



2016 ANNUAL REPORT
THE SAFINA CENTER

The Safina Center
Making a case for life on Earth

CHRIS JORDAN

Environmental Found-Object Artist and Photographer;
Safina Center Creative Affiliate

Much of our relationship with the living world is so heartbreaking that an artist must not just get us to look, they must get us to not look away. Chris Jordan's work is so unexpected that it is riveting. Chris's ability to conjure lovely details from hideous realities—so that we cannot look away—is truly genius. — Carl Safina

To Chris Jordan, an environmental found-object artist, photographer and Safina Center creative affiliate, creating is more than just making something...it's about making people *feel* something.

And his latest work, a film about the albatrosses of Midway Atoll in the heart of the Pacific, is all about making people feel a very specific emotion: grief.

Albatross are what first connected Jordan to Carl Safina and the Safina Center in the late 2000s. When he had conceived of the idea for his "Midway: Message from the Gyre" photography series, Jordan dove into researching the birds he'd be photographing. And that's where he came upon Safina's work.

"Of course when doing my research I came upon Carl's book 'Eye of the Albatross,'" says Jordan. "I devoured that book and totally fell in love with Carl, so I wrote him about the project and months later we had the good fortune of meeting in person on the island of Kauai in Hawaii."

Mutual friend Hob Osterlund, a Safina Center fellow and albatross expert, coordinated the meeting between Jordan and Safina. Jordan says that meeting with Safina had a powerful effect on the outcome of his Midway photographs.

"I kept saying ocean plastics were a symbolic tragedy, a mirror for humans to look in and see our own reflection of the destruction of our natural world," says Jordan. "But then Carl said, 'No this is its own tragedy, those individual birds are dying and we're to blame. That struck me so hard. He sees individual creatures as their own beings. He helped me get out of my mindset of appropriating the tragedy on humans.



From Midway: Message from the Gyre. Credit: Chris Jordan



Chris Jordan with his photography equipment at Ruby Beach, Olympic National Park, Washington. Photo: Matthew London

"I have come to believe in transformative power of grief," says Jordan. "I think just looking at the horror doesn't give us energy to do anything, just makes us more despairing and hopeless. We see an issue, like climate change or the ivory trade, and think it is too big for us to make a difference. It's not until we grieve what's being lost that we can actually see our love for the world and start moving forward."

Jordan's film, which is nearing completion and which he plans to show at the Mountain Film Festival in Telluride, Colorado, in May, helps facilitate viewers' experience of grief by jumping between internal and external narration through a visual flow-of-consciousness. Viewers see through Jordan's eyes, then through the eyes of albatross. They see the beauty of the natural world, but also something very ugly: a lot of plastic.

"In my film I use a lot of contrast to help conjure grief," says Jordan. "I use that grief to build a doorway people can step through and reconnect with their love for the world. As a culture we live in fear of grief; we think of grief as despair. Yet if we avoid grief to avoid depression...we miss out on love."

Jordan's work, which spans the gamut of media from photography to film to found objects, revolves around moving people to experiencing grief. Connected to his current film is his current "Midway: Message from the Gyre" series—a collection of photographs of albatross carcasses filled with ocean plastics. These lifeless bodies were once beautiful, living creatures. In viewing Jordan's photographs, his audience must confront their grief for these lost beings. By doing so they may just realize how much they love albatross and the Earth's other creatures. They may ask themselves what they can *do*; how they can support initiatives, send letters, support groups whose work inspires them and live in a way that's more considerate of the planet."

Jordan says he's grateful to be a part of the Safina Center family because it has allowed him to touch a vast and important audience with his artwork.

"Without the Safina Center, I'd just be this dude in my studio who makes art and puts it out there," says Jordan. "Now I'm getting my art in front of more people — and more people who may be able to initiate positive change, than ever before."



FRONT COVER PHOTO
Humpback whale in the Great South Channel.
Photo: Carl Safina

THIS PAGE
(Left) Great-horned owl adult, owlet and European starling.
Photo: Carl Safina.

(Right) White rhino family in South Africa. Photo: Carl Safina.

BACK COVER
(Top) Carl Safina explores coast of Svalbard. Photo: Christian Aslund/Greenpeace.
(Bottom) Elephant family, Kenya, Africa. Photo: Carl Safina.

MISSION

At The Safina Center we advance the case for life on Earth by fusing scientific understanding, emotional connection, and a moral call to action. We create an original blend of science, art, and literature in the form of books and articles, scientific research, photography, films, sound-art, and spoken words. We bear first-hand witness and then we speak up, we speak out, and we teach. Our work is designed to inspire and engage others to devote their time and energies to conservation of wild things and wild places.

The Safina Center is a 501(c)3 nonprofit based on Long Island, N.Y.

TABLE OF CONTENTS

FOUNDER'S MESSAGE

by Carl Safina 4

2016 YEAR IN REVIEW 5

PROFILES

Chris Jordan 2
Hob Osterlund 19
Peter Neumeier 39

PROGRAMS

Carl Safina's Work 10
Fellows Program 12
Sustainable Seafood Program 22

ESSAYS

When Animals Teach, It's Special by Carl Safina 11
The Manta in the Mirror by Shawn Heinrichs/John Weller 14
My Life as a Wildlife DJ by Ben Mirin 20
Why Fishing Gear 101? by Elizabeth Brown-Hornstein 25

ABOUT THE SAFINA CENTER

Milestones and Firsts 27
Making Waves 30
Safina Center Financials 35
Supporters List 36
Safina Center Crew 38

HOW WE'RE DIFFERENT

The Safina Center is different. We're the creative end of the wide spectrum of nature non-profits. We love the work of many other groups, big and small. And we don't want to duplicate them. We don't want to "be like" anybody. We have unique strengths and our own niche, a niche we know is important because people tell us that, to them, it is.

So—what do we do? First, I'll tell you why we do what we do.

Let's say that I, as a scientist or simply an informed person, have just learned some information. I happen to see you in the supermarket. And you are with, say, your uncle. You've never heard this information so it will be news to you.

So after we compare tofu, you ask what's new today in my work. I say somberly, "Well, I just learned that in the last seven years, a third of all of Africa's elephants were killed."

You look stricken. You say that's terrible. I agree. Your uncle says, "I never needed an elephant, so I'll be fine if there are no elephants roaming Africa. There are no elephants roaming America either. It's fine."

Same fact. Different response.

I tell you that the local legislature is considering a ban on plastic bags and that if you want, you can write a public comment in favor of a ban.

You ask me to email that info to you. You have a canvas bag in your cart. Your uncle mutters something about it not making a difference, says he doesn't want legislators making him carry bulky bags everywhere in his car. He says, a little loud, that if it wasn't for plastic we'd all be dead.

Same fact. An opportunity to do something. Different responses.

What does that tell you? It tells me that facts don't matter. Values matter. People filter facts through values.

I'm trained as a scientist. Scientists' basic currency is facts. Facts form scientists' beliefs and the basis of our opinions. But to most people, facts mean less than values. Values determine how we view facts. Many will even deny facts that aren't in line with their values.

So we do what we do because: facts alone can't save the world. Hearts can. We're working to make sure that hearts do. We work on the head-to-heart connection. We don't want you to just know the facts. We want you to feel the facts. Because—we only act on what we feel.

OK, but—how do we get through to your cynical uncle? Maybe we can't. But we understand that everyone cares about certain things, such as family, health, kids. We connect our facts to the things that people most care about. Nature isn't just about nature; it's about health, justice, and human dignity, about communities and beauty and our grandchildren. Nature is about things most people care about, and our job is to help people realize it.



Carl Safina in Svalbard, Summer 2016.
Photo: Christian Aslund/Greenpeace

Making these connections outside the choir isn't always easy. Giving people the information in ways that will move them deeply is a tricky blend to get right. But that's the role we've chosen. It's our strength.

Because we're working not just on what people know but on how they value what they know, we're playing a long game. We craft our work to really stick in people's minds, serving information wrapped in unforgettable stories so that as we do our work, many more people will be inspired to do something of their own. The bottom line is, "Do."

We work at the ends of the Earth and at home. We bear witness to how humans are changing the world. We see how humanity could make a better deal with the living world. And then we show what that deal could look like. And then we work on making it real. Bringing nesting albatrosses back to the north shore of Kaua'i, Hawaii. Making the case for protecting the Ross Sea in Antarctica. Turning hunters of manta rays into tour guides in Indonesia so their children will have a future. Turning bird calls into "beat-box" rhythms to entertain families at New York's Bronx Zoo, so kids won't even realize that they just learned how wondrously the world is singing. Writing best-selling books about conservation, about oceans, about being saved by saving birds—.

So have a look at who we are and what we do. In everything we do we are working hard to make a case for Life on Earth. We are scientists and sound artists, writers and photographers. We are in love with the living world. We want you to be in love too, and inspired to make a difference. We do what we can do because we know that if we do it well, you will do what you can do. The living world cannot be decisively saved but it can be decisively lost. Saving nature is a generational relay race; our goal is to pass to the next generation a flame that remains brightly lit.

I think we have assembled a team of world-class talent doing some thrilling work. Important work. I am so proud of them. And I am so proud to know you too. Have a look at what we do, and what's new.

ACHIEVEMENTS OF 2016

This year, Safina Center staff and Fellows created an incredible portfolio of work, bringing a broad range of conservation issues into the public eye. Our new books, essays, photographs and films, combined with a solutions-oriented approach, are increasingly creating real-world change. One measure of our reach is that Safina Fellows and Creative Affiliates were invited to speak from the U.S. mainland to Asia, Hawaii, South America and South Africa, at conservation conferences, universities and related events. In the **Milestones and Firsts** on page 27, and the **Making Waves** section on page 30 you will read more about some of this year's standout accomplishments.

FELLOWS PROGRAM

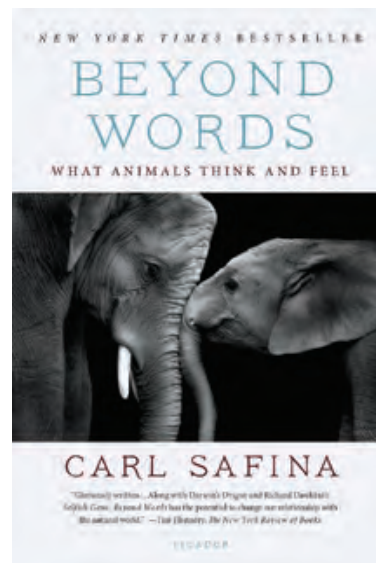
Writer in Residence Paul Greenberg traveled to Alaska, Norway and South America working on his coming book, *The Omega Principle; A Journey to the Bottom of the Food Chain*, and an accompanying Frontline film. Both are slated for release in the Summer of 2017. Author and Photographer Hob Osterlund worked in Kauai, Hawaii, to secure and preserve nesting habitat for Laysan albatross, and also published her first book, *Holy Mōli: Albatross and Other Ancestors*. (Read more about Hob on pages 18 and 19.) Shawn Heinrichs and John Weller - photographers, filmmakers and ocean conservationists - worked together to bring more attention to the need for ray conservation in Indonesia. Independently, Shawn helped film and create China's first-ever anti-shark finning public service announcement, televised in Chinese media; while John continued working to bring attention to the need to preserve and protect Antarctica's Ross Sea from overfishing and climate change. Wildlife DJ and Sound Artist Ben Mirin gave performances all over the U.S., and Madagascar, where he traveled in September to record soundscapes as part of his sound-based conservation mission; and also produced a web series for National Geographic called "Wild Beats." (Read more on **what it's like to be a wildlife DJ** on pages 20 and 21.) Fisheries Scientist Eric Gilman published several papers on ghostfishing and bycatch, and was invited to give presentations at international fisheries meetings. Ellen Prager, author and marine scientist, ended her fellowship on a high note in May with the publication of the third book in her Tristan Hunt and the Sea Guardians series, *Stingray City*.

For more about our **Fellows**, see page 12 and their essays throughout this report.

CARL SAFINA'S WORK

This year Carl's seventh book, the New York Times Best Seller *Beyond Words; What Animals Think and Feel*, was published in paperback, and 11 international translations are now in the works. Academic institutions and organizations invited him to give presentations and talks at events across the U.S., including the Southeast Regional Sea Turtle Meeting, San Antonio Books Festival, Long Island Natural History Conference, Wild Night for WildCare at the St. Louis Zoo and more. Dozens of Carl's articles have been published in print and online. He has also been featured in radio, print, online and film interviews. This summer Greenpeace invited Carl to sail with their organization to Svalbard in the high Arctic, so he could bear witness to the effects of climate change and overfishing on the fragile Arctic ecosystem; and while there he reported his observations from the field. Carl was a finalist for the world's biggest prize in wildlife conservation, the \$250,000 Indianapolis Prize and Lilly Medal (Carl Jones won it for preventing several bird extinctions).

Less than a month after release, the paperback edition of *Beyond Words* sold out of the warehouse, prompting an emergency re-printing. **For more about Carl's work** this past year, see page 10 and his essay on page 11. ►



SUSTAINABLE SEAFOOD PROGRAM

During 2016, we helped a wide range of people discover the connection between human health, a healthy ocean, fishing, and sustainable seafood.

