



Belfast Bay
Watershed
Coalition

WATERSHED NEWS

Pen Bay Stewards 2024



In April, twenty-three intrepid volunteers from a variety of backgrounds and experiences set out on a six week educational journey to learn about the past, present and future of the Belfast Bay watershed. Some had lived in Maine for decades; others were relatively new to the state. The group included retired health care professionals, journalists, scientists, educators, naturalists, corporate and non-profit executives, small business owners, clergy, lawyers and farmers. As diverse as their backgrounds were, they all had one thing in common – a desire to become stewards of our watershed.

For over 20 years, the Penobscot Bay Stewards program has brought together people to learn about the history, geology, ecology and economics of the Penobscot Bay watershed. Participants meet for two days a week for six weeks in April, May, and June. Some of the days are spent close to home learning about Belfast Bay’s working waterfront, streams, rivers and forests, and meeting the people who work to keep the natural environment healthy. Other days are spent further away. This year, participants visited Blue Hill, Deer Isle, Hurricane Island and the Wabanaki Youth and Cultural Center in Bangor. They met with researchers, lobsterers, farmers, ecologists, and environmental activists. Most importantly, they learned how they could become involved in stewardship of our beautiful environment.

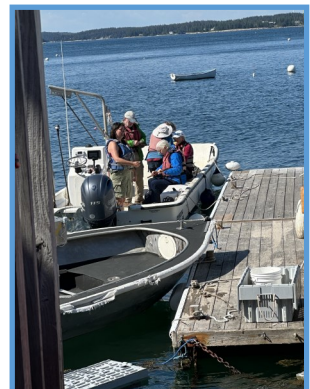
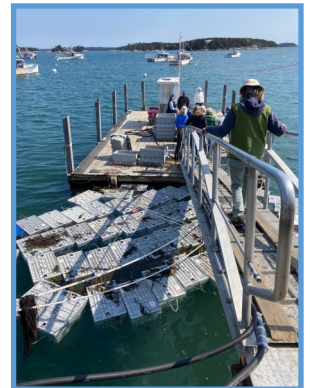
The program is free. All that is asked of participants is that they contribute 30 hours of volunteer work with any environmental organization over the next year. Applications for the 2025 Penobscot Bay Stewards Program will be available on the Belfast Bay Watershed Coalition’s website in January, 2025.

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Around the Watershed in 11 Days:

Some Things I Learned in my 6 week Penobscot Bay Steward Training

by
Lee Reilly, Pen Bay Steward Class of 2024

- ◆ I love the watershed. I grew up on a bay but it was a different kind of bay - shallow, with shallow shores, and nary a salmon.
- ◆ I'm too old to consider a second career as a lobsterman. (Also too old to be a seaweed farmer or oyster grower. But, isn't it a gorgeous thing these folks persist?)
- ◆ It's possible to get around an old dam. They did it in Howland.
- ◆ Composting, good. Plastics, bad.
- ◆ Butts (the kind from cigarettes), very bad.
- ◆ You can seed clams. For some reason, this came as a surprise to me.
- ◆ Alewives here are in a different predicament than alewives in Chicago. Here, good, and not as abundant as they should be. There, overabundant, and likely to die *en masse*, stinking up the entire city.
- ◆ Sunscreen, good.
- ◆ It's possible to change habits statewide. Pen Bay Stewards alumni did it with plastic bags a decade ago. Now, on to plastic utensils!
- ◆ It's possible to change habits citywide. Go composters!
- ◆ There actually are quite a few young people in Maine. *And* they're doing amazing things at Shaw Institute, Maine Coast Island National Wildlife Refuge Visitors Center, U.S. Fish & Wildlife Fishery, and on Hurricane Island. (I hope to revisit all these places. Somehow.)
- ◆ Threats can be met. They should be met early and with a team of experts and everyday people who want to learn and make change. The Gulf of Maine is under threat.
- ◆ When Thomas Pynchon wrote a novel about a human being turning into plastic over the centuries, he wasn't so far off.
- ◆ Scallops, good. Green crabs, bad.
- ◆ It's possible to be wildly passionate about soil. Some of it grinds. Some of it binds.
- ◆ Sears Island, a treasure.
- ◆ Permaculture, a many layered affair.
- ◆ Searsport Shores, Penobscot Nation Tribal association, MOFGA, Villageside Farm, Stonington Lobster Co-op, Island Village Trust, Climate Action Waldo County, Weskeag Oyster Farm—all of them, remarkable in their work and the way they welcomed and gave their time to those of us who know little about them.
- ◆ And everyone else, too—so many, so good. The volunteers who shepherded us, the students, Searsport Shores Campground – all great.

But I think the biggest lesson I relearned and will learn again is that Maine is deeply generational in a way that my other home states—New Jersey, Illinois, California, Virginia, Maryland—are not. The New Jersey swamp where my father grew up and which I traversed decades ago has been paved and mostly forgotten. In Illinois, we mark centennial farms but overlook the previous inhabitants. California, Virginia, Maryland all have histories, but memories are shorter than they are here.

The watershed is a place marked by reverence and invasion, settlement, revision, and generational reinvention: fishing, logging, shipbuilding, stonecutting, farming, tourism. A healthy future will be grounded in recapturing that reverence, supporting sustainable reinvention, and remembering: the water feeds us all. The Pen Bay Steward Program is one mighty start.

