

Each quarter SOFO features eco-links, written by a member or friend of the Museum. If you wish to submit an article, please contact us.

ecolinks To Save Our Earth, We Need to Face the Facts... That's Why I Communicate Science by Erica Cirino



Erica Cirino crosses the Great Pacific Garbage Patch with Plastic Change in 2016. Photo credit Henrik Beha Pedersen

In 2016, when I was 24 years old, I set sail on *Christianshavn* a rusty old sloop, across the Great Pacific Garbage Patch, from Los Angeles, California, to Honolulu, Hawaii. I'd gone to sea as a photojournalist to document plastic pollution. I returned to land after 24 days a changed person.



Christianshavn crosses the Great Pacific Garbage Patch in 2016. Photo credit Erica Cirino and Chris Jordan

I was shocked to see that the Garbage Patch is not a patch—as the media had portrayed—but a soup of mass-produced plastic stuff and the toxic particles all plastic items continuously shed. Plastic doesn't biodegrade, it breaks up, especially in the ocean's extreme conditions.



Kamilo Beach on Hawaii is nearly completely covered with plastic. Photo credit Erica Cirino



A handful of plastic from the waters off Kamilo Beach in Hawaii. Photo credit Erica Cirino

Back on land, I'd meet people around the world who showed me that plastic particles are not just in the ocean, but in animals, plants, processed foods, bottled drinks, freshwater, soil, air, and our own bodies. Plastic particles are all around us, and they are toxic, as all plastics are manufactured with dangerous chemicals known to interfere with our bodies' normal functions and cause cancer, obesity, reproductive problems, and more.

Plastic's pollution includes not only plastic objects and particles, but the toxins released when plastic's fossil fuel ingredients are extracted from the Earth, refined, and turned into plastic. Plastic also causes pollution when transported, used, and disposed. And this pollution is not caused by people but by the plastic and petrochemical industries. All of plastic's pollution disproportionately harms BIPOC (Black, Indigenous, and People of Color).

Plastic is killing animals, and it's killing people, too. It's a driver of systemic injustice, and public health crises. The only way to stop plastic pollution from growing worse is to stop making more plastic.

I learned that we need to accept these facts in order to move forward. And so I wrote *Thicker Than Water: The Quest for Solutions to the Plastic Crisis* (published by Island Press in 2021). My hope is that the truths it contains will compel action, and ultimately, prevent future harm to people, nonhuman animals, and our Earth.

My work as a science—and specifically plastic pollution—communicator has, by chance and choice, come to me over time. Throughout my teens into my early twenties, I worked as clinic assistant at a wildlife hospital on Long Island, New York. It was not an easy job caring for sick, injured, and orphaned animals, but releasing healed animals back into nature is one of the most gratifying experiences I've had.

And yet, for all the animals saved, there were many more that died. On each patient's medical charts, we'd mark the cause of injury/illness/orphaning/death. It didn't take long for me to notice people were to blame for the majority of the problems wildlife faced, and many of those problems involved plastic.

Wild animals are ill-equipped to survive in a world shaped by people. To me, wildlife rehabilitation seemed to be a way to correct some of the harm my species was causing to our nonhuman kin. But later, in college, I took a course in environmental literature and this would give me new tools for helping advocate for nature and animals. If I could

#### Continued from page 1

communicate what I knew, I thought, maybe people could learn how to act and prevent harming the Earth and its nonhuman residents instead of focusing my energies on trying to remedy the destruction. That's when I knew I needed to shift course, and trained to work as a freelance science photojournalist. And then I started writing about endangered killer whales and wolves, bird-window collisions, bird flu...and, most recently, plastic. *Thicker Than Water* brought me on another journey, and this year I took on the exciting role as Communications Manager of Plastic Pollution Coalition to focus all my energies on communicating the plastic crisis.

Industries must be held accountable for this mess. Yet, all individuals can take an important and empowering step forward by seriously reducing the plastic in their lives. Doing so sends a message to others around us, and the industries churning out plastic pollution.

Embrace the values you want to see: Refuse plastic, and focus on reusing, repairing, sharing, and refilling. Learn more about how you can be a part of solutions at www.plasticpollutioncoalition.org.

