aturalist



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.

eco links

For the Little Guys' Sake, Leave the Leaves!

by Moe Kennedy, SOFO Environmental Educator and Entomologist

Throughout the spring and summer, we do many things to keep our local pollinator friends happy and healthy. We may let early-blooming wildflowers such as dandelions, clovers, and violets take over the yard, plant native grasses and flowers in our gardens, set up a "bee bath" for water in the summer heat, and more. But did you know that assisting them extends into the autumn to prepare them for winter? One of the best things you can do to help insects and other invertebrates in the fall is to remember the slogan: Leave the Leaves!

Over the last few months (maybe even the last few years), you may have been nervously reading headlines and social media posts claiming the imminent demise of our insect populations. Naturally, this is a big concern for all of us, from the most outdoorsy of us to the least. Unfortunately, the threat is real. According to the 2019 IPBES global assessment report on biodiversity and ecosystem services, there is an estimate that 10% of our global insect populations are currently threatened with extinction. A paper published the same year in Biological Conservation claims 40% are threatened (Sánchez-Bayo & Wyckhuys, 2019). The UN also reports that the extinction rate for insects is eight times faster than the rate of our birds, mammals, or reptiles. Our insects are imperative sources of food for animals of all kinds and serve as key predators for some of our least favorite invertebrate neighbors, like mosquitoes and aphids. Many of us worry about the fate of our favorite insects, including the beautiful fireflies, monarch butterflies, native bees, and more. So how can we help?

Just like many of us across Long Island, when winter comes, our insects hunker down right where they spent the rest of the year, to wait for the spring sun and warmer weather. Overwintering is a crucial strategy for the majority of insects who stick around instead of migrating to warmer climates. By leaving your organic debris, such as leaves, twigs, seed heads, and flower stems, invertebrates that remain here all year will be able to take shelter and stay warm. Now-



Honey bee rests on a leaf in between pollinating flowers. Moe Kennedy

Perhaps the most recognizable insect in the news over the past few years is one responsible for agriculture and honey production, the European honeybee. However, the "Save the Bees" slogan doesn't solely extend to the honeybees. In New York State alone, it's estimated that we have about 450 species of bees. The majority of bees in NY are considered "digger bees" —those who burrow into the ground for shelter and are solitary—instead of the large, social hive structure we see with our popular honey makers. These species often rely on leaves, fallen stems, and old wood to form their homes, protect their young, and stay safe from predators.



Isabella tiger moth caterpillars, commonly called "wooly bears," hibernate for the winter underneath fallen wood and leaf litter at the South Fork Natural History Museum. Moe Kennedy

Another high-profile insect that depends on our leaf litter is the butterfly, as well as its cousin, the moth. Many species of both butterflies and moths overwinter as caterpillars or pupas (found in the chrysalis or cocoon) amongst your fallen leaves. They serve as an important bed of camouflage material, as well as an insulated blanket keeping the young ones warm during freezing temperatures. Some of the most charismatic moths that love the leaves include the golden Io moth and the pale green Luna moth. These long-tailed beauties disguise their cocoons as dried leaves to blend them in perfectly with real ones. The red-banded hairstreak and swallowtail butterflies do the same. The red-banded hairstreak caterpillars also depend on the decaying leaves as a food source, continuing the cycle of organic material.



Newly hatched luna moth found during the solar eclipse in April, 2024. Moe Kennedy.

eco links eco links

Continued from page 1

Leaf-eating insects and other arthropods such as millipedes and the ever-popular roly poly also depend on fallen leaves as a food source. They break down leaves and other organic waste, returning valuable nutrients into the soil where the next generation of plants can sprout. Leaving your leaves in piles in designated areas of your yard or around the base of large trees and shrubs can give them a great layer of protection, as well as a buffet line.

So what's in it for us? If you're left wondering how your own life will be helped by leaving the leaves for the insects and arachnids in your yard, you'd be delighted to learn that the answer is—many ways!

Firstly, if you're a gardener, leaf mulch is one of the best natural weed repellents and nutrient sources for your garden plants. Leaving a ring of leaves around the base of your trees or larger shrubs not only helps smother the weeds you spend all season picking out, but also gives the base of your plants a helping hand resisting the winter cold, snow, and ice. Leaf mulch is easy to push around, clean of pesticides, and free! Encouraging some nutrient dense soil around your plants and trees also increases the aeration of the soil underneath, giving them a good symbiotic relationship with the insects and other invertebrates crawling through the roots and soil.

