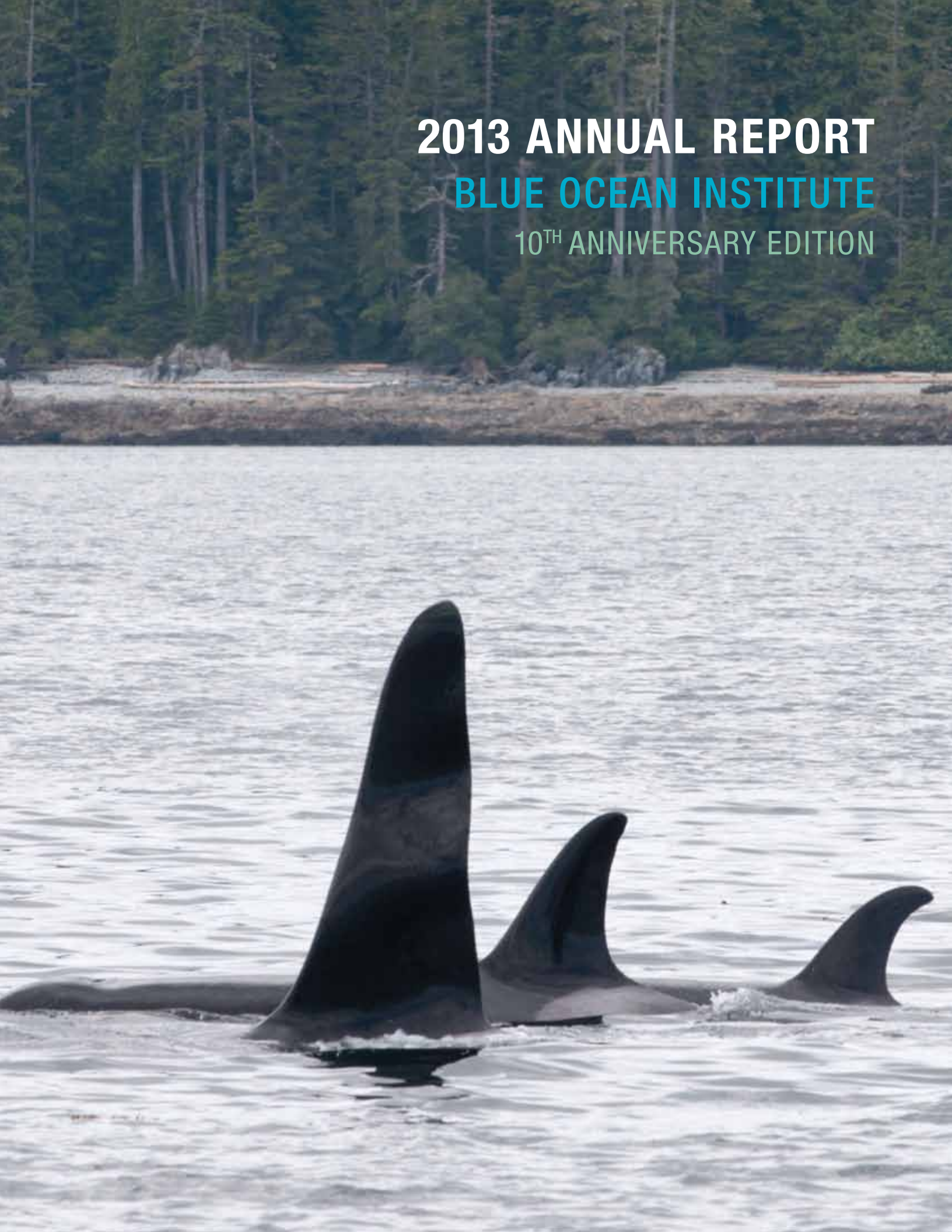


2013 ANNUAL REPORT
BLUE OCEAN INSTITUTE
10TH ANNIVERSARY EDITION





“Ann is the most surprising, propelling force in my career, because a year before I’d even met her, Ann agreed to be the convener in a months-long effort to help me raise a million dollars. The ultimate goal: to meet a matching challenge by Stony Brook University. Because of Ann, it worked! We raised a million dollars in pledges and the university will match that million to create the Carl Safina Endowed Research Professorship for Nature and Humanity.”

—Carl Safina

Ann, center, with husband David, and daughters Jessica, Rachael and Emily, in the Galapagos Islands.

PROFILE

ANN HUNTER-WELBORN

Instrumental in Creating Endowed Professorship and Supporting Pilot Program to Restore Colorado River Delta

Perhaps it’s no surprise that lifelong philanthropist Ann Hunter-Welborn—indefatigable by nature—has spent a career in a family irrigation business that connects people with water. Surrounded by scientists and engineers, she has combined her love of philanthropy with systems and tools that promote growth of all kinds.

“Hunter Industries,” Hunter-Welborn explains, “was the brain-child of my brother Paul, and when I joined the business in its first year, I never dreamed it would consume me for the rest of my life!”

She adds, “I’ve learned that having employees is a huge responsibility, and part of that responsibility is to contribute to the betterment of the communities where our employees live. I believe that business can and should contribute to the good of the planet, making a profit with people and planet always in mind. That’s the joy I’ve found in being in business all these years.”

Since 1994, Hunter-Welborn has served as Chair of the Board of Directors of this global company. One project clearly illustrates her influence. Most people know how Western states rely on the Colorado River. The delta of this once mighty river has shrunk by more than 90 percent due to dams and diversions upstream, and is sustained by only a trickle from agricultural return flows, effluent and canal seepage. The river itself rarely reaches the Gulf of California. Hunter-Welborn is helping to restore the delta, and helping to fund the Sonoran Institute’s pilot restoration project, which includes a bird observation area and a community park. First-year activities restored five acres of riparian habitat along the river.

Ann and her husband David are both involved in international conservation efforts. They serve on the board of Nature and Culture International, a non-profit that has worked for almost two decades to protect some of the world’s most vulnerable ecosystems.

About Hunter-Welborn, Safina says, “The Carl Safina Endowed Research Professorship at Stony Brook University would not have happened without Ann’s dogged persistence and incredible good faith. Prior to working on the Professorship, Ann had seen me give a talk—but we did not meet then. We became friends on e-mail and on the phone. Eight months after we got all the pledges signed, I finally met Ann and her husband. As you can tell, they are amazing, amazing people doing an incredible amount of good in the world.”

When asked what sparked her passion for this professorship, she replies, “I read Carl’s books—all of them—long before I actually met him. In many ways, they changed my life. I have been near to and loved the ocean all my life, but seeing it through Carl’s words changed me. I’ve always been grounded and earthy, but he awakened in me a deeper love for the natural world. I now see the entire planet through a much more spiritual lens. I chose this goal because he asked me to!” ■



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 Killer whales traveling near shore along central British Columbia, Canada. Photo by Carl Safina.

These members of the “Northern Resident” killer whale community range from Vancouver Island to Southeast Alaska. They are fish-eaters, mainly salmon; their prospects rise and fall with populations of those fish. “Southern Residents” range from Vancouver Island south to Monterey, and with only 81 members overall, are classified Endangered. Their main problems: declining fish and rising toxic chemicals. They can live to be 50 to 100 years old. The only way to protect them is to give them back their clean water and their food.

THIS PAGE
 Left: Humpback whale breaches outside Alaska’s Glacier Bay.
 Right: Sea otter, Alaska.
 Photos by Carl Safina.

BACK COVER
 Top: Elephants, Amboseli National Park, Kenya. Photo by Carl Safina.
 Below: Oceanic whitetip shark, Bahamas. Photo by Lance Jordan.

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MISSION

Blue Ocean Institute creates an original blend of science, art and literature that inspires a deeper connection with nature, especially the sea. Our books, films and educational programs instill hope and enlighten personal choices that help restore living abundance.

FOUNDER'S MESSAGE



Carl Safina in Kenya researching his new book. Photo by Vicki Fishlock.

What We Do; How We Do It

Every few months, to make sure we're really optimized, clear on our role, and that we're adding value in a changing world, I ask myself a basic question: What exactly does Blue Ocean Institute do?

We witness firsthand how nature is changing around the world, then explain what the changes mean for wildlife and for people. With a special emphasis on the sea, we're working to inspire a deeper connection between people and nature.

We show how nature and human dignity require each other now. And we show how we can forge a future that maintains the next generation's options. We're helping envision and deliver a new conservation ethic for the 21st century.

We do this by making products that people can see, have, and share. We do this by what we write, say, show, and do; through literature, science, teaching, and art; by writing unique books, conveying new stories, doing applied conservation research; we do it through our PBS television series, films and photography and collaborations with policy groups, educators, museums, and artists; and by showing the beauty. And what's at stake.

From Alaskan fishing villages to Zanzibar's shores, and in far-flung places near and away, we witness and then explain. And then we show how we could make a better deal with nature and with one another.

Our goal: to enlighten personal choices, support better policies, and build a larger constituency for conservation. Our commitment: to be leading voices of hope, guidance, and inspired change.

Most amazing to me is that we really do deliver on all that. We can measure it. In the last few years we've worked on every continent (this past year we worked on five; none of us worked in Australia or Antarctica this year). We've earned a list of top-shelf awards that shows how much people are valuing and sharing what we make. Our PBS series, *Saving the Ocean* reached 90 million U.S. households this year (and is available free on the Web 24/7). In 2013 our work has appeared in or been featured by *National Geographic*, the *International Herald Tribune*, CNN and various Web outlets, and the *New York Times* published several pieces by us and about us—on everything from seafood to elephant conservation to ocean trash. This year we've been active speaking all over the U.S., in the West Pacific, and in Southeast Asia. In the past year we also tripled our social media followers and racked up over 300,000 visits to our new website.

That's reach. For a group as small as we are, I don't think any group does more with a dollar, or matches our touch.

And just think: it's all thanks to you. That's what I think. Thank you.

ACHIEVEMENTS OF 2013 – THE YEAR IN REVIEW

During 2013 we've moved Blue Ocean toward a tighter focus. To achieve a new realm of reach and influence we are increasingly focused on creating products such as books, writings, and film that can be held and shared, building a body of work that has the authenticity of firsthand witnessing and the power to inspire real change.

As international witnesses for the natural world, we are translators of the changing relationship between humans and nature—with our signature emphasis on the sea. We propel our work through major, mainstream outlets such as the PBS television network, the *New York Times*, Huffington Post, National Geographic.com and CNN.com plus other established print, television and online media.

In the past year, our reach has taken a quantum leap. The first full season (10 episodes) of *Saving the Ocean with Carl Safina* was broadcast on PBS to over 90 million television households. (It is also available for viewing 24/7 on PBS.org.) To capture the increased attention, we have ramped up our social media, upgraded our Blue Ocean Institute blog and cross-connected with PBS.

FELLOWS PROGRAM

An Influential Group of Respected Conservation Voices

We've hand-picked several special people who bring the momentum of an established, ongoing body of recognized work. We call them: Blue Ocean Fellows.

The Fellows we have tapped come to us as award-winning writers and conservation scientists. These distinguished colleagues are adding new reach and real world influence. In 2013 our Fellows helped influence decisions on international shark protections; helped draw public attention to the dead zone in the Gulf of Mexico, and intensified publicity on the devastation the proposed Pebble Mine in Alaska would spell for the world's largest remaining salmon population.

Our fellows are boosting our ability to be a thought-leading group, small in size and big in influence. Working independently but inter-dependently as well, our Fellows are greatly expanding our reach. The common goal for all Fellows is to articulate ideas that advance a larger and deeper conservation discussion. (See *Fellows Feature* on page 10.)

CARL SAFINA'S WORK

Solutions, Science and a Hopeful Vision

With an ability to tailor narratives for audiences as diverse as scientists, mainstream conservationists, faith leaders and students, Dr. Carl Safina is one of today's leading conservation voices. The goal of Carl's work is to get people inspired about solving problems. (See *Making Waves* section on page 34.)

PBS TV SERIES

The focus of *Saving the Ocean* is on people who have solutions. It is also beautiful, bringing viewers into the majesty and magic of the sea while showcasing practical innovation. *Saving the Ocean* is a new kind of TV nature series. A positive emphasis on worldwide problem-solving is the heart of our series, making it unique among TV shows about nature and the environment. *Saving the Ocean* series was broadcast to over 90 million households. Its ten, half-hour episodes are available at any time on PBS.org. >



GYRE EXPEDITION

In June 2013, a group of visual artists, educators and scientists boarded the 130-ft research vessel *Norseman* in Seward, Alaska. Carl Safina served as lead scientist on this unique expedition to witness and respond creatively to the ocean garbage crisis. (See the feature article about GYRE on page 24.)

RESEARCH/TRAVELS/NEW BOOK

Safina began researching his seventh book in 2012 and continued throughout 2013. This new book will explore how highly social animals experience their own lives. During the past year, Safina traveled from Kenya to Yellowstone and the Pacific Northwest to delve into the lives of elephants, wolves and whales. (See Carl's "Telling a Wider Story" essay on page 29.)

OTHER WRITING

Carl Safina's firsthand writing and photos in the *New York Times* and *International Herald Tribune* (now the *International New York Times*) about the sharply intensified elephant slaughter in Africa came at a pivotal time, drawing added attention to their plight.

PUBLIC SPEAKING

Carl is frequently invited to give keynote speeches and other talks at conferences, scientific symposiums, universities, and aquariums. Highlights of his public speaking engagements in 2013 are in our *Making Waves* section on pages 34.

FROM SEA TO TABLE PROGRAM

Translating Seafood Science for Chefs, Consumers and Health Care Professionals

In 1998, we created the first consumer guide to seafood sustainability. Now, efforts to build awareness and create market-based solutions abound and we are proud to have inspired a movement! (See "A Sustainable Seafood Movement is Born" feature on page 16.)

