



Belfast Bay
Watershed
Coalition

WATERSHED NEWS

Our Environment Needs You!

The Penobscot Bay Stewards Program is Now Accepting Applications



If you care about our beautiful environment, want to learn more about it, and have some time and energy to spare, the Penobscot Bay Stewards program is for you. Meeting twice a week for 6 weeks, the program brings volunteers to areas in the Penobscot Bay watershed to learn about our ecosystem and the environmental, cultural and economic factors that affect it. In 2022, stewards:

- ♦ visited an oyster farm and other aquaculture sites,
- ♦ explored the research center at Hurricane Island,
- ♦ learned, first hand and on-site, about river herring ecology,
- ♦ and heard from other professionals about Wabanaki culture, soil science, water quality, forestry, and much more.

One steward wrote *I learned about the environmental issues putting pressure on our local ecosystems.* Said another steward *the program went far beyond my expectations. I was amazed at the people. . who are out there working to save Maine's land and waters.* And as another steward added *. . it was the people I met along the way that made the experience invaluable.*

This program is freely offered by the Belfast Bay Watershed Coalition although membership or donations are welcomed. If you would like to be part of this enjoyable and inspiring program, please visit <http://belfastbaywatershed.org/pen-bay-stewards.php> to find an application for Spring, 2023.

www.belfastbaywatershed.org

Belfast Bay Watershed Coalition, PO Box 152, Belfast, Maine 04915

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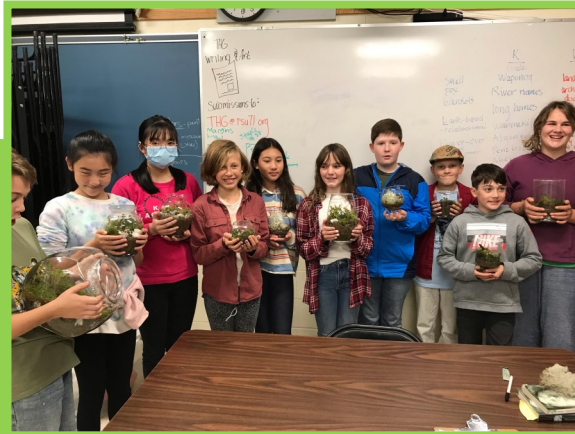
BBWC Works with Area Schools

The Early Learning Program at Troy Howard Middle School

Each week, students at Troy Howard Middle School in Belfast get the opportunity to choose an Extended Learning Program (ELP) activity for the fun of learning about something that interests them. BBWC volunteers worked with Troy Howard teachers on three activities:



- Drawing what we find in nature with Ms. Young's group



- Exploring mosses and building terrariums with Ms. Moss' group

I do agree that moss and lichen are our friends. I think this because, well, they are just so interesting and I want to know so much about them. They feel alive, which they are, but in a different way. I'm always so fascinated about them. - Student

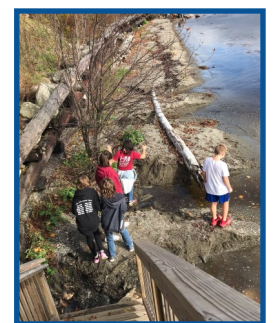


- Exploring stream invertebrates in Wescot Stream with Mr. Blood and Ms. Koskela's group

Searsport Middle School Explores Mosman Park

The Belfast Bay Watershed Coalition Natural Literacy program met with 26 sixth graders from Searsport District Elementary for the beginning of their study of water, tides, winds, waves, and landforms. The especially high tide on October 27 illustrated one endpoint of the tidal range there. The students engaged in learning activities about the global water supply, the water cycle, and the drivers of tidal changes.

BBWC in the Schools, continued on page 3



Students explore the narrow beach at high tide.

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Assisting Professional Development for RSU 71

October 21 was a Professional Development day for RSU 71, the school district for Waldo County. Four seventh grade science teachers from Troy Howard Middle School met with BBWC Board member Cloe Chunn at Moose Point State Park. They studied how the bedrock laid down 400 million years ago created the rectangular shaped shoreline and tidal pools in the intertidal zones.



Ecology Learning Center Hits the Hills to Sea Trail



On September 5, two BBWC volunteers, Board member Cloe Chunn and 2022 Pen Bay Steward Katie McDonald, guided 23 students from the Ecology Learning Center with their teachers on the Hills to Sea Trail in Unity. It was the perfect way to start the school year with students getting to know one another and their teachers and meeting some nature friends along the way.

