

SUMMER NEWSLETTER 2020



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PECONIC ESTUARY PARTNERSHIP UPDATES

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New York and Connecticut's Shellfish and Seaweed Aquaculture Viewer

Introducing the New York and Connecticut's Shellfish and Seaweed Aquaculture Viewer, released by NYSDEC Division of Water, Region 1. This map contains GIS layers on natural resources, environmental conditions, navigation, regulatory requirements, and potential use conflicts to provide information for potential shellfish and seaweed growers and other users of the coastal area. It is a helpful tool to assess conditions based on existing datasets and identify potential risks and long-term suitability for particular areas. Check it out on the Long Island Sound Study website.

RECAP: CITIZENS' ADVISORY COMMITTEE MEETINGS



Our first two CAC meetings of 2020 were a great success going virtual. If you missed these informative and resource filled events, we provide you with helpful recaps below. You'll find resources that will help you get started on your native plant garden and links that will get you involved in an island-wide terrapin monitoring survey!



















The Peconic Estuary Partnership and Group For The East End hosted a virtual Native Plant Gardening meeting with guest speaker and expert, Rusty Schmidt, President of Long Island Native Plant Initiative. Rusty discussed native plant species, the benefits of planting them for our ecosystems and water quality, how to get started on your garden, where to buy native plants, and the PEP Homeowner Rewards Program was featured. Attendees asked questions and provided great feedback.

The recorded Zoom meeting and the native plant garden resources that Rusty provided can be found on PEP's CAC website page under the May 2020 dropdown menu.

If you live in the Peconic Estuary watershed, you can apply to the PEP Homeowner Rewards Program. Learn more about it here - a map of our watershed is included.





The Peconic Estuary Partnership, Seatuck Environmental Association, and Dr. Russell Burke of the Jamaica Bay Terrapin Project hosted a virtual terrapin monitoring workshop where attendees learned about the importance of monitoring and how to identify terrapins and evidence of their activity. The workshop concluded with the unveiling of Seatuck's Diamondback Terrapin Watch, which is an online survey that Long Island citizen scientists and environmental partners can utilize to record their sightings. This online survey will collect substantial data that all environmental groups can benefit from.

The recorded Zoom meeting can be viewed on PEP's vimeo page: https://vimeo.com/426392158

You can record your sightings of terrapins at Seatuck's <u>Diamondback Terrapin Watch online survey here.</u> Further information and resources on the Diamondback Terrapin Watch citizen science program can be found on Seatuck's website or PEP's Education and Outreach webpage.









Enjoying Nature in the Peconic Watershed

By Kaitlin Morris

After several months in quarantine, we're all itching to get outside and enjoy the fresh air and beauty of nature. The Peconic Estuary watershed is home to numerous trails, beaches, parks, and other gorgeous places where you can enjoy summer on the East End in a safe way while conducting social distancing.

One of our favorite ways to get outside is to hike, bike, or observe wildlife by foot in the Peconic watershed. <u>Our online guide</u> includes an interactive map of the best places to walk your dog, savor a peaceful beach walk, or plan a vigorous family hike. Before you leave to your destination, you can download one of our <u>scavenger hunt activities</u> to help you spot wildlife or any one of nature's treasures that you otherwise may overlook! Just remember to avoid crowds, wear a face covering when near others, and safely dispose of used masks, gloves and other garbage while you explore the outdoors. For bonus points, you can even turn your nature walk into a trail cleanup to help restore the East End's natural environments and add a dose of positivity to your day!









Curious about the top places for birdwatching and observing wildlife on the East End? Navigate to our "Birdwatching and Wildlife Viewing" webpage to use our interactive map of the best places to view wild animals and birds around the Peconic. Bring a pair of binoculars and a camera and be sure to reach out to us about any interesting finds!





If you're in the mood for an aquatic adventure, head to the "On the Water" section of our website to find the best places to paddle, boat, fish, and take fitness classes on the waters of the Peconic Bays. One of our favorite spots is the Peconic River Blueway Paddling Trail. This beautiful 9.5 mile-long trail begins in Calverton and runs all the way to Indian Island County Park in Riverhead, making it the perfect place to paddleboard, kayak, or canoe while observing the diverse wildlife and habitats of the Peconic River. If you're new to paddling or just not in the mood for the whole 9.5 miles, just get on at any other entry point on the map to adjust the length of your paddle.

No matter what your next Peconic Estuary adventure entails, enjoy the wonders of nature and be a "Peconic Friendly" steward while doing it! Check out our website at https://www.peconicestuary.org/explore-the-peconic/ for more information or to use our interactive guides, and share with us your fun adventures!



