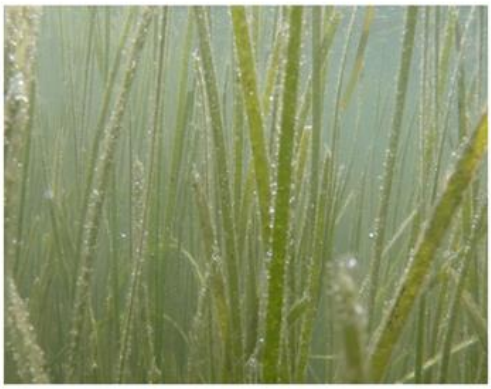


LIS Eelgrass Collaborative Workshop 2025

May 29th, 2025

The LIS Eelgrass Collaborative is funded by the Long Island Sound Study and facilitated by the CT National Estuarine Research Reserve.

Background

The Long Island Sound (LIS) Eelgrass Collaborative formed in 2023 as a Connecticut-New York bi-state initiative to implement elements of the 2022 Eelgrass Management and Restoration Strategy. The Strategy provides guidance for short and long-term actions that should be taken to manage and restore eelgrass meadows in LIS and acts as a resource for other estuaries in the region facing similar issues.

While historically, eelgrass meadows were abundant throughout the Sound, today eelgrass is restricted to the shallow areas of eastern Long Island Sound and Fishers Island Sound. The LISS Comprehensive Conservation and Management Plan's Thriving Habitats and Abundant Wildlife theme includes the ecosystem target Eelgrass Extent with a goal to restore and maintain an additional 2,000 acres of eelgrass by 2035 from a 2012 baseline of 1,893 acres. Eelgrass meadows (Zostera marina L.), an essential and valuable coastal submerged aquatic vegetation species, is identified as a priority habitat by LISS.

The Collaborative is comprised of participants from academic, NGO, industry, and federal and state agency staff (see Appendix A for examples). Meetings are funded by the Long Island Sound Study (LISS) and facilitated by the CT National Estuarine Research Reserve since the Reserve encompass 53% of Connecticut's existing eelgrass beds and 37% of Long Island Sound and Fishers Island Sound's (New York plus Connecticut) eelgrass beds. In addition, the Reserve's Coastal Training Program supports collaborative management initiatives and Research Program has active projects and partnerships investigating LIS eelgrass restoration and monitoring. The Collaborative has four meetings a year, with three being virtual and one hosted in-person each year, including this May 29, 2025 workshop.

Workshop Overview

The Collaborative's May 29, 2025 workshop advanced elements of the LIS Eelgrass Management and Restoration Strategy. Phil Colarusso from the US Environmental Protection Agency (EPA) started the day with a keynote address on eelgrass in the face of global warming, followed by Stephanie Kamel from University of North Carolina Wilmington (UNCW) who provided an overview of her research on genetic and phenotypic traits' resilience and assisted migration for southern eelgrass. After the presentations, a panel commenced consisting of Phil Colarusso and Stephanie Kamel as well as Dr. Bradley Peterson from Stony Brook University. After the panel, there were two sessions to tour the Rankin Laboratory and participate in a poster session. Afterward, there were two other breakout presentations. The first set by Torrie Hanley from SHU and Cayla Sullivan from US EPA who directed discussions about eelgrass projects and priorities based on our current understanding and feelings from our recent survey data administered worldwide. The second session was run by Jamie Vaudrey from CT NERR, Craig Tobias from UCONN, and Steve Schott from CCE where they discussed seed-based restoration funding and a new grant project timeline. All breakout priorities were gathered and summarized during the closing remarks of the day. Seventy-four people registered for the workshop (Appendix A) and the agenda can be found in Appendix B.

