~ FUNDY TIDINGS ~

The Quarterly Newsletter of the

Bay of Fundy Ecosystem Partnership (BoFEP) February 2019 ~ Winter Issue

A. BoFEP and its activities:

1. Reports from BoFEP 2018 AGM

The 2018 Annual General Meeting of the Bay of Fundy Ecosystem Partnership (BoFEP) was held on Wednesday November 14, 2018 at Mount Allison University, Sackville NB. Guest speaker Matt Abbott, a Fundy Bay Keeper, working for the Conservation Council of New Brunswick, gave a talk entitled "Climate, People and other Animals of the Bay of Fundy".

The following are some of the reports presented at the meeting.

BoFEP 2018 AGM agenda (docx)

2017 AGM Minutes as Approved (docx)

Chairperson report 2018 AGM (pdf)

Report to 2018 AGM on Science Workshop (pdf)

Communications Report (docx)

EIUI Research Program Report 2018 (docx)

GOM 2050 Symposium Report (docx)

Ocean Literacy WG Report (docx)

BoFEP Steering/Management Committees 2018-2019 (docx)

2. Become a BoFEP Supporter

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. The 2018-19 membership fee for individuals and organizations is \$25.

BoFEP-Membership-form-2018 2019 (MS Word)

BoFEP-Membership-form-2018_2019 (PDF)

Benefits of becoming a BoFEP Member:

- Periodic emailing of Fundy Issues Fact Sheets and other BoFEP publications
- Quarterly electronic newsletter "Fundy Tidings"
- Opportunity to participate in a variety of BoFEP activities and workshops
- Opportunity to join the BoFEP Steering Committee
- A vote at the Annual General Meeting
- Knowledge that you are contributing to the efforts to sustain the Bay of Fundy as a healthy, productive ecosystem

B. Partners and other organizations:

1. Guide to marine life of GOM/Fundy

A book entitled "Common Marine Life of the Gulf of Maine" by Art MacKay provides Information sheets for 27 species of plants and invertebrates commonly found in the intertidal area in the Gulf of Maine and Bay of Fundy.. It will be particularly useful for teachers and tour guides. Each sheet includes a drawing or photo of the species and a written description with references. Sample flipbook and ordering printed or digital copies.

2. Ottawa to Develop an Aquaculture Act

The federal government announced in December that it will create a new Aquaculture Act to give clarity to the industry and set consistent national standards around things like transparency. The question is naturally whether the legislation will provide rigorous requirements and effective regulation. Federal

environment commissioner Julie Gelfand issued a report in 2018 warning of the disease risk that farmed fish pose to wild salmon, finding that Fisheries and Oceans Canada had not adequately balanced the industry's risks with its mandate to protect wild fish.

Ottawa to develop legislation setting standards for aquaculture sector (Ottawa Citizen)

3. Ottawa promises more aquaculture oversight

A <u>CBC report in December</u> indicates that the Canadian government is restructuring how it deals with the aquaculture industry in an attempt to bring more economic returns and environmental sustainability to the sector. Fisheries Minister Jonathan Wilkinson laid out the new approach to the sector, including creating a single comprehensive set of regulations to clarify how aquaculture is run in Canada. The department is also ordering a study on alternative aquaculture technologies to inform development of the industry, to be carried out with Sustainable Development Technology Canada and the province of British Columbia.

4. 2019 ACCESS Conference - May 8-10th

The 2019 Conference of the Atlantic Canada Coastal and Estuarine Science Society(ACCESS) will be held on May 8-10th at Saint Mary's University, Halifax, NS. <u>Information on program and registration.</u>

5. New IOI book focuses on ocean governance

"The future of ocean governance and capacity development - Essays in Honor of Elisabeth Mann Borgese (1918-2002)". Editor: International Ocean Institute - Canada . The International Ocean Institute-Canada has produced this collection of over 80 insightful essays on the future of ocean governance and capacity development. The book honors the work of Elisabeth Mann Borgese, preeminent ocean advocate and founder of the IOI.

