~ FUNDY TIDINGS ~

Newsletter of the

Bay of Fundy Ecosystem Partnership (BoFEP) May 2023 Issue

A. BoFEP and its activities:

1. BoFEP Chair featured in podcast on Pollution

BoFEP Chair Peter Wells recently participated in a podcast entitled "An Ocean of Pollutants" organized by the Maritime Aboriginal Peoples Council, as part of a series called "Emerging Ocean Topics" They are intended for the off-reserve community of Indigenous people in the Maritimes but the topics are far reaching and of interest to a far wider audience. Other topics include a noisy ocean, sea level rise, climate change and Hurricane Fiona. <u>Listen to Pollution Podcast.</u> (54:49 mins).

2. Become a BoFEP supporter.

Members are the heart of our organization. As a non-profit, volunteer organization, we rely upon donations and membership dues from individuals and organizations to operate our core activities and programs. 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. Please take a moment to renew your support for BoFEP and the important work it does on behalf of the Bay of Fundy and its natural and human communities. BoFEP Membership Form docx BoFEP Membership Form pdf.

B. Partners and other organizations:

1. Coastal Zone Canada Conference in June!

Coastal Zone Canada Conference 2023 "Connecting with the Coast" will be held June 11 - 15, 2023 in Victoria, B.C. Features engaging keynote speakers, panel discussions and break-out groups; Network with hundreds of people with a passion for the coastal environment; Our first inperson conference since CZC2018 in St. John's! Conference Information . Download Full Agenda.

2. ASF publishes new volume on Atlantic Salmon

To celebrate its 75th anniversary, the <u>Atlantic Salmon Federation</u> teamed up with Goose Lane in Fredericton to publish a hardcover book called "the Atlantic Salmon Treasury" featuring the best articles and photos from the Atlantic Salmon Journal printed over the past 6 decades. It's the second volume in the Treasury series. The first was published in 1974, highlighting stories that appeared in the early issues of the magazine, which began in 1952. Learn more about the project by reading our <u>Q&A with editors</u> Monte Burke and Charles Gaines. Only 700 were printed. Support ASF by ordering today. \$125 plus shipping. Email <u>mailto:jbaldwin@asf.ca</u>

3. Activist fights Fundy's coastal garbage

A Nova Scotia woman is chronicling her journey of cleaning up garbage and debris from the Bay of Fundy shoreline. Karen Jenner, from Lakeville, N.S., says beach-cleaning is something she's always done with her family before it became her passion. Woman collects 18 tons of garbage off Bay of Fundy beaches in five years (SaltWire). Beach garbage: N.S. woman captures shoreline cleanups for social media (Global News). Capturing Coastline Cleanups on Camera (Global News Video 5:40 mins)

4. New EAC video series dissects NS climate plan

In a six-episode video series entitled "Voices on the Climate Plan", the <u>Ecology Action Centre</u> interviewed different community members, leaders and organizers to get their thoughts on Nova Scotia's climate plan released in December 2022. <u>Voices on the Climate Plan</u> (EAC)

5. Renaming the St. John River?

New Brunswick's minister of Aboriginal affairs says the province won't change the name of the St. John River to the Wolastoq, saying it's not a priority. First Nations chiefs have been calling for the name change for years. Last year, New Brunswick's systemic racism commissioner recommended including Wolastoq in a new name for the river. 'No intention' of changing St. John River's name to Wolastoq, cabinet minister says (CBC News)

6. EAC celebrates kelp harvesting Industry

Join the <u>Ecology Action Centre</u> to celebrate the exciting potential for local kelp farming and product development in Nova Scotia. This emerging and innovative sector could be a small but important part of a sustainable, diverse and resilient coastal economy? The EAC's Kelp Kurious project is focused on supporting this growing sector and is inviting you to come out and show your support for a Nova Scotian future full of kelp! Kelp Fest 2023

7. Society seeks to protect old growth forest areas

The Arlington Forest Protection Society was established in 2020 to protect and conserve forests along the North Mountain of the Annapolis Valley in order to preserve biodiversity, create wildlife corridors, and prevent clear-cutting of mature and old growth forests through the acquisition and/or donation of land to the Society. Its mission is to foster long-term caring relationships with the land in order to protect biodiversity, species-at-risk, and the Wabanaki Forest by identifying their positive influence on planet health, providing opportunities to connect with the land, and participating in projects and educational programming. More information about the Society and upcoming events. Also check out their Facebook and Instagram pages. How a group of neighbours in Annapolis County saved 19 hectares of forest from clearcutting (CBC News).