During 2013, we helped consumers, retailers, chefs and health professionals discover the connection between human health, a healthy ocean, fishing and sustainable seafood.

From Sea to Table consists of interconnected components:

- Web-based rankings of 160+ wild-caught fish and shellfish
- Green, yellow and red ratings, and advisories for contaminants, including mercury and PCBs
- Cooking alternatives for unsustainable seafood
- Green Chefs/Blue Ocean: an interactive, online sustainable seafood class for chefs and culinary professionals
- Web-based tutorials, videos, links and discussions of issues such as bycatch, mercury in seafood, overfishing, etc.
- Information on seafood nutrition and related health issues
- Information for retailers who want to switch to selling more sustainable seafood



SEAFOOD RANKINGS

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

During 2013 we worked closely with Monterey Bay Aquarium and Whole Foods Market to expand our partnership and refine our methods for ranking seafood. We will unveil the details of this new collaboration in 2014.

GREEN CHEFS/BLUE OCEAN

Our partnership with Chefs Collaborative has netted more users and wider recognition for our free online course, Green Chefs/Blue Ocean. During 2013, the course grew to over 6,000 active users. These culinary students have completed more than 17,000 hours of online training. One big advance to highlight is that Chicago's Shedd Aquarium is now on board. Shedd will begin using Green Chefs/Blue Ocean as a core part of its training programs in early 2014. And we are happy to report that more and more culinary schools are recommending this innovative, interactive course to their chefs-in training.

POLICY CAMPAIGNS

We are often asked to support wider coalitions. During the past year Blue Ocean Institute joined other marine conservation groups to pledge not to accept money from the fossil fuel industry. We also sent a letter to President Obama asking him to continue to help reduce human exposure to mercury by ensuring that the federal government updates its Consumer Advisory on Methylmercury in Fish.

Here's a sample of some of the other technical and policy efforts we were involved in during 2013.

- Support for the Billfish Conservation Act; letter to National Marine Fisheries Service, NOAA
- Protect Bristol Bay salmon/opposition to the Pebble Mine; letter to Environmental Protection Agency
- Opposition to opening long-protected habitats in the Northeast; letter to National Marine Fisheries Service
- Support of Amendment 15 to protect river herring and shad; letter to Mid-Atlantic Fishery Management Council (Herring Alliance)
- Support for the Pacific Fishery Management Council adopting a Fishery Ecosystem Plan
- Support for the National Marine Fisheries Service proposed rule to implement Amendment 7 to the Consolidated Highly Migratory Species Fishery Management Plan. These measures would reduce and account for Atlantic bluefin tuna discards, revise bluefin quota allocations, and enhance monitoring and reporting.

continued>

SCIENTIFIC COLLABORATIONS

Building Effective Partnerships



In partnership with Stony Brook University's Gelfond Fund for Mercury Related Research and Outreach, Blue Ocean has continued to publicize the effects of mercury in seafood on human health. During 2013 we focused on developing downloadable guides for health care professionals and patients. We'll post new guides in 2014 in our Blue Ocean website's *Mercury in Seafood* section.

For his new book, Carl Safina has been working with researchers from Save the Elephants and the Amboseli Trust, Yellowstone National Park and the Center for Whale Research.

We continue to work with our colleague of many years, Dr. Eric Gilman. At Hawaii Pacific University, Gilman studies the problem of derelict and abandoned fishing gear that kills many fish and marine mammals. His work informs improved fisheries management to minimize wasteful kills.

NEXT WAVE YOUTH EDUCATION PROGRAM

Cultivating a New Generation of Conservation Leaders

ON CAMPUS: The goal of our *Next Wave* education efforts is to help develop a new generation of conservation leaders. Blue Ocean's education efforts continued this past year at two schools within Stony Brook University—Marine and Atmospheric Sciences (SoMAS) and the Journalism Schools' Alan Alda Center for Communicating Science (CCS).

Carl Safina co-chairs the steering committee for the Center and teaches Master's and PhD students how to talk and write about science in plain language. Actor Alan Alda joined Carl Safina in a special workshop at Stony Brook University's Southampton campus this past summer. "It's terrific working with such an experienced and skilled science communicator who brings acting techniques to help reach people—and is often very funny," says Safina.



Young explorers handle a starfish caught in and returned to the Peconic Bay, NY.
Photo by Linda Shockley.

ON THE WATER: Working with the Long Island Aquarium, we introduce thousands to marine conservation. Each year, from April through October as many as 15,000 people climb aboard the Aquarium's Atlantis Explorer tour boat to explore the ecological wonders of the Peconic Estuary. Hands-on investigation using scientific equipment, fish netting and stops for guided walks—it's a welcome change from traditional classrooms and a fun way to learn.

Next Wave educators adapt our program for each group and provide activities and support for teachers before and after field trips. *Next Wave* materials meet National Learning Standards and Ocean Literacy concepts. *Next Wave's* hands-on learning helps develop critical thinking, language skills, artistic expression and environmental awareness.

To date, Blue Ocean's *Next Wave* has introduced approximately 130,000 people to the Peconic Estuary's fishes, crabs and birds. For many, this was their first time. For some, we helped provide a life changing experience.

Blue Ocean is very grateful to Patricia Paladines for starting our *Next Wave* program and to Ann Haskell for years of capable management.

SOCIAL OCEAN INITIATIVE

Our Online Community Has Tripled This Year!

BlueOcean.org is a site full of imagery and easy-to-understand information. Our website can help non-scientists understand warming oceans, rising seas, ocean acidification, coral reefs in peril and overfishing/recovering fish populations. We've upgraded the content and frequency of the Blue Ocean blog. The *Issues* section of BlueOcean.org, in particular, guides readers to deeper exploration.

Our interconnected content weaves between blogs, BlueOcean.org, CarlSafina.org plus Facebook pages and Twitter posts for both. We call this interconnected online tapestry *Social Ocean*. It has created quite a wave and tripled our followers.

As the 10 episodes of *Saving the Ocean with Carl Safina* aired on PBS we collaborated closely with the show's producer to share updates and behind-the-scenes content posted on the series' website and Facebook page.

Over the past year we also added quite an impressive group of conservation leaders and celebrities to our online community. And as we near the end of 2013, we're happy to report 300,000 visits to our new website since it launched in July of 2012. So visit our site often and please follow us on Facebook and Twitter. What an amazing way to inform, inspire and connect! ■



Demian Chapman and Debra Abercrombie

PUT TEETH IN NEW REGULATIONS

Current bans on illegal shark fin trade
now easier to enforce

Left: Debra Abercrombie measures a thresher shark fin near Caldera, Chile. Photo by Jasmine Valentin.

Right: Dr. Chapman takes a DNA sample from a nearly 15-ft blunt nose six-gill shark, Bahamas. (It was quickly released unharmed.) Photo by Sean Williams, Cape Eleuthera Institute.

When delegates from 179 nations met to debate controls on international wildlife trade, sharks were on the line. Blue Ocean Fellows, Demian Chapman and Debra Abercrombie came to their rescue.

Certain shark populations are being devastated by the shark fin trade. A major objection to proposals for extending better protection to these shark species was that shark fins look alike: protection for certain species could not be enforced because their fins could not be identified by customs agents.

Chapman and Abercrombie showed that this impression was wrong for some of the key affected species, such as oceanic whitetips, hammerheads and porbeagles. Their visual guide for identifying the fins of these species provided a breakthrough in the debate. And their ability to show that the proposals for protection were, in fact, enforceable, helped convince many delegates to vote in favor of the new protections. This led to international trade restrictions for these important shark species.

Looks are deceiving. Debra Abercrombie and Demian Chapman are easy-going, young scientists who delight in telling you about their latest shark research. You wouldn't suspect that they take DNA samples and place satellite tags on mature oceanic whitetips and 15-foot bluntnose, six-gill sharks.

Their research and expertise led to an innovative shark fin identification system that they turned into two visual shark fin ID guides now accessible to all as either printed or online tools. Port officials and customs agents enforce regulations to curb the illegal trade in shark fins. And now these two scientists are able to teach frontline border control and fisheries officers what was once thought to be impossible: how to identify the species of shark just from inspecting one of its fins.



“Our work ranges from pure scientific research to applied wildlife forensics,” explains Chapman, a geneticist with research expertise in molecular biology and telemetry tracking. “Over the past year one of our major initiatives was teaching shark fin ID workshops as a component of broader meetings designed to build support for listing five species of sharks under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). We attended the March 2013 CITES meeting in Bangkok, Thailand, where the voting took place. Our workshops there were filled with law enforcement officials, customs agents and CITES delegates from nearly every country that is a signatory to this agreement.”

After the shark votes at CITES were successful, Abercrombie and Chapman had little time to rest. “Now we have until September 2014 to help prepare border control personnel in the shark importing and exporting nations.” says Chapman. “It’s daunting, but we have government invitations and have started doing workshops in countries ranging from Costa Rica and Fiji to the United Arab Emirates and also in Hong Kong. We have many more planned.”

“Sometimes we meet with people at the more supervisory level, other times we work directly with field officers and customs agents,” says Abercrombie, a marine biologist with extensive experience working with sharks and shark fisheries. “These officials are from their city or country’s Departments of the Environment, Departments of Fisheries and the Customs Department.”

The bans and new listings by CITES are only as good as the enforcement behind them, of course. *Abercrombie and Chapman’s ID guide has proven invaluable for that enforcement.*

Abercrombie explains, “The success of recent CITES listings depends on Customs and the Wildlife Department personnel actually being able to identify the fins of listed species that are being illegally traded without a CITES permit that says the specimen was collected from a sustainable fishery. We’re giving them the ability to do that. We’re asking these officials how they’re intending to monitor the fin trade in their ports, and what materials they need that we haven’t already produced. Then, we collaborate with them to ensure their work will have a big impact on the effectiveness of the CITES rules. More than anything, I think, it is promising that these countries, the parties to CITES, have made the decision to enforce these trade restrictions.”

Why is shark conservation so critical? Sharks, a group of top predators, need a great deal of management and conservation attention because they’re extremely vulnerable to being overfished, more so than many other animals. Sharks have a slow reproductive rate, are late to mature, breed infrequently and many species produce litters only every two to three years. Although they produce several offspring per litter, the natural mortality rate on small sharks is usually quite high. Add to this the overfishing spurred by the value of fins, and sharks have been exploited far beyond their ability to recover. As a result, populations have declined worldwide. >

Left: Chapman and Abercrombie (right) held workshops at the CITES meeting in Bangkok, Thailand showing delegates that field-based shark fin ID is possible. Photo by Angelo Villagomez.

Right: Dried shark fins for sale in Hong Kong market. Photo by Debra Abercrombie.

NEW SENSE OF HOPE FOR LONG-TERM SURVIVAL OF SHARKS?

by Demian Chapman

A curious and encouraging thing is happening in Hong Kong, one of the world's major gateways to the Mainland Chinese shark fin markets. Shark fin prices are dropping. Imports are dropping too. Could it be that the demand for shark fin soup is waning in Hong Kong and possibly China as well? Wave after wave of public awareness campaigns, coupled with high profile media attention on the plight of sharks, appears, to the eyes of consumers, to have tainted this culinary status symbol.

After nearly two decades of studying sharks, and as I plan my next expedition to the Bahamas to study oceanic whitetips, I have a new sense of hope for their long-term survival. At the same time I think we all must remain very cautious.

- We don't yet know if demand for shark fin soup is diminishing in all of the major importing countries, including Mainland China itself, or whether this phenomenon is limited to Hong Kong.
- We don't really know how much this vast trade needs to be reduced to enable most shark populations to recover.
- And, of course, demand for shark meat remains high in many parts of the developing world and demand for shark fin soup, or another, new shark product, could always pick up again in Asia or elsewhere.

Shark populations all over the world are in tatters after years of heavy fishing pressure. It will take decades of global-scale, comprehensive management and carefully designed conservation strategies for many of them to recover.

For now, though, I think we can have a certain level of guarded optimism about the future of sharks in our oceans. Most of all, this should inspire us to push forward with the hard work needed to make these emerging conservation and trade control measures live up to their promise. China is the world frontier for wildlife imports. What may be starting to work for sharks seems reason to be hopeful. Could it also mean hope for rhinos and elephants? ■



Demian explains shark fin identification to NGO and government representatives at a workshop in Washington, D.C.
Photo by Angelo Villagomez.

After more than a decade of shark research Chapman and Abercrombie are starting to feel cautiously optimistic. "I think the tide is beginning to turn for sharks, at least in terms of the regulations that are emerging to control shark fisheries and trade around the world. Robust enforcement is now the critical element and that is where we have to focus our efforts," says Chapman. "There is a great deal of work ahead." >

TRY YOUR HAND AT IDENTIFYING SHARK FINS

Visit www.sharkfinid.com to learn more.

Chapman and Abercrombie's Shark Fin ID Guide is based on data collected by examining more than 500 dorsal fins and 900 pectoral fins from over 40 shark species, including all of the dominant species or species groups in the international fin trade. Conspicuous fin markings were also assessed for pattern and consistency within species using photographs published in the scientific literature and on the Internet. Fin sets originated in the United States, Belize, Chile, South Africa, Fiji and New Zealand, and included a wide size range for each species. Fins and fin sets examined in this study were provided by fishermen, fin traders and scientists; no sharks were sacrificed for the project.

This work was supported by the Pew Environment Group and the Roe Foundation, and compiled by Debra L. Abercrombie, Abercrombie & Fish, and Demian D. Chapman, Ph.D., School of Marine and Atmospheric Sciences and Institute for Ocean Conservation Science, Stony Brook University, Stony Brook,

NY (USA). Carl Safina provided edits on the original draft of the ID Guide helping to replace scientific jargon with more accessible language. Blue Ocean Institute supports Abercrombie and Chapman's time and travel to lead shark fin ID workshops abroad and assists Fellows in promoting marine conservation to new audiences. ▀



Check out the Shark Fin ID Guide at www.sharkfinid.com.

