



The Marine Mammal Center 2021 Impact Summary

Thanks to your generous support, The Marine Mammal Center has continued in its mission to advance global ocean conservation through marine mammal rescue and rehabilitation, scientific research, and education. With health and safety adaptations in place, we continued conducting collaborative scientific research, supporting schools, students and teachers through an extremely difficult time, rescuing and rehabilitating marine mammals in need, and engaging with the broader community about how they can take action on behalf of marine mammals and the ocean. We are pleased to share the following achievements you made possible in 2021.

Highlights from 2021

As a critical first responder to the threats facing marine mammals, the Center is taking action to protect them and the marine ecosystems that are vital to the health of the ocean and all life on earth. With your help, in 2021 the Center:

- Furthered solutions to threats facing cetaceans, like entanglement and ship strikes, by conducting 12 field surveys along the West Coast and gathering data to inform best practices to keep whales, dolphins, porpoises, and other marine mammals safe.
- Contributed to the body of knowledge on marine mammal health by responding to 13 dead gray whales off the West Coast during this species’ ongoing Unusual Mortality Event. Necropsy findings gave us insight into the health and causes of death for these animals and how to prevent major threats to this species.
- Expanded the global network of marine science professionals by sharing our knowledge and expertise with 21 emerging marine scientists through our Teaching Hospital Initiative. Participants simultaneously gained valuable professional development experience and bolstered the Center’s research and veterinary capacity.
- Contributed to the global body of open-source research and knowledge about marine mammal medicine and health by authoring or co-authoring 19 papers in peer-reviewed science journals, including a notable study on cancer in California Sea Lions and studies of diseases in threatened and endangered species such as southern sea otters and Guadalupe fur seals.
- Performed vital research that included ongoing studies on endangered Guadalupe fur seals and cancer in California sea lions, and gained ground on a multi-year field research project in partnership with NOAA to prevent entanglement threats to California sea lions in their pupping grounds.
- Engaged with more than 9,200 students and their teachers in California and Hawai’i through our award-winning marine conservation education programs. New virtual resources connected participants with our mission, inspiring the next generation to care for and ensure the health of our ocean in a continually challenging time.
- Rallied support for a Congressional Coastal Caucus to bring together members of the California House delegation to share and discuss federal policy related to the 840-mile California coast. We hosted some of the founding



congressional members at the Center for a roundtable discussion on the importance of the ocean in the fight against climate change.

Global Response Initiative

Through the Global Response Initiative, the Center is supporting whale entanglement response on the West Coast of the United States and adding its voice and over four decades of expertise to help mitigate and prevent threats to marine mammals. Below are a few highlights of our work on this initiative in 2021.

- A member of the [Oiled Wildlife Care Network](#) (OWCN), the Center strengthened its readiness to respond to wildlife affected by oil spills off the California coast by coordinating an oil spill emergency drill, the results of which we plan to share with OWCN.
- The Center’s Cetacean Field Research team performed 12 vessel surveys to research entanglement risk for humpback whales in the California Dungeness crab fishing grounds and help inform fishery regulations. In 2016, Dungeness crab gear was implicated in 40% of gray whale deaths on the west coast. In 2021, this percentage dropped to [zero](#).
- The Center supported efforts in Mexico to save the critically endangered Vaquita by purchasing fishing gear that will reduce the likelihood of entanglement and drowning for this tiny marine mammal, as well as for other marine mammals, turtles, and sharks.

As the world’s largest marine mammal rehabilitation center and teaching hospital, the Center works with other organizations nationally and internationally, collaborating and sharing our expertise to expand the world’s network of marine mammal first responders. In 2021, we received updates from partners in Mexico illustrating our impact:

- A group of collaborators who trained with the Center undertook the first ever marine mammal disentanglement campaign for the region of Bahia de los Angeles in the state of Baja Norte. The team used remote sedation and a drone to aid in tracking. They successfully disentangled 6 California sea lions and trained local personnel from Mexico’s National Commission of Natural Protected Areas on netting and handling techniques.



Partners in Mexico use field disentanglement techniques taught to them by Center experts.

- Three California sea lions that we disentangled in Baja California in recent years – Esperanza, Frida, and Rosa – were all sighted in February nursing healthy pups!

- A former participant in the Center’s International Veterinary Fellowship Program, Elsa Coria Galindo, is now a partner with the Centro de Rescate Rehabilitación e Investigación de Fauna Silvestre (Center for Rescue, Rehabilitation, and Research of Wild Animals) in Sonora. Elsa’s team raised the money for materials for a field anesthesia machine, which the Center constructed in house and sent to them in April at no extra cost.



California sea lion Esperanza, who still bears entanglement scars, nurses a healthy pup in early 2021.

Thanks to a strong base of support from a generous and dedicated community of supporters, volunteers, partners, and other stakeholders, we are continuing to expand our network of trained partners across the globe.