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Plastic Pollution Solutions Aims to Reduce Single Use Plastics in Belfast

by Jeff Shula

One of Belfast Bay Watershed Coalition's newest initiatives, Pollution Solutions (PPS), has had a productive first year of operation and is gearing up for even more progress this fall. Led by three members of the Penobscot Bay Stewards Class of 2023 (Jacquie Gage, Kris Shula, and Dianne Torreson), the group's purpose is to keep plastics out of the bay and minimize the amount of single-use plastic garbage going to landfills and incinerators, and ending up in the local environment. They follow in the proud tradition of past Pen Bay Stewards who initiated the banning of plastic bags in Maine.

The average American generates 500 pounds of plastic waste a year, and only about 9 percent of that is recycled. Globally, according to the New York Times, 400 million tons of plastic are produced yearly, this amount is projected to quadruple by 2050. These plastics never go away; they eventually break down into microplastics and nanoplastics that have been found in fish and birds as well as in human blood and tissue. PPS is focusing on reducing the local use of single use plastics, which make up forty percent of plastic waste.



Dianne and Kris speak at an Earth Day event.

The theme of Earth Day 2024 was reducing plastic pollution, and PPS has been doing its part to spread the word. Organizers have put together presentations at the Unitarian-Universalist Church in Belfast (another is slated for October); at the Belfast Free Library twice; and at BBWC's Walk and Roll with a booth and display. At each event, the group has handed out metal cutlery kits as a substitute for the plastic cutlery usually included in carry out orders.

The organizers acknowledge that not everyone will voluntarily reject plastic cutlery and straws and realize that stronger measures may be needed. They have made several contacts with local restaurants, sending out letters and a survey soliciting ideas for city-wide rules on single-use plastics. The group also sent out an article describing the Biden Administration's plans to phase out government purchase of single-use plastics and tougher regulation of plastic manufacturing.

Later this fall, PPS will move into action mode. The group is planning to work with Belfast City government to come up with legislation limiting the amount of plastic trash being generated. PPS is reviewing city ordinances from Berkeley, CA, Los Angeles, and York, ME that are aimed at reducing single-use plastics in those cities. The next focus will be to propose some form of action that reduces plastic waste in a manner that is suitable for Belfast businesses and customers.

What You Can Do:

- * Carry your own metal or bamboo cutlery, straw and water bottle in your backpack or purse.
- * Keep a small piece of tin foil in your wallet or purse to carry leftovers home if you forget to bring your own takeout container into the restaurant.
- * Politely ask your server not to bring water in single-use plastic cups, plastic straws and cutlery to your table.
- * Bring your own produce bags to the supermarket and shop for fruits and vegetables that aren't in plastic packaging.
- * Shop locally for items in glass or aluminum. Buy in bulk and bring your own containers for soap, cleaning and laundry products, lotion, and shampoo.
- * Commit to purchasing household goods made of natural, long-lasting, biodegradable materials. Always ask yourself if you can buy the same product without plastic.

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Hurricane Island Excites and Educates Middle School Students

by

Jessica Young, Troy Howard Middle School
Chantal Broullard, Garden Coordinator, Troy Howard Middle School



Thanks to the support of BBWC, First National Bank in Belfast, and other generous donors, a group of twelve Troy Howard Middle School students embarked on a 5 day trip to Hurricane Island Center for Science and Leadership in June. For some students, this was an opportunity to explore their interests in terrestrial and aquatic ecosystems, aquaculture, and sustainability. For others, it was an opportunity to take in the beauty of summer life on a remote island in Maine and to leave the comforts of home for the first time ever. Whatever their individual reasons for enrolling in this program, all students were able to push themselves outside of their comfort zones, engage in new and challenging physical, academic, and social activities, and leave the island with memories that will last a lifetime.

Arms filled with sleeping bags, pillows, boots, loaded rucksacks (and maybe a last Dunkin Donuts cup or two), these twelve students said goodbye to their families and boarded the Rockland Ferry with some palpable nervous excitement. Students handed over their cell phones in exchange for nature journals that they would use to document and reflect on their island experiences. They were asked right then and there to write about how they were feeling at that moment. There was a mix of excitement and nervousness about being away from home, being among new faces, and unplugging from the world of electronics and social media. One student wrote “I am nervous about leaving my parents for the first time. My goals are to survive, not die. My second goal is to explore the island and see all the cool natural things. My third goal is to have fun and make new friends.”

Looking at our group gathered on the ferry, it was clear that some of these students would not typically share a lunch table or interact outside of school. Students paired off initially with someone familiar and relatable but they were nowhere near a cohesive group.

