~ FUNDY TIDINGS ~

The Quarterly Newsletter of the

Bay of Fundy Ecosystem Partnership (BoFEP)

September 2019 ~ Autumn Issue

A. BoFEP and its activities:

1. BoFEP's 2019 AGM on October 25th

The 2019 Annual General Meeting of the Bay of Fundy Ecosystem Partnership will be held on Friday, October 25th, 2019 from 1:00-4:00 p.m. at Mount Alison University in Sackville, NB. The precise venue and agenda will be posted shortly. All BoFEP supporters and all interested in the Bay of Fundy are welcome. Important tasks at the AGM will be the election of members of a new Steering Committee (up to a total of 24 members) and approval of a revised Strategic Plan for BoFEP. At the conclusion of the AGM there will be a brief meeting of the newly elected Steering Committee to elect the 9 members of the Management Committee for BoFEP. Reports etc. from last year's 2018 AGM are available online for review. The general meeting will be preceded by a Steering Committee meeting starting at 10:a.m. All Steering Committee members are urged to attend. Precise venue and agenda will be circulated shortly.

2. Bay of Fundy Science Workshop - May 13-15, 2020

The 13th biennial Bay of Fundy Science Workshop will be held May 13-15, 2020 at Truro, Nova Scotia. Check the BoFEP website [BoFEP 13th Bay of Fundy Science Workshop] for details of the workshop program, abstract submission, registration and accommodation information as it becomes available. The workshop theme is "Fundy's Future in an Era of Climate Change"

Proposed Major Topics:

- Climate change and the Gulf of Maine/Bay of Fundy
- Tidal power development
- Oceanography of the Bay
- Mass mortality events
- The future of wild fisheries
- Marine protected areas
- Recovery of the Petitcodiac estuary
- Shoreline issues
- Conservation of migratory shorebirds
- Plastics and chemical contaminants
- Coastal communities Issues of concern invasive species
- Ocean literacy and communications
- Impact of run-off on the Bay of Fundy

Other topics for sessions are welcomed and encouraged

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-2019_2020 (MS Word)

BoFEP-Membership-form-2019 2020 (PDF)

B. Partners and other organizations:

1. Gulf of Maine 2050 Symposium fast approaching!

A quick reminder that the Gulf of Maine International Symposium is coming up soon. It will be held November 4 - 8, 2019 in Portland, Maine. Science, government, industry, and community leaders from across New England and the Maritime Provinces will come together to explore environmental, economic, social and institutional perspectives on emerging climate challenges and opportunities in the Gulf of Maine. Symposium Details. Register before the October 5th deadline to ensure your spot -- space is limited to the first 320 people who register and it is filling up fast! Register Now

2. Second Fundy Geopark closer to realization

In July a team of UNESCO evaluators visited the Cape Chignecto area as part of the process for considering the area for designation and international recognition as a Global Geopark. BoFEP has submitted a letter in support of the Geopark designation. There are currently 3 Geoparks in Canada and 147 in 41 countries worldwide. Fundy already boasts the Stonehammer Geopark in southwestern New Brunswick. Designation of the Cliffs of Fundy Geopark would further solidify Fundy's reputation as a scientifically important area for studying and interpreting key early stages in the evolution of life on Earth. One of the evaluators stated that "the area is valuable for education and helping society understand the history of the earth". It is anticipated that a decision will be made about the geopark designation early next spring.

Evaluators from UNESCO visit proposed geopark [Sackville Tribune-Post]

Cliffs of Fundy supporters feeling confident following UNESCO evaluation [Cumberland News Now]

Cliffs of Fundy Aspiring Geopark Website

Cliffs of Fundy Aspiring Global Geopark Facebook Page

3. Funding for research on Fundy herring stocks

The governments of Canada and Nova Scotia recently announced funding of more than a million dollars under the Atlantic Fisheries Fund to "improve the effectiveness and sustainability of the fish and seafood sectors". Included is an extensive tagging study of major spawning populations of herring in the Bay of Fundy, which will help to support the efforts to rebuild the stock. Government of Canada and Province of Nova Scotia invest in projects for new technology and trade in the fish and seafood sector [Benzinga]

4. Fossil museum highlights gaps in evolutionary record

A recent news report featured the internationally recognized Blue Beach fossil museum, located on the shores of Minas Basin, operated for years by a dedicated couple operating on a shoestring budget. The collections offer a unique view into the environment and fauna from 350 years ago when vertebrates were making the perilous transition from sea to land. Cluttered little barn at the centre of a 350-million-year-old fossil mystery [CBC News]