C. Fundy/GOM and other news:

1. New Tidal Turbine to be Tested in Minas Basin

BigMoon Power will soon be deploying this tidal power device named the Falcon in the Minas Basin in the Bay of Fundy. The company calls the floating water wheel the Kinetic Keel. BigMoon will soon be filling its anchors — modified rail cars — with cement in Walton, N.S. They will then be transported across the Minas Basin to the tidal power site near Parrsboro. Unlike other failed tidal power projects that put turbines on the ocean floor, BigMoon's power generator floats on the surface of the water and a kinetic wheel spins with the current. Walton marina to assist BigMoon Power's tidal energy project in Minas Basin (CBC News).

2. New turbine to be tested in Fundy this summer

Deployment of the 50kW version of the Scottish/French technology developer Nova Innovation two-bladed concept – which has been trialled at megawatt-scale in the Shetland Islands and is set for a maiden outing this summer in Canada's Bay of Fundy – has been backed by the EU's €5m (\$5.35m) Element marine renewables technology development scheme. <u>'Whole new market' | French tidal power back in the water with Nova Atlantic estuary pilot</u> (Recharge)

3. Tidal Company to halt plans, citing red tape

Sustainable Marine Energy says it's giving up on plans for Minas Passage. The company says it is stepping back from its application for a site with the non-profit Fundy Ocean Research Centre for Energy (FORCE) near Parrsboro, N.S. A spokesman said "We have been working for about three years to get an authorization from DFO to deliver our project, but we are basically coming up against a brick wall." It is also is suspending operations in Grand Passage near Brier Island after failing to get the needed permits. <u>Tidal power developer slams DFO for years of delays, stops application for N.S. project</u> (CBC News). <u>Sustainable Marine Energy halts operations in Grand Passage due to permit delays</u> (SaltWire Network) <u>Tidal energy company blames DFO as it pulls out the Bay of Fundy</u> (CTV News) <u>A Once-Promising Green Energy Technology Hits a Roadblock</u> (New York Times)

4. But tidal power halt may be temporary???

Blaming federal government bureaucracy, the company shut down five years of operations and tens of millions of dollars in investments to bring tidal power to the grid in Canada. However, Sustainable Marine's removal of tidal energy turbines from the Bay of Fundy may not be a final exit. They are hopeful that operations can restart in the near future. Sustainable Marine holds out hope that tidal energy project will restart (CTV News). Will tidal energy company return to Bay of Fundy? (CTV News video 1:51 mins)

5. Rising sea level a threat to tidal power?

To pull power from the waves, you need a high tidal range or strong currents. Sea level rise threatens to mess with both. In a recent paper, scientists show how sea level rise could upend the viability of tidal energy in sites around the world, turning presently prime spots into duds. They think that sea level rise is "going to displace, eliminate, or create new optimal sites across the system." For those looking to install tidal power generating infrastructure—equipment designed to last for decades—this could be a problem. Tidal Power's Fickle Future (Hakai Magazine). As Sea Levels Rise, Tidal Power Becomes a Moving Target (UnDark)

6. Dealing with NBs radioactive waste?

Less than a kilometre from the western shore of the Bay of Fundy, the Point Lepreau Solid Radioactive Waste Management Facility temporarily houses about 160,000 spent fuel assemblies from New Brunswick's only nuclear power reactor. Moltex Energy, a Saint John-based startup, proposes to recycle that radioactive waste into fresh fuel for a new 300-megawatt reactor called the Stable Salt Reactor-Wasteburner, or SSR-W. Moltex vows to help Canada recycle its nuclear waste. Critics say the byproducts would be even worse (Globe and Mail)

7. NS halts creation of new fish farms

Nova Scotia has quietly imposed a moratorium on applications for new marine fish farms until it assesses, maps and rates the coast for suitable locations. Since the Progressive Conservative government came to power in 2021, Nova Scotia Fisheries and Aquaculture Minister Steve Craig has not issued options to lease open-net pen sites — effectively closing the door to entrants. The ban does not apply to companies seeking options to lease sites for shellfish and seaweed harvesting. With assessment underway, Nova Scotia has quietly imposed a moratorium on fish farming (CBC News)

8. How much garbage in Fundy's depths??

Marine debris, particularly plastic and abandoned, lost and discarded fishing gear, is ubiquitous in marine environments. This study provides the first quantitative and qualitative assessment of benthic debris using seafloor video collected from a drop camera system in the Bay of Fundy, Eastern Canada. POLLUTION – So how dirty is the bottom of the Bay of Fundy? Read all about

<u>it!!</u> (Atlantic Alive) <u>"Benthic marine debris in the Bay of Fundy, eastern Canada: Spatial distribution and categorization using seafloor video footage"</u> (Marine Pollution Bulletin 150 2020.

