Peconic Estuary PROGRAM

Summer Newsletter 2019

What's Inside?

Save The Date:
Second Annual Estuary Day
Saturday, September 14th

Theodore Roosevelt Park
25 West End Ave., Oyster Bay, NY.
This event is free and open to the public!

Kick off National Estuaries Week this year by joining us at Estuary Day! This year we are focusing on marine debris and its impacts on the environment. Enjoy family-friendly activities throughout the day, including beach seining, beach combing, crafts, boating, and educational lectures. Click here for more information.

Long Island Sound Study | Peconic Estuary Program | New York State of Opportunity. Department of State | South Shore Estuary Reserve

Diamondback Terrapin Monitoring
My Experience as a Peconic Estuary Program Intern

By Kaitlin Morris

The diamondback terrapin (Malaclemys terrapin) is easily distinguished by the diamond-shaped, concentric rings on its shell. This turtle species spends its entire lifecycle in the brackish (where salt and fresh water mix) protected estuarine waters along the East Coast of the United States and is found nowhere else in the world! Terrapins are the only brackish North American turtle, and the only turtle native to Long Island's salt marshes, or Spartina marshes. The turtles use this salt marsh habitat for finding food and as a nesting and nursery ground for their babies.

Sadly, diamondback terrapin populations are declining. Urbanization, pollution, predators, and accidental capture in fishing gear are all taking their toll on the species, making it so important to monitor their population. Monitoring efforts by PEP and other organizations help scientists observe population trends and can eventually help conserve the species and its habitat.

Peconic Estuary Program began a pilot monitoring program in 2017 to determine where diamondback terrapins are nesting on the East End of Long Island. As a terrapin monitoring intern, my role was to monitor Northwest Harbor County Park in East Hampton for evidence of terrapin nesting activity during their nesting season from June through early August. To keep data consistent, the other intern, Noah, and I patrolled at high tide depending on the cycle of the moon. Each first quarter, full moon, third quarter, and new moon, we met at high tide three times per week to look for terrapin tracks, test holes, predated nests, and live turtles.

Northwest Harbor County Park, East Hampton

Terrapin tracks have a distinct look because the female terrapin carries her body using her strong back legs to pull her shell along the sand, creating a smooth indent where the shell drags between her footprints. A test hole or test nest is where a female began to dig a nest, but chose not to lay her eggs in that location, leaving a deep, round hole in the ground. At first, it was hard to tell the difference between different holes we found at the monitoring site. It's hard to know what to look for until you get a little more practice! However, after finding a few, it became easy to distinguish the test holes from other indents in the sand. Predated nests are nests where the female terrapin successfully laid her eggs, but they were unfortunately eaten by predators such as raccoons before hatching. These were easy to recognize due to the shredded egg shells surrounding the nest.

Left to Right: Tracks, Test Hole, Predated Nest.

...(CONTINUED)

If nesting female turtles were found, Noah and I measured the length and width of her carapace (the top portion of a turtle's shell), placed her on a vinyl bag and used a luggage scale to weigh her. Some of the terrapins didn't seem to mind, while others hid inside their shells or stretched out their necks to try and snap at us.

To determine whether or not a female turtle had already nested, we were trained to feel the sides of her body beneath her shell for eggs. If we could feel eggs inside, we painted a small dot on her carapace using nail polish to easily identify her in case we saw her again. If she had already nested and no longer contained eggs, it was safe to inject a PIT tag, as instructed by Dr. Russel Burke, the leader of Jamaica Bay Wildlife Refuge Terrapin Research Project.

This tag, similar to an I.D. chip commonly used in dogs and cats in case they are lost, is a harmless, tiny pin that identifies each animal by a number that is scanned with a PIT tag reader. Tagging each female terrapin after she nests will allow PEP to identify any recaptured terrapins in following years as well as improve population monitoring in the long run. Since this is the first year that PIT tagging was included in the pilot monitoring program, PEP has to conduct PIT tagging for a few more years to see any trends in terrapin nesting behavior. Implanting these tags will help us estimate the number of individual nesting female terrapins in the population, gather data on nesting behavior, and encourage improved conservation efforts.

Although Noah and I found lots of nests, test holes, and tracks, finding live female terrapins was much less common. Throughout the entire nesting season, we found only 5 nesting terrapins. However, we did come across a baby terrapin at the edge of the water which was a great moment to experience! Even though we didn't find many live terrapins, the fact that we discovered plenty of terrapin evidence tells us that this site is favored as a nesting habitat. Tracks, test holes, and predated nests all matter when it comes to terrapin monitoring because they show that terrapins are nesting in the salt marshes of the Peconic Estuary. PEP's monitoring program and the data it provides will help to influence future conservation decisions to help protect diamondback terrapins and their habitat.