5. Summer 2019 In With Tide Newsletter

The <u>summer issue of "In with the Tide"</u>, the quarterly newsletter of the Bay of Fundy Discovery Centre Association is now available online. This colourful, well-written and well-illustrated publication features articles on Summer around the bay, Creatures of the Cove, Offshore seabirds, A Hiker's Paradise, Navigating Safely and much, much more. An application form for becoming an individual member (\$10) of this worthwhile dynamic organization is located at the back of the newsletter.

C. Fundy/GOM and other News:

1. Study of threats to isthmus connecting NS with Canada

With climate change and sea level rise underway, the governments of NS, NB and Canada are committing \$700K to exploring ways to protect the roads, dykes and other infrastructure on the Isthmus of Chignecto linking NS to Canada.

Bids sought for ways to protect vulnerable isthmus joining N.B., N.S. [CBC News]

Nova Scotia is one 'perfect storm' away from being cut off from Canada [CBC News]

Amherst's mayor pleased with tender call for isthmus study [Cumberland News Now]

Flooding fears near N.S.-N.B. border prompt calls for fast dike fixes [CBC News]

2. Concern for Right Whales continues unabated

Right whales continue to dominate the news in the region. In recent years the animals appear to have largely shifted their summer feeding area from the Bay of Fundy/Gulf of Maine to the Gulf of St. Lawrence. Indications are that this shift is due to rising sea temperatures in the GOM leading to a reduction in abundance of key forage species of zooplankton such as Calanus. This shift has been accompanied by a rise in whale mortality as a result of ship strikes and entanglement in fishing gear. The Canadian government has tried to minimize such events by designating reduced speed zones for vessels, ordering the removal of fishing gear in areas where whales are sighted and funding more research projects. While the majority of fishermen have tried to follow the regulations there has been some pushback from Maine lobster fishers. The Marine Mammal Response Society and DFO have been working hard to pinpoint entangled and dead whales and where possible try to cut free the fishing gear or tow the carcass to a suitable location so that an autopsy can ascertain the cause of death. Other researchers are using drones to sample mist from blowhole of whales in an effort to assess their general state of health.

A sampling of recent reports that provide more details:

Two percent of the world's North Atlantic right whales have died in the last two months [CBC News]

More right whales are dying off Canada as climate change pushes food sources north, scientists
say [Bangor Daily News]

<u>Crucial food source for endangered whales declining in Gulf of Maine [News Center Maine]</u>

Why right whale extinction is on the horizon [The Coast Halifax]

DFO closes part of Bay of Fundy after 5 right whales spotted [Global News]

Slow response to right whale plight could have impact on Canadian fisheries [Global News]

Federal government invests \$3M in a dozen research projects to protect whales [CBC News]

How scientists are using drones to study the health of endangered whales [CBC News]

Maine lobster group blames Canada for most right whale deaths, injuries [CBC News]

Whale story has bias [Ellsworth American]

Right whale deaths prompt call for Canadian snow crab import ban in US [CBC News]

3. Wild salmon, farmed salmon and pesky escapees

These days, there are depressingly few stories that offer even a glimmer of hope for the future of **wild salmon**. One such describes the successful return of a large repeat spawner to its breeding grounds on Maine's Kennebec River after journeying for thousands of miles over two years, including navigating around four large dams and fish lifts.

Mind-boggling journey of one Atlantic salmon [Bangor Daily News; ASF].

Meanwhile, **open pen salmon farming** continues to generate controversy in the Bay of Fundy and elsewhere around the world. Recently, escapes of a thousand salmon from a Cooke Aquaculture site near Deer Island in Southwestern New Brunswick has again raised fears of negative impacts of escapees on the struggling wild populations. There are also concerns about the lack of transparency in reporting such escapes, something that Nova Scotia's Department of Fisheries and Aquaculture claims that it is dealing with. Press releases from the Aquaculture industry claim that the issue is being blown out of proportion, and problems usually result from "equipment malfunction or human error", so relax -- everything is fine in the world of aquaculture!

