

An underwater photograph showing several fish swimming in clear water. Sunlight filters down from the surface, creating a shimmering effect. The fish are silvery with some darker spots. The overall tone is warm and natural.

2019 Annual Report

Seatuck Environmental Association

Conserving Wildlife and the Environment

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2019 Conservation by the Numbers

Mill River Bird Survey

3 years

32 surveys

216
species tallied

River Herring Survey

50 volunteer
citizen scientists

48 rivers &
streams surveyed

Nissequogue River Wetland Habitat

10 acres
protected forever

Breached Dam on West Brook

6 rare plants
identified in the
freshwater meadow

Tires Collected from Penataquit Creek

42 (in one day!)

Oyster Shells Recovered from Restaurants

38,000 lbs



Photo by Katie Orlinsky, 2019

Seatuck Executive Director Enrico Nardone



Reviving Rivers & Streams

Seatuck advanced its high priority River Revival Project, leading the effort to restore rivers and streams across Long Island and return them to their critical role in the region's coastal ecosystem.

This included work to implement Seatuck's Long Island Diadromous Fish Restoration Strategy, a road map to restoring diadromous fish populations, which includes Alewife, Blueback Herring, Brook Trout and American Eel, all ecologically-important fish that rely on free-flowing, healthy freshwater rivers and streams.

The decline of diadromous fish has a major impact on the health of our coastal ecosystem, as these fish play a vital role in transferring ocean energy into estuarine, freshwater and upland habitats, and provide indispensable forage for countless other species. It is no exaggeration to say that they help to drive Long Island's entire coastal food web. Rebuilding their populations across the region is a critical component in restoring the health of our estuaries.

Seatuck's 2019 River Revival Accomplishments

Fighting to Let West Brook Run

In early June of 2019, a small dam on West Brook, a stream near Connetquot State Park, partially failed and drained the pond behind it. The dam failure allowed the stream to run free for the first time in over one hundred years since the dam was built. With the barrier removed, the stream flowed freely from its headwaters in Bayard Cutting Arboretum down to the Great South Bay. It became one of only a handful of free-flowing streams on Long Island. Seatuck led the fight to “Let West Brook Run,” pushing New York State Parks to leave the dam alone and allow the stream to run freely and the site to restore naturally. We also partnered with the Long Island Botanical Society to organize botanical surveys of the former pond (which documented the emergence of rare wetland habitat, including a half-dozen state listed plants!) and worked to address invasive species threatening the site. The fight for West Brook fit into Seatuck’s overall push for dam removals across Long Island, as Seatuck director [Enrico Nardone argued in a Newsday OpEd](#).

“Dams destroy riverine connectivity, prevent the movement of wildlife, heat up impounded and downstream water, and trap sediments that are needed downstream.”

—Newsday OpEd September 27, 2019

Pulling Together for the Penataquit

Over the past few years, Seatuck has turned its attention to Penataquit Creek, a small, urban stream in Bay Shore. We’ve teamed up with a host of partners, including First Baptist Church of Bay Shore, the Town of Islip, Northwell Health and Bay Shore Beautification Society to revive and restore the waterway. An initial project has focused on a stream side parcel owned by the Baptist Church. After several wildlife surveys and two well-attended clean-ups (including one that collected 42 tires and a piano!), Seatuck kicked-off the restoration in earnest by organizing a volunteer effort to remove invasive species from the site and ready it for re-planting. The next step, which is funded by New York State “Trees for Tribes” grant, will be to restore riparian habitat by planting native plants and trees throughout the site.