Presentations and Discussion Highlights

Featured Speaker: Phil Colarusso, US EPA
Title: ***What Do Warming Ocean Temperatures Mean for Eelgrass?***

- Summary of Presentation:
    - Analysis of eelgrass physiology and the response to warming ocean temperatures
        - Marine heatwaves are increasing in frequency and global temperatures are rising.
        - Photosynthesis and respiration of eelgrass will shift in response to the increasing temperatures.
        - Temperature is severely impacting the ability of eelgrass to survive and thrive.
        - It is unclear if carbon depletion is an indicator of fitness of the eelgrass beds (has not been worked on yet).
        - Temperature shifts change the timing of flowering, duration of flowering/seed production, and germination.
    - Poses questions about the genetic codes and phenotypes of eelgrass as indicators for their ability to survive

Featured Speaker: Stephanie Kamel, Professor, UNCW Biology and Marine Biology Dept.
Title: ***Conservation in a Changing Climate: Impacts on Seagrass Resiliency and Restoration***

- Summary of Presentation:
    - Results from research project in North Carolina and Virginia focusing on:
        - The health of eelgrass beds in North Carolina,
        - The relationship between genetics and phenotype for eelgrass survival in North Carolina,
        - An assessment of meadows in North Carolina that are thermally resilient,
        - A comparison of North Carolina eelgrass genes to Virginia eelgrass genes, and
        - The potential usage of assisted migration.
    - Discussed results and highlights from the experiment and what research implies for LIS.

- Discussion and Q&A:

Q: *Is there a way to produce a rate of differentiation (how quickly eelgrass is adapting compared to how quickly the temperature is rising)?*
A: It is possible with more research and analysis. This study sets a baseline to investigate more questions and potential solutions.

Q: *How accurate of a timeline can we estimate within a decade or two to determine sources of when and why adaptations happen? Can we use historical data to create a guideline?*
A: I don't know if we can do it on that sort of timeline. If we have archival tissues for those sites, we can ask the questions of the genetics from the allele frequencies; this is a different way to approach the issue.

Q: *Is it possible to use North Carolina to assist as evidence that eelgrass is of necessary importance to push for funding?*

A: Getting high quality data and information is important. We can assess from North Carolina that the pace of the adaptation in eelgrass is not going to keep track with changes in temperature. The time for intervention is now.

Q: *Virginia and North Carolina are different. Will the North Carolina seeds cast out to Virginia and adapt the same way?*
A: No, because there are very different ways to ultimately be successful in different systems. We saw that North Carolina did survive in Virginia, while the Virginia shoots did not in North Carolina. There was a small sample of shoots, which would be interesting to test more and gain clearer results.

Q: *To the argument of assisted migration (transplanting them to favor the phenotype) - will that be tracked long term to see if it is migrated into populations? Is there a risk for gene swamping with distance between meadows?*
A: We hope to monitor this for a longer time. We have a student fellow to monitor it now, but maybe we won't need to use the full genotypes to determine the relationships of the study on a larger scale; but yes, we hope to keep checking this in the future.

Q: *We have more genetic diversity in southern populations than northern populations of eelgrass. Did you see that difference in samples taken for this?*
A: Yes, we talked a lot about genetic diversity. The real important question is what kind of adaptive diversity is there. North Carolina has less adaptive genomic diversity than in the northern populations. Neutral diversity is not a great predictor of adaptive capacity and potential; therefore, lots of questions are still unanswered. Creating widespread data will help, and there is hope for open collaboration.

Panel

Panelists: Phil Colarusso (US EPA), Stephanie Kamel, Professor (UNCW Biology and Marine Biology Dept.), and Bradley Peterson (Associate Professor, Stony Brook University)

Q: *Would you agree with the general take-home message: "The speed of climate change is faster than the speed of natural selection for these plants to grow"?*
A: That is what I think. The meadows are patchy in North Carolina, but they are persisting. If we can mitigate the effects of climate change through assisted migration, we can help the northern situation. North Carolina meadows are under extreme stress, and we want to avoid that for our northern populations; the North Carolina meadows are not thriving, but they are surviving, which is what drives the need for more information.

