~ FUNDY TIDINGS ~

Newsletter of the

Bay of Fundy Ecosystem Partnership (BoFEP) February 2024 Issue

A. BoFEP and its activities:

1. BoFEP/ACCESS Conference at Huntsman

The Huntsman Marine Science Centre hosting the joint conference of Atlantic Canada Coastal and Estuarine Science Society (ACCESS) and The Bay of Fundy Ecosystem Partnership (BoFEP) on June 4-7th, 2024 in St. Andrews, New Brunswick. If you are passionate about the Bay of Fundy and Coastal Science and would like to help us advance the field by proposing a session, please visit the link http://bit.ly/3vODra7. Stay tuned for the call for abstracts and registration and accommodation information. Also see the 2024 conference poster. In the meantime we invite you to review the proceedings of the last conference in 2022.

2. Call for nominations: BoFEP Stewardship Award

The Bay of Fundy Ecosystem Partnership created an award to recognize the significant efforts of individual citizens toward the environmental stewardship of the Bay of Fundy. The first of these awards was presented in 2004. The award will again be presented in June 2024 at the Bay of Fundy Conference to be held in St. Andrews, New Brunswick. You are invited to submit nominations for this award. For more information please visit: 2024 award guidelines and nomination form Note: the deadline for submitting nominations is May 1st, 2024

3. Ocean Literacy WG publication

BoFEP's Ocean Literacy Working Group has prepared a paper entitled: " Promoting Ocean Literacy with Communities around the Bay of Fundy and its Watersheds" by M.J.A Butler and P.G. Wells. Abstract: In the Maritime Provinces, the Bay of Fundy Ecosystem Partnership (BoFEP), established in 1997, has the promotion of knowledge about the Bay of Fundy as its primary goal; its mantra is "creating, sharing and using information about Fundy". However, after 25 years and many information products, the group recognizes that just providing information to the public about the Bay is insufficient. Learning about the sea needs to start at an early age: this requires implementing the concept and practice of ocean literacy. Hence, BoFEP in 2018 initiated an Ocean Literacy (OL) Working Group (WG). To date, the WG has run discussion panels on OL at the 2018 and 2022 BoFEP workshops, participated in the annual Oceans Day, encouraged development of a Fundy Activity Coloring Book for elementary schools, produced a selected bibliography on OL, and participated in the Coastal Zone Canada Conference 2023 with three posters and a talk (Wells). The WG is now focussing on several new initiatives collaborating with the NS Department of Education to assist school teachers with key ocean information and projects (classroom and field); engaging university level education faculties in OL training; strengthening citizen science initiatives; supporting the new BoFEP Bay of Fundy video project; and networking with other OL organizations. Complete draft of paper: "Promoting Ocean Literacy with Communities around the Bay of Fundy and its Watersheds".

4. EIUI working group posts blog on environmental change

We're living in an "environmental emergency ward" says BoFEP Chair PG Wells in a new Environmental Information Use and Influence working group blog post. It concludes that the many problems we face require discussion, collaboration, scientific & social understanding, & above all, timely decision making & action. "Living in a Global Environmental Emergency Ward: The Need to Address Problems with Science, Action, and Speed".

5. Please support BoFEP - start/renew your membership

We invite you to renew your 2024 membership in BoFEP. We rely on membership income to fund the core activities of this volunteer environmental organization. For your dues, \$25 a year (personal) and \$100 (organizations), plus any donations as you desire, you will receive the quarterly *Fundy Tidings* Newsletter and other BoFEP publications, a special registration discount to attend the Biennial BoFEP Bay of Fundy Workshop, voting privileges at the AGM, special notifications of Fundy events that occur throughout the year, and knowledge that you are sustaining an organization, now in its 26th year, that is dedicated to the sustainability of the Bay of Fundy and its biodiversity. We would appreciate it if you could pay your dues before March 15, 2024, and thank-you in advance for doing this. You can pay either by e-transfer or mailed cheques. The details are on the BoFEP Membership Application Form.