After we arrived, the first real challenge for some students was lunch. The island chefs prepared a beautiful, nutritious meal that was enticing to some and terrifying to others. By evening, students had established expectations for themselves and others during our stay, explored some parts of the island, and completed an activity that looked at individual comfort and growth zones. *(continued on page 5)*

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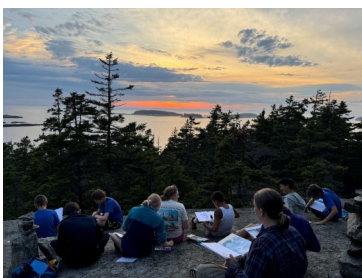
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(Hurricane Island, continued from page 1)



The next day, we were thrilled to have the opportunity to learn rock climbing techniques on the large granite face of the island's main quarry. Our students took turns navigating the cracks and crevices along the routes with care, and encouraging, supporting, and cheering each other on. We all watched with great anticipation as students climbed as high as they could, a few reaching the very top. It was clear that some of our students who had never been rock climbing had just unlocked a serious skill set they never knew they had!

On Wednesday, we were led to the island's ice pond to attempt the Raft Challenge. Students were tasked with creating a raft using two barrels and a few boards and pieces of rope that could transport them across the pond. Groups delved into the challenge with impressive collaboration and good spirits, and quickly discovered that this seemingly simple task was actually quite tricky. There were no complaints as students dumped, tipped, and slid into the murky water with numerous failed attempts. The adults watched quietly while students resurfaced, communicated, problem solved, and persevered. One student reflected that the raft challenge "was enjoyable because of the camaraderie and teamwork of our group." Hurricane Island staff shared that this was one of the most impressive groups they had observed because of how they all worked together with such positive energy.



We got to know the island more intimately each day by exploring its terrestrial and aquatic ecosystems. Our educators led us on focused hikes where we learned about the history of the island and the rise and fall of the granite industry, and how the community's precious drinking water is transported across the height of the island from the quarry to the camp. These excursions helped us appreciate the past, present, and future realities of life and sustainability on Hurricane Island. One of our loveliest shared moments was our sunset hike when students clustered along the granite outcropping and attempted to capture the beauty around us with their watercolors.

In other excursions, students engaged in real life science as students observed plants and animals and collected and recorded data from the land and sea. Students completed surveys of the forest floor, foraged for edible and medicinal plants, and discovered intriguing creatures in the intertidal zone. One afternoon, we piled into a lobster boat and hauled in some traps and then visited the island's aquaculture farm where we learned how tiny baby scallops develop into the full grown ones that we held with two hands (and tried not to drop when they unexpectedly snapped closed!). Watching students lying on the ground intensely counting lichen species or insects, handling and measuring lobsters, or face to face with rows of scallop eyes, it was clear that students were being pushed outside of their comfort zones but loving and leaning into every challenge they faced.



We saw immense growth in our students over the course of the week. Students fell into the daily routines, taking care of their personal needs and group chores independently, coping with the occasional difficult behaviors and attitudes of their peers with grace, and supporting each other in so many ways. For their last journal entry, students were asked to reflect on their time on Hurricane Island by writing a letter to the island. One student penned this beautiful sentiment, "Thanks for all of your rich history. Your quarry days and your now days. I came here expecting you to just be an island. Never would I have thought your cliffs were blasted into what they are now. Thanks for teaching me to climb said mountains, from tying knots to belaying my fellow climbers. And finally thanks

for being an island, from the ice cold dips, to learning fun facts about lobsters, like how they pee out their eyes, and the aquaculture that happens in small 10-story apartments. And we can't forget the spat bags. You truly are the best." *(continued on page 6)*

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Hurricane Island, continued from page 5



Another student who battled homesickness wrote, “I am so thankful that out of all the students at THMS I got picked to go. I am glad I decided to stay and see all of the beautiful things you have to offer. Good-bye, Hurricane!” Another student reflected that she “learned how easy it is to make new friends. I’ve seen these kids every day at school but I’ve never talked to them. On this trip we’ve learned we’ve become pretty good friends. I couldn’t ask to be put into a better group. Some of these people are now my close friends.”

As we prepared to leave, we “fire lined” all of our gear back onto “Sunny”, Hurricane’s trusty lobster boat, for our ride back to Vinalhaven to catch the ferry back to civilization. On the ferry ride back, some students sweetly read aloud childrens’ books found on the ferry before we took turns playing ‘I Spy’ and ‘Finish the Lyric’ while we watched Hurricane Island become smaller and the Rockland Breakwater come closer into view. It was a sweet end to a transformational trip.



Walkin’ and Rollin’ in the Rain

Rain did not dampen the spirit of celebrating nature’s wonders on Saturday, June 22. The Belfast Bay Watershed Coalition opened the Belfast Boat-house doors to invite the public to share the excitement and fun of its programs on conservation and awareness of the natural world. The weather forced the inaugural event inside, changing its plan to provide an Americans with Disabilities accessible journey along a Harbor Walk adorned with informational tables and hands-on activities about Butts Be Gone, Fish Friends, Trail Crew, Plastic Pollution Solutions, Nature Literacy and the Penobscot Bay Stewards program. “The Belfast Bay Watershed Coalition is aware that there are many and diverse voices in our community who are not being heard. Since all of our lives depend on conservation of our environment, we invite everyone to unite in caring for our natural world which is the mother who cares for us,” said Cloe Chunn, one of the many volunteers who organized the event.



Photos by Jeffrey Mabee

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BBWC's Water Quality Monitoring Team Measures the Health of the Bay

by Joy Bowles,
Water Quality Monitoring Team Leader



Caryn Converse records findings.