Related insight added from later discussion: if we are confident that natural selection driving adaptation in eelgrass will not keep up with climate change, then assisted migration is important. However, what should not get lost is that stress is cumulative, so we should do better on improving water clarity to extend the time for as long as possible before we get to the point where North Carolina plants are the only ones surviving in Long Island Sound.

Q: *North Carolina beds are not looking great due to their patchy nature. Through adaptation, we may end up saving eelgrass beds, but they are spindly and weak. Have we defacto lost ecosystem services that we have come to expect?*

A: North Carolina plants have grit and yes, ecosystem services are really important for a healthier meadow to provide more of than a less healthy one. There is no replacement for eelgrass to help support ecosystem services. At least having something (even if it is weaker) will be better than nothing, but the ecosystem services of plants other than Zostera are not equivalent.

Q: *Follow up to above: How would a thermally adapted North Carolina plant look in a less stressful environment?*
A: In Long Island, seagrass is incredibly plastic and this is dependent on location and genetics to formulate its phenotype. These *Zostera* may look different by their stressors; Long Island Sound is not North Carolina. Extracting North Carolina seagrass was difficult because they have a lot of polysaccharides. There are really important differences between these plants because LIS eelgrass has different carbohydrates, etc. It is worth researching how much above ground stress is impacting as well as the stress below.

Q: *Was leaf tissue or root tissue used for the study in North Carolina?*
A: We used leaf tissue for now, but it is still difficult to collect.

Q: *Do we have a good comparison between meadows as far as ecosystem functions? What would we expect to see (e.g. spindly better than a bare bottom)? Have we done the work to compare, see differences, and help us predict our future?*
A: We may want to ask, "what ecosystem services are we looking to achieve?". We have a little bit of data collected in Rhode Island from throat trapping, but we do not have a good handle of how some services will shift. Carbon sequestration, for example, is very context dependent. In Massachusetts, we are defining what a meadow actually is. We want the ecosystem function to be relevant and what the lowest number of shoots is to attract fauna (blue crabs/fish). The distance between patches is important too as well as the smallest density of shoots before inciting a higher predation rate. The health of the meadow is significant to defining this as well.

Q: *How would you see if the North Carolina shoots and Virginia populations are interacting or making a genetic hybrid?*
A: There is no reason to suspect they wouldn't hybridize. They aren't that genetically different to begin with. You would absolutely be able to detect that with some genetic work. Maybe a hybrid will make a super hybrid. As for whether North Carolina will expand to natural beds, we don't know. But we are going to monitor it. We won't move the North Carolina shoots to Maine of course, but the concept of research for assisted migration will be helpful when comparing Rhode Island, Massachusetts, and Connecticut beds to each other. We are thinking of chunking the meadows regionally. We look at meadows for general trends. For the most part when it comes to mean temperatures, North Carolina is doing pretty well and Virginia has a few meadows also doing. Broadly, we must think about large-scale restoration.

Q: *For Long Island Sound, the Eelgrass Collaborative projects to plant 7-8 million seeds as the end goal. It would be good to discuss what systems are important for monitoring. Where have seeds been moved from one location to another in experiments and is there any way we are looking at the impact of the interbreeding?*

A: I just found a paper from the 1940s after the wasting disease in Canada where they moved seeds from the Pacific to the Atlantic. So, I think there's been a lot more seed assisted migration than has been reported. We've identified hot and cold sites and then we move them around in the common garden experiments. The idea was to have a lot of different kinds of locations. Seed size changes latitudinally and that makes us think of the viability of seeds related to temperature. In New York, we got seeds from high and low temperatures. The lab had the seeds cracked out, and we want to hold seeds as little as we can because we want the high temperature seeds to thrive.

North Carolina seeds were moved to sites in Virginia and Virginia seeds to North Carolina. I don't think the Virginia seeds survived in North Carolina, but North Carolina seeds did survive in Virginia. There is hope to take clippings to check for mutations and resilience and update our knowledge on assisted migration successes and failures.

