

Orono Bog Boardwalk Annual Report 2022

The Orono Bog Boardwalk opened on May 1st after 15 days of work getting it ready. High water problems made the process a challenge. We had to replace two sections near the beginning of the Boardwalk because of broken welds. Luckily Great Northern Docks workers Paul Hargreaves and Richard Hodson came up and replaced the sections. Great Northern Docks did not charge us for the two sections and replacement labor. They, as well as Boardwalk volunteers, also put in two floats and two big footers to stabilize the sections. Thanks to volunteers Dave Easler, Jerry Longcore, Dick McClay, Christopher D'Amico, Laura Whitney, and Jim Bird as well as the Great Northern Docks workers. As we continued to get ready to open, we accomplished much: removed interpretive stations covers and cleaned signs, took kiosk covers off and cleaned kiosks, put up signs around cabin, put up thermometer, money box, and brochure box, installed water level pipe and explanatory sign at interpretive station 6, put up "no picking" and "stay on Boardwalk" signs around the Boardwalk, inventoried t-shirts and hats, installed two external brackets, and tightened screws on pipes along the first 25 sections. In addition to the volunteers mentioned above, thanks also to Al Larson, Chris Jones, and Donna Dwyer. John Fitzgerald installed our "people counter" just after interpretive station 1. Jerry Longcore and Jim Bird brought all the sale items and the docent box to the cabin. Jerry and Dave walked the entire Boardwalk and made a list of things that needed to be repaired. Because of the ongoing covid pandemic we posted a sign on the Boardwalk kiosk asking visitors to "Please wear a mask when 6-foot distancing can not be maintained around individuals outside of your household. We re-installed one hand sanitizing station at the cabin area. Because it was a soft opening, we did not have an honorary opener as in past years.

In 2022 we did have guided tours; however no natural history walks were scheduled. Our guest register was available for signing. We kept the cover on the stereoscope in front of the cabin for health reasons.

As Director, I thank the many individuals who have volunteered their time and talents this past year, especially the Group Leaders, the Management Committee, and our Facebook and website coordinators: Al and Nancy Larsen, docent scheduling; Dave Easler maintenance coordinator; Helen Koch, tour guide scheduler; Donna Dwyer, Facebook coordinator; Jerry Longcore, Orono Land Trust representative to the Management Team, Endowment Fund coordinator and record keeper of the Operating Fund; Erik Blomberg, University of Maine representative to the Management Committee and Orono Bog Boardwalk (OBB) webmaster; and Tracy Willette, City of Bangor representative to the Management Committee. I also thank all of the docents and maintenance volunteers who have contributed greatly to the operation and mission of the OBB. A list of all volunteers is in **Appendix 1**. We again calculated the number of hours volunteers worked at or for the Boardwalk this year and the total equaled a minimum of 2080 hours. Based on the figure of \$26.77 / hour as a benchmark value for a general volunteer hour in Maine (as reported by Independent Sector ([1](http://independen-</p></div><div data-bbox=)

dentsector.org/), we will be able to report a minimum \$55,682 of in-kind support when completing grant proposals.

Our year at the OBB was successful in many ways, as described in the sections that follow.

Docents

Docents open and close the OBB gate daily; greet visitors; inform users of rules; maintain the appearance of the cabin and OBB; answer visitors' questions about bog natural history; report any problems to the Director and/or maintenance coordinator; sell OBB t-shirts, hats, and other items; provide local area information and insight; and generally monitor the day-to-day operation of the OBB. Without these volunteers, a visit to the OBB would be a much less satisfying experience. We trained four new docents this year: Becky Van Beneden, Kreg Ettinger, Sydney Pine, and Kathy Crawford. In 2022 we did not hire student interns. We hope to have at least one student intern for 2023.

A list of OBB docents is provided in **Appendix 1**.

Maintenance: Dave Easler

Starting 15 days before opening, maintenance volunteers worked to get the Boardwalk ready for our May 1st opening. See above for information on opening preparations.

