

~ *FUNDY TIDINGS* ~

Newsletter of the

Bay of Fundy Ecosystem Partnership (BoFEP) September 2021 Issue

A. BoFEP and its activities:

1. BoFEP meetings upcoming

The next meeting of the Bay of Fundy Ecosystem Partnership (BoFEP) Management Committee will be held on October 12th at 08:30 a.m. via Zoom. The agenda and call in information will be circulated to all MC members shortly. Suggested additions to the agenda can be sent to oceans2@ns.sympatico.ca before October 7th. The BoFEP 2021 Annual General Meeting will be held via Zoom on October 20th at 6:30 p.m. The agenda and call in information will be circulated to all BoFEP members soon. For more information about BoFEP and its activities visit the website at www.bofep.org/wpbofep .

2. Become a BoFEP member

Members are the heart of our organization. Membership is open to any individual or group who shares its vision for protecting, conserving, and sustainably using the Bay of Fundy ecosystem. Membership fee for individuals is \$25 and for organizations \$100 .

[BoFEP Membership form MS Word](#) [BoFEP Membership form PDF](#)

3. Article for the BIO-OA Voicepipe Newsletter, Summer 2021

Celebrating two Bay of Fundy anniversaries

Over many years at BIO, the remarkable, world-renowned, macro-tidal, and highly productive Bay of Fundy has often been a focus of research, monitoring, environmental assessment, and coastal management. Two programs connected closely to BIO that are celebrating anniversaries this year and next are the Gulf of Maine Council on the Marine Environment's (GOMC), Gulfwatch chemical contaminants monitoring program (1991-2021, 30 years) and the Bay of Fundy Ecosystem Partnership or BoFEP (1997-2022, 25 years). [Read full article by Peter Wells, Gulfwatch Co-Chair, and Chair, BoFEP, July 14, 2021.](#)

4. BoFEP Briefing note to GOMC Council Meeting, June 2021

Next year marks the 25th Anniversary of BoFEP, an NGO group set up to enhance communication about environmental issues (covering science, information, policy and coastal management) around the Bay of Fundy, the north-eastern part of the Gulf of Maine. BoFEP has been a formal member of GOMC since 2006.

- With a steering committee of 24+ people/partners, we continue with various activities:
 - An active management team that meets monthly.
 - The periodic Fundy Tidings Newsletter, edited by Dr. Jon Percy, our Communications Coordinator, and sent out to over 500 people and groups around the Bay of Fundy and the greater GOM (Gulf of Maine).
 - Planning for the next Bay of Fundy Science Workshop (the 13th in the series), postponed for 2020, and now proposed for Spring, 2022.
 - Enhanced website with more social media connections. Our Facebook gets lots of readers and it is regularly fed articles of interest.
 - A new project under development – videos on environmental science projects, e.g., coastal erosion, around the Bay of Fundy and its watersheds.
 - Continued close connection with the new community-based Cliffs of Fundy UNESCO Geopark in the Minas Basin. Note that the Bay of Fundy and its watersheds have six UNESCO sites,

celebrating the global importance of the biodiversity, paleontology (geology and fossil history), and cultural history of this region of the GOM.

- Challenges that BoFEP faces include recruiting younger volunteers for key roles, finding funds for a much needed coordinator, and funds for projects that also provide crucial overhead support.
- Finally, two other items of interest:
 - There is a recent publication with the Nova Scotian Institute of Science - a review of the fish and fisheries of Minas Basin and Minas Passage, NS, and their potential risk from tidal power development, by Dr. Michael Dadswell of Acadia University. It is in PNSIS Vol 51 (1), 2021.
- The Gulfwatch Contaminants Monitoring Sub-Committee's archival mussel samples are now stored at the Huntsman Marine Science Centre (HMSC), St. Andrews, courtesy of DFO-BIO and the HMSC. Committee members stay in informal contact with each other in the hopes that new funding will be found to continue periodic sampling and analyses of chemicals of emerging concern. *Respectfully submitted, Peter Wells, Chair of BoFEP and GOMC WG Member, June 22nd, 2021.*

B. Partners and other organizations:

1. Atlantic Salmon Federation

Check out the [ASF website](#) for up-to-date information about all things salmonid, especially relating to the Bay of Fundy. Also consider signing up to receive their periodic newsletter using the form at the bottom of the home page.