Secondly, if you're not much of a garden fan but want to save your back from the pain of raking, you'd be pleased to know leaving the leaves means less work for us! Establishing a leaf pile, leaf blowing your leaves to the garden beds, or even leaving them covering your lawn for the fall and winter season means less raking, carting, and bagging to the curb—and it cuts down on organic waste in the land-fill, one of the biggest methane producers around the world.



Purple martins, birds that eat only insects, nest at the South Fork Natural History Museum.

Thirdly, if bugs aren't your thing but you love watching your local birds, frogs, toads, salamanders, and turtles, protecting our insect populations helps them too. And could bring even more to your yard! Spring and summer favorites like wild turkeys, songbirds such as the summer tanager or purple martin, woodpeckers, nighttime neighbors such as opossums and bats, and many more depend on insects as a food source. As an added bonus, those animals also help control the little pests you don't like to see, such as our local ticks. Speaking of, lastly we have natural pest control. Leaving habitat for

arthropods helps boost natural pest control methods and reduces

your need for chemical pesticides. Not only can chemical pesticides

cost you a pretty penny, but they're tied to the extinction events we're seeing that globally threaten our invertebrates. Predators such as some species of beetles, wasps, centipedes, spiders, and others can help naturally keep down the populations of insects eating your garden plants, as well as continue the cycle of life supporting our healthy soils and habitats.



Centipede found outside the South Fork Natural History Museum in the Long Pond Greenbelt, under a wooden board. Moe Kennedy

Regardless of who you're doing it for, your decision to join the "Leave the Leaves" movement helps us all, from the human beings in your community, to the little guys flying around your skies or churning up your healthy garden soils.

Sources:

IPBES (2019): Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. S. Díaz, J. Settele, E. S. Brondízio E.S., H. T. Ngo, M. Guèze, J. Agard, A. Arneth, P. Balvanera, K. A. Brauman, S. H. M. Butchart, K. M. A. Chan, L. A. Garibaldi, K. Ichii, J. Liu, S. M. Subramanian, G. F. Midgley, P. Miloslavich, Z. Molnár, D. Obura, A. Pfaff, S. Polasky, A. Purvis, J. Razzaque, B. Reyers, R. Roy Chowdhury, Y. J. Shin, I. J. Visseren-Hamakers, K. J. Willis, and C. N. Zayas (eds.). IPBES secretariat, Bonn, Germany. 56 pages.

Sánchez-Bayo, F., & Wyckhuys, K. A. G. (2019, January 31). Worldwide decline of the entomofauna: A review of its drivers. Science Direct. https://www.sciencedirect.com/science/article/abs/pii/S0006320718313636 Insect declines are a stark warning to humanity. UN Environment Programme. (2019, March 20). https://www.unep.org/news-and-stories/story/insect-declines-are-stark-warning-humanity

SOFO news



SOFO Welcomes New Staff Moe Kennedy

My name is Moe Kennedy (they/them), and I was born and raised in Hampton Bays, NY. I have a degree in Biology from DePauw University, and my passions lie in entomology and botany. When not at SOFO, I like to spend my time painting, hiking, going to the beach, and watching

cartoons. I have four cats, two rats, hundreds of pet fish, and I love animals of all kinds.

I was initially drawn to the SOFO Natural History Museum because of my passion for science education and communication. I have a personal connection to, and experience working with, organizations like the Peconic Land Trust and Quogue Wildlife Refuge. These 377 Bridgehampton/Sag Harbor Turnpike P.O. Box 455 Bridgehampton, NY 11932-0455 www.sofo.org • email: info@sofo.org.

Find us on Facebook Instagram o



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

October, November, December

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. Advanced registration is required for all programs.

GIVE A LITTLE LOVE THIS HOLIDAY SEASON!

SOUTHAMPTON ANIMAL SHELTER FOUNDATION PET SUPPLY DONATION DRIVE

Drop-off Location

SOFO Museum 377 Bridgehampton/Sag Harbor Tpk

Collection Dates

December 1-19



Help SOFO support the Southampton Animal Shelter Foundation (SASF) this giving season by donating materials to better the care for their companion animals!

SCAN for more information and to view SASF's Wishlist!







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.

October Saturday, October 4

10:00AM: Andy Sabin's Salamander Log Rolling, Montauk: AA

10:30AM: FREE, Birding for Beginners: A/T/C10+

11:00AM: How to Plant Milkweed and Butterfly Weed to Attract Butterflies to Your Garden: A/T/C5+

Sunday, October 5

1:00PM-4:00PM: FREE, Pop-Up Pond Exhibit: AA

11:00PM-12:30PM: Fall Beach Walk: AA

Monday, October 6

6:30PM-7:30PM: FREE, Full Hunter's Super Moon Hike Co-sponsored with Friends of Long Pond Greenbelt: AA

Saturday, October 11

10:00AM - 1:00PM: FREE, Friends Of Long Pond Greenbelt Celebration: AA

Wednesday, October 15

1:00PM-3:00PM: SOFO's East End Outdoor Nature Education with Crystal: Ages 3-7 or older.