<u>Fundy Farmed Salmon Escape Leads to Call For More Public Transparency</u> [Global New; ASF]

<u>Atlantic Salmon Federation raises concerns after escape of farmed salmon</u> [Canadian Press; ASF]

<u>Aquaculture salmon escape detected in Bay of Fundy</u> [ASF Press Release]

1,000 farm-raised salmon escape from Canadian pen, some captured at New Brunswick dam [Bangor Daily News]

Farmed salmon industry blasts NGO over escape allegations [Intrafish]

Salmon farmers challenge escape claim "hyperbole" [The Fish Site]

Atlantic Canada Fish Farmers Association Issues Statement [Perishable News]

Nova Scotia beefs up aquaculture regulations [CBC News; ASF]

Slow, but steady, progress is being made in building the case (and the facilities) for **land-based aquaculture** as an environmentally sounder and far healthier alternative to problem-riddled sea cage

aquaculture. Other countries such as Denmark and Norway are making great strides in this regard. Closer to home, progress is being made in building a land-based salmon aquaculture facility near the mouth of the Penobscot River.

<u>Danes move to limit fish farms: An example we might follow</u> [Irish Examiner]

<u>LETTER: Comparing open-net to recirculatory fish farming</u> [The Telegram]

<u>Pure Salmon to invest in a 20,000 tonne land-based salmon farm in Lesotho</u> [Selibeng]

<u>Bucksport approves building permit for first phase of proposed Atlantic salmon farm</u> [Bangor Daily News; ASF]

4. Combating plastics in Fundy and beyond

A growing number of reports are clearly demonstrating that the Bay of Fundy is not immune from the scourge of plastics fouling our oceans and shorelines. Plastic pollution is found almost everywhere on the planet, including uninhabited pristine environments, and is impacting the environment, wildlife, and potentially human health. Plastic pollution has become one of the greatest global challenges of our time, and we have reached a defining moment and urgent action is needed. The Government of Canada has taken an action-oriented leadership approach to addressing plastic waste and pollution. As part of its 2018 G7 presidency, it spearheaded the Ocean Plastics Charter, which contains commitments and targets aimed at stopping plastic waste and the flow of plastics into the environment. Domestically, the Government worked with provinces and territories through the Canadian Council of Ministers of the Environment (CCME) to develop the Canada-wide Strategy on Zero Plastic Waste, which Ministers approved in principle in November 2018. For more details visit: Canada's Plastics Science Agenda.

5. Facelift for Cape Split

Nova Scotia is investing \$400k in upgrading iconic Cape Split and Burntcoat Head Provincial Parks in the upper Bay of Fundy. This will involve upgrading and expanding the trail system at Cape Split and the placement of coastal viewing platforms so that hikers can more safely enjoy the dramatic Fundy views. Cape Split to receive facelift with help of provincial funding [Digby Courier]

6. Positive news for Fundy's renowned shorebirds

Shorebirds have been in the headlines recently and for a change the news is generally positive. Firstly, CBC News featured a short descriptive article Witness a 'marvel of nature' as thousands of sandpipers fly as one over Minas Basin accompanied by a short dramatic video (1 min) of the shorebirds in flight.... truly a magical sight. See also New Brunswick mudflats to fill with more than 100000 sandpipers as part of annual migration [Global News]. In a move that will help ensure that this magic continues, the Nature Conservancy of Canada announced that the mudflats near Minudie and Amherst Point in Cumberland County and in the Cobequid Bay near Truro have been added to the Western Hemisphere Shorebird Reserve Network. The two new areas, join two previously recognized areas - Shepody Bay in New Brunswick and the Minas Basin close to Wolfville. Mudflats near Amherst, Truro added to Western Hemisphere Shorebird Reserve Network [Sackville Tribune-Post]. In yet another positive development, the Government of Canada recently announced the opening of a new shorebird discovery centre in the Shepody National Wildlife Area, located on the NB side of the Bay of Fundy about 60 km from Moncton. The new centre offers interpretation programming in the summer months for visitors to learn about the migration of shorebirds and the important role the Shepody National Wildlife Area plays in their survival. Canada opens new shorebird discovery centre in Shepody National Wildlife Area in New Brunswick [New Kerala]

7. Wetland Conservation at Fundy Winds Marsh

Amherst NS also has an outdoor education centre in its own backyard called the <u>Fundy Winds Marsh</u>. Besides insects, amphibians and waterfowl, the 25 acres of flooded marsh also harbours many species of mammals. Fundy Winds Marsh is a registered non-profit with a board of directors dedicated to wetland conservation and the education of future generations. The Marsh welcomes school and other groups. <u>Wildlife wonders await on the edge of Amherst</u> [Truro News]