The Ecology Learning Center is a charter school in Unity which offers all subjects with a focus on ecology. On the perfect early fall day, students hiked 6 miles, saw some huge old trees, waded across Sandy Stream, ate sun butter and jelly sandwiches, and visited the Northern Solstice Alpaca Farm, located along the trail, that ended at the offices of Maine Organic Farmer's and Grower's Association (MOFGA).

The Hills to Sea Trail runs 47 miles from Unity to Belfast. The trail was constructed by volunteers from the Belfast Bay Watershed Coalition and other local organizations.

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Belfast Area High School Students Start a Kelp Farm

by

Laney Sheafe, Senior, Marine Studies Student and
David Thomas, Science Teacher, BBWC Board Member

This fall, Belfast Area High School (BAHS) Marine Studies students, teachers, administrators, and local lobsterman David Black designed, assembled, and deployed a kelp farm off the shore of Belfast City Park. The farm consists of three 400-foot lines with another shorter line located near the Belfast Town Dock for the public to view a working kelp line. Started by students this year in classrooms, the kelp nursery will eventually be housed in a new outdoor lab that is made from 100% recycled PET plastic by OpBox Ltd, a company based in Nobleboro, ME. The kelp nursery will give students the opportunity to grow reproductive kelp tissue on twine that is later “planted” on lines in the ocean.



Senior Laney Sheafe and Teacher Chip Lagerborn mounting grow lights



Center: Teacher Dave Thomas harvesting kelp at Beauchamp Point



Right: Teacher Genna Black threading the kelp spools into lines

Students were involved in every step of the kelp farming process from scuba diving for kelp off Beauchamp Point in Rockport to deploying the kelp lines off of Belfast City Park. On November 13, the farm was started with kelp tissue purchased from Sarah Redmond, founder of Springtide Seaweed in Gouldsboro, ME. Three lines of red and white buoys will hold the growing kelp throughout the winter with harvest taking place next spring. The State permit doesn't allow the kelp to be eaten this year, but the kelp may be used as a fertilizer for gardens. Growing kelp also offers significant ecosystem services including carbon storage, offsetting ocean acidification, filtering pollutants, and providing habitat for other species.



Students learn to tie and set up kelp lines, led by David Black on right

The kelp farm is part of the Belfast Area High School Marine Institute (<https://bahsmarineinstitute.rsu71.org/home>), an initiative meant to engage students in relevant community-based projects that build career competency. If you have interest in sharing your marine-related or other expertise and support with students at Belfast Area High School, please reach out to the school.



The crew—Captain David Black, Genevieve Black, David Thomas, Judson Thomas and Jessica Woods—setting out kelp line on Belfast Bay.

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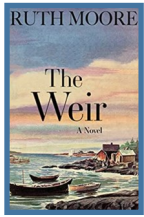
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Read with Us Through the Winter:

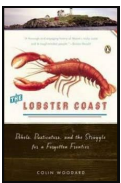
Here at Belfast Bay Watershed Coalition (BBWC), we think that winter is a great time to read! It's also a great time to talk about what we've read. So, we've decided to form a book group! We've chosen three books with elements of fiction, memoir, history, politics, class, ecology, economy. . . something for everyone. But these books are more than just entertainment. Each book and following discussion will prompt us to reflect on what it means to be a good steward of our watershed. How do history, economics, and culture affect the choices that humans make about the natural world?

January 19, 2023 *The Weir* by Ruth Moore. Discussion facilitated by Jennifer Craig



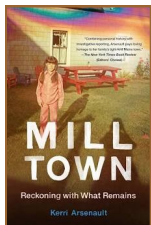
Moore is an important American realist writer who was born and raised on Gott's Island. After a number of years working away, she returned to live in Bass Harbor with her partner, Eleanor Mayo. From a fishing family, Moore was a fierce advocate for the natural world. In *The Weir*, she writes about the collapse of the Maine fisheries and the effect on a small island community. *The Weir* is a gripping tale of human cruelty and greed, but Moore balances that darkness with several comic characters and her stubborn hope for positive community values.

