



Sound *UPDATE*

Newsletter of the Long Island Sound Study

Summer 2011

Great Gull Island

By Suzanne Paton

Great Gull Island is located at the far eastern end of Long Island Sound. Although only 17 acres in size, this island is critically important to the survival of two species of tern that migrate to the northeast each spring to nest on coastal islands and beaches. The common tern (*Sterna hirundo*) is considered a threatened species in New York and the roseate tern (*Sterna dougallii*) has been listed as endangered both in NY and federally, offering it protection under the Endangered Species Act.



Sarah Nystrom

Great Gull Island is used as a nesting ground by 43 percent of the roseate tern population in North America.

According to historic records, Great Gull Island supported a large tern colony in the nineteenth century, but the strategic location of the island at the mouth of Long Island Sound brought the interest of the U.S. government and the U.S. Army began building Fort Michie in 1897. During that time, the terns disappeared, most likely using other islands in Long Island Sound or south of Cape Cod for nesting. But by 1949 the fort was considered obsolete and the island was up for sale.

Fortunately, Richard Pough, who worked at the American Museum of Natural History (AMNH) at that time, successfully advocated for purchase of the island. Work began immediately to make the island attractive to terns, and members of the Linnaean Society of NY went to the island, took down buildings, restored habitats, and then left the island undisturbed. Terns were first documented back on the island in 1955, only six years after the departure of the army from the island. Since that time populations have continued to increase under the watchful eye of many dedicated volunteers and the tireless direction of Helen Hays, a scientist with AMNH.

Since her first visit to the island in 1963, Hays has been an advocate for the birds that return to this island every spring looking for a place to raise their chicks. Each summer since 1969, Hays has coordinated researchers, students and volunteers to monitor and protect the colony. Most recently, collaboration has developed between researchers from Argentina and Brazil who come to help with monitoring some of the same birds that spend their winter in those South American countries. In addition to monitoring the birds, the AMNH has worked to secure funding for upkeep of the facilities and improvements to the habitat to increase the amount of area available for the birds to nest.

The island is now home to the largest common tern colony in the world at over 8,000 pairs and is also the site of the largest breeding concentration



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Islands Issue



Visit the map on the back cover to see where each of the islands in this issue is located.

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Sound Update provides readers with news about the Sound and the Long Island Sound Study.

The Islands of Long Island Sound

When we think “islands”, we often think of palm trees and balmy tropical weather year round. Islands that are located around Long Island Sound might not invoke the “paradise” of our dreams, but nevertheless they do have many charms. Our islands have rich histories from generations past, while continuing to provide vital feeding, breeding, and nursery habitats for threatened and endangered wildlife.

There are dozens of islands that dot our shorelines. Here are the stories of a few of them.

Stewart B. McKinney National Wildlife Refuge

By Shaun Roche

Amidst the beautiful homes, marinas, industrial facilities, and other developments on Connecticut's shoreline, a keen observer will also find significant areas of sandy beach, wetland, maritime forest, and other habitat that have been preserved for the use of wildlife. Much of this land is managed as parks and preserves by dedicated people in state and local agencies, as well as not-for-profit conservation groups. But ask any state resident or visitor alike, "Is there a National Wildlife Refuge along the coast of Connecticut?" and one is bound to get many puzzled looks. In fact, there is a nationally significant refuge here, and its units spread across 70 miles, more than half of Connecticut's coastline.

The Stewart B. McKinney National Wildlife Refuge was established in the early 1970s when Esther Lape, a journalist and college professor who had been a close friend of Eleanor Roosevelt, donated her summer home at Salt Meadow in Westbrook, CT to the U.S. Fish and Wildlife Service. The refuge has grown slowly but steadily since that time, now encompassing more than one thousand acres, including eight islands. That figure may seem small in comparison to neighboring refuges in other parts of New England or in New York, but the impact of the refuge's land on certain wildlife populations in Connecticut is enormous.

The Stewart B. McKinney National Wildlife Refuge has, at the forefront of its mission, concentrated on providing good habitat for migratory birds—particularly herons, egrets, terns, and other shore and wading birds. There is no better place to do this than on the several near-shore and off-shore islands within the refuge.

