

The John H. Prescott Marine Mammal Rescue Assistance Grant Program



NOAA

Program Report FY 2001-2010

*A Decade of Support
to Save and Conserve
Stranded Marine Mammals*

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Prepared by:
The Marine Mammal Health and Stranding Response Program
Office of Protected Resources
National Marine Fisheries Service



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Executive Summary

Since FY2001, Congress has appropriated approximately \$4 million annually to the National Marine Fisheries Service (NMFS) to fund the John H. Prescott Marine Mammal Rescue Assistance Grant Program (Prescott Grant Program). Title IV of the Marine Mammal Protection Act (MMPA) authorizes NMFS to fund eligible members of the National Marine Mammal Stranding Network through grants and cooperative agreements. Funds are used for the recovery or treatment of marine mammals; the collection of data from living or dead stranded marine mammals for health research; and facility operation costs. The Program has awarded over \$34.6 million in funding through 392 grants to Stranding Network members in 24 states, 2 territories, and the District of Columbia. Prescott funding has enabled network members to expand response coverage; enhance response capabilities and data collection; and build and upgrade rehabilitation facilities. As a result, NOAA and its partners operate a comprehensive nation-wide network that responds to stranded and entangled marine mammals and assesses the health of marine mammal populations. The report provides an overview of regional stranding response and contains summaries provided by Prescott Grant recipients highlighting their many accomplishments utilizing Prescott funding over the past decade. Following the regional competitive award summaries, the Emergency Award section provides an overview of the Emergency Grant Recipients from 2001-2010.



Photo Credit: Alaska SeaLife Center



Introduction

Congress established the John H. Prescott Marine Mammal Rescue Assistance Grant Program (Prescott Grant Program) under the Marine Mammal Rescue Assistance Act of 2000, an amendment to the Marine Mammal Protection Act (MMPA). The National Oceanographic and Atmospheric Administration (NOAA), National Marine Fisheries Service's (NMFS) Marine Mammal Health and Stranding Response Program (MMHSRP) administers the Prescott Grant Program for its trust resources. NMFS funds eligible members of the National Marine Mammal Stranding Network through grants and cooperative agreements. Funds are available for the recovery and treatment (i.e., rehabilitation) of stranded marine mammals; data collection from living and dead stranded marine mammals for scientific research regarding marine mammal health; and facility operations directly related to those purposes.



Photo Credit: Hubbs-SeaWorld Research Institute

Rescue team responding to beached Kogia in Florida

Since 2001, Congress has appropriated \$4 million annually to the Prescott Grant Program. From 2001 to 2010, the Prescott Grant Program has awarded over \$34.6 million through 392 grants to eligible members of the stranding network. In addition to the annual competitive program, NMFS reserves a portion of Prescott funds for emergency assistance with catastrophic stranding events, and has provided \$1,353,652 in emergency funds from 2001-2010. Emergency Prescott grants are summarized at the end of this report.

Since its inception, the Prescott Grant Program has contributed to unprecedented improvements to the primarily volunteer stranding networks along the U.S. coast. Consistent funding is important for the maintenance of basic operational needs and the continued success of the National Marine Mammal Stranding Network. Prescott

funding has enabled network members to:

- Expand stranding response coverage over wider geographic areas;
- Enhance response capabilities and data collection;
- Screen animals to examine the prevalence of diseases in marine mammal populations, including morbillivirus, leptospirosis, and West Nile virus;
- Upgrade rehabilitation facilities to meet the NMFS Standards for Rehabilitation, including state-of-the-art instruments, diagnostic tools, and quarantine pools;
- Improve diagnostic tests for a more complete evaluation of tissue, blood, and other samples;
- Conduct post-release monitoring of rehabilitated animals to evaluate the success of the rehabilitation process;
- Hire trained staff for organizations previously operated solely by volunteers; and
- Increase understanding of the causes of morbidity and mortality in wild marine mammals.

In addition to these improvements, the Prescott Grant Program has many intangible benefits. Prescott funding has:

- Enabled and encouraged collaborations among stranding network organizations;
- Trained network members;
- Increased staff and volunteer morale by providing much needed tools and resources for response activities and diagnostic sampling; and
- Provided safer network operations for both animals and people.



Photo Credit: Pacific Marine Mammal Center

Harbor seal pups in rehabilitation in California



John H. Prescott (1935-1998)



Photo courtesy of the New England Aquarium

John H. Prescott was a conservationist, marine biologist, congressional advisor, teacher, explorer, world-renowned whale expert, and a pioneer whose achievements were known nationally and internationally. He began his career as a commercial tuna fisherman in California. Mr. Prescott was a biologist, curator, and General Manager at Marineland of the Pacific. At Marineland, Mr. Prescott and his colleague, Ken Norris, were the first to document echolocation by bottlenose dolphins.

From 1972-1994, Mr. Prescott was the Executive Director of the New England Aquarium in Boston, MA. He was the guiding force behind the transformation of the Aquarium from a Boston waterfront attraction to a world-class institution in education, research, and conservation. He oversaw the completion of the sea lion facility Discovery and the Animal Care Center. The New England Aquarium became the model for aquariums around the world and influenced the Association of Zoos and Aquariums (AZA) to shift its focus from entertainment and attractions to

conservation. Mr. Prescott also founded the Marine Animal Stranding Network at the New England Aquarium. The Aquarium became a center for marine animal rescue and rehabilitation and paved the way for the creation of many similar groups. In 1988, Mr. Prescott led the first successful rehabilitation and release of three pilot whales, which had stranded on Cape Cod, MA.

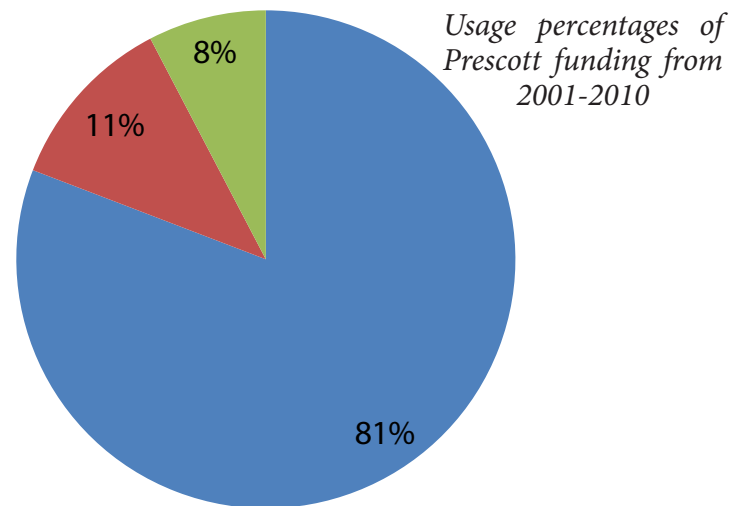
John H. Prescott was chairman of the Marine Mammal Commission's Scientific Advisory Group and headed the National Humpback Whale Recovery Team. He served for five years as a member of the U.S. delegation to the International Whaling Commission and was on the NOAA Marine Fisheries Advisory Committee from 1988 to 1993. In 1997, Mr. Prescott was awarded the Marlin Perkins Award for Professional Excellence by the AZA for his contributions to husbandry, zoological display, research, conservation, and public education.

Prescott Grant Recipients

From 2001-2010, Prescott funding was awarded to 85 different recipients in 24 states, 2 territories, and the District of Columbia. Eligible Prescott applicants are currently active, authorized participants or researchers in the National Marine Mammal Stranding Network. Eligible applicants must be: 1) Stranding Agreement¹ holders or their designee organizations; 2) eligible Federal, state, or local government personnel or tribal personnel; or 3) holders of scientific research authorization letters issued by a NMFS Regional Administrator.

The National Marine Fisheries Service maintains Stranding Agreements with institutions and individuals who have appropriate training and facilities to assess and care for stranded marine mammals. Organizations with Stranding Agreements include: non-profits, for-profits, academic institutions, museums, and governmental agencies. Federal, state, or local government employees also participate in stranding response activities in accordance with Section 109(h) of the MMPA. These organizations respond to dead and live marine mammal strandings and entanglements. Dead animal response may include beach assessment, collection of a carcass, necropsy, carcass disposal, and/or retention of parts and specimens. Live animal response may include beach assessment, capture, relocation, transport to a rehabilitation facility, humane euthanasia, and/or release back to the wild. Stranding Agreement holders may also operate marine mammal rehabilitation facilities.

Scientific research projects utilize data from living and dead stranded marine mammals to test hypotheses about marine mammal strandings, health, or rehabilitation. Some research is broad, looking at a variety of species in many locations while other projects may focus on a single disease, species, or basic biology. Research projects funded by Prescott have been essential for increasing our knowledge about marine mammal biology, anatomy, health, and population structure, and have provided valuable insights into the cause(s) of strandings, as well as ways to improve methods of treatment for marine mammals.



- Basic and enhanced stranding support and data collection
- Scientific Research
- Facility Operations/Upgrades

¹ A Stranding Agreement is an official written agreement between NMFS and a Stranding Network Participant that authorizes the Participant to respond to stranded marine mammals under section 112(c) of the MMPA.



Region	State	2001-02	2003	2004	2005	2006	2007	2008	2009	2010	Total
Northeast	ME	\$254,015	\$378,135	\$65,058	\$263,003	\$336,511	\$297,359	\$291,533	\$359,977	\$299,723	\$2,545,314
	MA	\$582,826	\$399,225	\$186,658	\$372,942	\$383,694	\$199,906	\$199,594	\$99,785	\$254,295	\$2,678,925
	CT	\$199,924	\$295,741	\$0	\$100,000	\$199,310	\$100,000	\$74,966	\$99,953	\$146,061	\$1,215,955
	NY	\$140,371	\$191,892	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$1,032,263
	NJ	\$171,250	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$81,625	\$0	\$852,875
	PA	\$75,206	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$75,206
	DE	\$27,000	\$100,000	\$0	\$100,000	\$0	\$99,680	\$0	\$100,000	\$0	\$426,680
	MD	\$245,277	\$199,027	\$71,344	\$88,387	\$47,580	\$65,435	\$134,203	\$40,000	\$71,128	\$962,381
	DC	\$0	\$97,580	\$97,467	\$88,685	\$0	\$0	\$0	\$0	\$0	\$283,732
	VA	\$181,950	\$100,000	\$100,000	\$100,000	\$100,000	\$99,990	\$199,865	\$199,978	\$99,927	\$1,181,710
Southeast	NC	\$174,240	\$187,308	\$83,195	\$98,587	\$249,746	\$98,240	\$99,974	\$295,763	\$291,987	\$1,579,040
	SC	\$0	\$86,690	\$0	\$0	\$0	\$0	\$0	\$99,790	\$96,437	\$282,917
	GA	\$43,000	\$0	\$0	\$0	\$55,848	\$0	\$34,877	\$45,000	\$30,000	\$208,725
	FL	\$1,105,989	\$471,434	\$423,247	\$578,190	\$557,102	\$331,088	\$499,963	\$291,921	\$276,216	\$4,535,150
	AL	\$45,785	\$0	\$99,924	\$0	\$0	\$0	\$0	\$0	\$0	\$145,709
	MS	\$100,000	\$100,000	\$0	\$100,000	\$0	\$0	\$100,000	\$0	\$0	\$400,000
	LA	\$0	\$74,940	\$32,740	\$99,900	\$0	\$0	\$95,400	\$0	\$0	\$302,980
	TX	\$199,840	\$198,967	\$0	\$99,905	\$99,998	\$100,000	\$100,000	\$100,000	\$147,995	\$1,046,705
	OK	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$100,000
	PR	\$0	\$0	\$0	\$0	\$0	\$100,000	\$0	\$78,000	\$0	\$178,000
IL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$69,224	\$94,613	\$163,837	
Southwest	CA	\$763,197	\$1,142,383	\$429,302	\$676,549	\$741,078	\$902,335	\$655,832	\$723,023	\$859,477	\$6,893,176
Northwest	OR	\$100,000	\$99,967	\$0	\$175,663	\$99,931	\$196,895	\$199,627	\$199,956	\$199,950	\$1,271,989
	WA	\$433,559	\$167,434	\$374,325	\$182,723	\$284,942	\$285,616	\$318,822	\$397,195	\$314,520	\$2,759,136
Alaska	AK	\$429,529	\$74,619	\$299,723	\$180,062	\$299,083	\$333,343	\$199,991	\$297,196	\$238,555	\$2,352,101
Pacific Islands (Hawaii and Mariana Islands)	HI	\$199,480	\$0	\$200,000	\$100,000	\$0	\$200,000	\$100,000	\$100,000	\$199,992	\$1,099,472
	MP	\$0	\$0	\$0	\$0	\$0	\$80,000	\$0	\$0	\$0	\$80,000
Total Awards		\$5,572,438	\$4,465,342	\$2,662,983	\$3,604,596	\$3,654,823	\$3,689,886	\$3,504,647	\$3,778,386	\$3,720,876	\$34,653,977
Emergency Funding		\$93,494	\$31,203	\$68,233	\$189,639	\$375,913	\$437,060	\$0	\$158,110	\$0	\$1,353,652
Total		\$5,665,932	\$4,496,545	\$2,731,216	\$3,794,235	\$4,030,736	\$4,126,946	\$3,504,647	\$3,936,496	\$3,720,876	\$36,007,629