Q: *When crossing states in North Carolina and Virginia, are there regulatory barriers to moving seeds?*
A: There are not that many regulations and they are not well defined for seed movement. We do have BMPs and SOPs to treat the seeds to kill diseases and address some concerns about moving seeds – we can make this information available to the Collaborative.

Q: Zostera has different services than Palladia. Would you say Zostera has superior services because it is a keystone species? Are we too focused on the potential of changing ecosystem services if we're restoring certain phenotypes or even regionally different phenotypes from one area to another?
A: In my experience, the meadows we see in Massachusetts respond very differently to environmental variation. Just Tuesday this week, we were transplanting shoots from different bays near an existing meadow. We are curious to see morphological changes of the plants in their new environment. They come from an environment very similar to their own so they will be expected to survive. The ecosystem services follow that plasticity. The more plant biomass, the more fish habitat, the more filtering capacity, the more carbon sequestration, etc. In my brain, I haven't connected the thermal resilience and equating that to the scrawny shoots where they're at. Perhaps taking the resilient shoots and placing them in different environments (higher flow example) might make them look very different.

Q: *Were there visible/physical differences from the seeds from Virginia and the seeds from North Carolina?*
A: No, they look the same. They were not visibly different.

Q: *Have you looked at the proportion of flowering stems compared to different outlier responses (elevation etc.)? Plants from North Carolina brought to Massachusetts won't flower in the green house, so have you seen the flowering from North Carolina to Virginia change, and how will that affect common garden strategies?*
A: Looking at phenotypic traits, nothing really popped. We don't really have the flowering data yet, but we would like to collect that. It is really interesting because perhaps high seed output is important to investigate as we may want to use those more. Maybe we have ten meadows with interesting flowering data that could work as donors. The possibilities are endless. That's really interesting because there are people in this room attempting to collect that information now, which is why collaboration is so important. The flowering season and flowering cues are really different at different sites. We are studying some flowering density in Long Island because there are high rates of reproductive energy. We are

comparing it to thermal gradients and there is curiosity that perhaps there is a link to the number of ovaries and the reproduction rates.

Q: *What is your worst-case scenario of transferring Southern seeds to Northern populations, excluding risk of disease/fitness?*
A: The possibility that it might be a waste of time, money, and resources if they fail. Another issue may be losing control of the growth of the Southern seeds, harming the natural population's ability to compete.

Rankin Lab Tour

After the panel, attendees toured the Rankin Lab where there was an informal discussion led by Steve Schott, Jamie Vaudrey, and Craig Tobias about eelgrass seed culturing trials and errors. Some anecdotes and questions were shared amongst participants discussing laboratory set ups and necessity for space to capitalize on eelgrass research and growth in a controlled setting.

Poster Session

Name	**Affiliation**	**Topic/Title**
Michael Bradley	University of Rhode Island	*Tier 1 2024 Mapping of Submerged Aquatic Vegetation in Long Island Sound and the Peconic Estuary*
Susan Bryant	Center for Student Coastal Research	*CSCR Ecology Team - Eelgrass 2024: High school students use gopros, YSI's and ArcGIS or explore loss of eelgrass meadows in Massachusetts*
Emma Coffey	Connecticut Dept. of Energy & Environment	*CT DEEP 2024 Eelgrass Survey*
Matthew Leason	UCONN / CT NERR	*Assessing Dock-Based Deployments as a Proxy for Light and Temperature in Nearby Seagrass Beds*
Tracy Mandel	Center for Ocean Engineering, UNH	*Ecological implications of seagrass-flow interactions: Ongoing fluid mechanics research at the University of New Hampshire*
Hannah Vagts	Fishers Island Management Coalition	*Making Waves: Creating the Save Our Seagrass Movement*