Falkner Island, off the coast of Guilford, is called "one of the 'crown jewels' of the state's bird habitats" by Audubon Connecticut. The small island has hosted a seasonal population of about 2,700 pairs of common terns and about 45 pairs of the federally-endangered roseate tern for the last several years. These populations have been maintained by stationing biological technicians on the island to perform vegetation control and to observe and protect the colony from mid-spring to late July. This colony at Falkner Island represents about ninety-five percent of all common terns in the state and is the only area where roseate tern nesting has been confirmed.

Another significant area where the refuge provides breeding and feeding habitat for shorebirds is the Norwalk Islands chain. The refuge has, for the first time this season, stationed "island keepers" on the 59-acre Chimon Island to create a presence in the area during the busy summer season while birds are raising their young and people are enjoying water-based recreational activities. Some duties of these keepers include observing bird behavior, conducting a wildlife census, controlling invasive plant species, and educating people about interacting with wildlife on the island. So far, this multifaceted approach has been very successful.

The refuge also worked with the Town of Westport's Conservation Department this spring to better preserve habitat on Cockenoe Island, the easternmost island in the chain. Cockenoe Island currently contains excellent habitat where herons, egrets, cormorants, and terns nest. The island is also used for overnight camping and other recreation by local residents. Refuge staff set up fencing and signage around the nests so that people will be informed of the areas open for their use. Almost all island visitors have been both curious and respectful of the new boundaries.

In addition to habitat management, the refuge also lists environmental education and interpretation among its priorities. Starting this past April, the refuge collaborated with the Friends of the Norwalk Islands to provide curriculum-based environmental education to more than 250 children in the City of Norwalk's public school system. Through a series of four lessons, three in the classroom and the fourth on Chimon Island, 4th graders learned about migratory birds by studying and observing the varied habitats they prefer, their nesting and feeding behaviors, their adaptations, and more. The lessons, totaling more than eight hours of instruction per student, were provided at no cost and were well received. The hope for next spring is to reach even more students within the city.

At a time when conservation entities agree that Connecticut's islands are facing increasing pressures from recreational use, climate change, and other factors, the Stewart B. McKinney National Wildlife Refuge is taking steps to protect these areas. With the significant help of partner groups, the refuge will continue to restore habitat and work to provide educational opportunities for the public, especially young people, to learn about the wild creatures in their community.

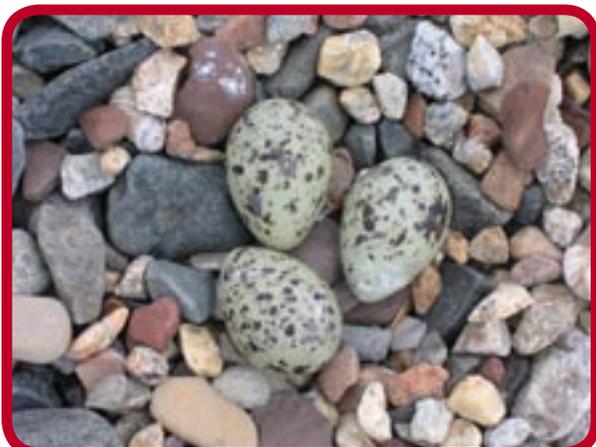
The refuge welcome's all comments and suggestions of the public may wish to provide. Please call us at 860-399-2513 or visit our website at www.fws.gov/northeast/mckinney/.

Roche is a Park Ranger at the Stewart B. McKinney National Wildlife Refuge in Westbrook, CT.



Common tern chicks, held by Carly Congdon, a trained biological technician, are common on Falkner Island.

Kristina Vagos



Common tern eggs blend with rocks at Falkner Island.

Kristina Vagos

Plum Island

The 840 acre island, known as Plum Island, off the northeastern tip of Long Island is a government-owned gem with a rich history and lush environs, appreciated by those who commute daily via ferry to support a critical mission of protecting America's agriculture at the Plum Island Animal Disease Center (PIADC).

Named by early explorers who observed beach plums growing along the shore, the island has a history that goes back centuries. In 1640, Chief Wyandance acquired it from a Native American Corchaug named Momoweta. He then sold the island in 1659 to Samuel Wyllys of Hartford, CT, reportedly for a coat, a barrel of biscuits, and 100 fish hooks. For the next 200 years, Plum Island served as farmland for raising crops, cattle, and sheep.

During the American Revolution, Plum Island and the Long Island Sound became a rendezvous for British warships. In August 1775, George Washington ordered troops to Oyster Point to defend Long Island from the British. In what is thought to have been the first clash between the British and the colonists, General David Wooster sent 120 men to Plum Island, where their first amphibious landing on August 11 was met by British fire.

