# ~ FUNDY TIDINGS ~

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

June 2020 ~ Summer Issue

# A. BoFEP and its activities:

# 1. BoFEP moving forward despite Covid-19

In spite of the Covid-19 pandemic the BoFEP Management Committee has been holding its regular monthly meetings via conference call. A subcommittee has been developing a new strategic Plan for BoFEP as well as an accompanying work plan for the coming year. This will soon be presented to the Steering Committee for consideration. We are pushing ahead with our communication, information synthesis and outreach activities as well as looking into the possibility of forming a couple of new working groups to focus on particular issues facing the bay of Fundy (of which there are many!!!). We are also pushing ahead with plans to expand the membership of BoFEP and also find ways to engage the members more directly. We anticipate that the cancelled joint conference/workshop with ACCESS will go ahead next spring. Once we receive confirmation from Dalhousie that the conference facilities will be available we will reissue the call for abstracts and begin developing a new conference program. In the meantime you can keep up with BoFEP and its activities on the website <a href="https://www.bofep.org/wpbofep">www.bofep.org/wpbofep</a> or by checking its Facebook page at <a href="https://www.facebook.com/BayofFundyEcosystemPartnership/">https://www.facebook.com/BayofFundyEcosystemPartnership/</a>.

## 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 2020-21 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. Coronavirus puts GOM awards on hold

Because of the Coronavirus pandemic the Gulf of Maine Council has canceled all in-person events and meetings until further notice. There is also a 'pause' on the 2020 awards program and they are not accepting nominations at this time. Although future plans are uncertain, the intent is to reopen the awards program later this year to recognize volunteers, professionals, businesses and organizations for their outstanding efforts to promote a healthy Gulf of Maine ecosystem. Nominations already submitted will be held for review when the program reopens, and you will be kept posted about future plans. More details.

# 2. Facebook page spotlights Fundy beach garbage

Tons of debris floats in the ocean and great quantities of it washes ashore with the tide. I want to show people the garbage that I see on the beaches of The Bay of Fundy where I live. I started out by collecting only one item, lobster escape hatches. Since January 16, a lot of rubber lobster claw bands have been removed from the Bay of Fundy shoreline in Kings County, Nova Scotia. 11,893 have been picked up, a rather depressing amount because that is only a very small number compared to what comes ashore with the tide. The total removed is now at 49,899 bands. https://www.facebook.com/kleanitup18/

#### 3. Atlantic Salmon Journal wins Gold

The Atlantic Journalism Awards were announced recently and ASF's quarterly magazine, the Atlantic Salmon Journal, won the gold prize for magazine feature writing. The winning article, written by Ben Goldfarb, looks at global warming and the ability of wild Atlantic

salmon to adapt. Congratulations to ASF and its quarterly journal. <u>Too Hot to Handle? Salmon and Climate</u> (Atlantic Salmon Journal July 2019)

# 4. New book on NB freshwater fishes

Scientists at the University of New Brunswick's Canadian Rivers Institute are set to publish the first definitive guide on the province's inland fishes in more than six decades. It includes information on 54 species, including 42 native to the region. The 230-page "Inland Fishes of New Brunswick", by Mark Gautreau and Allen Curry, includes hundreds of photos and maps, and will be published this summer. Full article (Telegraph Journal and ASF).

## 5. Aquaculture concerns bring together NS organizations

Conservation Groups around Nova Scotia have joined forces to form a new alliance called the Healthy Bays Network to fight against open-net pen fish farms. It includes the St. Mary's Bay Protectors, Protect Liverpool Bay, the Twin Bays Coalition representing Mahone and St. Margaret's Bays, the Association for the Preservation of the Eastern Shore, and with support from the Ecology Action Centre, the Atlantic Salmon Federation, and the Nova Scotia Salmon Association. The Healthy Bays Network is pushing for land-based closed-containment farms. Groups fighting open-pen fish farms form alliance (Halifax Today)

#### 6. Discovery Centre spring newsletter available

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

## 7. ASF 2019 Annual Report released

The <u>2019 ASF Annual Report</u> details the organization's activity of last year, and provides an overview of the group, its programs, and the generous support for Atlantic salmon conservation that is so important to so many.

# 8. NOAA Regional Climate Reports for Northeast

NOAA has released its latest Regional Climate Services Quarterly Climate Impacts and Outlook reports for the Eastern Region. These Regional Climate Impacts and Outlook reports offer an engaging two-page snapshot of recent weather and climate events and anomalies; discuss regional weather and climate impacts on the region's ecosystems and economy; and offer a forecast for the coming three months. The region experienced a mild winter with several significant storms that brought mixed precipitation. Sea surface temperature anomalies over the entire Gulf of Maine region were above normal. These positive anomalies were strongest (1.4°C [2.6°F]) over deeper areas of the eastern Gulf and in the Bay of Fundy and weaker (less than 0.5°C [0.9°F]) in nearshore regions along the entire coast. GOM Winter 2020.