February 16, 2023 *The Lobster Coast: Rebels, Rusticators, and the Struggle for a Forgotten Frontier* by Colin Woodard. Discussion facilitated by Kathleen Reilly



The author describes this book as *a little understood saga of war and betrayal, of clashing empires and ethnic cleansing, of an intra-English civil war and a 170 year colonial occupation of the province that we now know as Maine. These events explain some of Mainer's most impressive virtues and most frustrating faults, as well as the still fraught relationship between this land's real natives and the rest of us whose families came "from away" at some point in the past four hundred years.*

March 23, 2023 *Mill Town: Reckoning with What Remains* by Kerri Arsenault. Discussion facilitated by Kate Hanson



Mill Town is a book of narrative nonfiction, investigative memoir, and cultural criticism that illuminates the rise and collapse of the working-class, the hazards of loving and leaving home, and the ambiguous nature of toxics and disease. Kerri Arsenault grew up in Mexico, Maine, where for over 100 years the community orbited around a paper mill that provided jobs for nearly everyone in town, including three generations of her family. This book has won several awards, most notably the 2021 Rachel Carson Environmental Book Award.

Belfast Free Library will help you borrow copies of these books. In addition, Left Bank Books has offered a generous 15% discount to readers in the BBWC Book Group. The bookstore will have a few copies in stock, but plan ahead! And if you special order one of these titles, please mention that you are reading with the BBWC Book Group, and you'll receive the discount. We appreciate the support of the library and of Left Bank Books.

The discussion groups will be at the Belfast Free Library from 6:30 – 8:00 p.m. In case of severe weather, please check the BBWC Facebook page for cancellations.

We look forward to reading with you!

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Land Conservation Effort Launched in Waldo County



With the heartfelt slogan, *Protect the Place You Love*, Coastal Mountain Land Trust (CMLT) has launched an effort to conserve land in 12 Waldo County towns for wildlife protection, recreation, outdoor learning, and climate damage mitigation. On November 2 at the Belfast Boathouse, Ian Stewart, Executive Director at Coastal Mountain Land Trust, spoke about the intention of the Waldo County Conservation Initiative to raise \$250,000 by April 2023. These donations will match the \$450,000 already raised through grants, land donations, and private gifts, and will support projects on 495 acres of Waldo County land.

Faced with fast-rising real estate prices, many of Waldo County's acres are vulnerable to private and commercial development. While nearly 20% of land across Maine has been conserved, less than 10% of the land in Waldo County is protected. Working in twelve towns, the Waldo County Conservation Initiative proposes to conserve two kinds of properties: first, diverse ecosystems that protect wildlife habitat and contribute to climate damage mitigation, and second, special properties valued by the community. These smaller tracts will conserve hiking trails, access to rivers and lakes, and spaces for outdoor learning.

There are several ways to support the Waldo County Conservation Initiative. You can make a financial gift, volunteer to spread the word, talk with the CMLT about gifts of land, and/or arrange a conservation easement on land that you own. Members of the community who are interested may contact Tempe Landi, Development and Communication Director, at tempe@coastalmountains.org or by phone at 207-236-7091. For more information about Coastal Mountain Land Trust and a map of their 55 miles of trails, please visit www.coastalmountains.org.

Mark your Calendar: Spring Programs Worth the Wait!

Thursday March 16th 2023 - *Fish, Falcons, and Frogs- Dramatic Migrations* - Murray Carpenter

We all take for granted the return of our favorite creatures as the weather warms in the Spring. However, most of us don't think about what it took for these animals to again become part of our environment and our lives. Murray Carpenter is Maine Public's climate reporter, covering climate change and other environmental news. Murray will take us along with them on their incredible journeys. He has been a Maine journalist for 25 years with much of his reporting focused on science and environmental stories. His experience includes working as a reporter and editor for the Republican Journal, a staff writer for Maine Times, and an earlier stint as a general assignment reporter for Maine Public. As a freelancer, he has reported for the New York Times, The Washington Post, and NPR. His book *Caffeinated, How Our Daily Habit Helps, Hurts and Hooks Us* was published by Penguin in 2014. Carpenter lives in Belfast and spends as much time as possible outdoors, preferably with his wife and two adult daughters.

Thursday, April 20th 2023 - *Outdoor Fun in Waldo County: What to do and where to go* - Cloe Chunn

Cloe will highlight adventures on foot, two wheels, and on water in the many and varied regions of Waldo County, suggesting low budget trips that have a low carbon impact. Cloe Chunn, former high school and college teacher, is a naturalist, outdoor writer, and Registered Maine Guide. She is a cofounder of the Maine Master Naturalist Program, the Penobscot River Paddling Trail, and an early board member of BBWC. Her book, *Fifty Hikes in the Maine Mountains* (W.W. Norton), has been a standard hiking guide for over 30 years.