9. New study of microbial dynamics in Fundy Mudflats

Protists (microbial eukaryotes) are a critically important but understudied group of microorganisms. They are ubiquitous, represent most of the genetic and functional diversity among eukaryotes, and play essential roles in nutrient and energy cycling. Yet, protists remain a black box in marine sedimentary ecosystems like the intertidal mudflats in the Bay of Fundy. Community dynamics of microbial eukaryotes in intertidal mudflats in the hypertidal Bay of Fundy (Nature - Article number: 21 2023)

10. Project encourages spread of Kelp in coastal areas

A recent Dalhousie University survey of Nova Scotia's coast documented an astonishing 85 to 99 per cent loss of kelp forests, mostly due to warming waters, which kill the corals that kelp use as anchor points. A chunky new concrete called Oceanite could play an important role in the recovery of these underwater forests, serving as an anchor on which kelp and other organisms can re-establish. A new kind of concrete could help regrow depleted kelp forests off Nova Scotia's coast (Canadian Geographic)

11. Dulse harvesting on Grand Manan

A skill passed down through generations, dulsing isn't what it used to be on New Brunswick's Grand Manan Island. With a population of approximately 2,700, almost everyone on the island has dulsed. Your parents or grandparents were dulsers, you've harvested or you know someone who does. It's one of the Island's identifiers. But there have been changes recently. The Ebbing Tide of Dulse (Modern Farmer)

12. New documentary features Fundy Sandpipers

A spectacular new video documentary by Moncton filmmaker and Mt A grad, Anas Nannis, entitled "PEEP the Great Migration" had its premiere in Sackville NB in February 2023. It tells the story of the semi-palmated sandpiper, and its amazing annual journey from the arctic to Brazil, with a weeks long re-fueling stop in the Bay of Fundy. A tiny shorebird that cannot swim, Peep will complete this 4,000 kilometer, 72-hour non-stop flight over the open ocean to reach his destination, facing numerous threats along the way. Sandpiper documentary PEEP premieres at the Vogue on Sunday (CHMAFM). Video Trailer (0:33 mins) Peep: The Great Migration - Official Trailer (Fibe TV1)

13. Fundy shorebird habitat slated for protection

The federal government says it will set aside portions of the inner Bay of Fundy for marine conservation. The goal is to upgrade protections for an internationally important habitat for migrating birds. This habitat for migrating birds in the Bay of Fundy will soon be protected (CBC News. Video 2:45 mins)

14. Iconic Fundy Sandpiper statue recreated.

For about 20 years, a wooden statue of Shep the Sandpiper—the world's biggest, they say—stood in Dorchester Village square, an homage to the natural wonder the birds create, and an attraction to passersby. But in recent years Shep has been missing, having fallen victim to wood rot and been taken down for repair. Residents from the village were determined to bring Shep back. Dorchester residents pitch the return of Shep the Sandpiper to village square (CHMA 106.9 FM). Shep the bird statue returns to Dorchester, N.B., but not without controversy (CTV News)

15. Tracking Fundy sea ducks on radar

The migratory path of black scoters is being followed over southeastern New Brunswick by researchers from Acadia and Mount Allison University, using marine radar and acoustic monitors set up in the Memramcook, Petitcodiac and Tantramar areas. The findings could help protect these large sea ducks that migrate each spring from the Bay of Fundy, and further down the Atlantic coast, to northern Quebec and Labrador. Radar tracking sea duck migration across southeast N.B. skies (CBC News).