This summer, the rejuvenated Belfast Bay Watershed Coalition's Water Quality Monitoring (WQM) Team began their second year of water quality sampling. The Team measures six indicators of water quality including water temperature, salinity, turbidity, acidity/alkalinity, oxygen, and conductivity (which measures possible pollution). This year's sampling schedule includes four onshore sites and four offshore sites that are sampled every other week from June until the first week of October (weather permitting). The WQM Team will work with Belfast Area High School students on collating and graphing the raw data gathered during the sampling year.

The Team is drafting a Quality Assurance Protection Plan with guidance from the State of Maine, Department of Environmental Protection (DEP). After approval from the DEP, the Team's data will be added to the state's water quality database for Belfast Bay.

The WQM Team welcomed nine new members. Most are from the 2024 Penobscot Bay Steward's class. The new members received introductory training on general information about the water quality parameters and then experienced hands-on training with the sampling equipment. BBWC is grateful to Team members Bev Baker, Barb Bell, Michael Bove, Joy Bowles, Caryn Converse, Jonathan Ellis, Rick Fitzsimmons, Mickey Green, Steve Guyan, Kip Hillman, Rusty and Kim Ingraham, Skip Luken, Lauren Murray, Rene Oulette, Hubie and Tyrone Townsend, Deb Lindstrom and Tina Baker.



Michael Bove reads with the meter while Rene Oulette lowers the probes .



Bev Baker lowers the probe while Tyrone Townsend reads the meter .



Mickey Green, Kim Ingraham and Caryn Converse document observations of water conditions before sampling.

BBWC appreciates the boat owners who have volunteered to take the WQM Team out for offshore sampling: Hubie and Tyrone Townsend, Drew Laughlin, and Court and Sue Dwyer. As they have sampled the water, the teams have also observed wildlife while out on the Bay and rivers. Recent observations have included seals, a Harbor Porpoise, Pogis, Common Loons and other shorebirds.

If you are interested in learning more and sampling our beautiful Bay, consider joining the Water Quality Monitoring Team and/or offering your boat for offshore sampling events. Please contact Joy Bowles (JoyL.Bowles@gmail.com) to volunteer or for more information. The 2025 sampling year promises to be even more exciting and fun! Come join us!

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BBWC in the Schools: Involving the Next Generation

Making Friends with Nature: A Birds Eye View of BBWC's Natural Literacy Program

Hiding in a thicket, perched atop an alder shrub, Catbird watches the children come and go. Their excited chatter reminds him of his own varied songs. Today they are singing about Robin Red Breast and Nuthatch. They find small twigs and grasses to make their own little nests. "They are getting close to my hiding spot but they are too busy to notice me," thinks Catbird. The children finish their creations and walk back down the trail. "I hope they hear the happy song I sing as they go."

Chickadee shares his observations, "I remember the children playing Turtle Tag in light snow, wearing snow gear head to toe. They sang "The Salamander Song" and laughed when they played "Oh Deer," a tag game where they competed for food, water and shelter.

Pileated Woodpecker had another vantage point. He heard the woman they call Miss Jenni ask students questions about vertebrates and adaptations. He watched children pass around furs, feathers and bones. In early spring, he followed them to vernal pools and streams and witnessed their excitement at finding Salamander larvae and Fairy Shrimp. "I enjoy the children's regular visits," he said. "I hope to see them in Fall before I migrate back down the Eastern Flyway. I heard that they will be learning about plants."



This year, BBWC's Natural Literacy Educator, Jenni Judkins, brought 321 Waldo County elementary students from 5 schools to outdoor settings to teach them about nature. This year's focus was vertebrates. Students played games such as the camouflage game, lamprey tag, trophic tag, metamorphosis rock-paper-scissors, metamorphosis croquet, and snake shedding relay, and they learned content-based song and dance routines. They explored and then journaled about their experiences on field trips to the Little River, Sears Island and the Belfast Rail Trail. Amy Hafford, an elementary school teacher in Searsport, summed it up, "Ms. Jenni's captivating love of nature makes her programming one of the most exciting adventures in our class's weekly learning. Thanks for the valuable contribution to our school community."



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BBWC in the Schools: Involving the Next Generation

Merlin Club Teaches Middle School Students about Nature



Last year, three volunteers - Cloe Chunn, Dianne Torreson and Cheryl Wienges - from the Belfast Bay Watershed Coalition, worked with teacher Kathie Gass at Troy Howard Middle School in Belfast to successfully organize a nature club for 6th and 7th graders. The Merlin club meets during school for one hour during students' advisory period and 2 hours after-school each month.

In each season, students in the club chose the topics they wanted to study. The school's large, forested campus with trails, including a pass-through of the five-mile Little River Community Trail, offered a varied environment for learning.

Activities included journaling, making a shiitake mushroom log, learning to use a microscope, making a terrarium, tracking in snow, finding and identifying fossils, tree identification, making a bird feeder, making star charts, and nature printing. Each student chose a native plant or animal species to research in depth and get to know well. In December, at a "Council of Beings," they wore makeshift costumes and presented their research to the rest of the group. The end of the year culminated with a day trip to Sears Island.



BBWC volunteer Cheryl Wienges leads students into the winter woods.