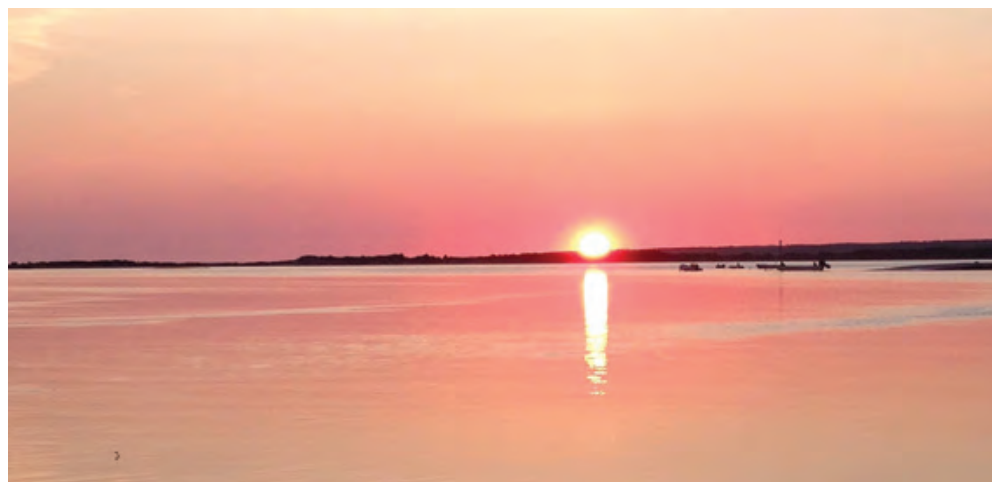
We created the first consumer guide to seafood sustainability in 1998. Now efforts to build awareness and create market-based solutions abound. It looks like we inspired a movement. Our Sustainable Seafood Program translates seafood science for consumers, chefs, retailers, and health care professionals and consists of many interconnected components:

- Online seafood guide based on scientific ratings of 160+ wild-caught fish and shellfish: Green, yellow, and red ratings, and advisories for contaminants including mercury and PCBs
- Chef-recommended alternatives for popular yet unsustainable seafood
- Web-based tutorials, videos, links and blogs of issues such as bycatch, mercury in seafood, over-fishing etc.
- Information on seafood nutrition and related health issues
- Information for consumers, chefs, and retailers who want to switch to eating/selling more sustainable seafood
- Partnership with Whole Foods Market to promote sustainable seafood from boat to counter top
- Social media promotion of blogs on seafood/fisheries issues and new seafood ratings

SEAFOOD RATINGS AND PARTNERSHIPS

Our peer-reviewed seafood species reports are transparent, authoritative, easy to understand and use. All ratings and full reports are available on our website under Seafood Choices.

During 2016, we continued to work closely with our partner, Monterey Bay Aquarium Seafood Watch, to provide consumers with an expanding number of seafood recommendations. This year we have worked on seafood assessments for several U.S. southeast reef fish species, U.S./Canada clams, oysters, and mussels, Atlantic flatfish, and more. We have even started to add seafood recommendations for invasive species; for example, lionfish. Additionally, revisions to the seafood criteria took effect in 2016, which continue to elevate the bar when it comes to determining "what is sustainable?"



Montauk sunrise. Photo: Carl Safina



The Safina Center





Bluefin tuna. Photo: Carl Safina

MERCURY IN SEAFOOD

We have continued our partnership with Stony Brook University's Gelfond Fund for Mercury Research and Outreach to make the most up-to-date and easy-to-understand information about mercury in seafood just a click away. Printable and web-friendly guides on mercury in seafood for consumers and health care professionals are now available on our website in our Mercury in Seafood section. This section also includes many blogs, articles, videos, and reports to help untangle this issue. We've included a pull-out, fold-up Safina Center *Mercury in Seafood* pamphlet in this report on pages 23 and 24 for you to easily refer to the next time you're making decisions on which fish to eat.

OUTREACH

In 2016 we continued to blog about a range of important ocean and seafood topics. We finished up our popular Fishing Gear 101 blog series, which introduced seafood consumers, businesses, and chefs to different types of fishing gears – including how they work, what they catch, and how they affect ocean wildlife and habitats. For a summary of this blog series see Page 25.

We also updated the Seafood and Ocean Issues section on our website. This section contains easy-to-understand information on the most pressing issues facing fisheries and the oceans, including overfishing, bycatch, habitat destruction and climate change. Be sure to check it out!

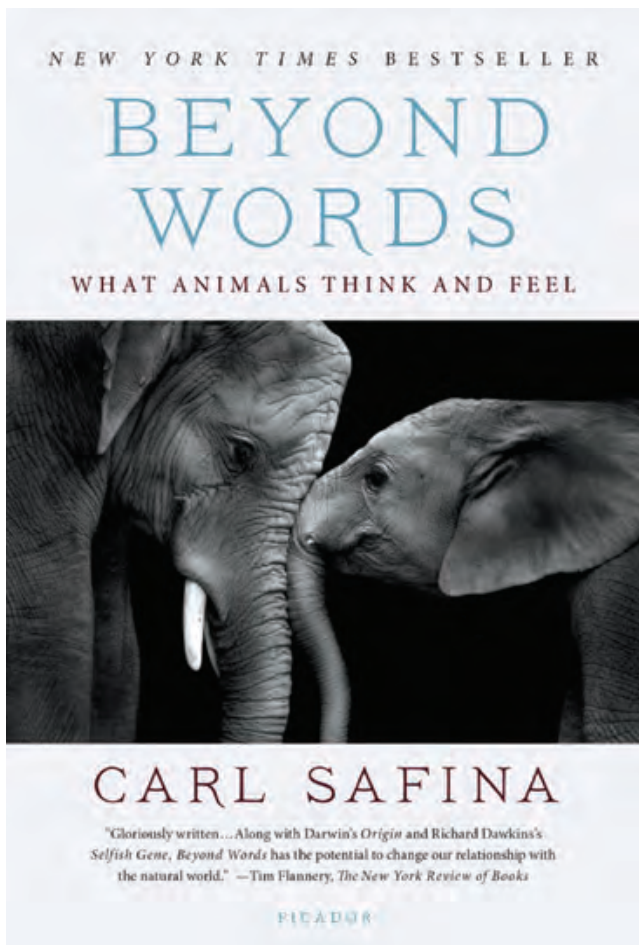
POLICY

We often work with various non-governmental organizations on broad policy efforts in support of healthier oceans and sustainable fisheries. In 2016, some of the efforts we supported included: protection of forage fish through our work with the Herring Alliance, transitioning to more selective fishing methods, expanded marine protected areas, full seafood traceability from boat to plate, and upholding the current requirements in the Magnuson-Stevens Fishery Conservation and Management Act. For more on the Policy Campaigns we were involved in this year see page 22.



◀ This summer Greenpeace invited Carl to sail to Svalbard in the high Arctic aboard its ship, Arctic Sunrise. His mission: Bear witness to, and help document, climate change and intensifying commercial fishing in the Arctic. While there Carl saw an abundance of wildlife - from walrus to corals to polar bears - all which face serious threats to their survival as the climate warms and more fishing ships sail north. Photo: Christian Aslund/Greenpeace

▶ The Keio Academy of New York, a private high school in Purchase, New York, that is sponsored by Japan's Keio University, invited Carl to speak about the human relationship with animals. Photo: Carl Safina.



◀ New York Times Best Seller *Beyond Words* came out in paperback in July. The hardcover had hit Number 2 on the New York Times' Animals Best Seller List and #1 in Amazon's Best, "Animals and Cognition" and "Animal Behavior" categories.



◀ Carl Safina presents his books to Cheng Hong, ardent devotee of American nature writing and wife of Li Keqiang, the current Premier of the People's Republic of China! (New York State Assemblyman Steve Englebright invited Carl to meet Dr. Cheng at the Walt Whitman Birthplace on Long Island.) Photo: AJ Carter

As a Finalist for the 2016 Indianapolis Prize, Carl was honored in the Nature Connects art exhibit at the Indianapolis Zoo. As an homage to Carl's work with sea turtles, artists built this hatching baby sea turtle with 57,462 Lego bricks. The piece took a painstaking 482.5 hours to build! ▼



► Filmmakers from David Suzuki's CBC series *The Nature of Things* came to Carl's home on Long Island for an interview on animal thought and emotion. Carl's dog Jude, and parrots Rosebud and Kane, made cameo appearances.



► When we weren't hard at work preserving and protecting nature, we were out enjoying it! This year friends of The Safina Center and members of its staff cruised to the Great South Channel off Nantucket on two overnight whale watching trips, one aboard Andrew Sabin's *Above the Ground* and one aboard the Coastal Research and Education Society of Long Island (CRESLI)'s cruise. The groups saw hundreds of creatures—mostly humpback whales, but also sei and minke whales, short-beaked common dolphins, *Mola mola* ("sunfish"), several sharks, terns, gulls and shearwaters. The humpbacks thrilled the whale watchers with majestic breaches. Photo: Carl Safina.



CARL SAFINA



At NPR's Living on Earth 25th Annual Celebration, Carl was the invited speaker. He also signed copies of *Beyond Words* at UMass Boston's Nantucket Field Station in August. From bookstores to libraries to universities and conferences, new audiences kept Safina busy.

In 2016 Carl's focus was preparing for and then launching the release of the paperback version of his New York Times Best Seller *Beyond Words; What Animals Think and Feel*. Throughout the year Safina stayed busy speaking at universities, doing interviews and giving presentations at conservation-related events and conferences around the country. Greenpeace invited him to travel to Svalbard in the high Arctic, sailing aboard their ship the Arctic Sunrise, bearing witness to the effects of climate change and overfishing on the fragile Arctic ecosystem. There he took hundreds of photos and wrote intensively about his experiences for National Geographic's Ocean Views. During the year Carl also wrote dozens of wildlife news articles and adaptations from *Beyond Words*, published both online and in print, and was featured in radio, film and written interviews.

Carl aboard Greenpeace's Arctic ►
Sunrise vessel as he sailed around
the waters off Svalbard, Norway.
Photo: Nick Cobbing/Greenpeace





Orcas are one of only a few species known to be teachers. Photo: Carl Safina

WHEN ANIMALS TEACH, IT'S SPECIAL

By Carl Safina

Like toolmaking, teaching was once thought to be an exclusive capacity of the human mind. It's not, but teaching is rare, and teachers are an elite group.

"Teaching" requires this: one individual must take time from their own task to demonstrate and instruct and the student must learn a new skill. That's a tall order.

Killer whales teach; they take time and impart skills. Around the Indian Ocean's sub-Antarctic Crozet Islands, killer whales catch fur seal and elephant seal pups by surging onto beaches. But it's dangerous. The whales risk stranding themselves and must thrash their bodies back into the rescuing surf.

Adults teach the young how to do this. They teach in steps, giving lessons. First, they practice on beaches without seals. Mothers gently push their young onto steeply sloping beaches, from which youngsters can easily wriggle back into the sea. It's the killer whale equivalent of learning to operate an automobile in a parking lot before driving in traffic. This teaching builds skills in a safe environment, eliminating the very real risk of a fatal stranding.

Then the young learn hunting by watching their mothers' successful attacks. At five to six years old, young killer whales finally attempt to catch seal pups using the beach-surge technique. An adult female often helps them return to the water, creating a body wave if necessary. The time required for teaching means that mothers catch fewer seals for themselves.

This training may well be the absolute height in both teaching and long-range planning among non-humans. In Alaska, researchers saw two killer whales teaching a one-year-old to hunt by practicing on seabirds. Adults stunned an unsuspecting seabird with their flukes; the yearling whale came and practiced the fluke-slapping technique.

Atlantic spotted dolphin mothers sometimes release a prey fish in the presence of their youngsters and let their youngsters chase the fish, recapturing it if it's getting away. Atlantic spotted dolphin youngsters also position themselves alongside mothers who are scanning and prodding sandy bottoms for hidden fish. They can "eavesdrop" on her sonar echoes and imitate her technique, but the mother spends extra time demonstrating. Australian bottlenose dolphin mothers who wear sponges on their snout to protect against urchin spines and the searing sting of hidden scorpionfish while they're probing the sediment teach their children the sponge-wearing technique.

So yes, teachers are an elite group. Other teachers include: cheetahs and housecats (who bring back live prey and let their young learn to catch it), birds called pied babblers (who teach their young a call that means "I have food"), peregrine falcons (who lure their young away from nesting cliffs before dropping killed prey for them to catch in flight), otters (who drag their babies into and under water, teaching them how to swim and dive), and meerkats (who first bring to their growing young dead scorpions, then disabled ones, to demonstrate how to dismember the venomous stingers). Humans teach, of course. That's about it; we know of few other teachers, so far.

But many more must be hiding in a spread as diverse as that. Like toolmaking and teaching, imitation—considered to reflect high intelligence—is also rare in the animal kingdom. Some researchers believe that only apes and dolphins imitate, but it's a little more common. Our parrots' habit of dunking hard bread crusts in water was probably invented by one and copied by the other. Young dogs imitate older dogs.

And dogs imitate people in their way. When I am "doing" firewood by cutting, hauling, and stacking it, our dog Chula "does" wood by finding a suitably sized piece and lying down nearby to chew it. When I am "doing" paper sorting for recycling or burning in the stove, Chula might find an envelope and very inconspicuously lie down with it. Chewing envelopes is usually not allowed, but at these times we both understand that we have paperwork to do.

This piece is adapted from an article originally published in The Huffington Post on August 18, 2016.

OUR FELLOWS PROGRAM



▲ Paul Greenberg in Norway filming his Frontline documentary on omega-3s and the marine food web. Photo courtesy Paul Greenberg

PAUL GREENBERG - WRITER IN RESIDENCE

Writer Paul Greenberg spent much of 2016 focused on writing his forthcoming book, *The Omega Principle: A Journey to the Bottom of the Marine Food Web*, which is slated for publication next year. His book breaks down the science of marine food webs and the many threats they face, including overfishing, the loss of forage fish species, rising sea temperatures and ocean acidification. Many sources of Omega-3s - such as wild krill and farmed salmon - are unsustainable. In his book, Paul explores more sustainable ways for people to incorporate healthy Omega-3 fatty acids into their diets. As part of his research, Paul traveled to Antarctica; the Canary Islands; Almega Algae Farm in Midland, Texas; a krill research center in Montevideo, Uruguay; Washington, D.C.; the California Sierras; and elsewhere.

Paul wrapped up shooting on a Frontline documentary on Omega-3s and marine food webs this September, which will also be released next year. While much of the documentary was filmed in New York and Montauk, Paul also traveled to an anchovy fishery in Peru, salmon farms in Norway, wild salmon fisheries and transboundary mines in Southeast Alaska and epidemiology labs in Durham, North Carolina.