Saturday, October 18

10:00AM: FREE, Young Birders Club Meeting: Ages 8-18

10:00AM: Lead-backed Salamander Search at Sagg Swamp, Bridgehampton: AA

4:00PM-5:00PM: FREE, East End Environment Lecture: Naturalist Aidan Perkins, Hidden in Plain Sight: Long Island's Rare and Unusual Fish: A/T/C8+

Sunday, October 19

11:00AM: Feeding Time, Help Feed the Museum's Turtles & Fish: C5-7

Saturday, October 25

10:00AM-11:30AM: FREE, Fall Family Fun at Downs Farm Preserve, Cutchogue, Co-sponsored with Group for the East End and SOFO: AA

10:30AM: FREE, Young Environmentalists Society (YES!) Meeting: Ages 10-16 and Junior members ages 5-9

Sunday, October 26

10:30AM & 1:00PM: Storytime: Hermit Crabs, Fishes & Craft, FREE with Museum Admission: AA

November Saturday, November 1

10:00AM-1:00PM: Nature & Birdwatching Cruise: A/T/C10+

Wednesday, November 5

5:00PM-6:00PM: Full Frost Super Moon Hike Co-sponsored with Friends of Long Pond Greenbelt: AA

Saturday, November 8

6:00PM: Creatures of the Night Search: A/T/C8+

Sunday, November 9

11:00AM-12:00PM: FREE, New York Marine Rescue Center Cold Stun Sea Turtle Training Lecture: A/T/C8+ Under 18 must be accompanied by an adult.

1:00PM-2:00PM: FREE, New York Marine Rescue Center Cold Stun Sea Turtle Field Training: A/T/C8+ Under 18 must be accompanied by an adult.

Saturday, November 15

10:00AM: FREE, Young Birders Club Meeting: Ages 8-18

10:30AM: FREE, Birding for Beginners, A/T/C10+

2:00PM-3:00PM, FREE, Ellesmere Island Expedition - In Search of Arctic Wolves with Photographer Marianne Barnett, Co-sponsored with Evelyn Alexander Wildlife Rescue Center: A/T/C8+

continued

November Wednesday, November 19

1:00PM-3:00PM: SOFO's East End Outdoor Nature Education with Crystal at Cranberry Bog County Park, Riverhead (Sweezy Pond): Ages 3-7 or older.

Saturday, November 22

10:00AM-11:30AM: FREE, Discovering Broad Cove Preserve, Riverhead, Co-sponsored by Peconic Land Trust and SOFO: A/T/C10+

Friday, November 28

11:00AM-12:30PM: SOFO Beach Cleanup: A/T/C6+

Saturday, November 29

10:00AM - 4:00PM: FREE, SOFO Thanksgiving Open House

10:30AM: FREE, Young Environmentalists Society (YES!) Meeting: Ages 10-16 and Junior members ages 5-9

Sunday, November 30

10:30AM & 1:00PM: Storytime: Amphibians, FREE with Museum Admission: AA

December Thursday, December 4

5:00PM-6:00PM: FREE, Full Cold Super Moon Hike, Co-sponsored with Friends of Long Pond Greenbelt: AA

Sunday, December 7

11:00AM: Decorate a Holiday Tree for the Birds: AA

Saturday, December 13

10:30AM: FREE, Birding for Beginners, A/T/C8+

7:00PM: Owling with SOFO: A/T/C8+

Wednesday, December 17

1:00PM-3:00PM: SOFO's East End Outdoor Nature Education with Crystal at Long Beach, Sag Harbor: Ages 3-7 or older.

