

HOW TO GET INVOLVED



The BOP welcomes anyone in the community who would like to be involved, whether it's just to receive our email updates, come to Conservation Committee Meetings at Town Hall, or even volunteer to get your "hands dirty" in some way with our on-site project work. And of course, you can always help support us financially with a donation (check made out to BOP and dropped off at Town Hall). We appreciate your continued interest and support.

For more information, or to request to be put on our email list, become a volunteer or give us any feedback, check out our website section within the following link: (<https://themaineoystercompany.com/basinoysterproject>)

THE FUTURE IS IN OUR HANDS BOP's ACTIVE MEMBERS



A bunch of our 1-month old scallops, which we are also trying to grow in the Basin., captured in one hand.

- Jessie Batchelder** - Manomet fisheries technician (Basin green crab study & baseline ecological survey)
- Caitlin Cleaver, PhD** - Bates professor & Bates Coastal Studies and Bates Morse Mountain director (Basin green crab study, water testing and ecological survey)
- Dean Doyle** - Basin Oyster farmer & Chair, Phippsburg Shellfish Commission
- Peter Dunbar** - Bates student, (BOP independent study project and oyster technician)
- Lydia Gregoret** - personal use oyster farmer and scientist, Phippsburg
- John Herrigel** - Maine Oyster Company owner, Phippsburg
- Avery Hunt** - Phippsburg resident and writer
- Joe Jerome** - North East Saltwater charters, Phippsburg
- Dot Kelly** - Phippsburg Conservation Commission and Lead for the BOP
- Michele LaVigne** - Bowdoin oceanography professor and collaborator with BOP on oyster research & ocean acidification
- Marissa McMahan** - Manomet non-profit fisheries director, Brunswick. (Baseline ecological survey for the Basin project)
- Ryan Saul** - Phippsburg resident and Basin oyster farmer
- Rebecca Schultz** - Basin neighbor and NRCM scientist
- Ellen Winchester** - Co-chair, Phippsburg Conservation Commission

Our Nature Conservancy grant runs out at the end of August. However, our work in the Basin on water chemistry and sustainable oyster reef will continue. We are hoping to apply for further grant funding, which seems possible. In the meantime, we will scale back to the volunteers we have and use whatever grant funds and donations we receive, going forward. We are committed to having a concerted Basin Oyster Restoration effort for at least two additional years.

Basin Oyster Project

Shellfish Reef Restoration

BOP TALKS TO THE PUBLIC

Caitlin Cleaver is a Bates teacher, Director of both Morse Mountain and the Bates coastal studies programs. She is also one of the main members of the Basin Oyster Project. This summer she developed an informative talk and slide show describing our Project, which has become an entertaining "Dog & Pony" outreach effort to the community. In July, Caitlin, with the help of Dot Kelly, presentation to an audience of about 25 at the Popham Library and Dot did a "solo" gig to more than 50 at the Bailey Island Association Annual Meeting.

Entitled "From the bottom up: A community based approach to oyster reef restoration", the presentation has been very well received with each audience asking many provocative questions. From elaborating on the history of oysters on the Eastern seaboard, to why Phippsburg for oyster restoration, the talk describes the important collaborative efforts with the Nature Conservancy, Bates College, Maine Oyster Company and the Town and townspeople of Phippsburg.

We've come a long way. BOP has raised eyed oyster larvae to settle on shell, grown small oysters to predator resistant size in protected floating oyster bags, and secured a second comparison oyster site within the Basin. We are using water testing, underwater surveys, settlement plates, sediment traps, and invertebrate traps to gather pre-restoration data from the two oyster reef sites and will continue with this sampling to evaluate differences between the two sites and pre- and post-restoration conditions.



Caitlin Cleaver gave a talk and slide presentation on the BOP in late July at the Popham Library. Pictured here with Dot helping her hold up a large poster graphic. A similar talk was given in early August on Bailey Island.

PHIPPSBURG LANDTRUST MEMBERS LEARN ABOUT BOP

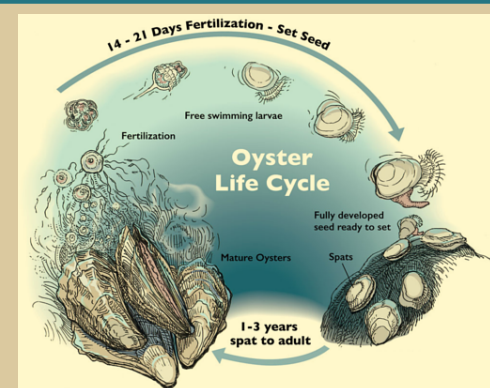


Here's A PHOTO OF Caption Joe, Dot & John at their presentation to the Phippsburg Land Trust audience.

On Thursday, August 16, three members of the BOP team were asked to give an informal talk at the Land Trust's annual meeting. John, Joe, and Dot presented our efforts, complete with photo slides, to a crowd of over 50 at the Sebasco Harbor Resort.

The audience was delighted with group's insights and were pleasantly surprised to find out what interesting oyster efforts were being made here in their own backyard, as it were.

According to Board member Barbara Knuckles, they appreciated learning more about the BOP and where the PLT fits in to the wider ecological landscape of the project. "Many of our guests learned for the first time about the importance of the BOP project and how well it fits with the Phippsburg Land Trust's goals of preserving and protecting our lands for generations to come."