Northwest Harbor County Park was a beautiful place, so Noah and I both enjoyed the chance to get outside and do hands-on work in such a gorgeous environment. As an aspiring marine conservation scientist, what more could I ask for than to be working in nature looking for turtles?

We also enjoyed hosting a citizen science volunteer monitoring day in late July. After a few months of monitoring terrapins on our own, we loved the opportunity to lead a group of volunteers through the process and explain what we're looking for and why. Having fresh eyes was also very helpful to the monitoring efforts—several new predated nests were spotted that day, especially by the youngest volunteers!

My diamondback terrapin monitoring internship with Peconic Estuary Program was an amazing opportunity to gain experience in a variety of projects while immersing myself in hands-on field work and outreach. Even better, with this internship I felt like I was actually making a difference for science and wildlife conservation on Long Island. Now, as an employee of Cornell Cooperative Extension and PEP, I am even more grateful to have had this real world experience!

8 REASONS TO LOVE ESTUARIES

By Jenna Schwerzmann

1. Estuaries are beautiful places to live and visit. People are drawn to the scenic rivers, beaches, forests, and surrounding areas of the Peconic Estuary. Our year-round population is about 100,000 people, which nearly triples in the summer. This is incredibly important for the East End economy. Local restaurants, marinas, shops, and other businesses frequented by residents and tourists would suffer if we didn't protect this vital resource.

2. They offer scenic places to have fun and explore. Estuaries are unique places for all kinds of recreation on the water and on land. The Peconic Blueway Trail offers a quiet, undeveloped kayaking experience. Local swimmers and snorkelers enjoy the Peconic Bays as they are some of the first waters to warm up in the summer. The Peconic Estuary watershed contains all kinds of hiking trails and birding spots, including the Mashomack Preserve on Shelter Island, known as "the Jewel of the Peconic."

3. Estuaries support fish populations. There are several local fish species in the Peconic Estuary, but did you know there are many more ocean species that visit our brackish waters? About 600 commercial fish species will swim from the ocean to the estuary during their life cycle. Alewife are a type of river herring that migrate from the oceans to freshwater every spring to spawn, like salmon. The Peconic Estuary has the largest alewife "run" on Long Island, but they still face several obstacles including dams built in the late 1800s and early 1900s. PEP is working to build fish passages for alewife to get around these obstacles to their preferred habitat, opening up acres for spawning.

Photo: Peconic Baykeeper

4. Estuaries provide great shellfishing. There are plenty of places around Long Island to find clams and oysters, but there's only one place you can find the iconic Peconic Bay Scallop. Locals look forward to the opening of scallop season every year, which starts in November after adult scallops have spawned. The season is timed carefully; since scallops naturally have a short life span, the laws ensure that we only harvest adults that had the chance to reproduce and are nearing the end of their life, making scallops a sustainable seafood choice. They're also incredibly delicious – there's a reason they call it "Peconic Gold"! Without good water quality conditions, we might not have them.

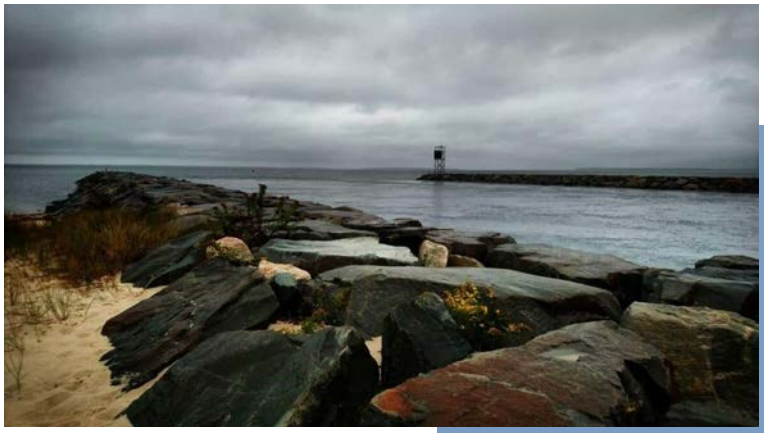
...CONTINUED

5. They offer protected habitat for wildlife. Estuaries provide amazing habitats because they are partially enclosed and have varying salinity. Over 100 rare species thrive in this protected environment in different stages in their life. Aquatic, terrestrial, and aerial animals will use the Peconic Estuary as nursery habitat for their young, find food, and rest during migration.


Cory Shearwater

6. Estuaries help protect our coastlines. Salt marshes and other estuarine plants help combat sea level rise, reduce erosion, and buffer storm surges. This reduces the impact of flooding, which can cost us billions of dollars in damage. PEP works on restoring salt marshes and building living shorelines in the Peconic Estuary, which means using natural materials to bolster shorelines as an alternative to concrete seawalls and bulkheads.

