



Hammond River Angling Association Winter 2023 Newsletter 2023 EVENTS

UPCOMING EVENTS

HRAA Family Fishing Derby (June 3rd & 4th, 2023)

Our dates for the 2023 Family Fishing Derby are June 3rd & 4th, 2023. We look forward to seeing all of the familiar faces again this year, as well as some new ones!! Registration page will be opening in April! Visit <https://www.hraa.ca/fishingderby> to register online!

Hook and Paddle (June 10th, 2023)

Hammond River Angling Association will once again be hosting the Hook and Paddle Fishing tournament! If you are interested in taking part in the Hook and Paddle series, check out their website at www.hookandpaddle.ca or search Hook and Paddle on Facebook.

NEWS

Larry's Gulch Raffle Tickets on Sale Now!!

We are selling tickets on a trip of a lifetime to Larry's Gulch on the beautiful Restigouche River! Tickets only \$20 each or 3 for \$50. Tickets will be on sale until May 13th when we will do our big draw at the HRAA Salmon Dinner & Auction. All proceeds will go towards conservation and education within the Hammond River Watershed! You can buy your tickets online at <https://www.hraa.ca/larrysgulchdraw>

HRAA is now a Registered Charity!!

As of January 2023, we now have Registered Charitable Status designation. This means that any donations made to the HRAA from now on will qualify for a tax receipt. This will also open up many new opportunities for potential funding partners! Thanks to our Treasurer, Paul Daigle, for all of the many, many hours you put into this!!

Queen's Platinum Jubilee Award Winners

A big congrats to 2 of our staff members, Sarah Blenis and Melissa Crilley, who were each nominated and awarded the Queen's Platinum Jubilee Medal for their countless volunteering hours and dedication to their community. Sarah was awarded the medal in the Sussex Region and Melissa in the Quispamsis Region! Congrats Ladies!

Hammond River Angling Association Presents:

Larry's Gulch Draw

3 Days, 2 Nights
June 5th-7th
On the Beautiful Restigouche River

Tickets are \$20 or 3/\$50
Only 400 Tickets Available!
Draw Date: May 13th
Prize Value: \$2200!
Meals, Lodging, Guide and Canoe Included!
Order Online Today!
<https://www.hraa.ca/larrysgulchdraw>







Hammond River Angling Association Winter 2023 Newsletter 2023 DINNER & AUCTION

2023 Dinner & Auction

Our Annual Dinner & Auction is BACK!!!

We are celebrating our 25th Anniversary Dinner with some great surprises this year! We are back at our original location of St. Mark's Church Hall. Tickets go on sale in a couple of weeks for only \$60 each!

NEW this year:

Conservation Table Levelled Sponsorships

Platinum Sponsorship - \$2000 (tax receipt of \$1800)

Gold Sponsorship - \$1500 (tax receipt of \$1300)

Silver Sponsorship - \$750 (tax receipt of \$550)

Conservation Table Sponsors will be recognized throughout the evening for their contribution towards our ongoing work here at the HRAA!

We will be offering guests the chance to reserve a separate table of 8 for yourself and friends as a way of accommodating everyone and their preference to be seated with people they know during these COVID times. Please get your group together and let us know at office@hraa.ca who your group of 8 will be!

If anyone has any new items they would like to donate to the dinner, send us a message and we will reach out!

We can't wait to see all of our returning friends and new ones as well!



ONLY \$60

Mark your Calendars for the
HRAA 25th Anniversary Dinner!

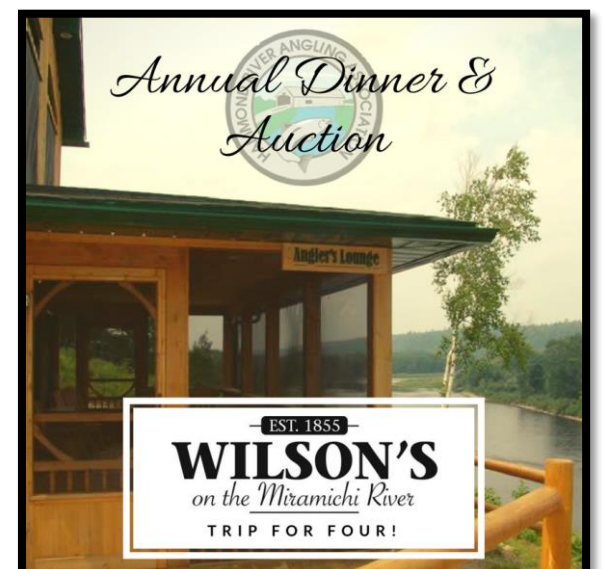
Get your tickets now!