6. Book that launched Fundy's sea urchin fishery

<u>"The Sea Urchin Roe Industry on New Brunswick's Bay of Fundy Coast"</u> by Art Mackay (110 pages) is a report on an extensive study that was carried out along the New Brunswick coast of the Bay of Fundy in the early 1970s and led to the establishment of a sea urchin roe industry along much of the Atlantic coast.

7. First Nations leaders in NS fish study

A new aquatic ecosystem study in Nova Scotia, dubbed the largest of its kind in the Maritimes, will see First Nations partners taking the reins as they work alongside academics. The \$1-million, three-year research program to study culturally and commercially important fish species in Nova Scotia is being led by a collaborative team that includes the Mi'kmaq Conservation Group, the Unama'ki Institute of Natural Resources (UINR), Acadia University and Dalhousie University's Ocean Tracking Network. The research project will build on existing infrastructure in the Minas Passage and Minas Basin on the mainland of the province and span Cape Breton's Bras d'Or Lakes.

New Nova Scotia fish study sees Indigenous partners leading the way (The Star Halifax)

8. Discovery Centre winter newsletter

The Winter 2019 issue of "In With the Tide", the quarterly newsletter of the Bay of Fundy Discovery Centre Association is now available online. Articles featured in this issue include: Creature of the Cove, Fundy Erratics, Fundy Flakes, A Great Place to Enjoy, A Digby Neck Welcome, O Christmas Tree, BITS Report, It's Storytime!, Fundy Improvements, FCDA Report. A complete archive of issues dating back to 2009 is also available.

9. GOM 2050 International Symposium

Mark Your Calendar for Gulf of Maine 2050! November 4 - 8, 2019, Portland, Maine. Science, government, industry, and community leaders from across New England and the Maritime Provinces will come together in Portland, Maine to explore environmental, economic, social and institutional perspectives on emerging climate challenges and opportunities in the Gulf of Maine. www.gulfofmaine2050.org

10. New Dal Research Fellow to study turbine installations

Fadi Oudah of Dal's Department of Civil and Resource Engineering, is one of the recipients of the 2018 "Belong Research Fellowship" in support of his research project: "Reliability-Based Approach for Optimizing Tidal Turbine Base Foundation for Reduced Weight". The objective of the proposed research is to employ probabilistic techniques to optimize the weight of the base foundation of fixed turbines for cost reduction purposes. Officially launched in November 2018, the goal of these fellowships is to provide pre-tenure faculty members from equity-seeking groups with support to further research in their respective fields. More information on fellowship recipients.

11. FSRS Conference and AGM - March 7

The Fishermen and Scientists Research Society will hold its 26th annual conference and AGM on March 7, 2019 at Best Western Plus Dartmouth, NS. Details of speakers and events are still being finalized, so stay tuned for program and other information! Each year, the FSRS organizes and hosts an annual conference and AGM that allows FSRS members, fishermen, scientists, industry workers, students and the general public to meet and discuss recent research and findings within the fishing industry.

C. Fundy/GOM and other News:

1. The Fabulous Puffin and the Disputed Island

A recently updated blog entitled "Puffins and Machias Seal Island – The Island that Canada Maintains and the USA Claims" provides an interesting overview of the long simmering dispute over ownership of the island near the mouth of the Bay of Fundy. It also outlines the efforts to protect the puffins and other birds that reside on the island by establishing the Machias Seal Island Migratory Bird Sanctuary.