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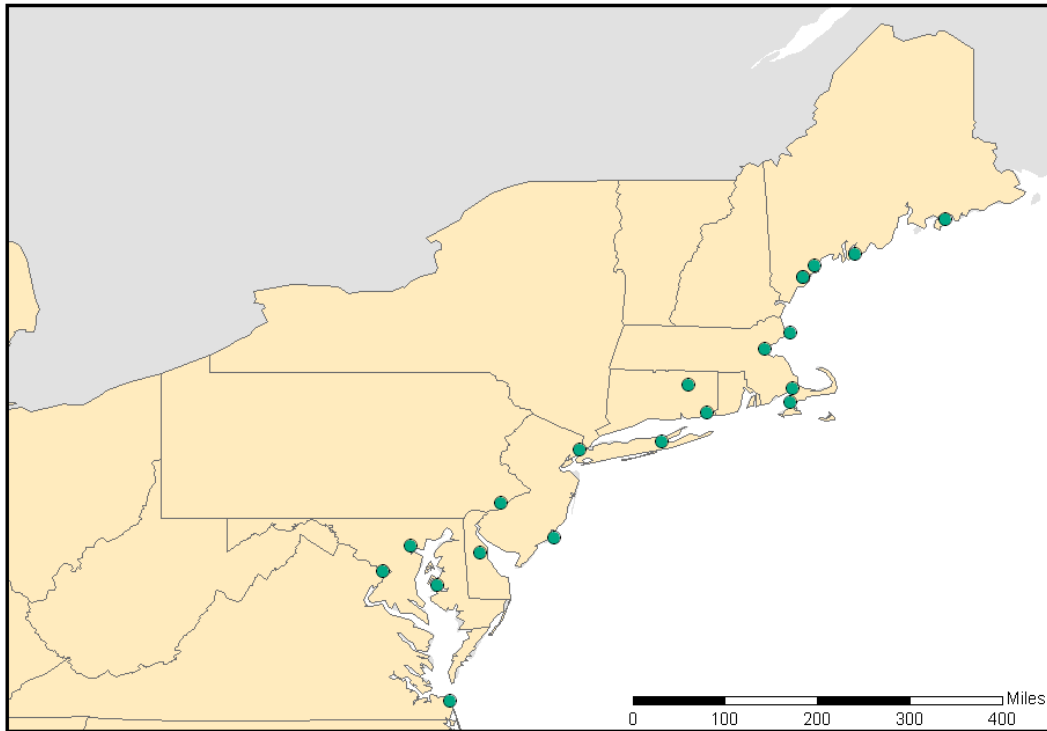
Photo Credit: IFAW MMRR



Photo Credit: PMMC



Northeast



Network partners in the Northeast Region that received \$11,255, 041 in Prescott Grant funding from FY2001-2010

The NMFS Northeast Region covers 16,747 miles of varied coastline from Maine to Virginia. The Regional Stranding Coordinator is located in Gloucester, MA. Currently the Northeast Region has 14 Stranding Agreement holders/government responders and 20 Prescott Grant recipients. Throughout the region, there are seven rehabilitation facilities. All seven facilities rehabilitate pinnipeds and five are authorized to rehabilitate small cetaceans.

Between 2001 and 2009, the region documented a total of 11,536 strandings.

- 3,663 cetacean strandings
- 7,873 pinniped strandings
- 39.6% stranded alive
- 60.4% stranded dead
- 1,452 animals (6 cetaceans, 1,446 pinnipeds) were rehabilitated and released.

Funding has mainly been used for investigations into strandings, including multiple mass stranding events on Cape Cod, MA, floating large whale mortalities (some floating many miles offshore), rehabilitation, releases, data collection from necropsies, and live animal assessments.

In addition, future Prescott Grant funding priorities of the Northeast Region include: improvement of post release monitoring of all stranded marine mammals, enhanced assessment of ship strike injuries, improvement of humane euthanasia methods, better understanding of the causes of Unusual Mortality Events and the long-term effects of serious injuries to large whales.

The Whale Center of New England – Gloucester, MA
Prescott Grant Awards 2001-2010: \$395,327 (5 Awards)
Funds used for: Stranding Support

It wasn't until The Whale Center of New England received their first John H. Prescott award in 2004 that they were able to fully formalize and properly equip their stranding response program. Prescott funding allowed The Whale Center of New England to purchase and maintain a proper stranding response vehicle, keep on hand all of the supplies necessary to respond to live and dead stranded animals, and complete a full cache of large whale necropsy equipment. The funding also facilitated having the personnel necessary for such responses. Since that time, Whale Center staff has responded to strandings from Marblehead, MA to the New Hampshire/Massachusetts border. They have now responded to over 500 strandings since first receiving Prescott funding. Their stranding responses have even included the first record of a bearded seal in U.S. Atlantic waters, now published as a note in Northeastern Naturalist.



Photo Credit: The Whale Center of New England

A bearded seal seen in Gloucester, MA, the first record of this arctic species in U.S. waters

One of The Whale Center's missions is education. They have used their stranding program to create an on-line curriculum for upper level elementary schools about marine mammal strandings. The curriculum generates an understanding of both the causes of strandings and why people respond to them. The Whale Center also developed a series of fact sheets for use on the beach at live strandings to make sure interested by-standers understand the stranding and their need to be respectful of the animals. While much of this education and outreach work was done with external supplementary funding, without the organized emphasis on stranding response that the Prescott Grant Program facilitated, none of this would have been possible.

Woods Hole Oceanographic Institution – Woods Hole, MA
Prescott Grant Awards 2001-2010: \$591,550 (6 Awards)
Funds used for: Stranding Support and Scientific Research

The support Woods Hole Oceanographic Institution (WHOI) has received from Prescott funding has enabled the routine diagnostic analysis of marine mammal mortalities in Southeast Massachusetts. Researchers at WHOI developed a freely available marine mammal necropsy protocol for stranding biologist that is used in the U.S., Canada, Russia, and South America.

With the help of Prescott funding, WHOI developed a long handled sampling tool to deploy flensing knives, a pole camera, and a dip net to safely examine floating large whale carcasses. Also, WHOI conducts diagnostic necropsies of large whales and contributes to the data that enabled the recent speed restriction regulations to reduce the threat of ship collisions with North Atlantic right whales. WHOI also received Prescott funds to examine and compare stranded and bycatch mortalities. In this way, WHOI is building a unique baseline study of the health status of regional marine mammal species through examinations of animals entangled in fishing gear, stranded as single sick animals, or mass stranded groups of small cetaceans.



International Fund for Animal Welfare's Marine Mammal Rescue and Research Program Yarmouth Port, MA

Prescott Grant Awards 2001-2010: \$897,156 (9 Awards)

Funds used for: Stranding Support and Scientific Research

The International Fund for Animal Welfare's Marine Mammal Rescue and Research Program (MMRR, formerly known as the Cape Cod Stranding Network, Inc.) received nine Prescott Awards which helped increase the number of staff and volunteers, acquire rescue and safety equipment, and enhance response capabilities and data collection.



Staff and volunteers reassess a group of white sided dolphins after transport from the mass stranding site to the release site on the outer beaches of Cape Cod, MA

Specific accomplishments included: responses to several small cetacean mass stranding events on Cape Cod; the development and successful implementation of Mass Stranding Prevention protocols, which has greatly increased the chances of survival for live mass stranded cetaceans from 14% to 50%; and the development of a standardized Human Interaction Evaluation data sheet for use by the National Marine Mammal Stranding Network.

With the support of Prescott funds, MMRR has: provided triage, supportive care and treatment to 658 live stranded pinnipeds and cetaceans; responded to and collected data from 1,122 dead stranded marine mammals; and conducted 408 necropsies, collecting samples for life history, genetics, contaminants, histopathology, microbiology, virology, and biotoxin analyses.

Mystic Aquarium - Mystic, CT

Prescott Grant Awards 2001-2010: \$974,133 (10 Awards)

Funds used for: Stranding Support, Scientific Research and Facility Operations

With the support of Prescott funding, Mystic Aquarium has improved their rehabilitation and medical care capabilities. Prescott funding provided new veterinary equipment for rehabilitation, necropsy supplies, and support for a part-time staff member. Prior to Prescott funding, Mystic had to rely on the local hospital to develop their radiographs. With an in-house radiograph developer, Mystic has decreased the animal's treatment time and increased the success of rehabilitation.

In 2010, Prescott funding is renovating Mystic's Seal Rescue Clinic, bringing their rehabilitation pools and haul-out spaces into compliance with NMFS' guidelines. Prescott funds have allowed Mystic to continue to help their stranding network neighbors by providing rehabilitation space for animals from outside of their coverage area. Without this funding, Mystic may have shut their doors to other facilities. Prescott funds also supported the purchase of 10 satellite tags which provided Mystic with important information on rehabilitated ice seals. The information from these tags showed that ice seals rehabilitated out of their "normal range" could easily make the trip back to colder waters and survive for at least nine months after release. These are just a few examples in which Prescott Grants have helped Mystic Aquarium provide the best possible care for animals in rehabilitation.



Application of a satellite tag

Marine Mammal Stranding Center – Brigantine, NJ
Prescott Grant Awards 2001-2010: \$852,875 (9 Awards)
Funds used for: Stranding Support and Facility Operations



MMSC rescue trucks with a dolphin stretcher

Prior to receiving Prescott funding, the Marine Mammal Stranding Center (MMSC) was a small organization that had to rely on volunteer veterinarians, who were not always available to assist with animal needs. Their vehicles and boats were usually hand-me-downs, or were so old that they often broke down during stranding responses. MMSC's computers and data system were antiquated, and volunteers were few and far between. With Prescott funds, MMSC has acquired additional animal care staff, provided volunteer training, replaced a truck, and acquired two boats for water rescues. They have an on-call contract veterinarian, as well as a contract with a veterinary

school to conduct thorough necropsies and analyses of fresh dead stranded animals. Also, MMSC has new computers, databases, and can now provide education and outreach programs throughout New Jersey and Eastern Pennsylvania. The additional Prescott funding has allowed for a rapid response time and recovery of injured animals as a result of a larger staff and better stranding response equipment.