Kelsey Ward	UCONN	*Improving Measurements of Denitrification and Nitrogen Fixation in Zostera marina Beds Using Noble Gas Tracers*
Emily Watling	UCONN / CT NERR	*Bi-State Assessment of LIS Eelgrass Management and Restoration*
Abbie Winter	Connecticut Dept. of Energy & Environment	*Eelgrass Area Classification in ArcGIS Pro*

Breakout Session A Summary

Facilitators: Torrie Hanley (SHU) and Cayla Sullivan (US EPA)

This breakout began with a presentation from Torrie Hanley, "***Prioritizing Actions for LIS and New England: Seagrass Seed-Based Restoration Survey Preliminary Results."***

- Summary of Presentation:
    - Previously in 2025 an eelgrass restoration survey was administered to gather national and global responses. Results included:
        - Seeds are mainly collected by hand and stored with flow through seawater with some experimentation on cold/dark storage.
        - Optimal storage time is generally agreed to be under 60 days, but most people are storing seeds for longer.
        - Top ranked for seed sourcing is seeds that are healthy and have high genetic diversity.
        - The majority feel they do not have experience with many of the different planting and broadcasting methods.
        - Seeds are typically deployed in the fall months.
        - Seed-based methods are highly variable.
        - It is unclear whether seeds with shoots are more successful or not.
        - Seed success is dependent on a lot of different factors with choice of restoration site the most valued by the survey.

- Audience input and discussion about the goals of restoration for LIS and general east coast:
    - East Coast priorities and goals:
        - Need infrastructure for storing/cleaning seeds.
        - Compare different storage methods and how that affects the ability to grow.
        - Know the ideal planting timeline (different locations will have different results).
        - Keep track of where the seeds are coming from so not to over source from one donor bed.

- Quantify and track exactly how much to take from the donor beds and the impact of removing seeds from donor beds.
- Open communication across state lines for both planting sites and collection sites.
- Need a better understanding of regional flowering times.
- Research best management practices for storage, planting, and broadcasting:
    - *Comment*: Perhaps each group is attempting 3-5 different methods to study effectiveness at a faster rate.
- Research the importance of external factors: sediment quality, high versus low energy areas, presence of other eelgrass, etc.
- Viability of donor sites in events of runoff or other potentially harmful occurrences.

- LIS priorities and goals:

    - Need to monitor all locations and label them as poor, fair, and good conditions.
    - Update and understand the genetics of LIS eelgrass to get a baseline on the data we currently have.
    - Work on small pilot restoration to limit the risk of mass failure when planting.
    - Administer a survey to rank the top ten sites for annual monitoring via drone across the stakeholders to determine where to start.

- <u>Q&A and Comments:</u>

Q: *Do we have a graph of the career trajectory of individuals who participated in the survey?*
A: Yes, we have a survey of levels of experience and what specialization (research, policy, etc.). I just didn't include it in the slides.

Q: *What does scratching seeds mean?*
A: Rather than scattering, we loosen the sediment by scratching it and sprinkle in seeds.

Q: *Do other states have seagrass coordinators?*
A: The East Coast SAV Collaborative has a list of existing SAV regulations and an identified contact for each state as well.

Comment: Helping eelgrass survive could be done by assisting the deteriorating beds by broadcasting seeds with shellfish. Shellfish help anchor the seeds down and promote the growth and securement of the beds.

Comment: Fishers Island is hard to fly a drone around. If we decide this place is critical for monitoring, we will need to figure out how to work around this.

Comment: Consider where there is a good breaking point/boundary for assisted migration? (e.g. do we want to go into New Jersey and stop at Virginia?)

Comment: Important to understand the negative consequence on germination when getting rid of the microbiome on seeds if we choose to use cleaning methods of copper sulfate/bleach.