# Footnotes Nature

# Hooked

by Jim Ash, Vice President SOFO Board of Directors & Executive Director Emeritus

It was 1959 in the month of May and I was venturing forth on my first visit to the Jamaica Bay Wildlife Refuge in Queens. I had driven through the refuge many times on my way to the Rockaways to go fishing and often wondered what all those bird-watchers got out of skulking around in the underbrush just to see a bird.

As I walked out onto the dike encircling the west pond something large and ominous looking flew right across the dike in front of me, just a little above eye level. I knew it was a bird, of course, but my first thought was that it was prehistoric, looking almost like a pterodactyl. I quickly started fumbling through an old Peterson bird guide that someone had recently given me in an effort to find this bizarre looking creature before the image disappeared from my mind. Much to my astonishment I found it on page 87 in with a group of birds Peterson called long-legged waders. At the time I didn't realize the impact that one encounter would have on my life.

Many birders will tell you that they have a hook bird, a species that got them hooked on birding as the result of an unexpected encounter or close look at a bird they never saw before. For me it was that seemingly prehistoric apparition with its slender black cruciform shape and long sickle shaped bill that started me on a lifelong interest in the study of natural history — none other than the glossy ibis. I was HOOKED!

Glossy ibises *(Plegadis falcinellus)* are fairly large birds that look quite dark until you get a look at one with the sunlight at your back, at which point it is transformed into a magnificent creature with a deep mahogany brown head and back and dazzling iridescent black wings. It has a long down-curved bill that is used to probe in mud and soft earth for all sorts of invertebrates that make up its diet. Nesting is done off the ground usually in bushy marshes four to ten feet above the water. A quickly built stick nest holds from three to four eggs that are incubated alternately by both parents. The young fledge in about 28 days.



Glossy Ibis – credit Don Riepe

In ancient Egypt the ibis was associated with the moon god Thoth because of the resemblance of its bill to the sliver of moon visible just before and after the new moon. As a result, the glossy along with two other species were mummified and buried by the thousands to honor Thoth who was depicted in hieroglyphs as a man with the head of an ibis.

A relative newcomer to the western hemisphere, the glossy ibis is a Eurasian species that somehow managed to cross the Atlantic Ocean from West Africa to Brazil in the mid-nineteenth century. By the early twentieth century it had expanded its range northward into Florida and by the late 1950s it had reached New York. I didn't know it at the time but when I first encountered it at Jamaica Bay it had been only a few years since it was first reported there. Today its range extends as far north as Maine and it has become a common breeding bird on Long Island, especially along the south shore from Jamaica Bay, where it is most abundant, to Shinnecock Bay on the East End.

In nature study, often the unexpected occurrence of something is what makes the pursuit so rewarding. And so it was that in early April, a few years ago, a lone glossy ibis made an appearance in the field behind the South Fork Natural Museum. Because the field, which is for the most part dry under normal conditions, was flooded that year, it had become an attractive stopover for a variety of water birds. The lone ibis was soon joined by other migrating ibises and their numbers continued to grow until they reached a high of about 80 birds at the end of April. For a week or so it was a daily spectacle to see them take off and wheel in flight around the field only to alight again and begin probing the mud with those incredible scythe-like bills. Gradually the numbers began to decrease as the birds continued their northward journey until there where only seven or eight still there. Even so, every time I saw one glide by my office window, I was reminded of the specter of that bird I saw so many years ago that ignited in me a passion that still burns today.



Glossy Ibises – credit Don Riepe

South Fork Natural History Museum (SOFO) Calendar At A Glance Summer 2022

377 Bridgehampton/Sag Harbor Turnpike P.O. Box 455 Bridgehampton, NY 11932-0455 www.sofo.org • email: info@sofo.org.



Find us on Facebook 🗗 Twitter 🕥 Instagram 🗿

A full description of each program is listed on the SOFO website: www.sofo.org/calendar IIIV



August, September

For SOFO members: programs are free, unless otherwise stated. Level of membership indicates the number of people entitled to a free program. For SOFO non-members: there is a fee. Please contact us at: info@sofo.org for fee information or refer to the SOFO website at: www.sofo.org. If you are not already a member we invite you to join the museum. Find out about membership levels at www.sofo.org/membership.