CRITTER SPOTLIGHT: SEA ROBINS

By Adelle Molina

The sea robin is a common fish in Long Island estuaries. Unfortunately, it is often considered a "trash fish", a term commonly used by fishers to describe a species that is abundant but undesirable. They are deemed a nuisance because they are often caught as bycatch when targeting other species like fluke, scup, or striped bass. Sometimes, if you walk along a common fishing beach in the Peconic Estuary, you'll see a lot of dead sea robins along the water's edge. They usually did not get there naturally. Many people who catch them as bycatch will toss them back or leave them on the beach because it is perceived that they are difficult to clean and inedible or not delicious. However, once you learn how to prepare them, they are actually quite tasty. The flavor is sweet and mild, and the white flesh is firm yet flaky when cooked.

The sea robin, sometimes called a gurnard, is a general term for either of two species that are found in Peconic waters. These fish have enlarged pectoral fins, making them easily distinguishable from above as they swim with their large, rounded pectoral fins extended like wings. They have a heavily armored head, but a fleshy, edible tapered body. One of the species is Prionotus carolinus, the northern sea robin, and the other is Prionotus evolans, the striped sea robin. In our region, the striped sea robin is more common. As per its name, the striped sea robin has a conspicuous narrow reddish-brown stripe along the side below the lateral line running along the length of the fish. It reaches larger maximum sizes and has a larger head, mouth, and pectoral fins plus a more square-shaped tail than the less common northern sea robin. Meanwhile, the northern sea robin has a distinctive spot on its dorsal fin. Do be careful handling them, as their spines can have a mildly irritating toxin.



Striped Sea Robin - Photo by Robert Aguilar (SERC)



Northern Sea Robin

These curious fish glide along the seafloor using their enlarged pectoral fins and three pairs of frontal "legs". These legs are flexible spines that develop from the pectoral fins, which the fish use as feeler-like forelegs to crawl along the bottom kicking up sediment in search of food. They'll feed on small crustaceans and other invertebrates, such as shrimp, crabs, amphipods, and bivalves in addition to small fishes, making them a generalist predator. Their general diets are probably part of the reason they bite on so many different types of baits. They are typically found in shallow water along the east coast of the US, although the striped sea robin is found further south into Florida. They spawn in spring and summer, when the females lay their eggs in the sand. Their eggs hatch just a few days after fertilization, and the parents do not provide any care for their offspring, like most marine fishes. Sea robin populations are generally stable, especially since there is no targeted fishery for them.

In addition to being a delicious meal, sea robin can be used for bait, fish meal, and their eggs have even been used as a caviar substitute. Because they are caught frequently and sometimes discarded, there is an ongoing effort to increase awareness about these species. Local nonprofit organizations, as well as the Cornell Cooperative Extensions Marine Program, have a <u>local seafood education program underway</u>, whose goal is to educate people about our local fish resources. They have recipes and information about local species that fishermen are known to overlook as well as information about all your favorite, well-known species.

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Since, for many Long Island fishers, this fish is considered undesirable, I wanted to hear from somebody who does enjoy catching and eating them. I had the pleasure of interviewing a local, sea robin loving fisherman. Kurt Heim, a postdoctoral researcher at the School of Marine and Atmospheric Sciences of Stony Brook University says fishing for sea robins is great family fun, and that it is an enjoyable fish for the kids to catch. Here are his answers to some of my questions about this interesting and perhaps poorly understood fish.

Inside scoop from a sea robin loving fisherman

Adelle: When did you learn to keep/eat so called "trash fish"?

Kurt: I've been fishing since I was a kid in NJ and NY, and I grew up thinking of fishing as mostly a recreational activity, not centered around eating. We fished for fun, usually let fish go, and every once and awhile ate a fish. More recently, after living in Alaska and doing a lot of subsistence fishing and hunting, I began to really enjoy eating fish just as much as catching them. Knowing where my food comes from and working hard to harvest it myself is rewarding for me and my family. You really appreciate it more when you have that connection to it. Just this year, I heard somewhere (not sure where) that sea robins were good eating, and since I catch so many of them when I go fishing for striped bass and other species, I figured I'd give it a try. It made sense because catching a keeper striper doesn't happen all that frequently, and it's better than coming home empty handed. When I first tried them, I was blown away at how tasty they are!

Adelle: Do you ever go fishing with the intent of catching sea robin or is it more like you happen to catch them, so you keep them?