Seatuck's John Turner and Long Island Botanical Society President Eric Lamont at West Brook



Taking on invasives at Penataquit Creek

Giving Alewife & Eel a “Leg” Up

Seatuck organized “fish lifts” at dams across Long Island to further the restoration of ecologically important Alewife and American Eel populations. The process involved using seine, cast and dip nets to catch the fish at the base of dams that block their upstream spring migrations. The fish were then lifted over the dams and released immediately. The effort allows the fish to reach freshwater habitat, which increases their overall spawning success. In the case of Alewife, the effort ensures that more eggs successfully hatch and more juvenile fish make it out to the ocean where they can grow up and, in a few years, migrate back to the same stream. This process helps to “jump start” Alewife runs where fish passage projects have been installed or are in the planning process. In the case of American Eel, the effort helps get the fish upstream where they’ll spend the rest of their lives before migrating back to the ocean to spawn.



Securing Hauppauge Springs

In 2019, Seatuck completed a multi-year project to ensure the permanent protection of the headwaters of the Nissequogue River. Seatuck worked with several local landowners to facilitate Suffolk County's acquisition of the remaining acreage around the ecologically significant Hauppauge Springs wetlands. Building on this success, Seatuck also initiated legislation to transfer seven acres of Nissequogue River riparian habitat from the Suffolk County Complex (where it still risked being developed) to Blydenburg County Park. The transfer was approved by the Suffolk County Legislature and signed by County Executive Bellone in November.

Making Plans in Bellmore

Five years ago, Diane Worden, one of Seatuck's volunteer river herring surveyors, discovered migrating Alewife stuck at the first dam on Bellmore Creek (at Wantagh Mill Pond). After documenting the run again for four additional years, Seatuck secured funding from New York State to develop a "shovel-ready" plan to get the fish upstream past the Nassau-County-owned dam and into fresh water. Seatuck commenced the planning effort in 2019 with the creation of an Advisory Committee, which includes Nassau County officials, fisheries biologists, birders and neighbors.

48 rivers & streams
surveyed in 2019



Oyster Shell Recovery

Seatuck's Half Shells for Habitat program, which recovers oyster shells from restaurant waste streams and returns them to local bays through various oyster and habitat restoration projects, has hit its stride! After a successful pilot season in 2018, the project expanded considerably across Long Island this past year to include new municipal partners, new restaurants and many new volunteers.

Oyster shells are an important natural marine resource and play a vital role in maintaining a healthy, productive coastal ecosystem.

Oyster Shells Recovered from Restaurants

38,000 lbs

Most significantly, they provide critical substrate upon which juvenile oysters attach and grow. Over time, this process develops oyster reefs, which provide valuable wildlife habitat and enhance coastal resiliency. Oysters are also important for water quality: not only do they filter out pollutants while they're alive, but after they die, their shells dissolve and release calcium carbonate, which helps to buffer the pH of estuarine waters and combat rising coastal acidification. Unfortunately, the shells of most oysters consumed on Long Island are thrown away and end up in landfills or incinerators. Few ever get back to the water to play their important role in the ecosystem.

To address this problem, Half Shells for Habitat recovers waste oyster shells from local restaurants, uses sunlight to cure and sanitize them at storage sites established by the Towns of Brookhaven and Islip, and makes them available for return to local waters through oyster restoration and other environmental projects. Seatuck will seek to expand the program in the coming years to ensure an increasing amount of shells are returned to our bays.



Collecting shells at the Blue Point Brewery Oyster Festival



Seatuck Water Quality Scientist Maureen Dunn



Seatuck Board Member Charlie Weiss

Diamondback Terrapins

For years, Seatuck has been at the forefront of efforts to safeguard Diamondback Terrapins, Long Island's iconic marine turtle, which was once ubiquitous in the region's many coastal embayments and is now imperiled across its range. Over the past several years, Seatuck and The Nature Conservancy have partnered to push to end the direct harvest of terrapins and for regulations protecting the turtles from dying in crab traps. Seatuck also formed the Long Island Terrapin Work Group, which brings together a host of governments and organizations to work together for terrapin conservation. In 2019 Seatuck turned its attention to identifying and safeguarding important terrapin nesting sites. We initiated efforts to prevent nesting terrapins from wandering onto dangerous roadways, including a pilot project in which we worked with an Eagle Scout to install 550 feet of barrier to keep the turtles from attempting to cross Shore Road in Mt. Sinai. We also created a mobile-based app, called Terrapin Watch, for citizen scientists to use in recording terrapin sightings. As data is gathered in coming years we'll learn more about where terrapins are nesting and expand our efforts to protect them.



