1: Marine mammal populations in the Arctic are maintained as viable functioning elements of their ecosystems through management measures that address direct and indirect effects of climate change and the ensuing economic, scientific, and other activities in the region.


- **Effective Co-management of Marine Mammals in Alaska:** In 2017, the Commission was awarded a competitive grant from the North Pacific Research Board to identify essential components and key impediments to effective co-management of Alaska marine mammals. The overall goal of this project is to strengthen relationships with Alaska Natives and support co-management to improve the conservation of marine mammals in a region where they are of critical ecological, cultural, and economic importance. To do this, we will work with Alaska Native Organizations (ANOs) and federal agency co-management partners to develop a mutually agreed-upon working definition of co-management. We will then review existing cooperative agreements to identify commonalities and differences. Finally, we will conduct interviews with ANOs, Alaska Native community members, and agency co-management partners to identify essential components of, and key



Kaktovik residents begin butchering a 44' bowhead whale on September 5, 2012
(Dania Moss)

² http://www.mmc.gov/reports/strategic_plans/welcome.shtml

impediments to, effective co-management relationships. Funding for this project will begin in January 2018.

- **Changes in Arctic Ecosystems & Implications for Marine Mammals:** The Marine Mammal Commission has long supported the development of systematic monitoring to document the effects of environmental change on Arctic ecosystems and the marine mammal species that reside there. The Commission's International and Policy Program Director served on the Marine Mammal Expert Network that developed the most recent [State of the Arctic Marine Biodiversity Report](https://www.arcticbiodiversity.is/marine)³ released by the Conservation of Arctic Flora and Fauna (CAFF) working group of the Arctic Council. Released at the U.S.-hosted Arctic Council Ministerial, the report found that changing food availability, loss of ice habitat, increases in contagious diseases, and the northward movement of southern species are increasingly affecting Arctic marine mammals and that ecosystem changes are already underway.
- 
- CAFF State of the Arctic Marine Biodiversity Report
- **Alaska in the Spotlight at CHOW 2017:** For many years, the Commission has been a sponsor of Capitol Hill Oceans Week (CHOW). This year we were pleased to invite the Honorable Pat Pletnikoff, Mayor of the City of Saint George, Alaska, to speak at CHOW during a panel discussion on “The Value of America’s Public Waters” that put a spotlight on the importance of our Nation’s marine sanctuaries. The Mayor spoke about the challenges faced by, and opportunities available to, his constituents in St. George and stressed the importance of conserving marine resources to help support the local economy and social structure.

Strategic Objective 2: Scientifically robust mitigation and monitoring measures are developed, refined, and implemented to prevent, minimize, or mitigate the impacts of offshore oil and gas and renewable energy activities on marine mammals and their ecosystems.

- **2017-2022 Offshore Oil & Gas Leasing Program under Review:** Every five years, the Department of the Interior develops a new program for oil and gas leasing on the U.S. Outer Continental Shelf (OCS). The 2017-2022 leasing program was finalized in December 2016, retaining most of the Gulf of Mexico but withdrawing the Arctic and Atlantic OCS regions. However, a recent Executive Order implementing an America-First Offshore Energy Strategy has called for a review of the 2017-2022 leasing program to encourage energy exploration and production on the OCS, “while ensuring that any such activity is safe and environmentally responsible.” The Executive Order also called for expedited

³ <https://www.arcticbiodiversity.is/marine>

consideration of permit applications for seismic surveys in offshore areas, including those received by the Bureau of Ocean Energy Management for the Atlantic OCS region and associated incidental take authorizations under review by the National Marine Fisheries Service. See [our website](#)⁴ for a summary of these and other provisions of the Executive Order that may have implications for marine mammals and [our letter responding to BOEM's call for information on a new five-year leasing program](#)⁵.

- **Balancing offshore wind energy development & marine mammal protection:**

The first U.S. offshore wind energy project is now underway off the coast of Rhode Island, with similar projects in various stages of planning for sites elsewhere along the Atlantic coast. In March 2017, the Commission participated in an expert panel convened by the Bureau of Ocean Energy Management (BOEM) to develop best management practices to guide the construction and operations of offshore infrastructure. The panel discussed the potential impacts of wind turbine construction, such as noise from pile driving and increased vessel traffic, on North Atlantic right whales and other Atlantic marine mammal species. Mitigation and monitoring strategies were identified that could reduce impacts and fill key data gaps. [Find out more about the workshop here](#)⁶.