# C. Fundy/GOM and other News:

#### 1. Unique vessel to harness Fundy tidal power

The Bay of Fundy is the ultimate test for any ocean-energy entrepreneur, and for a century inventors have been experimenting in its treacherous waters. The renewable energy source has never quite lived up to its potential, but a new experiment in Nova Scotia could flip the script. A Scottish firm Sustainable Marine Energy is testing a unique turbine equipped moored trimaran capable of producing nearly 280 kilowatts of energy. Sometime this summer the vessel will start sending electricity into the Digby Neck power grid and become the only operational floating tidal energy plant in North America. The Push for Tidal Power Faces Its Biggest Challenge Yet (Smithsonian Magazine April 2020)

# 2. Alton Gas project on hold again

The Nova Scotia Supreme Court has ordered the province to resume consultations with Sipekne'katik First Nation over a controversial natural gas storage project on the banks of the Shubenacadie River. The court ruled that the former Nova Scotia environment minister was wrong in concluding that the province had adequately consulted with the First Nation about the project. The parties are to resume talks for 120 days, "or for such time as the parties mutually agree." Siding with First Nation, N.S. judge overturns Alton Gas approval (CBC News)

## 3. New study: Alton Gas project won't harm striped bass

A new study by researchers at Dalhousie University's Agriculture Campus in Bible Hill says that Alton Natural Gas LP's plan to release brine water created by hollowing out underground salt caverns won't have a significant impact on those eggs or at the critical larval stage. The study found that salt brine at the concentration Alton Gas proposes to discharge into the river is not acutely toxic to striped bass eggs or larvae. Those who fish the river don't trust Alton Gas, its engineering or this latest study that it paid for. Alton Gas plan won't hurt bass, study concludes (Saltwire Network)

## 4. Opposition to open pen salmon farms ramp up

Ralph Surette, in Halifax's *Chronicle Herald*, argues that Nova Scotians are watching changes to open net-pen salmon aquaculture around the world, and wondering why companies have their sights set on the province's coastline. He argues that "these floating pig farms have worn out their welcome and are being pushed out of the fjords of Norway, the lochs of Scotland, the coast of Ireland and the inlets of B.C., or having their expansions blocked". But, he adds "there are a couple of backwaters — Atlantic Canada and Chile — which are the favourites of salmon companies because politicians there are easy pickings, amenable to the standard (and highly profitable) poop-in-the-water technique." End looms for open-pen salmon farms and time for Atlantic Canada to get on board (Chronicle Herald)

#### 5. NS politicians deaf to fish farm opposition

Major aquaculture companies Cermaq and Cooke have proposed expanding open-net fin farm operations into St. Marys Bay and Nova Scotian waters. The villages of Westport, Freeport and Tiverton are opposed. Much of Digby Neck is opposed, and our municipality is also in opposition. Each bay with options to lease has strong opposition: St. Marys Bay, Liverpool, Mahone Bay, St. Margarets Bay and Hubbards. The question remains: with such strong opposition, why are politicians not listening to constituents? Why don't politicians listen to fish farm opposition? (Chronicle Herald) In spite of this widespread opposition, the tone deaf NS government decided in March to extend the deadline for Cermaq to majke a decision about expanding into Nova Scotia. Cermaq gets extension on deadline for Nova Scotia fish farm leases (CBC News)

**Update**: Clearly, Cermaq is not as deaf as our politicians. In early April the company decided to abandon its plans to expand into Nova Scotia, claiming that it couldn't find the 15-290 sites required. Salmon farming giant Cermag abandons controversial Nova Scotia expansion (CBC News)

#### 6. Survey of Salmon diseases on in eastern Canada

A multi-year study by DFO and ASF of wild and aquaculture escape salmon in Eastern Canada (including the Bay of Fundy) has provided scientists and the public with a first look at the viruses, parasites, and bacteria infecting salmon. This novel analysis provides a baseline and has identified several opportunities for future research on pathogen transmission among wild and aquaculture salmon and between European and North American populations at sea. Salmon viruses, bacteria surveyed in Eastern Canada for first time (Atlantic Salmon Federation)

#### 7. Gene bank only hope for saving inner Fundy salmon?

A recent DFO report presents a dire population estimate and suggests that fewer than 105 adult Atlantic salmon in total are returning to the inner Bay of Fundy's 50 rivers each year. Their survival is now almost entirely dependent on two federal fish hatcheries. The report is based on modeling, surveillance and analysis from 2013 to 2017. Live gene bank only hope for inner Bay of Fundy salmon (CBC News)