In 1826, the U.S. government bought three acres of Plum Island for \$90 from the Jerome family to build a lighthouse. After 43 years, the original lighthouse was replaced by the present one. Beginning in the late 1890s, the government began to buy the rest of the island to construct Fort Terry, with the intent to protect the area from naval attack during the Spanish-American War. Eventually the fort had 11 gun batteries, extensive submarine mining capabilities, and a submarine position-finding system. Anti-aircraft guns were installed during World War I. After the war, the government placed Ft. Terry in caretaker status. Ft. Terry served as an Army training camp during World War II and was then declared as surplus property in 1948.

The need for animal disease research had grown increasingly urgent in North America by this time. Foot-and-mouth disease (FMD) had been eradicated in the United States in 1929, but there were no facilities in the country with the authority to research this highly contagious livestock virus. An outbreak of FMD in Mexico in 1946 created a sense of urgency that prompted Congress to authorize the USDA to construct a facility offshore to study this disease. An outbreak of FMD in Canada in 1952 pushed Congress to appropriate the necessary funds for a new laboratory. Congress then designated the USDA to receive transfer of Plum Island in 1952. So Plum Island began to serve a different agricultural purpose—protecting America's livestock from foreign animal diseases, such as FMD. And the facility has been doing so for nearly 60 years.

PIADC became part of the Department of Homeland Security (DHS), as mandated by the Homeland Security Act of 2002. DHS has the mission to protect America from potential terrorist threats including those directed against agriculture. The transfer of PIADC operations facilitates the Department's ability to lead a focused research and development program to prevent, respond to, and recover from the accidental or intentional introduction of a foreign animal disease. PIADC's mission can be grouped into three main categories: diagnostics of foreign animal diseases, research, and development of vaccines and diagnostic equipment, and education of veterinarians.

At PIADC, the USDA Agricultural Research Service conducts basic research on foreign animal diseases. The USDA Animal and Plant Health Inspection Service runs diagnostic samples on potential foreign animal diseases, trains veterinarians, and validates the diagnostic testing procedures done at other laboratories in other National Veterinary Services laboratories. DHS has its own science program and works with USDA to fast track promising vaccines through a licensing pipeline. In fact, foot-and-mouth disease vaccine that can be produced in the United States is currently in safety trials for conditional licensure.

Plum Island is also an important refuge for wildlife. More than 100 bird species have been documented by Audubon surveys at Plum Island. The island is a part of the Orient Point to Plum Island Important Bird Area (IBA) based on the presence of species considered at risk including piping plover and common and least terns. Additionally, there are also numerous osprey and roseate terns, in addition to an active bank swallow colony. Staff recently photographed a juvenile bald eagle.

A popular spot for Plum Island staff and visitors to Plum Island's community outreach program is seal beach, a rocky area off Plum Island where as many as 300 harbor and grey seals haul out in winter months. Even in the warmer weather, one can always find a few curious faces popping out of the water to take a quizzical look at the guests.

But change is coming to Plum Island. Much like in the 1950s, when a sense of urgency ensued because no facility existed to study FMD, now no facility exists in this country to study high-consequence Biosafety Level 4 (BSL-4) diseases of livestock. BSL-4 diseases are diseases for which no vaccine exists and are currently occurring in livestock in other countries. These diseases are deadly to livestock and humans and must be studied in a BSL4 laboratory environment.

DHS realizes the need to be prepared for BSL4 zoonotic and emerging diseases of livestock. Because PIADC is a BSL3 laboratory and cannot study these diseases, a request for proposals was issued for consortia to host a location for a new laboratory that would contain the BSL4 laboratory. An intensive study of environmental impact statements and a host of critical criteria of sites ensued, and Manhattan, KS, was selected.

Because Plum Island was not selected, Congress has mandated that the island be sold to offset some of the costs to build the new facility. At this point, an environmental impact statement is currently in process for the sale of Plum Island (EIS). The draft EIS is scheduled to be available for public comment by early fall. For more information, please visit plumislandny.com.

Information courtesy of Plum Island Disease Center.



Steve Papa

Plum Island is home to many different species of birds, like this piping plover chick that was spotted at the beach off Ft. Terry.

