

The Dr. Holly Reed Wildlife Conservation Fund

Point Defiance Zoo & Aquarium (PDZA) awarded grants totaling \$312,330 to 32 projects in 2017. These grants are allocated from the Dr. Holly Reed Wildlife Conservation Fund, which is administered by The Zoo Society. The Fund has awarded more than \$1.8 million since 2002.

The Zoo Society works with PDZA to conserve wildlife and wild places at home and abroad. Donations from zoo guests, community members and other sources provide money for the conservation fund, which is named in honor of longtime PDZA head veterinarian Dr. Holly Reed, who died in 2012.



2017 Funded Projects

Marine Mammal Research and Conservation: A key focus area for conservation funding is the study and conservation of marine mammals of the Arctic and understanding the impacts of climate change in this environmentally sensitive region.

- **Tracking polar bears in Canada:** Polar bear researchers will deploy up to 40 GPS ear tags on male and young male/female polar bears to track their movements in Western Hudson Bay. As ice conditions change due to climate change, these bears spend more time on shore, resulting in increasing conflicts with people. In addition to providing insight about polar bear seasonal movements between land and sea ice, this work will reduce human-bear conflicts and inform future conservation action.
- **Protecting walrus habitat in Alaska:** Round Island in Bristol Bay, Alaska protects one of the largest terrestrial Pacific walrus haul out sites in North America, giving walruses a large area of beach on which to rest every summer. Up to 14,000 walrus have been counted there in a single day. It is the only wildlife sanctuary of its kind in North America. Live walrus cam: <http://explore.org/live-cams/player/walrus-cam-round-island>. This grant provides operational and research support for the refuge.
- **Walrus prey assessment:** Walruses in Bristol Bay, Alaska are known to move between resting beaches, perhaps in response to human disturbances or changes in abundance of shellfish prey. This study will test several methods for evaluating prey available to walruses to better understand the drivers of walrus movements and the impact of habitat changes.
- **Saving the vaquita:** Grant support for an international team to locate, capture and care for the remaining 30 critically endangered porpoises in Mexico as a last-ditch effort to save them from extinction.
- **Sea otter foraging study:** This study evaluates how diet preferences of sea otters off the Washington coast have changed over time as otters have expanded their range from original recovery sites.

Carnivores of Southeast Asia: Southeast Asia is home to a diverse carnivore community including cats, civets, mongoose, otters, and sun bears. Many of these species are poorly understood, are vulnerable to multiple threats, and may be in decline.

- **Clouded leopard research and conservation:** The Dr. Holly Conservation Fund has long supported efforts to study and protect endangered clouded leopards in Southeast Asia. Grants awarded this year will support: assessment of long-term camera trap data in nine range countries; the purchase of GPS collars to track clouded leopards translocated in Malaysia; an analysis of clouded leopards, their prey, and their threats in Bangladesh. All of these studies will add to the body of knowledge of clouded leopard populations to guide future conservation efforts.
- **Assessing carnivore distribution and threats:** Studies funded include: long term assessment of the impacts of logging and hunting on carnivores in Borneo; a survey of endangered carnivores in a remote region on the Laos-Vietnam border; forest use of carnivores and their prey and the influence of human factors in Borneo; protecting habitat for the endangered flat-headed cat in Borneo.

- **Sumatran tiger conservation:** PDZA has supported the Association of Zoos and Aquariums (AZA's) Tiger Conservation Campaign since 2012, funding projects in Sumatra through the Wildlife Conservation Society. These programs, Wildlife Crime Units and Wildlife Response Units, apprehend poachers and address human-tiger conflict. In 2016, they responded to 27 tiger-human conflicts and worked with communities to build 36 tiger-proof livestock pens. They also handled 12 cases involving 31 suspects involved in illegal hunting and smuggling.

Zoo-based Research and Conservation

- **Enhancing animal reproduction through hormone monitoring:** Over the last twelve years, PDZA has used non-invasive studies of endocrine hormones to enhance reproduction of clouded leopards, red wolves, Asian small clawed otters, walrus and other species. This grant will fund work using our in-house lab at Northwest Trek Wildlife Park to gain timely insight into animals' reproductive status.
- **Red wolf diet and health studies:** Researchers speculate that diet may play a role in the red wolves' susceptibility to inflammatory bowel disease. Two studies will examine this link to inform future management of red wolf diets, enhancing their health and reproductive success.
- **Sumatran tiger assisted reproduction:** This study will advance the potential for using non-surgical artificial insemination (AI) to enhance the breeding capacity of Sumatran tigers in zoos. Through AI, a pair of animals can produce offspring regardless of compatibility or their physical location. This effort will allow AZA's Species Survival Plan (SSP) to maximize genetic diversity while lessening the need for transferring or importing animals for breeding.
- **Thailand Clouded Leopard Consortium:** PDZA works with the National Zoo and Nashville Zoo to collaborate with the Khao Kheow Open Zoo in Thailand to facilitate the management, study, and breeding of clouded leopards. To date 70 cubs have been born in Thailand, with ten imported to the U.S. This effort has introduced new genetic lines, allowing the SSP population to significantly grow and experience successful reproduction in North America.

Elephant conservation in Sumatra: A grant supports Conservation Response Units in Sumatra, to address conflicts between people and wild elephants. Formerly neglected elephants are trained to carry forest rangers into elephant territory to fight crime, rescue wildlife, reduce elephant-human conflict by herding wild elephants away from settlements and provide education and outreach programs to villages in and around the parks.

Studying sharks off the coast of Baja: Little is known about shark behavior and movements and the impacts of large-scale fishing activities. Zoo funding allows scientists with the Fins Attached organization to tag hammerheads and other sharks to track their movements in the Revillagigedo Islands, off the coast of Baja, Mexico. Information collected has increased understanding of sharks in the region and recently played a role in the Mexican government's expansion of the protected area surrounding the islands.

Anoa and babirusa conservation outreach: This project focuses on public outreach to address the impacts of hunting and habitat loss on anoa and babirusa. Utilizing a three-day intensive outreach curriculum developed with assistance from a PDZA educator, this project will visit schools and villages to conduct training workshops, deliver curriculum activities, and assess changes in knowledge and attitudes.

Red wolf habitat analysis and outreach: Potential new red wolf reintroduction sites have been identified in southern Missouri and northern Arkansas. This study will evaluate attitudes towards wolves and assess the impact education programs have on public perceptions. This information will be vital for gaining on-the-ground insights about regional attitudes to inform conservation efforts for this critically endangered species.

Fisher conservation: Support for the Washington Department of Fish and Wildlife's aerial monitoring of fishers reintroduced in the Cascade Mountains.