Teaching Hospital Initiative

The Center serves as a vital training ground for veterinary professionals from around the world. The Teaching Hospital Initiative works to strengthen the field of ocean conservation and marine mammal science and medicine by training emerging leaders who want to pursue careers in marine science and marine mammal medicine. In 2021:

- As the Center’s first-ever Pathology Fellow, Dr. Maggie Martinez expanded our research capacity by performing necropsies and histopathology (the study of tissues through microscope) and instructing and mentoring other Teaching Hospital participants. In 2021, the Center hired Dr. Martinez as a full-time Associate Pathologist. She recently finalized a manuscript on lymphoma in northern elephant seal pups and is in the process of finalizing a manuscript of fluorosis in a California sea lion, and she will be developing additional research projects in her new role.
- Five of the Center’s Teaching Hospital participants, including its Pathology Fellow and Veterinary Intern, gained significant hands-on field experience collecting data and biological samples during field necropsies of deceased whales over the past year.
- The virtual International Association for Aquatic Animal Medicine conference in May 2021 illustrated the importance and impact of the Center’s Teaching Hospital. Many past and current Teaching Hospital participants presented and shared their research advancing knowledge of marine mammal care and conservation with over 300 conference attendees.



Dr. Mattison Peters, the Center’s Intern Veterinarian and Teaching Hospital participant, ultrasounds a California sea lion patient. Photo by Bill Hunnewell © The Marine Mammal Center.

Public Awareness and Education Initiative

The Center’s mission can only be achieved with the understanding, commitment, and participation of the public. Our goal is to motivate, inspire, and equip people to take concrete actions to protect our ocean and marine mammals. In 2021, we:

- Equipped over 9,000 students and their teachers in our award-winning marine conservation education programs with virtual resources that inspired the next generation to care for and ensure the health of our ocean during the protracted challenges of the COVID-19 pandemic.

The Marine Mammal Center Calendar Year 2021 Impact Summary

- Connected the students and teachers in our marine science and conservation programs in Hawai'i with their local marine environment through a newly-completed virtual tour of our Hawaiian monk seal hospital in Kona, Ke Kai Ola ("the healing sea").
- Designed and began developing an interactive touchscreen exhibit in partnership with a pro bono team of Autodesk engineers. The exhibit gives visitors the opportunity to "explore" the behind-the-scenes hospital areas to better understand marine mammal patient care and what it takes to effectively operate the world's largest marine mammal hospital.
- Submitted 18 letters of support and/or public statements and spoke with eight congressional offices about conservation topics ranging from the use of Oceano Dunes to aquaculture and climate policy to deep sea mining. The Center is committed to being an advocate for ocean health and a voice for the patients it cares for and inspiring a sea of change to protect the ocean's future.

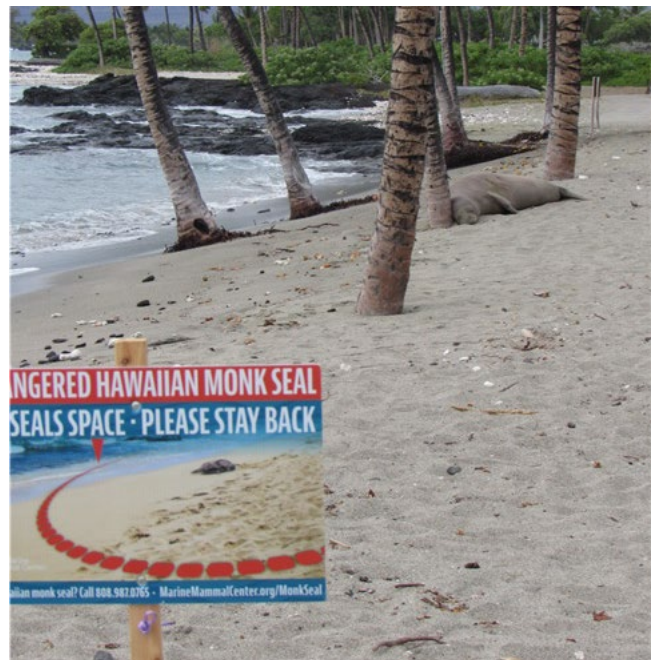
Animal Care and Scientific Research

Throughout the past year, the Center responded to more than 14,000 calls from the public reporting marine mammals in distress along our beaches. The Center also continued its important work to support the recovery of endangered and threatened species such as the southern sea otter, Guadalupe fur seal, and Hawaiian monk seal.

Notable animal care achievements in 2021 included:

- Center staff and trained volunteers engaged with thousands of beachgoers on Hawai'i Island around the conservation of critically endangered Hawaiian monk seals, responding to over 1,400 monk seals reported on beaches by members of the public.
- To spread awareness of the monk seal's protected status and encourage visitors to view wildlife from a safe distance, the Center collaborated with Hawaiian Airlines to film and produce an in-flight video for airline passengers bound for Hawai'i. A Hawaiian Airlines pilot who is also a volunteer at Ke Kai Ola is featured in the video encouraging viewers to "[travel pono](#)" (responsibly and thoughtfully).

The Center is a major contributor to the global body of research and knowledge about marine mammal medicine and health. Learning from every animal we respond to, our researchers identify novel diseases and pathogens, support endangered species conservation, and partner with scientists around the world on collaborative research projects. In addition, we provide open access to our collection of specimens, samples, and data to be used in service to ocean conservation and marine mammal health. In 2021, our research team:



An informational sign posted by the Center's Hawai'i response volunteers gives beachgoers information about Hawaiian monk seals and how to interact responsibly with them.