A DECADE OF PROGRESS FOR SHARKS

This past year, by any measure, was groundbreaking for shark conservation: a total of 27 countries of the European Union banned shark finning. There were other hopeful signs for sharks. In March 2013, five species of sharks—scalloped hammerhead (*Sphyrna lewini*), smooth hammerhead (*S. zygaena*), great hammerhead (*S. mokarran*), oceanic whitetip (*Carcharhinus longimanus*) and porbeagle (*Lamna nasus*)—were added to CITES Appendix II. This listing should reduce cross-border trade in the fins of these species and alleviate fishing pressure.

During the past decade, several other developing countries, such as Palau and Honduras, have banned shark fishing and trade altogether, while others have taken steps to reduce their national shark catch with the end goal of making local fisheries more sustainable. Several key species, including the great white (*Carcharodon carcharias*) and whale shark (*Rhincodon typus*), have also been protected in particular countries or by regional agreements. ▀



Oceanic whitetip sharks live in the open ocean where food is often hard to find. As a result, these huge sharks will even consume fish scraps no bigger than a tiny piece of sushi. Photo by Sean Williams.



Paul Greenberg rigging up for fishing the Stuyahok River, upstream of Bristol Bay, Alaska. Photo by Mark Rutherford, Wild River Guides, Alaska.

Get fishy updates from Paul Greenberg:
www.fourfish.org
[@4fishgreenberg](https://twitter.com/4fishgreenberg)
facebook.com/fourfish

PAUL GREENBERG

From *Four Fish* to *American Catch*

When Paul Greenberg was a child, he loved to go fishing. Life took him in many directions. For a while he lived in various countries of the former Soviet Union, in Yugoslavia and the West Bank/Gaza. He did some journalism, trained young journalists and worked on conflict resolution. He did not go fishing any more.

Eventually Paul returned to the northeast of the U.S., needing to think about his next big step in life. “Why don’t you go fishing?” his mother advised. And so he did. To make a long story short, that fishing trip started a journey that culminated recently in the *New York Times* best-selling, James Beard Award-winning book, *FOUR FISH: The Future of the Last Wild Food*. The journey continues. He now fishes for stories and fishes for the meaning of those stories.

The best writers share a deep curiosity for the world and a passion for details. Blue Ocean fellow Paul Greenberg is truly one of those best writers.

Greenberg is a whiz at sharing fresh observations along with facts, and has a unique talent

for reaching broad audiences. For example, over a recent stretch, his writings were featured in top publications, highbrow to lowbrow, with audiences spanning health, food, fashion and popular culture. From features including “Oyster-tecture” in *Vogue*, the Gulf of Mexico Dead Zone in *The American Prospect*, American fisheries in *Food and Wine* and numerous pieces in *Yale Environment 360*, to Op-Eds in the *New York Times* and Huffington Post, Greenberg’s work focuses on the narrative of marine species and issues, in various stages of calamity and revival.

Hurricane Sandy shaped much of that narrative in 2013. “I spent a lot of time post-Sandy focused on oyster research, trying to learn how oysters fit into a picture of a more sustainable New York City,” says Greenberg. “We want a coast that’s more resilient, more incorporating of natural systems, and hopefully, a city that can get wetter and still survive.”

From that oyster research came an invitation to serve as an advisor for the ambitious design competition, “Rebuild By Design,” sponsored by the federal Department of Housing and Urban Renewal (HUD). Created in response to

Hurricane Sandy, the competition’s goal is to promote innovative collaboration, connections and scaleable design that can strengthen our resilience as a city, a region, a nation.

Also in 2013, Greenberg studied agricultural practices that cause the Gulf Dead Zone surrounding the Louisiana delta and estuary, and spent time at the headwaters of the largest sockeye salmon runs in North America, in Bristol Bay, Alaska, a pristine area threatened by the much-opposed Pebble Mine.

This work—in New York City, Louisiana and Alaska—reflects the three main chapters of his upcoming book, *AMERICAN CATCH: The Eastern Oyster, Gulf Shrimp, Bristol Bay Sockeye Salmon*. Just as his acclaimed *FOUR FISH* explored the tensions between farmed and wild fish, *AMERICAN CATCH* examines the push and pull between local and internationally sourced seafood. It tells the story of how we lost, and how we might regain, our local catch. Watch for it in 2014, published by The Penguin Press. ■

AN OYSTER IN THE STORM

by Paul Greenberg

This essay was first published in the *New York Times*. Reprinted by permission.

DOWN HERE AT THE END OF MANHATTAN, on the border between evacuation zones B and C, I'm prepared, mostly. My bathtub is full of water, as is every container I own. My flashlights are battery-ed up, the pantry is crammed with canned goods and I even roasted a pork shoulder that I plan to gnaw on in the darkness if ConEd shuts down the power.

But as I confidently tick off all the things that Governor Andrew M. Cuomo recommends for my defense as Hurricane Sandy bears down on me, I find I'm desperately missing one thing.

I wish I had some oysters.

I'm not talking about oysters to eat — although a dozen would be nice to go with that leftover bottle of Champagne that I really should drink if the fridge goes off. I'm talking about the oysters that once protected New Yorkers from storm surges, a bivalve population that numbered in the trillions and that played a critical role in stabilizing the shoreline from Washington to Boston.

Crassostrea virginica, the American oyster, the same one that we eat on the half shell, is endemic to New York Harbor. Which isn't surprising: the best place for oysters is the margin between saltwater and freshwater, where river meets sea. Our harbor is chock-a-block with such places. Myriad rivers and streams, not just the Hudson and the East, but the Raritan, the Passaic, the Kill Van Kull, the Arthur Kill — the list goes on and on — flow into the upper and lower bay of the harbor, bringing nutrients from deep inland and distributing them throughout the water column.

Until European colonists arrived, oysters took advantage of the spectacular estuarine algae blooms that resulted from all these nutrients and built themselves a kingdom. Generation after generation of oyster larvae rooted themselves on layers of mature oyster shells for more than 7,000 years until enormous underwater reefs were built up around nearly every shore of greater New York.

Just as corals protect tropical islands, these oyster beds created undulation and contour on the harbor bottom that broke up wave action before it could pound the shore with its full force. Beds closer to shore clarified the water through their assiduous filtration (a single oyster can filter as much as 50 gallons of water a day); this allowed marsh grasses to grow, which in turn held the shores together with their extensive root structure.

But 400 years of poor behavior on the part of humans have ruined all that. As Mark Kurlansky details in his fine book "The Big Oyster," during their first 300 years on these shores colonists nearly ate the wild creatures out of existence. We mined the natural beds throughout the waterways of greater New York and burned them down for lime or crushed them up for road beds.

Once we'd hurled all that against the wild New York oyster, baymen switched to farming oysters. But soon New Yorkers ruined that too. Rudimentary sewer systems dumped typhoid- and cholera-carrying bacteria onto the beds of Jamaica Bay. Large industries dumped tons of pollutants like PCBs and heavy metals like chromium into the Hudson and Raritan Rivers, rendering shellfish from those beds inedible. By the late 1930s, oysters in New York and all the benefits they brought were finished.

Fortunately, the New York oyster is making something of a comeback. Ever since the Clean Water Act was passed in the 1970s, the harbor's waters have been getting cleaner, and there is now enough dissolved oxygen in our waterways to support oyster life. In the last 10 years, limited sets of natural oyster larvae occurred in several different waterways that make up the Greater New York Bight.

Alongside nature's efforts, a consortium of human-run organizations that include the Hudson River Foundation, New York-New Jersey Bay Keeper, the Harbor School and even the Army Corps of Engineers have worked together to put out a handful of test reefs throughout the Bight.

Yes, there have been some setbacks. New Jersey's state Department of Environmental Protection actually demanded that a test reef from the nearby bay at Keyport be removed for fear that people might poach those test oysters and eat them. But the program has persisted, even in New Jersey. In 2011 the Navy offered its pier at Naval Weapons Station Earle, near Sandy Hook, as a new place in New Jersey to get oysters going.

Will all of these attempts to get oysters back in New York City have any effect in defending us against Sandy? Surely not. The oyster kingdom is gone, and what we have now are a few struggling refugees just trying to get a foothold in their old territory.

But what is fairly certain is that storms like Sandy are going to grow stronger and more frequent, and our shorelines will become more vulnerable. For the present storm, all we could do was stock up on canned goods and fill up our bathtubs. But for the storms to come, we'd better start planting a lot more oysters. ■

A SUSTAINABLE SEAFOOD MOVEMENT IS BORN



Mércèdes Lee, co-founder of Blue Ocean Institute and author of the *Seafood Lover's Almanac*. Photo by Carl Safina.



In the beginning, there was the guide...

Many people point to a small printed seafood guide as the beginning of the sustainable seafood movement in the United States. Carl Safina created that guide in 1998 for *Audubon* magazine. “Boxes and boxes of that tear-out guide flew out of the *Audubon* offices. Before that guide, a piece of fish was like a piece of bread; when it landed on your plate you didn’t ask questions; you just ate it,” explains Safina, who founded the Living Oceans Program in 1993 and served as Vice President for Ocean Conservation for 10 years at the National Audubon Society.

“We followed this popular guide with a book by Mércèdes Lee, the *Seafood Lover's Almanac*,” says Safina. “She and I were co-founders of Blue Ocean Institute in 2003, along with Mayra Mariño (still our business manager) and Carrie Brownstein, our research and outreach coordinator, who now leads Whole Foods Market’s seafood sustainability work.”

Blue Ocean went on to improve the sustainability analysis of seafood and the public presentation of seafood rankings and advice. The Institute created the first texting service—FishPhone—and the first sustainable seafood iPhone mobile app. Both captured public and media attention, inspired a larger conversation around sustainable seafood and generated a flood of mobile apps.

Carrie Brownstein offers her recollections of the earlier days of the seafood sustainability movement: “A lot of attention was focused on consumers and providing ways to help people navigate through options at seafood markets and restaurants. Because the seafood guides started by Blue Ocean became so popular, many environmental groups started producing their own. At one point there were 20 to 30 different consumer seafood guides in circulation around the U.S., Canada and Europe, but there wasn’t much direct collaboration with the folks who were *selling* seafood. With the exception of Whole Foods Market’s collaboration with the Marine Stewardship Council (MSC) back in the late 90’s, and the company’s decisions to stop selling especially vulnerable species like bluefin tuna and sharks, few retailers were involved at all.”

JULIE PACKARD AND THE SUSTAINABLE SEAFOOD MOVEMENT

Safina credits Julie Packard with helping to create and sustain the movement. “Her role through her work as a board member of the David and Lucile Packard Foundation and as founder of the Monterey Bay Aquarium has been pivotal from day one,” says Safina. Packard helped found the Monterey Bay Aquarium in the late 1970s, and remains its executive director.

Packard passes the credit back to Safina, saying: “I can’t take credit for helping to create a movement. Not personally. I think Carl is referring to my role with the Foundation, which was an early supporter of his work when he was with the National Audubon Society. Carl created the idea of a pocket guide and a consumer awareness component for sustainable seafood.”

Packard explains, “Our Foundation issued a challenge to the conservation non-profits we supported saying, ‘Hey, does anyone want to work on the largest piece of nature on the planet?’ Institutions responded in different ways, but even then, Carl’s work on ocean policy and advocacy stood out.”

In the late 1990’s, according to Packard, “We at the Foundation decided to focus on a marketplace strategy to address global fishery issues. Carl was a big player, along with World Wildlife Fund and their work with the Marine Stewardship Council. As a Foundation trustee, my role was to help support all of that.” In 1999, Monterey Bay Aquarium’s *Seafood Watch* program began distributing its own seafood pocket guide which is still going strong today.



Julie Packard played a critical leadership role in the sustainable seafood movement via advocacy, foundation support and policy work. Photograph by Sarah Stephens.



Whole Foods Market translates Blue Ocean rankings into easy-to-use signage that helps customers make responsible selections. Image courtesy of Whole Foods Market.

CHEFS, RESTAURANTS AND RETAILERS COME ABOARD

The fledgling sustainable seafood movement saw broader developments follow in fits and starts. “EcoFish was the first business I know of that was founded to sell sustainable seafood and they are still going strong,” Safina explains. “A few path-finding restaurants followed, including *Passionfish* in Pacific Grove, California, which I find to be a truly fine and committed restaurant.”

Retailers, too, began to catch on to the good business sense of selling sustainable fish and promoting healthy oceans. Currently, Whole Foods Market, the leader in sustainable seafood sourcing, has a strong collaboration with the Marine Stewardship Council (MSC) and offers a wide range of MSC-certified seafood. For wild-caught seafood that is not MSC-certified, Whole Foods Market uses more than 200 seafood rankings prepared by Blue Ocean Institute and the Monterey Bay Aquarium’s *Seafood Watch* to direct their purchasing and to educate consumers at the counter. For farmed seafood (aquaculture), Whole Foods Market spent years researching and developing world-leading standards that include a rigorous third-party audit program to ensure the standards. >

FEATURE: LOOKING BACK, SUSTAINABLE SEAFOOD

“Our overarching goal is to move the seafood industry as a whole towards greater sustainability,” Brownstein said. “We’ve worked hard to create a model for how this can be done.”