Dauids Island

By Tom Andersen

Dauids Island is 80 acres of rock and glacial sand, strewn with bits of shell and choked by weedy vegetation, publicly-owned but off limits to the public. Less than a mile from the shore of New Rochelle, NY, the island is unreachable unless you have a boat small enough to pull up onto its beaches. Farmed and pastured until the 1860s, it became the domain of the U.S. Army for a century, followed by almost a half-century of ownership by New Rochelle.

The island is named after Thaddeus Davids, an ink manufacturer from New Rochelle who owned it in the mid-1800's. The U.S. Army leased it for use as a Civil War hospital and then, after the war, bought it and eventually turned it into Fort Slocum. It was the site of a hospital, prison, mustering camp, recruit depot, coast artillery fortification, transit station, training installation, Air Force base, and missile battery. Tens of thousands of soldiers and recruits from all over the country served at Fort Slocum and thousands of Westchester County citizens worked and visited there.

The Army operated Fort Slocum until 1965 and then gave it to New Rochelle. Two years later, New Rochelle sold it for \$3 million to Con Edison, which wanted to build a nuclear power plant there. Con Ed ultimately chose Indian Point instead and, in 1976, sold the island back to New Rochelle—for one dollar.

But with the ownership of the island, also came the headache of trying to decide what to do with it at a time when city officials' vision clashed with evolving public concerns about the link between development and the protection of Long Island Sound.

On the Web...
Visit Westchester County's Web site at: <http://davidisland.westchesterarchives.com/> to learn more about the history, buildings, forts, and archeology of Davids Island.



Tom Andersen

In the early 1980s, Xanadu Properties—with the support of city leaders—proposed building 2,000 condominium units (some in 55-story high-rises) on Davids Island. It would be connected to the mainland by a bridge that would skirt the tip of Glen Island Park. Only residents would be allowed on the island; the public, which owned the island, would be kept out. Many civic leaders thought the plan was a great idea; residents of New Rochelle's south end and other nearby communities were less enthusiastic.

Xanadu released the project's environmental impact statement in 1987, when hypoxia had turned the Sound off Westchester into a summertime dead zone. The problem raised the question of whether treated sewage from Davids Island would make the condition worse, a question that opponents of the project asked continuously and proponents ignored.

The New York State Department of Environmental Conservation complicated things for Xanadu by deciding not to allow Xanadu's development to hook into New Rochelle sewage treatment plant because it was operating over capacity. Xanadu, in other words, had a plan for 2,000 new condos but no place to treat the sewage from those condos.

The final blow came when the Department of State, which was reviewing the project's consistency with coastal zone policies, said the plan "makes no sense." In particular, it cited the bridge, which would have changed navigation patterns in the area and usurped part of Glen Island park. By 1992 Xanadu was gone. Other proposals, including one by Donald Trump, fared no better.

A decade ago, Westchester County offered to buy the island from New Rochelle for \$6 million and turn it into a park, but the proposal won little support. More recently, Davids Island was included in the Long Island Sound Study's list of stewardship sites, and the U.S. Army Corps of Engineers spent \$26 million cleaning up Fort Slocum's ruins.

In 2010, New Rochelle Mayor Noam Bramson called for the redevelopment of the island. A city Task Force concluded tentatively that part of the island should be developed, perhaps as a hotel and convention center, and part turned into a public park. There are only two issues left unresolved, the Task Force reported: how to get to the island and what to do with its sewage.

To read the full Interim Report of the Davids Island Task Force that was released in February 2011, visit <http://noambramson.org/publicdocs/2011/02/Davids-Island-Brief-2-10-11-Revised.pdf>.

Andersen is the author of *This Fine Piece of Water: An Environmental History of Long Island Sound* (Yale University Press).

Hart Island

By Captain Pete Sattler

The islands of the NYC metropolitan area were once a vital part of the urban economy, supporting shipbuilding, military training, summer resorts, and mental health institutions. Within the five boroughs of NYC, more than 70 islands exist here and almost as many have disappeared. These “lost” islands were used as depositories for landfill, dug up for large projects (i.e., subway construction), and were, in the process, merged with other nearby islands or masses of land. In addition, many became the base and support for bridge stanchions.