Programs will be held in the Abbot Room of the Belfast Free Library at 6:30.

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Winter Outings

Saturday, January 14, 10am - Cross-country Ski and Snowshoe Party

Join the Belfast Bay Watershed Coalition's outdoor adventures on Saturday, January 14, at the farm of Cloe Chunn and David Thanhauser, 210 Oak Hill Road, Swanville. Come at 10:00, ski and snowshoe until noon, and roast a hotdog (or a not-dog) on a campfire for lunch. Side dishes welcome. Bring your own drink and chair.

Saturday, Feb. 4, 10:00am - 12:00 - Tracking Wildlife at Head-of-Tide Preserve

Join Ron Joseph, retired US Fish and Wildlife biologist and native of Maine, for a walk to search for and understand the signs and communications left by mammals and other fauna in winter. With 40 years of experience tracking and studying Maine's wildlife, Ron's fun approach to teaching tracks and sign leaves everyone with greater knowledge and understanding after an enjoyable outing.

Meet at Head-of-Tide Preserve on the Doak Road in Belfast shortly before 10:00 am. The Coastal Mountains Land Trust preserve of nearly 100 acres has different habitats for different species and should show us some interesting evidence of winter wildlife.

Saturday, March 11, 10:00am - 12:00 Tree Identification Walk on the Belfast Rail Trail

The Belfast Bay Watershed Coalition invites people of all ages to learn how to know your trees by clues other than their summer leaves. Meet at 10:00 am at the parking lot in the center of the Belfast Rail Trail ("Upper Bridge" lot) on outer High Street. It is half a mile out from the Rt. 1 overpass. Wear warm layers; binoculars are helpful. This is a slow walk of about 2 hours.

Saturday, April 8, 10:00am - 12:00 - Moss and Lichen walk at Stephenson Preserve, Belfast

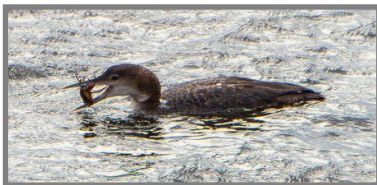
Join moss lover Cloe Chunn and make friends with mosses and lichens you can greet on a first name basis. These loyal friends stay visible and growing all winter, giving the forest floor its emerald carpet. This is a slow walk. Meet at 10:00 am at the center parking lot of the Belfast Rail Trail on outer High Street. A hand lens is helpful.

For more information about these outings, call 338-1147. Check the BBWC website for updates.

Belfast Harbor Winter Bird Watch Resumes

Winter is the best season for seeing birds in Belfast Harbor. We get several arctic species coming down "south" here for better eating. Many of our resident birds are also here.

The Belfast Bay Watershed Coalition invites you to drop in at the Belfast Footbridge where Ron Harrell and Gary Gulezian lead a monthly bird watch. From November through March, on the second Saturday of each month, Gary and Ron will be at the footbridge at 8:30 am with their telescopes to show people whatever birds are in the harbor area and answer questions about them. The birdwatch lasts until 10:00, depending on the amount of bird activity present. Bring personal binoculars and dress appropriately for the weather.



Join us:
January 14
February 11
March 11



Save the dates: Cathy Morgan Bird Week is May 13-20. Details will be posted in the next BBWC newsletter and on the BBWC website.

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**Belfast Bay
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Make a Difference! Join BBWC or renew your membership today

Make your check payable to: BBWC. Mail to BBWC, P.O. Box 152, Belfast, ME 04915

Or, to pay by credit card, go to our website:
<http://belfastbaywatershed.org/SupportUs.ph>

Suggested Membership Levels:

- \$25 Spotted Salamander
- \$50 Wood Frog
- \$100 Alewife
- \$250 Atlantic Salmon
- \$500 Sturgeon
- Other Amount \$ _____

Name(s): _____

Address: _____

Town: _____ Zip _____

Phone: _____

Email: _____

Would you like to volunteer to work with BBWC? Please let us know what would interest you.

- Developing Programs
- Developing and Leading Outings
- Pen Bay Stewards Program
- Educating the Public/Working with Schools
- Working on Trails
- Research
- Other: _____

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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 and Front Street Pub and Front Street Shipyard. Many thanks to our granting organizations: Leonard C. and Mildred F. Ferguson Foundation, Maine Community Foundation, New England Grassroots Environmental Fund, Onion Foundation.

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