MAY/13th/2023

As a "registered charitable" organization, Tax receipts will be provided for donations and \$30 towards your ticket price

This is just a glimpse of what you can expect from this years fulfilled evening.

- We are back at St. Marks Church
- Dave McFarlane Catering a hip of roast beef dinner
- Arms length draw, heads or tails 50/50 contest
 - All inclusive fishing trips
 - Huge live and Silent auction
- Shad fishing on the Kennebecasis with Steak & Wine and Giffin Artworks Studio tour
 - Hand carved salmon net
 - 25th anniversary surprises for everyone





Hammond River Angling Association Winter 2023 Newsletter MEET-A-BOARD MEMBER

Meet-A-Board Member

Ryan McPherson

I grew up in Charlotte County and have always enjoyed the outdoors. My wife Melanie and our golden retriever Manny live in Rothesay.

When I am not on one of the many beautiful rivers or lakes in our province I am usually on an ATV, motorcycle or snowmobile. I have a bachelor of business and MBA from UNB. In 2008 I obtained my Supply Chain Management Professional designation and then served on the New Brunswick Supply Chain Management Association as Accreditation Director and then President from 2012 to 2016.

I am honoured to be asked to volunteer on the HRAA board and excited to contribute to a great organization focused on education, conservation and preservation of the waterway for generations to come.

Ryan



Welcome,
Ryan!



Hammond River Angling Association Winter 2023 Newsletter PROJECTS

2022 Projects Year End Update

1. Environmentally Educational Classes

Education is a cornerstone of the programming we offer at HRAA. This year, we hosted 12 Ducks unlimited wetland tours, 10 classes for Fish Friends and Splash Days to release their unfed fry, and 12 classes for our Riverkeepers unit.



2. Annual Family Fishing Derby

We hosted our 2nd annual fishing derby on family fishing days this past June. We had 321 registrants, with over 800 fish caught and released. With a wonderful donation from FishKids, we were able to give out 30 brand new rods, and with additional sponsorship, we were able to provide multiple different prizes, draws, and a free lunch. We will be hosting our 3rd annual family fishing derby this upcoming June 3rd & 4th.



3. Shoreline Cleanup Events

This past year we hosted 3 shoreline cleanup events with 21 volunteers total and collected 22 bags of garbage and 5 bags of recyclables.



4. Monofilament Recycling

Speaking of cleaning up recyclables, this past year we expanded our monofilament fishing line recycling program. Launched in 2021, HRAA built 12 bins and installed them throughout the watershed. The program was such a huge success, that we expanded it for 2022. In total, we built 67 bins and distributed these to watershed organizations across the province- from the Miramichi, to the Meduxnekeag, all the way to the Restigouche. In collaboration with our 12 project partners, we were able to remove over 5km of fishing line from the environment!



5. Carbon Capture Collaborative

Collaboration is key, and in 2022 we partnered with the Kennebecasis Watershed Restoration Committee and the Belleisle Watershed Coalition to form the Carbon Capture Collaborative, a two year project to undertake riparian planting while collecting soil samples to determine carbon sequestration. This year, we hosted 3 planting events, and planted 1195 native trees and shrubs in 4 sites throughout the watershed. We are currently looking for new sites for planting in the 2023 season!





Hammond River Angling Association Winter 2023 Newsletter PROJECTS

2022 Projects Year End Update

6. Freshwater Mussel Survey

In 2022, we performed a freshwater mussel survey to update the 2018 mussel survey findings. The 2018 survey only found 2 species of mussels and concluded that the mussel range was limited to the lower watershed below French Village Pool; however, this is not the case. In 2022, we surveyed 28 sites and documented 6 different types of mussel species and mussels can be found throughout the entire watershed. Mussels are an excellent bioindicator of the water quality, and each type of mussel requires a fish host for its larvae. The Eastern Pearlshell, which was the most populous mussel species documented, requires salmonids as host. On a whim, we performed a mussel survey in Porter Brook, which has not had any surveys performed within it since 2008- we found the highest density of Eastern Pearshells in the entire watershed within this tributary, and when we electrofished this brook in the fall, we found salmon smolt!