Hart Island (about 1.0 mi x 0.25 mi) is located in western Long Island Sound northeast of City Island, Bronx, NY. Within sight of Hart Island are many tiny Bronx islands including The Blauzes, Chimney Sweeps, East Nonations and South Nonations, High Island, and Rat Island. To the east, Westchester County islands include Davids, Columbia, Huckleberry, and Pea. To the south across Long Island Sound is Nassau County, Long Island. A short ferry ride (~0.5 mi) to Hart Island from Fordham Street across City Island Harbor is a rare ticket available from Stub Hub. Operated by the NYC Correction Department, restricted visits are for tours and prison-work crews. A regular destination for local fishermen, scuba divers, bird watchers and kayakers, it is also the final destination for Jane and John Doe(s) in Potters Field, the city cemetery.

Throughout its history, Hart Island has had a workhouse, a hospital, several prisons, a Civil War internment camp (1865), a reformatory, a drug rehabilitation facility (1966-1976), Nike Ajax and Hercules surface to air missiles (1956-1974), and a small sewage treatment plant (STP) that treated about 1 million of gallons of wastewater per day. In 1869, Potters Field, the cemetery for the unnamed homeless, was relocated to Hart Island from Randalls Island. Since that time, an estimated 750,000 burials have taken place. Hart Island was returned to the NYC Corrections Department (NYC CD) in 1946 and the jail was reactivated. In 1966, the jail was closed and the island was used as a reh security jail was maintained from 1982 to 1991. Presently, prison-work crews are bused from Rikers Island (largest NYC correctional facility with a population of ~20,000) for weekly burials, disinterments, and island maintenance.

When I first visited Hart Island during the 1971 summer, Phoenix House and the small STP were in operation. As a provisional STP worker, I was assigned to a package plant operated at Turtle Cove for primary treatment of the seasonal sanitary waste flow from the NYC public beach, Orchard Beach, a man-made facility created under the Robert Moses administration. I went to Hart Island to retrieve a barrel of “perfume”, a disinfectant, to add to the raw flow. Subsequently and ironically, the disinfectant was placed in the effluent grating located beneath the windows of the administrative superintendent offices at Orchard Beach. Today, all sanitary waste from Orchard Beach and City Island are pumped to the Hunts Point Water Pollution Control Plant located on the East River. While on the island, lunch was served (macaroni and cheese) at Phoenix House. I remember the skylights with bars which reminded me of the many prisoners who probably shared meals in the same room.



Peter Sattler

Hart Island has much history, including this original prison building, which was used by Phoenix House.



Peter Sattler

Hart Island has restricted access by order of the NYC Corrections Department.

When I launched my first and only boat, “The Hemingway” in 1984, Hart Island was a great fishing and diving destination. The island, being an active prison at the time, was patrolled regularly by air and sea. The island was posted “Restricted Area: No Trespassing-No Docking-No Anchoring” and many times I was approached by the NYC CD launch to weigh anchor and keep my distance.

The Island is still a great fishing spot for fluke, bluefish, porgy, and striped bass. The shore habitats, as well as the wooded bluffs, give bird watchers an unlimited source of pleasure. The Island is also a potential breeding ground for mosquitoes and a source of floatables. The east and north shores have many derelict vessels and potential floatable debris that can be re-suspended during extreme tides and storms. The many buildings are now in disrepair and the only tenants are the ghosts of its past residents.

A beautiful vista seen from City Island and ships underway on Long Island Sound, Hart Island has a rich past and should be remembered as a NYC and Long Island Sound historical site.

Capt. Sattler is retired from the Interstate Environmental Commission.

The Thimble Islands—We're not in Maine?

By Mark Parker

The Thimble Islands off the coast of Branford, CT have often been described as a “piece of the Maine coast that drifted into Long Island Sound and came to rest in Stony Creek.” Like Maine’s islands, but on a much smaller scale, they are the result of a flooded coast line created during the last ice age when the Great Wisconsin Glacier scraped and gouged the hill tops of land near the coastal plain, leaving bedrock pink granite exposed to the elements and submerged in the waters of the newly created Long Island Sound as the glacier melted.

Since their creation, the Thimbles have seen a variety of human inhabitants.

There is evidence that the Mattabesec Indians used the islands as their summer camping grounds, calling them “Kuttomquosh” meaning ‘the beautiful sea rocks’ as these islands are composed of a jumble of beautiful pink granite rock outcroppings. Adriaen Block became the first European to discover the islands in 1614 and legend has it that Captain Kidd sailed here in 1665 making High Island his harbor while pirating in LIS and running from pirate hunters. As the Connecticut area was being settled, land grants were given to colonists to settle the islands. On maps made between 1715 and 1720, the islands were first labeled “The Hundred Islands.” By 1739, town records indicate that the islands were called the Thimble Islands.

