This past New Year’s Eve was celebrated in Peru and around the world as a day of hope for one of the ocean’s most beautiful and iconic animals, the giant manta ray. On this day, after years of tireless effort by conservation groups, the Peruvian government banned the direct harvest of mantas in Peru’s waters and mandated that mantas caught incidentally by fishers must be immediately released.

These measures are significant because Peruvian waters host one of the largest known populations of giant mantas in the world. Mantas are threatened globally by the demand for their meat and for their gills, which are falsely purported to have healing powers.

Along with these compelling findings from the manta fisheries research, strong economic data also supports the government’s decision to protect mantas. Research has shown that over its lifetime, a live manta ray is worth up to $1 million to the ecotourism industry while a dead one is worth only $40 to $500. With the value of manta tourism in the global spotlight, Kerstin Forsberg and her collaborators are working closely with fishing communities to build an ecotourism industry around these animals. This approach will both provide fishermen with an alternative income and sustain support for protecting these magnificent animals over the long term.


For more on this story visit: http://www.wildaid.org/news/peru-adopts-strong-protections-largest-known-manta-ray-population

Giant oceanic manta rays are now fully protected from fishing pressure in Peruvian waters. Photo: Shawn Heinrichs for WildAid
Tagging the Elusive Devil Rays

Devil rays are smaller and less well-known relatives of manta rays, but they face similar grave threats from targeted fisheries and incidental capture. There is an urgent need to learn much more about the movements and life history of these animals so they can be better protected. This is why Marine Conservation Action Fund grantees Ramon Bonfil, Ph.D., traveled 600 miles by boat from the coast of Brazil to reach the Archipelago of St. Peter and St. Paul (ASPSP), a known hotspot for finding Chilean and bentfin devil rays. The trip was part of a research project led by Dr. Fabio Hazin, of the Federal Rural University of Pernambuco, that is being carried out in cooperation with Ramon. While there, Ramon and graduate students Sibele Mendonça and Bruno Macena successfully attached high-tech electronic, “miniPAT” (pop-up archival transmitting) tags to three Chilean devil rays. The tags will link to satellites and allow the researchers to follow the movements of these devil rays around the ocean. These data will help the team learn if the rays mostly reside in small areas that can be more easily protected (such as the ASPSP) or if they move around the wider Atlantic Ocean in seasonal migrations where they face threats (such as fishing gear) and where it is more difficult to protect them. The information gathered through the expedition will also be used to support bids for stronger global conservation measures for all devil ray species under the Convention on International Trade in Endangered Species (CITES).

I press myself to the limit of my (poor) breath and close in on the ray in front of me as she slows down... in a fraction of a second I assess this is my chance, aim carefully and gently let my Hawaiian sling go... The dart with the tag goes in gently and in a perfect spot towards the rear left side of the beautiful ca 2.2 m female Chilean devil ray!!! We have tagged “Anita,” our first devil ray of the expedition with a miniPAT tag. We are elated. After so much effort and wait, grant application writing, buying equipment, making preparations and traveling all the way here, we have started to achieve our fieldwork objectives within the first few days of work!

—Ramon Bonfil, describing tagging a devil ray
The Secret Sawfishes of the Philippines

—Ruth Leeney, Ph.D.

Information on sawfishes in the western Central Pacific Ocean is scarce, but the rivers, mangroves, and tropical coastal waters around the Philippines’ 7,107 islands probably once provided some ideal hiding places for populations of largetooth, green, and narrow sawfishes. Laguna de Bay, a large lake close to the Philippines’ capital city of Manila, was once a prime habitat for sawfishes. A. B. Meyer, a German naturalist, spent a month on the eastern shore of the lake in 1870 and reported that several large sawfish, up to a length of 7 meters (20 feet), were brought to the Santa Cruz market each day!

But are sawfishes still present here or, as is the case in so many other parts of the world, have these secret sawfish populations disappeared? It’s time to find out!

In 2016, Protect Africa’s Sawfishes will work with The Large Marine Vertebrates Research Institute Philippines (LaMaVe), a local NGO, the Zoological Society of London, and the Filipino Bureau of Fisheries and Aquatic Resources to answer this question. LaMaVe has a number of teams throughout the various island groups of the Philippines. We plan to train these teams and send them out to communities throughout each region, to interview fishermen and fish vendors about sawfishes — whether they still catch them, where they encountered them in the past, when they last encountered a sawfish — and to search in markets for the characteristic saws, or rostra. Along the way, the teams will explain why we are collecting this information on sawfishes and the threats faced by sawfishes globally. We hope these efforts will inspire Filipino communities to take a greater interest in these unique creatures. LaMaVe has already succeeded in raising awareness about whale shark and manta ray conservation and management throughout the Philippines, and the group engages with both communities and the Filipino government on these issues. We hope that this project will uncover new information about sawfishes in the Central Pacific Ocean and will bring sawfishes to the forefront of marine conservation efforts in the Philippines.

Visit http://www.facebook.com/ProtectAfricasSawfishes to learn more about Ruth Leeney’s research and conservation efforts.

Ruth Leeney, Ph.D., has made it her mission to find and protect sawfishes throughout the world.
Celebrating Our Ocean Heroes at the Aquarium – MCAF Fellow
Asha de Vos, Ph.D.

Asha de Vos, Ph.D., is an internationally recognized marine biologist, educator, and change-maker. She’s a Pew Fellow, an MCAF Fellow, and a TED Fellow with a viral video, “Why You Should Care about Whale Poo,” that has over 1 million views. Yet as Asha related to audiences during her visit to the Aquarium last November, these successes happened only after years of hard work and overcoming numerous obstacles to achieve her dream of becoming a marine biologist. She shared stories of living in a leaky tent for months, picking rotten potatoes, and later cleaning toilets and polishing brass on a research ship where she soon was promoted to science intern. Her steadfast pursuit of a marine science career was, at the time, practically unheard of for a young woman in Sri Lanka. Hearing these experiences proved to be eye-opening and inspiring to the students she met in the Aquarium’s Youth Programs and in a local middle school. After connecting with Asha and seeing how she had never given up on achieving her goals, students expressed a sense of hope for their own futures.

Asha’s visit last fall marked the official launch of the MCAF Ocean Conservation Fellows program at the New England Aquarium, a project that is generously supported by the Institute of Museum and Library Services. Over three years, nine selected MCAF grantees from around the world will each spend one week at the Aquarium exchanging ideas with Aquarium researchers and educators and engaging in educational programs that reach visitors, staff, and youth. The fellowship program will support the professional growth of the visiting fellows and Aquarium staff, build awareness of the Aquarium’s long-standing conservation and research programs, foster long-term relationships with the fellows, and help to inspire and empower future ocean heroes. Asha’s successful visit has built great excitement for the Fellows program and we are looking forward to welcoming our next fellow this spring. During the week of March 28 we will be hosting conservation technologist, rocket science environmentalist, and National Geographic Emerging Explorer Shah Selbe.

Ocean Country: Hope for the Seas*

Thursday, May 12
Simons IMAX Theatre, New England Aquarium
*Book signing to follow

Ocean Country, by Liz Cunningham, with a foreword by Carl Safina, is an adventure story and a meditation on the state of the seas. Most of all it is the story of finding true hope in the midst of urgent environmental crises.

After a near-drowning accident in which she was temporarily paralyzed, Liz Cunningham crisscrosses the globe in an effort to understand the threats to our endangered oceans. This intimate account charts her thrilling journey through unexpected encounters with conservationists, fishermen, sea nomads, and scientists in the Mediterranean, Sulawesi, the Turke and Caijos Islands, and Papua, New Guinea. Join us to hear Liz share stories and photographs about the amazing people she met who showed her what true hope can be.

Liz is generously donating 21 percent of the royalties from Ocean Country to the Marine Conservation Action Fund. MCAF Manager Elizabeth Stephenson will share remarkable stories of hope for the oceans that have been catalyzed by this long-standing micro-funding program.

Visit www.neaq.org/AquariumLectures to register for this event. Visit http://lizcunningham.net to learn more about Liz Cunningham and Ocean Country.

The Aquarium Lecture Series is presented free to the public through the generosity of the Lowell Institute. Please register in advance. www.neaq.org/AquariumLectures

*The MCAF Fellows program and the printing of this newsletter, are supported in part by the Institute of Museum and Library Services, grant number MA-10-15-0258-15. The contents of this publication do not necessarily represent those of the Institute of Museum and Library Services.

Please register in advance. www.neaq.org/AquariumLectures