The BoFEP Management Committee continues to meet monthly to advance a variety of

The BoFEP Management Committee continues to meet monthly to advance a variety of initiatives that are detailed in recent newsletters and <u>on the BoFEP Website</u>. All the best on behalf of our Management Team, Peter G. Wells, BoFEP Chair

B. Partners and other organizations:

1. Coastal communities in coastal planning workshop

How can Marine Spatial Planning (MSP) serve coastal communities? How can coastal communities contribute to marine spatial panning? Join us on Thursday, 22 February 2024, in Halifax for a one-day workshop to explore these questions in the context of the Scotian Shelf-Bay of Fundy marine spatial planning initiative. Thursday, 22 February 2024, 9:00 am – 4:30 pm in Room 1011, Rowe Management Building, Dalhousie University, 6100 University Avenue, Halifax. There is no registration fee, but registration is required for catering purposes (coffee breaks/lunch). Please register at this <u>EventBrite</u> site.

2. CARP tackles stormwater management

Stormwater is water that originates during precipitation events and snow/ice melts. Stormwater can soak into the soil (infiltrate), be held on the surface and evaporate, or runoff and end up in nearby streams, rivers, or other water bodies (surface water). CARP and BCAF are recruiting homeowners to participate in a home assessment program that will identify actions to improve the management and use of freshwater on their properties. Assessments will focus on water consumption and stormwater runoff issues in order to identify conservation and management options. SOAKING UP STORMWATER.

3. Gulf of Maine Awards nominations

The Gulf of Maine Council is accepting nominations for its 2024 awards program (5 different award categories) to recognize volunteers, professionals, businesses, and organizations for their outstanding efforts to promote a healthy Gulf of Maine ecosystem. They are seeking award nominees from Nova Scotia, New Brunswick, Maine, New Hampshire, and Massachusetts. Help celebrate unsung heroes and share their inspiring stories by submitting a nomination today. Award winners will be invited to attend an awards reception in Massachusetts during June. Please submit nominations using the forms below **by Friday, March 29, 2024**. Award quidelines and nomination forms.

4. Companies partner on tidal energy project

Orbital Marine Power, the renewable energy company focused on the development and global deployment of its pioneering floating tidal stream turbine technology, has been named as Euclaire Tidal's technology partner at the Fundy Ocean Research Centre for Energy (FORCE). The agreement covers one 2.4MW O2X machine to be deployed on the FORCE facility in the fast flowing waters of the Minas Passage. The final timing of deployment will be confirmed after

a Canadian Department of Fisheries and Oceans (DFO) assessment process has been completed, this was recently initiated with the submission of a project Request for Review.

<u>Orbital Marine Power and Eauclaire Tidal partner to unlock Canadian tidal stream opportunity</u> (Orbital Marine Power).

5. Amateur fossil hunter wins international award.

Last October, Brian Hebert, an amateur Nova Scotia fossil hunter received an international award when he attended the Geological Survey of America Conference in Pittsburgh. The Harrell L. Strimple Award is given to an amateur paleontologist for their contributions to paleontology. His life changed while out for a walk with his father about 30 years ago near Joggins, N.S., a UNESCO world heritage site on the Bay of Fundy. He stumbled upon a fossil and was hooked from that moment. It's a huge honour: Amateur paleontologist from N.S. wins international award (CBC News). In 2020, Hebert discovered a 315-million-year-old reptile fossil in Nova Scotia, which he called *Dendromaia unamakiensis*. The discovery of an adult and baby reptile fossilized side by side was something nobody had ever seen before. Varanopid from the Carboniferous of Nova Scotia reveals evidence of parental care in amniotes (Nature)

6. News from the Right Whale Consortium

Started in 1986 as a collaborative data sharing group, the North Atlantic Right Whale Consortium (NARWC) has grown to include more than 200 individuals from various research and conservation organizations, shipping and fishing industries, technical experts, U.S. and Canadian government agencies, and state and provincial authorities, all of whom are dedicated to the conservation and recovery of the North Atlantic Right Whale. Subscribe to the NARWC Newsletter to receive regular updates regarding activities and programs of interest.

C. Fundy/GOM and other news:

1. New report on threat to Fundy wetlands/dykelands

The wetland-dykeland ecosystems of the Bay of Fundy provide essential benefits or ecosystem services. However, the future of these ecosystems and their ability to provide and sustain these benefits are strongly driven by climate change impacts. A new report is a synthesis of a Participatory Scenarios Planning Workshop held in November 2022 that engaged key actors working on these ecosystems to envision environmental futures that may unfold in 50 years if we take a reactive or proactive approach to climate action. Envisioning Environmental Futures for the Tidal Wetlands and Dykelands of the Bay of Fundy. (NSERC ResNet). Envisioning Environmental Futures for this ecologically rich slice of Nova Scotia. (DAL News)

2. Growing concerns about coastal erosion around Fundy

The frequency of significant storm surges on New Brunswick's Bay of Fundy coast has seaside mayors and landowners calling for action in the form of shoreline remediation and infrastructure upgrades. N.B. coastal communities call for action following string of storm surges (CTV News). Coastal property owners worry about erosion after damage from 3 storms in a month (CBC News). See dramatic video of surge (0:28 mins). Tidal surge on Bay of Fundy. Dykes have also protected agricultural land along the Bay of Fundy for hundreds of years. But farmers are concerned that maintenance is lagging as storms become more powerful. Farmers in Nova Scotia fear aging dikes, climate change put land at risk (Video 2:28 mins - CBC News). No backup plan for flood-prone area of southeastern New Brunswick: official (Saltwire- paywall)

3. Planning for upgrading dykes along isthmus

The work to raise and strengthen the dykes between Nova Scotia and New Brunswick is necessary to ensure the land connection is preserved in the face of more powerful storms and

mounting concerns about climate change. The isthmus is Nova Scotia's only land connection to the rest of the country and millions of dollars of goods cross it each day. When construction begins, it's expected to take 10 years and cost \$600 million.

<u>Plan for Chignecto Isthmus work could be ready in about 12 months.</u> (CBC News). <u>Protecting vulnerable isthmus joining N.S. and N.B. will cost hundreds of millions: report.</u> (CBC News). <u>Climate crossroads: Rising sea levels are threatening farmland, towns and a major transportation route along the Nova Scotia-New Brunswick border.</u> (CBC News)

.4. Petitcodiac Causeway fisheries report released

The "Modifications to the Petitcodiac Causeway Project" has been completed. The primary objective of the Project was the restoration of fish passage at the causeway. A report on the findings is now available.

5. Tidal turbine breaks loose and washes ashore

Back in November, a tidal turbine owned by Sustainable Marine Energy washed ashore on Brier Island, N.S. after breaking loose from nearby Westport Harbour. The company announced earlier in 2024 that it had filed for bankruptcy. The company hoped to create power from the Bay of Fundy's massive tides, but its chief executive said there were too many regulatory hurdles from the federal government.

<u>Tidal power turbine owned by bankrupt company washes ashore on Brier Island</u> (CBC News) Rogue tidal turbine platform secured in Digby County after it runs aground. (Saltwire - paywall) Many have tried to harness the Bay of Fundy's tidal power. Are they all doomed to fail? (Globe and Mail - paywall)

6. Predation near fish farms not a threat to wild salmon

A study led by Fisheries and Oceans Canada has found seals and porpoises pose little risk to migrating Atlantic salmon in an area of southern New Brunswick full of fish farms. However, fish farms do pose other risks to the wild population like sea lice, disease and interbreeding with escapees. Researchers wanted to know if predators attracted to the sea cages full of farmed salmon are also preying on wild salmon migrating to the open ocean. It is believed 99 per cent of salmon leaving Bay of Fundy rivers do not survive in the ocean. Determining early marine survival and predation by endothermic predators on acoustically-tagged Atlantic salmon (Salmo salar) post-smolts (Canadian Science Publishing). Seals and porpoises near fish farms aren't a threat to migrating Atlantic salmon, report says. (CBC News)

7. Lobster population declines from illegal fishing?

Some lobster fishers from Southwest Nova Scotia are reporting a major drop in catches this year compared to last, and they're calling on the provincial government to drastically increase illegal fishing fines to keep the lobster population stable. Meanwhile, Fisheries and Aquaculture NS says that it has embarked on a process of regulatory review that will include updates to the Nova Scotia Fisheries and Coastal Resources Act. Hefty fines for offences under the Act are part of this review. Some N.S. lobster fishers report serious decline in catches (Daily Guardian)

8. "Snowbird" white sharks migrate south

Andromache, a 10-foot 8-inch female great white shark tagged by the research group OCEARCH, pinged off the Southwest Florida coast for the third time in the past months. She left the Bay of Fundy in Canada in August before heading south to the Sunshine State and has pinged around the same area since mid-November. Great white snowbird? OCEARCH shark Andromache off SW Florida coast for third time in a month (Naples Daily News). Meanwhile, OCEARCH also reports that Gladee — a female great white shark — is back to spend some time near Jacksonville FL. OCEARCH first tagged Gladee about three years ago during an

expedition to Nova Scotia. <u>Great white shark appears off First Coast after going unseen since March</u> (First Coast News)

9. Marine Mammal updates

A male Orca known as "old Thom" was first spotted over 20 years ago in the waters of the Bay of Fundy, in Canada, where he has returned to almost every year. He has caught the attention of both scientists and fishermen for being a loner. And when he has been spotted with company, it's never his fellow whales, but rather a group of white-sided dolphins. Lone Male Orca Known as "Old Thom" Is Taken in by a Pod of White-Sided Dolphins (My Modern Met). Meanwhile, more right whale calves have been sighted recently, with the sighting of numbers 7, 8 and 9. Swerve #1810 gave birth to the first calf in 2024 on January 3, 4.5 miles off Altamaha Sound, Georgia. Legato (#1802) and her newborn calf were spotted 16 miles offshore Amelia Island on December 31. Right whale #3780 (unnamed) was spotted 25 miles east of the St. Marys River. Swerve is at least 36 years old and has five previous calves and two grand calves. Whale Calves 7, 8 and 9 Grace Our Waters (Fernandina Observer). Unfortunately, A juvenile female right whale was found dead on the beach at Martha's Vineyard. Rope was found entangled near the whale's tail and a necropsy will be performed to determine its exact cause of death. North Atlantic right whale found dead near Massachusetts beach (CTV News)

10. Lost Sea turtle saved from chilly fate

Scottie the green sea turtle is now enjoying the warm waters of Bermuda, after being caught up in a wintry Bay of Fundy suffering from acute hypothermia. Luckily, she was found on the beach and brought to life-saving expertise. <u>Dalhousie vet recounts rare rescue of endangered green sea turtle from hypothermia.</u> (iheart Radio) <u>Hypothermic turtle revived after rescue from Bay of Fundy shore, shipped to Bermuda</u> (Winnipeg Free Press).

11. New study on sea turtles and plastics

The risks associated with encounters between leatherback turtles and floating and submerged plastic debris are currently unknown. A new study is a hazard assessment of plastics for this turtle's sub-population, using 2010–2019 data from the national Great Canadian Shoreline Cleanup (GSCS) program. The leatherback turtle (Dermochelys coriacea) and plastics in the Northwest Atlantic ocean: A hazard assessment (by Noémie Blais and Peter G. Wells)

12. Ottawa seeks to reduce plastics in the environment

On December 30, 2023, the Minister of Environment and Climate Change launched a consultation on the creation of the Federal Plastics Registry, which will serve as a tool to monitor and track plastic throughout its life cycle. This is another step to deliver on Canada's comprehensive plan to reduce plastic pollution and waste by moving toward a circular economy addressing the entire lifecycle of plastics, keeping it in the economy and out of the environment. The Government of Canada is seeking feedback on developing a federal plastics registry to help tackle plastic pollution (Environment and Climate Change Canada)

13. Atlantic Mud-piddock protected

DFO has established a Critical Habitat Order under the Species at Risk Act (SARA) to protect the critical habitat of the bivalve mollusk the Atlantic Mud-piddock (*Barnea truncata*). The Critical Habitat Order was published in Canada Gazette on November 8th, 2023. In Canada the threatened species is restricted to small sections of Minas Basin in Nova Scotia. More on Mud-Piddock.

14. Fisheries managers should learn from the seabirds!

Seabirds are highly sensitive to changing ocean conditions and prey availability, earning them a reputation as sentinels of the sea. But ornithologists worldwide often struggle to get fisheries

managers to pay attention. Back in 2015 in the Gulf of Maine/Bay of Fundy, seabird biologists were struggling to get fisheries managers to reconsider their herring population data which indicated booming stocks that justified high quotas for the subsequent three years. Meanwhile seabird biologist were finding that large numbers of puffin and tern chicks were starving to death. Not surprisingly the herring population soon went into free fall. Seabirds Can Help Predict the Size of Fish Stocks—If Only We'd Listen. (Hakai Magazine)

15. Puffin rescue captured in video

After rescuing this photogenic seabird from a snowy backyard near Riverview, N.B., volunteers with the Atlantic Wildlife Institute released her back to the Bay of Fundy — and she was more than ready to go. This rescued puffin couldn't wait to fly back to sea (CBC News - Video 0:47 mins)

16. Giant sandpiper entangled in red tape!!!

A 2.4 m high statue of a semipalmated sandpiper, affectionately named Shep after nearby Shepody Bay, finally returned to its roost after the wooden original succumbed to rot about 3 years ago. The real sandpipers spend about three weeks on the mudflats in the area in the summer, resting and fattening up before they fly to South America for the winter. However, the giant replacement was soon entangled in red tape and controversy. New Brunswick councillor sanctioned over installation of giant sandpiper statue (Global News)

17. Concerns about economics of nuclear energy in NB

The major news in the world of nuclear energy this month is the collapse of the Carbon Free Power Project in the United States. The project was to build six NuScale small modular nuclear reactors (SMRs). The NuScale project failed because there were not enough customers for its expensive electricity. Ignoring this economic reality, provincial governments planning for SMRs – Ontario, New Brunswick, Saskatchewan and Alberta – published a "strategic plan" to proceed with developing similar costly technology. Big costs sink flagship nuclear project and will sink future small modular reactor projects too [commentary] (NB Media Co-op)

18. More refurbishing for Point Lepreau nuclear plant

Point Lepreau was built on the shore of the Bay of Fundy in the 1980s and refurbished beginning in 2008. Despite ongoing production problems, N.B. Power says a second refurbishment in the 2040s is not out of the question, if an expensive five-year plan to fix ongoing problems works out favourably. N.B. Power floats 2nd refurbishment of Point Lepreau nuclear plant (CBC News).

D. ADMINISTRIVIA

Fundy Tidings is circulated, usually quarterly, to members of BoFEP and others who have expressed an interest in BoFEP and its activities. If you know someone who might like to receive Fundy Tidings, or if you would like to be removed from the Fundy Tidings mailing list, e-mail a request to:

seapencom@gmail.com Back issues are available at Fundy Tidings Archive

Please consider supporting BoFEP by becoming a member!

BoFEP-Membership-form-current (docx)

BoFEP-Membership-form-current (pdf)

Also consider following us on any of the following social media platforms.

https://www.facebook.com/BayofFundyEcosystemPartnership https://www.instagram.com/bayoffundyecosystempartnership/ https://twitter.com/BayofFundyEP https://www.linkedin.com/groups/8774711/