Though the origin of the name is uncertain, historians say the islands take their name from the “thimbleberries” or black raspberries that once grew there. The ecology of the islands has been heavily influenced by intermittent human occupation. During the 1700s, the larger islands were used for pasturing sheep and as a source of seaweed used for fertilizer. One particularly drastic time for the Thimbles occurred during the American Revolutionary War when all the islands’ trees were cut down to eliminate hiding places for British ships.

By the 1840s, a new use for the islands took hold—tourism. In 1846 a hotel was built on Pot Island advertising the legend of Captain Kidd, naming one of the islands “Kidd’s Island”. This began a long season of steam boat tourists from the big cities visiting for vacation and weekend getaways. Soon other hotels and boarding houses opened on the islands and by the 1870s people were building their own summer cottages on the on the islands.

Granite quarries opened in the Stony Creek area around the time of the Civil War. For over 60 years, stone from the area was used in famous building projects from New York’s Grand Central Station to the Bulkeley Bridge in Hartford. One of the Thimble Islands, Bear Island, was home to a granite quarry that exported high-quality stone to such constructions as the Lincoln Memorial, the Statue of Liberty, and Grant’s Tomb in New York.

It was not only vacationers and quarrymen who were attracted to the Thimbles. Commercial lobstermen and fishermen found profitable harvest in their waters and a thriving oyster farming industry developed. The sheltered waters and fresh water streams entering the harbor from the mainland provided perfect conditions for oyster growth. “Stony Creek oysters” became highly prized by shellfish connoisseurs.

Today, the 23 largest Thimble Islands are inhabited by residents in 81 houses. Two islands are owned by universities: Horse Island, owned by Yale University is maintained as an ecological laboratory by Yale’s Peabody Museum. Outer Island is used by Southern Connecticut State University for ecological studies and is part of the McKinney National Wildlife Refuge system. Other named Thimble Islands include Rogers Island, Davis Island, Hen Island, Potato Island, Cut-in-Two Island, (East and West), Wheeler Island, Mother-in-Law Island, Little Pumpkin Island, Jepson Island, and several others along with many more un-named islands. Frisbie Island is maintained as a sanctuary for wild birds.

Current and past well-known residents of the islands range from President William Taft established his “Summer White House” on Davis Island for two years. General Tom Thumb on Cut-in-Two Island East to Garry Trudeau (Doonesbury cartoonist) and Jane Pauley (broadcast journalist).

The expose

hurricane when seven Thimble Island occupants died in the storm, including five who were swept away when a huge tidal surge destroyed their house on Jepson Island. Still, for those who don’t live on the Thimbles, people can enjoy the view and character of the islands on a boat tour or paddle by kayak and other small boats.

Parker is the Long Island Sound Study Coordinator for Connecticut with the CT Department of Energy and Environmental Protection.



Potato Island, shown above, is just one of the many islands that make up the Thimble Islands.

Mark Parker

Continued from page 1.

in this hemisphere of the roseate tern. During the 2010 nesting season, an amazing 43 percent of the entire roseate tern population in North America nested on this island, making it absolutely crucial to the ongoing recovery of this species. Each spring the terns make the long journey back to North America, arriving in Long Island Sound sometime during the end of April and early May. During 2011, the returning terns spent their first night on Great Gull Island on May 7. It is always a much anticipated and celebrated arrival among the researchers and volunteers who arrive during the prior few weeks to prepare the island for their arrival. Those lucky enough to visit Great Gull Island in the middle of June witness the amazing sight of 20,000 individual terns flying around, it is absolutely amazing.

Both common and roseate terns lay their eggs in nests they build on the ground. The adult terns dive into the ocean and Long Island Sound to catch small bait fish, such as sand lance (*Ammodytes* spp.) and Atlantic herring (*Clupea harengus*), which they carry back and feed to their young throughout the summer. The survival of their young each year is directly tied to their ability to find adequate food near the island. Later in the season when the young are able to fly, they must learn to find their own food.

One of the most serious threats to terns nesting on Great Gull Island is loss of habitat as excessive growth of non-native invasive plants and other weedy species that have colonized the island covers areas formerly used by nesting terns. This includes plants like Oriental bittersweet (*Celastrus orbiculatus*), swallowwort (*Cynanchum* sp.) and Japanese honeysuckle (*Lonicera japonica*). To support the AMNH in their effort to remedy this situation, the U.S. Fish and Wildlife Service's Coastal Program is working closely with Connecticut Sea Grant and the AMNH to develop a vegetation management plan. The goal is to increase the quality and amount of nesting area for the terns to allow for the continued use of the island.

