

~ FUNDY TIDINGS ~
The Quarterly Newsletter of the
Bay of Fundy Ecosystem Partnership (BoFEP)

January 2020 ~ Winter Issue

A. BoFEP and its activities:

1. BoFEP/ACCESS Joint Conference - Call for Expressions of Interest

The Bay of Fundy Ecosystem Partnership (BoFEP) and The Atlantic Canada Coastal and Estuarine Science Society (ACCESS) Invite you to participate in a *joint conference* May 13-16, 2020 at the Truro Campus of the Dalhousie Agricultural College, Truro, Nova Scotia.

The theme is: "**Science, Communication and Management in an Era of Climate Change**"

- Papers or posters on a range of topics related to Atlantic coasts and estuaries, particularly the Bay of Fundy, are welcome.
- Recommendations for themed sessions, panel discussions and training workshops will be considered.
- Suggestions are also invited for two plenary speakers and a speaker to deliver a public presentation one evening.
- People with local knowledge are encouraged to host field trips on the last day: please submit a costed proposal
- Awards will be presented for best student papers and posters. Please alert any university students that might be interested.

We will use your various submissions to design the Symposium according to your expressions of interest, so please observe our deadline for submitting abstracts or titles**: **January 31st, 2020**

*Please review the Abstract Guidelines

[BoFEP- ACCESS 2020 Abstract guidelines MSWord](#)

[BoFEP-ACCESS 2020 Abstract guidelines PDF](#)

Please submit abstracts to all of the following:

Seapencom@gmail.com oceans2@ns.sympatico.ca bruce_hatcher@cbu.ca

2. BoFEP Environmental Stewardship Award – Call for nominations

The Bay of Fundy Ecosystem Partnership created an Environmental Stewardship Award in 2004 to recognize the significant efforts of individual citizens toward the environmental stewardship of the Bay of Fundy. The award is again being presented in May, 2020 at the BoFEP/ACCESS conference to be held in Truro, NS.

You are invited to submit nominations for this award. Nominators should read the guidelines and complete the nominations form and submit it in confidence by **March 15, 2020** to seapencom@gmail.com

[Award guidelines and nominations form](#)

3. Reminder - Renew your BoFEP membership

Members are the heart of our organization. Membership is open to any individual or group who shares our vision for protecting, conserving and sustainably using the Bay of Fundy ecosystem. The 2019-20 membership fee for individuals and organizations is \$25. You must be a paid up member in order to vote at Steering Committee Meetings or Annual General Meetings.

[More information about joining BoFEP.](#)

[BoFEP Membership Form](#) (MS Word)

[BoFEP Membership Form](#) (PDF)

B. Partners and other organizations:

1. Blog promotes responsible aquaculture

The Blog [Responsible Aquaculture](#) is supported by Citizens for Responsible Aquaculture Now! , an NS and NB based organization. The blog highlights many of the "reckless" and "irresponsible" activities by traditional aquaculture companies and the failure of governments to police them adequately. It provides information about whether industrial scale fish farms can be managed in a safe, sustainable and responsible way and whether this scale of development is ultimately best for our coastal communities. The site particularly highlights a litany of misdeeds by Cooke Aquaculture and others in the aquaculture industry.

2. Discovery Centre autumn newsletter available

The [autumn 2019 issue of In With the Tide](#) the quarterly newsletter of the Bay of Fundy Discovery Centre Association is now available online. This packed issue features articles on the many activities of the BoFDCA, forestry in the area, the lobster fishery, plans for aquaculture expansion and the growing opposition, climate change, expanding hiking trails and much, much more. Previous copies of the newsletter are also [available in the archive](#).