The water pipe at interpretive station 6 had to be recalibrated. Ron Davis and Dave Easler accomplished this task by making a "paddle" to fit over the outer pipe and then raised the outer pipe using two clamps. The paddle was buried about 5" deep. This seemed to work, making sure that the pipe accurately reflected the water depth.

Throughout the Boardwalk season, Dave Easler continued to number sections. He also repainted the directional arrow at the split (105-106), installed a new thermometer on the kiosk and trimmed some branches that were obscuring the Exit and Orono Land Trust signs at the split. Volunteers were also active in trimming vegetation and overhanging tree branches. Jim was contacted by Brittney Tomasello, Market Specialist at the Bangor Savings Bank to see if there were volunteer opportunities at the Boardwalk. Two volunteers (April and Kacie) from the Bangor Saving Bank Hamlin Way Campus Committee spent 2 hours on June 22 trimming vegetation away from the Boardwalk.

In June, we noticed frass (insect debris) on the floor of the cabin. Dave Easler inspected the cabin, concentrating on the rafters and door framing and discovered a carpenter ant problem. Jim Bird contacted Jim Dill, pest specialist at UM Cooperative Extension. He suggested contacting Tracy Willette to see if the City of Bangor could send someone out to the cabin and take care of the carpenter ants. Tracy made arrangements with a pest specialist that the City uses. He came out and sprayed the cabin interior. He used the chemical Bifenthrin. Jerry Longcore did some research on this chemical and found out that it is a commercial mimic of

a plant-based compound that, although toxic to fish, bees, and aquatic invertebrates, the confined type of use (i.e. indoors and within the wood) makes it acceptable for the cabin/ant issue we have. A copy of information on Bifenthrin is in the docent handbook. Thanks Tracy and Jerry. The ant issue is resolved. And thanks to Dave and Boardwalk volunteers Kreg Ettinger for getting all the paper products into secure totes prior to spraying.

From August through November the area experienced high water along the first 35 sections of the Boardwalk. As in 2021 it was a constant challenge to keep the Boardwalk stable.

The pie-shaped wedge at section 81/82 was loose. Jerry Longcore and his brother came out and used an inventive way to fix using bolts and lock washers on two of the hinges. By the end of the season it was still holding up.

The pie-shaped wedge at sections 55/56 was also loose. Dave drove some shims there and it seemed to fix the problem.

On October 5th, Dave Easler removed the rotting wafer board at the beginning of the Boardwalk and put down a layer of pea gravel.

On October 26, there was a maintenance work session. The water level was still high. The following was accomplished by Dave Easler, Jerry Longcore, Steve McKay, Kreg Ettinger, and Jim Bird: a couple of big feet were installed for stabilization and a few sections were adjusted to reduce peaks and valleys.

We ordered a few big footers and external brackets in anticipation of needing them during the 2023 season.

A number of external brackets were installed by the maintenance crew led by Dave Easler.

All through the year we had problems keeping the set screws tight on the pipes we had installed along the first 35 sections. The result was that often the Boardwalk sections were a little unstable. We also had to re-stack the composite shims on one section.

Ron Davis removed the remaining fragments of the Orono/Bangor town line sign at section 106. Ron gave detailed instructions on replacing it which will be done in 2023.

There was a 4" drop from the handicapped outhouse entrance to the ground. Tracy Willette's crew put some gravel down to temporarily fix but what we need is some hot top to level it.

After opening for the season, volunteer Christopher D'Amico took the 7 interpretive station covers and applied a couple of coats of marine white varnish. He returned them in October. Thanks Christopher!

We closed the Boardwalk for the season on November 27. Over the next couple days much was accomplished by 10 dedicated volunteers: Cleaned up around cabin; cleaned interpretive stations and cover; removed, thermometer, brochure holder, donation box, and green chains; cleaned kiosk signs and cover; removed water pipe and signage at interpretive station 6; removed signs at cabin area; removed signs at parking lot; removed “no picking” and “stay on Boardwalk” signs from bog; removed hand sanitizer from the kiosk; put trash and bottle bins in cabin; and removed all sale items from cabin to Directors house. Thank you Jerry Longcore, Al Larson, Gerry and Donna Dwyer, Steve McKay, Dick McClay, Helen Koch, Chris Jones, Christopher D’Amico, and Jim Bird:

The Boardwalk Management committee plans to dedicate one of the two kiosks at the cabin in honor of Phil Locke, our longtime maintenance coordinator, who stepped down from that role in 2021.