When the breeding season comes to an end, the terns initially head east to Cape Cod where they will continue to feed and gain weight with other terns from nesting colonies throughout the Northeast. Ultimately they will begin the southward migration to their South American home. No doubt, when the terns leave for the season, Hays and the other dedicated researchers will get some much needed rest, but I suspect it won't be long before they will begin planning for the spring and the timeless cycle that brings terns back to Great Gull Island year after year where we can enjoy their grace and beauty.

Paton is a Senior Biologist with the US Fish and Wildlife Service's Coastal Program in Charlestown, RI.



Sarah Nyström

Volunteers mark tern nests with orange stakes as well as count eggs and band chicks.

Long Island Sound Futures Fund grant program at work

Bird Nesting on Plum, Great Gull, and Little Gull Islands: In 2011, a \$25,833 grant was awarded to the National Audubon Society, Inc. to address beach-nesting bird monitoring and stewardship needs for piping plover and least tern critical breeding sites on Great and Little Gull Islands as well as Jamesport-Mattituck Creek, Plum Island, and Fishers Island, NY.

Education at Outer Island: In 2009, \$34,976 grant was awarded to Friends of Outer Island, Inc. to build a revitalized educational center on Outer Island, which included a marine lab, learning stations, and a classroom pavilion to provide hands-on learning and research opportunities about Long Island Sound.

Bird Protection on Marnacoke and Plum Islands: In 2007, a \$35,000 grant was awarded to the National Audubon Society, Inc. and Audubon New York to work with local stakeholders to identify priority actions that further conservation at Important Bird Areas, Lighthouse Point Park, Marnacoke Island and coves, Orient Point/Plum Island, and Edith Reade Sanctuary which are oasis for over 300 species of birds.

Education on Barn Island: In 2005, a \$27,597 grant was awarded to CT DEEP, Bureau of Natural Resources Wildlife Division to design, install, and maintain a one-half acre exhibit of native plants common to the Connecticut coastal area at the Barn Island Wildlife Management Area, describing the importance of using native plants.

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“What Can I Do?”

Protecting and enjoying our islands

1 Keep out: To protect wildlife, pay close attention to posted signs or fencing that designate closed areas. For example, endangered or threatened birds may be nesting in the dunes or feeding along the beaches. Be sure to stay out of these closed areas so you do not disturb the wildlife.

2 R-E-S-P-E-C-T: Islands that are not closed to the public still need your respect. If you visit these islands, make sure you do not damage the habitats (e.g., no camp fires or walking through dunes), disturb wildlife living on the island, or leave any trash behind.

3 Don't litter: Do your part to prevent floatable debris, make it a point to collect unwanted trash that can end up floating ashore on our islands. In addition to being unsightly, plastics and other floatables can trap, maim, and be eaten by wildlife, including birds that take refuge on many of the islands in Long Island Sound. Better yet, sign up for or initiate your own beach cleanup. Visit www.lisvolunteer.net to find a cleanup location near you!

4 Make your voice heard: Stay informed, participate in happenings in your town, and make sure your voice is heard when deciding what to do with islands and other publically-owned lands.

5 Explore and learn: Different agencies and groups offer fun activities so we can learn about and explore some of the Sound's islands. Below are some details:

Sheffield Island Unit off of Norwalk, CT An accessible self guided Island Ethics trail explores the history of the island and the importance of island habitats. For more information on ferry availability, please visit the Norwalk Seaport Association website at <http://www.seaport.org/>.

Outer Island Unit off of Branford, CT During summer weekends, refuge staff and volunteers lead tours around the island and explain the island's unique history and ecology. For more information on the summer docent schedule visit the Friends of Outer Island website at <http://www.friendsofouterisland.org/>.

Falkner Island Unit off of Guilford, CT One weekend each September, Falkner Island Unit is open to public visitation during the annual open house. This open house includes tours of the island's historic lighthouse, the research camp, and interpretation of the island's research activities. For more information on this year's open house, please contact the refuge at <http://www.fws.gov/northeast/mckinney/>.



The islands of Long Island Sound tell historical stories about generations of past and also provide feeding, breeding, and nursery habitats for federally threatened and federally endangered wildlife.

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