REAL WORLD CHANGE

After working for thirteen years on sustainable seafood, Brownstein has seen significant growth in the market: “At the beginning of the movement, there were very few companies marketing seafood products as ‘sustainable.’ Now, there are many and a buyer has to be very careful about authenticity. Unfortunately, green-washing exists. Few retailers or other large buyers have people on-staff with the backgrounds needed to navigate the worlds of fisheries, aquaculture and sustainability. A strong certification program like the MSC, with third party chain-of-custody verification, can help because then buyers can focus on buying certified products instead of having to do all the research themselves. However, the world of certification has also grown, with varying levels of credibility. Whole Foods Market continues to collaborate with the Marine Stewardship Council because it has the strongest standards and is an independent, multi-stakeholder organization requiring third-party audits (including chain of custody) as part of certification. When we started focusing on aquaculture in 2006, there weren’t certified farmed seafood products from a program as rigorous as the MSC so we had to create our own standards and audit process.”

“Another big change that’s occurred in recent years is that the non-profit marine conservation groups are specializing more. Some, for example, rank seafood and provide public education, others focus on policy. And now some groups work directly with fisheries to implement the particular changes needed to achieve MSC certification,” Brownstein explains.

Brownstein adds, “In 2012, Whole Foods Market announced we would no longer sell wild-caught seafood from fisheries rated red by our partners, Blue Ocean Institute and Monterey Bay Aquarium. Shortly after that announcement, there were a series of speaking events that made me realize our seafood sustainability work was really catching on and reaching a critical mass. As part of our work on aquaculture, I participated in a meeting hosted by the Prince’s Charities International Sustainability Unit held at the Royal Palace in the U.K. And soon after, I spoke at the United Nations in a meeting focused on oceans. These kinds of international audiences can really spread ideas and information and help drive change internationally.”



NOT ALL SEAFOOD IS CREATED EQUAL

Over 10 years since co-founding Blue Ocean Institute, Carl Safina has remained a major voice of conservation. He has his own favorite voices on the sustainable seafood issue. “Mark Bittman of the *New York Times* writes really well and intelligently on these topics and I think he’s been very helpful. Martha Stewart did an excellent segment with me about seafood and bycatch. I’d love to see the cooking shows do more. As it is, they’re mostly just entertainment, with recipes.”

Safina says, “Though relatively few people care about sustainable seafood, what matters is this: all the seafood sellers know there’s a small percentage of the market that really wants to do good with their dollars. And, the sellers want those dollars. So even if only three percent or five percent of consumers want sustainable seafood, seafood sellers will not want to lose them to better competitors. And a few sellers also just want to do the right thing and will even focus on these buyers. A small percentage still translates to a large amount of sea life. I think it is a hopeful sign that the number of people who want sustainable seafood seems to be growing.”

Safina adds, “The leading foodies no longer overlook fish as an issue of sustainability and ethical eating. We managed to make fish something else to feel guilty about. But we focus heavily on how to eat seafood without guilt.” ■

INSPIRED

(quotes & letters) **by BLUE**

We often hear back from colleagues, readers, fellow conservationists, former interns and volunteers and at times they share their views on the role Blue Ocean Institute and Carl Safina have had in their lives and careers. In honor of our 10th anniversary, we're sharing a few of their stories and testimonials.

CHEF BARTON SEAVER

Director of Sustainable Food and Health Programs
Center for Health and Global Environment
Harvard University

Hello Carl,

I hope that this finds you well. I wanted to reach out to you with a letter of thanks and appreciation.

I have taken a position at the Center for Health and Global Environment at Harvard as the Director of Sustainable Food and Health programs. It is a great honor, and a fabulous opportunity.

I write all of this to set up the true purpose of this email, which is to say thank you, Carl.

Your acknowledgement of my work very early on, your generosity with advice and sagacity, honoring me with the BOI award, and championing of me as a Fellow have been monumental stepping stones for me. It was your mentorship that helped me to see that a chef can be more than the sum of the ingredients on a plate. Your support encouraged me to see that there were larger contexts to food and the act of hospitality. It has been this understanding that has motivated me along the path I have been forging.

And now that my path has led me to a very desirable home, I feel it is right to give thanks to you for all that you have done to help me find my way.

I know that we are not so close in communication these days as we are busy ever and always flitting about this watery world. Though, I think of you often and I remember our time together fondly and with admiration.

Thanks for believing in me. And thanks for setting this young man's life in such a rewarding direction.

I wish you all the very best.

Barton

ANTONIA SOHNS

Water and Energy Analyst
World Bank

Dear Carl,

I wanted to let you know how Blue Ocean Institute and your mentorship influenced my career. You may recall that during high school, I went with you and Ocean Revolution to Baja California, to participate in the annual turtle conference in La Paz. I saw the power of community in protecting sea turtles from overfishing, as the meeting was between local fishermen, scientists and concerned citizens.

That trip exposed me to a community of people that I had not known existed previously—a community that works to protect marine animals, conserve the ocean, and write about environmental issues. As a result, at a young age, the ocean's vastness and mystery captured my imagination. I learned so much in sharing my experiences with participants at the meeting, and listening to their stories. I have never forgotten the richness of the seas around Baja. During my time there, I recognized how protecting the oceans and marine life is such a global issue—arbitrarily defined boundaries do not exist at sea, instead chemistry and geology demarcate zones where creatures live and how they migrate.

My early work with Blue Ocean led me to the Earth Systems-Oceans track at Stanford University and to study aboard the SSV Robert C. Seamans. I completed my Master's degree at Oxford in Water Science, Policy and Management. Recently, I wrote a chapter on the oceans for "State of the World 2013."

My heart is still lost at sea, and while everything is interconnected and I love working on (fresh)water and energy issues at the World Bank, maybe one day I will find myself studying the sea again, and writing about the plight of the ocean for a larger audience.

Wishing you all the best,

Antonia

“What writers like Thoreau, Aldo Leopold, Edward Abbey, Wendell Barry, Wallace Stegner have done for the land, Carl Safina has done for the ocean. In the process, he has educated and inspired a whole generation of ocean activists and advocates—including me. He is a wonderful ally and great friend.”

SARAH CHASIS

Senior Attorney and Director
National Resources Defense Council, Ocean Initiative

“Part of what makes Carl Safina such an expert communicator is that his love of the oceans and of all life comes from the heart. He’s the perfect example of the dedicated scientist whose science is an act of love.”

ALAN ALDA

Actor, Writer, Director, Environmentalist
Visiting Professor, Alan Alda Center for Communicating
Science at Stony Brook University

“Carl Safina is perhaps our most effective communicator about our human role and responsibility as part of the family of life, not only because he is so ubiquitous around the planet, and so prolific, but because he is so lyrically and inventively eloquent as a writer. As a musician who plays an instrument, I deeply appreciate his musicality with words. Carl’s deeply stirring reports about the dire predicament of the African elephants inspired me to create a piece this year celebrating these magnificent creatures.”

PAUL WINTER

Founder of Living Music and the Paul Winter Consort
Award-winning Saxophonist, Bandleader and Composer



Paul Winter and Carl Safina share a love of music and wildlife.
Photo by Denis Leon.

INSPIRED (profile) by BLUE

Carrie Brownstein, seen here on the New York Harbor, is the fourth generation of a sea-loving family. Photo by Linda Shockley.



Carrie Brownstein SEAFOOD QUALITY STANDARDS COORDINATOR WHOLE FOODS MARKET

In 1996 I had just returned from spending a year traveling and working in Latin America and the Caribbean and was contemplating where to take my career. I had a Bachelor of Arts degree in Environmental Studies with a minor in Anthropology, a passion for the oceans, and craved an exciting career rooted in solving global environmental problems that integrated science, conservation, communications, writing, traveling and food. My interests in forest and marine conservation saw-sawed in my mind. Which would I like better? Where could I be most effective? Around that time, I devoured Carl Safina’s first book, *Song for the Blue Ocean*. The merging of ecology and anthropology captivated me. I cared about the oceans, fish, and the people that depended on them for their livelihoods and food. I put the book down and stated out loud, “this is what I want to do and this is the person I want to work with.” But how do to get there? I emailed Carl and asked him if I needed to go to grad school to do work in marine conservation and fisheries. (I was eager to get started right away.) His one sentence response remains vivid in my memory: “A Masters is an entry level degree in this field, so go get one.” A few years later, at the age of twenty-seven, I got my Master of Environmental Management degree from

Duke University’s Nicholas School of the Environment. Along the way, I went to a swamp forest to find Carl.

Between my first and second year at Duke, I took a summer internship in South Carolina. It wasn’t my dream job, but it ultimately got me there. On assignment to evaluate the effects of land development on various ecosystems, I visited a swamp forest and interviewed the manager. He asked me how I got interested in swamp forests and in a moment of courage I replied, “Actually, I’m not, but I’m happy to learn about them. I’m really interested in fisheries.” Much to my relief, he smiled and replied, “Well, then, you must meet my old friend and colleague, Carl Safina.” “It just so happens that Carl’s colleague, Mércèdes is in town now.” Perfect. And would Carl be hiring next year when I finished grad school? It just so happened that he was.

Fast forward a year or so. Carl’s group, which at the time was Audubon’s Living Oceans Program, was looking to hire two people: a fisheries policy analyst, which was a great fit based on my concentration at Duke, and a coordinator for the seafood consumer education program. Seafood, eh? Well, that was interesting. My family had been in the seafood business for a long time. My great-grandfather started selling seafood

from a pushcart back in 1909. His sons built up the business in Philadelphia from a stand at the local market on Dock Street, to a shop, then a distribution center, and ultimately to an import business. Working on marine conservation through an angle on seafood made sense to me because it was the desire to eat seafood that led to the problems of overfishing and bycatch that we were facing. And because seafood is food for people—3.0 billion people in the world are getting 20% of their animal protein from seafood—getting the industry on the right track was of critical importance. After a bike ride and pancakes at a local diner with Carl, I took the job. In 2003 I helped Carl and Mércèdes Lee and Mayra Mariño establish Blue Ocean Institute.

My work in sustainable seafood has continued way past this beginning with Carl and Blue Ocean. In my current position at Whole Foods Market (WFM) I develop quality standards (and the programs for implementing them) for the seafood sold in all our stores. I analyze critical issues in both ocean fisheries and aquaculture and work with producers to develop solutions that encourage greater sustainability in the seafood marketplace. I’ve seen the sustainable seafood movement make amazing progress since I started working on this in 2000. We’ve all come a long way! ■



Blue tangs and parrotfish, Bonaire. Photo by Carl Safina.

GYRE EXPEDITION: What Goes Around Comes Around

Scientists and Artists Talk Trash, Bear Witness, and Witness Bears

What we're looking at is the cultural archeology of our time right now. These are the ghosts of our consumption. They are haunting the natural world in a terrifying way.

PAM LONGOBARDI

Expedition lead artist
Art Professor, Georgia State University
Winner, 2013 Hudgens Prize

IN June 2013, a group of visual artists and scientists—including Blue Ocean Founder Carl Safina serving as lead scientist—boarded the 130-ft research vessel *Norseman* in Seward, Alaska. This would be a unique expedition to witness and respond creatively to the ocean garbage crisis.

The project, dubbed the GYRE Expedition, refers to a current called the North Pacific GYRE which collects massive amounts of seagoing trash. But the name equally referred to the idea that what goes around comes around. And a lot of seagoing garbage is coming around to the world's most remote shores—including Alaska's "wilderness" coasts and parks.

Spearheaded by the Alaska SeaLife Center and the Anchorage Museum, the expedition traveled 450 nautical miles from Resurrection Bay along the Kenai Peninsula coast, crossed the Kennedy Entrance channel to the Shuyak

and Afognak Islands, and reached Hallo Bay in Katmai National Park before turning around, returning to Seward 10 days later.

All along the way, the team stopped to see, describe, and collect trash from beaches. Unfortunately, they didn't need to look hard to find it. These are among the most remote beaches in the world, yet awash with garbage. The team collected as much as *one ton of garbage per mile* on some beaches.

The artists on board will create artwork from trash collected. In 2014, the project will culminate in an exhibit that will travel the country and eventually visit the Smithsonian in Washington, D.C. It's almost as if the peripatetic garbage refuses to stop wandering.

The GYRE project was at least three years in the making, under the guidance of expedition leader Howard Ferren of the Alaska SeaLife Center, lead artist Pam Longobardi of Georgia

Right: Brown bear and cubs, Katmai National Park, Alaska.
Photo by Carl Safina.

Below: Expedition participants Pam Longobardi (left) and Nick Mallos remove a large bundle of packing straps from a beach on Shuyak Island, Alaska.
(Photo © Kip Evans — GYRE)



State University, and Anchorage Museum curator Julie Decker.

“Journeys cast against the majestic, rugged and raw environment of Alaska can be powerful experiences, jolting the mind and emotions,” says Howard Ferren, director of conservation at the Center. “Creating art from garbage is a means to interpret the problem within that landscape.”

“We got to see too much trash but we also got to see magnificent wild places and wonderful wildlife from killer whales to bear cubs to otters and others,” remarked Safina. “I was pleased at how well the scientists and artists got along and how happy the boat was even though the topic was a bummer. But the power of the beauty won out.”

Safina adds, “I was thrilled when Howard called me because the approach of pairing scientists with artists as co-witnesses seemed perfect. And it was. On the boat the science and art people each did their own usual things but I loved the social dynamic. We helped each other see in new and different ways. It added up to far more than what one group alone could do. But the artists made the whole trip work, as far as I’m concerned. They make people look.”

Scientists on board came from a wide range of organizations—the Alaska Marine

Stewardship Foundation, the National Oceanic and Atmospheric Administration, Ocean Conservancy and the Smithsonian Institution.

“As lead scientist, my job was to keep asking, ‘What is real?’ and to look upstream for causes and solutions,” says Safina. “We’ve seen and documented what’s on beaches. But no one seems to have tackled the question of how most of the garbage gets into the ocean. That’s crucial. If you don’t understand sources you can’t create solutions. That’s a real need.”

Ferren stays focused on sharing the message to reach broad audiences: “As a scientist I recognize how critical it is that we address the problem of marine debris. I believe we can reach more people through the arts—beyond those involved with marine debris cleanup—in essence crafting another dialogue.”