7. They provide ecosystem services. As water flows from land to the bay, it can carry nutrients, sediments, and pollutants. Wetlands can filter out these floating materials, which makes the water cleaner before it reaches surrounding estuarine waters. Ribbed mussels love to inhabit salt marshes, and as filter feeders they too help to filter pollutants out of stormwater runoff before entering the bay. This is a valuable service that benefits both people and aquatic life and would otherwise cost us a large sum of money to replicate with man-made technology.



8. They are historically and culturally important to our area. Estuaries have long been used as ports along transportation routes. People began to colonize these areas for the abundant food and fishing. On Long Island, the Peconic Estuary has a long history of farming and fishing, especially shellfishing. Today the Peconic Estuary faces several threats, we must work together to protect it for the future.

Before you head out to catch dinner...

...make sure you have the proper permits and know all the rules and regulations!
Each species of fish or crustacean has its own fishing season, and you are only permitted to keep a certain number of animals per day in a specific size range. Some species, including Atlantic Sturgeon, American Shad, Alewife, and Blueback Herring may never be kept. For a full list of species and their catch limits and restrictions, please see the NYSDEC website. https://www.dec.ny.gov/outdoor/7894.html

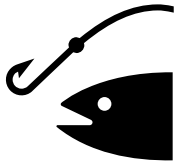
Shellfish

Bay Scallop

- 2-1/4" long with at least one annual growth ring
- 1 bushel
- Dredges allowed except Sundays, with 36" inch max. width.

Hard Clam

- 1 " thick
- 100 clams
- No mechanical means.
- Rakes and tongs allowed.
-Teeth: 1" spacing
-Basket: 15/16" spacing



Species	Size Limit	# of Fish Limit	Open Season
Striped Bass	28"	1	April 15 - Dec 15
Black Sea Bass	15"	3 7	June 23 - Aug 31 Sept 1 - Dec 31
Winter Flounder Summer Flounder Yellowtail Flounder	12" 19" 13"	2 4 None	April 1 - May 30 May 4 - Sept 30 All year
Bluefish	First 10, none. Next 5, 12"	15...No more than 10 of which shall be less than 12"	All year
Scup (porgy)	9	30	All year
Horseshoe Crab	None	Daily - 5	All year
Blue Crab	3" Peeler 3.5" Soft 4.5" Hard	Daily - 50	All year

*Regulations are subject to change

Save Marine Life -Recycle Fishing Line!

The Peconic Estuary is part of the world-wide club of waterways being impacted by plastic pollution. From plastic bottles, straws, and bags, to the tiny plastic pieces they erode into – marine life mistake these plastics for food and can get tangled in its debris. Clear fishing line is a huge culprit. One way PEP is trying to combat plastic in our water is by providing our community with Monofilament Fishing Line Receptacles. In 2016, volunteers helped PEP assemble these fishing line receptacles that are placed around the Peconic Estuary. The monofilament (single stranded) fishing line discarded into our receptacles are collected by PEP staff and volunteers, weighed, and sent to the Berkley Fishing Line Company to be recycled. In 2018, the grand total weight of line collected for the year was 1,340 grams or about 3 pounds!

When you drop off excess fishing line at these receptacles, you are changing the course of its future for the better. Help us recycle fishing lines into useful tackle boxes or spools for line – a much better fate than hurting our treasured marine life.

You can use PEP's receptacle map to find where you can recycle your fishing line, both PEP receptacles (blue) and partner receptacle locations (green). Reach out to us if you know of a receptacle not on the map and we will add it!

Join the Citizens' Advisory Committee

Join the Peconic Estuary Program and other environmental organizations to discuss the health of the Peconic Estuary. Get updates on the projects that are being implemented in our bays and learn how you can be involved to improve water quality, wildlife habitat, and coastal resiliency.

As a member, you'll help us spread public awareness of the estuary while advising the PEP about important goals and concerns of the citizens of Long Island's East End. It is a unified effort to protect and restore the Peconic Estuary, and we want you to be a part of the conversation!

Learn more on our website: Citizens' Advisory Committee

Contact: peptalk@peconicestuary.org

Newsletter Editor: Lauren Scheer

PEP Contact Information

Riverhead County Center
300 Center Drive, Room 204N, Riverhead, NY 11901
Email: peptalk@peconicestuary.org

Program Director - Dr. Joyce Novak
Program Coordinator - Sarah Schaefer
State Coordinator - Elizabeth Hornstein
Education & Outreach Coordinator - Lauren Scheer
Education & Outreach Assistant - Jenna Schwerzmann
Education & Outreach Assistant - Adelle Molina
Education & Outreach Assistant - Kaitlin Morris