Maryland Department of Natural Resources – Oxford, MD
Prescott Grant Awards 2001-2010: \$469,339 (7 Awards)
Funds used for: Stranding Support

The Prescott Grant Program has increased the extent of Maryland Department of Natural Resources (MD DNR) stranding response. While a stranding program existed in Maryland prior to Prescott Grant Program, stranding response was minimal compared to MD DNR's response today. In the past, stranding response was opportunistic. Prescott funding has provided essential equipment for stranding response including: supplies for diagnostic sampling, vehicle enhancements, and laboratory enhancements. With support from Prescott funds, MD DNR hired a Stranding Coordinator, partially supported a Stranding Coordinator Assistant, and partially supported a Stranding Veterinarian. The MD DNR stranding team has provided specimens, data, and information to researchers throughout the region and nation contributing to huge advancements in marine mammal studies. Overall, the Prescott Grant Program has improved stranding response time, increased the level of detailed information gathered, and increased the quantity of strandings responded to by MD DNR.



Challenging stranding response for a sei whale on a ship's bow



National Aquarium in Baltimore – Baltimore, MD
Prescott Grant Awards 2001-2010: \$493,042 (6 Awards)
Funds used for: Stranding Support and Facility Operations

With the support of Prescott funding, the National Aquarium in Baltimore (NAIB) has acquired important supplies for stranding response, rehabilitation and diagnostics that have improved their organization's response capabilities. With over 7,000 miles of coastline in Maryland, having a vessel that is versatile and functional in shallower waters is important. With Prescott funds, NAIB purchased a small inflatable vessel that is ideal for transporting personnel into shallow water for animal responses, beaching onto remote islands in the Chesapeake Bay, and transporting response equipment to remote stranding sites. With the help of Prescott funding, NAIB now has the necessary equipment to prepare slides improving the diagnostic value of samples from marine animals. In addition, preserved slides are archived and provide an excellent source of information for future studies.



Photo Credit: NAIB

Vessel used for stranding response

Virginia Aquarium Stranding Response Program – Virginia Beach, VA
Prescott Grant Awards 2001-2010: \$1,181,710 (12 Awards)
Funds used for: Stranding Support, Scientific Research and Facility Operations

The Virginia Aquarium Stranding Response Program (VAQS) responds to all stranded and entangled marine mammals in Virginia (100-125/year) and assists with stranding events in northeastern North Carolina. The Prescott Grant Program has allowed VAQS to contribute to the welfare of individual animals through



Photo Credit: VAQS

VAQS has used satellite tag data from released harp and harbor seals to help the northeast region stranding network develop new release guidelines for seals in southern states

rehabilitation and disentanglement, and to the health and conservation of populations through diagnostic testing and comprehensive necropsies. With assistance from Prescott funding, VAQS was able to thoroughly examine and sample all stranded marine mammals and provide high quality medical and rehabilitative care to live stranded seals and small cetaceans, all from a science-based perspective. Initial Prescott funding enabled VAQS to: build infrastructure and facilities, develop in-house and regional protocols for live animal response, and examine/document stranded animals for signs of human interaction. These human interaction protocols have been shared with the National Stranding network.

Stranding and research data from Virginia played a key role in developing consensus-based decisions on the Virginia pound net fishery at recent Bottlenose Dolphin Take Reduction Team and Virginia Marine Resources Commission meetings. Without Prescott support, VAQS would not have been able to provide such high quality fishery interaction data nor develop the research project that lead to this important effort. Stranding response will continue to play a role in this fishery as stranding data will provide the primary means of assessing the effectiveness of new regulations.

Additional Northeast Region Prescott Recipients

Prescott Grant Recipient	Location	Total Awards	Total Amount
College of the Atlantic	Bar Harbor, ME	10	\$831,996
Maine Department of Marine Resources	Boothbay Harbor, ME	4	\$400,000
University of Southern Maine	Portland, ME	2	\$200,000
University of New England	Biddeford, ME	7	\$637,764
Marine Animal Lifeline	Biddeford, ME	5	\$415,550
New England Aquarium Corporation	Boston, MA	9	\$854,896
University of Connecticut	Storrs, CT	3	\$241,822
Riverhead Foundation for Marine Research & Preservation	Riverhead, NY	10	\$940,082
Mount Sinai School of Medicine	New York, NY	1	\$92,181
Trustees of the University of Pennsylvania	Philadelphia, PA	1	\$75,206
DNREC- Division of Fish & Wildlife	Dover, DE	5	\$426,680
Smithsonian Institution	Washington D.C.	3	\$283,732

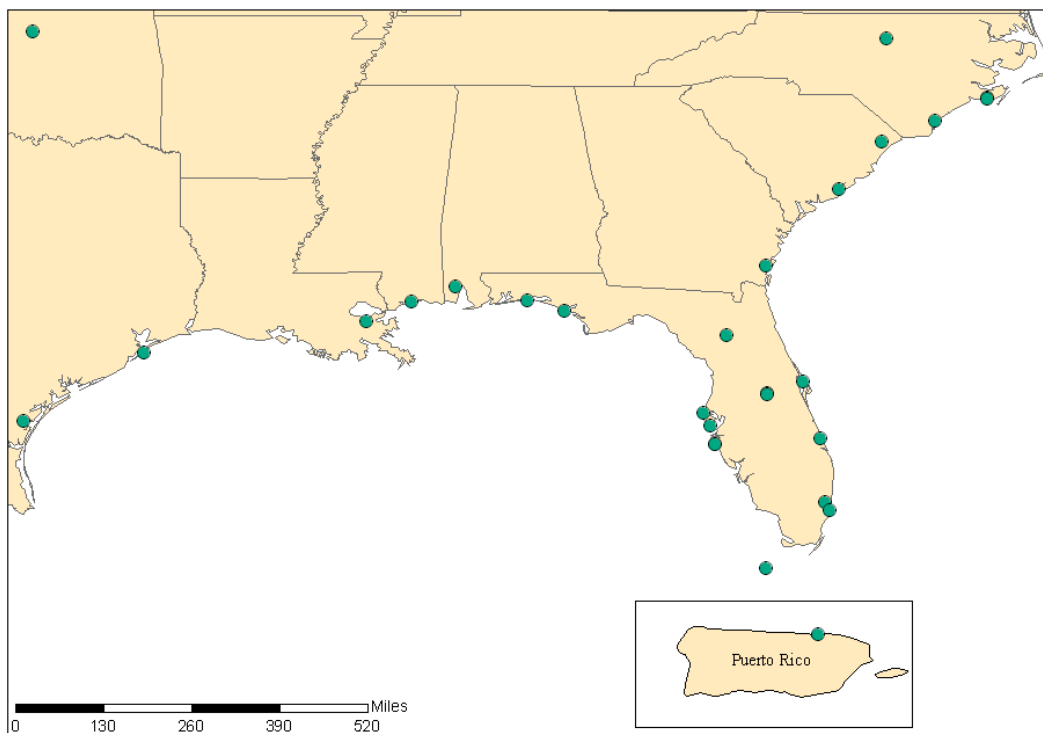


Photo Credit: VAQS

Virginia Aquarium staff attempt to disentangle a humpback whale



Southeast



Network partners in the Southeast Region that received \$8,943,063 in Prescott Grant funding from FY2001-2010

The NMFS Southeast Region covers 29,067 miles of coastline from North Carolina to Texas and includes Puerto Rico and the U.S. Virgin Islands. The Regional Stranding Coordinator is in Miami, FL. The Regional Stranding Administrator is in St. Petersburg, FL. Within the Southeast region, there are approximately 40 Stranding Agreement holders/government responders and 28 Prescott Grant recipients. Twelve of the stranding organizations have rehabilitation capabilities.

Between 2001 and 2009, the Southeast Region documented a total of 5,970 strandings.

- 5,872 cetacean strandings
- 98 pinniped strandings
- 16.2% stranded alive
- 83.8% stranded dead
- 63 animals (41 cetaceans, 22 pinnipeds) were rehabilitated and released.

Stranding Responders in the Southeast Region have used Prescott funding to support five mass stranding events that occurred in Florida, Georgia, and North Carolina between 2000 and 2005, including investigations and biotoxin research. Prescott funding has also supported Marine Mammal Stranding Program Reviews, response to animals out of habitat, and cetacean disentanglements.

Future Prescott Grant priorities for the Southeast Region include: North Atlantic right whale stranding and entanglement response, improved carcass disposal methods and continued support to improve data collection and training.

North Carolina State University – Raleigh, NC
Prescott Grant Awards 2001-2010: \$239,786 (3 Awards)
Funds used for: Stranding Support



Photo Credit: NC State

Harbor porpoise rescued from a freshwater borrow pit and successfully released. The blood sample obtained provided the first evidence of Bartonella spp. in free-ranging marine mammals

Prescott funding has enabled the North Carolina State University (NC State) to rapidly assess the health of stranded marine mammals at the stranding site. Portable clinical analyzers and diagnostic equipment purchased with Prescott funds have also allowed more rapid decision making on the course of action to take on a stranded animal. The enhanced diagnostic support led to the discovery of the novel occurrence of *Bartonella* spp. in marine mammals. *Bartonella* spp. were found at higher prevalence in stranded marine mammals than free-ranging animals. This bacterium causes a spectrum of diseases in humans and animals, and was previously unsuspected in aquatic animals.

University of North Carolina, Wilmington – Wilmington, NC
Prescott Grant Awards 2001-2010: \$1,150,965 (12 Awards)
Funds used for: Stranding Support

The Prescott Grant Program has fundamentally changed University of North Carolina, Wilmington's (UNCW) ability to respond to and investigate strandings. Before receiving Prescott support, UNCW stranding investigations relied upon those data that could be gathered through gross examination alone. Although very useful analyses could be undertaken with this level of investigation, UNCW's ability to address basic health questions was limited. With Prescott support, UNCW enlarged their necropsy approach to include systematic tissue sampling for health assessments. Utilizing Prescott funds, UNCW has hosted multiple stranding response training workshops that have enhanced the stranding network's ability to investigate strandings. Numerous presentations have been made at scientific meetings and conferences and results of investigations have been published in 20 scientific papers.

UNCW collaborated with new groups of colleagues in the veterinary medical community, which has offered them all new insights into the health of stranded marine mammals. UNCW has also assisted veterinary colleagues in their identification of new and emerging diseases in the mid-Atlantic, including the northern-most recorded cases of lobomycosis, a fungal skin infection, *Bartonella* spp. and a new gammaherpes virus. This cross-pollination of scientific disciplines has also positively impacted our field through the training of veterinary, graduate and undergraduate students who are the next generation of stranding responders.



Photo Credit: UNCW

With Prescott support, UNCW has enhanced its ability to work collaboratively with other stranding programs to investigate large whale strandings



Hubbs-SeaWorld Research Institute – Orlando, FL
Prescott Grant Awards 2001-2010: \$1,097,161 (12 Awards)
Funds used for: Stranding Support and Scientific Research

The Prescott Grant Program has dramatically improved Hubbs-SeaWorld Research Institute's capability to respond to marine mammal strandings. Prior to the receiving Prescott funding, Hubbs-SeaWorld's marine mammal stranding program operated on a small budget with two dedicated staff and minimal volunteer support. Without dedicated funding, they lacked basic supplies and equipment to respond to live animals, had no capacity for archiving, and lacked capacity to process valuable samples. With Prescott funding, Hubbs-SeaWorld was able to purchase a small watercraft, a lift system for their truck, an ultracold freezer and basic supplies to respond to live stranded and free swimming animals. By enhancing their stranding response resources, Hubbs-SeaWorld is able to: provide a prompt response to injured/stranded animals, regularly conduct post-release monitoring on released animals, have greater diagnostic capabilities to assess stranded animals, and have a network of trained responders that prompt first response support to these animals.