While Paul spent most of his time working on his book and documentary, he has also written several stories that have appeared in the *New York Times* and the *New Yorker*, among other media outlets. Paul has given talks across the country on his writing, fish and fisheries, including at Pace and Yale Universities, Martha's Vineyard and Monterey Bay Aquarium.



▲ Ben taking a break between a performance at the Bronx Zoo. Every weekend in May Ben gave shows at the Bronx Zoo as part of his Bird Migration Concert Series. Photo courtesy Ben Mirin

BEN MIRIN - FELLOW

2016 was a fun and exciting year for wildlife DJ and sound artist Ben Mirin, culminating in an expedition to Madagascar, where he collected animal sounds and performed for local Malagasy people. Besides his big trip to Madagascar, Ben performed at dozens of concerts, mostly in New York and Washington, D.C., and also produced an music video web-series called "Wild Beats" for National Geographic Kids, in which he teaches about wildlife by mixing music from the sounds of nature.

When he wasn't performing, Ben gave talks about the importance of documenting and preserving natural sounds for National Geographic and in a TEDx Youth talk at the Browning School in New York City. He also appeared in the presses - featured in print, film and radio interviews; and writing his stories about his experiences working at the intersection of music and science.

We also congratulate Ben on earning several new titles this year: National Geographic Expeditions Council Grantee (National Geographic Explorer), Natural Sounds Recordist at the Cornell Lab of Ornithology, Artist in Residence at the Wildlife Conservation Society at the Bronx Zoo and Member of the Explorer's Club. Read more about Ben on Pages 20 and 21.

▶ Ben recording animal sounds in California's Sierra Nevada Mountain Range. He captured many incredible sounds on this expedition, which, upon returning home to New York, he promptly catalogued and mixed. Photo courtesy Ben Mirin.



HOB OSTERLUND - FELLOW

The past year was a very exciting one for conservationist and writer/photographer Hob Osterlund! Hob again helped lead efforts to secure and maintain albatross nesting sites on Kaua'i. In April, Hob's first book *Holy Mōlī: Albatross and Other Ancestors*—a memoir and ode to albatrosses—was published. Promptly after its publication, Hob gave talks and signed books across her home state of Hawaii as well as California, British Columbia, Washington and Oregon. She has been featured in print and radio interviews, and has had her writing featured in magazines and online. *Holy Mōlī* has gotten rave reviews, and is now in its second printing.

Hob has continued working tirelessly as Kauai Coordinator for the Cornell Lab of Ornithology Bird Cam project. The result of her work: after three seasons of filming, tens of thousands of viewers in more than 190 countries have been able to share the excitement of viewing Laysan albatrosses live online.

Additionally, Hob continues to document the lives of albatrosses and other wildlife native to Kauai so she can share their stunning beauty with the world, but also help people bear witness to the challenges they face, such as a changing climate, island predators and marine plastics.

You can read more about **Hob** by on pages 18 and 19 in this report.

SHAWN HEINRICHS AND JOHN WELLER

Photo and film duo Shawn Heinrichs and John Weller focused their main attention in Indonesia and on manta and other rays, helping build sustainable economies that don't overexploit the seas. The pair particularly documented the landscapes, wildlife and local people of the province of Papua Barat.

In addition, Shawn traveled the world photographing and filming manta rays and sharks and the need to conserve them. Shawn's ethereal photographs and compelling films of manta and mobula rays premiered online in mid-September, a week before the Convention for International Trade of Endangered Species (CITES) 17th Conference of the Parties (CoP17), held in Johannesburg, South Africa. His work helped bring to policy makers the importance of protecting these at-risk marine creatures.

John also photographed life in Antarctica's Ross Sea. His film will stitch tens of thousands of still photos into dreamlike moving images to put the ecological significance of the Ross Sea—one of the last intact marine ecosystems—into world context.

Shawn created this poster to help advocate for shark and ray protection in the lead-up to CITES CoP17. ▶



ERIC GILMAN - FISHERIES SCIENTIST

Dr. Eric Gilman published peer-reviewed articles on lost and abandoned fishing gear ("ghost fishing") and the capture of non-target ocean animals. His research was featured in a report produced by the Food and Agriculture Organization of the United Nations (FAO). Eric also published a peer-reviewed chapter on the effects of climate change on tuna in a book about the consequences of rising ocean temperatures.



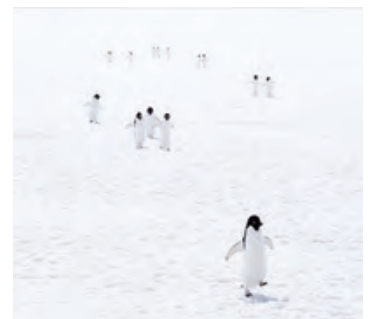
▲ Hob speaking at Native Books/ Na Mea Hawaii in Honolulu. Photo: Glenn Nishida



▲ Juvenile Laysan albatross. Photo: Hob Osterlund



▲ Shawn taking an undersea selfie with a manta ray. Photo: Shawn Heinrichs



▲ Adélie penguins walking back from a hunt in frozen Antarctica. Photo: John Weller.



Manta rays in Raja, Indonesia.



THE MANTA IN THE MIRROR

A PHOTO ESSAY

By John Weller — Author, Filmmaker, Photographer and Safina Center Fellow

AND Shawn Heinrichs — Filmmaker, Photographer and Safina Center Fellow

A MEETING OF MINDS

Chain upon chain of jagged islands jutted up from the sea. Dense vegetation clung to black, pitted rock walls that dropped sharply into cerulean blue lagoons. A Sulfur-crested Cockatoo landed in the top of a tree, its raucous call bouncing around the cliffs before daring out across the water under the merciless sun. The smells of wet earth and mulch mixed with the organic salty breath of the sea.

Well-used outboard motors roared. The last chain of islands in this part of Raja Ampat, Indonesia sat on the horizon as the boat suddenly slowed and changed direction: the inky black of the ocean had given way once more to sky blue, but this was no lagoon. Thirty feet below us was an entire island. Shawn and I made final equipment checks, and slipped into the water.

They were circling. The current swept over the seamount like a prairie wind. I took cover in the lee of a 100-foot vertical wall on the edge of the seamount and turned my attention to deep water. I strained to see further, trying to resolve every slight variance in the pallet of blue. Finally, one of the ghostly shapes did resolve, and a moment later the manta soared into the seamount, surfed the powerful current to hover above a cleaning station, circled once, and then flew away, dissolving back into the blue.

I repositioned behind a coral mound on the top of the seamount closer to the cleaning station just as a second manta appeared at the edge of my vision. They moved like they were caught in a dream. The slow rhythm of their wing beats seemed disconnected from their speed and power. The manta flared its wings as wrasses swam up from the reef to clean its gills. The web of interdependence is unspeakably beautiful. But there was something else. As the manta finished surfing, it turned not away into the blue, but right towards me, drifting low across the reef. As it approached, it gently lifted its left wing, passing so close that it brushed my hair, and in its eye I recognized intelligence, curiosity, benevolence.

And how else could you explain what followed? Shawn set up his camera on a mound of coral and then hid down behind it, covering his face, then peeking quickly around the camera housing at the manta parked at a cleaning station in front of him. The manta immediately drifted over, seemingly curious as to what Shawn could be doing, playing hide and seek. Shawn looked up at the manta, reestablishing eye contact, and the manta seemed satisfied, floating back over to the cleaning station again. A minute later, Shawn hid his eyes again, and the manta came right back over to him. On went the game.

Over two dives, Shawn and I spent almost three hours with the mantas. There were seven of them, traveling in twos and threes. They danced, playing follow the leader, cutting tight circles across the reef. Then the mantas included us in their game. All three mantas in one line brushed our hair with their wings, circled around, and did it again. Both Shawn and I had dropped our cameras. There was no way to capture this on film. But I picked mine up for a final shot, as Shawn raised both his arms, extending an embrace to one of the animals in an uncontrollable expression of thanks.

On the boat, stripped of our gear, we looked at each other once, back to the water, and then dove in again with snorkels. As we swam out from the boat, one of the mantas came straight up from the reef and met Shawn, skimming the surface with one wing in an arcing turn, as if to return the thanks. It glided back down to the reef, then out into the blue and disappeared. Back on the boat again, Shawn and I sat in the warm sun. Neither of us wanted to speak yet.



Shawn Heinrichs and manta.

EMPIRICAL EVIDENCE FOR SELF-AWARENESS

“Self-recognition is conventionally identified by the understanding that one’s own mirror reflection does not represent another individual but oneself.” – Ari and D’Agostino 2016

In March of this year, Csilla Ari and Dominic D’Agostino confirmed experimentally what we came to believe on that day: manta rays are self-aware. Using techniques developed to test the self-awareness in primates, the researchers placed a large mirror in one chamber of an enclosure that held two captive oceanic mantas.

Would the mantas interact with the mirror? If they did, would they behave socially, as if their reflections were other animals? Or would they exhibit behavior implying that they recognized the “new” mantas as their own reflections?

The animals did interact with the mirror, spending more than triple the amount of time in that chamber of the tank when the mirror was in place. They did not direct any social behaviors towards their mirrored images. On the contrary, they circled, flipped the tips of their wings, and blew bubbles in front of the mirror as if to watch the reflection move. They positioned themselves vertically in the water and checked out their own bellies. They behaved as if they knew they were looking at their own reflections. And though Ari and D’Agostino present astounding and rigorous new evidence, numerous divers would independently attest to the very same conclusion: manta rays are self-aware. But if you need more proof, this next experience has no other possible explanation.



Manta hunt in Indonesia.

A MANTA ASKS FOR HELP

Shawn reports: "Wrapping up our day of filming mantas off Nusa Penida, Bali, we had been blessed with hours of free-diving encounters with a dozen reef mantas. I was capturing my final images when I looked down and noticed a large female manta hovering 20 feet below me. On closer inspection, I noticed a bundle of thick monofilament fishing line trailing behind her. Entanglement in fishing gear is a common and serious threat faced by mantas, particularly in areas with intensive fishing activity. Fearing she might swim off, I darted toward the boat, calling for a knife or scissors to use to cut the line off. Once in hand, I made my way back to the spot where I had seen her.

I was delighted to see she was still waiting in the same place, and taking a deep breath, I descended down to her. The lines were wrapped tight over her mouth and trailed behind across her back and belly, where they joined into a mess of knotted monofilament. The lines had twisted so tightly that they had cut deep into her flesh, preventing her from opening her mouth and feeding. I felt a knot in my stomach as I realized that if I failed to remove these lines, she would likely suffer a slow and painful death by starvation.

On my first dive, I managed to cut away the large bundle of trailing line. Returning to the surface for air, I looked down expecting her to move off but she did not. Taking a second breath, I descended and cut away the remaining lines. She flinched in pain as I tugged on the lines that were embedded in her wounds. I returned to the surface and looked down again. She was still waiting below me. Once again, I kicked down to her, and holding on to the front of her head with my left hand, I set about removing the hook from her upper jaw. The wound from the hook was deep and infected, and despite the pain she must have felt as I worked out the hook, she remained calm and motionless. With the hook finally free, I swam up to the surface.

Looking down, I saw she was still in the same spot, and I felt compelled to make one final connection with this graceful and intelligent being. I swam down and placed my hand gently on the top of her head, and drifting down beside her, I looked right into her eye. No words were spoken in that quiet moment, yet we both understood exactly what was being communicated. I told her she would be ok now. Her deep dark eye moved back and forth, and gazed into each of my eyes. Through her eye, I felt her express gratitude, as if I was hearing her words directly in my soul. In that moment I knew that she understood I was trying to help her. I smiled and told her it was ok and she could go in peace. And then with a gentle pump of her wings, she was off, drifting slowly out of sight."

A GLOBAL MOVEMENT FOR CONSERVATION

Recent years have seen great strides in manta conservation, but mantas are still threatened across the globe. For an update on manta conservation, check out John and Shawn's new video: <https://vimeo.com/162298275>

Originally posted on National Geographic Ocean Views on May 3, 2016.



Giant manta in Raja Ampat, Indonesia.



Mobula rays, or "mini mantas."



Hob Osterlund and some of her albatross photos. Photos courtesy Hob Osterlund

HOB OSTERLUND ON HOME, HISTORY & HOLY MŌLĪ

An interview with writer, photographer and Safina Center Fellow, Hob Osterlund

By Erica Cirino

It's another sunny afternoon on the Hawaiian island of Kaua'i. A woman with close-cropped sandy hair and sky-colored eyes, clad in a t-shirt and cargo shorts, lies belly-down on a patch of dry pine needles. Camera held to her face, she squints, and then squirms around, searching for a better angle.

After several minutes, her body and face go still and her camera erupts into a succession of clicks. With it, she captures an albatross pair snuggling, a mother albatross feeding its chick, an albatross cleaning its feathers.

For Hob Osterlund, the woman with the camera, this is just another typical day on the job as founder of the Kaua'i Albatross Network. Osterlund, who is also a trained nurse, decided to dedicate her life to observing and conserving albatross after moving to the island of Kaua'i from Oregon in 1979. This involves photographing, writing about and promoting safe nesting habitat for the albatross (and other native Hawaiian birds).

Kaua'i is home to many creatures, from monk seals to sea turtles to Laysan albatross. Now the island is also Osterlund's home. What brought her to Kaua'i? And why did she choose to devote her life to spending her days with albatross, or mōlī, as they're called on the island? Osterlund explains all of the above in her recently published memoir, *Holy Mōlī: Albatross and Other Ancestors*.

Here at the Safina Center, *Holy Mōlī* has been a resounding hit among our crew.

"*Holy Mōlī* is a labor of love. The love of magic. The magic of hope. And that's just the book. Just wait till you meet the birds and the people whose faith tends them," says our very own Carl Safina. "A million years in the making, this is a story of a rekindling of Life's most blessedly fierce and fiercely sacred flame: return. Renewal. No better tale exists. Lesser tales need not apply."

Recently I interviewed Osterlund by email to learn more about what inspired her to share her story, to write a book with such resounding power. What follows is our conversation, edited for length.

You didn't always live in Hawai'i. Could you please explain what brought you to the island of Kaua'i?

I am a sixth-generation resident of Hawai'i, but did not grow up in the islands. Even though I often heard stories about my ancestors when I was growing up, I didn't feel drawn to my roots until one rainy night back in 1979. I was living in a cabin in the Oregon woods when Martha Warren Beckwith—my grandmother's cousin and the author of the classic *Hawaiian Mythology*—appeared to me in a dream. She simply handed me a copy of her book. I don't think she spoke a single word. Six months later, unable to shake what felt to me like a summons, I moved to the Hawaiian Islands. At the time I didn't know I was returning home.

How did your fascination with the albatross begin?

Albatross were attempting to nest on Kaua'i in the late 1970s after a long absence—perhaps as long as a thousand years. One day I went for a hike on the north shore and happened upon a few courting [albatross]. They stopped me in my tracks. I felt an inexplicable connection that somehow transcended their fearless beauty. It was only months after I'd moved to Hawai'i, and I had no idea what my feelings meant.

I've read that in Hawaiian mythology, ancestors may assume the bodies of animals as their own (a concept called 'aumakua). Whom do you see in the albatross?

I learned about the concept of 'aumakua in Auntie Martha's book *Hawaiian Mythology*. In the birds I feel a family presence, starting with Richard and Clarissa Armstrong—who sailed from Boston to Honolulu in the 1830s on a miserable whaling vessel—up through five generations to my mother, who died from breast cancer when I was a child. The ancestors are all part of my story. And of course the birds—entirely separate from me or any other human—are distinctly themselves with their own fascinating story.

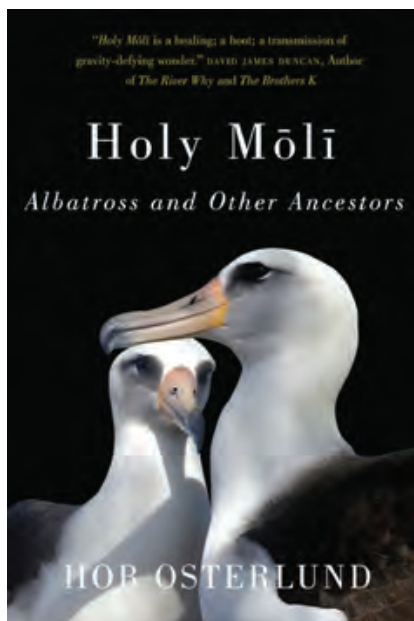
You emphasize the importance of place in the lives of albatross. How has your move to Kaua'i affected your own sense of place, and how is the theme of place carried throughout your book, *Holy Mōlī: Albatross and Other Ancestors*?

While Albatross are brilliant masters of place. They can find a single acre of land in millions of square miles of open sea. Their lives are a metaphor for us, and the birds can be considered mentors. Like with the mōlī, my relationship to Kaua'i, to this place, is deep and permanent.

There's an excerpt from your book that ends with a line from author Dani Shapiro: "We cannot afford to walk sightless among miracles." How do you hope readers interpret this quote?

I hope readers will take a moment to consider if the quote has meaning for their own lives. *Holy Mōlī* is not meant to be a self-help book. When I wrote it, I was careful not to turn my own observations into lesson plans for someone else. For me, Dani Shapiro's quote reminds me that I am surrounded by the immense beauty and unfathomable intelligence of nature. If I don't stop to notice that, I will miss everything that matters. I will forever remain an outsider, and I run the risk of doing great harm to the winged, rooted, furred, slimy, feathered and finned lives around me. When I use my eyes to notice, it means my hunt for hidden treasure or true love or perfect skin is over. It means there is a chance for harmony among countless life forms on our planet. It means I am home.

Holy Mōlī: Albatross and Other Ancestors, by Hob Osterlund, is now available through Oregon State University Press and Amazon.com.



MY LIFE AS A WILDLIFE DJ

By Ben Mirin — Wildlife DJ, Sound Artist and Safina Center Fellow

This July I was as close to “on tour” as I’ve ever been in the States. Every Saturday and Sunday at noon, 1, and 3pm, I took the main stage at Bronx Zoo’s Asia Plaza to perform a new composition made entirely from migratory bird songs. Whereas most of my work has focused on animating the voices of a particular place all at once, this piece attempts to document a natural process over time.

The piece is called “Green Wave,” after the eruption of new foliage that sweeps up the Atlantic Coast every spring. These new leaves bring out droves of insects, which in turn provide perfect food for migrating birds. In nature the two cycles are linked, but for my audiences in the Bronx the real drama begins as new bird species start to converge on our urban jungle, changing the City’s back track from sparrows, pigeons and starlings to a wondrous chorus of warblers, orioles, and other spring migrants.

As a science performer, sharing my craft with new audiences provides valuable data for exploring how bird music resonates with fresh ears. In order to help listeners tune into nature, each show consists of a musical opening followed by a birdsong identification game, focusing on three specific bird calls that must be identified as they enter the mix. First we review the songs one by one, starting with the Eastern Phoebe, which sounds like it’s saying its own name - a raspy “fee-bee:”

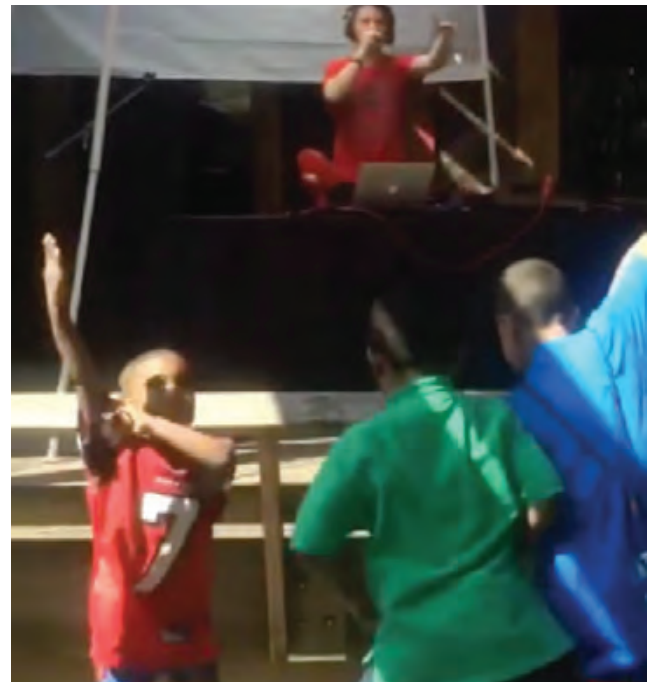
They always get that one. Next is the Gray Catbird, which makes a variety of sounds - from whistles to squeaks to gurgles to whines to nasally noises - and of course one that sounds a lot like a feline.

And finally, the Wood Thrush’s musical - almost flute-like - “ee-oh-lay,” which it trills in various ways.

After we’ve drilled these songs I’ll play the music again. As soon as they hear the Phoebe, contestants must raise their hands and keep them up. They put their hands in the air for Gray Catbird, and when the Laughing Gull arrives, they have to perform one of three bird-themed dances: the condor (wings outstretched), the chicken (y’all know what it is!), or the hummingbird (using your hands like wings), like so:



Ben Mirin, AKA DJ Ecotone. Photo: Sora DeVore



Photos courtesy Ben Mirin



But really, any form of dance qualifies.

Thanks to data from eBird—and the relative consistency of annual avian arrivals in New York— I’ve managed to compose a song in which the birds’ musical entrances accurately mirror the order of their migration. During the game, most people hear the Phoebe, and a few hear the Catbird, but only one or two ever hear the Wood Thrush in Phase Three. These lucky few earn a chance to come on stage and remix my remix of nature, blending different phases of the song and shattering the careful scientific orchestration I worked so hard to create. It’s beautiful every time.

For more information on my upcoming concerts at the Bronx Zoo and beyond, visit benmirin.com/events and follow me on Twitter @djecotone. If you want to hear the bird migration song “Green Wave” and can’t make it to a show, follow me on soundcloud.com/benmirin, I’ll be releasing a studio version when the dust settles. Special thanks are due to eBird and the Macaulay Library at the Cornell Lab of Ornithology for providing the necessary sounds and data to create this work.

Originally published on the Safina Center blog, July 11, 2016.



Prothonotary warbler at Magee Marsh Wildlife Area, Ohio. Photo: Carl Safina

POLICY CAMPAIGNS

We are often asked to support wider coalitions on a range of ocean and environmental issues. Here are the policy efforts we were involved in during 2016.

SUSTAINABLE FISHERIES

- Support for the authorization of buoy gear in the West Coast swordfish fishery in order to provide a viable and more sustainable alternative to the currently used drift gillnets. (Safina Center comment letter)
- Support for the Mid-Atlantic Fisheries Management Council's Unmanaged Forage Amendment to prevent unregulated fishing on forage species and help ensure healthy Atlantic ecosystems. (Safina Center comment letter)
- Support for upholding the current requirements in the Magnuson-Stevens Fishery Conservation and Management Act and the development of robust bycatch assessment programs. (sign-on letter)
- Support for full traceability in the U.S. seafood supply chain to prevent illegally caught seafood from entering the U.S. market and to prevent seafood fraud. (sign-on letter)
- Petition to list Pacific bluefin tuna as endangered under the U.S. Endangered Species Act and support for a two-year commercial fishing moratorium. (sign-on letters)
- Support for the expansion of the Flower Garden Banks National Marine Sanctuary in the Gulf of Mexico. (Safina Center comment letter)

CLIMATE/ENERGY

- Support for a continued moratorium of offshore fracking off the California coast. (sign-on letter)
- Support for halting all new oil and gas lease sales in U.S. federal ocean waters to protect the environment and combat climate change. (sign-on letters)
- Support for ending coal leasing on U.S. public lands to protect the climate, public health, and biodiversity. (sign-on letter)

ENVIRONMENTAL PROTECTION/POLLUTION

- Support for a Suffolk County local law to reduce the use of carryout bags in retail stores to help protect the environment and decrease plastic debris in the ocean. (Safina Center comment letter)
- Support for action by Congress, EPA and USDA to protect bees and other pollinators, reduce the use of harmful pesticides, and support sustainable agriculture. (sign-on letters)

▶ Fishing is expanding into a warming Arctic. Cod-fishing boat in Svalbard, high Arctic, at 83° N.
Photo: Carl Safina



MERCURY IN SEAFOOD

A GUIDE FOR CONSUMERS

Seafood has many healthy nutrients. But all fish are not equal when it comes to mercury levels. Fish that are smaller or lower on the food chain – like shellfish, anchovies, sardines, salmon and tilapia – contain much less mercury than large, top predators such as tuna and swordfish. **So how can you balance the health benefits of eating fish with the risk of exposure to mercury?** The answer is simple - eat seafood that is low in mercury and limit your consumption of high-mercury fish.

The goal is to be smart about which fish we eat and the quantities we consume.

Fish can be part of a healthy diet. It is a good source of protein and omega fatty acids and is low in saturated fat. For guidance on mercury levels in fish, refer to the “Which Fish and How Much?” chart in this brochure.

START WITH A “FISH LIST”

If you eat seafood, take a moment to list the kinds of seafood you prefer. Then estimate the size of portion you normally consume and how often. (Hint: A four to six ounce serving is roughly the size and thickness of the palm of your hand.)

Next, check your “fish list” against the **Which Fish and How Much?** chart on the following page. Depending on the mercury levels that correspond to your list, you may need to adjust how much and/or how often you enjoy your favorite seafood. This chart also shows you low-mercury alternatives if your favorite fish turn out to be mostly high-mercury species, such as tuna, swordfish, sea bass or grouper.

If you are pregnant, breastfeeding or feeding young children, check the chart and you’ll see that eating low-mercury fish can be part of a healthy diet. In fact, low-mercury seafood is beneficial for brain development in the fetus and developing baby.

WHO IS AT RISK?

The neurotoxic effects of methylmercury (MeHg) are well documented. That is why **pregnant women, fetuses** and **young children** are considered at greatest risk.

– Women who are pregnant, breastfeeding or who plan to be pregnant within a year, and children less than 12 years old, should eat **ONLY** low-mercury fish.

– **People who eat fish frequently or who favor top predator fish** (such as swordfish or tuna) may also be at risk.

NOTE: As a consumer, you should be aware that chunk “light” tuna has less mercury than albacore “white” tuna. **Canned tuna accounts for 33% of total mercury exposure in the U.S.**

THREE SIMPLE RULES:

1. Choose low-mercury, high omega-3 fatty acid seafood to maximize benefits and minimize risks. 2. Limit your consumption of higher mercury fish. 3. If you are part of the “at risk” group, (pregnant, breastfeeding or feeding young children) choose **ONLY** low-mercury seafood.

If you or a loved one routinely consumes high-mercury seafood, or if you are experiencing symptoms from the list to the right, ask your doctor to check your mercury levels – just to be safe. This can be easily done with a blood test.

SIGNS & SYMPTOMS of METHYLMERCURY (MeHg) EXPOSURE

Higher Level MeHg Exposure

- Numbness or tingling in hands and feet
- Clumsy gait; difficulty walking
- Slurred speech
- Tunnel vision
- Diminished visual acuity

Chronic, Lower Level MeHg Exposure

- Sleep disturbance
- Headache
- Fatigue
- Difficulty concentrating
- Depression
- Memory loss
- Diminished fine motor coordination
- Muscle and joint pain
- Gastrointestinal upset
- Hair thinning
- Heart rate disturbance
- Hypertension
- Tremor
- Numbness or tingling around the mouth

WHICH FISH AND HOW MUCH?

(Estimates of servings for a 130 lb. woman)

VERY HIGH MERCURY

More than 0.5 Parts per million
Eat Rarely



Tilefish (Gulf of Mexico)



Bluefin tuna



Swordfish



King Mackerel



Shark

HIGH MERCURY

Between 0.25 and 0.5 ppm
About 2 times per month



Yellowfin Tuna



Chilean Sea Bass



Bigeye Tuna



Grouper



Albacore Tuna (solid white)



Bluefish



Wild Striped Bass

MEDIUM MERCURY

Between 0.1 and 0.25 ppm
Up to once per week



Skipjack Tuna
(chunk light)



Mahi-Mahi



Ocean Perch



Pacific Cod



Lobster



Snappers



Halibut



Flounder

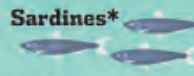
LOW MERCURY

Less than 0.1 ppm
2-3 times per week

*Good source of Omega-3 fatty acids



Anchovies*



Sardines*



Arctic Char



Squid



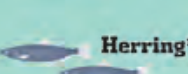
Trout* (farmed)



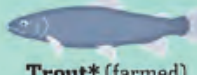
Salmon*



Catfish (farmed)



Herring*



Atlantic Mackerel*



Clams



Shrimp



Mussels*



Tilapia



Scallops



Sole



Pollock



Oysters*

Karimi et al., 2012, Environmental Health Perspectives, A quantitative synthesis of mercury in commercial seafood and implications for exposure in the U.S.

Portion guide



1 serving = 4 to 6 oz.

This is roughly the size and thickness of the palm of your hand.

About 2 servings per week (8-12 oz.) of a fish that is low in mercury meets the U.S. Dietary Guidelines, American Heart Association and Environmental Protection Agency/Food and Drug Administration advice for fish consumption.

The "at risk" groups:



Pregnant or breastfeeding women and young children should eat **ONLY** low mercury fish.

For children under 12: Estimate about 1 oz. per 20 lbs. of body weight for a child who is not overweight. For example: a 40 pound child could eat a 2 ounce serving.

Graphic by John Blanchard, 2015

FIND OUT MORE: To download and print this brochure and for lots more information and resources on mercury in seafood, check out these two sites: www.safinacenter.org and www.stonybrook.edu/mercury

WHY FISHING GEAR 101?

By Elizabeth Brown-Hornstein — Research Scientist and Director of the Safina Center's Sustainable Seafood Program

During 2015 and 2016, I wrote an 11-part Fishing Gear 101 blog series to introduce seafood consumers, businesses, and chefs to different types of fishing gears – including how they work, what they catch, and how they affect ocean wildlife and habitats.

I created Fishing Gear 101 because consumers would often ask me to describe various types of fishing gear and explain which ones cause the most destruction to the ocean.

Another frequent question is why our seafood ratings for a particular species differ depending on the fishing method used. Fishing Gear 101 is my answer to these questions. Additionally, it is my hope that Fishing Gear 101 will help everyone understand the collateral damage that fishing can cause to the ocean and the importance of choosing seafood caught in a responsible way.

The Fishing Gear 101 blogs build off the research that we do for our sustainable seafood assessments. For the blogs, I consulted scientific literature, government reports, fishermen-reported data, and communicated with experts.

In the blog series, I describe some of the most common yet also most destructive types of fishing gears, including trawls, longlines, and gillnets. Trawls are enormous, cone-shaped nets that capture any and all species in their path as they are towed through the ocean by a boat. And, when dragged along the ocean bottom, trawls can turn physically diverse areas, teeming with ocean life into barren deserts.

Longlines are indeed very long lines, stretching up to 30 miles across the sea and bearing thousands of baited hooks. Gillnets are large, vertical net walls designed to entangle fish by their gills (hence the name gillnet). Both longlines and gillnets are notorious for killing vulnerable ocean wildlife, including marine mammals, sea turtles, seabirds, and sharks. Other common gears that I cover are dredges, purse seines and pots/traps.

Throughout Fishing Gear 101, I discuss some of the technologies that have been developed to lessen the gear's negative effects on the ocean. I also discuss what we need to do moving forward to continue to improve the way we fish and ensure healthy oceans. One thing we can do is switch to more selective fishing methods, whenever possible. That is why I also highlighted several selective, ocean-friendly fishing methods in the Fishing Gear 101 blog series.

I describe handlines, small-scale coastal net gears, hand-held tools used to dig for shellfish, harpoons, and spears. I even covered two new, innovative fishing methods – greenstick and buoy gear. Greenstick and buoy gear are designed to catch tuna and swordfish, respectively, while minimizing catches of other ocean species. Fishermen, scientists, and conservationists have been working together to develop these gears as an alternative to destructive longlines and gillnets.

Fishing Gear 101 became quite popular with our readers and we received a lot of positive comments. What's particularly great is that these blogs can serve as an education tool for consumers, chefs, retailers, and teachers for many years to come.

You can check out the full series at <http://safinacenter.org/category/gear-101/>.



From top:
Purse seine (2 versions), trolled lines,
cast-net. Illustrations by
Kate Thompson

MILESTONES AND FIRSTS

Here are recent awards, publications, honors and “firsts,” from this year back to our founding in 2003.

2016

Beyond Words; What Animals Think and Feel is released in Paperback and hits #8 on The New York Times Best Sellers List in the “Animals” category. It is commissioned for translation in 11 languages.

Carl Safina's TED Talk, “What are animals thinking and feeling?” receives 1.8 million views.

Safina Center Fellow Hob Osterlund releases her first book, a memoir, titled *Holy Mōli: Albatross and Other Ancestors*, on May 5, 2016.

Safina Center Fellow Ben Mirin earns new titles: National Geographic Expeditions Council Grantee, Natural Sounds Recordist at the Cornell Lab of Ornithology, Artist in Residence at the Wildlife Conservation Society at the Bronx Zoo and Member of The Explorer's Club.

Safina Center “Writer in Residence” Paul Greenberg wraps up his coming book, *The Omega Principle: A Journey to the Bottom of the Food Web*, and finishes filming a related Frontline documentary.

Fellow Shawn Heinrichs helps film and coordinate the first-ever Chinese-televised public service campaign to reduce the consumption of shark fin soup.

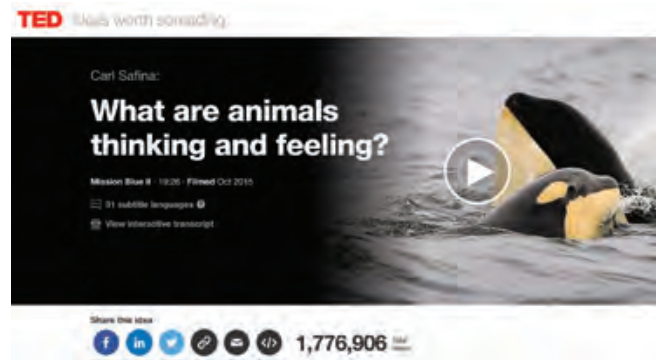
Ellen Prager ends her fellowship on a high note with the release of the third book in her “Tristan Hunt and the Sea Guardians” series, *Stingray City*.

The Safina Center moves to new headquarters, a 300-year-old house in Setauket, N.Y.

2015

Beyond Words; What Animals Think and Feel, Carl Safina's seventh book, released to rave reviews. It is #2 on The New York Times Best Sellers List, “Animals” category, and #1 in Amazon's Best, “Animals and Cognition” and “Animal Behavior” categories.

Carl Safina nominated for the 2016 Indianapolis Prize and Lilly Medal, a biennial prize in global wildlife conservation.



Carl Safina and Paul Greenberg's TED Talks (given on the same day one year ago) have so far garnered 3.2 million views.

Fellow John Weller and his partner Shawn Heinrichs complete their film *Guardians of Raja Ampat* (Indonesia) and show it on a grand outdoor screen in 12 key villages—a huge success.

Fellow Dr. Ellen Prager's new book, *The Shark Rider*, released. It's the second book in her fiction series for middle grades, "Tristan Hunt and the Sea Guardians."

Fellow Paul Greenberg's best-selling book, *American Catch: The Fight For Our Local Seafood*, released in paperback and is a finalist for the Investigative Reporters and Editors Book Award.

Safina Center Fellows, Dr. Demian Chapman and Debra Abercrombie complete many Shark Fin ID Workshops in countries around the world including Hong Kong, Mainland China, India and South Africa.

Carl Safina, Senator Edward Markey, offshore drilling experts and scientists hold press conference in Washington, D.C. to address lingering effects of the 2010 BP oil disaster.

Paul Greenberg's American Catch Project completed many workshops in fishing communities around the U.S. thanks to funding from the Walton Family Foundation.

The Safina Center is nominated for Edible Long Island's “Local Hero” Award in the nonprofit/advocate category.

Beyond Words is nominated for Carnegie Medal of Excellence, 2016.

2014

Blue Ocean Institute changes its name to The Safina Center.

Safina Center Fellow, Paul Greenberg publishes his third book *American Catch: The Fight For Our Local Seafood*, to critical acclaim.

The Safina Center and Monterey Bay Aquarium expand their partnership and collaborate on sustainable seafood ratings creating consistency for Whole Foods Market nationwide.

The Safina Center logo is included in seafood counter signage in 370 Whole Foods Market stores in the U.S.

Safina Center Fellows, Paul Greenberg and Demian Chapman are both named Pew Fellows in Marine Conservation.

The Safina Center welcomes two new Fellows: writer, photographer and filmmaker John Weller, and marine scientist and author Dr. Ellen Prager.

Safina Center Fellow Dr. Ellen Prager publishes *The Shark Whisperer*, her first book in a new fiction series for middle grades, *Tristan Hunt and the Sea Guardians*.

The Safina Center doubles its followers on Twitter.

Safina Center Fellows, Demian Chapman and Debra Abercrombie completed Shark Fin ID Workshops in many countries around the world including Vanuatu, South Africa and Hong Kong.

The Safina Center helps orchestrate Stony Brook University's first ever Earth Day "Tweet-Up" honoring Indianapolis Prize finalists (and SBU professors) Carl Safina, Russ Mittermeier and Patricia Wright.

2013

First full series of *Saving the Ocean with Carl Safina* broadcasts on PBS to 90 million households in the U.S. and Canada. (Episodes available for free 24/7 on PBS.org.)

Carl Safina is nominated for the 2014 Indianapolis Prize.

Carl Safina is lead scientist on the GYRE expedition to the southwest coast of Alaska and Aleutian Islands.

Stony Brook University establishes the Carl Safina Endowed Research Chair for Nature and Humanity, Long Island, NY.

Carl Safina receives an Honorary Doctorate from Drexel University.

Carl Safina is named Inaugural Andrew W. Mellon Distinguished Fellow in Environmental Studies by Colby College.

Rutgers University presents Carl Safina with a Distinguished Alumni Award in Biology.

Blue Ocean Institute welcomes a new fellow: photographer, filmmaker and ocean conservationist Shawn Heinrichs.

Blue Ocean Fellows, Dr. Demian Chapman & Debra Abercrombie hold Shark Fin Identification Workshops in Honduras, Belize, Costa Rica, Senegal, Sri Lanka, Hong Kong, USA, Thailand, United Arab Emirates, Yemen, Egypt, Oman, Brazil and Fiji.

Blue Ocean Institute is recognized by Intelligent Philanthropy for our commitment to transparency.

2012

Blue Ocean Fellows Program launches in November. First Fellows: author Paul Greenberg and shark experts, Dr. Demian Chapman

and Debra Abercrombie.

The View from Lazy Point; A Natural Year in an Unnatural World wins 2012 Orion Magazine Book Award.

PBS films six new episodes of *Saving the Ocean with Carl Safina* filmed to complete first year of the series.

"The Sacred Island" episode of *Saving the Ocean with Carl Safina* PBS series is named a finalist at the BLUE Ocean Film Festival, "Innovations and Solutions" category.

Carl Safina blogs for The Huffington Post; begins blogging for National Geographic.

Blue Ocean Institute moves to Stony Brook University's School of Marine and Atmospheric Sciences.

Blue Ocean Institute releases comprehensive overview, "MERCURY: Sources in the Environment, Health Effects and Politics," written by Sharon Guynup; intro and summary by Carl Safina.

Carl's book *A Sea in Flames: The Deepwater Horizon Oil Blowout* is named to Top Ten List by the Project on Government Oversight.

Carl Safina receives Ocean Hero Award from Diver magazine.

2011

Carl Safina's fifth book, *The View from Lazy Point; A Natural Year in an Unnatural World*, releases on January 4, 2011, to rave reviews.

Carl Safina's sixth book, *A Sea in Flames; The Deepwater Horizon Oil Blowout*, releases on April 19, 2011, to excellent reviews.

Both *The View from Lazy Point* and *A Sea in Flames* are selected as The New York Times Book Review's "Editor's Choice" titles.

FishPhone text messaging app reaches its 100,000th query.

Carl Safina wins James Beard Award for Journalism – Environment, Food Politics and Policy.

Carl Safina and Alan Duckworth are invited to write "Fish Conservation" chapter in the *Encyclopedia of Biodiversity*, 2nd edition.

Carl Safina is nominated for the 2012 Indianapolis Prize.

Carl Safina is named among "Twenty-Five Visionaries Who Are Changing the World" by Utne Reader.

First two episodes of *Saving the Ocean with Carl Safina* air on more than 100 PBS television stations across the U.S.

2010

Carl Safina's first children's book *Nina Delmar: The Great Whale Rescue* releases in paperback in January.

Carl Safina testifies before Congress regarding the Deepwater Horizon Gulf of Mexico oil well blowout.

TEDx Oil Spill Conference invites Carl Safina to give a talk.

FishPhone launches a new app; receives stellar media coverage.

MILESTONES AND FIRSTS

Blue Ocean Institute establishes partnership with Whole Foods Market to provide seafood rankings in stores.

Mercury in Fish Project launches in collaboration with The Gelfond Fund for Mercury Related Research & Outreach at Stony Brook University.

The Alan Alda Center for Communicating Science at Stony Brook University elects Carl Safina to co-chair position.

Sylvia Earle Award presented at the Blue Ocean Film Festival is won by Carl Safina.

Guggenheim Fellowship in Natural Sciences Science Writing is won by Carl Safina.

Lifetime Achievement Award from the International Wildlife Film Festival is won by Carl Safina.

2009

The New York Times publishes Carl Safina's op-ed "Darwinism Must Die So That Evolution May Live."

Next Wave's Ocean Science Literacy Workshops raise awareness about the ocean and Google Earth technology for English Language Learning students.

FishPhone App receives a "Best in Green" award by Ideal Bite, a green-living website.

Green Chefs/Blue Ocean program, an online sustainable seafood course for chefs and culinary students, launches.

2008

Environmental Defense Fund names Carl Safina's first book, *Song for the Blue Ocean; Encounters Along the World's Coasts and Beneath the Seas* named "One of 12 Most Influential Environmental Books of All Time."

Stony Brook University invites Blue Ocean Institute to establish science office at its School of Marine and Atmospheric Sciences.

The Blue Ocean Institute distributes its 2.5 millionth ocean-friendly seafood guide.

2007

The Blue Ocean Institute forms the Friendship Collaborative with Ken Wilson, Senior Pastor of Vineyard Churches of Ann Arbor, MI, to further dialogue between scientists and evangelical Christian leaders.

Blue Ocean launches FishPhone, the nation's first sustainable seafood guide mobile app, plus a downloadable seafood guide for cell phone and PDA users at fishphone.org.

Carl Safina and producer John Angier develop new PBS television series, *Saving the Ocean* with Carl Safina. PBS films pilot segments

filmed in Belize and Zanzibar.

Blue Ocean Institute partners with Stony Brook University's School of Marine and Atmospheric Sciences to collaborate on climate change research and science communication.

2006

Carl Safina's third book, *Voyage of the Turtle; In Pursuit of the Earth's Last Dinosaur*, releases on May 29, 2007, to critical acclaim.

The New York Times Book Review selects *Voyage of the Turtle; In Pursuit of the Earth's Last Dinosaur* as an "Editors' Choice" title.

World Economic Forum in Davos, Switzerland, invites Carl Safina to talk about the status and future of fisheries and the oceans.

U.S. poet-laureate Billy Collins helps launch Blue Ocean Institute's Sea Stories literary project with his poem "Coastline."

George B. Rabb Medal from Chicago Zoological Society's Brookfield Zoo is awarded to Carl Safina.

Bianimale Foundation Fellowship is awarded to Carl Safina.

2005

Blue Ocean Institute's Hawaii-based Marine Ecology and Fishery Specialist, Dr. Eric Gilman, produces "Catch Fish, Not Turtles," a booklet published in several languages created to help fishermen avoid catching sea turtles while fishing.

Carl Safina receives an Honorary Doctorate from State University of New York.

Carl Safina co-authors "U.S. Ocean Fish Recovery; Staying the Course," an op-ed published in *Science* magazine.

2004

Mercédès Lee gives an invited talk at the World Bank, bringing global attention to ocean conservation and the importance of seafood sustainability as a food security concern.

Carl Safina and Sarah Chasis' publish their article "Saving the Oceans" in the Issues section of *Science and Technology* magazine.

2003

MacArthur fellow Dr. Carl Safina and Mercédès Lee launch the Blue Ocean Institute.

Carrie Brownstein, Mercédès Lee and Carl Safina's publish the first fully transparent methodology for sustainable seafood ranking, "Harnessing Consumer Power for Ocean Conservation" in *Conservation Magazine*.

Mercédès Lee wins Renewable Natural Resources Foundation Outstanding Achievement Award for her book *Seafood Lovers Almanac*.

Blue Ocean Institute establishes a partnership with Atlantis Marine World Aquarium in Riverhead, NY, as the basis for a new ocean education program.

John Burroughs Writer's Medal awarded to Carl Safina's book *Eye of the Albatross; Visions of Hope and Survival*.

Title of "Year's Best Book for Communicating Science" by National Academies of Science, Medicine and Technology awarded to Carl Safina's *Eye of the Albatross; Visions of Hope and Survival*.

Foreword for a new edition of *The Sea Around Us* by Rachel Carson is written by Carl Safina.

Carrie Brownstein, Mercédès Lee and Carl Safina publish their article "Harnessing Consumer Power for Ocean Conservation" in *Conservation in Practice*.

Carl Safina receives Rutgers University George H. Cook Distinguished Alumnus Award as Most Distinguished Alumnus in 50-year history of the Ecology and Evolution Graduate Program.



Carl Safina and Sylvia Earle explore "Antarctica" at Lindblad Expeditions' 50th Anniversary Celebration, Spring 2016. Photo: Rocky Thompson.

PRAISE FOR CARL SAFINA AND THE SAFINA CENTER

*"Dearest Ma-am or Sir,
Imagine if you will a 6-ft-tall muscular black convict lying on his bunk shedding tears while reading "Signs of Intelligent Life." After completing the article I simply lay here in semi-darkness thinking of how for so long I thought of human animals being far superior to, well, animal animals... They want and need many of the same things I want: LOVE, AFFECTION, COMPANIONSHIP. They dream and show emotion the same as me. The article opened my eyes to understanding and trying to understand all of God's creatures. I thank you all for printing an article that touched me deeply and edcated me profoundly." — William M.*

"This internship opened up so many career opportunities; I cannot thank you enough." — Jessica P.

*"Thank you for making me feel less alone, Carl Safina."
— Maggie R.*

"Everyone knows you are a celebrated author whose excellent books are making a difference. Perhaps fewer know that you have been willing to take the lead as a named plaintiff in litigation to protect the oceans. In short, you both talk the talk and walk the walk. Hats off to you and many thanks. — Steve R.

We are so in need of gifted communicators, like you, to keep pounding the drum, but in ways that make people really think. So, thank you. — Andy H.

[Beyond Words] has reignited the passion I had dulled and I am so excited for your work, your personal style of writing and for taking me, invisibly, piggyback on your research. I was especially interested in how logical it is to suggest that we might all have the same (or similar) neurochemicals that drive our feelings/actions. That was an AHA moment for me (or might I say DUH). — Susan F.

I went to the Whole Foods seafood counter and looked at those ratings in a completely different light [after reading your books]. You guys actually have the Safina Center stamp of approval. These ratings are scientifically derived! I chose a fish that had been rated as abundant and A-OK on your website. Thanks! — Margaret H.

I am just about speechless in my awe and admiration of your stance on the world of living creatures. I'm also profoundly moved by your way of seeing and understanding them...I'm grateful for your eloquence and for your defense of fellow creatures who can't speak for themselves. Bravo! — John

MAKING WAVES

In 2016 our articles and books, photos, films, music, and science all worked toward conservation of the living world. And we reached our largest and most diverse global audience ever.

CARL SAFINA

Book

Beyond Words; What Animals Think and Feel. Paperback. New York. Picador USA. 2016.

Book Chapters and Forewords

Safina, C. Chapter. *Saving Wild: Inspiration From 50 Leading Conservationists*, by Lori Robinson. New Insights Press, 2016. Print.

Safina, C. and P. Paladines. Chapter. *Routledge Handbook on Religion and Ecology*, edited by Jenkins, W., Tucker, M.E., and J. Grim. Routledge International, 2016. Print.

Safina, C. Foreword. *The Shark and the Albatross*, by John Aichison. Profile Books, 2016.

Safina, C. Foreword. *Habitat, Population Dynamics and Metals in Colonial Waterbirds in Barnegat Bay and the Northeast Estuaries; a Food Chain Approach*, by Burger, J. and M. Gochfield. Rutgers University Press, 2016.

Safina, C. and P. Paladines. Chapter. *Routledge Companion to Environmental Ethics*, edited by Hale, B. 2016.

Safina, C. Foreword. *Los Mares de México y del Mundo (The Oceans of Mexico and the World)*, by Ceballos, G. Telmex, 2016.

Articles, Excerpts, Essays

Animal Thought and Emotion: A Glossary. Medium. September 9, 2016.

The Social Brain. Medium. September 7, 2016.

Woo-Woo Whale Magic? National Geographic Voices – Ocean Views. August 31, 2016.

Personality; Not Just for People Anymore - Part II. Huffington Post. August 29, 2016.

Personality; Not Just for People Anymore - Part I. Huffington Post. August 28, 2016.

Book Saves Bird's Life: The Story of Albie the Albatross, co-authored by Erica Cirino. National Geographic Voices – Ocean Views. August 25, 2016.

Why Anthropomorphism Helps Us Understand Animals' Behavior. Medium. August 22, 2016.

When Animals Teach, It's Special. Huffington Post. August 18, 2016.

Does My Dog Love Me? Huffington Post. August 12, 2016.

What Is Intelligence? Medium. August 12, 2016.

How Do Humpback Whales Locate Food? Scientists Need Your Help to Find Out, co-authored by Erica Cirino. National Geographic Voices – Ocean Views. August 9, 2016.

Bluefin Tuna: New Study Doesn't Hold Water. Medium. July 25, 2016.

Canada Oks Use of Corexit for Oil Spills - Despite What We've Learned in the Gulf, co-authored by Erica Cirino. National Geographic Voices – Ocean Views. July 21, 2016.

Think Animals Don't Have Emotions? Researchers Have News for

You. Alternet. July 15, 2016.

Learning by Listening to the Whales of New York, co-authored by Erica Cirino. National Geographic Voices – Ocean Views. July 15, 2016.

An Arctic Gift-Wrapped in Plastic? National Geographic Voices – Ocean Views. June 11, 2016.

Spectacularity - While It Lasts. National Geographic Voices – Ocean Views. July 11, 2016.

This Walrus Blog Contains Plastic. National Geographic Voices – Ocean Views. July 9, 2016.

Glipse of Arctic Seafloor Reveals Trawler's Damage. National Geographic Voices – Ocean Views. July 9, 2016.

High In the Arctic Up-Close With a Mega-Fishing Trawler. National Geographic Voices – Ocean Views. July 9, 2016.

Por Qué Los Lobos También Saben Mostrar Clemencia. El País. July 18, 2016.

More Ocean Acidification, Less Coral? co-authored by Erica Cirino. National Geographic Voices – Ocean Views. July 5, 2016.

Seven Ways Fishing Trawlers Aren't Great for the Seabed. National Geographic Voices – Ocean Views. July 4, 2016.

Not the Last Polar Bear. National Geographic Voices – Ocean Views. July 4, 2016.

Free At Last: National Aquarium's Sea Change On Dolphin Policy, co-authored by Erica Cirino. National Geographic Voices – Ocean Views. June 21, 2016.

Harambe the Gorilla - Symptom of Our Deeper Dysfunction. Huffington Post. June 18, 2016.

Las Mejores Madres Del Reino Animal. El País. June 18, 2016.

From Miami to Australia - Dredging and Industrial Activities Killing Coral Reefs, co-authored by Erica Cirino. National Geographic Voices – Ocean Views. June 2, 2016.

Wild In The Streets: Pronouns On The Loose. Huffington Post. June 17, 2016.

The Safina Center Celebrates World Oceans Day, co-authored by Erica Cirino. National Geographic Voices – Ocean Views. June 8, 2016.

If payers don't sway players, what does funding tell you? National Geographic Voices – Ocean Views. June 15, 2016.

Esto Es Lo Que Pararía Si Los Animales Pudieran Hablar. El País. June 7, 2016.

What's Up With Microbeads? An Update On a Tiny Terror Wreaking Havoc in Our Waterways, co-authored by Erica Cirino. National Geographic Voices – Ocean Views. June 2, 2016.

Industrialization of the Oceans: Is It Time To Dive Into the "Blue Economy"? co-authored by Erica Cirino, National Geographic Voices – Ocean Views. May 27 2016.

How Street Art Can Help Keep Waterways Clean and Clear of Trash, co-authored by Erica Cirino, National Geographic Voices – Ocean Views. May 19, 2016.

Killer Whales Pursuing a Dolphin Off Central California, by Jodi Frediani, with intro by Carl Safina, National Geographic Voices – Ocean Views. May 17, 2016.

Así Es El Verdadero Macho Alfa, El País. May 17, 2016.

Excuse Me, Waiter, There's an Invasive Species in My Soup, co-authored by Erica Cirino, National Geographic Voices – Ocean Views. May 11, 2016.

The Sexy, Happy Apes We Might Have Been, CNN.com. May 9, 2016.

Abandoned Fishing Nets: The Irony of the Sea that Keeps on Catching (and Killing), co-authored by Erica Cirino, National Geographic Voices – Ocean Views. May 4, 2016.

Is Swaziland Selling Live Elephants and Rhino Horns Simply for Profit? HuffPost Green. May 2, 2016.

Why Burning Ivory Is Right, HuffPost Green. April 19, 2016.

Plastic: The Big Breakup, co-authored by Erica Cirino, National Geographic Voices – Ocean Views. April 29, 2016.

A Pacific Salmon Hub is Under Threat, National Geographic Voices – Ocean Views. April 26, 2016.

Gaining a Better Understanding of the Seas Through Citizen Science, co-authored by Erica Cirino, National Geographic Voices – Ocean Views. April 22, 2016.

Leave Arctic Oil Under the Seafloor, co-authored by Sylvia Earle, HuffPost Green. April 19, 2016.

Uncharted Arctic Waters: A New Opportunity for Exploitation, or Conservation? co-authored by Erica Cirino, National Geographic Voices – Ocean Views. April 14, 2016.

So You Live Near a Coral Reef: Why Experts Say That's Not Good News for Reef Conservation, co-authored by Erica Cirino, National Geographic Voices – Ocean Views. April 6, 2016.

Pesky Plastic: The True Harm of Microplastics in the Oceans, co-authored by Jessica Perelman, National Geographic Voices – Ocean Views. April 4, 2016.

What I Eat, HuffPost Green. March 29, 2016.

Spirituality, Compassion, Marshmallow Peeps, HuffPost Green. March 28, 2016.

Community-Supported Fisheries: A Better Way to Buy Fish? co-authored by Erica Cirino, National Geographic Voices – Ocean Views. March 22, 2016.

Tragedy and Teachings of SeaWorld, U.S. News & World Report. March 17, 2016.

SeaWorld Should Retire Orcas, CNN.com. March 17, 2016.

SeaWorld Ends Orca Breeding: Experts Weigh In, HuffPost Green. March 17, 2016.

Warming Seas May Cause More Disease, Cornell Researchers say, co-authored by Erica Cirino, National Geographic Voices – Ocean Views. March 9, 2016.

Plastic Pollution Plagues NY-NJ Waterways – and It's All Our Fault, co-authored by Erica Cirino, National Geographic Voices – Ocean Views. March 4, 2016.

More Plastic, Fewer Oysters? co-authored by Erica Cirino, National Geographic Voices – Ocean Views. February 23, 2016.

Changing Climate Means Changing Times for Fish and Shellfish in New England and Beyond, co-authored by Erica Cirino, National Geographic Voices – Ocean Views. February 18, 2016.

Horse Sense: Acclaimed Author Explores Animal Consciousness, by Leslie Boyd. Mountain Xpress. February 12, 2016.

This Land Ain't Our Land, HuffPost Green. February 12, 2016.

Media Coverage

Ingham's World: From Crows to Elephants, Species Use DIY Tools in Every Day Life, by John Ingham. Daily Express. September 16, 2016.

Cute Animal Videos Deliver Vital Message, by Naila Moreira. Daily Hampshire Gazette. August 31, 2016.

What Do Animals Really Think of Us? by Philip Hoare. New Statesman. August 27, 2016.

After One Became Three: 'Working' the Verb That Is Love, by Elizabeth Boleman-Herring. Huffington Post. August 22, 2016.

Connections: Genius Among Us, by Helen S. Rattray. The East Hampton Star. August 11, 2016.

Eco Safeguards Urged As Arctic Ice Retreats, by Nick Martin. Sky News. August 1, 2016.

Advocating for the Environment and Wildlife Conservation Is One of the Hardest Things I've Ever Done, by Dana Ellis Hunnes. Huffington Post. July 25, 2016.

Zoo Elephants Need Friends and Hobbies, by Melissa Dahl. Science of Us - New York Magazine. July 19, 2016.

These Extreme Athletes of Nature Inspire Us to be Better Humans, by Kim Steutermann Rogers. Good Men Project. June 24, 2016.

Your Next Beach Read, Selected by Hamptons Experts, by Brian Cudzilo. Dan's Papers. June 24, 2016.

Why Obama Family Visit to Yosemite is More Than a Holiday (+ Video), by Josh Kenworthy. Christian Science Monitor. June 17, 2016.

These Researchers Say It Only Takes One Crucial Step To Save Our Oceans, by Erin Biba. GOOD.com. June 15, 2016.

Can We Have Our Tuna and Eat It Too? by Willy Blackmore. TakePart. June 10, 2016.

Cracker Barrel: Reconsideration, by Craig Nagel, Pine and Lakes Echo Journal. May 27 2016.

Mark Dion: Mourning is a Legitimate Mode of Thinking, by Thyrza Nichols Goodeve, The Brooklyn Rail. May 16, 2016.

Can Whales and Humans Collaborate On Research? by Barbara J. King. NPR. April 22, 2016

Last Best Place on Earth: Who Will Save the Caribbean's Great Coral Reef? by Justin Catanoso. Mongabay. April 14, 2016

Scientists Urge Feds to Continue Fracking Moratorium Off CA Coast, by Dan Bacher. San Diego Free Press. March 24, 2016

McCarthy in Place for a Marathon Day on the Hill, by Eric Wolff. Politico Morning Energy. March 22, 2016

Gene Lyons: Understanding the 'Moral Molecules' of Our Pets, by Gene Lyons. Chicago Sun Times. March 11, 2016.

Science Confirms What All Pet People Know: Animals Have Empathy, by Rosemary Westwood. Metro News – Toronto. February 24, 2016.

Maybe It's Time to Take Animal Feelings Seriously, by Melissa Dahl. New York Magazine - Science of Us. February 23, 2016.

The Next Page: When Rachel Carson Set Sail, by Linda Lear. Toronto. February 21, 2016.

Indianapolis Prize Finalists Devote Lives to Wildlife, by Shari Rudavsky. Indy Star. February 9, 2016.

Indianapolis Prize Finalists Announced, by Andy Ober. Inside Indiana Business. February 9, 2016

Conservationists Vie for Zoo's \$250,000 Indianapolis Prize, by IBJ Staff. Indianapolis Business Journal. February 9, 2016

What's Life Like After Doug Tompkins? by Stephanie Pearson. Outside Magazine. February 8, 2016.

The Mystery of the Killer Whale Baby Boom, by Vicki Croke. WBUR's The Wild Life. February 3, 2016

Animals Have the Ability To Think and Empathize With Others, by

Tameca L. Coleman. Examiner.com. January 23, 2016.

Death of Beached Mammals Terrible Phenomenon, by R. Mohan. Deccan Chronicle January 18, 2016

Anthropomorphism: How Much Humans and Animals Share is Still Contested, by Oliver Milman. The Guardian. January 15, 2016.

Scientific and Professional Journal Articles, Scientific Magazines

Safina, C. (2016). Data Do Not Support New Claims About Bluefin Tuna Spawning or Abundance. PNAS.

Safina, C. (2016). Fish Pain's Burden of Proof. Animal Sentience.

Safina, C. (2016). Fish Pain: A Painful Topic. Animal Sentience.

Safina, C. (2016). Animals Think and Feel: Précis. Animal Sentience.

Interviews

Print

Top 10 Stories You Should Be Aware of This World Oceans Day, According to Carl Safina, by Mike Gaworecki. Mongabay. June 8, 2016.

How in Trouble are Bluefin Tuna, Really? Controversial Study Makes Waves, by Alastair Bland. NPR's Food for Thought. March 8, 2016.

Beyond Words, by Angela Delli Santi. Rutgers Alumni Magazine. Winter 2016.

Radio

KERA. "Think." September 1, 2016.

WPR. "The Joy Cardin Show." July 20, 2016.

WBUR. "The Wild Life." February 3, 2016.

KUER. "Radio West." January 6, 2016.

Film

CBC. "The Nature of Things: Science, Wildlife and Technology." Fall 2016

SiriusXM. "Sirius XM Stars with Pia Lindstrom." April 1, 2016.

The Ontario Educational Communications Authority (TVO). "The Agenda with Steve Paikin." January 22, 2016.

Lectures, Keynotes, Workshops and Public Talks

Guild Hall, East Hampton, New York

Southampton Arts Center, Southampton, New York

University of North Carolina, Asheville, North Carolina

Lenoir Rhyne University, Asheville, North Carolina

Wofford College, Spartanburg, South Carolina

U. Mass Marine Lab, Nantucket, Massachusetts

St. Louis Zoo, St. Louis, Missouri

Case Western Reserve University, Cleveland, Ohio

Perrot Memorial Library, Old Greenwich, CT

Stony Brook University, Stony Brook, NY

Lindblad Expeditions Ship, National Geographic Orion, Antarctica

Ocean Night at The Explorers Club, NYC

UM Rosentiel School of Marine and Atmospheric Sciences, Miami, FL

Southeast Regional Sea Turtle Meeting, Mobile, AL

USC Upstate Campus, Spartanburg, SC

WaterRock Institute, Asheville, NC

Riverdale Country School, Bronx, NY

Long Island Natural History Conference, Brookhaven National Lab, Brookhaven, NY

Keio Academy of New York, Purchase, NY

San Antonio Book Festival, San Antonio, TX

Rutgers University, New Brunswick, NJ

Tideland Sessions at the Parrish Museum, Water Mill, NY

Walt Whitman Marathon at Canio's Books, Sag Harbor, NY

World Science Festival, American Museum of Natural History, New York, NY

Fridays at Five at Bridgehampton Library, Bridgehampton, NY

Texas Christian University, Fort Worth, TX

Beyond Words Reviews

A Record Breaking Summer of Reading, by Ruthie Maslin. The Richmond Register. August 20, 2016.

Beyond Words. Huffington Post. July 13, 2016.

A Conservationist's Call for Humans to Curb Harms to Our Animal Kin, by Andrew Revkin. The New York Times - Dot Earth Blog. July 12, 2016.

Your Next Beach Read, Selected by Hamptons Experts, by Brian Cudzilo. Dan's Papers. June 24, 2016.

PAUL GREENBERG

Articles

A Brooklyn Chef's Quest for Locally Caught Sushi. New Yorker. September 25, 2016.

It's Time for the FDA to Define 'Natural,' co-authored by Jason J. Czarnecki. TIME. May 4, 2016.

Lectures, Keynotes, Workshops and Public Talks

50 Years of Antarctic Exploration - Lindblad Expeditions, The Explorer's Club, NYC

Holowesko Partners, Nassau, Bahamas

Pace University, White Plains, NY

Yale University, New Haven, CT

Williams College, Williamstown, MA

UC Berkeley, Berkeley, CA

Gather, Vinyard Haven, Martha's Vineyard, MA

Good Food Awards, San Francisco, CA

JOHN WELLER AND SHAWN HEINRICHS

Collaborative Conservation Work

Blue Abadi Campaign in West Papua - films

Provinsi Konservasi Campaign in West Papua - films, film/concert tour, media campaign

CITES CoP17 Sharks and Rays Campaign - film and photographic media materials to support CITES listings of mobula rays, thresher sharks and silky sharks

The Manta in the Mirror, by John Weller and Shawn Heinrichs, National Geographic Voices - Ocean Views. May 3, 2016.

Additional Conservation Work by John Weller

Southern Ocean Sanctuaries Campaign - film, photography and media

Yosemite Emergency Medicine Conference - talk: Future of Conservation in the Ross Sea and Raja Ampat

Middlebury Institute for International Studies - talk: Using Media to Inspire Marine Conservation in the Ross Sea

One World One Water Center Event at Denver Botanic Gardens - keynote speech: From the Colorado Desert to the Waters of the Antarctic

Shed '16: Watershed Summit - talk: One More Chance for the Last Ocean

2016 Photographic Society of America Conference - talk: Ocean Legacy; Inspiring Marine Conservation in the Ross Sea, Antarctic and Beyond

2016 International Understanding Through Photography Award, presented by The Photographic Society of America - recipient for Ross Sea photograph and conservation work

Additional Conservation Work by Shawn Heinrichs

Indonesian Ocean Pride - film, photography and media campaign

A New Day in Lamakera (Indonesia) - program to transition world's largest manta hunting community to sustainable industries

Peru Manta Sanctuary establishment - media and conservation strategy

WildAid Mantas and Sharks Campaign in China - documentary films and public service announcements aimed at reducing demand for sharks and mantas

HOB OSTERLUND

Book

Holy Mōli: Albatross and Other Ancestors. Paperback. Corvallis. Oregon State University Press. 2016.

Articles

Monterey's Mōli: Hana Hou. *Hawaiian Airlines Magazine*. April/May, 2016.

We Cannot Afford to Walk Sightless Among Miracles. *Portland Magazine*. Spring 2016.

On the Move, Brenau University Window. Summer 2016.

Media Coverage

Holy Moli! New Book Delves into Surprising Secret Lives of Laysan Albatross. *Mother Nature Network*, April 2016.

27 Best Local Books to Read this Summer. *Honolulu Magazine*. June 2016.

Can Animals be Holy? *Psychology Today*. July 2016.

Birds of Kauai. *KKCR Community Radio: Manu Monday*. July, 2016

Book Tour, Lectures and Public Talks

Princeville Library, Princeville, HI

St. Regis Hotel, Princeville, HI

Native Books/Na Mea, Honolulu, HI

Albany Public Library, Albany, CA

Powell's Books, Portland, Oregon

Audubon Society of Portland, Portland, Oregon

Grass Roots Books and Music, Corvallis, Oregon

Third Place Books, Seattle, Washington

Private Home, Kirkland, Washington

Eagle Harbor Book Company, Bainbridge Island, Washington

Village Books, Bellingham, Washington

Saturna Island Marine Research and Education Center, Saturna Island, BC

Koolau Conference Center, Kanehoe, HI

Book Passage, Corte Madera, CA

BEN MIRIN

Projects

Wild Beats Series. National Geographic Kids/Nat Geo Wild.

Inspiring Conservation Through Music on the Eighth Continent. Madagascar.

Macaulay Library Sound Recording Workshop. Sierra Nevada Mountains, California.

Concerts and Public Talks

The Webby Awards - 20th Anniversary Party at National Geographic.

National Geographic Member Day

The Cornell Lab of Ornithology

Quogue Wildlife Refuge

Earth Day at Huguenot Memorial Church

Lab Out Loud at Rockefeller University

Bird Migration Concert Series at the Bronx Zoo

Tune Into Nature Series at the Bronx Zoo: New York Wildlife, Tropical Jungles, World Elephant Day

National Geographic BioBlitz on the National Mall

The National Park Service Centennial Celebration on the National Mall

IUCN World Conservation Congress: The #NatureForAll Series

Brightest Young Things Presents: Freaks and Greeks at National Geographic: Concert and Talk

Brightest Young Things Presents: Freaks and Geeks

The Madagascar Tour: Andasibe-Mantadia Interpretation Center, Université de Fianarantsoa, Centre ValBio 25th Anniversary Celebration

National Geographic Member Day

TEDx Youth at the Browning School

Media Coverage

Music as a Gateway to Nature, by GrrlScientist. *Forbes*. September 21, 2016.

The Sacred Beauty of a Hermit Thrush Call, by Madeline Gressel. *Nautilus Magazine*. August 28, 2016.

BYT Interviews: Ben Mirin AKA DJ Ecotone, by Kaylee. *Brightest*

Young Things. August 23, 2016.

Oh Behave! with Arden Moore, Episode 293. Pet Life Radio. Summer 2016.

Ben Mirin - Artist in Residence at the Bronx Zoo. Bronx Zoo. July 13, 2016.

Ben Mirin Interview: Our Lives. News 12 Connecticut. July 18, 2016.

Making Music from the Sounds of Lemurs: Ben Mirin on News 12 CT. Connecticut News 12. July 6, 2016.

The Man Who Can Beatbox Like a Bird. BBC News. July 5, 2016.

In Tune With the Beat of Nature, by Elise Boeger and Nike Makaradze. Thinking Animals United. June 2016.

Out for the Weekend. BBC Scotland. May 8, 2016.

KIT KAT® Break Better Like Ben, Birder and Beatboxer. Hershey's. April 20, 2016.

Nat Geo's Ben Mirin Hosts Music Program on Long Island, by Beth Whitehouse. Newsday. March 30, 2016.

The Conservation of Sounds. Coffee with Hx2. March 3, 2016.

ERIC GILMAN

Scientific Journal Articles

Gilman, E., et al. (2016). Risk Factors for Seabird Bycatch in a Pelagic Longline Tuna Fishery. PLoS ONE.

Gilman, E., and S. Piovanno. (2016). Elasmobranch Captures in the Fijian Pelagic Longline Tuna Fishery. Aquatic Conservation: Marine and Freshwater Ecosystems.

Gilman, E., et al. (2016). A Cross-Taxa Assessment of Pelagic Longline Mitigation Measures: Conflicts and Mutual Benefits to Elasmobranchs. Fish and Fisheries.

Gilman, E., et al. Climate Change Effects on Principle Market Tunas, a Review. In Laffoley, D., and J. Baxter, eds. Explaining Ocean Warming: Causes, Scale, Effects and Consequences.

Book Chapter

Gilman, E. (2016). Commentary. Biodegradable Fishing Gear: Part of the Solution to Ghost Fishing and Marine Pollution. Animal Conservation.

Presentations

Chair of Theme: How Can Fisheries Monitoring Programs Support an Ecosystem-Based Approach to Fisheries Management? at 8th International Fisheries Observer and Monitoring Conference. San Diego, California.

SAFINA CENTER BLOGS

An Eye on Extinction: Safina Center Fellow Shawn Heinrichs Brings Attention to At-Risk Sea Creatures With Art by Erica Cirino, September 22, 2016.

Randy and Townie: A Tale of Two Albatross by guest blogger, Hob Osterlund, September 9, 2016.

They Had Us at Hatch by guest blogger, Hob Osterlund, August 2, 2016.

Happy World Listening Day from Safina Center Fellow Ben Mirin by guest blogger, Ben Mirin, July 18, 2016.

A Predictably Uncertain Future for Antarctic Seas - Part III by guest blogger, John Weller, July 15, 2016.

A Predictably Uncertain Future for Antarctic Seas - Part II by guest blogger, John Weller, July 15, 2016.

A Predictably Uncertain Future for Antarctic Seas - Part I by guest blogger,

John Weller, July 13, 2016.

Fishing Gear 101: Harpoons and Spears - Selective Stabbers by Elizabeth Brown-Hornstein, June 10, 2016.

Fishing Gear 101: Rakes, Shovels, Clam Tubes, and Tongs - Selective Diggers and Scoopers by Elizabeth Brown-Hornstein, June 9, 2016.

Fishing Gear 101: Greenstick Gear and Buoy Gear - An Innovative Way to Fish for Tuna and Swordfish by Elizabeth Brown-Hornstein, June 8, 2016.

Fishing Gear 101: Handlines - Entice and Hook by Elizabeth Brown-Hornstein, June 7, 2016.

Fishing Gear 101: Coastal Net Gears - The Trappers by Elizabeth Brown-Hornstein, June 6, 2016.

A Life of Adventure and Activism Revealed: Our Review of Peter Wilcox's Greenpeace Captain by Erica Cirino, June 3, 2016.

Reflections on Being a Wildlife DJ in Residence at the Bronx Zoo by guest blogger, Ben Mirin, June 2, 2016.

Never Received Higher Praise by guest blogger, Hob Osterlund, May 25, 2016.

Climate Change Reversal Requires Investment and Innovation – NOW! by guest blogger, Ellen Prager, April 18, 2016.

U.S. Fishery Law Turns 40: Celebration and Reflection by Elizabeth Brown-Hornstein, April 13, 2016.

Hob Osterlund on Home, History and Holy Moli by Erica Cirino, April 8, 2016.

Kaua'i: Building Noah's Ark by guest blogger, Hob Osterlund, April 6, 2016.

Efforts To Save Sea Turtles May Kill Sharks by Elizabeth Brown-Hornstein, March 24, 2016.

Fishing Gear 101: Pots and Traps - The Ensnarers by Elizabeth Brown-Hornstein, February 24, 2016.

A MESSAGE FROM SAFINA CENTER CHAIRMAN, B. ERIC GRAHAM



"Our world needs a powerhouse advocate in its corner. There are very few organizations that pack a punch for this planet with quite like The Safina Center does. They communicate with an unbendable truth for the realities of the human experience and our impact on the Earth....delivered with love, beauty, and compassion for all beings."

The Safina Center Summary Statement on Financial Position

May 31, 2016

Assets

Cash And Interest-Bearing Deposits	\$202,914
Investments	\$231,200
Contributions And Pledges Receivable	\$760,476
Other Assets	\$502,153
TOTAL ASSETS	\$1,696,743

Liabilities

Accrued Expenses	\$22,505
Fiscal Sponsorship	\$38,765
Loan Payable	\$500,000
TOTAL LIABILITIES	\$561,270

Net Assets

Unrestricted	\$863,263
Temporarily Restricted	\$192,210
Permanently Restricted	\$80,000
Total Net Assets	\$1,135,473

TOTAL LIABILITIES AND NET ASSETS \$1,696,743



The Safina Center Summary Statement of Activities

Year Ended May 31, 2016

PUBLIC SUPPORT AND REVENUE:

Public Support:

	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
Contributions	308,390	252,210	-	560,600
Government Grant	500,000	-	-	500,000
Revenue	51,959	-	2,391	54,350
Net Assets Released From Restrictions	194,601	(192,210)	(2,391)	-
TOTAL PUBLIC SUPPORT & REVENUE	1,054,950	60,000	-	1,114,950

EXPENSES:

Program services	431,572	-	-	431,572
Supporting Services:				
Management and General	113,162	-	-	113,162
Fundraising	20,988	-	-	20,988
Total Supporting Services	134,150	-	-	134,150
TOTAL EXPENSES	565,722	-	-	565,722
Increase In Net Assets Before Other Decreases	489,228	60,000	-	549,228
Other Decreases:				
Unrealized loss on investments	(372)	-	-	(372)
Increase In Net Assets	488,856	60,000	-	548,856
Net Assets, Beginning of Year	374,407	132,210	80,000	586,617
Net Assets, End of Year	\$863,263	\$192,210	\$80,000	\$1,135,473

The Safina Center's complete audited financial statement may be obtained by writing to:
 Mayra Mariño, Business Manager
 The Safina Center
 80 North Country Road
 Setauket, NY 11733

THANK YOU, OUR GENEROUS SUPPORTERS!

Please accept our profound gratitude. Your financial contributions helped us accomplish an incredible depth and quality of work in 2016. Again, we thank you for all of your ongoing support!

Up to \$1,000

Richard Abbott
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Donors Frederick Sater and Elise Boeger with Carl Safina, center, at our 2015 Annual Benefit at The Explorers Club.



Safina Center Board Members Jane Ross and Eric Graham, with Jane’s husband Al Ross, at our 2015 Annual Benefit. Photos courtesy Patricia Paladines

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Elephants on the move. Photo: Carl Safina



4 WAYS TO GIVE TO THE SAFINA CENTER

“Direct compassion and heart-filled work toward the living creatures of this planet.” —DR. ERIC GILCHRIST

In 2011, we established an endowment fund to honor the memory of our dear friend and board member, Dr. Eric Gilchrist. His steady support for The Safina Center has continued beyond his passing through a bequest that now serves as the seed for our endowment.

His generosity continues to inspire us.

There are four easy ways to contribute to The Safina Center.

1 ONLINE

Visit <http://safinacenter.org/donate>

2 TELEPHONE

631-675-1984

3 MAIL

Please send your tax-deductible donation to:

The Safina Center
 80 North Country Road
 Setauket, NY 11733

Please make your check payable to "The Safina Center."

4 TO CONTRIBUTE TO THE SAFINA CENTER ENDOWMENT FUND:

Please contact Mayra Marino, Business Manager: 631-675-1984 or mmarino@safinacenter.org.

The Safina Center is a 501(c) 3 nonprofit organization based on Long Island, NY.



Carl Safina and Safina Center Creative Affiliates Isabella Rossellini and Paul Winter, at our 2015 Annual Benefit. Photo courtesy Patricia Paladines



THE SAFINA CENTER CREW

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 Mayra N. Mariño, Business Manager
 Elizabeth Brown-Hornstein, Research
 Scientist and Sustainable Seafood Program
 Director
 Erica Cirino, Writer, Artist and Social Media
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 Megan Smith, Communications Manager

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 John Weller, Photographer, Writer and
 Filmmaker
 Shawn Heinrichs, Photographer, Filmmaker
 and Marine Conservationist
 Hob Osterlund, Writer and Photographer
 Ben Mirin, Wildlife DJ and Science Educator
 Dr. Eric Gilman, Fisheries Scientist

PAST SAFINA CENTER FELLOWS

Debra Abercrombie *and*
 Dr. Demian Chapman, Shark Geneticist and
 Conservationists
 Dr. Ellen Prager, Author and Marine Scientist

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Jane Alexander, Actress and Author
 David de Rothschild, Environmentalist and Adventurer
 Linda Lear, Biographer of Rachel Carson
 Lori Marino, Neurobiologist and Non-Human Rights
 Campaigner
 Kathleen Dean Moore, Environmental Philosopher and
 Writer
 Luanne Rice, Novelist
 Isabella Rossellini, Actress, Author and Creator of
 "Green Porno"
 Chris Jordan, Environmental Found-Object Artist and
 Photographer
 Paul Winter, Saxophonist and Musical Adventurer

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 Tara Duffy
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 Kate E. T. H. Thompson: Fishing Gear Illustrator

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Jeff Wayne, Wayne Printing, Inc.
 Justin Sainton and Liz Karaffa, ZAO website developers

Author and scientist Dr. Carl Safina founded The Safina Center (formerly Blue Ocean Institute) in 2003. The Safina Center is a part of the School of Marine and Atmospheric Sciences at Stony Brook University on Long Island, NY and is a 501(c)3 nonprofit organization. We are also affiliated with the University's Alan Alda Center for Communicating Science.



Peter Neumeier, CFA, President and Founder of Neumeier Poma Investment Counsel

PETER NEUMEIER

CFA, President and Founder of Neumeier Poma Investment Counsel; Safina Center Supporter

“Peter Neumeier proves the possibility of something that I have been skeptical about: that even in our present system, money strategically invested can truly work for good in the world. There is enormous optimism in his brilliant approach.” — Carl Safina

As a chartered financial analyst and president and founder of an investment firm, Safina Center supporter Peter Neumeier helps clients assemble lucrative stock portfolios. But there is one thing that makes him stand out from other investors: he puts his money where his mouth is.

“Neumeier Poma Investment Counsel, which I founded in 1985, invests in small company stocks in the U.S. stock market,” says Neumeier. “We’ve been quite successful over the years, and we utilize an investment and business philosophy that reflects our personal values regarding the environment and social issues.”

Working mostly with foundations, endowments and pension funds, Neumeier’s firm, based in Carmel, California, uses a stock selection process that eliminates any company they feel are deleterious to people, animals or the environment. Neumeier chooses to buy stocks from include those involved in clean energy and energy efficiency.

And besides investing wisely, Neumeier ensures his business gives back in a direct way.

“Our company and employees also donate five percent of our annual profits to local non-profit groups here on the Monterey Peninsula,” says Neumeier.

The foundation for Neumeier’s care and concern for the natural world was laid in the 1960s. It was then he spent his childhood and teenage years growing up in Southern California, exploring and enjoying the canyons, hills and beaches. Over time, Neumeier says he noticed the wild places he loved get developed and paved over. This didn’t sit well with him.

“It was painful to see the harm to wildlife, the coastline scarred and the air turn smoggy,” says Neumeier.

As a college student in the early 1970s, Neumeier enrolled in an ecology class. Over the course of the semester, Neumeier realized the extent of the environmental destruction occurring all around him, but also the fact that a pro-environmental movement was beginning to take shape around him.

There were other people out there who were concerned about the declining state of the natural world, and this was heartening to Neumeier, who, along with his wife Gillian, began to get involved in activism, especially

local causes.

“Two decades later, my wife and I were involved with groups of community volunteers that were successful in stopping the construction of a new dam on the threatened Carmel River, and also halted the building of a new freeway in a beautiful canyon on the edge of Carmel,” says Neumeier. “We’ve been involved in supporting many kinds of environmental and social causes ever since.”

One of those causes is the Safina Center.

“Personally, Carl’s writing and the work of the Safina Center have helped crystallize my thinking about how to live out my environmental values—meshing my love of the natural world and a desire to protect it, while working in a competitive, capitalistic business world,” says Neumeier, who adds,

“Carl’s amazing abilities as an inspirational writer, interwoven with a message of hope, has helped me to stay optimistic and maintain my moral compass. I think many of us need that kind of help.”

When Neumeier isn’t busy working, he enjoys hiking; boating; watching wildlife; traveling; gardening; playing golf, seeing friends; and spending time with his wife, nieces and nephews.



"We look at the world through our own eyes, naturally. But by looking from the inside out, we see an inside-out world...In our estrangement from nature we have severed our sense of the community of life and lost touch with the experience of other animals...understanding the human animal becomes easier in context, seeing our human thread woven into the living web among the strands of so many others."

—Carl Safina



The Safina Center

Making a case for life on Earth

The Safina Center
80 North Country Road
Setauket, NY 11733
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631-675-1984