For full information on the South Fork Natural History Museum (SOFO), including entrance fees and hours of operation, please refer to the website: www.sofo.org.

**CONSERVING OUR PLANET: THE FUTURE STARTS NOW** SOFO's 33rd ANNUAL GALA BENEFIT • SATURDAY, AUGUST 6, 2022

# A Celebratory Evening To Help Conserve Our Planet

Chaired by Anke & Jürgen Friedrich and Susan & David Rockefeller

Benefiting SOFO's Educational & Environmental Programs & Initatives

"Conservation is a cause that we must promote and pass on to future generations."– Andy Sabin

# Calendar At A Glance

Key: A-Adults T-Teens C-Children F-Family AA-All Ages

A full description of each program is listed on the SOFO website at www.sofo.org/calendar. Advance reservations are required for all programs.

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July	Saturday, July 2, 10:30AM: Printing in the Sun with artist Andrea Cote: C6+
	Sunday, July 3, 10AM: Make Your Own Fish Print T-Shirt & Learn About Local Fishes: F
	Sunday, July 3, 9AM: Observing Ospreys – Watching the First Flight of a Young Osprey: A/T/C/8+
	Wednesday, July 6, 9:45AM-1PM: SOFO Nature & Birdwatching Cruise Onboard the <i>R/V Peconic</i> : A/T/C10+
	Saturday, July 9, 10AM: SOFO Cleans the Beach: AA
	Saturday, July 9, 10:30AM: Painting Seashells. Learn their names and how they protect the animals within: C3-5
	Tuesday, July 12, 6PM: Sunset Nature Tour by Kayak or Paddle Board with East End Explorer: AA
	Saturday, July 16, 10AM: SOFO Young Birders Club Meeting: Ages 8-18
	Saturday, July 16, 10:30AM: Watercolor Rainbow Ribbons with artist/educator Marla: C3-5
	Saturday, July 16, 1PM: Making a Sand Mandala, Family/C 7+.
	Saturday, July 23, 10:30AM: An Exploration of Water Quality: A/T/C8+
	Sunday, July 24, 10:30AM: It's a Frog; No a Toad; No a Frog?: C8+
	Saturday, July 30, 9AM: 3+Mile Nature Hike through the Two Mulvihill Preserves: A/T/C10+
	Saturday, July 30, 10AM: SOFO Young Environmentalist Society Meeting (YES!): Ages 10-16
	Saturday, July 50, 10/11/1: SOFO roung Environmentalist Society Wieeting (1ES:): Ages 10-16
August	Saturday, August 6, 6-10PM: SOFO 33rd Annual Gala Benefit
	Sunday, August 7, 4-6PM: South Fork Sea Farmers Benefit; contact: info@southforkseafarmers.org
	Tuesday, August 9, 6PM: Sunset Nature Tour by Kayak or Paddle Board with East End Explorer: AA
	Wednesday, August 10, 5PM: SOFO 2022 Shark Field Season Update—with the Shark Science Team: AA
	Thursday, August 11, 8:30PM: Full Sturgeon Moon Hike, with Friends of the Long Pond Greenbelt: AA
	Saturday, August 13, 10AM: SOFO Cleans the Beach: AA
	Saturday, August 13, 9AM: 3-Mile Crooked Pond Nature Hike to the Truman Capote Stone: A/T/C10+
	Sunday, August 14, 10:30AM: Spiders and Bees and Butterflies? Oh my! : F/C4+
	Saturday, August 20, 10AM: SOFO Young Birders Club Meeting: Ages 8-18
	Saturday, August 20, 10:30AM: An Exploration of Water Quality: A/T/C8+
	Saturday, August 20, 10AM: The Secret Life of Vineyard Pond: AA
	Sunday, August 21, 9AM: Birding with Frank—Shorebirds at Shinnecock: A/T/C8+
	Saturday, August 27, 10AM: SOFO Young Environmentalist Society Meeting (YES!): Ages 10-16
	Saturday, August 27, 10:30: Long Island Wildlife Presented by Wertheim National Wildlife Complex: AA
	Sunday, August 28, 9AM: 1.2 Mile Family Nature Walk at Mashomack Preserve: A/T/C3+
	Tuesday, August 30, 7PM: ZOOM:Images of Our Universe-NASA's James Webb Space Telescope: A/T/C8+
September	<i>r</i> Saturday, September 3, 10AM: Snapping Turtles—Andy Sabin's Annual Prehistoric Monster Hunt: AA
	Tuesday, September 6 10AM: Birding with Frank—Celebrate World Shorebirds Day: A/T/C8+
	Saturday, September 10, 10AM: Sunday: SOFO Cleans the Beach: AA
	Saturday, September 10, 1:30PM: Salt Marsh 101 Exploration: C8+
	Saturday, September 10, SPM: Full Harvest Moon Hike with Friends of the Long Pond Greenbelt: AA
	Tuesday, September 13, 6PM: Sunset Nature Tour by Kayak or Paddle Board with East End Explorer:AA
	Saturday, September 17, 9:30AM: Searching for Lead-backed Salamanders: A/T/C6+
	Saturday, September 17, 10AM: SOFO Young Birders Club Meeting: Ages 8-18
	Saturday, September 17, 10:30AM: Full "STEAM" AHEAD: Tree I.D., Walk & Craft: C8+
	Sunday, September 18, 10:30AM: Family Field Exploration: AA
	Saturday, September 24, 10AM: SOFO Young Environmentalist Society Meeting (YES!): Ages 10-16
	Saturday, September 24, 10:30AM: An Exploration into Water Quality:: A/T/C 8+
	Saturday, September 24, 10:30AM: Make your own Sea Salt with Shelly Sells Sea Salt: AA
	Saturday, September 24, 1PM: Vernal Ponds – program at Wertheim, Shirley, NY: A/T/C6+
	Sunday, September 25, 9AM: Peconic River Paddle- Exploring Riverside Habitats, BYO Kavak; A/T/C10+