Breakout Session B Summary

Breakout Session B divided into to rooms or "Tracks" – each is summarized below:

Track 1 – Facilitators: Craig Tobias (UCONN) and Steve Schott (CCE)

NEIWPCC Seed Based Restoration Grant Discussion

- Summary of Discussion:
    - Grant feedback and updates:
        - Funded through NEIWPCC
            - $1.5 million for 3 years (mainly for labor like diving, harvesting roots)
            - Infrastructure for $1 million per year
                - Tanks for labs
                - Harvesting, processing, and planting
        - Need to update timeline for infrastructure
    - Research to develop best management practices
        - Goal is to parallel the approaches in New York and Connecticut and expand the capacity for success and overwintering.
    - Need for monitoring in beds before and after restoration
        - Habitat site assessment
        - Understanding of donor beds
        - General rule to not take more than 10% (but we don't know what really has an impact, so there is need to monitor and fill gaps in our understanding)
        - Suggestion: perhaps in a donor bed - take half at 10% and the other half at 20%
- Prompts and Responses:
    - Suggestions for leveraging expertise and supporting existing work:
        - Machine for seed counting
        - More centralization and communication
        - Update EHSI
        - Create database to track different ways to harvest eelgrass
        - Registry for meadow production and donor beds
    - What do you want to see out of this NEIWPCC project?
        - Guidance for practitioners about how to lessen impacts on donor beds
        - Provide scheduling on known and reliable seed availability
        - Standardize harvesting methods and monitoring methods
    - What beds should we target for donor beds?
        - Meadows along Orient Point
        - New York: Fisher's Island

        - Not possible for North Shore of Long Island Sound
        - Site selection is very important. Factors to consider
            - Water temperature, duration of temperature stress, light availability, sediment characteristics etc.

    - Are we monitoring donor beds for recovery measurements?

        - Difficult to monitor
        - Threshold: No more than 10% of seeds should be harvested
            - Standardization is necessary to calculate the 10% and need to balance intensive labor with cost-benefits
        - More research for carbon sequestration by eelgrass is needed
        - Estimate seed total using a standardized bag for collection

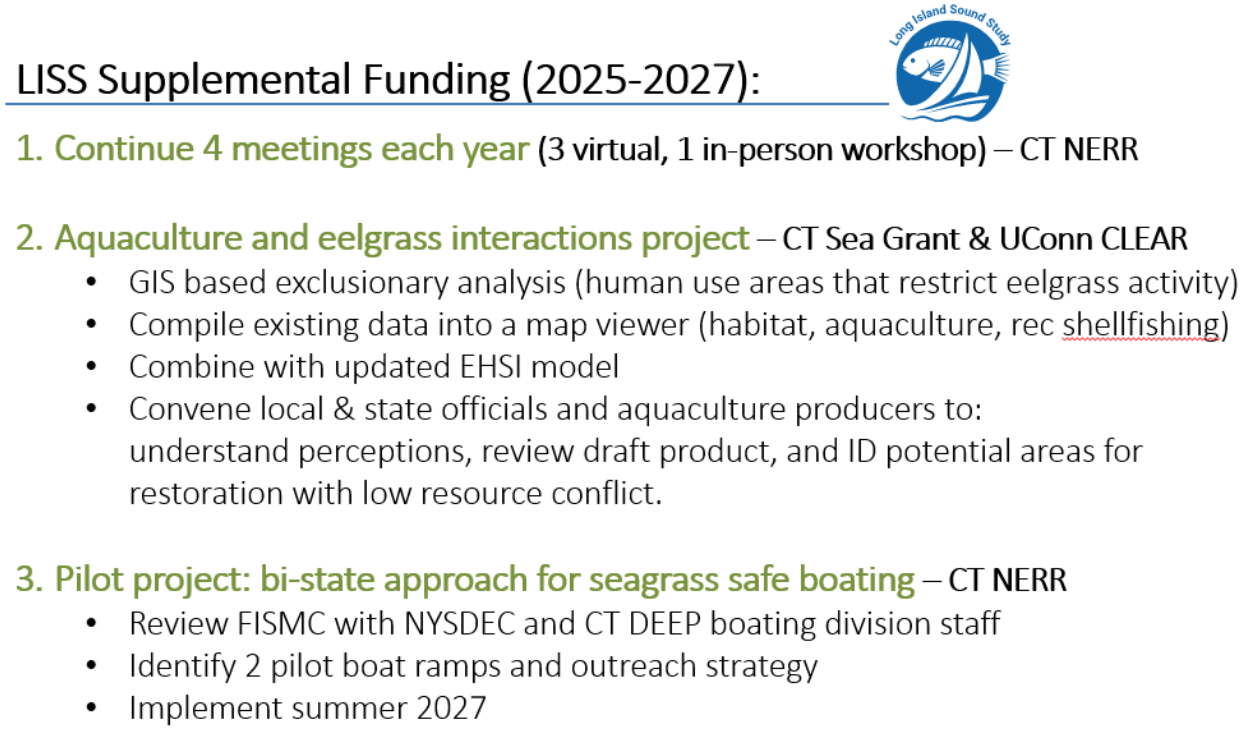
Track 2 – Facilitator: Jamie Vaudrey (Research Coordinator – CTNERR)