Block Island Wind Farm, off Rhode Island, is the first offshore wind farm in U.S. waters. (University of Rhode Island/Rhode Island Sea Grant)

Strategic Objective 3: Marine mammal strandings are more thoroughly investigated and analyzed to improve understanding of the factors causing mortality and affecting the health of marine mammals, determine the efficacy of measures such as ship speed reduction to reduce mortality, and elucidate the relationships between marine mammal health and human health and ecosystem services.

- **Marine Mammal Health Monitoring and Analysis Platform (Health MAP):**

During 2017 Health MAP continued through the efforts of four expert working groups and the development of two build-out projects. The first project, supported by the Commission, included the system design and architecture for Health MAP that will assist with strategic planning and guide implementation decisions over the next three years. The second project, which was privately funded, developed a web-based interface for the display and exploration of Health MAP data. The Commission continues to play a leadership



Tagged gray seal (Kimberly Murray, NOAA)

⁴ <https://www.mmc.gov/priority-topics/offshore-energy-development-and-marine-mammals/offshore-oil-and-gas-development-and-marine-mammals/>

⁵ <https://www.mmc.gov/wp-content/uploads/17-08-17-Hammerle-BOEM-2019-2024-Natl-OCS-Program.pdf>

⁶ <https://www.boem.gov/BMP-Workshop-Agenda/>

role, including detailing its Acting Scientific Program Director to the project on a part-time basis to serve as Project Manager for the platform's development.

- **Marine Mammal Unusual Mortality Events (UMEs):** In 2017 one unusual mortality event was declared for North Atlantic right whales, following 15 deaths off the east coast of North America, 12 of which were in Canada. Three of the deaths were determined to have been due to entanglement in fishing gear, and five of the dead whales bore lesions of blunt trauma consistent with being struck by ships. In addition, several live whales were reported entangled in fishing gear, but their fate was not determined. The Commission participates in the [Working Group for Marine Mammal Unusual Mortality Events](#)⁷ charged with monitoring such events and providing assistance where necessary. For the North Atlantic right whale UME this included collaborating with Canadian partners to ensure experts were on site to conduct necropsies.

Strategic Objective 4: Anthropogenic threats to marine mammals, particularly those most vulnerable to extinction, are identified and reduced in the coastal and fresh waters of other nations and on the high seas worldwide through bilateral and multilateral scientific and conservation efforts and sharing of expertise.

- **Vaquita Conservation:** The Commission continued to play a key role in the international mission to conserve the vaquita, a small porpoise in the northern Gulf of California, Mexico that is the world's most endangered marine mammal. Entanglement and accidental drowning of vaquitas in gillnets is rapidly driving the species toward extinction. In 2017, following the recommendations of the International Recovery Team for the Vaquita (CIRVA), the initial two-year ban on the use of gillnets in the vaquita range was made permanent. [CIRVA](#)⁸ met three times in 2017 and determined that the population continued to decline due to entanglement in nets used in rampant illegal gillnet fishing for an endangered fish, the totoaba. Totoaba swim bladders, worth thousands of dollars per kilogram, are smuggled into China as part of the illegal wildlife trade. CIRVA concluded that vaquitas must be captured and brought into human care for protection from gillnets to prevent extinction of the species. In response, the Commission collaborated with Mexican and international partners to develop the Vaquita Conservation Protection and Recovery Program ([VaquitaCPR](#)), which began field work in October 2017. The Commission continued its investment in the development of alternative artisanal fishing gear that does not harm vaquitas and a Commission-sponsored study of markets for legally caught and vaquita-safe seafood from the region. It also continued to support acoustic monitoring of the vaquita population to determine efficacy of conservation actions.



