



## **PEP Citizens' Advisory Committee Meeting**

Monday, September 23 | 1:00-3:00pm

Suffolk County Community College Culinary Arts and Hospitality Center

20 East Main Street, Riverhead, NY 11901



### **AGENDA**

- 1:00 PM      *Introductions*  
Kevin McDonald, CAC Chair & Lauren Scheer, PEP Education and Outreach Coordinator
- 1:05 PM      *River Otters on Long Island*  
Mike Bottini, Long Island Nature Organization
- 1:35 PM      *Seatuck Environmental Association's Diamondback Terrapin Monitoring Project & Survey 123*  
John Turner & Emily Hall, Seaturck Environmental Association
- 2:05 PM      *Peconic Estuary Program's Diamondback Terrapin Monitoring Project & Expansion*  
Lauren Scheer, PEP Education and Outreach Coordinator
- 2:30 PM      *Discussion on Additional Wildlife Monitoring and Citizen Science*
- 3:00 PM      *Closing Remarks and Adjournment*

### **CONTACT**

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**Lauren Scheer - Introduction and Welcome**

**Goal: Create a network for citizen science and wildlife monitoring in the estuary**

**Mike Bottini: River Otters**

- Otters make beds/hangout in shallows/reeds during the day
- Spotted in Nissequogue
- They are important to study because they don't migrate, consume primarily marine/riverine species and have potential biomagnification problems
- DEC has otter tissue sample database
- Slowly recolonizing in this area, used to be widely distributed and were decimated by the fur trade
- Used river otter to study efficacy of clean-up efforts
- Contact DEC or Mike if you see otter or otter evidence
- Last long island survey in the 1960s, but no evidence of established ranges of river otters on long island when that survey was conducted, only found in Adirondacks
  - But despite regulations and moratorium on trapping/hunting they hadn't recovered in western NY, but in the 90s reintroductions started
  - Natural recolonization on long island is hard because they don't do large open water crossing
- How to survey:
  - Nocturnal
  - Hard to look for them during the day
  - Tracks in the snow, but we don't have consistent ice and snow
  - The best is a latrine survey based on scents and marks that they presumably use for communication
    - Tend to be near obstructions, small islands, land points, short land routes between waterways, close to water
    - Relatively easy to predict where they might be, particularly near to a roadkill sighting
    - They dig/scrape the underbrush, roll around and dry themselves
    - Urinating and defecating in the areas that they scrape out, scent markers in their feet
  - Not territorial, home ranges overlap
  - Scenting goes from about now (September) until May (but they don't do it in the summer)
  - There is a lot we don't know about them
  - Several latrines have been documented in Long Pond Greenbelt
  - Also called scent stations
  - Looking for scat (full of fish scale and bones, green and liquid like), dried scat (grayer), very old scat is all bleached out and looks to contain just scales and bones
    - In spring and summer they consume more crayfish

- There are raccoons at these places so need to be able to tell the difference between the two (it can be tricky to distinguish from otter evidence)
      - Otter inner toe is lower down than on a raccoon, but track pattern is easier to distinguish between raccoons and otters
      - Raccoon has a diagonal pattern; otters have body drags in between footprints
    - Crayfish calcium nodules in scat used for recalcification, also part of their diet
- 2008 survey: 27 latrines mapped mostly Nissequogue river, Peconic river, and middle of Peconic
  - Perhaps some evidence of dispersal from the two main sites
  - They are very social and like to be near other otters
  - Big distance between the two clusters of western and fishers island otters
- 2013 lots of latrines on fishers island (as much as on rest of the island) abundant otter evidence there
  - Also found coyote evidence and beavers
  - Plum island is the archipelago conduit for wildlife movement
- 2018 survey, doubled number of latrines found and it looks like they're all spread across the north shore of long island, but south fork has not been colonized, Peconic river is fairly well colonized
  - Photo of an otter on the connectquot, so they are making their way onto the south shore
- 2017 (DEC was doing their own survey on bridges, could have worked together, but they found two sites on long island and a lot more in northern and western NY)
- Male otter roadkill on route 58 (riverhead situation)
  - Mike found several latrines in the ponds nearby
  - There was a swamp next to the site and a few ponds, but the swamp is gone now due to development....
  - Suggested making a greenbelt connection to the ponds, they only need a small corridor to enhance their habitat
  - Seems that they are using this area as extended habitat just north of the Peconic river watershed area
  - Other situations of tributaries coming right up to CR 58
- Still other species that we know very little about here on the island
  - Skunk, mink, weasel, fox, coyote
- Muskrats spend 3 days in the same area, otters move around more
- If they don't lift their head it's a muskrat, if its head comes up (periscoping; it's an otter)
- They're more nocturnal when they're in areas that are highly inhabited by humans