BBWC volunteer Cloe Chunn (Black Fly) and Merlin student (Rabbit) participate in the Council of Beings.



Merlin students display their terrariums.

BAHS Students Assess Water and Wildlife at Head of Tide

On April 30, two dozen students from the Fish and Wildlife class at Belfast Area High School spent the morning at the Coastal Mountains Land Trust Head of Tide Preserve. The trip was organized by BAHS teacher Dave Thomas and Sara King from Rural Aspirations, aided by volunteers from the Belfast Bay Watershed Coalition. They had two goals: to search for rainbow smelt eggs, and to assess the water quality of the Passagassawakeag River using macroinvertebrates (larval forms of insects) as indicators.

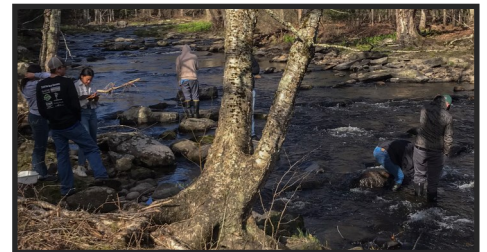
Results were good news for fish and wildlife. They found smelt eggs which indicated that the annual run of spawning rainbow smelt has continued. Their study of stream organisms (macroinvertebrates) indicated excellent water quality. As a bonus, they also found copious baby American eels, recently arrived from the Sargasso Sea, to grow to maturity in the Passagassawakeag and then return to the Sargasso to spawn. Baby eels, also known as glass eels or elvers, are harvested in Maine to licensed fishers, for export to Japan where they are raised for food.



Searching for smelt eggs



Identifying macroinverts



Searching for smelt eggs

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BBWC in the Schools: Involving the Next Generation

Fish Friends Connects Human and Salmon Fry



Mike talks to future Fish Friends at BBWC's Walk and Roll event.

Even before he attended the Penobscot Bay Stewards Program, applicant Mike Lotito got a call to volunteer for BBWC. With his background as a commercial fisherman and past involvement with water and land conservation groups on eastern Long Island, he was a natural to assume leadership of BBWC's Fish Friends project. For many years, under the leadership of Tom King, Fish Friends has involved area students with raising and releasing salmon fry into local rivers and streams. After Tom's passing last year, it was unclear who would take the helm of this important project.

With the assistance of Jon Beal, Cloe Chunn and BBWC's Natural Literacy Educator Jenni Judkins, Mike coordinated distributing 200 Penobscot River salmon eggs obtained from the Green Lake Hatchery in Ellsworth to each of 10 participating area schools. Volunteers brought the eggs to Troy Howard Middle School, BCOPE, Belfast Area High School, Captain Albert Stevens Elementary School, Ames Elementary School, Drinkwater Elementary School, Camden-Rockport Elementary School, Cornerspring Montessori School, Children's House Montessori and the Vinalhaven School. At each school, students learned about the lifecycle of salmon and how to care for the eggs and the incubators that house them. In May, when the temperature of stream and river water matched the temperature of the incubators, the students released the salmon fry they raised into Wescott Stream and the Belfast Bay watershed.

While it is unclear how many of these tiny salmon fry will survive their long journeys to adulthood and the sea, what is clear is that many of the bigger human fry will remember their connection to this important and endangered species. BBWC thanks volunteers Mike, Jon Beal, Bev Baker Cloe Chunn, Kip Hillman, Jeff Shula, and Cheryl Wienges, BBWC's Natural Literacy Educator Jenni Judkins and the many dedicated teachers who make this project possible.

BBWC Celebrates Arbor Day with Students in May

In Maine, Arbor Day is celebrated the third full week in May. On May 20, volunteers from BBWC and St. Margaret's Episcopal Church Creation Care Committee brought fifty-two white pine seedlings to students in Captain Albert Stevens and Cornerspring Montessori elementary schools. They spoke with the children about the importance of trees for a healthy environment and the significance of the white pine as Maine's official state tree and its pine cone as Maine's state flower. They demonstrated how to plant the seedling and how to care for it while it takes root.



Emily talks to Montessori students.



Paul engages Montessori students.



Call students plant trees.

This was a true team effort and a fruitful, collaborative project. Thanks to BBWC volunteers Pat Gladding and Paul Briggs who worked with Emily Estes, Roy McAlpine and Juliet Baker from St. Margaret's Creation Care Committee.

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New Leadership Energizes BBWC's Trail Crew

by
Jeff Shula

Pen Bay Steward, Class of 2023 and Trail Crew Member

It's been an active and productive 2024 for BBWC's Little River Community Trail crew. Under new co-captains Chuck Easley and Dianne Torreson, volunteers have built bog bridges, uprooted and cut back invasives, and cleared blowdowns on the five-mile trail including two large oaks that toppled this summer near the Water District (lower reservoir) trailhead.



"Walking in the woods is fun and restorative for me," says Torreson. But trail crew isn't all fun and games. In fact, Torreson says she took on the job of co-crew chief "because Cloe (Chunn) was working too hard and I wanted to see Skip Pendleton's legacy survive." It was Pendleton and Chunn who years ago helped establish the popular trail that runs from Route 1 to the Hutchinson Center. Torreson reports (tongue-in-cheek) that "business meetings" with Easley have entailed walks and talks on the trail while clearing debris.