Vaquitas swimming in the Gulf of California (Paula Olson, NOAA, permit Oficio No. DR/488/08 from the Secretaria de Medio Ambiente y Recursos Naturales (SEMARNAT))

⁷ <http://www.nmfs.noaa.gov/pr/health/mmume/2017northatlanticrightwhaleume.html>

⁸ <http://www.iucn-csg.org/index.php/2017/05/11/vaquita-on-the-verge-of-extinction/>

- Efforts to rebuild Irrawaddy dolphin populations:** The Irrawaddy dolphin population in the Mekong River has been reduced to fewer than 100 individuals, primarily due to entanglement in fishing nets. We are working with WWF-Cambodia, the Cambodian government, and IUCN to bring experts to Cambodia to assess the threats to this freshwater dolphin population and to build on-the-ground capacity in law enforcement and conservation science. At a workshop in January 2017, the Cambodian fisheries department reported on the work of guards stationed along the Mekong River to remove illegal gillnets from the dolphins' core habitat and to spread awareness of fishery regulations in local communities. Progress in reducing dolphin mortality and building international collaborations has been overshadowed by news of the proposed construction of the Sambor and Stung Treng hydropower dams, which if built, will eliminate or transform most of the dolphins' remaining riverine habitat⁹.



River guards of the Cambodian Fisheries Administration burn gillnets removed from the Mekong River to protect Irrawaddy dolphins. (Peter Thomas, Marine Mammal Commission).

Strategic Objective 5: Understanding of human impacts on marine mammals and their ecosystems, and the management of those impacts, is improved through enhanced scientific research, policy analysis, and information dissemination.

- Highlighting Bycatch in the Indian Ocean:** The Commission sponsored two scientists to attend a meeting of the Indian Ocean Tuna Commission (IOTC) Working Party on Ecosystems and Bycatch (WBEP) in San Sebastian, Spain. At the Commission's suggestion, part of the meeting was devoted to interactions between fisheries and marine mammals. These interactions are often underreported and we know very little about their frequency in the region. One of the scientists sponsored by the Commission summarized the available information about these interactions, which prompted the WBEP to adopt language that identifies research needs, calls on IOTC parties to increase their efforts to assess and mitigate marine mammal bycatch, and recommends that the IOTC collaborate with the International Whaling Commission and others to build capacity for marine mammal bycatch mitigation. The Commission is also involved in the creation of marine mammal species identification guides for IOTC tuna fisheries, a vital first step in the collection of data on marine mammal bycatch in the region.
- Take Reduction Teams:** The Commission continued to participate in NMFS's marine mammal take reduction teams and provide advice on measures needed to improve the effectiveness of take reduction plans in fisheries. Incidental mortality and serious injury due to certain commercial fisheries exceeded allowable levels for at least a dozen marine mammal populations in U.S. waters and this problem continues to be a major conservation challenge. Deliberations by take reduction teams spurred several new regulatory proposals from NMFS and these were reviewed by the Commission.

⁹ <http://science.sciencemag.org/content/355/6327/805.1>

- A Continued Focus on Bycatch Mitigation:**
 The Commission provided funding and participated in a workshop entitled “Mitigating Bycatch: Novel insights through multidisciplinary approaches” in September 2017. Economists and other scientists, as well as fishing and processing industry representatives from North America, Europe, and other countries, participated in the workshop, which focused on non-regulatory, incentive-based approaches to mitigating bycatch. Workshop participants discussed the effectiveness of market-based incentives such as eco-labeling, unilateral and multilateral trade measures, and product promotion. Case studies provided insights into possible new approaches to reduce the bycatch of marine mammals, which is frequently the greatest source of direct mortality for vulnerable populations.



False killer whales often interact with pelagic longline fisheries based in Hawaii, where one of the populations is listed as endangered. Strategies to mitigate marine mammal bycatch increasingly include economic and market-based approaches. (Robin Baird, Cascadia Research Collective, NMFS permit # 731-1774)

- 2015 Survey of Federally Funded Marine Mammal Research and Conservation:** In June 2017 the Commission published the results of its FY15 Survey of Federally Funded Marine Mammal Research and Conservation. This report highlights the scope and nature of the marine mammal activities conducted across the various U.S. federal agencies. This information is intended to help identify research gaps and reveal areas of potential synergy and collaboration within the federal government. A copy of the [report is available for download](#)¹⁰ at the Commission’s website.