Financial: (Jerry Longcore) See Appendix 2

Boardwalk Tours: (Helen Koch) See also Appendix 3

In 2022, we had many cancellations because of weather. Before the start of the tour season, Ron Davis gave a tour guide refresher course for several returning and new guides. The tours that actually happened were led by (alphabetical order): Grace Bartlett, Kathy Crawford, Ron Davis, Donna Dwyer, Maddie Eberly, Helen Koch, Al Larson, Jerry Longcore, Kate Ruskin, and Donne Sinderson. Seanna Annis and John Pickering had volunteered to guide tours but their tours were cancelled due to weather: Chris Campbell and Kristina Weaver have expressed interest in guiding but did not guide in 2022.

Boardwalk counter: (John Fitzgerald) See also Appendix 4

By the day of our 20th anniversary celebration of the opening of the Boardwalk, August 13, we had surpassed 20,000 visitors for the season.

1) 37,435 visitors for the year.

(2) Biggest month of the year was October (7,151) which edged out May (6,629).

(3) Six of the top ten busiest days of the year were in October.

(4) All of the top twelve busiest days were Saturdays or Sundays.

(5) Sunday May 8 (Mothers Day and UM graduation weekend) was the busiest day of the entire year with 574 visitors.

Research at the Boardwalk - Visiting Researchers

Duke University researcher and herbarium collection manager Blanka Agüero and assistant postdoc Marta Nieto Lúgilde are doing research on peat systematics. They received a research permit from Keith Kanoti (UM Forest Manager) to collect small samples of each species of peat from the Orono Bog using the Boardwalk as a platform. They came to the Boardwalk in June where Jim Bird met them and asked them to use step boards when collecting off the Boardwalk.

UM Undergraduate Hanna Jordan received a research permit from UM forest manager Keith Kanoti to collect soil samples to isolate a phage from bacteria in soil. (August)

Boardwalk donors:

For the past several years we have sent out a one-page OBB update to 300-400 donors. This year we sent out 360 letters that focussed on the work we did in the 2022 season. The letter was illustrated with 5 wonderful photographs by Dave Easler, Donna Dwyer, Sharon Fitzgerald, Mary Bird and Visitor Molly. University of Maine Foundation's Holly Hatch ran off the color copies. Thank you all! The letter resulted in many donations. Hand written "thank you" letters were written to all.

Other:

Ron Davis has authored a wonderful report entitled: "Creating the Orono Bog Boardwalk: A Facility for Education, Research, and Recreation." It was published as Misc Pub 765 from the Maine Agricultural & Forest Experiment Station and is available at: https://digitalcommons.library.umaine.edu/aes_miscpubs/26/

On August 13, Orono Bog Boardwalk volunteers held a celebration marking the 20th anniversary of the opening of the Boardwalk as well as the publication of our book "The Bog Walker's Companion : A Guide to the Orono Bog Boardwalk." More than 30 people gathered near the entrance of the Boardwalk to listen to brief presentations by Ron Davis (Boardwalk founder and first Director), Jerry Longcore (Orono Land Trust representative to the Boardwalk management committee), and Jim Bird (current Boardwalk Director) as they spoke about the past 20 years of the Boardwalk. Volunteers brought drinks and snacks to share. A good time was had by all!

On September 28, Jim Bird was a guest speaker for Professor John Daigle's Recreation Site Planning and Management SFR 434 class in Nutting Hall. There were 20 undergraduates in attendance. After the talk Joh Daigle took the class to the Boardwalk for a visit.

Guest Register

Our Boardwalk guest register was back after a 2 year hiatus because of Covid. Visitors from 45 states and 9 foreign countries including Nepal and Norfolk Island, S. Pacific signed in. Many visitors wrote comments about the Boardwalk and their visit. Here are a few of them:

“Thank you for all you do to keep our environment healthy and accessible and to educate the community about bog ecosystems.” Maine Governor Janet Mills

“Hooray for tiny sundews and a kind volunteer.” Visitor from Oregon

“The bog is beautiful! I hope it’s here forever.” Visitor from Ontario

“Visiting on our honeymoon! Great little walk! Visitor from Wyoming

“We loved learning about the short but old trees!” Visitor from Maine

“Great! In fact wonderful!” Visitor from Quebec

“I’ve wondered what peat is like for years...now I know!” Visitor from Vermont

“One of my favorite spots when I visit in Maine.” Visitor from Nova Scotia

“Very educational! Very nicely done!” Visitor from Washington state

“We love it here!!” Visitor from North Carolina

“I love moss.” Visitor from New Jersey

“First time here. We all enjoyed it.” Visitor from Pennsylvania

“It was so much fun! Thank you!” Visitor from Maine

“Great space for helping one to live longer.” Visitor from Maryland

“We saw a black bear!” Visitor from North Carolina

Kiosk Poster

Jim Bird updated the kiosk poster listing Boardwalk volunteers and endowment contributors. Boardwalk volunteer Mark Anderson updated the digital version of the poster and Jim Bird had it printed in Nutting Hall with the help of Louie Morin. Thank you Mark!

EAB Trap

For the past several years, the U.S. Department of Agriculture, Animal and Plant Health Inspection Service (APHIS) has put up an Emerald Ash Borer “purple” trap at section 10. The trap goes up in the first 2 weeks of June and is taken down in September. This trap is a great education tool as all of our tour guides talk about it to Boardwalk visitors. Based on research, EABs are attracted to the color purple. So far no EABs have been found at the OBB. This year APHIS did not put up the EAB trap. We hope to have it up in 2023.

Wildlife Observations

Boardwalk visitors observed a number of porcupines this year: On May 24 an adult near entrance; on June 6 an adult with one young near outhouse; and on July 15 an adult walking along the Boardwalk from interpretive station 1 to entrance.

In June, a Boardwalk visitor (known as Visitor Molly) took a photograph of a Black Bear walking on the Boardwalk. Donna Dwyer (Facebook coordinator) received permission to

post the photo on our Facebook page. The result (as of June 2022) was more than 30,000 people reached, 750+ reactions, 99 comments, and 189 shares!

In June, Boardwalk volunteer Mary Bird took a photograph of a young snowshoe hare in the grass near the outhouse. It was posted on our Facebook page and received many likes.

On October 6, Dave Easler observed and photographed a red-backed salamander under a shim next to the cabin.

Birds observed and identified (sometimes with the aid of Cornell University's Merlin app) from April 15-October 16 from the Tripp Drive parking lot to around the Boardwalk: Great Blue Heron, Semipalmated Plover, Green-winged Teal, Ruby Crowned Kinglet, Golden Crowned Kinglet, American Goldfinch, White Throated Sparrow, Chipping Sparrow, Song Sparrow, Lincoln's Sparrow, American Crow, Common Raven, Brown Creeper, House Wren, Blue Jay, Northern Mockingbird, Brown Thrasher, Northern Cardinal, American Robin, Indigo Bunting, Rose-Breasted Grosbeak, Red-Winged Blackbird, Cedar Waxwing, Scarlet Tanager, Red-breasted Nuthatch, White-breasted Nuthatch, Black-clapped Chickadee, Tufted Titmouse, Mourning Dove, Pine Siskin, Eastern Towhee, Eastern Phoebe, Eastern Wood Pewee, Dark-eyed Junco, Veery, Wood Thrush, Hermit Thrush, Downy Woodpecker, Hairy Woodpecker, Pileated Woodpecker, Yellow-bellied Sapsucker, Northern Flicker, Blue-gray Gnatcatcher, Gray Catbird, Black-and-White Warbler, Palm Warbler, Bay-breasted Warbler, Yellow Warbler, Pine Warbler, Yellow-rumped Warbler, Chestnut-sided Warbler, Nashville Warbler, Canada Warbler, Blackpoll Warbler, Northern Waterthrush, Blackburnian Warbler, Ovenbird, Northern Parula, Magnolia Warbler, American Redstart, Black-throated Green Warbler, Black-throated Blue Warbler, Common Yellowthroat, Blue-headed Vireo, Red-eyed Vireo, Great Crested Flycatcher, Yellow-bellied Flycatcher, and Purple Finch.

Tick Awareness

Griffin Dill, UM integrated pest management specialist and manager of the Tick Lab, was able to supply the Boardwalk with several information cards on ticks. They were available on our "free" table. Thanks Griffin!

Boardwalk Merchandize

T-Shirts and Hats

We re-ordered and received all 5 Boardwalk hats: Canada Warbler, Pitcher Plant, Muskeg Darner, Black Bear, and Leopard Frog. Over the years the Canada Warbler and Leopard Frog hats have been our biggest sellers.

Greeting Cards and Stickers

We replenished our supply of Lara Max and Peggy Clark Lumpkins greeting cards. All cards continued to sell well.

We ordered 100 Boardwalk stickers from MakeStickers. The photograph on the sticker is by former student intern Kimberly Stoddard.

Boardwalk Books

We ordered 35 copies of Ron Davis's book "Bogs and Fens". Thanks to Sue Berger Ramin, the Director of Brandeis University Press (book distributor) for re-authorizing our 50% discount. This book continues to sell well throughout the Boardwalk season.

We ordered multiples of all 5 Boardwalk hats from The Advertising Specialists.

The book "Bog Walker's Companion: A Guide to the Orono Bog Boardwalk" still sells but not as much as anticipated. Unfortunately it came out as the Covid pandemic was just starting in March 2020 thus limiting our sales push. We have found 2 errors - Plate 3 map and Plate 8, images 4 & 5. The UM Press informs us that they will be corrected in the next printing. Jerry Longcore has written an errata sheet.

Webpage and Facebook page

Our webpage managed by Erik Blomberg, is updated on a regular basis. Our Facebook page managed by Donna Dwyer is updated frequently. Both our Facebook and Web pages help us recruit volunteers and publicize the OBB. Our Facebook page surpassed the 10,000 likes mark! Thank you Donna and Erik!

Fundraiser at Harvest Moon Deli

In August, Harvest Moon Deli (all locations) donated 5% of the sale of a special sandwich "Riders on the Slaw" to the Boardwalk operations fund. The Boardwalk realized \$1,030.63! Thank you Zach Richardson of Harvest Moon Deli for this generous donation.

Orono Brewing Company

In late fall, Orono Brewing Company again brewed Bog Monster to support the OBB. Thanks Abe and Heather Furth for your generous donation to the OBB.

Page Farm and Home Museum annual Holiday Shoppe

For the first time in 3 years the Page Farm and Home Museum held its Holiday Shoppe on December 3rd from 10am-3pm. The Boardwalk had a sale and information table. This year's Holiday Shoppe was well attended and the Boardwalk made more than \$400 in sales and donations for our operations account. Thanks Jerry Longcore, UM student Sarah Dorey, and Jim Bird for staffing our sale and information table.

Epic Sports Closed

Epic Sports in downtown Bangor owned by Brad Ryder, a long time Boardwalk supporter, closed after 25 years in business. We presented Brad with a copy of “The Bog Walker’s Companion”. We wish Brad well in his new adventures!

Boardwalk Camera

The City of Bangor still maintains a night-time camera at the start of the Boardwalk.

Boardwalk Vandalism:

This was the first year in recent memory that no vandalism was reported. Let’s hope this is the start of a trend that continues!

Bottle/Can Return

The OBB continues our bottle deposit at Burby and Bates in Orono. We typically make about \$60-\$150/ year. Thanks Jerry Longcore for monitoring this.

Conclusion

Despite the pandemic and low staffing levels, we accomplished much in 2022. I have tried to include all that we have accomplished this year, but if I have missed something or neglected to mention someone, please let me know.

Thank you all!

Jim Bird
Director, Orono Bog Boardwalk

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