Photo Credit: Hubbs-SeaWorld
Hubbs-SeaWorld staff respond to a live stranded dolphin

Additional Prescott support for research and diagnostics has allowed Hubbs-SeaWorld to evaluate: 1) the detection of new and emerging diseases, 2) causes of mortality trends in Atlantic ocean cetaceans and Indian River Lagoon (IRL) dolphins, 3) reproductive biology in IRL dolphins, 4) mercury concentrations in IRL dolphins, 5) interactions between IRL dolphins and recreational fishers, 6) life history parameters in rough-toothed dolphins, and 7) neonatal mortality in bottlenose dolphins.

Nova Southeastern University – Fort Lauderdale, FL
Prescott Grant Awards 2001-2010: \$28,986 (1 Award)
Funds used for: Scientific Research

The Prescott Grant Program has funded a Nova Southeastern University graduate student to analyze stranding data for pygmy sperm whales (*Kogia breviceps*) and dwarf sperm whales (*K. sima*) in the Southeastern U.S. As a result of this study, correlations were found between a number of abiotic variables (e.g., changes in wind direction and water movement, bathymetry) and the timing and location of *Kogia* strandings. This information enables a better understanding of the causes and timing of *Kogia* strandings and may eventually guide stranding response resource allocation in the Southeast U.S. An article is currently in press based upon this research.

Mote Marine Laboratory – Sarasota, FL
Prescott Grant Awards 2001-2010: \$1,189,378 (12 Awards)
Funds used for: Stranding Support, Scientific Research and Facility Operations

Prescott funding has allowed Mote Marine Laboratory to increase their stranding response and necropsy capabilities. Detailed necropsy data have been collected using Prescott funds including: samples for biotoxin, histopathology, and stomach content analysis. These data facilitated detailed studies on causes of mortality in stranded animals. Data from the stranding program has led to an increased knowledge about the impacts of natural diseases and human-induced injuries on cetacean mortality.

Mote Marine Laboratory's Dolphin and Whale Hospital has also received several Prescott Grants to upgrade their rehabilitation facility and replace outdated, worn-out equipment. Prescott funding has enabled the hospital to improve their diagnostic capabilities by expanding a microbiology lab, covering costs of utilizing outside diagnostic labs, and allowing rehabilitation staff to spend more time on rehabilitation issues. Prescott funds have allowed Mote to rehabilitate and release many more cetaceans than they could have otherwise. In addition, Mote has identified new viruses that affect stranded animals and new treatments for these viruses. Mote worked with virologists at the University of Florida to identify new herpes and pox viruses in stranded cetaceans. Developing an understanding of these disease processes benefits the overall conservation effort with cetacean populations.



Photo Credit: Mote Marine Lab
Rough-Toothed Dolphin Release in 2005

Additionally, Prescott funding has improved Mote Marine Laboratory's capacity for post-release monitoring of rehabilitated dolphins. Prior to Prescott funding, Mote had limited resources for purchasing appropriate tagging and tracking equipment or paying for adequate field time (for radio-tracking). Prescott funding has allowed Mote to collect the detailed, systematic data necessary to evaluate the success of rehabilitation treatments and re-adaptation to life in the wild. Data from post-release monitoring has been utilized to assess the efficacy of treatment regimes and success of different species, social groups, and age/sex classes upon return to the wild. This information is providing guidance for the application of rehabilitation effort and resources. Follow-up monitoring has also provided opportunities to collect movement and habitat use data from difficult-to-study offshore species, providing some of the first available data on ranging and dive patterns for Risso's dolphins and Rough-toothed dolphins.

Clearwater Marine Aquarium – Clearwater, FL
Prescott Grant Awards 2001-2010: \$94,175 (1 Award)
Funds used for: Stranding Support and Facility Operations

The Clearwater Marine Aquarium (CMA) has used Prescott Grant funding to upgrade their rehabilitation facilities and to improve transportation to and from marine mammal stranding events. In particular, CMA acquired a new stranding response truck, which allowed for the safe transportation of both marine mammals and stranding team members. Since 2002, CMA successfully transported distressed marine mammals both short and long distances to CMA and other Southeast stranding facilities. Without this capability, other stranding response organizations would have been called upon to assist in transports, and animals may have been euthanized if transport was not available by these organizations. The improvements funded by the Prescott Grant Program have allowed the successful rehabilitation and release of many animals which may not have been feasible previously.



Photo Credit: CMA

CMA's stranding response truck



Institute for Marine Mammal Studies – Gulfport, MS
Prescott Grant Awards 2001-2010: \$400,000 (4 Awards)
Funds used for: Stranding Support and Facility Operations



Photo Credit: IMMS

A dolphin in rehabilitation at IMMS

Funding from the Prescott Grant Program has allowed the Institute for Marine Mammal Studies (IMMS) to enhance response and research on the stranded dolphins found on the Mississippi mainland and barrier island beaches. IMMS has used the four Prescott Grants they received to conduct stranding surveys, collect data and tissue specimens, analyze tissues, and purchase necessary equipment and supplies. Prescott funding has also helped IMMS further develop their rescue and rehabilitation program so that they can better respond to live stranding events in Mississippi and Alabama.

Audubon Nature Institute, Inc. (Louisiana Marine Mammal and Sea Turtle Rescue Program) – New Orleans, LA
Prescott Grant Awards 2001-2010: \$302,980 (4 Awards)
Funds used for: Stranding Support and Facility Operations

In 2007, Audubon Aquarium of the Americas constructed an offsite research and rehabilitation facility. Since the completion of the facility, the Prescott Grant Program has provided the Louisiana Marine Mammal and Sea Turtle Rescue Program (LMMSTRP) with the funds necessary to stock the facility with medical equipment for rehabilitation. All of this equipment not only greatly assists in animal rehabilitation, but also improves LMMSTRP's decision capabilities of the health of a stranded animal in the field. The LMMSTRP has used this equipment to determine the health of several animals that were entrapped in waterways with no outlets, which is common after a hurricane. The LMMSTRP is better equipped to determine whether the animal should be released on site or brought in for rehabilitation.

The Prescott Grant Program has provided funding for additional necropsy and sampling training for staff and volunteers. Through this training, the LMMSTRP is able to cover more territory than in the past. Five years ago, approximately 3% of the deceased animals were sampled; today 85% of deceased animals are sampled or are fully necropsied. Through better sampling procedures LMMSTRP is now able to provide NOAA with more information concerning disease and health trends in Louisiana.



Photo Credit: Audubon Nature Institute, Inc.

Rescue of an entrapped dolphin calf

**Puerto Rico Department of Natural and Environmental Resources – San Juan, PR
Prescott Grant Awards 2001-2010: \$178,000 (2 Awards)**

Funds used for: Stranding Support and Facility Operations

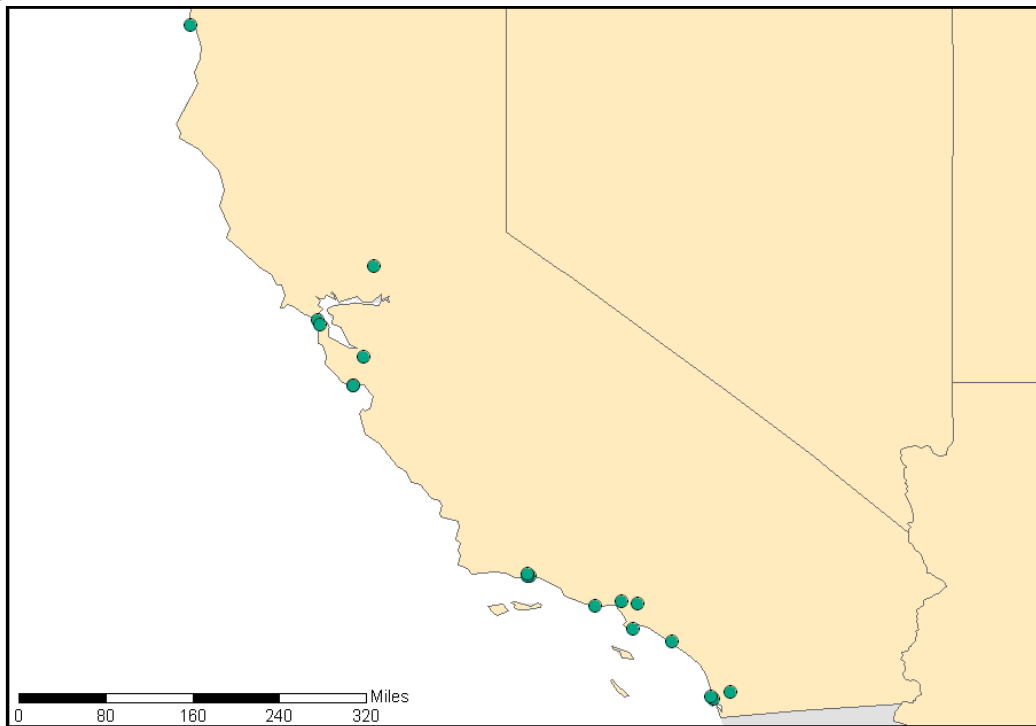
The Puerto Rico Department of Natural and Environmental Resources (PRDNER) Marine Mammal Rescue Program utilized Prescott funding to improve their stranding response, rescue, and rehabilitation capabilities. The Marine Mammal Rescue Program established a stranding protocol, a local stranding database, and provided training to PRDNER Natural Reserve Officials and rangers. New equipment enabled the preliminary evaluation and assessment of stranded animals. Prescott funds were also instrumental in the creation of a new rehabilitation facility for pinnipeds at the Puerto Rico Zoo. PRDNER has been able to respond to and assess all incidents involving marine mammals, especially out of habitat situations.

Additional Southeast Region Prescott Recipients

Prescott Grant Recipient	Location	Total Awards	Total Amount
Duke University	Durham, NC	1	\$96,172
North Carolina Department of Environment and Natural Resources	Morehead City, NC	1	\$92,117
Coastal Carolina University	Conway, SC	2	\$196,227
South Carolina Department of Natural Resources	Charleston, SC	1	\$86,690
Georgia Department of Natural Resources	Brunswick, GA	5	\$208,725
University of Florida	Gainesville, FL	3	\$238,136
Dynamac Corporation	Kennedy Space Center, FL	3	\$95,130
Sea World Florida, Inc.	Orlando, FL	1	\$98,946
Florida Atlantic University/Harbor Branch Oceanographic Institution	Fort Pierce, FL	5	\$422,490
Marine Animal Rescue Society	Miami, FL	6	\$496,425
Florida Keys Marine Mammal Rescue Team	Cudjoe Key, FL	1	\$57,430
Chicago Zoological Society	Sarasota, FL	2	\$163,837
Florida Fish and Wildlife Conservation Commission	St. Petersburg, FL	6	\$492,359
Gulf World, Inc	Panama City, FL	2	\$145,675
Emerald Coast Wildlife Refuge	Fort Walton Beach, FL	1	\$78,860
Marterra Foundation, Inc./Spring Hill College	Mobile, AL	2	\$145,709
Texas Marine Mammal Stranding Network	Galveston, TX	10	\$998,710
Texas State Aquarium Association	Corpus Christi, TX	1	\$47,995
Oklahoma State University	Stillwater, OK	1	\$100,000



Southwest



Network partners in the Southwest Region that received \$6,893,176 in Prescott Grant funding from FY2001-2010

The NMFS Southwest Region covers the entire California coastline, a total of 3,426 miles, including inlets and islands. The Regional Stranding Coordinator is located in Long Beach, CA. Currently, the Southwest Region has 16 Stranding Agreement holders/government responders, with 8 of these organizations conducting rehabilitation. The region has 18 Prescott Grant recipients.