7. Smallmouth Bass Tagging

The interactions between smallmouth bass and Atlantic salmon is a hot topic, so in 2022, we aimed to expand our knowledge on the abundance, distribution and movement patterns of smallmouth bass in the watershed, and the spatiotemporal overlap with salmonids. We weighed, measured, and floy tagged a total of 74 bass of various size classes; however, only 2 smallmouth bass were recaptured and reported. As such, we are expanding the project into 2023, which will include floy tagging an additional 300 bass, and focusing our efforts on recapturing to determine their movement and overlap with salmon.



8. Kelt Tagging

This past spring, we partnered with the Atlantic Salmon Foundation and the Maliseet Nation Conservation Council to assist with a large-scale salmon tagging project to track Atlantic salmon migration patterns in the offshore regions in eastern Canada over a five-year period. We successfully captured 2 kelt, both of which had received acoustic tags. Tissue samples and scale samples were sent for laboratory analysis, and we examined scale samples under a microfiche and determined that both kelt are indeed wild. We will be repeating this project in April, so stay tuned for updates!





Hammond River Angling Association Winter 2023 Newsletter PROJECTS

2022 Projects Year End Update

9. Fish Friends & Splash Days

Fish Friends is a classroom classic, and this upcoming year, the HRAA will be revamping the program and curriculum. This program has not been updated since 2001 and could use some TLC. We will be creating new materials, new teacher and student handbooks and activity books, and creating a corresponding 10-part video series to increase participation through online learning.

10 Schools
 Currently Have Working Equipment
 New Curriculum
 Program Not Updated Since 2001
 10 Videos
 Increase Participation & Online Learning

10. Redd Counts

Another classic is our annual redd count event! This year we were joined by HRAA's Kids Fishing Club to perform a redd count survey in the lower watershed in advance of the main counting event. The kids had a blast, and got to see evidence of redds, or scratch marks. Later on that day, we were joined by 20 other participants, and a drone, and surveyed 6 different stretches of the river. Our field staff then completed additional surveys in 7 other sites, and in total we found 57 redds. This is down from the 72 documented in 2021; however, we did not get to all the spawning hotspots before heavy rainfall. We also assisted the Nashwaak Watershed Association learn what redds are, how to perform redd count surveys, and provided them with educational outreach materials so they could host their first redd count in over 15 years! This collaborative effort will give us greater knowledge on the overall status of outer bay of fundy Atlantic salmon.

Youth Redd Count
 10 Kids Fishing Club Participants
 57 Redds Counted
 13 Survey Locations
 Annual Redd Count
 20 Participants & Drone Footage

11. Electrofishing

We also performed electrofishing surveys in the fall of 2022. The first site we checked was Porter Brook, to follow up on the Eastern Pearlshell mussels, and found a lovely salmon smolt. We then electrofished 3 other tributaries in the Hammond that are adjacent to the riparian areas we planted this year to collect additional data. Then we worked with the Kennebecasis Watershed Restoration Committee and helped them to survey 6 sites within the Kennebecasis River watershed and found one salmon parr. Unfortunately, after our 6th site, our electrofishing backpack unit majorly malfunctioned- it's calibration is completely out of whack, and the emergency shut off system no longer engages, so we were not able to complete surveys in our index sites. With an incredible donation from a board member, we will be getting a new backpack unit this upcoming year and will be able to update on juvenile densities at the next AGM.

10 Sites E-Fished
 6 in Kennebecasis, 4 in Hammond
 2 Juvenile Salmon
 1 in Kennebecasis, 1 in Hammond
 1 Broken Backpack
 Survey Not Fully Complete




Hammond River Angling Association Winter 2023 Newsletter PROJECTS

2022 Projects Year End Update

12. Electrofishing Results

Here are the results from the electrofishing that we were able to complete before the backpack unit went on the fritz. We use the Simpson's Biodiversity Index ranking, that uses species richness and species abundance to score the diversity in a waterbody. What is interesting to note is that Porter Brook ranked as "moderately high"- not bad for a site that has been left out for 20 years! The top ranked site is the Mine Discharge Brook, which connects to the Upham Gypsum Mine.