8. Cool summer reduces Fundy dulse harvest

Grand Manan Island in New Brunswick, produces much of the world supply of dulse, a seaweed harvested from the ocean at low tide. About 100 people on the island make a living from harvesting dulse along the rocky shoreline. The wet weather this spring and summer has meant poor conditions for drying this tasty (to some!!) snack, so a large part of the harvest spoiled. <u>Dulse, the food from the sea that wasn't seafood</u> [CBC News - Includes short video (2:14 mins about dulse harvesting].

9. New Hantsport Aboiteau already eroding

The province's permanent(???) replacement of the aboiteau in Hantsport that failed almost two years ago is already beginning to deteriorate. The culvert completed in June at a cost of \$4 million is eroding around both the structure and embankment. Tony Bowron, a coastal ecologist with CB Wetlands and Environmental Specialists who wrote a report for the Department of Transportation and Infrastructure Renewal suggesting not to use a culvert — but rather to restore wetlands and upgrade roads — is not surprised the fix isn't withstanding the tidal power of the Bay of Fundy. Province's replacement for failed Hantsport aboiteau already eroding [CBC News]; The province spent \$4 million to replace the Halfway River aboiteau, and just months later it is already failing. [Halifax Examiner]

10. Sharks stealing headlines in Fundy this year

There are a number of dramatic reports of Great White Sharks visiting Fundy this year, including a particularly gruesome one of a GWS tearing a seal apart in front of horrified whale watchers. Some of these reports include a short video or photos of the attack. Another report, again with a video, describes the rescue by fishermen of a GWS caught in a herring weir in Back Bay, NB, about 80 km west of Saint John. As an interesting aside, all sharks tagged by Ocearch off Canada's east coast and elsewhere can be followed by visiting the Ocearch website. The database shows that one GWS named Luna, a 4.5-metre female, surfaced on Aug. 19 well up in the Bay of Fundy.

Whale watchers spot shark snacking on seal near N.B. coast [CTV News]

'It's the circle of life': Viral video shows shark attacking seal in Bay of Fundy [Global News]

Great white shark attack leaves tourists screaming in terror as water turns red [The Mirror]

Great White Shark Rips Apart Seal in Front of Tourists in Violent Video: 'Don't Get Eaten'

[NewsWeek]

Great white shark rescued in waters west of Saint John [Global News]

What a massive beast': great white shark rescued in waters west of Saint John [Global News]

Say hello to Sydney the shark [Cape Breton Post]

All sharks tagged in N.S. expedition can now be tracked on Ocearch website [CTV News]

11. Fundy winter water temperature returns to normal

DFO reports that the winter sea surface temperature around Nova Scotia, including the Bay of Fundy, was back to normal this past winter after a record warming last year. In 2018, winter sea surface temperatures from the Scotian Shelf to the Bay of Fundy were above normal. There were also record-breaking temperatures in August and September. However, it's unclear if this represents a trend. Ocean temperatures off NS dip after record-breaking year [CBC News]

12. Province stalls on removal of turbine from Bay

The province seems to be dragging its feet on moving ahead on the removal of a massive tidal turbine, installed in November 2016 and abandoned in the Minas Passage in the inner Bay of Fundy by the companies OpenHydro and Cape Sharp Hydro. The province had ordered it removed last April. The Energy Minister claims that "It's not spinning, It's in a safe state. There's no threat to marine life and we continue to look for solutions".

Province in no rush to retrieve former Cape Sharp turbine from Bay of Fundy [CBC News] Idle turbine to stay put this winter, no word on who will pay to retrieve it [CBC News] Bay of Fundy tidal turbine faces uncertain future as company yanks support [CBC News] No word on fate of N.S. turbine as OpenHydro's future questioned [CBC News]

13. A peek into Fundy's mysterious depths

A family of seasonal residents in Nova Scotia have been exploring areas of the Bay of Fundy with a small Remotely Operated Vehicle (ROV). They have videotaped a number of interesting undersea habitats and the creatures that dwell in them, including a shark and an ocean sunfish. Video of Ocean Sunfish [YouTube]; Couple explores the depths of the Bay of Fundy with a robot [Amherst News]

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