2. Killer Whales in Fundy and beyond

Anyone interested in records of the sightings of Killer Whales in the Bay of Fundy should check out the Archiveatlantic blog entitled "KILLER WHALE RECORDS UPDATED – Rare but There!". Records, dating from the 1950s to the present, suggest that killer whale sightings in the Bay of Fundy are rare and that they are typically seen in small family groups, or pods. However, one individual named Old Thom, seemingly a bit of a loner has been seen in the Bay of Fundy in 2008, 2010, 2012 and 2014 as well as off Roseway Basin in 2009, sometimes in company with groups of dolphins. Also, on December 5, 2018 Fisheries and Oceans Canada posted the final version of the "Recovery Strategy for the Northern and Southern Resident Killer Whales (Orcinus orca) in Canada". This document amends the 2011 version to include identification of additional critical habitat for these populations and to provide minor updates to background and species information.

3. The facts about Bluefin Tuna in GOM

The Gulf of Maine Research Institute as part of its "Gulf of Maine Explained" series has created a new-video (3:14 mins) and blog that clarifies some of the confusion about Bluefin Tuna in the gulf region arising from much contradictory information in the news media and NGO community. Dr. Walt Golet of the University of Maine studies the populations and life histories of many species of fish, but if you ask him, he'll tell you bluefin tuna are special.

4. Fundy Groundfish and their mysid prey diminishing?

A recent Archiveatlantic blog entitled "ISSUES: If there's nothing for fish to eat, there's no fish for you to eat!" discusses observations on mysid crustacean populations in near shore Fundy waters and possible implications for stocks of groundfish. The mysids appeared to be particularly important as food for overwintering groundfish such as pollock and cod. It is suggested that an increase in development along the shores may have played a part in the disappearance of mysid shrimp. As a result the near shore fishery pushed away from shore, the herring fishery is gone, and many overwintering populations of groundfish have disappeared."

5. Podcast discusses saving inner Bay of Fundy Salmon

A podcast (14:51 mins) by CityNews entitled "These Atlantic salmon need humans to survive" discusses the attempts to save the inner Bay of Fundy salmon stocks. Last year they tried to save 900. Only 70 made it back. The year before that, only 32 survived. This is life for the Inner Bay of Fundy Salmon, a particular breed of Atlantic salmon that have been populating rivers around the bay for more than 10,000 years. Today there may be as few as 200 left.

6. Alton gas storage project delayed again

<u>CBC New reports</u> that a controversial plan to store natural gas in huge underground caverns north of Halifax is facing more delays and renewed scrutiny over its potential impact on one of Nova Scotia's most important rivers. <u>Alton Natural Gas LP</u>, which had planned to start the process of creating the caverns before the end of the year, says that plan has been put on hold because of "project and regulatory planning." [CBC News]

7. Video about Fundy mystery ship Mary Celeste

Filmmaker Jerry Lockett has recently produced a fascinating video entitled "Mary Celeste: Nova Scotia's Mystery Ship". The video (22:07 mins) describes the Bay of Fundy, Nova Scotia (Spencer's Island, 1861) origins of the brigantine "Mary Celeste." The vessel's abandonment by its captain and crew in the North Atlantic in 1872 remains one of the most enduring mysteries of the sea.

8. Plastic waste in Fundy persistent

CBC News recently presented a story entitled <u>"How a 30-year-old grocery bag was beachcomber's 'wow moment' on plastics"</u> The story features Karen Jenner a Nova Scotia woman spends hours each week combing beaches near her farm for trash the Bay of Fundy's powerful tides wash ashore. Recently, she discovered a Dominion grocery bag she believes is from the 1970s. It was still remarkably intact.

9. Turbines and tidal power talk - March 4th

On Monday March 4th from 6:30 - 8:30 p.m. at the Halifax Central Library the NS Environmental Network and Halifax Public Libraries will jointly sponsor a presentation entitled "Let's Talk Tidal Power: What's Happening in the Bay of Fundy". Nova Scotia is home to some of the world's greatest tidal power resources in the Bay of Fundy. However, after decades of research and pilot projects, there is concern that the present course of development has negative consequences for the natural systems of the Bay and the livelihoods that depend on it. This panel presentation brings together tidal researchers, developers, regulators, First Nations, and fishers for a balanced discussion on the past, present, and future of Fundy tidal projects.