We need to work toward engineering truly degradable products that act like plastic but then dissolve fully and are dismantled by bacteria so they are no longer plastic.

CARL SAFINA

Lead scientist, GYRE Expedition

Scientists also gained new knowledge during the Expedition. “I learned from the Smithsonian’s Dr. Odile Madden’s on-board analyses that plastic used for the same products can have different chemical components depending on where it’s manufactured and when,” says Safina. “Some is toxic; some is not. But none of it is good in the sea; it hurts animals. And no one wants to venture to the wilderness of our National Parks and find that the world’s garbage has beaten them to the beaches.”

Safina concludes, “All this plastic is essentially eternal. We don’t really know what to do with it. Reducing consumption and recycling is something we can do. We need to work toward engineering truly degradable products that act like plastic but then dissolve fully and are dismantled by bacteria so they are no longer plastic. But helping show why that’s needed was the first step.” ■

GYRE: THE PLASTIC OCEAN EXHIBITION

Opens February 7, 2014
at the Anchorage Museum

The expedition goal was to create art from trash and to raise awareness about the impact of garbage on oceans and wildlife. Expedition artists are currently finishing art from that trash and in February, 2014 the Anchorage Museum will premiere “GYRE: The Plastic Ocean.” The show will tell a global ocean debris story through the work of more than 20 artists. The 7,500-square foot exhibition will include a section specific to Alaska featuring the GYRE Expedition’s resulting scientific discoveries, as well as art created from the ocean trash gathered on Alaska’s beaches.

Following its Anchorage debut, the GYRE Exhibition will be repackaged by the Smithsonian Institution for a tour of the continental United States. ■



Ocean trash scattered across Gore Point Beach in southern Alaska. Most problematic beach-trash is plastic since its resistance to rot makes it last many years. (Photo © Kip Evans — GYRE)



GYRE expedition participants and National Park staffers removed more than four tons of trash from Hallo Bay Beach, a four-mile stretch of shore in Katmai National Park. (Photo © Kip Evans — GYRE)

As a scientist I recognize how critical it is that we address the problem of marine debris. I believe we can reach more people through the arts — beyond those involved with marine debris cleanup — in essence crafting another dialogue.

HOWARD FERREN

Expedition leader
Director of Conservation, Alaska SeaLife Center

Expedition photographer Kip Evans is an award-winning photographer, filmmaker, ocean explorer and marine conservationist. For more than two decades, he has led or participated in over fifty ocean exploration expeditions throughout the world including recent expeditions to Cuba, Mexico, Costa Rica, Honduras, Bahamas and Panama. He has worked on a number of National Geographic Society projects including the Sustainable Seas Expeditions, where he served as the chief photographer for noted marine biologist Dr. Sylvia Earle.

GYRE EXPEDITION MONITORING POINTS

by Peter Murphy, Regional Coordinator - Alaska

NOAA Marine Debris Program / Genwest

On average, just over 90 percent of the debris we counted on beaches was composed of plastic materials of varying kinds (hard plastics, fishing nets, foam). This is similar to the composition we've seen from other monitoring sites in the Pacific, such as the Olympic Coast of Washington State.

We saw debris with labels in multiple languages, from Russian to Japanese and Korean, as well as many in English. While it's very difficult to know exactly where these pieces of debris first entered the water, it does show the global nature of the marine debris issue. ■

NO REFUGE: TONS OF TRASH COVER THE REMOTE SHORES OF ALASKA

by Carl Safina

This essay was first published in *YALE Environment 360*. Reprinted by permission.

I AM BACK ASHORE AFTER AN UNUSUAL EXPEDITION that brought scientists and artists to witness and respond to beach trash on the shores of southern Alaska. I have good and bad news.

The expedition was called GYRE, partly because much of the trash spins out of the North Pacific Ocean gyre, and partly because of the trip's message: what goes around comes around. The trip was conceived by the Alaska SeaLife Center and Anchorage Museum, with National Geographic and the Smithsonian involved. A resulting traveling museum exhibit will premier in Anchorage in February and then, like ocean trash, spend a few years traveling around.

Much of the trash scattered on Gore Point Beach and elsewhere in Alaska is plastic.

So what shall we take first, the good news or the bad? Actually, almost everything I saw was a bit of both, so let me share impressions. We traveled from Seward in southern Alaska and headed southwest for about 300 miles, with stops, to the shores at Gore Point on the Kenai Peninsula, Wonder Bay on Afognak Island, Blue Fox Bay on Shuyak Island, and Hallo Bay at Katmai National Park.

We met concerned citizens—paid and volunteer—who collect and catalog trash on some of the more accessible beaches (a very relative term in a roadless region where every beach requires a boat or an airlift). At Katmai's Hallo Bay, rangers had worked for a week to pile and bag stuff that doesn't belong on a beach or in a national park; we hauled four tons of trash from a four-mile beach.

That's a lot, and on some of the coast there certainly is a lot of trash. On most of the coast, though, there's little. Vertical, rocky, high-energy shorelines make up most of the region's crenellated coastlines. Most of what washes up there in fine weather washes away in savage winter storms. It then funnels to quieter, protected beaches—most of which are crescents of sand at the heads of bays between headlands—and there, yes, it collects. That's where you'll find your trash, so those are the places we landed on.

Almost all problematic beach-trash is plastic. Plastic's signature rot-less inertness makes it last many years. And so, it's used for many things, including fishing nets. On beaches we visited, fishing gear made up a lot of the trash. When I walk the beaches of the U.S. East Coast, I find a lot of toy soldiers, action figures, and balloons.

Noticeably, by comparison, Alaska trash is adult, working trash. Yes, we found soft-drink and plastic bottles (how could we not?). But a lot of it was fishing net floats, fishing nets—old driftnets and new trawl nets—buoys, ship bumpers, and dock lines. There were also cargo nets and products that had spilled from shipping containers washed from freighters in storms.

How could we tell what came from shipping containers? Because we found fly swatters with the logo of one specific sports team, and hummingbird feeders, on each beach we visited. The fly swatters were everywhere. We also found consumer product containers—soap bottles, for instance—with various Asian and English writing.

Several people arranged to meet us to show-and-tell of their efforts to catalog and remove washed-up junk. Expedition member and California-based educator Kate Schafer observed that the people we met were all outraged, yet none was defeated. I liked that characterization.

But their effort is nothing if not Sisyphean. Trash comes off; more trash washes in. No end in sight. This is how it will be as far into the future as we can see. Unless we look past our worn-out noses and...

But before we talk about solutions, let's consider a serious question: if trash washes up on a beach so remote that no one is there to see it, does it make a mess?

Crew members remove trash from Hallo Bay Beach in Alaska's Katmai National Park.

This is not a deserted place. This is the last best megalopolis of life for hundreds of species of bird, fishes, and mammals long since driven from their strongholds farther south by human crowding and destruction of their living places.

Alaska has the largest remaining salmon runs in the nation, but a hundred years ago, the world's largest salmon runs came and went from the rivers of Oregon and Washington, especially the Columbia River, before it was dammed to the damnation of its native inhabitants, both human and fish. Grizzly bears, now more abundant in Alaska than anywhere in the world, were once commonly encountered out on the Great Plains (where Lewis and Clark confronted, shot, then wrote of them). Those open-country bears must have fed well on buffalo until white people decided to starve the Native people to near-extinction. >

ESSAY

How we treat our lands and other living inhabitants reflects how we treat other peoples and how we treat one another. That's why trash, even on a "remote" beach, insults our dignity and sullies our humanity.

The national park from which we removed one ton of trash per mile is frequently visited by tourists, who don't want to hire planes and guides only to find garbage. In this not-remote place, plastic causes harm and suffering. Before it gets ashore, it causes harm and suffering to seals, turtles, fishes, and seabirds who die from tangling in it and from the consequences of eating it and who feed it to their young. I've seen all of these creatures in trouble with trash.

Clearly, plastic is a problem. One of its main features is that it greatly resists getting metabolized by bacteria or chemically degraded. It doesn't go away. It just gets smaller. Animals eat it, and even at the scale of molecules, it's still plastic. Plastic polymers have been found circulating in the blood of mussels. Some plastics are non-toxic; some have toxic additives like lead and metals. We found both of those additives in some (though not all) of the samples we tested.

Even the tons of plastic we took were destined to be piled ashore in a landfill, though much of it could have been reused or recycled. We just moved it. That's what the market bears. It's too cheap to recycle because the makers and sellers don't pay the costs of disposal. As with many "cheap" things, the price reflects only the fact that the sellers privatize their profits and socialize the costs. Many things priced cheap are really rather costly.

Plastic collects. It collects near where many people live. It collects far from where people live, close to where other beings live. It goes where we don't think it goes because we don't think about where it goes.

And people who do actually know where it goes, don't know where it comes from. It's been 30 years since I heard about the first organized beach cleanups, and I'm getting tired of hearing the experts explain how we don't know where these nets come from or can't tell how these bottles get into the ocean.

It's time for environmentalists to stop simply categorizing the human-made debris. We need to start understanding how and where it gets into the ocean. The U.S. government has observers on fishing boats to monitor catches; why isn't there a question on the form asking captains how many nets they've lost in the last year? Why not a survey asking if they've ever dumped an old net because on-land disposal is too expensive? Why no adequate sampling and surveying of rivers for plastic outflow rates, no adequate dialogue with shipping companies to understand rates of container loss?

I'd rather not land on another beach where a person with a clipboard is counting how many bottles have Chinese lettering, unless that person has a colleague studying whether those bottles come from rivers or fishing boats, and what can be done about it.

Why is there no initiative to pay for old nets, rather than charge for their disposal? And why is there no legislation requiring a refundable deposit for new nets?

Cataloging and removing trash is important, but some of the effort must now be peeled off the beach and applied farther up the trash stream. After all, we want this to stop, right? The only way to do that is to understand how it gets into the ocean to begin with.

The proper posture for addressing this problem starts with our personal choices in stores and community recycling. But that isn't the solution. The solution lies in developing a new generation of materials whose lifetime trajectory is scaled to their use, whose fate in nature is appropriately timed to their function.

I would not want a fiberglass boat that dissolves in seawater in under 50 years; but I would indeed want yogurt to come in a container that isn't for all practical purposes eternal. Products with a two-week shelf life would be well-served in containers that take just a few months to rot in seawater and sunlight and release nutrients to bacteria.

Some people believe they "know" that the Pacific Garbage Patch is a mat of trash the size of Texas that's so thick you can walk across it. In truth, there's no such mat. There's a very large area in the north Pacific where an accumulating array of trash is slowly whirling. It's enough to kill sea turtles, and albatrosses eat enough of it that I've seen them on distant places like Midway Atoll and Laysan Island, dead, their innards packed with toothbrushes and cigarette lighters. But in most of the ocean the garbage is too sparse for a person to notice unless you're really paying attention. Yet even that thin soup, clearly, is far too much for the health of the wild inhabitants.

On our Alaska trip, we saw plastic trash on each landing. But between landings, in the company of whales and seabirds, we saw many rugged shores seemingly devoid of debris, and we observed not one floating human-made object.

What we did see, in the greatest remaining remote wilderness of the United States, is that, as Nick Mallos of the Ocean Conservancy noted, "These shores are not untouched; now the challenge is, how can we keep them unspoiled?" ■

TELLING A WIDER STORY

by Carl Safina

ELEPHANTS AND SHARKS MIGHT SEEM TO HAVE LITTLE IN COMMON. But the impulses to either conserve or destroy each are similar. We here at Blue Ocean feel compelled to call attention to the connections between those impulses. It takes a similar blind spot to kill a shark for just its fins and to kill an elephant for just its tusks. The attitude is the same.

And so you might have noticed that, while two Blue Ocean Fellows are doing ground-breaking shark conservation work and another is writing about our connection to seafood, I have been writing about African elephants.

In both cases, human poverty is at the root, and at the root of poverty is injustice. People who feel no empathy for living creatures are often shown no kindness by other people. All these stories are stories of human dignity and compassion.

What is the human relationship with the natural world? What should it be? How does our relationship with nature affect our relationships with one another?

In a real sense, the search for “a durable scale of values,” as Aldo Leopold called conservation, is a quest for *justice*. The impulses that let fish swim, birds fly, forests grow, rivers flow, and girls go to school, are similar live-and-let-live impulses.

Humans and other animals and natural lands and seas all need the same simple thing: an opportunity to be what they are. To simply “be” is often a struggle, both in nature and in civilization. A chance to live a full life, and to find enough room, is really one quest. Nature makes it hard enough—“what Darwin called the struggle for existence”—but people often don’t make it any easier, not for other animals, nor, too often, for other people. Justice for some implies the quest for justice for all.

We might be civilized, but civilized people are doing some unfortunate things. The next step is to become fully humanized. If we make it to humanized, we’ll better understand the need to simply leave some room.

And so, while our ocean emphasis continues, we’re also exploring some other crucial themes in conservation. As you watch us, you’ll notice that we’ll also be witnessing and explaining some of what’s going on *above* the high-tide line. ■



Top: Grandmaster of elephant conservation Iain Douglas-Hamilton and Carl Safina in Kenya. Photo by Carl Safina.

Center: An orphaned elephant rescued by David Sheldrick Trust. Photo by Carl Safina.

Bottom: Safina with elephant skull in Samburu Reserve, Kenya. Photo by Carl Safina.

JEFFREY RIZZO

Uses Lessons from Wall Street
to Help Nonprofits
Thrive



Jeff Rizzo at the shore with Maggie. Photo by Mia Levitt-Rizzo.