Between 2001 and 2009, the Southwest Region documented a total of 26,899 strandings.

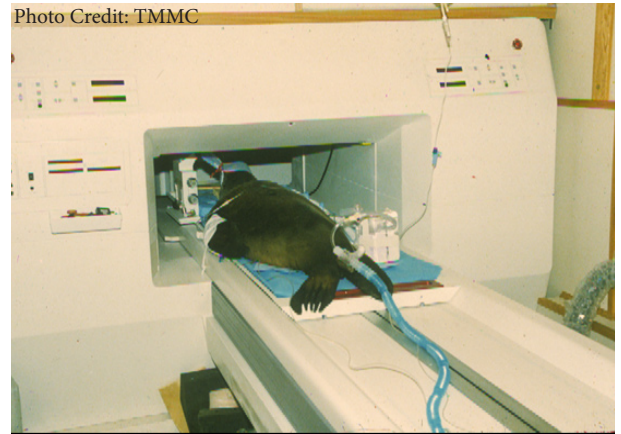
- 1,591 cetacean strandings
- 25,308 pinniped strandings
- 60% stranded alive
- 40% stranded dead
- 7,788 animals (10 cetaceans, 7,778 pinnipeds) stranded alive, were rehabilitated, and released.

Stranding responders in the Southwest Region have used Prescott funding to quantitatively and qualitatively improve their response to stranded animals. Facilities have improved both human and animal safety through training, communications, and the purchase of new and updated equipment, protective gear, and vehicles. Rehabilitation facilities have improved efficiency and thoroughness in the diagnosis and treatment of distressed and diseased live stranded animals through Prescott-funded veterinary and facility enhancements. Complete necropsies of dead animals are conducted more frequently and provide more complete information on the health of the animal before its death, significantly improving our understanding of causes of illness and mortality in marine mammals off our coast.

Future Prescott Grant priorities for the Southwest Region include: improving examination of stranded large whales, investigating the effects of Harmful Algal Blooms on our marine mammal populations, further exploring the role of infectious disease in marine mammal morbidity and mortality, and generally improving our understanding of the health of marine mammals and their ecosystem.

The Marine Mammal Center, Sausalito, CA
Prescott Grant Awards 2001-2010: \$970,230 (10 Awards)
Funds used for: Scientific Research and Facility Operations

The Prescott Grant Program has significantly increased The Marine Mammal Center's (TMMC) capability for stranding response by supporting the establishment of a biomonitoring system for infectious diseases and pathology in central California using stranded seals and sea lions. Prescott funding has also improved their understanding of factors influencing the health of harbor seals and the dynamics of leptospirosis infection in California sea lions. Funding from Prescott has improved TMMC's clinical laboratory, including a streamlined serum and tissue banking system, basic microbiology capabilities, histology, and strong collaborations with a number of specialized diagnostic services.



TMMC staff conduct an MRI on a sea lion

Prescott Grant funding has helped TMMC contribute to the overall conservation and management of marine mammal populations by improving the ability to detect diseases and monitor health trends, with new pathology and novel infectious agents identified through the biomonitoring program. Previously unknown, but now characterized, diseases include chronic effects of domoic acid on sea lions, a new herpesvirus and a novel fungus (*Scedosporium*) in elephant seals, a novel bacteria (*Mycoplasma*) in California sea lions, congenital defects in harbor seals, and cancers in elephant seals and Steller sea lions.

Regents of the University of California, Santa Cruz- Santa Cruz, CA
Long Marine Laboratory
Prescott Grant Awards 2001-2010: \$402,016 (7 Awards)
Funds used for: Stranding Support and Facility Operations



Live stranded Dall's porpoise in 2008

The Prescott Grant Program has transformed the University of California, Santa Cruz's (UCSC) ability to respond to marine mammals. Prescott funding has been used to purchase supplies for stranding response, necropsies (including a truck for carcass transport), and the collection of pathology data. UCSC has utilized Prescott funds to install a 30 foot diameter pool designed to rehabilitate live stranded cetaceans, complete with filtration, which provides adequate quarantine for newly admitted animals. The Assistant Stranding Coordinator position was made possible by the Prescott Grant Program. The Coordinator is responsible for beach response and recovery, performing necropsies, data entry into the national database, and rehabilitation. Prescott funds have also allowed the creation

of a large, publicly available website, the Sea Lion Anatomy and Pathology website. This website is dedicated to marine mammal health and intended to augment science education.



Regents of the University of California, Santa Cruz – Santa Cruz, CA
Marine Wildlife Veterinary Care and Research Center
Prescott Grant Awards 2001-2010: \$497,787 (5 Awards)

Funds used for: Stranding Support

Prescott funding has enabled the Marine Wildlife Veterinary Care and Research Center (MWVCRC) to use diagnostic pathology to assess health trends in wild populations of cetaceans and pinnipeds, contribute to education, and share data and specimens with other research institutions. MWVCRC assisted and provided diagnostic pathology services for Long Marine Laboratory, Moss Landing Marine Laboratories, and The Marine Mammal Center through a series of Prescott Grants from 2002-2009 on many stranding cases, including those involving sensitive research permit issues, human involvement, and declared unusual mortality events.



Photo Credit: Mike Harris (CDFG)

MWVCRC assisted with the on-site necropsy, collection and transportation of the blue whale stranded along the Big Sur coast

MWVCRC, with Prescott support, has contributed to a greater overall understanding of health trends in both cetacean and pinniped populations along central California and the discovery of new diseases in marine mammals, including unique bacterial infections. Data collected from marine mammals that receive full post-mortem examinations and pathology work-ups enable NMFS to assess seasonal or annual trends in strandings and possibly predict future outbreaks of disease.

Marine Mammal Care Center at Fort MacArthur – San Pedro, CA
Prescott Grant Awards 2001-2010: \$840,955 (9 Awards)

Funds used for: Facility Operations



Photo Credit: Ft MacArthur
Marine mammal surgery room

The Prescott Grant Program has greatly improved the rehabilitation capabilities at the Marine Mammal Care Center at Fort MacArthur. Funding has enabled consistent, full-time, on-site veterinary support, increased husbandry oversight, and improved facility maintenance. Prescott funds were used to install a surgery room, a diagnostic laboratory, and a portable x-ray machine with developer. Prior to these additions, all veterinary consulting needed to be done on a periodic basis, and any invasive medical procedures or radiographs required that patients be transported offsite. Fort MacArthur has added three isolation enclosures and two critical care enclosures. These enclosures have improved animal care and safety and established better quarantine practices. The Prescott Grant Program has also funded much-needed upgrades to their enclosures and necropsy facility. All of these improvements meet the NOAA *Policies and Best Practices: Standards for Rehabilitation*.

Pacific Marine Mammal Center – Laguna Beach, CA
Prescott Grant Awards 2001-2010: \$391,562 (5 Awards)
Funds used for: Facility Operations

The Prescott Grant Program has greatly improved The Pacific Marine Mammal Center's (PMMC) rehabilitation capabilities. The first Prescott grant laid the foundation for the future of PPMC's data collection and analyses. The funds provided the necessary necropsy equipment, digital microscopes and salary contributions for PPMC to perform gross and histologic postmortem exams on all patients that died or were euthanized. Numerous reports, data, and photographs have been used for in-house presentations, posted on the PPMC pathology website as case reports, and presented at stranding meetings and other scientific meetings and conferences.



Photo Credit: PPMC

First sea lion pups testing out one of the new pools

With the support of Prescott funding, PPMC expanded and renovated three existing outdoor pens and constructed individual in-ground pools in each pen, which allowed for the rescue of more stranded animals. These renovations have allowed PPMC to be more efficient in handling and feeding the animals. Elephant seal and harbor seal pups in rehabilitation are learning to dive for their food on their own more quickly than in past years. The support PPMC has received from the Prescott Grant Program has been invaluable.

City of Malibu/California Wildlife Center – Malibu, CA
Prescott Grant Awards 2001-2010: \$423,170 (5 Awards)
Funds used for: Stranding Support

The Prescott Grant Program has improved the California Wildlife Center's (CWC) marine mammal stranding response capabilities by providing rescue equipment such as nets and crates, as well as enabling the hiring



Photo Credit: CWC

CWC rescued a striped dolphin from County Line Beach

of qualified personnel to be available 24 hours a day. Without Prescott funding, the CWC would not have an effective and dedicated team responsible for responding to every stranded marine mammal in the area. A Marine Mammal Response Volunteer Training Program was also developed to provide consistent training and knowledge-based standards for current and future volunteers.

Biological tissue sampling has also increased and improved thanks to the Prescott Grant Program. The submission of these samples and information to qualified researchers will lead to the increased knowledge of marine species, diseases, pathologies, and the genetic diversity of the populations in southern California.



Biomimetica- Santee, CA
Prescott Grant Awards 2001-2010: \$51,979 (1 Award)
Funds used for: Scientific Research

Prescott Grant funding for research enabled Biomimetica to develop, construct, and place Auditory Evoked Potential (AEP) measurement systems with the Marine Mammal Center (Sausalito, CA) and the International Fund for Animal Welfare (Yarmouth Port, MA). These systems provide these stranding organizations with the capability for assessing hearing sensitivity in small odontocetes.



Photo Credit: Biomimetica
Dolphin receiving auditory evoked potential hearing test (NMFS Permit No. 1095-1837-00)

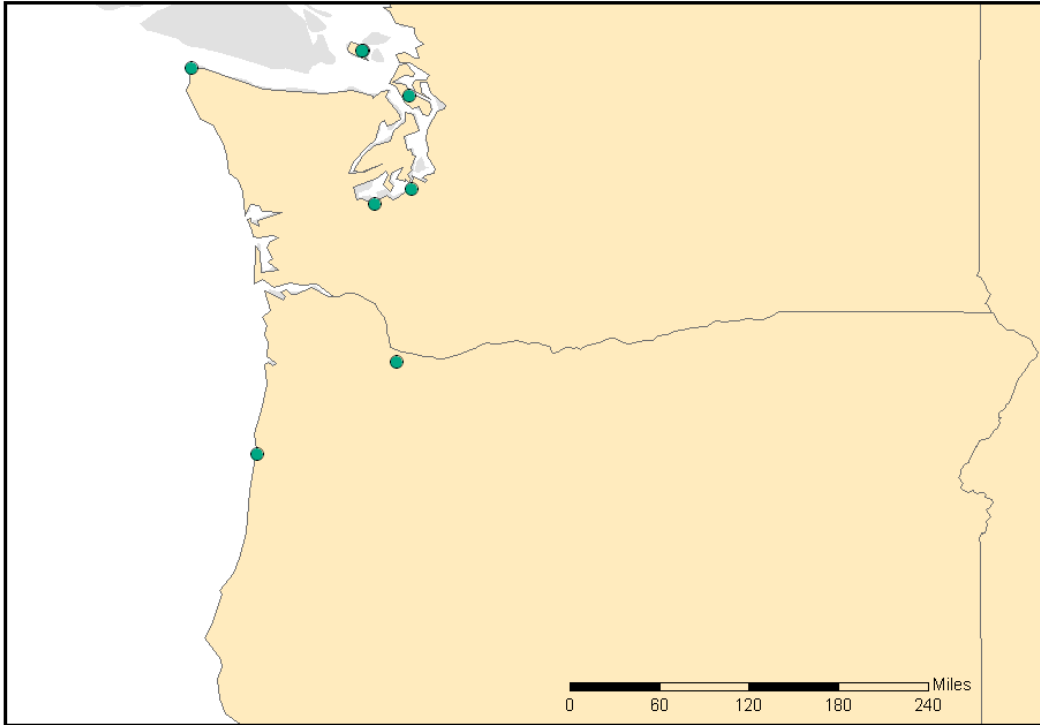
The AEP systems provide the ability to collect information on the range of hearing and hearing sensitivity of marine mammals, most species of which there is little to no information on their hearing capabilities. Given the concern over the impact of anthropogenic sound on marine mammals, the collection of these data will provide valuable information with respect to how marine mammals might respond to human-made sounds. In addition, the tool may

be used diagnostically to determine if stranded odontocete species have suitable hearing for release following rehabilitation.