16. Great White Sharks making a comeback?

After decades of decline, the Great White Shark appears to be making a recovery. They were one of the first species listed as threatened in both Canadian and international waters. In 2003, biologist Boris Worm published a <u>watershed research paper on the collapse of sharks</u> in northwest Atlantic – setting off alarm bells in the scientific community. Now, it's illegal to land white sharks or trade their body parts. If caught on a longline, they must be released alive." And it's really brought the number of mortalities down and the numbers we see in the wild up," said Worm. According to Worm, tagging and public awareness campaigns have also helped. The current population of white sharks in the Atlantic region is estimated to be about 2,000. <u>Great white sharks slowly making recovery in Canadian oceans: researcher</u> (CTV News Video 3:43 mins)

17. Right Whale protection still a priority?

There continues to be a plethora of news articles about the dire situation for populations of North Atlantic Right Whales and the ongoing efforts to monitor the population and develop workable ways to avoid ship strikes and minimise fishing gear entanglement, the two major contributors to whale mortality. The following is a representative sampling of the recent overage:

How listening to North Atlantic right whales could help humans protect them (Dal News)

(Yahoo!Finance)

We Need a National Strategy on Whale Ship Strikes (Common Dreams)

<u>It's time for Canada to relax fishery closures around right whale sightings, committee says</u> (CBC News)

Right whales: towards an easing of fishing restrictions? (The Saxon)

North Atlantic right whales are spending more time in Canadian waters (The Saxon)

Canada continues strong measures to protect endangered North Atlantic right whales

Meet Porcia and her baby: Season's first North Atlantic whale mom, calf in Cape Cod Bay (Cape Cod Times)

<u>Scientists weigh in on recommendations for North Atlantic right whale measures</u> (CBC News) <u>New recommendations stand to hurt already suffering North Atlantic right whales</u> (National Observer)

Whale-rescue experts in N.L. are showing their Canadian colleagues the ropes (CBC News)

18. Rising temperature and water threaten Fundy

Climate change and the accompanying rise in sea level continue to dominate the headlines. The Gulf of Maine/Bay of Fundy region appears to be particularly prone to rising temperatures as recent alarming warming trends attest. Ocean temperatures off Nova Scotia hit record highs last summer, eclipsing the record-breaking temperatures set in the Atlantic a decade earlier. Concern also grows for the potential for massive flooding in areas around Fundy, particularly in the upper bay where rising water could destroy communications and transportation infrastructure and essentially turn Nova Scotia into an island. Ocean temperatures soared to new 'pretty

alarming' highs off Nova Scotia in 2022 (CBC News). "Rather alarming" warming of waters around Nova Scotia (The Saxon) Bay of Fundy temperatures hit record high in 2022 (Yahoo!News). N.S. oceanside hamlet bands together to protect itself from climate change (CBC News). N.S., N.B. urged to apply for federal cash to protect land link from rising seas (CBC News). Rising Waters: N.S. and NB urged to apply for federal funding (The Saxon). Upgrade dikes 'as quickly as feasible' before major flood hits Chignecto Isthmus, Amherst mayor tells provincial governments (CHMA 106.9 FM)

19. Students seek to protect dykelands from rising sea

As global temperatures continue to increase, sea levels in Atlantic Canada also rise due to the expansion of ocean waters and melting terrestrial ice. As a result, dykelands in New Brunswick are becoming overwhelmed. To address this issue, final-year engineering students at the University of New Brunswick (UNB) teamed up with the New Brunswick Department of Transportation and Infrastructure (NBDTI) to look at ways to protect the dykelands along the Bay of Fundy from rising sea levels. UNB Newsroom)

20. Exploring Fundy's fabulous fossils

Scientists have recognized Fundy's paleontological abundance since the 1840s, when coal mining revealed fossilized flora and fauna. Over the Earth's three evolutionary eras, the region has been a volcanic incubator of invertebrate life; an oxygen-rich, biodiverse rain forest that gave rise to dinosaurs; and a tundra dominated by furry, roving giants like mastodons. Anyone can discover a fossil on this beach—if you wait out the tides (National Geographic). You can go fossil hunting on this beach and live out your Jurassic Park dreams (The Manual). Finding fossils on this beach in Canada is so easy and fun! (Lodi Valley News).

21. Hopewell Rocks: a Fundy geological treasure

For thousands of years, the massive tides of the Bay of Fundy have been patiently sculpting their masterpiece in Hopewell Cape, New Brunswick. With over twenty free-standing sea stacks peppered along two kilometers of shoreline, no Atlantic Canadian vacation is complete without experiencing these icons. Wait six hours as the Ocean Floor transforms in ways you wouldn't have believed possible. Hopewell Rocks Provincial Park (Parks/Parcs New Brunswick).

22. Halls Harbour and its Tides featured.

Interesting article about Halls Harbour NS and its record tides, including a time lapse video (1:25 mins) of the rising water. Watch The World's Largest Tide Lift an Entire Harbor Out of the Mud (AZ Animals)

D. ADMINISTRIVIA

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