Overarching Mission Accomplishments

A significant portion of the Commission’s work is overarching, that is, it supports multiple strategic objectives. Examples of Commission overarching FY 2017 accomplishments are summarized below.

- Recommendations and reviews of various agency actions:** Drawing on the extensive expertise of its staff and the technical knowledge of its Committee of Scientific Advisors, the Commission submitted 124 letters to federal agencies and various action proponents with specific comments and recommendations aimed at enhancing protection and conservation of marine mammals and promoting adherence to the MMPA, the National Environmental Policy Act, and other applicable laws. These included recommendations regarding appropriate measures to minimize the impacts of human activities on marine mammals. Those activities included commercial fishing, military operations, marine construction, offshore energy development (oil and gas and renewables), and research. The Commission consulted regularly with other federal agencies on the substance of its comments and recommendations and worked with them to pursue the best means of reducing and minimizing impacts.

¹⁰ <https://www.mmc.gov/grants-and-research-survey/survey-of-federally-funded-research/>

- Communication and Collaboration in New England:** The Commission’s most recent Annual Meeting was held on April 5-7, 2017 in North Falmouth, Massachusetts, with more than 200 attendees. The two major topics of discussion were the continued recovery of gray seals and the slowed recovery of endangered North Atlantic right whales (NARWs). Each session focused on an issue of regional importance, beginning with a review of the latest science followed by a review of its relevance to local communities, often highlighted by presentations from local fishermen and business owners. Next, resource managers explained existing management strategies designed to address the interests of various stakeholders and the risks to species of concern. Participants were encouraged to engage in the discussions following each session. The broad engagement at its annual meetings highlights the Commission’s unique role as a non-regulatory oversight agency in convening a wide range of stakeholders and encouraging solutions that reconcile the needs of marine mammals with human activities of various kinds. Explore our [Annual Meeting presentations and summaries here](#)¹¹. Following the annual meeting we have continued to engage on these issues by sending [a letter to NMFS about NARWs](#)¹², supporting efforts to understand the unprecedented spike in deaths of NARWs in Canadian waters this year, and supporting a new project to collect observations of depredation by gray seals on actively fished gear and thereby improve understanding of gray seal interactions with fisheries.



Fishermen, scientists, & resource managers all have roles to play in the responsible management of our ocean resources. Here, a lobster fisherman describes how gray seals access bait bags within his traps. (Marine Mammal Commission)

- Advancing Marine Mammal Research:** In FY 2017 we funded seven new research projects focused on “Marine Mammal Populations at Extreme Risk.” The funded proposals are:

 - Molecular systematics, taxonomy, and conservation of a critically endangered cryptic lineage of balaenopterid whale from the Gulf of Mexico
 - Southern right whales as a model system to investigate the vocal behavior of North Atlantic right whale mother-calf pairs
 - Developing and testing of an inexpensive GPS radio buoy system for early notification of marine mammal entanglements
 - Enhancing scientific knowledge about the endangered Antillean manatee in Cuba
 - Assessing the distribution and abundance of the franciscana dolphin and mapping its threats in northern São Paulo (Brazil): moving toward conservation in practice

¹¹ <https://www.mmc.gov/events-meetings-and-workshops/marine-mammal-commission-annual-meetings/2017-annual-meeting/>

¹² <https://www.mmc.gov/wp-content/uploads/17-06-19-Rauch-III-Final-NARW-Recommendation-Letter.pdf>