Easley sees the job of trail crew chief as "an interesting mix of leadership through monitoring the condition of the trail, project planning and management, communication, safety officer, cheerleader, and worker bee. We try to lead by example." He says the goals of trail crew work are "to practice good conservation and sound environmental stewardship of the trail and the adjacent habitat while keeping the walkers' experience as pristine as possible."

Trail crew also has connected with Belfast Area High School science teacher Dave Thomas and his students' Climate Action Club. BBWC hiked part of the trail with the students in January, and students Cassie, Maeve, Marley, and Tiger Lily painted two kiosks at Walsh Field and the Water District. New and improved trail maps for those kiosks are in the works. Already posted are fresh signs with guidelines and links to online trail guides.

Jack Shaida of Coastal Mountains Land Trust was instrumental in the bog bridge work between Walsh Field and Upper Reservoir/Perkins Road. Shaida ferried the cedar planks by canoe up the reservoir and volunteers carried them the rest of the way to the remote, marshy spot where construction took place. Shaida, who oversees work on 20 CMLT trails, says his organization can be counted on to help in the future.

BBWC thanks the volunteers who have worked on one or more projects this year including co-Captains Dianne Torreson and Chuck Easley, Rusty Ingraham, Dirk Warren, Jeff Shula, Josh Goldstein, Joel Krueger, Cloe Chunn, David Thanhauser, Jonathan Ellis, Amy Kroll, Sarah Garbe, Cathy Kemper, Maeve Arthurs, and Steve Mars. If you would be interested in joining this lively group of foresters, contact Dianne Torreson dktorresen@gmail.com or Chuck Easley trees.cwe@gmail.com.



Annika Reinwand, Coastal Mountains Land Trust Pendleton Stewardship Intern, ferries cedar planks.

Photo by Jack Shaida, Coastal Mountains Land Trust

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Fall Outings

The Belfast Bay Watershed Coalition invites you to join us for our Fall outings. For more information, or in questionable weather, call 338-1147 (Cloe).



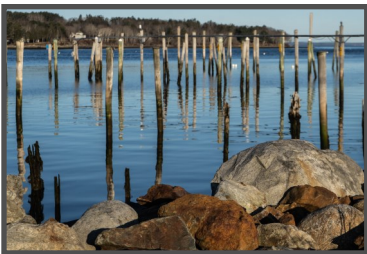
Saturday, September 14. 9:00 -11:00am. Trees and Ferns of the Belfast Rail Trail. Meet at the Center Parking Lot (“Old Upper Bridge” lot) at 9:00 am. This trail is **ADA accessible**. Bring water, snack, protection from ticks and rain; binoculars are helpful.



Saturday, October 5, 10:00am -12:00 noon. Explore The Sucker Brook Trail, a new section of the Coastal Mountains Land Trust Meadow Brook Preserve in Swanville. Meet at 10:00 at the trailhead, 593 Oak Hill Road, Swanville. Bring water, snack, protection from ticks and rain.



Saturday, November 2, 10:00am-12:00 noon. Walk a section of the In-Town Nature Trail in Belfast. Meet at 10:00 at the Belfast Boathouse parking for a 2-hour walk on part of the trail. As an added treat, we will have lunch together at Must Be Nice, the seafood restaurant supplied and owned by lobster fisher, Sadie Samuels. Or skip the walk and meet us there at noon for lunch.



Saturday, November 16, 10:00-12:30. Geology walk on the Belfast Rail Trail. Geologist Chris Mattson will lead us on the Trail, followed by a bag lunch (BYO) and Q&A at the rail trail picnic site. Meet at the City Point Train Station at 10:00 am. We will walk with Chris for a couple of hours, have lunch, and learn more. This trail is **ADA accessible**. Bring water, snack, protection from ticks and rain.

Winter Birding on the Footbridge

Winter is the best time to observe ducks and shore birds from the Belfast footbridge. Many northern species fly south to Belfast where they can find food in open water.

On the second Saturday of each winter month from 8:30 - 10:00am, join Ron Harrell and Gary Gulezian on the footbridge who, for the 12th year, will set up their telescopes and be on hand to identify birds. Dress warm, bring your binoculars, and join us!

November 9, December 14, January 11, February 8

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Fall Programs

This year, the Belfast Bay Watershed Coalition is partnering with Waldo County Climate Action Coalition (WCCAC) and its member organizations to offer educational programs about the Climate Crisis. The Waldo County Climate Action Coalition (WCCAC) formed in November 2023 with the following stated mission: "Collaborate to Reduce Impacts of Climate Change and Build Sustainable Communities in Waldo County. The WCCAC was formed to bring together Waldo County non-profit organizations, church centered groups, and municipal committees to focus on climate change, sustainability, and protection and conservation of natural resources. The intent is to work together through information sharing and jointly managed projects. The Coalition expects to work with and in support of Waldo County municipalities and their citizens to promote community resilience in the face of a changing climate. (To learn more visit: waldoclimateaction.org)

All programs will be held in the Abbott Room of the Belfast Free Library with a ZOOM option.

FINDING HOPE IN OUR CLIMATE CRISIS: A Lecture Series on Climate Change Solutions

Tuesday September 17th, 6:30 PM: Reporting on Resilience and Solutions in Maine's Changing Climate.

The doom and gloom of climate change coverage can distract from the important work that's already being done. Hear from reporters with [The Maine Monitor](#), Maine's only state-wide independent investigative nonprofit news outlet, about how [The Maine Monitor](#) covers the work that Maine communities are doing to prepare for sea level rise and climate change-intensified natural disasters. Editor Kate Cough and reporters Emmett Gartner and Annie Ropeik will share their insights and how they approach environmental journalism.



Kate Cough is the editor of [The Maine Monitor](#). She previously served as enterprise editor for [The Monitor](#) while also covering energy and the environment and writing the weekly [Climate Monitor](#) newsletter. Before joining [The Monitor](#), Kate was a beat reporter for [The Ellsworth American](#) and digital media strategist for [The Ellsworth American](#) and the [Mount Desert Islander](#). Kate graduated with honors from Columbia University Graduate School of Journalism and Magna Cum Laude from Bryn Mawr College. Kate is an eighth generation Mainer, who lives on Mount Desert Island with her husband, daughter, and dogs.



Emmett Gartner is an environmental reporter for [The Maine Monitor](#). Emmett earned his master's degree in journalism from the University of Maryland's Philip Merrill College of Journalism and a bachelor's degree in environmental studies from the University of Vermont. While working as a reporter at the Howard Center for Investigative Journalism, he helped produce two award-winning investigations: "Printing Hate," which documented the historic role of newspapers inciting racial lynchings, and "Mega Billions," which investigated state lottery operations. Most recently, Emmett reported on health and environment for [The Frederick News-Post](#) in Maryland. He previously worked for the U.S. Forest Service in Oregon and interned for the National Oceanic and Atmospheric Administration on the Eastern Shore of Maryland.



Annie Ropeik is an independent climate journalist in Camden. She previously reported for Spectrum News Maine in Portland and spent about a decade as a local public radio reporter in Alaska, Delaware, Indiana and New Hampshire. Her award-winning energy and environment reporting has appeared in Energy News Network and Inside Climate News and on NPR, the CBC and podcasts such as Outside/In and Living on Earth. A Maryland native and Boston University graduate, Annie serves on the board of the Society of Environmental Journalists.

(Fall Programs continued on page 14)

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Tuesday October 1st, 6:00 PM: Water Quality and Climate Action in Waldo County

Join us for a community meeting and panel discussion organized by members of the Waldo County Climate Action Coalition centered around our community's watershed. This event will focus on water stewardship as a critical component of broader climate action efforts. We aim to increase understanding of the local watershed, spark discourse on sustainable ways forward, and to encourage collective action through local initiatives. This is an excellent opportunity for community members to learn about the intersection of water quality and climate action in Waldo County and to participate in a dialogue about practical actions we can take to protect our water resources and amplify our collective impact on climate change.

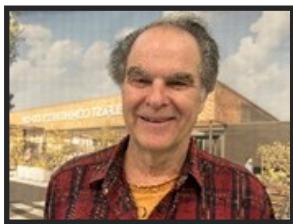
Panelists:



Joy Bowles is the Vice President of the Belfast Bay Watershed Coalition and the Coordinator of BBWC's Watershed Quality Monitoring Team Leader. Joy has worked as a biology college professor, a field biologist and investigator for a Texas environmental regulatory agency and a consultant and Environmental Health and Safety Manager assisting private companies to better understand and comply with environmental and safety regulations. Joy brings her expertise on water monitoring practices to protect and improve the health of the Belfast Bay Watershed.



Jill Howell is the Executive Director of Upstream Watch and Penobscot Bay Waterkeeper, advocating for the health of our local rivers, enforcement of environmental regulations, and public education. Jill joined Upstream Watch as Executive Director in July 2023 with a decade of experience in the environmental sector, and a passion for environmental advocacy and working with communities to protect the water resources they rely on. Jill spent the past four years in eastern North Carolina as Pamlico-Tar Riverkeeper and Advocacy Program Manager at Sound Rivers, an environmental non-profit organization.



John Krueger is a Board Member of Friends of Harriet L. Hartley. John has a long history of environmental health and advocacy, including as Director of the Maine State Health and Environmental Testing Laboratory. He has particular expertise and interest in the nitrogen levels and plastic pollution in the Belfast Bay Watershed. John has two degrees in Chemical Engineering from the Massachusetts Institute of Technology. He served as Division Director of Licensing and Enforcement in the Maine Department of Environmental Protection and Director of Maine's Health and Environmental Testing Laboratory.

Mark your calendars for these upcoming programs. Check the BBWC or WCCAC website for details.

Tuesday October 29th, 6:30 PM: Updates from the Maine Climate Council's Four Year Action Plan with Ivan Fernandez, Distinguished Professor at the University of Maine's Climate Change Institute & School of Forest Resources and co-chair of the Scientific and Technical Subcommittee of the Maine Climate Council.

Tuesday November 15th, 6:30 PM: Center for Ecological Teaching and Learning Presentation with Colleen O'Connell, Vice-president of the The Center for Ecological Teaching and Learning.

All programs will be held in the Abbott Room of the Belfast Free Library with a ZOOM option.