Additional Southwest Region Prescott Recipients

Prescott Grant Recipient	Location	Total Awards	Total Amount
Northcoast Marine Mammal Center	Crescent City, CA	7	\$672,862
Regents of the University of California, Davis	Davis, CA	2	\$197,398
California Academy of Sciences	San Francisco, CA	2	\$200,000
San Jose State University Foundation	San Jose, CA	9	\$802,322
Channel Islands Marine and Wildlife Institute	Santa Barbara, CA	1	\$99,952
Santa Barbara Natural History Museum	Santa Barbara, CA	6	\$471,536
Santa Barbara Marine Mammal Center	Santa Barbara, CA	1	\$32,000
Natural History Museum of Los Angeles County Foundation	Los Angeles, CA	2	\$164,720
Regents of the University of California, Los Angeles	Los Angeles, CA	1	\$99,880
SeaWorld San Diego	San Diego, CA	5	\$476,108
Hubbs-SeaWorld Research Institute	San Diego, CA	1	\$98,699

Northwest



Network partners in the Northwest Region that received \$4,031,125 in Prescott Grant funding from FY2001-2010

The NMFS Northwest Region includes Washington and Oregon, including Puget Sound, and has a total of 2,632 miles of shoreline. The Regional Stranding Coordinator is located in Seattle, WA. Within the Northwest Region, there are 30 Stranding Agreement holders/government responders, with 2 of these organizations conducting rehabilitation. Among these organizations are state, federal, academic, non-governmental organizations, museums, aquaria and Indian Tribes. The region has 8 Prescott Grant recipients.

Between 2001 and 2009, the Northwest Region reported a total of 5,781 strandings.

- 588 cetacean strandings
- 5,193 pinniped strandings
- 24.33% stranded alive
- 75.66% stranded dead
- 176 animals (1 cetacean, 175 pinnipeds) were rehabilitated and released.

Prescott funding has been used for the development of data collection protocols, stranding and ship strike responses, post release monitoring, and investigations into acoustic trauma on harbor porpoises. Future Prescott grant priorities for the Northwest Region include: enhancing network response operations, improving capabilities for response and rehabilitation of animals affected by oil spills and other hazardous material, training responders to improve data collection, developing protocols for identifying, processing, and disposing of dead marine mammals, improving the ability to track previously disentangled animal or rehabilitated endangered species using satellite tags, and developing outreach and educational materials.



The Whale Museum – Friday Harbor, WA
Prescott Grant Awards 2001-2010: \$529,708 (6 Awards)
Funds used for: Stranding Support



Photo Credit: The Whale Museum

Molting elephant seal at commercial oyster culture operation

Prior to receiving Prescott funding, The Whale Museum operated the San Juan County Marine Mammal Stranding Network (SJCMMSN) with little or no dedicated support. Prescott funding has enabled SJCMMSN, to acquire essential field and necropsy supplies, education and outreach materials, fuel for the stranding boat, as well as stipends for staff and interns. Prescott Grant funding enabled the SJCMMSN to purchase an aluminum landing craft capable of carrying up to 1,800 pounds that is dedicated to marine mammal strandings. This boat allows SJCMMSN to cover over 400 miles of otherwise inaccessible shoreline including dozens of islands in San Juan County.

In particular, Prescott funding has allowed the SJCMMSN to greatly expand and strengthen its necropsy program which previously was performed on a sporadic and limited basis. The improved necropsy program has increased SJCMMSN's capabilities to diagnose natural and anthropogenic causes of mortality in stranded marine mammals including: diseases, exposure to biotoxins, gunshot, net entanglement, boat and propeller strike, and possible noise related trauma. Additionally, this work has elucidated a malnutrition syndrome in harbor seal pups and work is currently underway to identify parasites of marine mammals in this region. Information obtained from these stranding events has provided important insights into the natural history of marine mammals in the Pacific Northwest (such as diet preferences, predation habits of top predators such as killer whales, etc.).

Wolf Hollow Wildlife Rehabilitation Center – Friday Harbor, WA
Prescott Grant Awards 2001-2010: \$626,831 (7 Awards)
Funds used for: Stranding Support and Facility Operations

Over the past ten years, the Prescott Grant Program has enabled Wolf Hollow Wildlife Rehabilitation Center to make major, long term improvements to their pinniped rehabilitation facility and capabilities. With the support of Prescott funding, Wolf Hollow conducts complete diagnostic screenings for all pinnipeds admitted to the facility, performs thorough necropsies, as well as provides advanced on-site training. Prescott funding has allowed for the completion of major facility upgrades including: the installation of a walk-in freezer for storage of marine mammal food, a covered shelter with a water filtration and disinfection system, modifications to a pool so that it can be used as an isolation or quarantine pool, and screening of the isolation and initial care area. As a result of these improvements made possible by the Prescott Grant Program, Wolf Hollow successfully rehabilitated a six-month old Seller sea lion pup in 2006, the first in Washington State.



Photo Credit: Wolf Hollow

Seal pups resting on a new haul-out

Makah Fisheries Management – Neah Bay, WA
Prescott Grant Awards 2001-2010: \$107,656 (3 Awards)
Funds used for: Stranding Support

Prior to acquiring Prescott funding, Makah Fisheries Management had limited equipment and resources available to respond to and investigate marine mammal strandings. Now, Makah Fisheries Management has the necessary equipment, supplies and staff to better respond to and educate people about marine mammal strandings on the Makah Reservation. In particular, Prescott funding has enabled Makah Fisheries Management to provide marine mammal stranding response training for two Makah tribal members. Once trained, Makah Fisheries Management was able to keep a Tribal member on staff as the Marine Mammal Stranding Coordinator.

A rapid response to marine mammal strandings is very beneficial for both live and dead stranded marine mammals. Having a staff member on the Reservation at all times, a marine mammal stranding phone line, and tools to educate the public on reporting has allowed Makah Fisheries Management to quickly respond to stranding reports. The fast response time greatly reduces the potential of disease transmission to the people of Neah Bay.



Training a summer intern from the Makah Tribe to collect basic animal data and necropsy on a harbor porpoise

Central Puget Sound Marine Mammal Stranding Network (Orca Network)– Greenbank, WA
Prescott Grant Awards 2001-2010: \$278,997 (3 Awards)
Funds used for: Stranding Support

Prescott funding has enabled the Central Puget Sound Marine Mammal Stranding Network (CPSMMSN) to perform sampling and necropsy of dead stranded marine mammals, through funding of a marine mammal veterinarian. It also provided support for key PIs (Principal Investigators) to oversee marine mammal stranding coordination, train over 160 stranding network volunteers, purchase supplies, and become trained in sample collection and necropsy. Prior to receiving Prescott funding, CPSMMSN was a totally volunteer organization, with very limited funding for supplies and no funding for staff, travel, response, equipment, sample testing, or necropsy. Prescott funds have also enabled CPSMMSN to conduct public education and awareness about marine mammal strandings, resulting in improved reporting and response capabilities.

CPSMMSN responds to a variety of cases including: entangled live seals, a harbor porpoise Unusual Mortality Event (UME), testing sea lions for Leptospirosis, and collaborating with WA Fish and Wildlife to respond to sick or injured animals. The harbor porpoise UME investigation discovered two animals infected with the fungus *Cryptococcus gattii*, including a pregnant female which has provided the Index case for fetal transmission of this potentially fatal organism. Samples collected by CPSMMSN from harbor and Dall's porpoise strandings have provided important information on the health and population status of porpoises, which may have important implications for the health of the endangered Southern Resident killer whales that share the same waters in the northwest.



Washington Department of Fish and Wildlife – Lakewood, WA
Prescott Grant Awards 2001-2010: \$566,443 (6 Awards)
Funds used for: Stranding Support

The Prescott Grant Program has enabled Washington Department of Fish and Wildlife (WDFW) to respond to stranded and entangled marine mammals in a timely and consistent manner. Prescott provided funding for a dedicated stranding coordinator who handles all stranding calls and responses, and maintains the supplies necessary for complete necropsies. Thorough necropsies are conducted with samples collected for histopathology investigations. Improved data collection and diagnostics have allowed for better documentation of stranding patterns, and has documented the occurrence of several diseases in marine mammals such as: *Brucella*, *Leptospirosis*, *Coxiella*, *Herpesvirus*, novel reoviruses, *Cryptococcus*, *Toxoplasma gondii*, *Sarcocystis* spp. and *Neospora* spp.



Photo Credit: Dyanna Lambourn, WDFW
Steller sea lion stranded live on beach for 2 days, was rescued with the aid of other stranding network responders, local police and state park staff

Cascadia Research Collective – Olympia, WA
Prescott Grant Awards 2001-2010: \$649,501 (7 Awards)
Funds used for: Stranding Support and Scientific Research

With the assistance of the Prescott Grant Program, Cascadia Research Collective has provided consistent stranding response to all marine mammals in the Southern Puget Sound area and cetaceans on the outer coast of Washington resulting in improved data collection. Prior to Prescott funding, stranding response was limited by availability of personnel and funding for travel, supplies, and sample analysis. Cascadia's enhanced response capabilities enabled detailed documentation of stranding patterns, which contributed to the investigations of the 2006 harbor porpoise and Guadalupe fur seal Unusual Mortality Events (UMEs), as well as improved response to disentangle large whales.

Prescott funding has enabled Cascadia to hire a part-time stranding coordinator, maintain necessary supplies for complete necropsies, and to purchase equipment to facilitate stranding response. Findings from stranding investigations have been published in peer-reviewed journals including an article on whale ship strike mortalities. Enhanced examinations and sampling has enabled Cascadia to record evidence of human interaction, document prevalence of several diseases in stranded pinnipeds and cetaceans (including *Cryptococcus* and protozoal encephalitis), recover antibiotic-resistant bacteria in harbor seals from the Strait of Juan de Fuca, assist other researchers with leptospirosis and herpesvirus investigations, and continue to monitor chemical contaminants in pinnipeds and cetaceans in Washington waters.



Photo Credit: Cascadia Research
Examination of a humpback whale on Long Beach, WA. Participants included Cascadia Research, WDFW, and NMFS

Northern Oregon-Southern Washington Marine Mammal Stranding Program at Portland State University - Portland, OR

Prescott Grant Awards 2001-2010: \$474,772 (5 Awards)

Funds used for: Stranding Support and Scientific Research

The Prescott Grant Program has significantly increased Portland State University's (PSU) stranding response capabilities. Prior to Prescott, PSU was only able to respond to approximately 60 animals per year in a limited area. With Prescott funding, coverage of the entire Northern Oregon-Southern Washington Marine Mammal Stranding Program response area is possible allowing improved response to stranding events, with approximately 130-140 cases per year.