3. Fundy's fabulous fossils featured

Two recent reports focus on some of the world famous fossils originating from the Fundy region. Firstly, a Carleton University researcher [Hillary Maddin](#) is looking for more information about the proto-reptiles found in the fossilized tree stumps slowly eroding out of the Joggins Fossil Cliffs, and dating from the Carboniferous, about 300 to 360 million years ago. [Fossils Aid Probe into Origins of Animals](#) (Carleton Newsroom press release)

Secondly, a display at the [The Royal Alberta Museum](#) called "*Museums' Choice: Fossil Favourites from Across Canada*" features 11 of Canada's most famous fossils, including two from the bay of Fundy: giant millipede tracks and the remains of one of Canada's oldest dinosaurs. [The Royal Alberta Museum is now home to Canada's most famous fossils](#) (Daily Hive)

4. Sussex NB eyes hot idea for clean energy

The city of Sussex NB near the Bay of Fundy has been looking into the possibility of using geothermal energy by extracting heat from an abandoned potash mine under the city. Water would be pumped to the surface, run through heat pumps to generate heating and cooling power, and then return below ground . A study suggests that it would require an investment of about \$14.4 million and could pay for itself in just under 10 years. [Geothermal energy from abandoned mine real opportunity according to study in Sussex, New Brunswick](#) (Think GeoEnergy)

5. NS expands protected areas

In the fall Nova Scotia announced a significant increase in its protected areas and the promise of more to come. Some of these are in the Bay of Fundy or its watersheds. When complete, the sites will total 14,400 hectares and include 10 wilderness areas, 12 nature reserves and five provincial parks. It will bring Nova Scotia's total protected land area to 12.7 per cent, just shy of the goal of 13 per cent.

[Nova Scotia announces 17 new, expanded protected areas, and 10 more to come](#) (CBC News).

[CHRIS MILLER: A closer look at Nova Scotia's newest protected lands](#) (Chronicle Herald)

6. 2019 ~ Annus horribilis for NB environment?

A CBC report suggests that from flooding to North Atlantic right whale deaths to the Minto tire fire, it's been a trying 12 months for New Brunswick's ecosystem : [How did New Brunswick's environment fare in 2019? Not so well](#) (CBC News). The Executive Director of the Conservation Council of NB highlights the top six environmental stories of the past year.

C. Fundy/GOM and other News:

1. Tidal power developments still roiling Fundy's waters

Tidal energy companies are still jockeying for a place to test their many different turbine technologies in Fundy's turbulent waters. Most are focused on the Minas Passage test site, while a few others are aiming at other potential locations such as Petit Passage in the outer Bay. So far, the Minas Passage location has proven a watery graveyard for the only two test turbines installed there over the past decade. The NS government is still dithering over the costly removal of the most recent of these failures. It is also still tinkering with the legislation pertaining to the regulation of the development of tidal power.

A few of the recent highlights:

- [Plans unveiled for 9MW tidal project off Canadian coast](#) (International Water Power and Dam Construction)
- [Nova Innovation to develop a tidal energy array in Nova Scotia](#) (Renewable Energy Magazine)
- [Tidal energy companies join forces for Bay of Fundy project](#) (CBC News)
- [Nova Scotia law would renew purchase agreements with tidal power producers](#) (CTV News)
- [Two companies team up to harness floating tidal energy technology at Bay of Fundy](#) (Hydrogen Fuel News)
- [Tidal power update: new legislation clears way for three new projects, but a tidal power industry is still "decades" away](#) (Halifax Examiner)
- ['Right pieces of puzzle in place to make tidal a reality for Canada'](#) (Recharge)
- [Tidal electricity permit issued to Nova Innovation for project near Digby](#) (Saltwire Network)
- [Why smaller may be better when it comes harnessing Bay of Fundy tides](#) (CBC News)
- [Nova Innovation to develop tidal array in Canada](#) (BBC News)
- [Province says cost of retrieving Cape Sharp turbine soars to \\$4.5M](#) (CBC News)
- [Bay of Fundy tidal site available, \\$4.5M to remove Cape Sharp turbine required](#) (Global News)
- [Bidding process to start next week to replace failed Cape Sharp turbine in Bay of Fundy](#) (Truro Daily News)
- [Nova Scotia needs to decarbonize the electricity grid by 2030, says Elizabeth May](#) (NovaNews Now)

2. Bay of Fundy filling with junk?

A new study [Benthic marine debris in the Bay of Fundy, eastern Canada: Spatial distribution and categorization using seafloor video footage](#) estimates almost two million pieces of junk lie on the sea floor of the Bay of Fundy, most of which is plastic and fishing gear. This finding touched off a flurry of commentary:

[1.8 million pieces of garbage litter bottom of Bay of Fundy, says study](#) (CBC News)

[COMMENT: The Bay of Fundy is full of junk](#) (Cumberland News Now)

[Tires, rubber gloves and plastic bags: What the bottom of the Bay of Fundy looks like](#) (Globe and Mail)

On a brighter note, some residents are making a commendable effort to tackle the problem: [Advocate Harbour man fighting beach pollution one dumpster at a time](#) (CBC News). In addition, a Facebook Group [Nova Scotia Beach Garbage Awareness](#) has sprung up to bring more public attention to the problem and encourage remedial action.

3. Natural gas disputes span the Bay

Both sides of the Bay are featured in posts about the desirability of transporting, storing and distributing natural gas in the region. For at least 10 years there have been ongoing battles to protect Passamaquoddy Bay from the threat of large LNG terminals on its shores. Over the years a lot of information has been collected and it suggests that it is not the environmental panacea that many proponents claim. [LNG: Good for the environment ... really?](#) Many of the relevant documents are available for download at: <https://www.scribd.com/lists/2705807/ENERGY-LNG> Meanwhile, on the other side of the upper Bay, along the Shubenacadie River, opponents of the Alton Gas proposal to store huge volumes of natural gas in subterranean salt caverns are keeping up the pressure to halt the project. [Alton Gas project should be stopped, report from opponents says](#) (Saltwire Network).

4. Ecological consequences of Fundy's warming waters

The evidence is unequivocal that our oceans are warming as a result of climate change and that the Gulf of Maine/Bay of Fundy region is warming faster than most other areas. The effects on the coastal marine ecosystem, particularly on widely harvested species such as lobsters is less clear. A number of recent reports touch upon this thorny question:

- [Canadian fishermen feel effects of climate change as world panel sounds alarm bell](#) (CBC News)
- [Nova Scotia lobsters still in sweet spot despite climate change](#) (CBC News)
- [Scientists predict Maine's lobster boom will end within 5 years](#) (Times Record)
- [We're number 1! \(That's not a good thing\)](#) (Press Herald)
- [Forecasting warmer ocean, fewer lobsters](#) (National Fisherman)
- [Climate change shifting protected marine ecosystems outside conservation areas](#) (North Shore News)

5. Consequences of Fundy's rising waters

Global warming is also contributing significantly to rising sea level worldwide through a number of different mechanisms. Many low lying areas around the Bay are particularly vulnerable. Concerns range from local flooding in coastal municipalities to the complete cutting off of Nova Scotia from the rest of Canada as a result of inundation of the low-lying Chignecto Isthmus region (and all of its transportation infrastructure) at the head of the Bay. Some coastal communities such as Wolfville and Annapolis Royal are taking the threat seriously and treating it as an emergency. A few recent articles highlight some of the concerns and responses:

- [How climate change is threatening to cut off Nova Scotia from mainland Canada](#) (Global News)
- [The Risk of a Flooded Isthmus](#) (McGill International Review)
- [Municipalities push for action, funds from province to address climate change risks](#) (SaltWire Network)
- [Nova Scotia's coastal communities want help now with rising seas](#) (Chronicle Herald)
- [Declaring climate war - Annapolis Royal council taking up arms against threat of rising sea levels](#) (Saltwire Network)
- [Wolfville prepares to protect downtown from climate change, flooding](#) (CBC News)

An online worldwide coastal risk screening tool [Land projected to be below annual flood level in 2050](#) prepared by Climate Central is available for individuals to assess the flood risk in their particular coastal area. It suggests that Annapolis Royal in particular has reason to be worried.

6. Salmon aquaculture - What's Cooke-ing?

Canada's Cooke Aquaculture is back in the news again, both positively and negatively. A major US seafood wholesaler has formed an exclusive distribution partnership with Canada's Jail Island Salmon, owned by Cooke. As part of the agreement, the US company will donate a portion of its proceeds to the Fundy Salmon Recovery project. The project addresses the declining population of wild Atlantic salmon in the Bay of Fundy. [Cooke's Jail Island agrees US salmon distribution deal](#) (Undercurrent News).

Cooke is also participating in a collaborative effort to raise Atlantic salmon on the Penobscot River beginning in 2020. The goal is to raise juvenile Atlantic salmon to adult size in aquaculture pens and release them into the East Branch of the Penobscot River to spawn. [DMR joins partnership to restore Penobscot River salmon](#) (The Ellsworth American)

On a less savoury note, Cooke was recently investigated for animal cruelty (backed by hidden camera videos) at several of its sites in Maine. The state did not discipline Cooke, claiming the company was making efforts to clean up its act!!! [N.B. seafood giant won't be disciplined after animal cruelty investigation](#) (CBC News). However, Cooke was charged and fined for multiple other violations at many fish pen sites along the Maine coast. [Canadian salmon firm will pay \\$156K over fish pen violations to fund salmon restocking](#) (Bangor Daily News)

7. Salmon aquaculture - Land-based the wave of the future ?

While sea cage aquaculture flounders along amid issues of habitat degradation, human and fish health concerns, wild stock conservation and other problems, land based aquaculture is making slow but steady

progress. Whole Ocean's proposed land-based salmon aquaculture facility on the site of a shuttered paper mill outside Bangor, Maine now has all its permits and construction is planned for spring 2020. [Bucksport Salmon Farm Receives The Last Permit It Needs To Start Building](#) (Maine Public Radio). Meanwhile, another company, Kingfish Zeeland, owner of a large recirculating aquaculture system (RAS) operation in the Netherlands, has submitted a proposal to build a similar land-based facility in Jonesport, Maine for raising yellowtail amberjack. [Dutch company plans Downeast fish farm](#) (The Ellsworth American). A promise by the B.C. Liberal Party to put an end to open pen salmon farming along that province's pacific Coast by 2025 has stirred the ire of traditional aquaculture companies on the east coast. [Liberal promise to end open-pen salmon farms in BC making waves](#) (CBC News). They are, not surprisingly, calling it "reckless" and "irresponsible", terms that aquaculture opponents have typically directed at them. However, the Atlantic Salmon Federation hailed the announcement as a step in the right direction that should be applied Canada-wide. [ASF Statement on the Liberal Party of Canada's commitment to transition B.C.'s salmon aquaculture industry to closed containment by 2025.](#)

8. Saxby Gale remembered

The 150th anniversary of the infamous Saxby Gale that devastated many areas of the Maritimes in October 1869 spawned a number of articles, looking back and also towards the future. Could it happen again? Yes, it can, and probably will.

- [150 years since 'perfect storm' Saxby Gale blindsided Maritimers](#) (CBC News)
- [Could another Saxby Gale hit the Maritimes?](#) (Truro Daily News)
- [EDITORIAL: Will we really be prepared for next Saxby Gale?](#) (Cumberland News Now)

9. Following female lobsters

A marine biology researcher from the University of North Carolina is trying to figure out how far a female lobster will go to lay eggs. She has enlisted the help of Grand Manan fishermen to tag any female lobsters they catch and to report when they recapture one that's been tagged. The study replicates one carried out 35 years ago that found that most of them stayed in the Bay of Fundy. Comparing results of the studies may help understand how climate change is impacting lobster stocks now and in the future. [Tracking the mysterious underwater migration of female lobsters](#) (CBC News)

10. Right Whales changing habitats

A new study from the Cornell Lab of Ornithology Center for Conservation Bioacoustics found evidence that assumed patterns of distribution of Atlantic Right Whales from decades of observation had changed. A warming ocean may be affecting the tiny copepods that are the main source of food for right whales, which appear to be working harder to find them. By examining data from a grid of listening stations covering 1,544 square miles of Massachusetts Bay, scientists corroborated evidence that right whales were on the move and showing up in unexpected places at unexpected times and for unusual lengths of residency. [New study indicates habitat changes for right whales](#) (Cape Cod Times)

D. ADMINISTTRIVIA

Fundy Tidings is circulated 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](#)