Kurt: No, I don't specifically target them. The time I caught the most, I was looking for porgies. It turned out we were weeding through sea robins to get the scup, so we decided to keep a few of the sea robins as well. Last week I was fishing for fun in a tidal creek, with no intention of keeping anything, but a sea robin got gut hooked so we kept it. After that we decided to keep a few more so it could be a full meal (sea robin tacos).

Adelle: Why do people avoid this fish if it is so yummy and plentiful?

Kurt: Some people think they're toxic or venomous, and many believe they are ugly or frightening. I think they are a really beautiful and interesting fish. You don't need to be afraid to touch them, in fact you can lip them (i.e., hold them with your thumb in their mouth) like you would a striper or largemouth bass.

Adelle: What is your favorite way to eat them?

Kurt: Battered and fried. But I've been trying to shy away from frying everything (for health reasons) and have lately cooked it blackened in a cast iron with spices. This is great for tacos. Next I want to try sea robin ceviche.

Adelle: What would you advise to fishers who aren't in the know about sea robins?

Kurt: Give it a try. I did a taste test with family and friends, and people preferred the sea robin over porgy, plus sea robin has thicker fillets.





Kurt and his son with their locally caught dinner

PECONIC ESTUARY PARTNERSHIP UPDATES

PEP's 2020 Comprehensive Conservation and Management Plan (CCMP)

The 2020 PEP CCMP is in final stages of EPA review and approval. PEP is working with a graphic design contractor to develop the design for the 2020 PEP CCMP. Final document to be completed Summer 2020.









Peconic Estuary Solute Transport Model

Contracting with United States Geological Survey, this Solute Transport Model will be a tool to estimate time-varying nitrogen loading rates to the Peconic Estuary resulting from wastewater and fertilizer inputs to the groundwater. The Model will be used to simulate the response of loading rates to the Estuary due to possible wastewater and fertilizer-management actions. It is in the model development and scenario finalization phase. Anticipated completion is Spring 2021. Next project meeting scheduled for August 19th, 2020.





Nitrogen Load Reduction Assessment Project

PEP contracting with Anchor QEA to compile and assess the cost per pound of nitrogen reduction to groundwater for various nitrogen reduction best management practices (BMPs) currently being employed throughout the country. The project will provide a decision-making tool to guide cost effective management scenarios to reduce nitrogen on a subwatershed basis in the Peconic Estuary. Expected completion 2021.

Non-point Source Pollution Management Project

The PEP and Village of Sag Harbor to implement a non-point source pollution management project (constructing two rain gardens at Havens Beach) to treat stormwater that would otherwise flow across the beach and/or through an existing discharge pipe directly to Sag Harbor Bay. The project will reduce nitrogen pollutant loads and improve the health of the Peconic Estuary. Expected completion 2021.

Living Shoreline Pilot Project- Widows Hole Preserve, Greenport

PEP and Peconic Land Trust with Cornell Cooperative Extension (CCE) completed the project in August 2019 and monitoring of the living shoreline is ongoing. Phase II of the project scope is to extend the living shoreline to the entire property. This has been developed by CCE and added to PEP Habitat Restoration Plan.





Hardened Shoreline GIS Mapping Project

With the help of two interns, PEP completed a GIS mapping project to quantify the amount of hardened shoreline in the estuary. This supports Action 3, under Objective 9 in the Habitat Restoration Plan. The last survey was in 2003. An overview of the Hardened Shoreline GIS Mapping Project was presented at the PEP Natural Resources Subcommittee meeting in June 2019. A final report is anticipated in 2020. The results are being reviewed and ground-truthed in advance of final report distribution.





Critical Lands Protection Strategy (CLPs) Update and Climate Ready Assessment Services for PEP and Shinnecock Indian Nation

PEP contracted with Anchor QEA and the project was completed in September 2019. Final reports are available on the PEP website. They include the updated Critical Lands Protection Strategy (CLPS) and the assessment of climate change vulnerabilities for both the Peconic Estuary Partnership and Shinnecock Indian Nation. Municipal Training Workshops are being planned to distribute tools and information.



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Expansion and Monitoring of the Town of Southold Living Shoreline Demonstration Project

Peconic Estuary Partnership is contracting with Cornell Cooperative Extension. Project is underway and is an expansion to an existing Town of Southold Living Shoreline Demonstration Project contract with the Town of Southold Trustees and the Suffolk County DEDP. Goal is to establish a larger geography of the project and monitoring services to run in tandem with the existing project to quantify nitrogen and pathogen uptake results and assess the effectiveness of the living shoreline to mitigate nitrogen pollution in the Peconic Estuary with Spartina alterniflora and ribbed mussels. Expected project completion in August 2020.