Window Strikes

Seatuck continued its work this past year to reduce the impacts of bird window strikes on Long Island. While birds face myriad threats, including everything from car collisions to poisoning to climate change, one of the leading causes of bird mortality is flying into highly reflective or transparent windows.



It accounts for as many as 1 billion bird deaths annually in the United States, second only to cats (which kill close to 2 million birds each year!). In 2019 Seatuck teamed up with partners to push for solutions at the state level. We were successful in passing legislation through the Assembly and Senate that would have created a Bird-Friendly Building Council to consider and recommend statewide measures, such as requiring bird-friendly windows in new construction. While the Governor vetoed the bill, we are confident that it is not the end of the conversation and that we'll see statewide

action in some form in 2020. At the local level, Seatuck continued to work with planners and builders to include bird-friendly windows in new construction and with landowners and property managers to install UV-reflective stickers that prevent bird strikes, including Stony Brook University, Northwell Health and the Unitarian Universalist Congregation of Shelter Rock.

Water Reuse

Seatuck pushed in 2019 for the aggressive implementation of water reuse strategies to address Long Island's water crisis. The deterioration of water quality, which has been well publicized, is part of the story. But another, less well-known aspect of the crisis is related to water quantity. In too many places we are simply mining our underground water supply by pumping out more than is being replenished. This lowers the water table and causes two major problems.

First, it allows salt water to push further inland. This "salt water intrusion," as it's known, ruins drinking supply wells and can require expensive new drilling. Second, on an island where our wetlands, river, streams and ponds are fed by groundwater, lowering of the water table has devastating impacts on important freshwater habitat and the wildlife species that depend on it. In some places where the water table has been significantly reduced, streams literally run dry and wetlands cease to exist. The water quantity problem is most acute in Nassau County (where there's been more historic demand on the aquifers), but it is increasingly a problem for Suffolk County as well, especially with plans for expanded sewers.

An important strategy for combating the water crisis is water reuse. As the name suggests, water reuse puts treated effluent from sewage treatment plants to another beneficial purpose instead of dumping it into our bays or the ocean. It's literally the process of turning treated wastewater from a liability into an asset.



The process of reusing wastewater simultaneously achieves water quality and quantity benefits. The comprehensive implementation of water reuse would significantly reduce nitrogen impacts to local waterways. At the same time, it would also reduce the demand on our already stressed aquifers, which would help ensure ecologically necessary water levels are maintained in our rivers and streams. More than 2.3 billion gallons of water are currently reused every day in the United States, most notably in California, Florida and the arid Southwest. Seatuck will continue advocating that we take a major step forward in managing and protecting our waters by adding Long Island to this list.

Wildlife Surveys/Management



Seatuck Ornithologist Stephane Perreault (left) and Board Member Anthony Graves (right)

Seatuck continued to conduct wildlife surveys and provide land management consulting services for private landowners and public managers. This work is done to ensure that land management decisions are well informed and conservation initiatives are successful.

In 2019, Seatuck conducted its 10th year of bird surveys at the 400-acre Greentree Foundation property and worked with the organization to develop a long-term invasive species management plan. Seatuck also finalized a 3-year baseline survey of birds of the Mill River corridor (including Hempstead Lake State Park) for the Governor's Office of Storm Recovery's Living With The Bay project. Our 2019 wildlife surveys included a focus on vernal ponds on several North Shore properties. These temporary woodland ponds support a unique assemblage of wildlife and provide important breeding habitat for numerous species of frogs

and salamanders including wood frogs and spring peepers. Seatuck's surveys of the ponds, which involves searching for adult amphibians and egg masses at night with flashlights, was featured in a [Newsday article and video in April 2019](#).