Electrofishing Results 

River	Site	Presence/Absence	Number	SBI Ranking
Hammond	Mine Discharge Brook	No	0.81	High Degree
Kennebecasis	Smith Creek @ Manning Rd.	No	0.74	Moderately High
Kennebecasis	Kennebecasis @ Adair	No	0.71	Moderately High
Kennebecasis	Trout Creek @ Bucanon	No	0.7	Moderately High
Hammond	Porter Brook	Yes	0.65	Moderately High
Hammond	O'Dell Brook	No	0.64	Moderately High
Kennebecasis	Smith Creek @ Oldfield Rd.	No	0.62	Moderate
Kennebecasis	Kennebecasis at Dunsinane	Yes	0.6	Moderate
Hammond	McGonagle Brook	No	0.47	Moderate
Kennebecasis	Trout Creek @ Creek Rd.	No	0.05	Low Degree

13. Environmental Compliance Monitoring of Upham Gypsum Mine

We are now going on our third year of environmental compliance monitoring for the Upham Gypsum Mine. We collect water quality samples from 3 sites- north, east, and south of the mine, and we also perform habitat surveys and fish population surveys within the south site. We did not record any issues in 2022.

Environmental Monitoring



Monthly Water Quality Samples from 3 Sites

Habitat Assessment & Fish Survey in WC3 South

No Issues in 2022

14. Water Quality Monitoring in the Hammond

In addition to water quality monitoring at the gypsum mine, we also perform monthly water quality sampling of 15 index sites, as well as habitat assessments and invasive species monitoring. This year, we also added 3 new sites for water quality testing- Monnett Brook (which is connected to Henry Lake), Snow Brook along the Robertson Road, and Prospect Brook atop Prospect Mountain.

We use the Canadian Council of Ministers of the Environment Water Quality Index Calculator to rank the sites based on the sample results. It is nice to see that Palmer Brook's water quality is improving compared to its 2000 ranking as a Class C tributary, or impaired. There is ongoing industrial expansion pressure in the headwaters of Palmer Brook, cutting into the Provincially Significant Wetland Area, and this tributary should remain a top priority for monitoring. Monnett Brook, one of our 2022 new additions, scored well, and will not be included in the 2023 sampling season. Snow Brook, Prospect Brook, Fowler Brook and Scodic Brook contain high levels of trace metals, including iron and aluminum, which decreased their ratings. Both of these tributaries also had very high coliform counts, and this will be further investigated in 2023.

15 Index Sites

Monthly Water Quality Samples

Habitat Assessments
Substrate, Flow, Erosion, Crown Coverage, Barriers to Fish Passage

Invasive Species Monitoring



Water Quality Index Rankings

Site	WQI Score	WQI Category	Site	WQI Score	WQI Category
Hanford Brook	85.8	Good	Hillsdale	45.2	Marginal
O'Dell Brook	85.2	Good	Bradley Brook	45.1	Marginal
Donnelly Brook	81.2	Good	Jenny Langstroth	43.5	Poor
South Stream	80.7	Good	Groom's Brook (lower)	42.9	Poor
Palmer Brook	80.1	Good	Bonney Brook	42.3	Poor
North Branch	80.1	Good	Bradley Brook	42	Poor
Monnett Brook	80	Good	Snow Brook	41.2	Poor
Hammondvale	77.9	Fair	Fowler Brook	40.7	Poor
Germaine Brook	77.8	Fair	Billie Brook	40.6	Poor
Porter Brook	77.7	Fair	Groom's Brook (upper)	40.5	Poor
Salt Springs Brook	72.5	Fair	Sandstone Brook	40.1	Poor
McGonagle Brook	71.4	Fair	Prospect Brook	38.4	Poor
			Scodic Brook	37.7	Poor