**John Turner and Emily Hall – Seatuck Environmental Association: Diamondback Terrapins**

- Cape Cod is the northern limit and they are found down to the Gulf
- 7 subspecies ours is the "first" one
- Found on long island and in the Hudson; terrapins do not like freshwater or full strength seawater. They favor brackish.
- Sexual dimorphism, males are way smaller
- They eat various types of crabs, clams, snails, fish, carrion

- Terrapins were once harvested, decreasing their population numbers
- Biggest threat is drowning in crab pots
  - TEDs (Turtle Excluder Device) are required on crab pots as of March 28, 2018
  - Required in north shore bays but not in Great South Bay
  - Seatuck have TEDs to distribute, more are available if people need them (let them know; they're happy to mail them out)
  - TEDs reduce mortality by  $\frac{3}{4}$
  - Citizen said that the DEC is enforcing it and that he has noticed a decrease in the number of drowned turtles in his pots
  - Ghost fishing, new legislation to fund projects to remove ghost pots (needs to continue and be done more; there is a bounty for each pot)
    - Baymen who take them out can get reimbursed and small 90c for each pot they pull out
    - Looking to expand this project
- Other threats
  - Harmful Algal Blooms
  - Predation (it is super high, and lots of diverse predators)
    - 95% of nests are predated in Jamaica Bay
  - Shoreline hardening
  - Road kill
    - 550 ft of black tubing that they can use to cross roads in areas that have high roadkill mortality
    - Discussion of how to place one of those in the Dune road area and elsewhere
    - The females are coming up from the marsh towards the sandy dunes
    - If see terrapin in harm's way, move it in the direction it is going
  - Climate change (sex is temperature dependent, increase in temperature can affect sex ratios)
- Diamondback terrapin working group (created by Seatuck and is local)
- How can people be involved in Seatuck's citizen science project – Terrapin Watch?
  - Via Seatuck website, they have a section for Terrapin Watch. Click to launch the app via Survey 123 → <https://www.seatuck.org/index.php/terrapin-watch>
  - Live as of June 2019
  - You can submit terrapin sightings and it will be documented on a map – your data goes to Seatuck
  - Many spotted in orient and all across the island

**Lauren Scheer: PEP Terrapin Monitoring (pilot began in 2017)**

- PEP began terrapin monitoring program because there is a lack of formal documentation for the East End
- The first question to answer is where are females choosing to nest within Peconic watershed?
- Wildlife monitoring not only helps us to understand population numbers and behavior of the particular species, but also as we understand where terrapins are nesting and what areas they are choosing, this data can help inform decision making when it comes to protecting our shorelines in the face of climate change and land-use planning. Decisions can be made with terrapin data in mind. Living Shorelines vs. Bulkheads/Sea Walls
- 2017 pilot monitoring began near SCMELC in Southold but not much found

- 2018 and 2019 monitored in Northwest Harbor County Park in East Hampton.
- Went out at high tide, which is perhaps not the best time to survey as both years there were minimal sightings of live turtles.
- (2018 vs 2019): 36 predated nests, 6 live turtles (vs.) 98 predated nests and only one live turtle
  - The evidence proves that Northwest Harbor County Park is an active nesting site for terrapins - crucial to their population, but clearly we need to change the timing of when we do our survey. 98 predated nests mean terrapins are using this habitat, but we want to see live terrapins as well.
- **How can we expand this effort throughout the Peconic Watershed?**
  - Can our partners lead the monitoring of other sites and do their own formal monitoring programs that mirror PEP's? Similar to Cornell and DEC horseshoe crab program.
  - PEP can do a training workshop to teach the monitoring protocols
  - Seatuck's Survey 123 will allow for citizen science to expand and collect data throughout an even larger geographic footprint
  - All data needs to be compiled in the same place. Can Survey 123 be used for the formal monitoring programs too as we expand? Yes, PEP and any new leads in monitoring should record data in Survey 123.

### **Terrapin Discussion/Collaboration**

- PEP so far has heard that sag harbor coves are highly utilized by terrapins as well as in Mattituck
- Narrow river at low tide (also recommended as a site)
- Comment from Group for the East End: They are out in the field doing other projects (piping plovers) and they happen to see terrapin tracks/evidence a lot. They can document this too.
  - Formal monitoring programs like PEP's (vs.) informal documentation while out at the beach and happen to see terrapin evidence (one off times). Two separate ways of capturing data – should funnel to the same place/database like Survey 123
- Based on preliminary Seatuck results, orient harbor seems to be a good place to start
  - Need to expand the Survey 123 or add a section for documenting terrapin evidence, not just when see a live terrapin
- Ideally everybody submits to Seatuck's Survey 123 app once the app is updated with feedback from this meeting and hereafter
- Monitoring training workshops should be put in place similar to the river herring surveys for citizen science
- Plover stewards in east Hampton are a wealth of information and they're out and about in areas that terrapins are nesting in (close to plover nesting sites)
- What conservation outcomes are we expecting to come out of this
  - Can we build something similar to the program at friends of flax pond?
  - Protect the nests?
  - Can we get to this capacity??
- Citizen comment: in sag harbor there have been 11 applications for docks, 3 for bulkheads, a bunch of pools. Terrapins seen in the coves in sag harbor, but all the area is private and highly hardened

- Citizen comment: Terrapins nest in her backyard and she has tried to protect them but the raccoons are aggressive and still get in
- Sag harbor can't say no more docks, and are trying to say no more bulkheads, but can they set something up to know what times of year they shouldn't do certain types of shoreline construction?
  - Docks are ok for terrapins, but bulkheads are harder for them to get around
  - Not just a concern with construction, but when the structure is built, it will block terrapins from utilizing the shoreline (nesting females and hatchlings) hurting their success and become a long term problem
  - Maybe we can work with certain property owners
- Update/fine-tune Survey 123, include evidence not just sightings
  - Promote it with unified outreach messaging (developed by PEP) and encourage homeowners to use this
  - Add pictures to Survey 123
  - Include Survey 123 in monitoring training workshop
- Can we suggest 4-6 areas that are compelling to study further, feasible, and an opportunity where efforts to protect the coast or handle the predation problem is reasonable/fruitful
  - Target monitoring in areas that have potentially high levels of vulnerability
  - Orient point
  - Sag harbor

**Can we have all wildlife monitoring data go to one place/database?**

- Can the separate species surveys be linked to each other?
- Can one website house the data (who hosts it?)
  - Alewife, otter, plover, terrapins, osprey, horseshoe crab etc. – all go to one place?
    - Group for the East End has an osprey monitoring program
    - PSEG partners with GFEE
- How do we make sure everybody using it is producing the same data quality?
- Hold a series of educational meetings/workshops (similar to river herring) to solicit volunteers to go out and survey for a variety of species
- Can we bring this to schools?

**What platform has the capability to combine wildlife species monitoring projects? Can we use iNaturalist to create these different surveys? Remote camera usage?**

- They have different projects tabs within iNaturalist – may be a good platform
- PEP: Can we create a citizen science quality assurance plan for all of the various surveys/apps for all the different species?
- Group for the East End: NY State Wildlife Action Plan (<http://www.nyswap.org/>) to educate the public about local wildlife populations.
- “The Department of Environmental Conservation pointed out the need for better local involvement during their outreach process on the New York State Wildlife Action Plan. Group

for the East End agreed to be a local assistant in getting the message out, as well as working on species recovery and habitat restoration projects.”

- How to protect terrapins if you have them in your backyard? Create a guide for homeowners that have nesting turtles in their yard
  - PEP uses rabbit and chicken wire to create excluder device
  - But have to be careful with excluders because the predators can then use those as an indicator of food below
- Citizen comment: how to track absences in citizen science monitoring, can there be a section for recording absence of the species? Yes, very important data.
- Follow-ups: unified outreach messaging, citizen science training workshops, wildlife monitoring programs network & collaboration, use Survey 123 – focus on terrapins and otters for 2020? Research best app/platform to combine all species projects (Survey 123, iNaturalist, etc.). Emails and meetings to follow.