#### 8. Salmon makes second return to Penobscot

A returning Atlantic salmon has made the journey for a second time, a relative rarity among Penobscot fish. This Atlantic salmon has returned to the Penobscot more than once. Here's why it's special (Bangor Daily News)

#### 9. Maine urged to put salmon on its species at risk list

While Atlantic salmon are endangered on the U.S. Federal list, there would be conservation advantages if it was also on the state's list as well. Conservation groups have sent a letter encouraging this step. State urged to include Atlantic salmon on endangered species list (Bangor Daily News)

## 10. Hantsport Aboiteau permanent fixed?

NS Department of Transportation and Infrastructure Renewal (TIR) says that the latest work at the site aims to put a "more permanent repair to the structure" in place. Nearly \$6.5 million in costs are known to date, and TIR will provide an update when the job wraps up this spring. TIR will monitor the culverts to ensure the structure continues to function successfully for the long term. The end goal is to protect the area from destructive localized flooding that could potentially pose a risk to public safety. Work on 'more permanent' Hantsport aboiteau fix underway, TIR says (Chronicle Herald)

## 11. DFO Responds to Windsor Causeway Petition

The Nova Scotia Department of Transportation and Infrastructure Renewal (NSTIR) is proposing to twin and upgrade the existing Highway 101 in Hants County, Nova Scotia. The project also includes the replacement of the tidal gate (aboiteau) structure located at the outlet to the Avon River. A petition was submitted to the House of Commons by Friends of the Avon River calling for a portion of the existing Windsor Causeway to be removed to return free tidal flow of the Avon River. In April the government released its response to the petition. In January, authorization was issued for Phase 1 of the project which involves the placement of fill material near the mouth of the Avon River to prepare for the highway twinning. One hundred seven thousand and three hundred squared metres (107,300m2) of fish habitat will be affected by infilling the Windsor saltmarsh. In accordance with the Fisheries Act, NSTIR will offset the residual impact from the infilling by restoring comparable tidal wetland habitat, by breaching agricultural dykes and removing three aboiteaux along Salmon River, near the confluence with the North River, in Onslow in Colchester County. Phase 2 of the project will include the replacement of the existing aboiteau, which is a complex flood control structure that forms part of the overall dykeland system for the communities of Falmouth and Windsor. Phase 2 will include fish passage structures and also require a Fisheries Act authorization for the construction and operation of the new aboiteau. Full details of petition and response. Also see response of local Facebook group.

#### 12. Fish kill in Avon River

A Nova Scotia fisherman is speaking out about the "catastrophic" handling of a recent fish kill around the Avon River causeway in Windsor. The incident left the river bottom littered with thousands of gaspereau carcasses. "We cannot allow this to happen anymore," said area fisherman Darren Porter, who works with the Mi'kmaw Conservation Group collecting data on fish passage through causeways.DFO said the department is aware that "a number" of fish were found dead in the Avon River will try to determine the cause of death. Avon River fish kill leaves N.S. fisherman frustrated (CBC News)

#### 13. Milltown Dam to be removed

Indigenous Nation and NGOs representing thousands of people in Maine and New Brunswick are united in support of NB Power's decision to remove the Milltown Dam, the oldest hydroelectric facility in Canada, and restore free flow to the lower Skutik (St. Croix) River. Groups cheer on Milltown Dam Removal (ASF/CCNB) Remove dam, let St. Croix River run freely, says Fundy Baykeeper (CBC News)

## 14. Photo Essay on Machias Seal Island puffins

Straddling the United States and Canada, the small and wondrous **Machias Seal Island** entices visitors with the clamorous calls of thousands of seabirds gathered together in harmony. A visit to the <u>Machias Seal Island Migratory Bird Sanctuary</u> is extraordinary, where you can witness one of the most significant nesting colonies of Atlantic puffins along the Northeastern coast. <u>Cooped Up? Photos Of This Puffin Island Will Make You Feel Free</u> (Forbes)

#### 15. Feature story on Machias Seal Island and its seabirds

Machias Seal Island is best known for its disputed ownership, claimed by both Canada and the United States. For students of nature, the jurisdiction of Machias Seal Island comes second to its wildlife, supporting on these remote rocks one of the world's most southerly colonies of Atlantic puffins, alongside

razorbill auks, common murres, Arctic terns and myriad others. Naturalist Zack Metcalfe recently visited the island and describes its history and natural history. One remote Fundy isle and the seabirds that claim it (Canada's National Observer)

## 16. Video of seabirds on Machias Seal Island.

Nova Scotia filmmaker Jerry Lockett of Red Heron Productions recently released a short (2:45 mins) fascinating video The Seabirds of Machias Seal Island.