NEIWPCC Seed Based Restoration Grant Discussion

- Summary of Discussion:
    - What habitat assessment work might be helpful?
        - Multiple scales such as patch size, eelgrass density, shoot density, or rhizomes
        - Sediment characteristics like grain size for successful restoration
        - Aerial image and on-site monitoring are necessary
        - Determine a timeline for revisiting sites
        - Tracking changes in ecosystem services
        - Tracking wasting disease
        - Throat trap: counting fish pre-restoration and post-restoration
        - PAR, Turbidity, etc.
        - Where to get seeds:
            - Vary annually based on spatial characteristics and height
            - Seeds in CT are being counted this year
                - Shoots in spat bag to get seed estimate
            - Important to target hottest places first in assessment (e.g. shallow locations)
        - Monitor water clarity, temperature, reproductive shoot density, impact assessment, fauna
        - CT DEEP is looking at counting seeds this year. CT NERR is starting a flowering survey this year as well.
    - Using drones to monitor sites before and after restoration:
        - How frequently should we monitor?
            - Once a month, year-round?
        - Site selection is important
        - Drone record of donor sites
            - After five years?
        - Weigh against other options like satellite imagery, which is good for smaller areas
        - Drone sight limitations
            - Need sites that are regularly available – identify restricted areas to avoid (airports)

Closing Remarks

Katie Lund, CT NERR Training Coordinator provided closing remarks, which included sharing one slide to summarize next steps for the Collaborative:



Appendix A: Participant List

Name (alphabetical) - Organization

Suzanne Ayvazian – US EPA

Juliana Barrett – CT Sea Grant/UCONN

Mike Bradley – University of Rhode Island

Susan Bryant – Center for Student Coastal Research

David Carey – CT Department of Agriculture

Carriel Cataldi – CT DEEP

Emma Coffey – CT DEEP

Phil Colarusso – US EPA

Christopher Cooper – Millstone Environmental Lab, Dominion Energy

Melissa DeFrancesco – The Nature Conservancy

Alissa Dragan – CT Bureau of Aquaculture

Alex DuMont – NEIWPCC

Thais Fournier – RI DMF

Tessa Getchis – UCONN

Anne Gilewski – UCONN

Jesica Griffin – Northeastern University & the Nature Conservancy

Gina Groseclose – US Geological Survey

Torrance Hanley – Sacred Heart University

Stephen Heck – Stony Brook University

Athena Hermann – Millstone, Dominion Energy

Nate Hermann – University of New Hampshire

Emily Herz – CT DEEP

Jade Hodges – University of New Hampshire

Faith Hosie – CT NERR

Stephanie Kamel – UNC Wilmington

Marina Keller – University of New Hampshire

Jason Krumholz – CT NERR

Jennifer Lafayette – US Geological Survey

DeAva Lambert – CT DEEP

Matthew Leason – UCONN/CT NERR

Kyra Lerner – Sacred Heart University

Barry Lipsky – Long Island Divers Association

Bill Lucey – Save the Sound

Katie Lund – CT NERR

Sabrina Lyall – CT DEEP

Tracy Mandel – University of New Hampshire

Cara Manning – UCONN

Abhishek Naik – UCONN

Kevin O'Brien – CT NERR

Jill Pasquino – CT NERR

Tessa Peixoto – MA DMF

Bradley Peterson – Stony Brook University

Carl Persson – Ocean Solutions Inc.

Allison Rugila – Save the Sound

Kelly Sauter – UCONN

Eric Schneider – RI DMF

Stephen Schott – Cornell Cooperative Extension of Suffolk County

Paul Silva – US Army Corps of Engineers

Charlotte Skolnick – US Army Corps of Engineers

Kelly Streich – CT DEEP

Cayla Sullivan – US EPA Region 2/Long Island Sound Office

Craig Tobias – UCONN

Hannah Vagts – Fishers Island Seagrass Management Coalition

Robert Vasiluth – Save Environmental LLC

Jamie Vaudrey – CT NERR

Marissa Velasuez-Rosante – Peconic Estuary Partnership

Kelsey Ward – UCONN

Emily Watling – UCONN/CT NERR

Andrea Williams – US Army Corps of Engineers

Abbie Winter – CT DEEP

Harry Yamalis – CT DEEP

Lauren Yaworsky – UCONN/CT NERR

Darcy Young – Narragansett Bay Estuary Program

Appendix B: Meeting Agenda

Long Island Sound Eelgrass Collaborative Workshop- Agenda

Date: **Thursday – May 29, 2025**

Location: UConn Avery Point Campus
1080 Shennecossett Rd., Groton, CT 06340

9:15 am	Check-In and Coffee - UConn Avery Point, Lowell Weicker Building (LWB) Room 103
9:45 – 9:50	Welcome and Workshop Overview – *Katie Lund, CT NERR*
9:50 – 11:20	**Featured Speakers** – focus on NPS and EPA eelgrass restoration/resilience projects: - *Phil Colarusso (Marine Biologist, U.S. EPA) – 20 mins* - *Stephanie Kamel (Professor, UNCW Biology and Marine Biology Dept.) – 40 mins* **Panel** with featured and additional speaker for added insight and audience Q&A: 30 mins - *Bradley Peterson (Associate Professor, Stony Brook University) – NPS Project*
11:20 – 11:30	Break
11:30 – 12:30	**Poster and Tour Rotation** (two groups rotate – 30 mins in each location): ***Group A*** – start inside at poster session, Lowell Weicker Building (LWB) Room 103 Lobby ***Group B*** – start outside in front of LWB and choose one of the following: 1. Rankin Lab tour - viewing & discussion of restoration facility upgrades 2. Visit CT Sea Grant's new mobile seaweed lab
12:30 – 1:30	**Lunch** - Mort's in the Academic Building (including time to walk across campus)
1:30 – 3:00	**Breakout Session Rotation** (two groups rotate – 45 mins in each location): ***Group A*** – start in Academic Building, Room 211 Topic: Eelgrass Seed Restoration Survey Results & Related Discussion of LISS FY 26 Funding *Facilitators: Torrie Hanley (SHU) & Cayla Sullivan (EPA)* ***Group B*** – start in Academic Building, Room 207 Topic: NEIWPCC Seed Based Restoration Grant Discussion *Facilitators: Steve Schott (CCE), Jamie Vaudrey & Craig Tobias (CTNERR and UConn)*
3:00 – 3:30	**Breakout Debrief, Next Steps, and Adjourn** – Academic Building Auditorium

Funding provided by:

Facilitated by: