

MassBays Summer Newsletter 2024



Great Marsh, photo: MVPC

MassBays Awards \$85,883 to Five Projects to Improve Habitat Health in the Bays

Through our **Healthy Estuaries Grant Program**, MassBays provides federal funding to local initiatives to address conditions in the estuaries. This year we're excited to provide funding for five projects over the next 18 months. With this funding, the Town of Hingham will conduct a shellfish resource assessment in Hingham Bay to provide a better understanding of the present state of the shellfish resource area, the Merrimack Valley Planning Commission will apply unmanned arial vehicle (UAV) technology to enhance long-term monitoring in the Great Marsh, the Ipswich River Watershed Association will conduct monitoring related to the Castle Neck River restoration project, Salem State University will investigate the source of unusually high phosphates in Salem Harbor, and UMass Boston will map kelp along the coast to inform conservation efforts.

Read more about each project here.



Bridge Creek monitoring by volunteers in 2005, photo: APCC

New Report: Salt Marsh Restoration Summary

The Association to Preserve Cape Cod (APCC), MassBays' Cape Cod Regional Service Provider, partnered with the Massachusetts Division of Ecological Restoration to release the results of pre- and post-restoration monitoring at eight salt marsh sites restored between 2002 and 2010. Restoration involved removing berms and under-sized culverts that limit tidal flow to upstream salt marshes.

Long-term monitoring is critical to understand how salt marsh ecosystems respond to restoration after decades of impairment and to advance methods for salt marsh restoration. Salt marshes are critical coastal systems that offer a wide range of benefits to the ecosystem such as wildlife and fisheries habitat, flood protection, and more.

Read the full report here.



Seeds developing in a flowering eelgrass shoot (left), Salem State University student co-op maintaining the study tanks at Cat Cove Marine Lab (middle), Map of study sites where eelgrass seeds are being assessed (right). Photos: Jill Carr

WHOI Sea Grant Funding Leads to Best Practice Guide for "scaling up" Seed-based Eeelgrass Restoration

This summer, MassBays' coastal data scientist, Jill Carr kicked off a new research project funded by WHOI Sea Grant. With partners from MA Division of Marine Fisheries and Salem Sound Coastwatch, Jill's project will fill critical knowledge gaps around the use of eelgrass seeds for large-scale restoration projects. Through field studies, experiments and modeling, the team will characterize the timing of eelgrass seed maturity relative to temperature and latitude and model those relationships predictively for Massachusetts to inform restoration efforts. They will also evaluate seeds collected across the region for quality, viability, and field germination; conduct a control-impact experiment to evaluate impacts of seed harvest at scale; and work with regulators to identify permitting workflows for large scale harvest and planting activities. These efforts will culminate into a best practice guide for "scaling up" seed-based restoration across Massachusetts waters – a shift that is needed if we are to combat continued habitat losses.

MassBays' Work is Award-winning!

For more information contact Jill Carr.



Gulf of Maine Council Recognizes International Award Winners 2024

On June 11 at their annual award ceremony, the Gulf of Maine Council presented international awards to honor individuals and organizations that have made a significant difference in protecting the health and sustainability of the Gulf of Maine watershed. Among those recognized were Massachusetts Bays National Estuary Partnership Executive Director, Pam DiBona and Senior Scientist Prassede Vella.



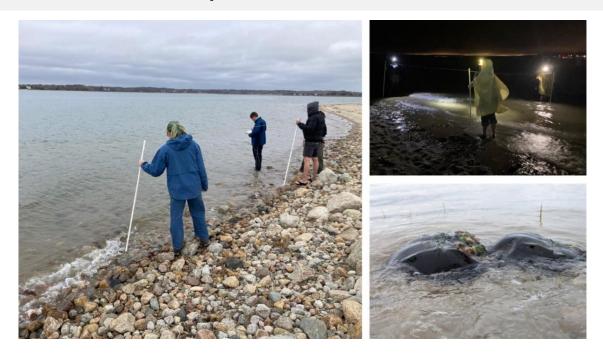
Environmental and Energy Industry Winners of the 2024 APEX Awards

On June 13 at their Annual EBC APEX Awards Celebration the Environmental Business Council of New England (EBC) awarded the EBC Merit Award for Leadership by a Non-Profit Organization for work to restore the Great Marsh, New England's largest salt marsh. Massachusetts Bays National Estuary Partnership were among the partners recognized.

Learn More

Learn More

Reports from the Field



(Left)Volunteers conducting quadrat survey counts of horseshoe crabs in Duxbury Bay and (top right) conducting nighttime quadrat survey counts of horseshoe crabs in Duxbury Bay, photos: Beth Howard. Bottom right: Spawning pair of horseshoe crabs in Duxbury Bay, photo: Alex Mansfield.