2. Cliffs of Fundy Geopark group in high gear!

The Cliffs of Fundy Geopark received UNESCO Global Geopark designation on July 10, 2020 after four years of hard work and community consultation by a group of dedicated geologists, local enthusiasts and municipal supporters. Since then, the group has kept up the momentum with a wide range of activities. The former Eatonville interpretive centre that was part of the Cape Chignecto Provincial Park has been acquired by the organization and will become a western entrance to the geopark ([Cliffs of Fundy Geopark brings new life to Eatonville, N.S. interpretive building](#) Saltwire Network - paywall). They have created an [interactive Google Map](#) of the Geopark and surrounding area. They have further developed their superb and informative [Geopark website](#) and conducted a variety of site tours and other programs over the past summer. To keep up with the hectic pace you will need to sign up for their [e-newsletter "Cliff Notes" !!!!!](#) You can also check out earlier issues while you're at it.

3. Friends of Fundy National Park

The Friends of Fundy was incorporated in 1982 as a non-profit, charitable organization and the official Friends of Fundy National Park. Members work to enhance public awareness and appreciation of the cultural and natural heritage of Fundy National Park and increase engagement in the surrounding (Upper Bay of Fundy) area. Membership is open to everyone and all proceeds from the gift shops are reinvested to achieve park and community goals through events and programming. For more information check out the [Friends of Fundy website](#) as well as their [Facebook page](#). Also see [Micha Fardy Of The Friends Of Fundy In Alma](#) (Huddle)

4. Fundy Biosphere Reserve Fall Newsletter

The Fundy Biosphere Reserve includes an area of over 430,000 hectares of New Brunswick's upper Bay of Fundy coast, stretching from St. Martins to the Tantramar Marsh near Sackville and inland to Moncton. The Biosphere Reserve designation by UNESCO provides not only international recognition for the uniqueness of the Bay of Fundy, its culture and history, but also emphasizes the importance of conservation and sustainability in the region. For more information about the activities of the FBR visit the website at <https://www.fundy-biosphere.ca>. You can also sign up to receive the Quarterly Newsletter at <https://www.fundy-biosphere.ca/en/about-us> (bottom of the page).

5. Clean Annapolis River Project

The Clean Annapolis River Project (CARP) is a charitable, community-based, non-governmental organization incorporated in 1990. It's aim is to promote Ecologically healthy watersheds, particularly to enhance the ecological health of the Annapolis River watershed through science, leadership and community engagement. For more information visit <https://www.annapolisriver.ca/> Consider joining CARP: membership prices start at \$15/year for students, or \$25/year for individual adults. To become a member visit; <https://annapolisriver.us7.list-manage.com/track/click?u=7a38789b264d84464aea13062&id=fe641bac6e&e=c9ef9b2dc1> You can also sign up to receive the Waterstrider Newsletter detailing all CARP activities.

C. Fundy/GOM and other news:

1. Sharks in the Bay

It's not yet clear whether warming waters are attracting more sharks to the Bay of Fundy or whether there are just more researchers out there counting, tagging and studying them. Clearly, they are out there, presumably playing an important top-predator role in the GOM/Fundy marine ecosystem. Recreational swimming in Fundy is optional!