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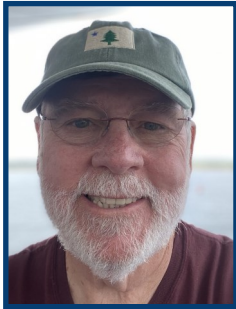
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A Message from Our Board

by Greg Biddinger, President



The year 2024 has been good for our watershed coalition. We had a record-breaking class of twenty-three Penobscot Bay Stewards. Many have already become involved with BBWC programs.

BBWC Vice President, Joy Bowles, and Team Leader of the BBWC Water Quality Monitoring Program, has brought that program back to life after the pandemic and is now taking it to another level. In particular, she is establishing a data quality assurance program that will allow the data that we collect to be used by state regulators for their decision-making (see *BBWC's Water Quality Monitoring Team Measures the Health of the Bay*, page 7).

The Plastic Pollution Solutions (PPS) committee has held a number of community briefings educating audiences about the harmful effects of plastic pollution. They are networking with local businesses to discuss how to minimize the use of single use plastics that are widely used in food service. To support this effort, the PPS team has created and distributed sets of metal cutlery so that people can avoid the use of plastic utensils outside of the home (see *Plastic Pollution Solutions Aims to Reduce Single Use Plastics in Belfast*, page 3).

Our work with area schools continues to educate students and involve them in environmental stewardship. Our natural literacy educator, had another successful year teaching elementary students to appreciate the natural world around them (see *Making Friends with Nature*, page 8). And we were able to raise funds to send 13 Troy Howard middle school students to the Hurricane Island Center for Science and Leadership for a week long adventure that may have changed many of their lives (see *Hurricane Island Excites and Educates Middle School Students*, page 2).

In the last nine months BBWC, the Belfast Free Library and the City of Belfast Climate, Energy, and Utilities Committee have worked together to establish the Waldo County Climate Action Coalition (WCCAC). This new organization is currently made up of 17 local nonprofits who are focused on building community resilience to our changing climate. BBWC is now coordinating educational programs with WCCAC (see *Fall Programs*, pages 13 & 14).

We are looking forward to another great year in 2025. In addition to hosting another class of Penobscot Bay Stewards, working with local schools and monitoring the health of the Bay, we look forward to redesigning our website, refining our communications strategy, developing a strategic plan, and increasing our collaboration with other local organizations. As always, if you are interested in participating in any of BBWC's programs or initiatives, please contact us.

BBWC Committees & Contact Information:

Community Engagement Committee - Don Trites - dgtrites@tidewater.net

Fish Friends - Mike Lotito - mikejlot@aol.com

Trail Crew - Dianne Torresen - dktorresen@gmail.com, Chuck Easley trees.cwe@gmail.com

Plastic Pollution Solutions - Kris Shula - shulafamily@gmail.com, Jacquie Gage jacquie.gage@gmail.com

Natural Literacy programs, Merlin Club - Cloe Chunn - cloechunn@gmail.com

Butts Be Gone - Kate Hanson - katehanson207@gmail.com

Communications - Ann Kennedy - annkinmaine@gmail.com

Water Quality Monitoring - Joy Bowles - joy.bowles@gmail.com

Earth Day/Arbor Day - Greg Biddinger - gbiddi@gmail.com

Penobscot Bay Stewards Alumni - Pat Gladding - patricia.gladding@gmail.com

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Volunteer Opportunities Available

The Belfast Bay Watershed Coalition is looking for committed individuals who are interested in the health of the Belfast Bay watershed and have time and energy to share. Work with a great group of people, have fun, and make a positive impact on our environment. At this time, we are looking for:

Water Quality Volunteers: Help monitor the quality of water in Belfast Bay. Learn how to take and assess samples of bay water and how to interpret results.

Trail Crew for Little River Trail: Trail Crews maintain the Little River Community Trail in Belfast and the Davis Bog Trail in Morrill. Crew members are called upon when trail work is needed. This work is fun, friendly, and very important to our community.

Natural Literacy Volunteers: Help train the next generation of eco-warriors in one of our many school and community based programs.

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Lisa Pohlmann

Jeff Shula

Printed on the highest percentage recycled paper available



New Members Invited!

Jump on board and help expand and strengthen our work in the community and watershed.

Visit our website or email us at info@belfastbaywatershed.org.

Mission: *The Belfast Bay Watershed Coalition works to support conservation and stewardship of natural, scenic and public access resources of the Belfast Bay watershed through research, community building and education.*

Subscribe on-line to this newsletter and receive monthly reminders of our activities.

Subscribe at www.belfastbaywatershed.org or send an email to info@belfastbaywatershed.org.

Please visit our website calendar for updates on outings and programs.

BBWC wishes to thank all our individual members, community partners and supporting businesses including the Belfast Free Library, Belfast Veterinary Hospital, Coastal Mountains Land Trust, First National Bank, Front Street Pub, Front Street Shipyard, Fruits of Our Labor, The Grasshopper Shop, GO Logic, The Green Store, and the Little River Veterinary Hospital. Many thanks to our granting organizations: Leonard C. and Mildred F. Ferguson Foundation, Maine Community Foundation, New England Grassroots Environmental Fund and the Schwartz Family Foundation.

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