“Jeff Rizzo is a great, experienced, not-for-profit financial leader. He understands the business of keeping a mission-oriented organization in the black.” —Carl Safina

Jeffrey F. Rizzo, Board Treasurer for Blue Ocean Institute since its founding, describes his transformation from Wall Street veteran to nonprofit leader as a gradual awakening, but says two moments in time tipped the scales. “I must admit that riding shotgun with the pilot of a rescue helicopter barely above the surfers, dolphins and whales at the Banzai Pipeline on the North Shore of Oahu, and another ride through the valleys of Kauai following Hurricane Iniki (the most powerful hurricane to strike Hawaii in recorded history: CAT 5+!), were certainly inspirational and transformational.”

Since 2004, Rizzo has been the Chief Financial Officer for the Community Service Society, which fights the root causes of poverty in New York City. The organization’s impressive portfolio spans access to health care, affordable housing, disconnected youth, economic security, imprisonment and reentry, volunteer mobilization, and the workforce and poverty.

Of that work he says, “This sector fascinates, rewards and fulfills me in many ways. The nonprofit landscape is very challenging today primarily due to a convergence of economic, political and social turmoil...truly the perfect storm. The key challenge is for nonprofit leaders to have the ability and willingness to meet growing needs at a time when funding has become increasingly difficult to obtain, whether it be from government, foundations, corporations or individuals. As for the Community Service Society, what can be more rewarding than helping the working poor in NYC?”

It’s challenging work but Rizzo doesn’t turn away from challenges. He led the financing efforts for restoration of Grand Central Terminal, and was instrumental in sponsoring Moody’s first television program, “How Will Our Cities Survive,” in association with the United States Conference of Mayors and PBS/Philadelphia. Rizzo spent nearly 20 years at Moody’s Investors Service, where he

was Managing Director of the Public Finance Group. He was the Director of Finance for the New York State Metropolitan Transportation Authority, Controller for Marble Collegiate Church, and served on the faculty of the Mayors Leadership Institute and the California Debt and Investment Advisory Commission.

Why has he shown such a commitment to Blue Ocean? “Well - Carl of course,” Rizzo says. “I have a deep and profound passion for Blue Ocean’s mission and the Institute has proven itself to be a small but nimble and efficient organization. As important, on a personal level, I have learned that the best remedy for anyone who is unhappy, lonely or afraid is to go outside, somewhere where they can be quiet and surrounded by nature and the heavens. Only then does one feel that all is as it should be, where people are happy amidst the awesome beauty of nature...none more powerful than the mighty ocean in all its glory and majesty.” ■

MILESTONES AND FIRSTS

This year we look back over quite a milestone—a full decade of achievements. 2013 was another banner year as Blue Ocean Institute used the power of scientific research, expeditions, social and traditional media and a new television series on PBS to share our message with the world. Here's a list of key awards, publications, honors and "firsts," since our founding a decade ago.

2013

First full series of *Saving the Ocean with Carl Safina* broadcast on PBS to 90 million households in the U.S. and Canada. All episodes now available free at any time on PBS.org.

Carl Safina nominated for the 2014 Indianapolis Prize, a biennial prize in global wildlife conservation.

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

National Geographic premieres documentary video of GYRE expedition. Now available free at any time on NationalGeographic.com.

Over a quarter of a million visits to Blue Ocean Institute's new website this year.

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

Carl Safina interviewed by Alan Alda at Stony Brook Southampton. (Safina is co-chair of the Alan Alda Center for Communicating Science.)

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.

Safina wrote the foreword for "The Last Ocean, Antarctica's Ross Sea Project" by John Weller, published by Rizzoli.

Blue Ocean Fellows, 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 launched 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.

Six new episodes of *Saving the Ocean with Carl Safina* filmed to complete first year of the PBS series. Episodes premiere in October, 2012.

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

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

Blue Ocean Institute more than doubles its Facebook and Twitter audiences.

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

Blue Ocean Institute launches new and expanded website: BlueOcean.org.

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.

A Sea in Flames: The Deepwater Horizon Oil Blowout named to Top Ten List by the Project on Government Oversight.

Carl Safina receives Ocean Hero Award from *Diver* magazine.

Research scientists Alan Duckworth and J.I. Peterson's "Effects of seawater temperature and pH on the boring rates of the sponge *Cliona celata* in scallop shells" published in September issue of *Marine Biology*.

Carl Safina selected as "Long Island's Man of the Year in Science" by the *Times Beacon Record*.

2011

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

Carl Safina profiled in the the *New York Times*.

Carl Safina's sixth book, *A Sea in Flames, The Deepwater Horizon Oil Blowout*, published in April to excellent reviews.

MILESTONES AND FIRSTS

Both books selected as the *New York Times Book Review*, “Editor’s Choice.”

Carl Safina is interviewed on PBS, NPR, and in magazines from *TIME* to *Rolling Stone*, and on dozens of other stations.

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 invited to write “Fish Conservation” chapter in the *Encyclopedia of Biodiversity*, 2nd edition.

Carl Safina nominated for the 2012 Indianapolis Prize.

Carl Safina named among “Twenty-Five Visionaries Who Are Changing the World” by *Utne Reader*.

Carl Safina writes “The 2010 Gulf of Mexico Oil Well Blowout: a Little Hindsight” published in *PLoS Biology*.

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

Two new episodes of *Saving the Ocean* are completed.

The View From Lazy Point named *PopTech*’s list of 8 Great Holiday Reads.

The View from Lazy Point included in *Newsday*’s Top 11 Books of 2011.

2010

Carl Safina’s first children’s book *Nina Delmar and the Great Whale Rescue* is published.

Carl Safina testifies before Congress regarding the Gulf oil blowout.

Carl Safina interviewed on The Colbert Report, MSNBC, CBS TV, PBS’ “Need to Know,” “The Leonard Lopate Show” (NPR), Globo News-Brazil, News 12 Long Island, Democracy Now, CNN, BBC Radio, and many others.

Carl Safina invited to give a talk at the TEDx Oil Spill Conference; talk quickly moves to main TED.com homepage.

Special Oil Spill web section added to BlueOcean.org.

FishPhone launches a new app; receives stellar media coverage.

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

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

Carl Safina becomes co-chair of steering committee for the Center for Communicating Science at Stony Brook University. The Center is an innovative collaboration between SBU’s Journalism School and the School of Marine and Atmospheric Sciences.

Carl Safina wins Sylvia Earle Award presented at the Blue Ocean Film Festival.

Carl Safina wins Guggenheim Fellowship in Natural Sciences Science Writing.

Safina wins Lifetime Achievement Award from the International Wildlife Film Festival.

Blue Ocean Institute establishes partnership with Google Ocean.

Carl Safina writes “The Moral Climate” chapter in Moore and Nelson’s *Moral Ground, Ethical Action for a Planet in Peril*.

2009

Carl Safina’s “Darwinism Must Die So That Darwin May Live” published in the *New York Times*.

Hardt and Safina’s “Threatening Ocean Life from the Inside Out” published in *Scientific American*.

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

Safina’s “A Future for U.S. Fisheries” published in *Issues in Science and Technology*.

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

FishPhone App receives major media coverage from *The Wall Street Journal* and the *New York Times* to *Bon Appetit*, *Gourmet*, *Condé Nast Traveler* and *Parade* magazine (resulting in 4,000 queries in a single day).

Green Chefs/Blue Ocean launched: online sustainable seafood course for chefs and culinary students.

2008

Carl Safina and DH Klinger’s “Collapse of Bluefin Tuna in the Western Atlantic” published in *Conservation Biology*.

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” by Environmental Defense Fund.

Blue Ocean Institute invited to establish science office at the School of Marine & Atmospheric Sciences at Stony Brook University.

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

Carl Safina's "Toward a Sea Ethic" published in *The American Prospect's* "Ocean & Coasts" special report.

Marah Hardt and Carl Safina's "Carbon's Burden on the World's Oceans" published online at *Yale Environment 360*.

2007

Blue Ocean 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 text-messaging service, plus a downloadable seafood guide for cell phone and PDA users at fishphone.org.

Carl Safina's article, "On the Wings of the Albatross," with photographs by Frans Lanting, featured in *National Geographic* magazine.

New television series, *Saving the Ocean with Carl Safina*, developed for PBS by Safina and producer John Angier. Pilot segments filmed in Belize and Zanzibar.

Blue Ocean 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*, is published to critical acclaim.

Voyage of the Turtle, In Pursuit of the Earth's Last Dinosaur selected as a *New York Times Book Review* "Editors' Choice."

Carl Safina gives invited talk at the World Economic Forum in Davos, Switzerland on the status and future of fisheries and the oceans.

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

Carl Safina awarded George B. Rabb Medal from Chicago Zoological Society, Brookfield Zoo.

Carl Safina addresses a conference convened by the Center for Health and the Global Environment at Harvard and the National Association of Evangelicals to help create a conservation-oriented "Urgent Call to Action."

Carl Safina awarded Banimale Foundation Fellowship.

2005

Blue Ocean's Hawaii-based Marine Ecology and Fishery Specialist, Eric Gilman, produces "Catch Fish, Not Turtles," a booklet 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 and four co-authors' "U.S. Ocean Fish Recovery; Staying the Course" 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' "Saving the Oceans" published in *Issues in Science and Technology*.

2003

Blue Ocean Institute launched by MacArthur fellow Dr. Carl Safina and Mercédès Lee.

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

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

Partnership established between Blue Ocean and Atlantis Marine World Aquarium in Riverhead, Long Island, NY as the basis for a new education program.

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

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

Carl Safina writes the foreword for a new edition of *The Sea Around Us* by Rachel Carson.

Carrie Brownstein, Mercédès Lee and Safina's "Harnessing Consumer Power for Ocean Conservation" published 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.

MAKING WAVES

In 2013 we at Blue Ocean reached a diverse, global audience through television, radio, print, web outlets and social media. Our stories have reached Main Street and Wall Street, scientists and chefs, faith leaders and shark lovers, conservatives and conservationists.

Interviews with Carl Safina-Radio/TV/Webcasts

"Russia Nixes Antarctic Reserve." Living on Earth program, *Public Radio International* (PRI)

"U.S. Drops Unarmed Bombs on Great Barrier Reef." Here and Now program, *WBUR, Boston* and *National Public Radio*

"Into the Gyre" video interview, *NewYorkTimes.com*

"Carl Safina, Gyre" The Writer's Voice, *WritersVoice.net*

"Gyre: Creating Art From A Plastic Ocean," 20-minute video documentary, *NationalGeographic.com*

Online Magazines

"Plastic in Paradise: How We Trash the Wilderness Experience," *Afloat* magazine

"Sustainable Seafood is a Fantasy," *Salon.com*

"In the cause of conservation, a new entrée," *EcoAméricas*

Carl Safina's Web Essays, Commentary

"Killer Whales in Washington State: Serial Problems," *CarlSafina.org*

"Kitchen Killer Whales," *CarlSafina.org*

"Timber! (Rattlesnakes, That Is)," *CarlSafina.org*

Safina's book foreword for "The Last Ocean, Antarctica's Ross Sea Project" by John Weller, published by Rizzoli

"Gas Fracking: No Time for Nuance," *Huffington Post*

"No Refuge: Tons of Trash Covers the Remote Shores of Alaska," *Yale Environment 360*

"GYRE Expedition, Day 5 - Bearing Witness: Witnessing Bears. Act 1 and 2," *NationalGeographic.com-OceanViews*

"GYRE Expedition, Day 4 - Landing in Hallo Bay," *NationalGeographic.com-Ocean Views*

"GYRE Expedition, Day 3 - Late Afternoon," *NationalGeographic.com-Ocean Views*

"GYRE Expedition, Day 3," *NationalGeographic.com-OceanViews*

"GYRE Expedition, Day 2 - Afternoon," *NationalGeographic.com-Ocean Views*

"GYRE Expedition, Day 2 - Morning," *NationalGeographic.com-Ocean Views*

"GYRE Expedition, Day One - Afternoon," *NationalGeographic.com-Ocean Views*

"GYRE Expedition, Day One - Morning," *NationalGeographic.com-Ocean Views*

"GYRE Expedition - Departure," *NationalGeographic.com-Ocean Views*

"GYRE Expedition All Aboard!" *NationalGeographic.com-Ocean Views*

"A New Idea to Protect Wild Salmon," *NationalGeographic.com-Ocean Views*

"Marine Debris Gyre Expedition Sets Sail," *Environment News Service*

"Sharks Cross Fin-ish Line at CITES and a New Era Begins," *NationalGeographic.com-Ocean Views*

"Plenty of Fish in the Sea? It's the Law," (Safina and Brown) *NationalGeographic.com-Ocean Views*

"Square One: New England Fishery Managers Trying to Un-do Decades of Protection," (Safina and Brown) *NationalGeographic.com-Ocean Views*

"Insanity Caused by Eating Bluefin Tuna," *NationalGeographic.com-Ocean Views*

"Slaughter of the African Elephants," (photography) *New York Times*

"Blood Ivory - How Ivory Costs Human Lives Too" *International Herald Tribune*

"Kenya 5: Saving Elephants Amid Poverty," *Huffington Post*

"Kenya 4: A Lesson in Elephant Sex," *Huffington Post*

"In an Elephant Killing Zone, A Quiet Moment," *Dot Earth Blog, New York Times*

"Kenya 3: Collaring an Elephant to Help Against Poaching," *Huffington Post*

"Kenya 2: Visiting the Sheldrick Trust Part Two," *Huffington Post*

"From the Front Lines of Africa's Elephant Slaughter," *Huffington Post*

"PBS Show 'Saving the Ocean with Carl Safina' Returns to TV," *Boston Daily*

- "The Little Fish That Could – Maybe It Will," (Safina and Brown) NationalGeographic.com-Ocean Views
- "Eating Tuna: What's in your Roll? What's in Your Can?" (Safina and Madigan) Huffington Post
- "Let's Stick to Facts on Evolution Theory," Huffington Post
- "Warming Up to Shrinking Fish" (Safina and Brown) NationalGeographic.com-Ocean Views
- "An Improvable Feast," (Safina and Greenberg) *New York Times*

Media Coverage of Carl Safina and Blue Ocean Institute

- "Art in Review, Eliot Porter," *New York Times*
- "Swimming with Sharks," article and cover image, *ICON* magazine
- "Howard Ferren and the Expedition Gyre: Completion of the Gyre Expedition." *Coastal America's* website.
- "Stony Brook Prof Explores Waterborne Trash," *Newsday*
- "Scientists, artists and educators exploring marine debris in southwest Alaska," *Blue Channel 24*.
- "Marine Debris Expedition Sets Sail," *The Seward City News*.
- "Carl Safina Is Lead Scientist for the Gyre Expedition, Southwest Alaska," *eScienceNews.com*
- "The GYRE Expedition and Exhibit – Marine Debris as Material and Message," *Marine Debris Blogspot*
- "Anchorage Museum, SeaLife Center launch ambitious expedition to study marine debris crisis in Alaska," *Alaska Business Monthly*
- "A Scientist Who Foresaw New York Storm Surge Reflects from his Flooded Home," Dot Earth Blog, *New York Times*.