[Massachusetts great white shark expedition: Researchers tag 3 sharks](#) (Union Leader)

[Research vessel studies great white shark population in New England](#) (WGME)

[OCEARCH-tagged sharks start returning to Nova Scotian waters](#) (Halifax Today)

[Great white sharks' investigative nibbles leave souvenirs in Bay of Fundy buoys](#) (CTV News)

2. Right whale Reports

The general scientific consensus still seems to be that the endangered North Atlantic Right Whale faces an uphill battle for survival, despite recent efforts by government agencies and others to reduce the main threats to the population. Occasional reports of sightings of calves somewhat brightens an otherwise gloomy picture and the deployment of new technologies to closely monitor the population and better understand their needs offers a ray of hope. However, indications are that rising seawater temperatures may adversely impact right whales.

[Yarmouth one of three Canadian monitoring bases on East Coast for North Atlantic Right Whale](#) (Saltwire Network - paywall)

[Right Whales Are Shrinking In Numbers— New Study Shows They're Also Shrinking In Size](#) (News New Hampshire)

[18th North Atlantic Right Whale Mother And Calf Discovered Off Brier Island, Nova Scotia](#) (New England Aquarium Press Release)

[New underwater glider to help scientists track movements of endangered right whales](#) (CTV News Atlantic)

[New marine robot to help scientists track movements of endangered right whales](#) (CBC News)

[Climate change contributing to decline of North Atlantic right whales, new study suggests](#) (CBC News)

['It's urgent': Research shows right whales may not survive ocean warming and human impact](#) (Cape Cod Times)

3. The Causeway Causes

Ever since they were completed on the mid 1960s the causeways blocking the Petitcodiac and Avon Rivers in the upper Bay of Fundy have been a source of controversy. After years of debate, the Petitcodiac at Moncton, NB is once again free flowing and connected to the ocean. [Fight to free the Petitcodiac proves the power of grassroots democracy.](#) (Telegraph Journal, ASF). However, for the Avon River at Windsor NS, the debate still rages, although the time for final decisions is fast approaching with the necessity of twinning Highway 101 at the river crossing. Discussions between the Department of Transport and DFO as to the design that would allow adequate fish passage are still ongoing. Meanwhile,

the Bay of Fundy Water Protectors and other grassroots groups are fighting tenaciously to promote a more tidal river with better fish passage.

[Work on Avon River's water gate could start this fall as part of 101 twinning](#) (CBC News)

[Letter of support: Ecological Restoration of the Avon River](#) (Avon River Heritage Society)

[Bay Of Fundy Water Protectors Post](#)

4. Aquaculture notes

Kelp seems to be an up-and-coming candidate for aquaculture development. Major players are investing in seaweed farms in Canada and Maine, but some Indigenous communities, small-scale farmers, and harvesters are concerned about fast, unregulated growth. [Kelp at the Crossroads: Should Seaweed Farming Be Better Regulated?](#) (Civil Eats). Meanwhile, other types of marine algae are being touted as a more environmentally responsible way of feeding salmon in commercial farms. New studies out of Nova Scotia show oil made from marine algae grown in tanks can replace wild-caught fish as a key feedstock in salmon farming. [Testing in Nova Scotia confirms algae as substitute for fish oil in salmon farming](#) (CBC News) Discussion also continues about the potentially adverse ecological effects of open pen salmon aquaculture, particularly other commercial species. [Assessing the carbon footprint of aquaculture](#) (Fish Site, ASF) [How Might Fish Farms Be Affecting Lobsters?](#) (Hakai Magazine). Meanwhile, ongoing reports of major die-offs at salmon aquaculture sites continues to raise concerns about transparency and regulatory effectiveness in the industry. [Emails reveal 100,000 salmon die-off not reported for 2 weeks to DEP](#) (Quietside Journal, ASF)/

5. Another attempt to tame Fundy tides

A federally backed collaboration between Sustainable Marine Energy Canada, German M&D Composites Technology and Leibniz University Hannover will mark the latest attempt to generate tidal electricity in Nova Scotia's notoriously inhospitable Bay of Fundy. Sustainable Marine said it estimates that the Bay of Fundy tides could produce as much as 7 gigawatts of power every day — the equivalent of almost 3,000 utility-scale wind turbines, according to the U.S. Department of Energy. [The mighty Bay of Fundy could produce as much power as 3,000 wind turbines — if anyone can tame it](#) (Financial Post).

