~ FUNDY TIDINGS ~

Quarterly Newsletter of the **Bay of Fundy Ecosystem Partnership (BoFEP)**

March 2020 ~ Spring Issue

A. BoFEP and its activities:

1. Cancellation - Joint BoFEP/ACCESS Conference

The BoFEP/ACCESS Conference planned for May, 2020 in Truro, NS was shaping up to be a great success with no less than 100 presentations in 11 oral sessions, 6 poster sessions, 7 panel discussions (one in plenary and open to the public), plus 2 invited plenary sessions.

<u>Unfortunately but not surprisingly, we have had to cancel the Conference due to the COVID-19 situation and the closure of all Dalhousie University facilities for large gatherings until June.</u>

As members of the organizing Committee and executives of the hosting organizations, we share your disappointment with this unprecedented situation and unavoidable cancellation. The Conference may be moved to May, 2021, hopefully at the same venue. We will let you know about future plans as they evolve. Please check our respective websites (www.bofep.org; www.access.wildapricot.org) periodically for further updates. Thank you for your continuing support and understanding.

2. 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. Discovery Centre winter newsletter now available

The Winter 2020 issue of In With Tide, the quarterly newsletter of the Bay of Fundy Discovery Centre Association, is now available online. Previous copies of the newsletter are also available in the archive.

2. Reminder- Nominations for GOMCMC awards

The Gulf of Maine Council is still accepting nominations for our 2020 awards program to recognize volunteers, professionals, businesses and organizations for outstanding efforts to promote a healthy Gulf of Maine ecosystem. We are seeking award nominees from Nova Scotia, New Brunswick, Maine, New Hampshire, and Massachusetts. Awards will be presented during a special ceremony in Portland, Maine during early June 2020. More details and nomination forms.

3. National Geographic features Bay of Fundy road trip

The online February 2020 issue of National Geographic Travel features a well illustrated article about a five day road trip along the New Brunswick side of the Bay of Fundy. It includes all of the usual tourist "must sees" including the many iconic geological features scoured by the tides. New Brunswick's best road trip: wonders of highest tides.

4. Interactive map on carbon stores in Bay of Fundy

Gail Chmura and Lee van Ardenne with the Department of Geography at McGill University have published an <u>interactive story map about the carbon stores</u> in the Bay of Fundy. Story maps and their distinct interactive character could be one of the most effective tools for conservation biology. See also: <u>Conservation in the digital age</u> (McGill Tribune)

5. Project removes rope from Bay of Fundy

In March 2018, the Huntsman Marine Science Centre in Saint Andrews, New Brunswick launched a project to reduce the amount of plastic rope from the fishing industry ending up in the Bay of Fundy. They placed large bins on major fishing wharves where fishermen could discard unwanted rope. So far over 12,000 pounds has been collected, much of it recycled into heavy duty mats. Roping in marine debris in the Bay of Fundy, and beyond Includes short video 1:39 mins (Global News)

6. Fundy Geopark decision delayed by Covid19.

Proponents of a global geopark along the Fundy shoreline in Cumberland and Colchester counties will have to wait a little longer for the news they've been anticipating. While supporters of the <u>Cliffs of Fundy Aspiring Geopark</u> were anticipating an announcement next month during UNESCO's executive board meeting, that session has been postponed as a precaution against the coronavirus. <u>Full story.</u> (Saltwire)

7. Training session on carbon credits for wetlands restoration

This two day workshop (June 6-7, 2020, in Quebec City) will explain the science and methodologies required to put a wetland restoration project on the carbon market. Funds from the carbon market can support restoration activities. The workshop targets practitioners, e.g., those who (can) run a restoration project as well as government representatives and policymakers. More information.

8. Wild Salmon podcast

Wild salmon are still hanging in there in many rivers around the Gulf of Maine, in spite of continuing negative impacts of many types. The Atlantic Salmon Federation has created an excellent podcast featuring the history, decline and recovery of this iconic fish in 3 episodes: 1 - The Leaper (14:46 mins), 2 - The Human Connection (18:49 mins), 3 - Recovery (15:56 mins). The Saving Salmon Podcast.

9. U Maine Students plant salmon eggs

The Atlantic Salmon Federation, Maine DMR and students from the University of Maine at Farmington recently planted 10,000 Atlantic salmon eggs in Temple Stream, a tributary of the Kennebec River. As temperatures warm, the eggs will develop and eventually become fry in the stream. <u>Full report.</u>

10. Lobster fishers and others opposed to salmon farms

Some people who live and work on St. Marys Bay in Digby County, N.S., want to send a strong message to an aquaculture company that's eyeing the area for salmon farming. "It's just a no-brainer. No, we don't want fish farms here," said a local lobster fisherman. The Digby County location is one of five spots the international seafood company Cermaq has been granted options to explore by the provincial government. Full story. (CBC News). See also: Digby Municipality Urged to Fight Aquaculture Expansion (Chronicle Herald, ASF)

C. Fundy/GOM and other News:

1. Record salmon reproduction in Maine river

A record number of Atlantic salmon eggs were laid in the East Machias River last year, indicating that an eight-year effort to restore the endangered species in the river is paying off. Biologists counted 61 redds, or nests that fish build for spawning, buried in river gravel between Crawford and East Machias. That's six times the number counted in that river since the Downeast Salmon Federation began tracking salmon egg nesting patterns 20 years ago. Full story. (Bangor Daily News)

2. Obstacles removed from Maine rivers to allow salmon passage

A derelict power generating station in eastern Maine has been removed to enhance fish passage on the Dennys River as part of a plan to restore endangered fish populations. It is hoped that removing the obstruction will allow Atlantic Salmon and Alewives to freely enter Meddybemps Lake. <u>Full story</u>. (Atlantic Salmon Federation). In addition, wild Atlantic salmon returns are increasing on the Sheepscot River. This fall, 17 nesting sites were counted just upstream of where the Cooper's Mills Dam used to be. <u>Full story</u> (Atlantic Salmon Federation).

3. Updates on land-based aquaculture progress

In the Gulf of Maine region and around the world, land-based aquaculture is increasingly being seen as a more responsible and environmentally sustainable approach to fish farming than open pen culture. More recirculating aquaculture systems (RAS) are going into operation around the region and more studies are clearly demonstrating the environmental and health benefits of this approach. A few recent examples:

UMaine partners with Dutch business to build new facility in Maine (The Maine Campus)

Will RAS revolutionise aquaculture in Maine? (The Fish Site)

Months late, Canada releases 'State of Salmon Aquaculture Technologies' report (Undercurrent News)

DFO's Aquaculture Models for BC (Video 10:45 mins - ASF)

<u>Aquaculture Water Treatment Systems and Recirculating Aquaculture Systems (RAS) Market</u> (Instant Tech News)

Smaller RAS farms say size isn't everything (Aquaculture Alliance)

Hamilton's Fish Farms Nova Scotia (Facebook Page)

Akva Group CEO Knut Nesse bullish on land-based aquaculture despite past failures (IntraFish) Fish farms turn to AI, recirculating systems to scale up sustainable aquaculture (Eco-business)

4. Open pen aquaculture - Friend or Foe!

Supporters and opponents of open pen aquaculture have become increasingly vocal in the Fundy region in recent months. Not surprisingly, the supporters primarily include governments (particularly the NS Department of Fisheries and Aquaculture), aquaculture industry representatives and aquaculture promotion associations. Opponents tellingly include members of coastal communities that will have these operations thrust upon them, particularly inshore fishermen who see their livelihood threatened. Groups concerned about the health of the environment and welfare of marine wildlife are also virulently opposed to these farms. A sample of recent reports pro and con:

Amid opposition to N.S. salmon farms, minister touts benefits of aquaculture industry (CBC News) BILL BLACK: Marine salmon aquaculture has great future if done properly (Chronicle Herald)

LETTER: Nova Scotia is the gold standard for aquaculture (The Telegram)

SUSAN FARQUHARSON: Resist fear-mongering from anti-salmon farming activists (Chronicle Herald)

Five Knocks Against Salmon Farming on NS Coast (Chronicle Herald)

COMMENTARY: Aquaculture a broken business model that's ruinous for the environment (Chronicle Herald)

HENRIETTE MAIER: Aquaculture industry doesn't clean up after itself (Chronicle Herald)
Public rally held in Upper Tantallon in opposition to open-pen salmon fish farms (Global News)

'We don't want fish farms here,' says St. Marys Bay lobster fisherman (CBC News)

5. NOAA should do more to save entangled whales

A commentary in the Portland Press Herald suggests that "<u>It's time for NOAA to take the lead in right-whale rescue</u>". It claims that the federal government is letting workers do the work instead of taking on responsibility to address the problem. In this case, it is Maine lobstermen protecting right whales while government stands by and regulates others. For the U.S. National Oceanographic and Atmospheric Administration to protect right whales in Maine waters, they need only finance a rescue boat to free entangled whales.