Publications by Paul Greenberg

- "Coast Guard: Kate Orff and her Plan to Save New York with Oysters," *Vogue* magazine
- "If You Teach A Son to Fish: fishing on Father's Day to learn about life, death and the food we eat," *TakePart.com*
- "A River Runs Through It: How to Fix the Gulf of Mexico Dead Zone," *American Prospect*
- "Sustainable Seafood - The Good News: What's Going Right in American Fisheries," *Food and Wine*
- "Consider the Mussel (and the Seaweed, Too): How the culturing of mussels and seaweed might help clean up waterways," *Yale Environment 360*

- "Snappers: Eat or Be Eaten - The winding road of the baby bluefish" *Edible Manhattan* and *Edible East End*
- "Debating Genetically Modified Salmon," *Yale Environment 360*
- "Holy Mackerel: What do you do with a pile of wild fish about to go bad?" *Edible Manhattan* and *Edible East End*
- "Don't Discount Smart Fish Farming," *New York Times*, Room for Debate
- "Ends of the Earth," *New York Times Book Review*
- "An Improvable Feast" *New York Times Sunday Review* (with Carl Safina)
- "Alaska's sustainable salmon stocks face threat from mining development," *The Times of London*

Publications by Demian Chapman & Debra Abercrombie

- Abercrombie, D.L. and Chapman, D.D. 2013. Identifying sharks fins: oceanic whitetip, porbeagle and hammerheads. Field Identification guide.
- Howey-Jordan, L. A., Brooks, E. J., Abercrombie, D. L., Jordan, L. K., Brooks, A., Williams, S., Chapman, D.D. 2013. Complex movements, philopatry and expanded depth range of a severely threatened pelagic shark, the oceanic whitetip (*Carcharhinus longimanus*) in the Western North Atlantic. *PLoS ONE*, 8(2), e56588.
- Abercrombie, D.L., Chapman, D.D., Gulak, J.B., and Carlson, J.K. 2013. Visual identification of fins from common elasmobranchs in the Northwest Atlantic Ocean. *NMFS-SEFSC-643*
- Worm, B., Davis, B., Kettner, L., Ward-Paige, C. A., Chapman, D.D., Heithaus, M. R., Kessel, S., Gruber, S. H. 2013. Global catches, exploitation rates, and rebuilding options for sharks. *Marine Policy* 40, 194-204.
- "Give Shark Sanctuaries a Chance," *Science*, Vol 339 by Chapman, D., M.G. Frisk, D.L. Abercrombie, C.Safina, S.H. Gruber, E.A. Babcock, K.A. Feldheim, E.K. Pritchard, C. Ward-Paige, B. Davis, S. Kessel, M. Heithaus, B. Worm
- Chapman, D.D., Wintner, S.P., Abercrombie, D.L., Ashe, J., Bernard, A.M., Shivji, M.S., Feldheim, K.A. 2013. The behavioral and genetic mating system of the sand tiger shark, *Carcharias taurus*, an intrauterine cannibal. *Biology Letters* 9(3).
- O'Leary, S. J., Hice, L. A., Feldheim, K. A., Frisk, M. G., McElroy, A. E., Fast, M. D., & Chapman, D. D. 2013. Severe inbreeding and small effective number of breeders in a formerly abundant marine fish. *PLoS ONE*, 8(6), e66126.
- O'Leary, S. J., Feldheim, K. A., Chapman, D. D. 2013. Novel microsatellite loci for winter flounder (*Pseudopleuronectes americanus*). *Conservation Genetics Resources*, 1-4.

MAKING WAVES

O'Leary, S. J., Feldheim, K. A., Chapman, D. D. 2013. Novel microsatellite loci for white, *Carcharodon carcharias* and sandtiger sharks, *Carcharias taurus* (order Lamniformes). *Conservation Genetics Resources*, 1-3.

Feldheim, K.A., Gruber, S.H., DiBattista, J.D., Babcock, E.A., Kessel, S.A., Hendry, A.P., Pikitch, E.K., Ashley, M.V., Chapman, D. D. Accepted. Two decades of genetic profiling yields first evidence of natal philopatry and long-term fidelity to parturition sites in sharks. *Molecular Ecology*.

Blue Ocean Institute Blog by Elizabeth Brown

"Vanished Menus Tell of Vanquished Banquets"

"Leatherbacks Making a Comeback"

"Local Fisheries in Senegal Rebound after Foreign Boats Told to Get Out"

"Warm-Water Fish are Replacing Cool-Water Fish in Fishing Nets"

"Fish Too Tasty to be Legal? They Could Well be Illegal"

"For the Love of the Coast, Protect Coastal Wetlands!"

"Reopening New England's Closed Fishing Areas Would be Bad for Mammals, Too"

"Blue Catfish Blues Mean a Fish Rated Green"

"Catching Large Fish Leaves You with Only Small Fish to Catch"

"Farmed Fish Rise, While Wild Fish Remain in Trouble"

"More Good News for Sharks: Popularity of Shark Fin Soup Wanes Some in China"

"Depleted Bluefin Tuna Sold for \$1.8 Million - A Sad and Sick Story" (Our most popular blog of 2013!)

"FDA Approves Genetically Engineered Salmon - But is This a Good Thing?"

"Innovative Solutions: Reducing Unwanted Catch in Tuna and Swordfish Fisheries"

"Fish for Dinner - What's Really on Your Plate?"

Blue Ocean Institute Blog by Abercrombie & Chapman

"Top Ten Shark Myths Dispelled," *BlueOcean.org*

"The Weird World of Shark Mating," *BlueOcean.org*

"Even Sharks Like Sushi" *BlueOcean.org*

"Heads Up!" *BlueOcean.org*

"Restricted Supply, Tepid Demand: The New Recipe for Shark Fin Soup?" *BlueOcean.org*

Blue Ocean Institute Blog by Guest Bloggers

"Part 3: Certain Whales Might Adjust Their Hearing Sensitivity to Loud Noises," by Susan Kahoud

"Part 2: Naval Sonar is Harming Thousands of Marine Mammals," by Susan Kahoud

"Human-Generated Noise in the Oceans: Time to Lessen the Crescendo," by Susan Kahoud

"Do Sea Turtles See the [LED] Light?" by Jesse Senko

"A Call to Explorers: Can We Find Species Before We Lose Them?" by Lydia Ball

Science Publications – Blue Ocean Institute

"Give Shark Sanctuaries a Chance," *Science*, Vol 339 by Chapman, D., M.G. Frisk, D.L. Abercrombie, C.Safina, S.H. Gruber, E.A. Babcock, K.A. Feldheim, E.K. Pikitch, C. Ward-Paige, B. Davis, S. Kessel, M. Heithaus, B. Worm

Lectures, Keynote Speeches, Workshops and Public Talks-Carl Safina

Taft School, Watertown, CT

The Maritime Aquarium, Norwalk, CT

SOCAP13, Sea Change Storytelling Panel, San Francisco, CA

Writers Conference, Stony Brook University, Southampton Campus, Southampton, NY

Student Climate and Conservation Congress, Shepherdstown, WV

Drexel University, Philadelphia, PA

Lead scientist, GYRE Expedition, Aleutian Islands, AK

The Story Collider, The Bell House, Brooklyn, NY

American Museum of Natural History, New York, NY

Colby College, Portland, ME

Rutgers University, Brunswick, NJ

Oyster Roast Fundraiser, St. Augustine, FL

Whitney Laboratory for Marine Bioscience, Marineland, FL

University of Florida Public Interest Environmental Conference,
Gainesville, FL

Living Oceans Foundation, New Carrollton, MD

Hofstra IDEAS Institute, Hofstra University, Hempstead, NY

Lazy Point Symposium, Stony Brook University, Stony Brook, NY

**Lectures, Keynote Speeches, Workshops and Public Talks
by Paul Greenberg**

Dalhousie University, Halifax Nova Scotia.

Hiram College, Hiram, OH

Maumee Valley Country Day School, Toledo, OH

The New School, New York, NY

The Harbor School, New York, NY

UC Santa Barbara, Steven Manley Campus, CA

NOAA Sea Grant Conference, San Diego, CA

Wellfleet Preservation Hall, Wellfleet, MA

Monterey Bay Aquarium, Monterey, CA

Rye Country Day School, Rye, NY

Atlanta Food and Wine Festival, Atlanta, GA

New Amsterdam Market, New York, NY

Back 40 West, New York, NY

Canio's Bookstore, Sag Harbor, NY.

Chefs Collaborative Summit, Charleston, SC

William and Mary, Williamsburg, VA

University of Mississippi, Oxford, MS

**Lectures and Workshops by Demian Chapman
& Debra Abercrombie**

Shark Fin Identification Workshops held in:

Honduras

Belize

Costa Rica

Senegal

Sri Lanka

Hong Kong

U.S.A.

Thailand

United Arab Emirates

Yemen

Egypt

Oman

Brazil

Fiji

Black-chinned Hummingbird
© Eliot Porter. Courtesy Paula
Cooper Gallery, New York.



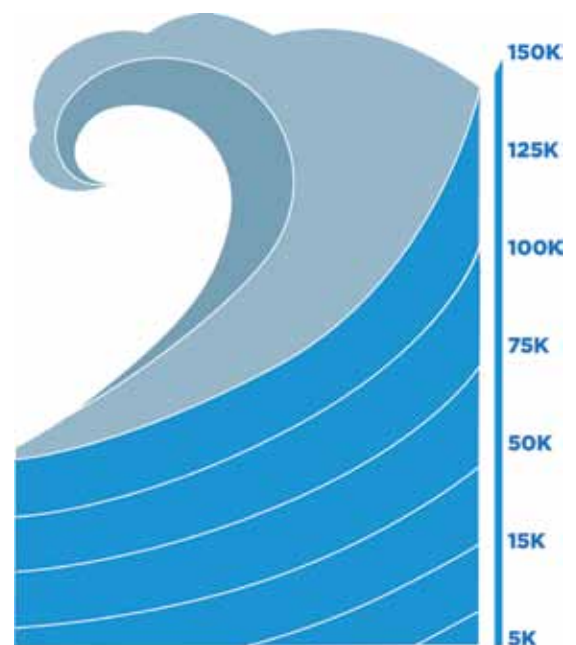
BLUE OCEAN @ 10 CAMPAIGN

To celebrate our 10th anniversary, we launched a special fundraising campaign with the goal of raising \$150,000 during 2013.

Our writings, the GYRE Expedition, and special serial blog topics that featured our work as witnesses for nature—ocean trash in June, sea turtles in July, sharks in August, whales in September/October—garnered growing audiences and increasing support.

Summer also brought an unexpected gift from board member Jack Macrae and his wife, the art exhibition icon, Paula Cooper. They generously mounted a special exhibit of the pioneering nature photographer Eliot Porter's work at the Paula Cooper Gallery in Chelsea, NYC. They donated the proceeds from this exhibit to Blue Ocean Institute. Jack Macrae was Eliot Porter's editor and close friend. He is also Carl Safina's publisher, editor and dear friend. Paula Cooper and Jack Macrae have been stalwart supporters of Blue Ocean since before it was formally launched in 2003.

By the end of August we were halfway to our \$150,000 goal. As we send this report to the printer, our 10th Anniversary Benefit Gala is just weeks away. We can now see that we'll reach our goal! A heartfelt thank you to all for your wave of generosity in our 10th year.