Hammond River Angling Association Winter 2023 Newsletter PROJECTS

2022 Projects Year End Update

15. Cyanobacteria

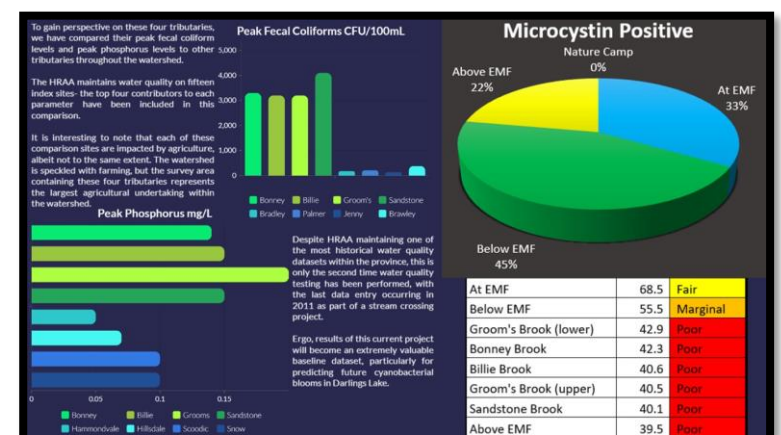
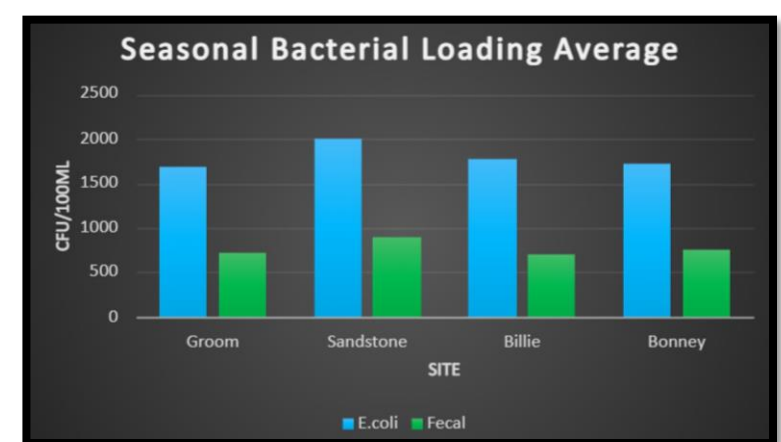
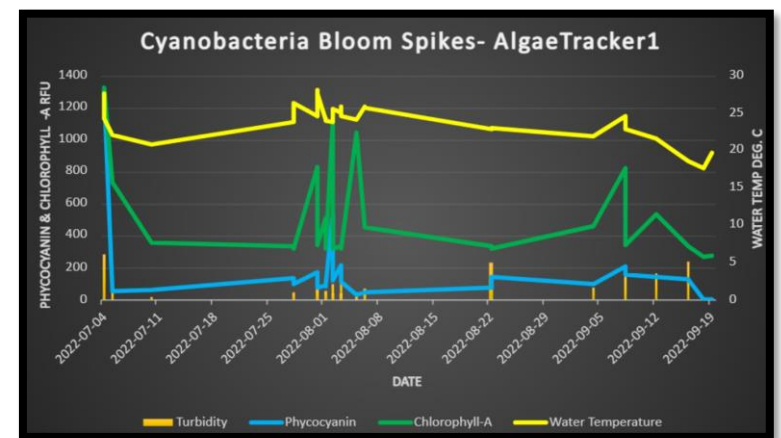
Anywhere there is water, there is cyanobacteria; indeed, these tiny photosynthetic organisms live virtually everywhere on Earth and help create an oxygen-rich atmosphere, but it is when these organisms quickly and exponentially multiply in waterbodies that cause concern.

Throughout 2022, HRAA worked closely with ACAP Saint John, local leaders in cyanobacteria monitoring; AquaRealTime and their team of experienced engineers to deploy two AlgaeTracker sensors; E.M. Fluids Inc, a Canadian company piloting the EMF1000 (a cyanobacteria mitigation device); GNB's skilled field team and outreach resources, and local landowners to gain as much data and insight into triggering mechanisms of cyanobacteria blooms as possible.

The EMF1000 is a self-contained, solar-powered, cleantech solution that uses proprietary non-irradiating signals to stimulate the water. The device increases the gas exchange rate at the air-water boundary and in turn increases dissolved oxygen (DO) in the water column. This promotes aerobic conditions and concurrently suppresses anaerobic conditions.

AlgaeTrackers are new technology that collect continuous data on temperature, chlorophyll-a, phycocyanin, turbidity, and light penetration and have programmable, shareable dashboards to connect with all your project partners, and allow you to set alerts when levels are reaching threshold for algal blooms.

We also installed 5 temperature and light data loggers, and collected water quality samples from the four tributaries that feed Darlings Lake, as well as three sampling locations directly in the lake. This project also included the creation of the educational unit "Be in the Cyan-Know", to help youth understand the importance of looking before you leap, and we created the Facebook Page, BloomWatch NB to share cyanobacterial outreach materials and water quality advisories.





Hammond River Angling Association Winter 2023 Newsletter OPERATIONS / SPONSORS

OPERATIONS

Office

The offices are now open to the public, so feel free to stop in and say hi! You can also reach us by phone at 832-1230 or by email at office@hrra.ca.

Rentals

We are open for rentals at the Hammond River Conversation Center! Call Melissa at 645-1698 to book your rental today! Members receive 20% off all rentals!!

Facebook

Follow our page on Facebook!

You can find us here: <https://www.facebook.com/hammondriveranglingassociation>

Membership

Join our membership or buy-a-brick today at <https://www.hrra.ca/membership>

Thank you to our Sponsors