6. All the poop on Right Whales

In most professions, the discovery of feces on the job would be rather upsetting. But, to North Atlantic right whale researchers, it's a gift. It's bright orange floating bits are gold for scientists at the Anderson Cabot Center of Ocean Life at the New England Aquarium. The poop carries vital information on the

health of the few remaining members of the endangered species, including hormone signals that reveal key health markers for the whales, such as stress, reproductive activity and pregnancy. <u>Full story</u>. (CBC News)

7. Fight to save Right Whales continues

Lobster and crab fishing are a core part of the Canadian maritime culture and economy. But the lines that run between surface buoys and traps often cause entanglement of marine mammals, including North Atlantic right whales. But promising innovations in lobster and crab gear could reduce whale entanglements while still sustaining local economies and traditional cultures. A number of recent stories touched upon whales and the ongoing efforts to protect them, including the following:

<u>Fishing Industry and Others Look to Gear Innovations to Reduce Whale Deaths</u> (Pew Charitable Trusts)

Season-long fishing closures possible under new protections for endangered whales (CBC News)

Ottawa imposes new rules to protect fragile population of right whales (North Shore News)

Canadian Fisheries Regulators Take New Steps Aimed At Protecting Right Whales (Maine Public Padio)

Oceana Canada wants assurance government is prepared to respond to whale deaths (Journal Pioneer)

<u>Canada's 'dynamic' plan to protect endangered right whales rests on robots</u> (Science Magazine) <u>Whale researcher hopes West Coast study could help protect North Atlantic right whales</u> (CBC News)

Why more right whales have been spotted this year compared with last 3 years (CBC News)

8. NB Power diverts birds from power lines

Thousands of devices aimed at diverting birds from crashing into power lines have now been installed in New Brunswick. The project has been carried out by NB Power, which hopes the bird diverters will help save vulnerable species at risk. The installation of bird diverters in the Tantramar Marsh comes after a rash of bird strikes on power lines. Full story. CTV News

9. Turbine impacts on eels less than predicted?

New research into the impact of tidal power turbines on marine wildlife carried out at the site in Northern Ireland concluded that previous estimates may have "significantly" overestimated the threat. The study, which looked at the 'hit-rate' for silver eels in Strangford Loch where the 1.2MW SeaGen prototype turned between 2008 and 2019 suggest only 0.3% of the snake-like fish – rather than the previously estimated 1% – would have been killed. Whether this conclusion is applicable to other mariune life remains to be seen. Tidal power impact on marine wildlife 'significantly lower than predicted': study. (Recharge)

10. Wetlands, dykes and sea level rise

A number of recent reports have touched upon the possible impacts of rising sealevel on the dykelands around the Bay of Fundy. There is an ongoing debate about the desirability of raising dykes or removing them and reestablishing wetlands in some areas. A few representative reports:

Breaching tradition: Salt marshes replacing Nova Scotia's dikes (CBC News)

Mount A professor believes money for isthmus study better spent on solutions (Chronicle Herald)

Wood Environment & Infrastructure Solutions chosen to study Isthmus of Chignecto (Saltwire Network)

World Wetlands Day: Fostering global biodiversity and mitigating climate change (Phys Org)

11. Alton Gas Project back in court

Controversy still swirls around the Alton Gas proposal to excavate vast salt domes near the Shubenacadie River and use them to store natural gas. In February the Sipekne'katik First Nation before the Nova Scotia Supreme Court questioning whether the government lived up to its duty to consult with them on the project. Meanwhile, another opposition group, The Council of Canadians, say they have acquired federal Environment Department documents that show the project violates federal Fisheries Act regulations.

<u>First Nation's appeal of Alton Gas project back in court</u> (CBC News)

<u>Alton Gas opponents say documents show project would violate Fisheries Act</u> (Chronicle Herald)

12. Noise pollution a problem for many marine species

It is well known that the ocean is a rather noisy place, often exacerbated by a plethora of human activities. An article in Popular Science <u>Is it loud in the ocean?</u> describes the problem in some detail. Interestingly it notes that hydrophones revealed that the Bay of Fundy was 6 decibels quieter after U.S. officials shut down domestic airports and shipping ports following 9/11. Fecal samples from North Atlantic right whales in the area revealed a decrease in the metabolites of stress-related hormones that can stunt growth, damage the heart, and impair the immune system. That suggests our influence might take a toll on their longevity.

13. Fundy stone arches collapse

Two iconic keyhole arches near Medford NS in the Minas Basin have collapsed. The arches fell victim to strong tides sometime in early March 2020; the exact date is yet to be determined. The report includes a short video 0:49mins) of a paddle-boarding tour of the arches in August 2019. Loonic arches in Nova Scotia's Nova Scotia's Annapolis Valley collapse. (The Weather Network). In October 2015 another sea arch on Long Island in the Minas Basin also collapsed. Nova Scotia's 'hole' in Long Island destroyed by Mother Nature (CBC News). Additionally, in 2016, Elephant Rock, one of the most famous of the flowerpot formations at Hopewell Rocks on the New Brunswick side of the Bay collapsed. Elephant Rock at Hopewell Rocks near Bay of Fundy collapses (CBC News)

D. ADMINISTRIVIA

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:

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