

Wildlife in the Peconic Estuary

River Otters

River otters are a conservation success story! After the population almost fell to extinction in the 1800s due to excessive hunting and increasing industrialization destroying their habitat, conservation management policies implemented in the 1900s helped the population completely rebound and recolonize on Long Island.

River otters are indicator species, meaning that their presence, absence, or changes in population health acts as a direct reflection of an ecosystem's overall condition. In this case, the presence of river otters is a sign of great water quality! Freshwater ecosystem health is of particular concern to us humans because of our heavy reliance on clean water.

Image Source: Seatuck Environmental

In partnership with Seatuck, PEP has conducted a multi-year population assessment of river otters in the Peconic Estuary by utilizing trail cameras at historic sites to provide data on river otter presence at these areas throughout the estuary. PEP has committed to conducting these surveys every five years, with the next one occurring in 2028.



Salt Marsh Sparrow

These yellow, little sparrows are habitat specialists, primarily occupying narrow bands of (you guessed it!) coastal salt marshes. The population has been steadily decreasing due to deteriorating salt marshes. Coastal inundation also poses a threat for these small songbirds because they nest low in tidal marshes. When extremely high tides hit, their nests can be completely drowned, harming any eggs. Therefore, their breeding success is limited by changing weather and tidal patterns.

Saltmarsh sparrows are indicator species, meaning that their presence is a sign of salt marsh system health. To protect this drastically declining species, the Atlantic Coast Joint Venture and partners developed the Salt Marsh Bird Conservation Plan to conserve these species and their habitat. PEP works to support projects that improve habitat condition, reduce habitat loss, and protect marsh migration areas. PEP's Accabonac Harbor Marsh Restoration Project works with partners to support the monitoring and protection of this species.

Image Source: US Fish & Wildlife Service



Horseshoe Crabs

Horseshoe crabs are living fossils that have been on Earth for millions of years, predating the dinosaurs! Talk about resilient! Heavy harvesting for whelk fisheries and pharmaceutical purposes, increased human development, sea level rise, and the implementation of hardened shoreline protection such as bulkheads eliminates critical spawning habitat have all contributed to population decreases in the horseshoe crab populations.

PEP has funded multiple projects related to future management of horseshoe crabs. With the help of CCE, PEP has mapped the acreage of hardened shorelines throughout the estuary to see areas of habitat loss for horseshoe crabs around the Peconic Estuary. Additionally, the New York Horseshoe Crab Monitoring Network, a collaborative citizen science project designed to collect scientific data on spawning horseshoe crabs is also utilized to develop frameworks for addressing horseshoe crab threats, reversing the population's decline, and continue to conserve these keystone species for many generations to come.



Diamondback Terrapin

Diamondback terrapins are one of the few turtle species adapted to estuary waters (mix of salt and freshwater found in estuaries). They can be easily recognized by the diamond-shaped patterns on their shells! They are native Long Island turtles that were once common in our estuaries. However, there are many threats to diamondback terrapins, including: habitat loss caused by urban development and pollution, crab pots that accidentally trap diamondback terrapins, leading to their drowning, as well as vehicle strikes during nesting season that venture onto roads in search of suitable nesting sites.

To protect diamondback terrapins and their habitats, PEP is engaging partners at Cornell Cooperative Extension, Seatuck Environmental, and Stony Brook University to assess habitat usage of diamondback terrapins with the estuary, expand community science initiatives and involve the public in monitoring efforts, and to develop a public-facing website that features a live map of terrapins tracked by satellite tags.