"This year has been phenomenal," John Turner, a conservation policy advocate for the nonprofit Seatuck Environmental Association, said one warm April night at a vernal pond in Nassau County. "To me, spring peepers are the harbinger of spring. I don't know if they could be much louder."

—Newsday April 13, 2019

2019 Education by the Numbers

Seatuck's Native Schoolyard Gardens

5 established in 2019

26
total on Long Island

Suffolk County Environmental Center

10 years of
getting young hands
dirty and feet wet

Raised and released by Long Island students

1,200
Bobwhite Quail

Greentree Teachers' Ecology Workshop

300 alumni

Little Peepers Forest Preschool

21
youngsters enrolled



A photograph of three young children standing in a grassy field, looking towards a deer in the distance. The child on the left is wearing an orange rain suit, while the two children in the center are wearing green rain suits. The deer is standing in the field, facing away from the children. The background is a dense forest with trees showing autumn foliage. The title 'Little Peepers Forest School' is overlaid in large white text.

Little Peepers Forest School

Seatuck's Little Peepers grew and improved in 2019.

The program for 3-to-5 year-olds ran at full enrollment for the entire year with a waiting list for additional sessions. Little Peepers which was established at the South Shore Nature Center in 2013, is the first drop-off forest preschool on Long Island. The program follows a full pre-school curriculum, including a comprehensive blend of environmental education and traditional, play-based preschool standards. The natural world is a guiding theme for science, math, art, music, language, dramatic play and other curriculum areas. The program addresses each child's total development with a fun, hands-on program that engages children in the outdoors and teaches them to love the natural world around them (helping them grow into our "future conservationists!"). The experiential, hands-on, multi-sensory learning opportunities include ample outside time in over 200 acres of "living classroom." It's like having a field trip every day!

Greentree Foundation Teachers' Ecology Workshop

Seatuck continued its acclaimed professional training program for elementary, middle and high school teachers. The Teachers' Ecology Workshop, established with the Greentree Foundation in 2011, provides in-depth lectures, field-based programs and hands-on learning experiences about Long Island's natural world. It also provides skills and techniques for incorporating nature into school curricula, using the outdoors as an extension of the classroom, and adapting nature study to the NYS Science Learning Standards.

The Workshop commences with a week-long session in July at the Greentree Estate in Manhasset, New York. The property's 400 acres of mature woodlands, restored grasslands and glacial topography provide a remarkable natural classroom to immerse in the study of Long Island's ecology. The program continues throughout the school year, with seven Saturday field trips and programs across Long Island to explore the region's varied and unique natural features.



Seatuck Education Director Peter Walsh gathers the teachers

The Workshop is led by Seatuck staff and professors from Adelphi University, Hofstra University and the College of Staten Island, as well as other local experts. Participants also hear from Workshop alumni about their experiences in taking the program's lessons back to their schools. The connection to these and other teachers in the robust community of Workshop alumni facilitates an ongoing process of learning and collaboration.

The Workshop trains teachers to help their students experience and better understand the natural world around them. In an era of ever-increasing exposure to digital technology and entertainment, such experiences are invaluable to students in their educational development, and in establishing life-long connections to the natural world.

School Gardens

In addition to numerous classroom visits and field trips Seatuck expanded its work to establish native gardens in schoolyards around Long Island. The effort, which grew out of the Greentree Foundation Teachers' Ecology Workshop, engages students in planning, prepping, planting and caring for small native gardens on their school grounds. The gardens feature native grasses, shrubs and other plants that attract and support pollinators, birds and other wildlife. They are easily expanded from year to year and become valuable teaching tools for a wide range of grade levels. In an era when schoolyards are dominated by sports fields, neatly mowed lawns and plastic playground equipment, these gardens become an oasis of life that help children develop a connection to the natural world.

In 2019 new gardens were created in five schools, bringing the total across Long Island up to:

26

Summer Explorers

In the summer of 2019, Seatuck hosted close to 250 children at the South Shore Nature Center in East Islip for various drop-off nature programs. These programs, which included students ranging from Kindergarten through 8th grade, gave participants the opportunity to explore their interests in the natural world while getting their hands dirty, their feet wet and having fun! Seatuck's experienced team of teachers also joined in the Town of Islip's Kayak Camp at the East Islip Marina to give 180 students an introduction to marine life in the Great South Bay and dragonflies in the fields.





Day in the Life

Seatuck continued its role in the annual Long Island “A Day in the Life” program, which was initiated on Carmans River in 2014 by the Long Island Pine Barrens Commission. The program gets school students out to different parts of rivers, streams or embayments to conduct basic biological and chemical sampling for a one-day snapshot of the waterway’s ecological health. It has been expanded across Long Island by Seatuck and other partners. Seatuck runs Day in the Life programs for the Carlls River (Babylon) and the Mill River (Bay Park, Rockville Centre).



Quail in the Classroom

2019 was the 11th year of Seatuck's work with local students to raise Bobwhite Quail in their classrooms. The grassland birds, which were historically found in the Midwest, expanded their range eastward, including to Long Island, as the vast Eastern forests were cut for timber and agriculture needs during the Colonial Era. Over the past century, as woodlands returned to fallow farms and development expanded across the landscape, quail habitat has shrunk. As a result, the bird's population on Long Island and throughout many parts of the Northeast has been greatly reduced.



Seatuck works with Long Island grade-school students to hatch quail eggs in the classroom and then release the birds at various parks and preserves. The program is not aimed at restoring Bobwhite Quail across Long Island, but rather as an educational opportunity that helps to supplement struggling quail populations in remnant patches of suitable habitat. Through the story of this iconic North American bird, Seatuck's educators work with the participating teachers to help their students learn not only about the life-cycle, but also important lessons about habitat needs, the impacts of human

changes to the landscape and wildlife conservation. In 2019, Seatuck worked with 76 teachers from 37 different districts. More than 1200 quail chicks were raised and released at the Suffolk County Environmental Center, South Shore Nature Center and Town of Brookhaven Recycling Center!

Seatuck's 2019 Developments



Wild & Scenic Film Festival

Seatuck brought the [Wild & Scenic Film Festival](#) to Long Island in 2019. The festival was founded in 2002 by the South Yuba River Citizens League (SYRCL), a grassroots organization based in Nevada City, California, that has been building a community to protect and restore the rivers of the regional watershed, from source to sea, since 1983. The flagship festival, which features 100+ nature-themed films, is held each January in Nevada City and Grass Valley, California—then it goes on the road! Organizers make the films available to host

organizations to show at venues across the county. Seatuck was honored to bring the festival to the YMCA Boulton Center in Bay Shore in February 2019. A dozen films were shown as part of the event, many of which related to Seatuck's work on Long Island. Others were included that educated, inspired and motivated the attendees!

10 Years at Scully!

2019 marked ten years for Seatuck in its home at the Suffolk County Environmental Center at the Scully Estate in Islip. Seatuck officially opened the doors on Earth Day, April 22, 2010. The event was marked by a public celebration that showcased the facility and Seatuck's outdoor educational offerings. It was dubbed the "Eco-Carnival." A decade later, the now annual Eco-Carnival has grown into one of the premier Earth Day celebrations on Long Island, attracting thousands of people to the facility for hands-on nature activities and nature-themed games, as well as live animals, art, music and more.

During the inaugural year at Scully, Seatuck also dubbed an October bat lecture as "Bats & Brews" when the newly opened Blind Bat Brewery agreed to attend and serve samples of their craft beer. The few dozen people that attended were pleased with the upgrade over the tea and cookies that were served at past lectures! Today, the Bats & Brews Benefit, as it is now known, has grown into Seatuck's largest annual fundraiser (and one of the hottest tickets in town!); it attracts more than 500 people to enjoy a one-of-a-kind event that features over two-dozen Long Island breweries and many local restaurants.



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