Spring 2020 Alewife Monitoring

Video camera installed at Grangebel fishway on Peconic River for second year. Suffolk County College Professor (Kellie McCartin) and students are helping with video monitoring analysis. Alewife Count Update: 02/28/20-04/15/20, just over 45,000 fish are estimated to have passed through the camera. Last year's total estimate was around 34,500, so we will definitely exceed last year's estimate. The migration has ended and the camera is taken out in June. Stay tuned for the final count estimate for this season!

Upper Mills Dam Fish Passage Project

Contracting with L.K. McLean Associates for engineering design/permitting services. The fish passage preferred preliminary design alternative was selected at an April 9th, 2019 stakeholder meeting. Developing engineering designs. Designs and permitting work anticipated completion February 2021

Woodhull Dam Fish Passage Project

PEP and Suffolk County contracted with L.K. McLean Associates to conduct a fish passage project at Woodhull Dam. PEP has secured additional funds \$250K from Suffolk County & \$50K from USFWS and hopes to complete construction in 2021.

Seagrass Bio-optical Model

PEP contracted with The Research Foundation of SUNY Stony Brook. The project completed in September 2019 and provides site specific information to inform eelgrass management and restoration programs. This project will lead to a better understanding of specific light and temperature requirements for eelgrass in the Peconic Estuary. This is the critical next step towards understanding the threats to the eelgrass community and where restoration projects have the best probability of success. Final report released in May 2020. Final results were presented at the PEP Technical Advisory Committee meeting on February 26th, 2020. A GIS tool is being developed and will be available to guide resource management and restoration goals. Check out the Bio-Optical Model video here too!



Conceptual Habitat Restoration Design Planning in the Peconic Estuary

Peconic Estuary contracted with Land Use Ecological Services, LLC. The conceptual habitat restoration design plans for the following sites were completed in September 2019, the projects are all in some phase of implementation:

- a. Southold: Narrow River Road Wetland Restoration
- b. Southampton: Iron Point Wetland Restoration
- c. East Hampton: Lake Montauk Alewife Access and Habitat Enhancement
- d. Riverhead: Meeting House Creek Main Road Wetland Construction/Restoration

Peconic Estuary Ecosystem Study

The PEP together with NYSDEC and SUNY Stony Brook have proposed a study that will identify vulnerable species, critical habitats, and ecosystem properties within the Peconic Estuary. ECOSIM is a quantitative modeling framework that can represent all major ecosystem functional groups and can be used to identify and assess structural changes in the ecosystem in response to environmental change. This information has direct application to decisions affecting the use, management, and conservation of the natural resources in the bay. Expected completion for Fall 2021 and currently advertising for a postdoctoral position.

PECONIC ESTUARY PROGRAM IS NOW PECONIC ESTUARY PARTNERSHIP

2020 brings exciting news for the Peconic Estuary Program a new name that better reflects the program and a soon-tobe launched revised Comprehensive Conservation Management Plan that includes fresh goals and actions for the next decade.

As a National Estuary Program, the PEP brings together all members of the community - Federal, State and local governments, non-profit organizations, businesses, academia and interested members of the public to improve the Peconics through collaboration and the pooling of resources and expertise. Our new name, the Peconic Estuary Partnership, captures the strong partnership that has always been dedicated to restoring clean water, protecting and enhancing vibrant ecosystems, and communicating sound science for naturebased coastal planning in the Peconic Estuary and its watershed.

"With the new decade comes many new changes for the Peconic National Estuary Program. Over the last two years, we have reached out to existing and new partners to rebuild an effective organization that can achieve our water quality, healthy habitats, and community based goals. As we finalize our new Comprehensive Conservation Management Plan, the guiding document that will bring us into the next ten years of watershed management in the Peconic Bay Region of Long Island, we are also changing our name to best reflect one of our most important features: partnership. We act together to improve the quality of our waters and the value of our habitats, moving forward as one Peconic community to protect and restore the Peconic Estuary. We are partners in this endeavor. Come, partner with us, and see what we can achieve together over the next 10 years and beyond." - Joyce Novak, PhD, Director of the Peconic Estuary Partnership

The partnership is looking forward to a new decade of protecting and restoring the Peconics for the health of our water, wildlife and economy on the East End.

Visit our website peconicestuary.org to learn how you can be involved with the partnership and keep an eye out for the launch of the revised management plan.



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