Juvenile gray whale stranding— result of a boat strike

Prescott funding has facilitated consistent complete necropsies and extensive diagnostic sampling on all dead marine mammals including routine diagnostic evaluation of disease and health trends. Research is being conducted to investigate marine mammal disease, biotoxins and contaminants exposure through dietary sources. A dedicated outreach and education program has been developed for middle and high schools to highlight local marine mammals and conservation threats in the Northwest.

Oregon State University – Corvallis, OR

Prescott Grant Awards 2001-2010: \$797,217 (8 Awards)

Funds used for: Stranding Support

Prescott funding has provided support to Oregon State University (OSU) for a dedicated full-time state-wide Stranding Coordinator, enabling work to progress from casual and sporadic observations of marine mammal stranding events to a serious scientific endeavor involving the systematic collection, analysis, and archiving of stranding data and biological samples. It has also provided the material resources necessary to respond to strandings (e.g. vehicle fuel, sampling supplies, protective gear, and equipment), veterinary diagnostic laboratory costs for histopathology, microbiology etc., as well as training to disentangle marine mammals.

Although rehabilitation is not a primary aspect of stranding response in Oregon, public outreach is a major component of the Stranding Coordinator's job. Through a combination of methods (e.g. conversations with callers and people on the beach, public service announcements, bumper stickers, signs posted at beach accesses and near animals on the beach) OSU can better inform the general public about the needs of resting pinnipeds.

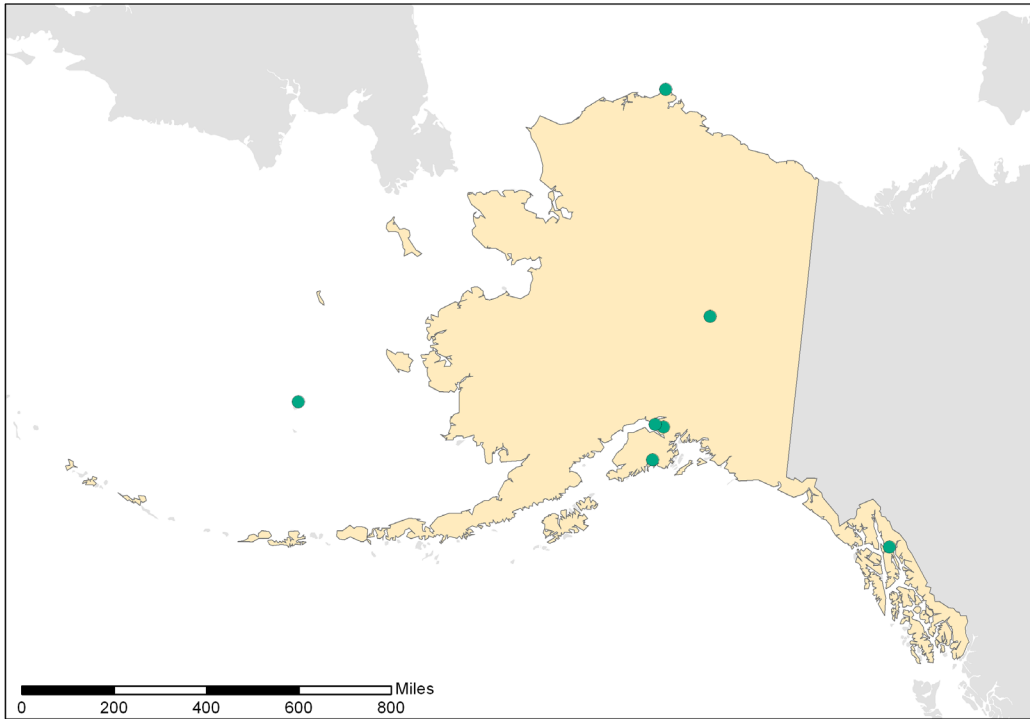
OSU has gathered baseline data for marine mammal morbidity and mortality on the Oregon and southern Washington coasts, and has identified several frequent diseases in pinnipeds as well as some unexpected findings, such as *Cryptococcus gattii* in two porpoises, and ovarian cancer in a gray whale. Tissue samples are being archived for future retrospective analyses of persistent contaminants.



Stranding Coordinator Jim Rice assesses the health of newborn harbor seal pup



Alaska



Network partners in the Alaska Region that received \$2,352,101 in Prescott Grant funding from FY2001-2010

The NMFS Alaska Region covers the Alaska coastline and includes the Pribilof Islands, Kodiak and the Aleutian Islands. The Regional Stranding Coordinator is located in Juneau, AK. The Alaska Region has 14 Stranding Agreement holders/government responders throughout the region. There is only one facility with rehabilitation capabilities, The Alaska SeaLife Center. The region has 7 Prescott Grant recipients.

Between 2001 and 2009, the Alaska Region reported a total of 1229 strandings.

- 673 cetacean strandings
- 556 pinniped strandings
- 33% stranded alive
- 67% stranded dead
- The Alaska SeaLife Center rehabilitated and released 72 pinnipeds.

Stranding responders in the Alaska region have used Prescott funding for: disentanglements of northern fur seals, improvements to sample tracking and archiving, salvage of beach-cast animals along Bristol Bay, development of outreach materials and workshops, and rehabilitation program support of animal husbandry, transport, and post-release monitoring of rehabilitated animals.

Future Prescott Grant priorities for the Alaska region include: enhancing coastline coverage (with particular attention to rural and remote areas in the Arctic), further developing outreach and educational tools, reducing and responding to marine mammal fishery entanglements, and enhancing network capacity to respond to stranding events by providing training for assessment techniques, sample collection, necropsy, and documentation.

Alaska SeaLife Center – Seward, AK
Prescott Grant Awards 2001-2010: \$966,123 (11 Awards)
Funds used for: Stranding Support and Facility Operations



Photo Credit: Alaska SeaLife Center

A Guadalupe fur seal, on left with tag, being released with a California sea lion

Prior to receiving funds through the Prescott Grant program, the Alaska SeaLife Center's (ASLC) Stranding Program had a relatively limited capacity to respond to strandings. Funds have been utilized to: increase the number of staff and interns to help respond and care for animals during the busy, extended summer season; expand ASLC's coverage area to remote locations; enhance the collection of detailed stranding data; and acquire necessary stranding response equipment such as a truck, tracking buoys, disentangling gear, and diagnostic tools.

ASLC can now conduct advanced screening tests (fecal pathogens, titers for antibodies of diseases of concern) as part of the routine workup of all live stranded marine mammals. These tests have highlighted contributing factors to an animal's stranding as well as providing insight into conditions present in wild marine mammal populations. Recent successes have included the rehabilitation and release of three Steller sea lions from the threatened eastern stock and a threatened Guadalupe fur seal from Kachemak Bay. Prescott funds also helped pay for the care and the diagnosis of Alaska's first clinical domoic acid cases in marine mammals, which included two California sea lions and one harbor seal.

In addition to improving ASLC's stranding response and rehabilitation capabilities, the Prescott Grant Program provided vital support for the annual Alaska Stranding Network Meetings beginning in 2006. These meetings have fostered the growth and development of the Alaska Region Stranding Network by providing important training in necropsy techniques, oil spill response, Incident Command System (ICS) structure, whale disentanglement, harmful algal blooms, assessing human impact, and auditory trauma.

Alaska Department of Fish and Game – Juneau, AK
Prescott Grant Awards 2001-2010: \$54,000 (1 Award)
Funds used for: Stranding Support

The Alaska Department of Fish and Game (ADFG) utilized Prescott funds to work with several partners to develop methods to respond to entangled Steller sea lions in Alaska including the production of a video to increase awareness among Alaska fishers, and enhancing relationships with constituent groups to address entanglement issues. Specifically, Prescott funds facilitated the improvement and development of capture techniques that otherwise would not have been possible. ADFG developed Standard Operating Procedures (SOPs) for entanglement response that ensures rescue efforts are conducted safely and effectively. The 11-minute narrated video titled *Entanglement of Steller Sea Lions in Marine Debris: Identifying Causes and Finding Solutions* has been distributed widely to government agencies, non-profit organizations, tribal councils, and fishing groups within Alaska and the Pacific Northwest, as well as to aquariums, zoos, and conservation groups throughout the United States and the world. Numerous presentations have also been made at scientific meetings and conferences, to the general public, to members of the fishing industry, and to school groups in Alaska and Oregon.



Photo Credit: ADFG

A Steller seal lion who ingested a flasher



Additional Alaska Region Prescott Recipients

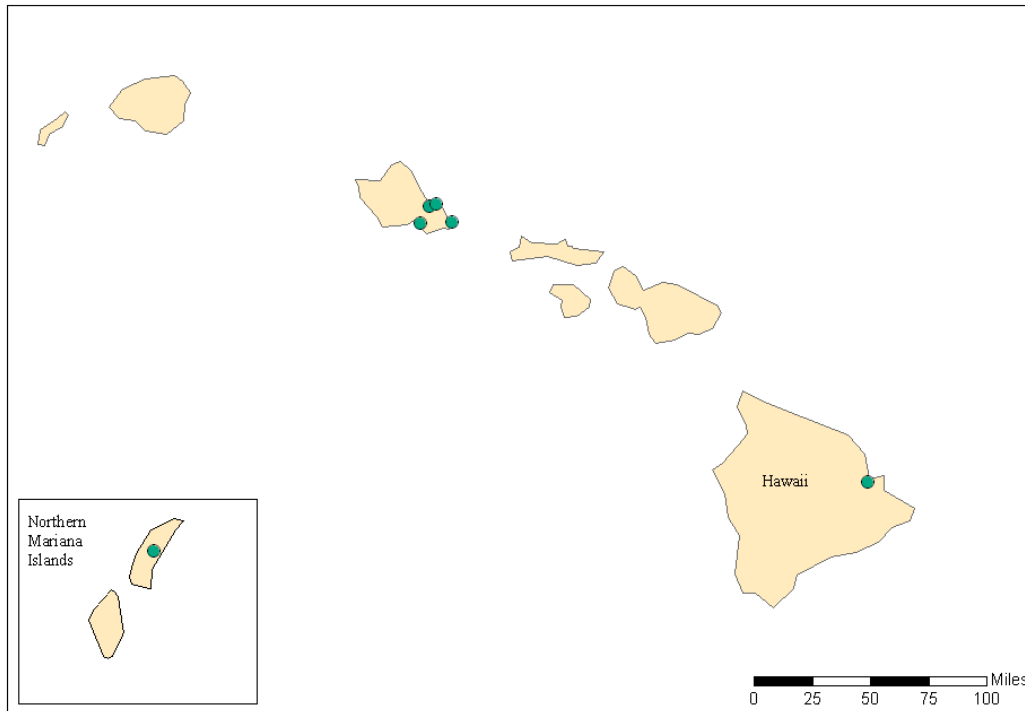
Prescott Grant Recipient	Location	Total Awards	Total Amount
North Slope Borough	Barrow, AK	1	\$99,946
University of Alaska, Fairbanks	Fairbanks, AK	7	\$691,998
University of Alaska, Anchorage	Anchorage, AK	3	\$205,466
Alaska Whale Foundation	Petersburg, AK	1	\$39,540
Aleut Community of St. Paul Island	St. Paul Island, AK	3	\$295,028



Photo Credit: Alaska SeaLife Center

A premature seal in rehabilitation at the Alaska SeaLife Center

Pacific Islands



Network partners in the Pacific Islands Region received \$1,179,472 in Prescott Grant funding from FY2001-2010

The NMFS Pacific Islands Region includes Hawaii, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands and seven small islands of various jurisdictions, making up a total 1,905 miles of coastline and covering 1.5 million nm². The Regional Stranding Coordinator is located in Honolulu, HI. The Pacific Islands Region had 9 Stranding Agreement holders/government responders throughout the region. There are 2 facilities with rehabilitation capabilities. The region has 6 Prescott Grant recipients.