# SOFO Receives Funding to Assist Stony Brook University in Shark Study



SOFO

news

The South Fork Natural History Museum (SOFO) is happy to announce that Stony Brook University School of Marine and Atmospheric Sciences (SoMAS) has hired the SOFO Shark Research and Education program to evaluate the potential impacts on various shark species from undersea power transmission cables planned by the Sunrise Wind Project. The

SOFO Shark Research team will assist SoMAS, led by Dr. Brad Peterson, in deploying tags on sand tiger, sandbar, and dusky sharks. Each individual shark will be implanted with acoustic transmitters (provided by SoMAS) that include sensors for depth and temperature. Data will be collected as acoustic receivers detect the fish's movements and behaviors. The funding total is \$120k and will continue in 2023, 2024, and 2025. Be sure to join us on August 10 at 5PM for our shark panel discussion, an update on this study, and the overall success of our field season.

# This Year's Earth Day Celebration and SOFO Open House

This year SOFO honored planet Earth on Friday, April 22 with a free and very popular Earth Day Celebration and Museum Open House for adults and children. Earth Day has been celebrated on April 22 every year since its inception in 1970.



Members of CMME's "Ciencia" program with its Director, Leah Oppenheimer, gather to present their play about environmental degradation and species preservation. Credit, SOFO

This year's SOFO tribute to Earth Day featured birds, in particular neotropical migratory birds that come to our area in the spring and then migrate to Mexico, Central America, South America, or the Caribbean Islands during our winter.

Among the exhibitors and presenters were photographer Sarita Keimbock, who travels the world to photograph birds, she also had a lively conversation, in Spanish, with some of the attendees; bird painter Barbara Blaisdell and her bird-painting student Finny Dianora-Brondel; and bird carvers Mathew Di Bernardo and George Rigby. Members of SOFO's Young Environmentalist Society (YES!) had an exhibit that showed the bird migration routes between our community and those in Central and South America. They also



The fine and detailed work of bird carver Matthew DiBernardo was on display. Mr. DiBernardo demonstrated his craft throughout the day. Credit, SOFO

helped children who attended the Celebration make bird masks to take home. Children from the Children's Museum of the East End (CMEE) Spanish language after school program, "Ciencia", led by the director of the program, Leah Oppenheimer, presented a play about environmental degradation and species preservation. SOFO's Executive Director, Frank Quevedo, enlightened visitors about the museum's colony of purple martins, neotropical migratory birds that breed in the museum's special gourd houses every year. To top it all off, the Quogue Wildlife Refuge brought live birds of prey to enchant an appreciative audience of children and adults. Everyone had a great time.