Saturday, December 20

10:00AM: FREE, Young Birders Club Meeting: Ages 8-18

11:00AM-12:30PM: Learn to Pin Insects by Making a Shadow Box: A/C12+

Sunday, December 21

1:00PM: Seal Walk with SOFO: A/T/C6 and up

Saturday, December 27

10:30AM: FREE, Young Environmentalists Society (YES!) Meeting: Ages 10-16 and Junior members ages 5-9

Sunday, December 28

10:30AM & 1:00PM: Storytime, Animals in Winter & Birdseed Craft, FREE with Museum Admission: AA

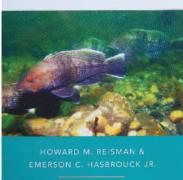
Off From School? Explore Outdoors! 11:00AM-12:00PM: FREE Outdoor Walks, All Ages

Museum Admission: Members Free, Non-Members \$7 children, \$10 adults

Monday, December 29 - Fall Scavenger Hunt Tuesday, December 30 - Where Do Insects Go in Winter? Friday, January 2, 2026 - Backyard Birds

opportunities have motivated me to continue working in the environmental field, communicating science to the public, and running engaging programming for all ages. I'm really excited to explore my new role as an environmental educator here at SOFO!

MARINE FISHES & FISHERIES OF NEW YORK



Marine Fishes & Fisheries of New York

A new book available in our gift shop, titled Marine Fishes & Fisheries of New York. This book has close ties to our East End community and is an informative read for better understanding the diversity of fish species that live in our nearshore marine waters. Authors are Howard M. Reisman, Professor Emeritus of Biology of Long Island University, Southampton; and Emerson Hasbrouck Jr., Marine Program Director Emeritus for Cornell Cooperative Extension of Suffolk County. Both authors are mentors for many individu-

als who have pursued a career in the environmental science field locally and throughout the world. We are also delighted that our good friend Christopher Paparo, manager of Stony Brook University Marine Science Center and sole proprietor of Fish Guy Photos, took all the pictures. Please stop by the Museum and grab a copy.

from the Past

(Reprinted From SOFO Naturalist, Fall 2005)

Fall Migration

by Jim Ash, SOFO Vice President

For the field naturalist, the words fall migration are ones that are filled with excitement. In the minds of those whose passion it is to study nature, it is an event eagerly awaited. This is the time when you are afforded the opportunity to become reacquainted with animals that have long been absent from your area. It is also when you are most likely to encounter those you have never seen, and, if the gods are really smiling on you, to see a species that is rarely seen or one that has never before been recorded in our region. Generally speaking, the spring migration is of relatively short duration, the bulk of which takes place in the month of May. It is a fact that the western end of Long Island is more productive than the eastern end during spring migration. The fall migration, on the other hand, is so protracted that what begins as a trickle in midsummer and swells to a torrent in fall does not taper off and end until sometime in winter. Conversely, the weather patterns, especially those in autumn, make the East End of Long Island one of the best places in the entire state to observe fall migration.

It is in the sultry dog days of summer, when you can see the heat shimmering across the mud flats, that the southward-bound shorebirds begin to arrive. Having traveled in an easterly direction from their arctic breeding grounds, they now spread down the coast along the eastern flyway, lingering at productive tidal flats and inlets on their long journey to wintering quarters in Central and South America. Stilt Sandpipers, Hudsonian Godwits, Lesser Yellow-legs, Golden Plovers, Buff-breasted Sandpipers, Baird's Sandpipers, and Western Sandpipers are among the species that are rare or totally absent here during spring migration. Now they appear regularly, along with the throngs of other shorebirds on our beaches and sand flats. In the course of an average season, over 30 different species can be seen.

As August draws to an end, the shorebirds have peaked and the movement of swallows is in full swing. In early evening, Night Hawks can be heard "peenting" overhead, and the northern wood warblers and flycatchers have begun to arrive. About this time the keen observer will notice that species with more southern affinities are frequenting our shorelines. Foster's, Royal, and occasionally Sandwich Terns, along with an increased number of the more southerly herons, have traveled northward in a kind of reverse migration to our area. These post- breeding season wanderers have arrived, often with their young in tow, just as schools of baitfish are amassing for their own migration.

In addition to providing the birds with a late summer bonanza, the schools of Sand Eels, Spearing, Squid, Mullet, and Mossbunker attract and hold other piscatorial migrants. As a result, the East End is famous for its fall run of recreational and commercial fish species.

Suddenly, like a breath of fresh air, the first Canadian weather front arrives, bringing with it a wave of migrants. The back of summer is broken, and Tanagers, Warblers, Orioles, Waxwings, and others are moving southward with what seems like a sense of urgency. Most of this passerine (perching bird) migration takes place at night, when the atmosphere is more stable and the chances of being picked off by an avian predator are lessened. So it is that, on the morning after a northwest front coupled with a 10-15 degree decrease in temperature arrives, migrating birds will literally be dropping out of the sky to spend the day on the ground feeding and resting. If the front is strong enough and the breeze holds up, diurnal raptor migration will be part of this mass movement of birds. Falcons, Accipiters, Ospreys, Harriers, and, to a lesser extent, Buteos will move along the coast in large numbers.

