

## View from the Rivers Edge – September 2024



Without question September and early October is my favorite time of the year on Bass River. Clear cool nights and days in the 70's and if we are lucky a few in the 80's. I would take this year-round for sure!

Personally, the last few months have been the most exciting of my five years as Executive Director, Friends of Bass River.

Lower Cape News' Anna Westerberg produced a very informative video detailing our upper Bass River Headwaters Restoration Project, (from concept to design and permitting). Thanks to State Representative Chris Flanagan we were awarded \$50,000. as an earmark, which we are using to fund design of the viewing platform, footbridges and crossovers for the wetland's areas of the restoration. WMVY-FM's Cape Crossroads program featured Friends of Bass River in late August. Joe Stickles produces this show which reaches the entire south coast of Massachusetts and Rhode Island. To my great surprise I was chosen as "Person of the Week" on WMVY soon after. (who knew?)

In late June we officially kicked off our newest project, restoration of Crowell Pond in South Yarmouth. Crowell Pond is also known as Run Pond and internally "Stinky" Pond. Crowell Pond is the most impaired body of water tied to Bass River and needs restoration now. We will share details in the coming months, of this extremely important project.

What if I told you progress is being made to return Bay Scallops to our river? Many of us recall scalloping in the 1980's and enjoying the bounty the river once held. Those days are long gone. But maybe not. Two years ago, I was introduced to Jeff

Lang from Harwich. Jeff has a scallop aquaculture business.

Leaving our initial meeting, we were certain we had to pursue this idea. Subsequent meetings with Yarmouth DNR director Bill Bonetti and Shellfish Constable Casaundra Healy and we now have (very small) scallops in the river. So far, the scallops, seem happy, showing good signs of growth. Details to follow in our

December newsletter.



Please plan to attend our Annual Save Our River Symposium. October 18<sup>th</sup> at the West Dennis Yacht Club. Beginning at 2:30 pm. Special thank you to the Mass Cultural Council for their support.



Thank you to Lydia Rheinhardt our 2024 intern, for her great work, The Dennis Conservation Land Trust path maintenance team for much appreciated work, and Jenny Schaffer for taking the lead of our water testing teams. Thank you also to Thomas Milkey from Grand Cove Productions for providing our videography, drone and photography work.



Sincere thank you to everyone who supports FOBR. Your donations are absolutely critical to our success.  
Best,

Rick Bishop  
Executive Director



**To register for the annual Save our River Symposium Please scan the QR code below:**

## FRIENDS AT PACKET

This summer FOBR hosted 4 monthly meet & greet events on Thursday evenings at Packet Landing, in South Yarmouth. Thanks to everyone who came out to meet our staff and to our partners: the Town of Yarmouth, Puritan Clothing, Breakaway Hall Oil, and Luke's Liquors.



# The Impacts of the Boring Sponge on Bass River

By Lydia Rheinhardt

Bass River has been an iconic part of Cape Cod for many years. The large estuarine was created over 15,000 years ago, and completely divides the Cape in half through Yarmouth Port. The river has been used for recreational purposes by locals and tourists alike, including fishing, crabbing, kayaking, and boating. Although endlessly beautiful, this iconic part of Cape Cod has experienced a dramatic shift in health over the last couple decades. As infrastructure along the river has boomed, so have the nitrogen levels. Surrounding sewage systems have deeply contaminated the river, causing extremely impaired water quality, ultimately effecting the health of the ecosystem and the wildlife that resides in it. However, over the last couple years, the river has begun to face a new threat. An invasive species that is left untamed is covering the floor and killing the already vulnerable shellfish. Identifiable by the yellow, porous structure, the Boring sponge (*Cliona spp.*) is the newest threat to Bass River.

The Boring sponge is a bioeroding sponge that gets its name from its habit of boring small holes in species of bivalves in search of shelter. It leaves the shellfish covered in holes, brittle, and vulnerable. In a traditional habitat of oyster reefs and other mollusk colonies, this destructive behavior is beneficial to the ecosystem, as it contributes to the breakdown and recycling of calcium carbonate, which shells are made of. While this is a natural process in the ocean, anything in excessive amounts can be dangerous. As climate change prevails, and the process of ocean acidification increases, calcium carbonate-based structures such as reefs and shells become more vulnerable to erosion, increasing the likelihood of further sponge bioerosion. This yellow, porous creature poses a serious threat to various species of bivalves as they increase in numbers in areas already experiencing loss.



While the Boring sponge is commonly found in Chesapeake Bay, it has only recently infiltrated the waters of Bass River. Joel Bois, a third-generation commercial fisherman, is a strong testament to the progression of the aggressively invasive species. While he spends most days on the water in search of shellfish, the sponge has been a growing competitor. Bois recalls initially seeing the sponge 20 years ago in the vicinity of Highbank Bridge in Yarmouth. However, over the last 5-8 years, he has seen an increase in both density and range. The sponge coats the bottom of the river so intensely, that he is able to rake large chunks up at a time. Instead of spending time and energy collecting shellfish, it is wasted on removing the sponge by hand.



When Bois is able to collect shellfish, often they have already fallen victim to the boring effects of the sponge. The shells are covered in small holes and break easily. This damage leaves the individual vulnerable to predators and parasites, and can cause increased developmental damages. Additionally, a deformed shell decreases the market prices, as they are visually unappealing and decompose quickly. The increase in damaged shellfish is a clear indicator of the increasing threats of the boring sponge in the river.

So what is being done? Currently, there are no plans in action to relieve the waters of the Boring sponge. Bois, and other fishermen like him, have taken it upon themselves to hand-rake the sponge as much as possible. While every little bit helps, it is important to consider the long-term impacts of the sponge on the health of Bass River, its wildlife residents, and local users.

Citations:

*Bass River: Friends of Bass River.* Friends Of Bass River. (n.d.). <https://www.friendsofbassriver.org/>

Bellincampi, S. (2020, May 21). *Boring sponge.* The Vineyard Gazette - Martha's Vineyard News. <https://vineyardgazette.com/news/2020/05/21/boring-sponge>

Chesapeake Bay Program. (n.d.). *Boring sponge.* Chesapeake Bay. <https://www.chesapeakebay.net/discover/field-guide/entry/boring-sponge>

Stubler, A. (2023, May 11). *Ocean acidification excites boring sponges.* Ocean Acidification Excites Boring Sponges. <https://ocean.si.edu/ocean-life/invertebrates/ocean-acidification-excites-boring-sponges>

## Out & About with FOBR



FOBR exhibited & sponsored the Dennis Conservation Land Trust's 2024 Rubber Duck Regatta – held at the West Dennis Yacht Club. Rick was joined by Town of Dennis Shellfish Constable Jordan Halloran and her travelling shellfish touch-tank.

## University of Massachusetts Dartmouth Senior Capstone Project

Working with University of Massachusetts Dartmouth Professor Wayne Bates, Friends of Bass River is pleased to announce a new educational initiative. Based on our new Crowell Pond Restoration project, Senior students will study current conditions and recommend solutions as part of their individual "Capstone" projects. Tighe & Bond lead project engineer Kristopher Houle is excited to work with senior team leader Julia Latura and her fellow students throughout development of their solutions. We are excited to see what these talented UMass students envision. FOBR will share findings with the community later in 2025. Stand by!



Work on the Upper Bass River Culvert Replacement Project continues as engineers from Tighe & Bond take sediment samples in the river near the North Dennis Road/Crab Creek Culvert.



Cape Cod Conservation Staff touring the river on our New Pontoon Boat.