Between 2001 and 2009, the Pacific Islands Region reported a total of 234 strandings.

- 158 cetacean strandings
- 76 pinniped strandings
- 54% stranded alive
- 46% stranded dead
- 4 Hawaiian monk seals were rehabilitated and released.

Stranding responders in the Pacific Islands Region have used Prescott funding for: necropsies, training, community outreach, obtaining health and disease data for Hawaiian monk seals and to improve the region's ability to efficiently respond to dolphin and small whale strandings. Future Prescott Grant priorities for the Pacific Islands Region include: maintaining and supporting existing facilities, and providing cetacean response and necropsy training to other areas in the Pacific Island Region including Guam, American Samoa, and the Mariana Islands.



Hawaii Pacific University – Honolulu, HI
Prescott Grant Awards 2001-2010: \$400,000 (4 Awards)
Funds used for: Stranding Support

The Prescott Grant Program has greatly increased the ability of Hawaii Pacific University (HPU) to conduct stranding response in Hawaii. Prior to support from this program, the university had very little infrastructure and no dedicated staff to train or coordinate volunteers. With Prescott Grant funds, staff time has been dedicated to directing the HPU stranding program, and important equipment has been obtained such as ultracold storage freezers for the archiving of samples, as well as dedicated necropsy facilities and supplies.

Prescott Grant support has permitted rapid response to cetacean strandings on several islands which in the past has presented logistical challenges to rescue teams. This improved response has led to increased information on cause of death, emerging diseases, and on the biology and ecology of Hawaii's lesser known cetacean species. In just a few years of effort, the Prescott grants awarded to HPU have led to a peer reviewed published article in the scientific literature on the diet of pygmy sperm whales with data obtained from the stomach contents of stranded animals. Another article published in 2010 describes the first report of *Cryptococcus*, a fungal disease, in a stranded spinner dolphin, a species unique to Hawaii.

University of Hawaii, Hilo - Hilo, HI
Prescott Grant Awards 2001-2010: \$99,992 (1 Award)
Funds used for: Stranding Support and Facility Operations



Photo Credit: UHH

Volunteers practicing capture and release techniques

The University of Hawaii, Hilo (UHH) received partial Prescott Grant funding as a sub-contractor from a fellow Pacific Islands Stranding Network member. With the support of Prescott, UHH constructed a Hawaii Cetacean Rehabilitation Facility which is the only one of its kind in the Pacific Islands Region. In addition, UHH has improved the capabilities of the local Hilo Marine Mammal Response Network on the Island of Hawaii through the development of stranding protocols, and by purchasing necessary veterinary and response supplies.

In particular, UHH has expanded the volunteer program to monitor Hawaiian monk seals and respond to stranded marine mammals. A series of workshops have been conducted to train volunteers in rehabilitating stranded cetaceans including beach response, safe animal transport, and humane animal care practices. To date over 100 volunteers have successfully completed these training workshops. UHH received their first Prescott Grant award in 2010.

Additional Pacific Islands Region Prescott Recipients

Prescott Grant Recipient	Location	Total Awards	Total Amount
Robert C. Braun, D.V.M.	Kane ohe, HI	2	\$199,650
Hawaiian Islands Stranding Response Group	Kane ohe, HI	3	\$299,830
Sea Life Park by Dolphin Discovery	Waimanolo, HI	1	\$100,000
Northern Marianas College	Saipan, MP	1	\$80,000

Photo Credit: Trevor Spradlin, NMFS MMHSRP (NMFS Permit No. 932-1905/MA-009526)



NMFS is working with several government and academic partners to help the population of critically endangered monk seals recover.



Emergency Funding

The Prescott Grant Program has reserved a portion of appropriated funds for emergency assistance to catastrophic events throughout the year, on an as needed basis. These funds allow for organizations to provide immediate response to events such as mass strandings, out-of-habitat animals, and natural disasters, that might otherwise be impossible to respond to without financial assistance. Emergency funding has provided assistance for a number of events including: the rescue of an orphaned killer whale, mass stranding events, hurricane responses, and the abrupt closure of a rehabilitation facility. From FY2001 to 2010, Prescott has awarded \$1,353,652 in emergency funding. Without these funds, the success of all of the organizations that received emergency funding would not have been possible.

A73 Rescue, Rehabilitation and Release Emergency Funds: \$93,494



A73 breaching in net pen during rehabilitation

On May 24, 2002, the National Marine Fisheries Service (NMFS) in cooperation with Fisheries and Oceans - Canada announced its intention to intervene and rescue a lone juvenile killer whale in the Central Puget Sound region of Washington State. The efforts brought together an unprecedented collaboration involving the Vancouver Aquarium, numerous advocacy groups and private industry in Washington State and British Columbia. The two year old whale, identified as A73, or “Springer,” of the northern resident population was separated from her natal pod and found living in Puget Sound, several hundred kilometers from her home range.

Based on observations and tests it was determined that the whale was underweight, ketotic and suffering from a dermatological disease of unknown origin. In addition, the whale frequently interacted with vessels and people. In response to concerns for the health and safety for her and for boaters using Puget Sound, the 600 kilogram animal was captured on June 13, 2002, a short distance from a floating net pen and held for comprehensive health assessments, treatment and rehabilitation in preparation for reintroduction to her home range. After one month in rehabilitation the whale was transported to Hanson Island, British Columbia, and released back to her pod. She has been seen every year, most recently in 2010, thriving in her wild habitat. Her success couldn't have happened without the support of Prescott funds.



A73 and her release team as they prepare to reintroduce her to her pod

Cape Cod Pilot Whale Mass Stranding Emergency Funds: \$31,203



Cape Cod pilot whale mass stranding event

Fifty-seven long-finned pilot whales (*Globicephala melas*) stranded in Dennis, Massachusetts on July 29, 2002. The Cape Cod Stranding Network, New England Aquarium, University of New England, Mystic Aquarium, Riverhead Foundation, and the National Aquarium in Baltimore formed a collaborative team that responded to this large mass stranding event. The team worked diligently and was able to release forty-six whales with the rising tide. The extreme heat and July sun created added stress on the stranded whales, and all forty-six of the pilot whales re-stranded the following day in Wellfleet, Massachusetts. During the second day of the stranding event, the response team provided supportive

care, and conducted health assessments on the re-stranded pilot whales. The hot summer conditions proved to be too stressful for the animals, all were in poor condition. The pilot whales were humanely euthanized and the carcasses were towed out to sea for disposal. Even though this event did not have a happy ending, the marine mammal stranding network used this mass stranding event to gain valuable insight into marine mammal mass strandings.

Hurricane Rita Response Emergency Funds: \$99,807

Hurricane “Rita”, a category 3 hurricane, made landfall between the Texas/Louisiana border on September 24, 2005. After the hurricane, five bottlenose dolphins washed inland from storm surges and were stranded in Cameron and Vermillion Parrish, Louisiana. A few weeks prior to Hurricane “Rita”, the Louisiana Marine Mammal Stranding Network was greatly impacted by the devastating effects of Hurricane “Katrina”. In an effort to assist their fellow Marine Mammal Stranding Network members, the Texas Marine Mammal Stranding Network (TMMSN) undertook the “Rita” response efforts. TMMSN worked with NOAA NMFS, the National Guard, Army Corp, Louisiana Emergency Operations Center, and local law enforcement to respond to these stranded dolphins. The rescue team triaged the animals and four of the five dolphins were immediately released. In the months following Hurricane “Rita”, TMMSN continued to respond to marine mammal strandings in Louisiana, allowing the Louisiana Marine Mammal Stranding Network to rebuild after two devastating natural disasters.



*Photo Credit: NOAA SEFSC
A bottlenose dolphin is rescued after
Hurricane Rita*



Additional Emergency Funding Recipients

Applicant	State	Year	Title	Award Amount
Marine Mammal Conservancy	FL	2004	Emergency Assistance Component of the 2003/2004 Prescott Grant for the Mass Stranding and Rehabilitation of 5 Pilot Whales in Big Pine Key, FL	\$68,233
Mote Marine Laboratory	FL	2005	Emergency Care, Rehabilitation, and Post-Release Monitoring Following Mass Stranding of Rough-Toothed Dolphins at the Dolphin and Whale Hospital	\$100,000
Riverhead Foundation for Marine Research and Preservation	NY	2005	NY3715-2005/ST581Gg Rehabilitation and Release Emergency Funding Request	\$29,639
The Marine Mammal Conservancy	FL	2005	Rehabilitation of 26 <i>Steno bredanensis</i> from the mass stranding event in Marathon, Florida March 2005	\$60,000
Hawaii Pacific University	HI	2006	Increasing Cetacean Necropsy Capabilities in the Main Hawaiian Islands	\$100,000
Maine Department of Natural Resources	ME	2006	Emergency Funds for the Development and Implementation of the Maine Department of Marine Resources (DMR) Marine Mammal Stranding Program	\$100,000
The Regents of the University of California at Santa Cruz	CA	2006	Emergency Request for Enhancement of Stranding Response at University of California Santa Cruz Long Marine Lab to Enable Live Cetacean Rehabilitation	\$76,106
The Marine Mammal Center	CA	2007	Rescue of an injured cow-calf pair of humpback whales from the Sacramento River Delta	\$44,234
Sea Research Foundation, Inc	CT	2007	Emergency Support for Expanded Pinniped Rehabilitation at Mystic Aquarium	\$92,826
Maine Department of Natural Resources	ME	2007	Emergency Prescott Funds for the continued development of the Maine Department of Marine Resources Marine Mammal Stranding Program	\$100,000
University of New England	ME	2007	Maximizing Rehabilitation Resources at The University of New England Marine Animal Rehabilitation Center	\$100,000
Virginia Aquarium and Marine Science Center Foundation	VA	2007	Support for Diagnostic Necropsies of Stranded Right Whales in the western North Atlantic	\$100,000
Texas Marine Mammal Stranding Network	TX	2009	Support for Essential Marine Mammal Recovery and Rehabilitation Equipment Lost in Hurricane Ike and emergency support for out of habitat capture following Hurricane Ike	\$38,633
Virginia Aquarium and Marine Science Center Foundation	VA	2009	Building a New Stranding Network in Northern NC	\$74,477
The Marine Mammal Center	CA	2009	Emergency Response to Extraordinary California Sea Lion Stranding Event Along the Northern California Coast	\$45,000

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Grateful acknowledgement to the following organizations for their contributions to this report:

Alaska Department of Fish and Game, Alaska SeaLife Center, Audubon Aquarium, Biomimetica, California Department of Fish and Game, California Wildlife Center, Cascadia Research Collective, Central Puget Sound Marine Mammal Stranding Network, Clearwater Marine Aquarium, Hawaii Pacific University, Hubbs-SeaWorld Research Institute, Institute for Marine Mammal Studies, International Fund for Animal Welfare's Marine Mammal Rescue and Research Program, Long Marine Lab at UC Santa Cruz, Makah Fisheries Management, Marine Mammal Care Center at Fort MacArthur, Marine Mammal Stranding Center, Maryland Department of Natural Resources, Mote Marine Laboratory, Mystic Aquarium, National Aquarium in Baltimore, North Carolina State University, Nova Southeastern University, Oregon State University, Pacific Marine Mammal Center, Portland State University, Puerto Rico Department of Natural and Environmental Resources, The Marine Mammal Center, The Whale Center of New England, The Whale Museum, University of Hawaii - Hilo, University of North Carolina - Wilmington, Virginia Aquarium Stranding Response Program, Washington Department of Fish and Wildlife, Woods Hole Institution





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