## 17. Video of Sandpipers of Fundy

Mary's Point & Johnson's Mills in the upper Bay are the backdrop for a short (5:18 mins) video of millions of shorebirds returning to the mudflats. Watch the birds prepare for their 4,500km non-stop flight to South America. Travel out onto the mudflats to meet the tiny mudshrimp they're feeding on. Look through an electron microscope and discover the mud shrimp are eating tiny organisms called diatom. <a href="https://doi.org/10.1001/johns.nih.gov/">THOUSANDS</a> of Bay of Fundy Shore Birds! (Videoband.ca)

## 18. Time lapse video of tide at Hopewell Rocks

The Hopewell Rocks Tidal Exploration Site is a fantastic place to experience the Bay of Fundy's world famous tides. To help guests understand a full tide cycle, the Centre set up a camera and took 1 photograph per minute from before sunrise until after sunset. The resulting 926 photos were then each used as a frame of video to create this glimpse of the world's largest tides. To fully appreciate this natural wonder, come spend a day on the ocean floor. YouTube video (0:54 mins) For more information, visit <a href="http://www.thehopewellrocks.ca">http://www.thehopewellrocks.ca</a>

#### 19. DFO initiative to reduce marine plastic pollution

Each year, more than eight million metric tons of plastic end up in the world's oceans. A major contributor lost and abandoned fishing gear. DFO has challenged small businesses across Canada to find innovative ways to prevent plastic waste from entering our aquatic environments. Two local Nova Scotia businesses are among the first to receive grants from Fisheries and Oceans Canada for their innovative solutions to minimize the loss of fishing gear and repurposing old fishing gear into useful products. Ashored Innovations Ltd. is receiving a grant of \$102,000 to design a low-cost acoustically activated ropeless fishing system and gear tracking system for use in the lobster and crab fisheries. Goodwood Plastic Products Ltd. is receiving a grant of \$103,000 to improve properties of plastic wood lumber products by incorporating end-of-life fishing nets and ropes, providing a solution for fishing gear at the end of its lifecycle. More information.

#### 20. More MPA's for Bay of Fundy?

Sections of the Bay of Fundy could come under federal protection as the Federal government increases protected marine and coastal areas from 1.3 per cent to 5 per cent by 2017 and to 10 per cent by 2020. Maxine Westhead, section head for DFO's Marine Protected Areas Program for the Maritimes, says those targets are driving current consultations. Fifteen areas within the Bay of Fundy have been identified so far as areas of interest. Westhead says consultations are taking place with community and industry groups, as well as scientists, and "we`re open to anyone who wants to have a say." Anyone interested in taking part in the discussions can contact her at <a href="Maxine.Westhead@dfompo.gc.ca">Maxine.Westhead@dfompo.gc.ca</a>. Large sections of Bay of Fundy could come under federal protection (CBC News)

Parks Canada has also completed a study of the Bay of Fundy to identify sites of ecological importance and the outer Bay of Fundy comes up as the highest priority for protection. This report is a first step in establishing a National Marine Conservation Area in the Bay of Fundy.

The Canadian Parks and Wilderness Society CPAWS is also working to establish a network of MPA's in the Bay of Fundy to protect its important natural features. This includes establishing a National Marine Conservation Area near Digby Neck and Islands to protect an important marine zone where whales congregate each year. Atlas of Marine Protection: Bay of Fundy (Marine Conservation Institute/CPAWS)

## 21. Elver fishery closed because of conflicts

The multimillion-dollar baby eel or elver fishery in Nova Scotia and New Brunswick has been shut down amid escalating conflict between commercial and Indigenous harvesters. A DFO ministerial order prohibiting all elver fishing in both provinces was issued on April 27 and is in effect for 45 days.

Ottawa orders temporary shutdown of Maritime elver fishery (CBC News). Inside the secret, million-dollar world of baby eel trafficking (CBC news)

# 22. Efforts ongoing to restore American Shad populations

American shad are found along the entire East Coast, ranging from the St. Johns River in Florida to Labrador. Overfishing, pollution and the construction of dams, which block migrating fish from reaching spawning grounds, nearly wiped out many shad runs along the coast. American shad populations declined sharply in the late 20th century, however, this trend may be reversing, thanks to the cooperative efforts of Wildlife Resources and the U.S. Fish & Wildlife Service. As summer approaches, adult shad from all along the East Coast gather in the Gulf of Maine. Large numbers move into the Bay of Fundy, following the coast of Nova Scotia in late spring, and move through the head of the bay through the summer months. As summer turns to fall, the shad move along the coast of New Brunswick as they begin the return trip south. American Shad Restoration Efforts Continue (Coastal Review Online)

## 23. Preserving Walrus Fossils from Fundy

Researchers at the conservation lab at the New Brunswick Museum are working to preserve some rare semi fossilized walrus bones from two animals that were dredged up in the Bay of Fundy by scallop fishermen from St. Mary's First Nation. The bones date back approximately 10,000 years. <u>Full article</u>. (CTV Atlantic News)

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