- Revisiting the demography, ecology, and threat risks of the critically endangered Taiwanese humpback dolphin after a decade of conservation inaction
- Protecting the Mediterranean monk seal in the peninsula of Karaburun and Sazan Island of Albania
- **The Economics of Marine Mammals:** The Commission is increasing its emphasis on the economic benefits provided by marine mammals, and, whenever possible, seeking economic incentives to protect species in peril. Studies have shown that certain species of marine wildlife, including whales and dolphins, are increasingly important drivers of economic growth for tourism and related industries. Marine species also have inherent value to the American public and many people want to know that these animals are thriving, even if they never see them in the wild. In a [recent paper](#)¹³, the Commission's Executive Director presented the case for considering an alternative, incentive-oriented approach to reducing marine mammal bycatch. The Commission also published a new webpage focused on the [economics of marine mammals](#)¹⁴. In some cases, taking an economist's perspective may shed light on new tools to improve how challenging marine conservation issues are addressed.
- **Animal Telemetry Network Brings Together Global Tracking Data:** In June 2017 the Commission participated in the first meeting of the steering group of the emerging Animal Telemetry Network (ATN). The ATN provides information on the locations and movements of marine species using electronic tracking devices attached through various high-tech and innovative methodologies. The steering group is responsible for providing oversight and guidance for the network with input from a range of stakeholders. Explore some of the [animal tracks here](#)¹⁵.
- **Commission Again Tops Employee Engagement Rating:** For the second consecutive year, the Commission received the highest employee satisfaction score in the 2017 Federal Employee Viewpoint Survey for "Employee Engagement." This voluntary survey conducted annually in all U.S. federal agencies asks employees several questions to determine the overall satisfaction with their jobs and workplace. Out of all 80 agencies that completed the survey in 2017, the Commission had the highest score.
- **A Renewed Focus on Education:** The Commission has continued to broaden its reach through online and in-person education efforts. In 2017 we visited several local public



A humpback whale feeds near one of the many whale watching boats that visit Stellwagen Bank National Marine Sanctuary each year. (Ari Friedlaender, Duke University, NMFS permit #775-1875)

¹³ <http://www.sciencedirect.com/science/article/pii/S0967064517300644>

¹⁴ <https://www.mmc.gov/priority-topics/value-marine-mammals/>

¹⁵ <http://oceanview.pfeg.noaa.gov/ATN/>

schools in the Maryland/D.C. area to present information on marine mammals. By engaging students we hope to foster an interest in marine science and environmental stewardship. In 2017 we also hosted several college and high school interns, introducing them to the work of the Commission and to marine mammal science and policy issues. We also [published a new webpage](#)¹⁶ dedicated to teachers with lesson plans and PowerPoint presentations for school groups at the K-2, 3-5, 6-8, and high school grade levels.

- **Marine Mammals in the Global Ocean Observing System (GOOS):** The Marine Mammal Commission has been involved in identifying Essential Ocean Variables (EOVs) for the GOOS Biology and Ecosystems Panel. Through this process, marine mammal abundance and distribution have been recognized as EOVs. In 2017 our Assistant Scientific Program Director drafted the [specification sheet for these EOVs](#)¹⁷ and made several presentations at scientific conferences to spread the word about EOVs and garner support for making marine mammal information consistently available globally. Ultimately this will improve our ability to monitor marine mammals and understand their functional roles in the ecosystem at local, regional, national, and global scales, and better meet the purposes and intent of the MMPA.

Conclusions and Outlook

The Commission strives to ensure that marine mammal populations are maintained as significant functioning elements of healthy global marine and freshwater ecosystems.

In FY 2018 the Commission will continue to look for ways to reduce operational costs and leverage its resources and expertise by working with a diverse set of partners. For example, we will continue to collaborate with industry, foundations, and NGOs to fund the participation of individuals whose attendance is critical to successful workshops and meetings. We will continue to host detailees, volunteers, and interns to support multiple mission-critical projects at little or no cost to the Commission. We also plan to promote new partnerships through our research and grants program to enhance new and ongoing investigations in the field of marine mammal science at research institutions around the world.

In FY 2018 we plan to revise our existing strategic plan by initiating a comprehensive strategic planning process for FY2020-2024. The goal is to have a new plan in place by FY 2020 that takes into account input from multiple stakeholders and partners, including OMB and other federal agencies. Keeping the Commission's strategic plan up to date is critical to guide future funding decisions that enhance the effectiveness and reach of our work.



Female polar bear with cubs. (Ian Stirling)

¹⁶ <https://www.mmc.gov/priority-topics/marine-mammal-education-resources/>

¹⁷ http://goosocean.org/index.php?option=com_oe&task=viewDocumentRecord&docID=17511



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