As September gives way to October, the composition of the avian migration changes again, and sparrows, finches, nuthatches, and kinglets begin to arrive. Many of these seedeaters will go no farther and spend the winter here. By the time November rolls around, ducks, geese, loons, and grebes start to show up in significant numbers on their wintering grounds in the bays and ocean habitats of Long Island. Also arriving at this season are the seals that winter here. Southward-bound whales may also be seen at this time, with the Fin Whale and the Humpbacked Whale being the two species seen most often from shore.

But December and even January can sometimes provide some of the most unusual events of the long fall migration season. If there is a cone crop failure across the vast Canadian pine forests—which happens every 10 to 15 years—large incursions of what are called winter finches will be forced to migrate south because of a lack of food. Every birder hopes to experience one of these incursions, when Evening Grosbeaks, Red and White-winged Crossbills, Pine Siskins, Redpolls, and Purple Finches become commonplace. In addition, on rare occasions, the rodent population in the far north crashes and incursions of Snowy Owl, Rough-legged Hawk, Short-eared Owl, and increased numbers of Long-eared Owls and Saw-whet Owls come to Long Island to find food.

After a cold winter most people welcome the return of springtime with its colorful breeding-plumaged avian songsters. However, for the possibility of rarities, increased number of species, and the length of the migratory season, it is hard to beat fall migration.

A Field Trip to the Panorama of the City of New York at the Queens Museum

by Mare Dianora, YES! Director

This past April, the Young Environmentalists Society took our second field trip to Queens, NY. Inspired by our reading of *Wonderstruck* in the *YES!* Book Group, a collaboration with professional science educator Jillian Worssam in Arizona, we explored the Panorama of the City of New York at the Queens Museum. This book's story concludes in the Panorama and I just knew these kids and their families would enjoy the experience of wandering through this amazing model of New York City. This Panorama is the world's largest architectural model; covering nearly 9,335 square feet, it was originally built for the 1964-65 World's Fair. This entire museum really inspired these young students with the exhibits of history, maps, models, and artwork.



From the museum, we continued outside to view the 140-foot Unisphere sculpture designed by landscape architect Gilmore D. Clarke (also for the 1964-65 World's Fair). Not only is this landmark of historical significance, but it holds a special place in my family history as my grandfather worked for the city during this World's Fair, and my entire family has endless stories from that era that I enjoyed sharing with the group.



We continued our adventure at the Wildlife Conservation Society's "Queens Zoo," which is a small 11-acre property where we focused on the conservation aspects of their exhibits. The weather was not in our favor, but we enjoyed each other's company and shared a meal to end this adventure and recount individual and shared highlights of the day's experiences.

YES! Group with parents

Later in the summer, our YES! group had a full day of YES! camp with many adventures at the museum, and concluded that day's program with a screening of the movie "Wonderstruck." Afterward, we discussed and compared the book and the movie to continue our conversations about these explorations!

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.

South Fork Natural History Museum (SOFO) Board of Directors Andrew E. Sabin, President James T. Ash, Vice President Jonathan Sabin, Treasurer Kimberly Goff, Secretary David Beard Steve Englebright Ray Iwanowski Jeffrey Keil Greg Lippmann Jonathan Marvel Steven McKenna Russell Mittermeier Kenneth C. Ramos Carl Safina Samriti Seltzer Scott Seltzer John Turner Peddrick Weis Wayne Whitmore

Advisory Council
Nejma Beard
Michael Cinque
Leslie Clarke
Nick Combemale
April Gornik
Alex Guarnaschelli
Kerry Heffernan
Jane Held
Nick Martin
Mark Masone
Ada Samuelsson
Irene Tully

Staff Executive Director Frank Quevedo Executive Assistant Erin Hwong Director of Development & Special Events Diana Aceti Development Associate Victoria Henry Education Director, Calendar and Newsletter Melanie Meade Membership Associate and Environmental Outdoor Education Specialist Crystal Possehl-Oakes Young Environmentalists

Society (YES!) Director Mare Dianora Environmental Educator & Aquarist
Rob Gelling
Environmental Educator & Outreach Coordinator
Rebecca Rogers
Environmental Educators
Sydney Mantione
Moe Kennedy
Herpetological Husbandry
Technician
Mike Wichrowski
Front Desk Receptionist
Melody Koncelik



South Fork Natural History Museum (SOFO)

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
Printed on Recycled Paper with Soy Ink

BULK RATE Non-Profit U.S. Postage Paid Permit #5 Bridgehampton, NY 11932