Volunteers Monitor Horseshoe Crabs in Duxbury, MA

In Duxbury, MassBays' South Shore Regional Service Provider, the North and South Rivers Watershed Association, completed its sixteenth year of Horseshoe crab monitoring. Duxbury is one of sixteen sites across the state that are part of the Massachusetts Horseshoe Crab Spawning Surveys managed by the Massachusetts Division of Marine Fisheries (DMF). 2024 was a particularly critical year for these surveys since DMF adopted a new restriction on the harvest of horseshoe crabs just this April. The new regulation prohibits the harvest of horseshoe crabs from April 15-June 7 (during the crab's spawning season) in all Massachusetts waters. This change protects the population during its most vulnerable and critical life stage.

NSRWA and their dedicated volunteers will continue monitoring each spring to see if the new regulations will mark a shift in the disturbing downward trend of horseshoe crab populations.

Read more here.

MRC Inaugural Year Milestones

In its inaugural year, the Merrimack River Collaborative (MRC) has accomplished remarkable milestones in efforts to restore the water quality of the Merrimack River.

This year, the Merrimack River Watershed Council and the Merrimack Valley Planning Commission (MassBays' Upper North Shore Regional Service Provider), in partnership with the MassBays, hosted the 3rd Merrimack River MERRIMACK RIVER COLLABORATIVE ANNUAL REPORT

2023



Water Quality Roundtable to enhance collaboration with various environmental groups who work along the watershed.

The MRC's first annual report details initiatives set from the original legislation. These initiatives stem from four focus areas: planning and collaboration, standardization and monitoring, outreach and engagement, and funded projects.

Read the full report here.





Boston Harbor Ecosystem Network Meeting

On April 24, 2024, the MassBays' Metro Boston Regional Service Provider, Northeastern University's Marine Science Center held the Spring 2024 Boston Harbor Ecosystem Network (BHEN) meeting, "Tools in the Nature-Based Toolkit for Coastal Resilience," at UMass Boston. Partners gave lightning talks about a range of developed and

developing approaches to coastal resilience and participated in a Q&A with questions workshopped from the audience. Contact **Dr. Diana Chin**, the MassBays Metro Boston Regional Coordinator, if you are interested in pdf copies of presentation slides from the Spring 2024 BHEN meeting or have other questions about BHEN. Keep up with announcements for the next biannual BHEN meeting, field trips, and other resources and opportunities in the Metro Boston region by signing up for the monthly BHEN e-newsletter <u>here</u>.

Read more and request copies of the presentations here.

A networking break during the Spring 2024 meeting of the Boston Harbor Ecosystem Network (BHEN), photo: Jill Carr.



Commercial Street Rain Gardens Case Study in Salem, MA

Salem Sound Coastwatch (SSCW), MassBays' Lower North Shore Regional Service Provider, recently completed the Commercial Street Rain Gardens Case Study, a project funded by the MA Office of Coastal Zone Management Coastal



Commercial Street rain garden, Salem. photo: SSCW

Habitat and Water Quality Grant Program. This project highlighted the rain gardens along Salem's North River with two how-to videos targeted to Department of Public Works staff and planners produced by documentary filmmaker Perry Hallinan and SSCW.

As sea level and storm surge increase, Commercial Street has experienced more saltwater flooding. Because of this increase in coastal flooding, standard rain garden plants were replaced with salt marsh plants that are tolerant of rain, drought, and saltwater inundation.

Read more and watch videos here.

Farewell to Jo Ann Muramoto, Ph.D., Cape Cod Regional Coordinator



Jo Ann Muramoto, Ph.D., MassBays Cape Cod regional coordinator and Science Director for the Association to Preserve Cape Cod (APCC) retired at the end of June. Since 2006, Jo Ann has guided and overseen science at APCC and served as the MassBays Regional Coordinator for Cape Cod. During her tenure, Jo Ann developed and worked with a broad network of partners across the region and led APCC science staff in development of multiple programs that she has supported in her role as Regional Coordinator including: the Ecosystem Restoration Program, the Cyanobacteria Monitoring Program, the Freshwater Pond Initiative Monitoring, the State of the Waters: Cape Cod project, and the Volunteer River Herring Monitoring Program. She assisted with completion of the Stony Brook restoration project, one of the most successful salt marsh and fish passage projects on Cape Cod to date! Year over year she organized and trained volunteers, compiling their data on

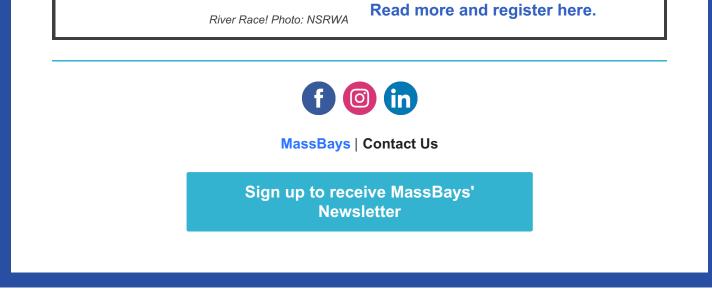
herring runs across the Cape to provide to DMF to asses the success of fish passage restoration projects.

Register for the Great River Race!



Join North and South Rivers Watershed Association on the North River and experience one of the most beautiful rivers in Massachusetts.

August 18, 2024 10:00 a.m. - 2:00 p.m.



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