Connecticut
NATIONAL ESTUARINE
RESEARCH RESERVE

eNewsletter

Summer Reflections 2025

A note from Shelby Larubina, our Research Technician

If you haven't met me yet, I'm Shelby Larubina, the Research Technician at the Connecticut Reserve. I get my hands dirty - literally and metaphorically - in a lot of different projects here. Some days I'm out in the field, other days I'm in the lab, and whenever I get the chance, I try to share our research with the community through education programs and public events. Getting to do a little bit of everything means I'm never bored (and always busy)!

Between the months of May and September, I often come home from work salty, muddy,

covered in mystery bug bites, or some combination of the three - and I wouldn't have it any other way. (Learn more about our summer research projects in the articles below.) I often ask myself how I was so lucky to find a career that constantly takes me outside, encourages my curiosity, and challenges me to solve new problems. The best part? Collaborating with an amazing team of people that are all working towards a more resilient future for coastal communities - both here in Long Island Sound and beyond. That's what makes the National Estuarine Research Reserve System so impactful.

Welcome our new team members

CTNERR is pleased to announce the addition of two full-time team members! **Falyn McQuarrie** is now our new Assistant Coordinator and will focus on and education and training needs as well as providing assistance to other grant related work. **Dr. Lauren Barrett**, an Associate Research Scientist in our Research and Monitoring group, will be involved with several aspects of marsh and eelgrass themed projects. Both Falyn and Lauren began their CTNERR careers on September 5 and are busy getting to work. We're very excited and thankful to have them with us; stay tuned for our next issue to learn more about what they're up to!

Needs Assessment results and training opportunities

This spring, our Reserve sent a survey to better understand the education and training needs of partners and audiences that we serve through our activities and programs.

Join Reserve staff and Responsive Management consultants for a **Needs Assessment Results Webinar on October 16th from 3-4:00 pm** to hear results and ask questions about the results of this survey. ***REGISTER HERE***

Results indicate preferences for education and training related to habitat, climate, and water quality topics. Learn what NGOs, municipal and state agency staff, tribal members, and Councils of Governments indicated as their priorities for education and training on these three topics PLUS other professional development needs.

The following two trainings are now scheduled as a result of input we received from this needs assessment survey:

Invasive Plant Training
Date: October 1, 2025 (9:30 – 1:00)
Location: Bluff Point State Park, Groton, CT
If you are interested in identifying, mapping, and managing invasive terrestrial plants then this event is for you! Join UConn CLEAR, Sea Grant, and the CT NERR team for a hands-on training at Bluff Point State Park. Space will be limited to 20 participants. ***REGISTER HERE***

Interview Training – Social Science Basics
Date: November 4, 2025 (10:00 – Noon)

Location: Virtual
This training provides participants with the knowledge to create an “interview guide” tool and conduct effective interviews that can be used in multiple resource management settings.
REGISTER HERE

Other upcoming events

Help Plant Trees!
Date: Sept 27 & October 11
Location: Groton, CT
Trees benefit our communities in so many ways! Join The Nature Conservancy and the City of Groton to plant trees around the Five Corners. ***Learn more***

CT Coastal Cleanups
Date: Various, Sept - Oct
Locations: Various, state-wide
Join Save the Sound for the 2025 CT Cleanup, part of Ocean Conservancy’s global effort to stop trash at the source. Your cleanup data helps shape pollution-fighting laws, and we’ll be using the Clean Swell app to track what we collect. ***Learn more***

Flyway of Life, Reception, Conversation, and Film Screening
Date: October 1
Location: Alexey von Schlippe Gallery of Art, UConn Avery Point (Groton, CT)
“Flyway of Life” highlights how environments are important for bird populations along the Atlantic Flyway. Featuring wildlife scientists, conservationists, and naturalists, the film explores several different ecosystems along America’s easternmost migration path—showing how different habitats are interconnected. ***Learn more***

How to Explain Science, Share Data, and Build Trust: Presentation Skills for Scientists and Public Officials
Date: November 6 & 20
Location: Virtual
This class is especially geared for government employees or others who have to make presentations to commissioners, elected officials, council members, and boards. These types of decision-makers are often overwhelmed with information and things to read, which is why text-heavy, complicated presentations only add to their burden! This class teaches a different approach. ***Learn more***

How to Design a Compelling Grant Proposal and Presentation
Date: December 2
Location: Virtual
This training is value-packed with simple tips that are easy to apply, video clips of interviews with grant reviewers, and a special PowerPoint slide template to help you craft a powerful grant presentation. ***Learn more***

Summer research recap

By Shelby Larubina, CT Reserve Research Technician

We started off the summer season by hosting two NOAA Hollings Scholars, John Yudt and Piper Priddy. They conducted their own research projects over 9 weeks and presented the results at the annual Science & Education Symposium in D.C. at the end of July. Piper used FlowCam imaging, environmental DNA, and water quality measurements to investigate why a reefball-based living shoreline in the Thames River was lacking in shellfish and other hard-

fouling organisms. Building off our Hollings project from 2024, which was inspired by the NOAA Milford Lab's ***GoPro Aquaculture Project***, John looked at the effects of aquaculture gear on fish diversity and light availability in eelgrass beds in Beebe Cove, Noank, CT using GoPro cameras and HOBO light sensors.

Along with the help of a few of our amazing summer undergraduate interns, I attended the 9th annual Women in Science Day event at the Mystic Aquarium in July where we shared our work to over 3,000 visitors of all ages. Anyone that stopped by our table had the opportunity to become a "Water Quality Detective," where kids and families used a map and basic scientific tools to determine where our "mystery water" came from. It was a wonderful opportunity to showcase our work, engage with the community, and hopefully inspire the next generation of scientists!

In August, our team headed to Narragansett, RI for a field training with Tom Kutcher of the Rhode Island Natural History Survey - formerly the Narragansett Bay NERR Stewardship Coordinator. Tom introduced us to the Salt Marsh Rapid Assessment Method (MarshRAM), a tool that measures marsh health and surrounding land conditions to support more informed management and restoration efforts. Partnering with the Connecticut Institute for Resilience and Climate Adaptation (CIRCA), we'll use MarshRAM to assess the impacts of existing tide gate structures on tidal flow and marsh environments along the Connecticut coast, with the goal of providing balanced solutions that both reduce flood risk for communities and restore healthy marsh function.

As the temperatures cool off and the summer field season winds down, we still have much to look forward to. Next on my list of to-dos: prepping for our second ***Invasive Plant Training*** at Bluff Point State Park in October, finishing a poster for the 2025 Coastal & Estuarine Research Federation (CERF) conference in November, and – most exciting – welcoming back our teammate and Monitoring Lead, Ashley, from maternity leave!

Summer intern recap

By Jillian Pasquino, CT Reserve Project Manager

While the Avery Point campus gets quieter during summer, the same cannot be said for the reserve. During the summer, our full-time staff is joined by undergraduate interns, who help with lab and field work for our ongoing projects.

I worked as a CT NERR intern for two summers during my undergraduate studies before being hired as a Project Manager to assist with lab and field work and take the lead on various projects. This summer, I helped coordinate the six summer interns, helping with projects and educational events. Here's a bit about a few of the projects we worked on:

Oysters and eelgrass interactions

This project researches interactions between oyster cages and eelgrass by looking into water quality. Two of our interns, Jolie Isenburg and Sarah Burnham, helped with sampling and processing efforts at dawn and dusk. Once a week, our team would go out at dusk and dawn to collect water samples. The water samples are used to determine water quality between systems with and without eelgrass. We used YSI sondes to monitor

quality throughout the week. Before and after each deployment, sondes had to be cleaned and recalibrated. Our intern, Kelly Sauter, took the lead on recalibrating the organization of the sondes.

Invasive plants

Over the past three years, interns have helped identify invasive plants present in the reserve's boundaries. Our Stewardship Intern, Evan Childs, had an opportunity to present the reserve's research at a reserve meeting about terrestrial invasives. Evan has been a lead intern for the invasives project for two years and had the opportunity to attend various conferences to talk about the research being done by the reserve.

Benthic habitats

Reserve staff have been mapping benthic habitats of the Poquonock River. This project involves taking macrophytes and sediment samples along with video of the bottom. Chris Santoro took the lead in organizing trips and analyzing the video from the project, while other interns helped collect and process the samples. We collected samples on paddleboards and used sieves and cameras to collect data. The research collected will help to develop a statistical model that identifies estuaries at high risk for eutrophication.

The reserve interns also work tirelessly on entering data, setting up lab equipment, and assisting graduate students. We are grateful for this summer's wonderful interns and look forward to seeing what they will do after this summer!

New educator resource: The Eelgrass Game

By Faith Hosie, CT Reserve Education Intern

Over the summer, I spent my time creating lendable lesson plan trunks for teachers to check out. These trunks will contain all the supplies needed to perform lessons based on real research happening in Connecticut!

One of these trunks is about Long Island Sound eelgrass beds. Eelgrass is a water-bound flowering plant, crucial for a healthy aquatic ecosystem in eastern Long Island Sound. The game will allow students to assume a role in society where they may directly or indirectly impact the Sound's eelgrass. Each "Role Card" also contains a "Context" with an attachment to a real-world article about the "Action" made by that student. The trunk can be filled with water to simulate the Long Island Sound eelgrass bed. There are "eelgrass" plants and different contaminants included that will be

used according to the role card's "Action."

The lesson will incentivize students to understand the costs and benefits of maintaining a healthy ecosystem as citizens, tourists, business owners, fishing companies, politicians, and more. They will gain a sense of understanding that individual actions can have large consequences, as well as the chance to vote for some collective decisions. The game is a fun and engaging way for students to learn about eelgrass and the role people have in the recovery of the beds.

Keep an eye out for when the trunk is complete to learn more!

A campus fight again invasive plants

By Kieran Garrity, CT Reserve Stewardship Technician

In the summer of 2023, I started as an intern with the Reserve. Much of the work I did was to help catalogue the invasive plants that threaten our upland properties. It was a monolithic task, and we're still working on covering all the 1,955 acres of our upland parks and preserves. One day, on my lunch break, I was sitting near UConn Avery Point's little marsh and noticed that Japanese knotweed (*Reynoutria japonica*) and common reed (*Phragmites australis*) were infesting the shore, right next to the marsh! It was time to take action, if we didn't do anything, our marsh could be unrecognizable in as short as a few years.

Ridding the beach of invasives wouldn't be easy, and it certainly wouldn't be quick. Knotweed can send roots three meters deep, tolerate nearly any soil conditions, and regenerate from a fragment the size of your thumb. *Phragmites* is a similar story—it can take years of burning, cutting, or poisonous chemicals to effectively deplete the root network. We would have to be careful, thorough, and persistent.

I brought my concerns to Reserve staff and, with their help and approval from campus, I

started our campaign to protect our shore. Every month in summer, we cut, bag, and incinerate all the invasives on the shore. This method created by ***Nix the Knotweed***, deprives the root network of crucial carbohydrates the plant needs before the winter months. By recording the surface area of plant patches and mass of plant matter removed, we can quantify the program's effect year over year. Compared to last August, the biomass of the knotweed patches is down 67%!

This summer, we expanded our effort into an educational opportunity for local students. By giving people the knowledge to recognize and properly dispose of invasive plants, they are empowered to protect places close to their hearts. Small scale, local efforts like these are the foundation of invasive control. Outreach from organizations like the Reserve combine federal resources with local passion to protect our favorite places. I'm glad I've been able to protect mine.

Community & educator event recap

Past community events

CT Trails Day - Each year, the Connecticut Forest and Park Association organizes a CT Trails Day. This year, the Reserve partnered with CT Sea Grant, the Town of Groton, and the Groton Open Space Association to host a family fun at Bluff Point. Adventurers of all ages joined us for exciting activities and park exploration.

Paddling the Poquonnock - Did you know that 96% of the Reserve is water? It's hard for folks to connect with this area unless they can get out on eastern Long Island Sound. To help with this, the Reserve, CT Sea Grant, and CT DEEP Boating hosted a day of fun paddling on the Poquonnock River in June. We followed the event with a more advanced paddle on the Connecticut River in August.

Long Island Sound Celebration - To celebrate the Long Island Sound Partnership's (formerly the Long Island Sound Study) 40th anniversary, we joined others for a Celebration at the UConn Avery Point campus. Participants enjoyed boat programs with Project O, scavenger hunts, touch tanks, art workshops, raffle prizes, and refreshments.

Birdwatching at Haley Farm State Park - As a follow up to our spring birdwatching trip, we invited folks to join us and Joe Attwater (The Connecticut Audubon Society's Conservation & Education Coordinator) for a walk at Haley Farm State Park. We saw many different birds and made some friends too!

Past educator workshops

Monitoring Beneficial and Native Insects Workshop - Did you know it's illegal to buy and raise or capture and raise butterflies? A lot of people don't know this so the Reserve, CT Sea Grant, Connecticut Audubon offered this workshop to share policy information and offer other ways informal educators can teach about and monitor pollinators in their own backyard.

Tale of Two Rivers - Twelve enthusiastic educators joined us for our 2025 Teachers on the Estuary (TOTE) workshop where we learned about the history and ecology of the Thames River and Connecticut River. Artist and author Pat Lynch kicked off the workshop with a presentation on a Tale of Two Rivers. Over the next two days we explored the Thames and Connecticut Rivers through boat rides, observational activities, and hands-on sampling.

We also participated in ***LEARN's Educator Summer of Exploration program***. Thanks to all of the educators that came to our events this summer.

If you are interested in getting on our educator email list so you'll be the first to know about these workshops, contact ***CTNERR_Education@uconn.edu***.

Email us at: ctnerr@uconn.edu

Visit our Website

UCONN

Connecticut National Estuarine Research Reserve | UConn - Avery Point campus 1084 Shennecossett Rd | Groton, CT 06340 US