ITS ALL HAPPENING THIS SUMMER WITH THE BASIN OYSTER PROJECT!

BASIN OYSTER PROJECT & THE NATURE CONSERVANCY

As we revealed in our June BOP newsletter, we have worked with TNC since 2020, when the Conservancy passed on the stewardship of their LPA (Limited Permit Aquaculture) in the Basin to our fledgling organization. In late 2020 we received a \$20,000 research grant from the TNC/Pew Charitable Trust, which allowed us to ramp up early efforts to build oyster reef and study oyster restoration. We were one of only 28 winners out of a field of 180 applicants throughout the US. Our grant monies run out at the end of August.

This summer, we continued our collaboration by sharing information and site visits to our respective Oyster Restoration projects – one in New Hampshire and one at our own Basin project here in Phippsburg.

On Friday, July 15th, Dot, Levi Mudlin, Samantha Gamber and Alysse Cleasby visited The Nature Conservancy’s New Hampshire site in the Great Salt Bay. First, they toured the lab and then went by boat to inspect the actual oyster restoration work being done there. Our hosts were Brianna Group (TNC lead in NH for their restoration project) and doctoral student Kelsey Meyer, who is conducting research on the invasive green crab.

On August 3, our visit was reciprocated and a TNC group came Phippsburg. We met at Basecamp and took two boats to the Basin. The BOP crew included John Herrigel, Lydia Gregoret, Chuck Wilson, Dot Kelly, Bate’s students Peter Dunbar, Alysse, Levi and Samantha. The TNC contingent included Boze Hancock, who leads the worldwide TNC oyster restoration projects from his base in Rhode Island; Brianna Group; Kelsey Meyer, UNH PhD student studying green crabs, and Kim, an assistant with the Great Salt Bay restoration project.

According to John, “We learned some tips and tricks from the NH and RI TNC oyster restoration experts. In talking with Boze, for instance, I learned that the oyster larvae, aka the baby oyster, seem to like to settle onto a clean surface to start its life. Thus the ‘live edge’ (or the newest part of an oyster shell formed by a growing & living oyster) is perhaps the best place to have new oysters settle, versus dead & aged shells as we have tried with moderate to mediocre success.”

“The TNC folks were also quite impressed with our sites, the science we are doing, and our successes in the Basin behind the dam to spawn oysters. We hope to continue our working relationship with TNC and look forward to creating and sharing even more knowledge about oyster restoration soon.”



Left: TNC visit to the Basin on August 3rd. Pictured, from left to right: BOP volunteers Lydia Gregoret & Chuck Willson, Bates student Peter Dunbar and Boze Hancock, TNC oyster restoration lead.

Joe Jerome at Lowe’s in Brunswick, holding several of humble floor tiles that we are trying out at our oyster sites to help attract oyster Spat -- a simple but experimental solution to possibly help jump-start an oyster grow. At \$2 a piece they are a bargain if they work! Because they contain a good deal of calcium carbonate, presumably lime, they seem to attract tiny oyster Spat, which are looking for calcium to settle upon. We have evidence that these tiny organisms have successfully stuck to old bivalve shell clusters, which are loaded with calcium, and even concrete piers.

The idea is that we’re “tricking” the Spat into settling onto the tiles which we’ve carefully placed near the existing small reefs in hopes that we can confirm a spawn. Although we don’t know everything about oyster creation, we do know that the larvae develop an eye and cilia for swimming and then a foot which attaches to a calcium-rich medium. At that point they are known as oyster Spat and growth begins. [Techie enough for you?]



Peter Dunbar, Bates rising senior, displays the experimental sediment traps he designed to determine how much sediment accumulates on the bottom of a given area over time. These unique measuring devices, which are secured by cement blocks, have been sunk at our sites at both Denny Reed and Thistle Point in the Basin. This experiment and its results will be the basis for Peter’s senior thesis.

Right: These are the oysters that were planted at the new oyster reefs in the Basin. Over 1500 were used.



Below: Our team, returning to Base Camp after successfully planting 1500 large live oysters at our 2 LPA sites in the Basin. This was the first time something “real” (and they were oysters we grew ourselves) was planted on the ground to build oyster reef!

Pictured, from left top. Dot, Alysse, Samantha, Jessie, Caitlin, Marissa - Manomet Director, Peter, John and Joe.



NEXT STEPS FOR BOP

Our project will be going forward under the aegis of the Phippsburg Conservation Commission. Our main goal is to secure funding for next year to continue our work to create sustainable oyster reefs in the Basin on the New Meadows River in Phippsburg.

Specifically, we want to continue ...

Growing out small oysters and small bayscallops in predator resistant floating bags until these shellfish reach maturity and can be planted on the bottom on the BOP limited purpose aquaculture (LPA) sites in the Basin.

Maintaining the experimental oyster plots at the BOP LPA sites and report on the lessons learned, as we continue to work toward building sustainable oyster reefs.

Expanding our Community, Educational and Aquaculture Industry outreach about oyster and scallop restoration efforts in the Basin, including what’s worked and what’s not.

Gaining insight from similar efforts throughout the country, to utilize best practices.