Blue Ocean Institute Summary Statement of Financial Position

May 31, 2013

Assets

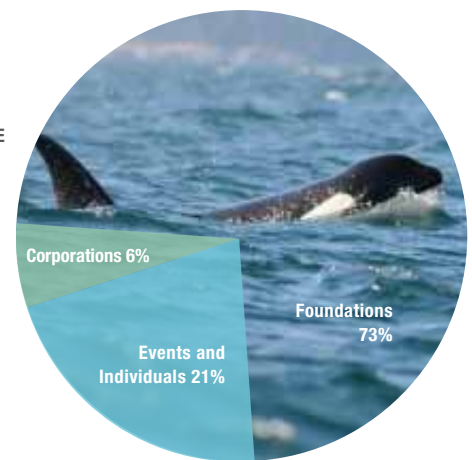
Cash And Interest Bearing Deposits	\$328,334
Investments	\$136,376
Contributions And Pledges Receivable	\$59,246
Other Assets	\$20,748
TOTAL ASSETS	\$544,704

Liabilities

Accrued Expenses	\$22,260
Fiscal Sponsorship	\$450
TOTAL LIABILITIES	\$22,710

Net Assets

Unrestricted	\$ 410,055
Temporarily Restricted	\$31,939
Permanently Restricted	\$80,000
Total Net Assets	\$521,994
TOTAL LIABILITIES AND NET ASSETS	\$544,704



Blue Ocean Institute Summary Statement of Activities

Year Ended May 31, 2013

	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
PUBLIC SUPPORT AND REVENUE:				
Public support:				
Contributions	510,108	115,667	-	625,775
Revenue	99,413	-	2,296	101,709
Net assets released from restrictions	157,069	(154,773)	(2,296)	-
TOTAL PUBLIC SUPPORT AND REVENUE	766,590	(39,106)	-	727,484
EXPENSES:				
Program services	561,693	-	-	561,693
Supporting services:				
Management and general	88,885	-	-	88,885
Fund-raising	77,662	-	-	77,662
Total Supporting Services	166,547	-	-	166,547
TOTAL EXPENSES	728,240	-	-	728,240
Increase (Decrease) In Net Assets Before Other Increases	38,350	(39,106)	-	(756)
Unrealized gain on investments	4,987	-	-	4,987
Increase (Decrease) In Net Assets	43,337	(39,106)	-	4,231
Net Assets, beginning of year	366,718	71,045	80,000	517,763
Net Assets, end of year	\$410,055	\$31,939	\$80,000	\$521,994

Blue Ocean Institute's complete audited financial statement may be obtained by writing to:
 Mayra Mariño, Business Manager
 Blue Ocean Institute
 Dutchess Hall, #137
 School of Marine and Atmospheric Sciences,
 Stony Brook University
 Stony Brook, NY 11794-5000

Please accept our profound gratitude.

Because of your support and partnership in 2013, Blue Ocean Institute has reached a global, diverse audience with our unique narratives from the front lines of ocean conservation. Our books, essays, workshops and PBS series describe the changing ocean, its challenges, practical solutions, the intertwined fate of nature and human dignity and reasons for hope. WE SALUTE YOU!

Up to \$1,000

Richard Abbott
Elaine Abrams and
Jeffrey Zitsman
Bill Akin
Robert C. Anderson
Nancy Badkin Antlitz
Andres Antonius
The Susan A. and
Donald P. Babson
Charitable Foundation
The Paul and Edith
Babson Foundation
Marilyn and John Paul Badkin
W Davis Bales
Craig Barszo
Allison and Gianfranco Basili
Judy and Ennius Bergsma
Brooke Bessesen and the
Children of Dutch Creek
Elementary School
Pat Betteley
Jan Beyea
Leslie Biddle
Carolina Biebel
Jeffrey Block
Andrew Bochman
Waveney and
Malcolm Bowman
Angelica Braestrup
Richard Brown
James Brumm and
Yuko Tsuchida
Lindsay Bryant
Crystal Bunch
Diane and Robert Burns
Bettina and Bruce Buschel
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Mary Chapman
Kathy and David Chase
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Katheryn Ann and
Kimberly Coast
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Dominique and Misato Conseil
Christine Cooke
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Joe Finkhouse
First Giving
Nancy Foster
Sandra and Rav Freidel
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Douglas Gerleman
Barrie Gilbert
Angus Gilchrist
Art Gingert
Polita and Peter Glynn
Jacqueline Diehl Gold
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Gary Whittaker
Janet Wilkinson
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Mary Jean and John Winkler
Cynthia Wolpert
Kathleen Yeager
Leandra and Eric Ziecheck
Catherine Ziegler

\$1,001 to \$5,000

Avalon Park and Preserve
Rema Boscov
Barbara Coll - Webmama
David and Margaret Conover
Conservation & Research
Foundation
Goldie Anna Charitable Trust
Mr. & Mrs. B. Eric Graham
Lee and Jordan Gruzen
Lindblad Expeditions
May Foundation
Roslyn and Jerome Meyer
Anonymous Individuals
New Chapter
Norcross Wildlife Foundation
Jeffrey F. Rizzo
Royal Caribbean Cruises

\$5,001 to \$20,000

Robert Campbell
CharityBuzz
Yvon Chouinard
The Community Foundation of
Santa Cruz
Marjorie Findlay and
Geoffrey Freeman
The Henry Foundation
Gillian and Peter Neumeier
Vicki and Roger Sant
The Vervane Foundation

\$20,001 to \$50,000

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 The Charles Engelhard Foundation
 Paula Cooper and John Macrae III
 The Gelfond Fund for Mercury Research and Outreach/
 Stony Brook University
 Long Island Aquarium and Exhibition Center
 Dieter Paulmann
 Threshold Foundation

\$50,001 to \$300,000

Anonymous Foundation
 The David and Lucile Packard Foundation
 Whole Foods Market, Inc.

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 Betsey Stefany

In Memory of Rachel Carson
 Linda Lear

In Memory of William Kovell
 Kristina Bardaxis

In Memory of Edward V. Malloy
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In Memory of Janice McHenry
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 Christiane and Klaus Miczek
 Charles and Maryann
 Macleod Schultz
 Caroline Tippetts
 Jane Vondell

In Memory of Jocelyn Wallace
 Gail and Joseph Gevock
 Henry Wallace

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 Canvas 4 Life
 Chantecaille Cosmetics
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 Burton Greenhouse
 Lindblad Expeditions
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 Dr. Carl Safina
 Linda Shockley
 Whole Foods Market, Inc.
 Wild Planet Foods

Brown bears in Katmai National Park, Alaska. Photo by Carl Safina.



4 WAYS TO GIVE TO BLUE OCEAN INSTITUTE

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

In 2011, Blue Ocean Institute established an endowment fund to honor the memory of our dear friend and board member, Dr. Eric Gilchrist. His steady support for Blue Ocean 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 Blue Ocean Institute.

1 ONLINE

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

2 TELEPHONE

631-632-3763

3 MAIL

Please send your tax-deductible donation to:

Blue Ocean Institute
 Dutchess Hall, Suite 137
 School of Marine and Atmospheric Sciences
 Stony Brook University
 Stony Brook, NY 11794-5000

Please make your check payable to Blue Ocean Institute.

4 TO CONTRIBUTE TO THE BLUE OCEAN ENDOWMENT FUND:

Please contact Jesse Bruschini, Vice President: 631-632-3763 or jbruschini@blueocean.org.

Blue Ocean Institute is a 501(c) 3 nonprofit organization based on Long Island, NY.



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Elizabeth Brown, Research Scientist
Megan Smith, Project Manager

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Kimi Mischke, Margaret Mathers & Sharon Newsom, itthree graphic design (Annual Report)
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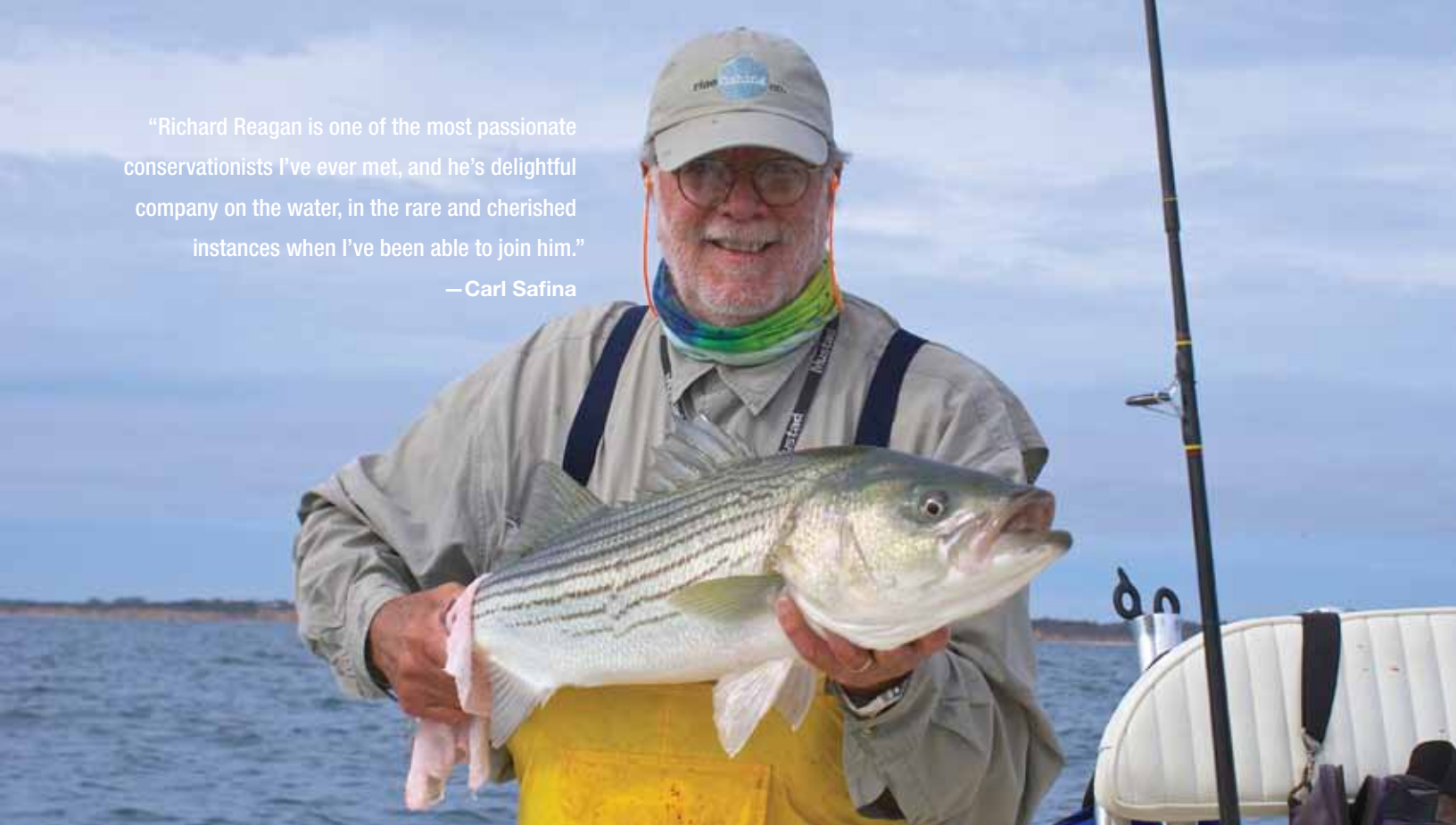
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Richard Reagan



Blue Ocean board members congratulate our business manager Marya Mariño on her 10th anniversary with the Institute. Mayra was instrumental in establishing Blue Ocean and has kept our boat afloat for over a decade! Thank you! Photo by Jesse Bruschini.

“Richard Reagan is one of the most passionate conservationists I’ve ever met, and he’s delightful company on the water, in the rare and cherished instances when I’ve been able to join him.”

—Carl Safina



Richard Reagan with a striped bass captured (and released!) off Montauk Point, NY. Photo by Richard Roach.

PROFILE

RICHARD REAGAN

A Life Filled with Loving and Protecting Nature

“Life is best lived wet” might be an apt credo for Blue Ocean board member Richard Reagan. The natural world is a centerpiece for his life—personally and professionally—and all things marine and riparian run through it.

“I spent all of my childhood summers on Fairfield Beach, CT where my grandfather built a house that still stands,” Reagan explains. “It was, for a kid in the 40’s and 50’s, a magical place in the natural world, which we absorbed by literally getting wet: swimming, boating, fishing, clamming, shell-gathering; and watching the dramatic weather changes, including hurricanes. So, saltwater is in my veins. Freshwater, too, along the deep woods that were our playground in northern Westchester County in the 50’s.”

It didn’t end in childhood, though, as Reagan adds, “The past 20 years have found my family enjoying the deep woods and watery habitats on the upper Delaware, where we have a home rescued from tear-down right on the river; we’ve been flooded, but not disastrously, four times so far. What the hell, we’re in nature. Warm-weather months find me out east in and around Montauk, fishing obsessively and staying right

near Carl’s cottage on the bay. Heaven, and again, right in nature.”

Reagan recently retired as President of the Norcross Wildlife Foundation (NWF) after a tenure of 19 years. The work began formally in 1977 when he was elected as a Life Trustee on the NWF board. His tenure was preceded by many visits to the Foundation’s then-2,200-acre Norcross Wildlife Sanctuary, in Monson, MA.

“It’s a breathtakingly beautiful and truly wild refuge for all manner of wildlife. When I began running the Foundation in early 1989, I felt that all the Sanctuary really needed was, first, more science in terms of forest management, and, second, lots more acres,” Reagan says.

Under Reagan’s direction the Sanctuary expanded to over 11,000 protected acres by the mid-nineties. Its active programs included public visits, year-round school, scout and adult education classes, internships, intensive propagation and distribution of native wildflowers, ferns, etc., and managing wild habitat with a “light” hand.

Reagan also helped the Foundation establish a workable “niche” for its grant-making program.

He explains, “The niche we worked toward and which seems to me, at least, exquisite in its simplicity, is to become the ‘True-Value’ hardware store of environmental grant-making. Thus, if an NGO needs tools to accomplish good conservation work of any kind, we like to support that—and cost-effectively, too. Our grants average around \$3,500-\$5,000, and function just like buying a carpenter a good set of tools to build houses that some other Foundation will pay big bucks for. Thousands of computer gizmos, boats, motors, vehicles and rakes and shovels, too, have been funded by NWF.”

The Foundation also has a successful interest-free, land-loan program, availed by mostly local land trusts faced with dire need and no money. “We give them up to \$250K for a year, interest-free, and to date have helped them save a total of over 50,000 acres across the country; we’ve never had a default.”

Reagan and his wife, actress/author Sonia Manzano, live primarily in New York City and enjoy the urban wildlife of the Upper West Side. ■



“Elephants and sharks might seem to have little in common. But the impulses to either conserve or destroy each are similar. We here at Blue Ocean feel compelled to call attention to the connections between those impulses. It takes a similar blind spot to kill a shark for just its fins and to kill an elephant for just its tusks. The attitude is the same.”

—Carl Safina

