

Since 1999, the Marine Conservation Action Fund has supported more than 130 small-scale, high-impact projects in 40-plus countries and has disbursed nearly \$800,000 for the conservation of endangered species and habitats.

MCAF is a program of the New England Aquarium's Anderson Cabot Center for Ocean Life and made possible through continuing and past support from the Oak Foundation, Curtis and Edith Munson Foundation, New England Biolabs Foundation, and individual donors.

*The MCAF newsletter is produced and published by the New England Aquarium. We welcome your comments, questions, and suggestions!*

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*To learn more about the Aquarium's global research and conservation initiatives please visit us online.  
andersoncabotcenterforoceanlife.org*

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## MCAF Supports Safe Release Program to Protect Sea Turtles in Ghana

In 2011, sea turtle specialist Neil Davis and fellow conservationist John Flynn witnessed the rampant poaching of nesting sea turtles and their eggs during a visit to the Western Region of Ghana. They reached out to local village chiefs about the problem, recruited a dedicated team from the community, and began nightly beach patrols to deter poachers. Within a few years, Flynn, Davis, local anti-poaching patrol leader Enock Agyimah, and numerous seasonal staff helped protect thousands of turtle eggs and many nesting turtles from poachers.

The conservation mission of the group, now known as

Wildseas, soon grew beyond protecting sea turtle nesting beaches. In late 2012, Flynn's and Davis' interpreter, Eric Quayson, alerted them to high bycatch rates of sea turtles in offshore fishing nets. Although the turtles were caught incidentally in the nets, the fishermen were still landing the turtles and selling them for meat. Quayson, who came from a fishing family in the region,



**These fishermen from the village of Beyin were among the first to join the Safe Release program launched by Wildseas founder John Flynn (front row, center) and co-founder Neil Davis (to the left of Flynn).**

helped Flynn and Davis approach local fishermen about this issue, starting in the village of Axim. Together, they secured a commitment from the fishermen to safely release turtles caught in their nets instead of selling them to be butchered. In return, the Wildseas team offered the fishermen nominal compensation as well as safety gear for their boats. They also explained to the fishermen how turtles promote healthy fish stocks as turtles eat jellyfish that prey on juvenile fish and eggs and maintain healthy seagrass beds. Using this approach, the Wildseas team soon garnered commitments from several other fishing villages to be part of the Safe Release program. Since 2012, more than 800 adult turtles have been saved thanks to this program, and more than 500 of these turtles



**Eric Quayson, left, Wildseas' Regional Coordinator, and Enock Agyimah, anti-poaching patrol leader, apply antiseptic cream to a small injury on an olive ridley turtle in Ampenyi, Ghana. The turtle had been freed from a beach seine net.**

## Safe Release Program

*Continued from page 1*

have been fitted with flipper tags so Wildseas can collect data on their movements.

A 2015 Marine Conservation Action Fund grant supported further expansion of the Safe Release program to the fishing villages of Essiama and Ampenyi, greatly increasing the number of fishermen committed to saving turtles in the Western Region. Early this year, Flynn, the founder of Wildseas, was selected as an MCAF Fellow in recognition of his leadership of this growing and successful project and its positive impact on turtles and fishing communities in Ghana. In the coming year, Flynn will travel to Boston for his fellowship at the Aquarium.

**To learn more about Wildseas, visit [facebook.com/BahariKaruna/?fref=ts](https://www.facebook.com/BahariKaruna/?fref=ts) and <http://wildseas.org/>.**

## Manta Rays Like To Keep It Local

With wingspans more than 20 feet wide, giant manta rays look like they could easily be world travelers. It was long assumed they were migrating thousands of miles across ocean basins like other large, pelagic species such as whales, sharks, and turtles. However, new research suggests that mantas like to stick close to home, a surprising finding that has key implications for protecting this species.

The Marine Conservation Action Fund helped support this groundbreaking research led by Josh Stewart, Associate Director at The Manta Trust and Ph.D. candidate at Scripps Institute of Oceanography. For the study, Stewart and his team affixed satellite tags to mantas in the Pacific Ocean off the coasts of Mexico and Indonesia. They also collected tissue samples for genetic analysis to determine long-term mixing

of populations and overlap in foraging habitats. Another MCAF-funded project, led by MCAF Fellow and Blue Resources founder Daniel Fernando, contributed tissue samples collected from manta fisheries in Sri Lanka for this portion of the study. Analysis of all the data sets showed that mantas are generally not traveling more than a few hundred miles from their areas of residence, which means that manta populations across the Indo-Pacific Ocean are not typically mixing. Stewart's related study on the mantas' diving profiles shows that instead of traveling long distances to forage for food like other large marine animals, they may instead be changing their diving behavior to adjust to seasonal changes in plankton availability.

The finding that mantas exist as separate subpopulations means they are much more

vulnerable to local fisheries impacts. However, it also means each subpopulation can be best protected through conservation measures on a local and national scale. Understanding how to protect mantas is an urgent task as they are highly threatened by bycatch and a targeted fishery for their gills, which are falsely purported to have healing properties. Stewart's research is a significant leap forward in the race against time to save these enigmatic and iconic animals.

**To read the press release, visit [scripps.ucsd.edu/news/study-finds-manta-rays-are-local-commuters-not-long-distance-travelers](https://scripps.ucsd.edu/news/study-finds-manta-rays-are-local-commuters-not-long-distance-travelers)**

**To see a video of Stewart tagging manta rays, visit [vimeo.com/92057507](https://vimeo.com/92057507)**



Research by MCAF grantee Josh Stewart and MCAF Fellow Daniel Fernando is unlocking secrets of the manta rays' travel patterns. (Photo: Josh Stewart)



# The MCAF Fellows Program: Inspiring the Next Generation of Ocean Leaders

*Tiny sensors helping scientists study vulnerable coastal and ocean habitats. Alien-looking sawfish living on the brink of extinction in Africa. Fishermen becoming ambassadors for manta ray conservation in Peru. These were some of the fascinating and compelling stories shared by visiting Marine Conservation Action Fund (MCAF) Fellows at the Aquarium. Through the Fellows Program\* MCAF brings selected grantees to Boston, where they share ideas and receive feedback from staff and scientists at the Aquarium's Anderson Cabot Center for Ocean Life. Fellows also work with Aquarium educators to hone their communication skills and grow an audience for their work by giving public lectures at the Aquarium. In addition, Fellows convey the excitement and challenges of a career in conservation to youth in Aquarium programs and local schools. These activities support the goal of the MCAF fellowship program, which is to foster the long-term success of our Fellows as ocean conservation leaders, not only in their own work, but also through inspiring others to protect the oceans.*



*\*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.*

*Here are some highlights from the Fellows' visits with youth in 2016.*

## Shah Selbe – Using Technology To Save the World

“The world needs you,” MCAF Fellow Shah Selbe told the students at the Pioneer Charter School of Science in Everett, MA. Selbe encouraged the teens to use their talents, skills, and interests for the greater good. Selbe, a former satellite propulsion engineer for Boeing, is now a National Geographic Explorer who is working full-time in the rapidly evolving field of conservation technology. He shared with the students his goal of making technological solutions more affordable and available for science and conservation efforts across the globe. After Selbe’s presentation, Pioneer students said he changed the way they viewed engineering in the natural world.

**Learn more:** [Shahselbe.com](http://Shahselbe.com)



During his fellowship week in Boston, Shah Selbe visited the Pioneer Charter School of Science in Everett, MA, and brought a drone to share with students.



With Dr. Ruth Leeney's help, the Aquarium's Harbor Discoveries campers became sawfish detectives, examining sawfish rostra to identify from which of the seven known sawfish species they came.

## Ruth Leeney, Ph.D. – Searching for Sawfish

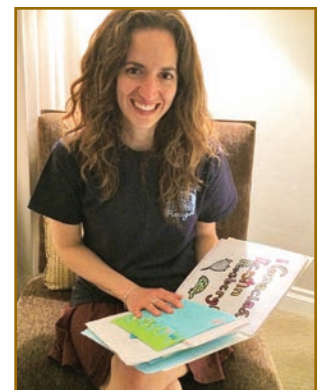
The New England Aquarium's Harbor Discoveries campers became eager science detectives last summer as they measured long toothy sawfish rostra looking for clues to their origins. They were led by Marine Conservation Action Fund Fellow Ruth Leeney, Ph.D., known as the “Sherlock Holmes of the Sea.” Instead of solving crime, Dr. Leeney is using her investigative powers to find and protect the last remaining populations of sawfish, one of the strangest and most endangered groups of sharks and rays in the world. Leeney, who is the founder and director of Protect Africa's Sawfishes, shared how she combines clues from interviews with fishermen and from sawfish artifacts in museums and curio shops to find the places where these charismatic creatures still exist, all in a race against time to protect them from growing threats such as habitat destruction and bycatch.

**Learn more:** [facebook.com/ProtectAfricasSawfishes/?ref=br\\_rs](https://facebook.com/ProtectAfricasSawfishes/?ref=br_rs)

## Kerstin Forsberg – Engaging Communities in Manta Ray Conservation

“I really liked how Kerstin didn't get angry with the fisherman that would hunt the manta rays. Instead, she showed them a better way to make even more money.” These were the words of a student at the bilingual Amigos School in Cambridge, where Marine Conservation Action Fund Fellow Kerstin Forsberg spoke in Spanish about her conservation work in Peru. She shared how connecting with communities and engaging fishermen in alternative livelihoods through manta ray ecotourism has brought about a sea change in the way mantas are viewed in Peru. Thanks to Forsberg and her organization, Planeta Océano, Peruvian fishermen who once hunted these animals are now outspoken ambassadors for their protection and Peruvian schoolchildren form local “manta clubs.” The Amigos School students were so inspired by hearing Forsberg's stories that they discussed how they might start their own community project to help save the ocean.

**Learn more:** [facebook.com/planetaoceano/](https://facebook.com/planetaoceano/)



Students at the Amigos School in Cambridge sent beautiful thank-you letters after Kerstin Forsberg's visit there during her MCAF Fellowship week.

## Aquarium Lecture

Part of the Aquarium's Free Evening Lecture Series

### The Conservation of Devil Rays

Daniel Fernando

Thursday, March 16

Simons IMAX® Theatre,  
New England Aquarium  
7 p.m.



Daniel Fernando's research has documented the grave impact of the international trade in manta and mobula ray gill plates. Photo: Steve De Neef

Devil rays, also known as mobula rays, are closely related to the more iconic and better known manta rays. In recent decades, all these species have been facing increasing threats driven by bycatch and a targeted fishery seeking to supply the international demand for their dried gill plates in Chinese medicine. Growing awareness and concerns for the survival of these species resulted in some level of international protection. However, further work is required. MCAF Fellow Daniel Fernando tells us about his research efforts to better understand these animals and about his work to promote their conservation.

Register at [neaq.org/AquariumLectures](http://neaq.org/AquariumLectures)

*The Aquarium Lecture Series is presented free to the public through the generosity of the Lowell Institute. Please register in advance at [neaq.org/AquariumLectures](http://neaq.org/AquariumLectures).*



### The Heart of Hope: A Quest to Save Our Seas

Liz Cunningham

Tuesday, May 16

Simons IMAX® Theatre,  
New England Aquarium  
11 a.m.



"Ocean Country" author, Liz Cunningham will be speaking at a Women Working for Oceans event at the Aquarium on May 16th.

Join Women Working for Oceans (W<sub>2</sub>O) at the New England Aquarium on May 16 as the group hosts an inspiring event featuring "Ocean Country" author Liz Cunningham. Both Cunningham and W<sub>2</sub>O are great champions of the ocean and generous supporters of the Marine Conservation Action Fund. W<sub>2</sub>O donated \$10,000 to MCAF last October, and Cunningham is giving 21% of her profits from "Ocean Country" to MCAF.

The Heart of Hope: A Quest to Save Our Seas aims to inspire our local communities to find their role within the global initiative to safeguard our oceans. Cunningham, an author, adventurer, and world traveler, will share her book "Ocean Country," a meditation on the state of the seas, but most of all, the story of finding true hope in the midst of dire environmental crises. Join us to hear her stories and see her photographs of the amazing people she has met.

For more information and tickets, visit: [womenworkingforoceans.org/calendar/](http://womenworkingforoceans.org/calendar/)

## MCAF Grantees and Fellows Win Prestigious Awards

### Kerstin Forsberg

In November 2016, Marine Conservation Action Fund Fellow Kerstin Forsberg was named a Rolex Laureate as part of the prestigious Rolex Awards for Enterprise. Every two years, Rolex honors five Laureates and five Young Laureates "who possess the courage and conviction to take on major challenges." Forsberg, founder and director of Planeta Océano, was recognized for her community-based manta ray conservation and research initiative in Peru. MCAF helped support Forsberg as she led the successful effort to secure full protection for manta rays in Peru in 2015. Notably, MCAF Fellow, conservation technologist, and National Geographic Explorer Shah Selbe was one of 30 finalists for the highly competitive Rolex Awards.

Visit: [rolexawards.com/40/laureate/kerstin-forsberg](http://rolexawards.com/40/laureate/kerstin-forsberg)



Famed oceanographer and conservationist Dr. Sylvia Earle presented Kerstin Forsberg with her Rolex Award for Enterprise.

### Dr. Asha de Vos

In 2016, MCAF Fellow Dr. Asha de Vos was named a Pew Marine Conservation Fellow and a National Geographic Explorer. In addition, she won the President's Award for Scientific Publication in Sri Lanka. Dr. de Vos is the founder and director of the Sri Lankan Blue Whale Project. In 2015, MCAF helped support de Vos' research of blue whale movement patterns relative to shipping lanes in Sri Lanka to reduce the threat of ship strikes. Along with her research, de Vos is working to train the next generation of ocean scientists, educators, and decision makers in Sri Lanka.

Visit: [pewtrusts.org/en/projects/marine-fellows/fellows-directory/2016/asha-de-vos](http://pewtrusts.org/en/projects/marine-fellows/fellows-directory/2016/asha-de-vos)



Asha de Vos, Ph.D., receives the President's Award for Scientific Publication from the Sri Lankan National Research Council.

### Randall Arauz

Randall Arauz, MCAF grantee and longtime ocean hero, was also named as a Pew Fellow in 2016. In 2004, MCAF support helped Arauz launch a sea turtle nesting beach protection program on Playa Caletas in Costa Rica. Since that time, Arauz has also led successful research, conservation, and advocacy efforts focused on sharks. His Pew Fellowship will help support his efforts to strengthen no-take zones for sharks in Costa Rica.

Visit: [pewtrusts.org/en/projects/marine-fellows/fellowsdirectory/2016/randall-arauz](http://pewtrusts.org/en/projects/marine-fellows/fellowsdirectory/2016/randall-arauz)

## Thank You to Our Supporters!

We would like to express our sincere gratitude to the anonymous donor who, for the second year in a row, issued a \$40,000 challenge gift that doubled the impact of gifts to the Marine Conservation Action Fund, and to all the generous donors who made our fall campaign a great success! In addition, we are thankful for the continued support of the Curtis and Edith Munson Foundation, New England Biolabs Foundation, and Institute of Museum and Library Services. With the help of all our supporters, we will continue our mission to fund time-sensitive, high-impact, community-based projects around the globe led by emerging leaders in ocean conservation.