And, remember, Earth Day is every day—a chance to protect, celebrate, and cherish planet Earth. As environmentalist Jane Goodall says: "You cannot get through a single day without having an impact on the world around you. What you do makes a difference, and you have to decide what kind of difference you want to make."



Dan and "Hooter", the Great Horned Owl, from the Quogue Wildlife Refuge. Credit, Elevation Media



### Young Environmentalists Society (YES!) Members Address Rising Seas & Super Storms by Mare Dianora, Director of the Young Environmentalists Society (YES!)

In late February 2022, the Young Environmentalists Society (YES!) met to design architecture and infrastructure to accommodate rising seas and superstorms. My seven participants thoughtfully constructed plans for future development. These ideas included: all-terrain boats that can also be driven on land, artificial islands, using shrubs and landscaping as flood barriers, creating dams that can be engaged when floods reach farmland, floating farms, and rooftop landing pads for vehicles and drones. What these systems have in common is that they all use various forms of alternative energy. These YES! members are faced with certain environmental concerns in this world, and they are dealing with them in creative ways. Here are photographs of the participants with their work and the ideas behind the structures. All structures were created with LEGOs.



### "The ATB + ATJ"

This ATB (all-terrain boat) is the perfect thing for floods, global warming, and rising sea levels. The ATB is a necessity! With the addition of the ATJ (all-terrain jet-ski), you can travel without bulk. You just lower the launcher and go for a ride. To order, call us.

Sam, age 12



Zianya, age 12



Ollie, age 9

## "The Stil(t) Standing Home"

With rising sea levels, this home is perfect both in the water and out! The stilts of this home are equipped to get wet in the event of a flood or if you need to place it out in the ocean or bay. This house provides you with a patio/dock where you can attach your boats in the water or host parties on land. Either way, this home is perfect for people who want to live on the beach, as your home will be safe for years to come!

#### "The Disaster Escaper"

When all else fails, take a spaceship and find a new planet to move to!



Adrie, age 12



Maya, age 10



Finny, age 13



Saoirse, age 9

#### "Excelsior City"

This eco-home/city is an artificial island. The infrastructure will be at the top 70% of the hill to keep it safe. The areas below will be covered in trees and shrubs. This island will be able to sustain 20,000 people. The green barrier and a sea wall will protect the buildings and city.

### "The Dry Drive Structure"

The Dry Drive Structure is built on stilts with a roof so that your car will stay dry as sea levels rise or after a big storm. The ramp leads down to the surface so you can easily and safely get on and off. The Dry Drive Structure also comes with a parking spot at the surface level for storage when the land is dry.

#### "Mad Max Survival Vehicle"

This survival vehicle is perfect for allterrain. The secret: It is huge—roughly two miles long and half a mile high with a tail-like stabilizer. The tail is a long, flat floatable farm that drags behind the vehicle. It is powered by a cold-fusion bio-reactor.

#### "The Fish Dam"

This Fish Dam protects the nearby farmland from flooding. It will also stop any lakes from overflowing. There is a fish door which is a hatch with a sensor that will allow boats to come in and out.



Young Environmentalists Society

# **SOFO** Mission

The mission of the South Fork Natural History Museum (SOFO) is to stimulate interest in, advance knowledge of, and foster appreciation for the natural world with special emphasis on the unique natural environment of Long Island's South Fork.

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South Fork Natural History Museum (SOFO)

*Naturalist and Calendar:* Carol Crasson

P.O. Box 455, Bridgehampton, NY 11932-0455 (631) 537-9735 email: info@sofo.org www.sofo.org The SOFO Naturalist is published quarterly Address Service Requested Dated Material BULK RATE Non-Profit U.S. Postage Paid Permit #5 Bridgehampton, NY 11932

Printed on Recycled Paper with Soy Ink