6. Annapolis tidal turbines shutting down

Nova Scotia Power provided evidence to justify its decision to permanently retire the Annapolis tidal power generating station, claiming federal fish passage requirements would shut down the facility for several months each year. NSP has applied to the Nova Scotia Utility and Review Board to write off the 37-year-old generating station and charge ratepayers \$27 million over the next decade to recover the remaining value of the asset. [Fish passage would require shutdowns of Annapolis tidal station, NS Power tells regulators](#) (CBC News)

7. Pulp mill wastewater discharged into Fundy

Wastewater from Northern Pulp's mill is being discharged into the Bay of Fundy. Since July 2020 Northern Pulp has been shipping run-off and "landfill leachate" from its hibernating pulp mill site on Abercrombie Point in Pictou County to Colchester County's municipal sewage treatment facility in Lower Truro, which discharges into the Bay of Fundy. [Wastewater from Northern Pulp's hibernating paper mill is being discharged into the Bay of Fundy](#) (Halifax Examiner - paywall)

8. Oil leak at Mactaquac Dam

NB Power said an equipment failure in one of the turbine hubs at the Mactaquac Dam led to the release of lubricating oil. A news release from the utility says the oil is non-hazardous, biodegradable, and is not expected to harm aquatic organisms. [Oil Leaks Into Saint John River From Mactaquac Dam](#) (Country 94 Radio, ASF)

9. Unusual marine species found in Fundy

Several warm-water fish species were added to the annual summer research vessel survey off the coast of Eastern Canada in 2020. The amount of spawning-age blackbelly rosefish is estimated at 4,000 tonnes — the most ever, according to the Department of Fisheries and Oceans. Scientists say the

northward movement into Canadian waters has followed warming ocean temperatures in the Atlantic. [Canada adds warm-water fish to list of species monitored on East Coast](#) (CBC News). There also appear to have been more Pogies (or Menhaden, a member of the herring family) in the Bay of Fundy this summer. [New England fish believed to be spotted feeding in Nova Scotia's Clyde River](#) (CBC News) Meanwhile, in the upper Bay of Fundy an endangered leatherback sea turtle was rescued in the Shubenacadie River, near Stewiacke. Nicknamed Stewie, the turtle was a far away from its home in the ocean and was not going to survive the tidal waters. Before release the turtle was fitted with a satellite tag. [Endangered sea turtle rescued from Shubenacadie River](#) (CTV News). And way down deep on the sea floor of Fundy a new species of sea sponge has been discovered. *Crellomima mehqisinpekonuta* (say that three times quickly!!!!) is a bright orange creature that grows on ocean bedrock in thin crusts up to 30 cm across. The first specimen was collected by a dive team from the Huntsman Marine Science Centre in 2016 near Deer Island. Additional specimens were found across the bay near Brier Island in Nova Scotia. [Who lives on a bed of rock under the bay?](#) (CBNC News)

10. New publication on Climate change and GOM

In November 2019, several hundred community, governmental, and business leaders from across New England and the Maritime Provinces joined leading scientists to discuss the environmental and societal changes anticipated for the Gulf of Maine as we approach 2050. The choices we make today and over the next several decades have real power in shaping the state of the world we inhabit 30 years from now and beyond. The journal *Elementa* has begun publishing articles as a follow up to the 2050 International Symposium. Articles are available via: <https://online.ucpress.edu/elementa/collection/266/Gulf-of-Maine-2050-Visioning-Regional-Resilience>. "Climate impacts on the Gulf of Maine ecosystem: A review of observed and expected changes in 2050 from rising temperatures", Andrew J. Pershing, Michael A. Alexander, Damian C. Brady, David Brickman, Enrique N. Curchitser et al., *Elementa: Science of the Anthropocene* (2021) 9 (1): 00076. DOI: <https://doi.org/10.1525/elementa.2020.00076> Published: 04 August 2021

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](#)