10. Troubled turbine overwinters in Bay

CBC News reports that it will be at least March before a massive, damaged turbine resting on the floor of the Minas Passage can be removed from the water; but who will pay for its retrieval — and just how much it will cost — remains up in the air. OpenHydro Group and OpenHydro Technology filed for liquidation in Ireland this summer after parent company Naval Energies yanked support for tidal power. OpenHydro had been working with Nova Scotia's Emera on the Cape Sharp Tidal Venture — an attempt to test tidal power generation in the Bay of Fundy.

Idle turbine to stay put this winter, no word on who will pay to retrieve it (CBC News)

11. Concern about Annapolis tidal power plant fish kills

There is renewed public concern about the impact of the Annapolis Royal Tidal Generation Plant on Fish populations in the Annapolis River. Small groups of protesters have held periodic demonstrations on the causeway to draw attention to the issue. Soon after the plant's opening studies by researchers from Acadia University showed that the turbines were killing large numbers of fish. However, DFO largely ignored the problem until recently when it announced that it will undertake a review of the plant's operation. This review will be led by the Canadian Science Advisory Secretariat (CSAS) Once completed, the results will be made public on the CSAS website http:www.dfo-mpo.gc.ca/csas-sccs/index-eng.htm this information will be used to determine if the facility is compliant with federal legislation. DFO's

conservation and protection program will also be periodically monitoring the site for fish mortality in the coming months. If members of the public witness an environmental emergency, including fish mortality, they may report it to the Environmental Emergencies reporting number 1-800-565-1633. Alternatively, fish kills can be reported directly to DFO at OccurrencesMaritimes.XMAR@dfo-mpo.gc.ca

<u>Protestors on Annapolis Royal causeway want end to fish kills</u> (The News) Bay of Fundy Water Protectors (Facebook)

12. Growing interest in Fundy wind energy

While tidal energy has captured most of the headlines about renewable energy in the Fundy region, there is a steadily growing interest in harnessing the region's considerable wind energy. Nowhere is this more evident than in the Tantramar region at the head of the bay. There's a 16-turbine wind farm on the Tantramar Marsh. Operated by Capstone Infrastructure Corporation, it produces 32 megawatts of power. There's also a six-megawatt, two-turbine project — the Amherst Community Wind Project — just outside the town. The turbines have the capacity to power 1,892 homes while offsetting 10,606 tonnes of carbon dioxide annually.

OUTSIDE IN: Wind key in Nova Scotia's push to renewable energy (The Western Star)

13. Tidal flooding near Hantsport ~ failing coastal infrastructure

For more than a year, the world's highest tides have rushed up the Halfway River, spilling its banks, destroying land and threatening homes and other properties, including a cemetery and the local ballfields. Wells that once provided families with clean, fresh water now offer brine. The problem is attributed to a broken aboiteau and an eroding protective dyke. About a decade ago, the aboiteau failed, and slowly but surely the earth dam eroded until, in the fall of 2017, it gave out completely.

<u>VIBERT: Province doesn't have Hantsport's back</u> (Truro News)

<u>Province announces it will make fixes to failed Hantsport aboiteau</u> (CBC News)

Hantsport's failed aboiteau not only railway's problem to fix: owner (Kings County Advertiser)

14. Gulf of Maine warming fast!

ArchiveAtlantic features a blog entitled <u>"ISSUES: The Gulf of Maine is one of the fastest warming spots on Earth – What does it mean?"</u> Since 2004 the gulf has warmed faster than any place else on the planet, except for an area northeast of Japan. During the "Northwest Atlantic Ocean heat wave" of 2012 average water temperatures hit the highest level in the 150 years that humans have been recording them. Andrew Pershing, the chief scientific officer at the Gulf of Maine Research Institute, says that the warming the Gulf of Maine is currently experiencing is unprecedented, both in its speed and temperature.

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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