



Minutes

Friday, June 21, 2024

12:00 pm

Baxter Ward Community Centre, Port Severn

Present (In-person)

Aaron Rusak (Chair)
Brian Boчек
Terry Crew
Neil Hutchinson
Cathy Oakden
Peter Sale

Nancy Alcock
Susan Boudreau
Joan Frain
Richard Lammers
David Parsons
Kevin Trimble

Patricia Arney
Javier Cappella
Andrew Fyfe
Pete LeMoine
Michael Peppard

MWC Staff

Rebecca Willison

DMM Staff

Glenn Cunnington

Kate Franks

Julia Lamb

Guests

Rupert Kindersley
Greg Mariotti
David Sweetnam
Peter Koetsier
Jennifer Schnier

Katrina Krievins
Brad Sokach
Julie Cayley
Karen Way
Tony Van Dam

Sarah Song
Nancy Parsons
Andy Metelka
Stephanie Clare

MWC Volunteer Appreciation Lunch

MWC members and volunteers enjoyed lunch catered by Fresh Kutz before the meeting began.

Welcome

MWC Chair Aaron Rusak called the meeting to order at 1:00 pm. He reflected on his lifetime connection to Georgian Bay and thanked everyone for coming, despite the long drive for some. He recognized National Indigenous Peoples Day and recommended a book he is currently reading titled "The Seven Generations and The Seven Grandfather Teachings" by James Vukelich Kaagegaabaw.

Aaron thanked the Township of Georgian Bay for the use of the Baxter Ward Community Centre and he also thanked Councillor Brian Boчек for representing the Township on MWC. He recognized the Township of Georgian Bay staff and councillors, attendees from local Georgian Bay organizations, MWC volunteers and members in attendance.

Councillor Brian Boчек delivered the Land Acknowledgement.

Confirmation of Minutes

MOTION

Moved by Kevin Trimble, seconded by Neil Hutchinson

THAT the Minutes of the Muskoka Watershed Council meeting dated May 24, 2024 be approved.

CARRIED

Business Arising from the Minutes

- None.

Doug Cross Stewardship Recognition Program

Aaron presented the Doug Cross Stewardship Recognition Award to long-time MWC member Pete LeMoine (left).

Pete has been a cottager on Morrison Lake since birth and a few years ago he and his family made the cottage their home fulltime, much to the benefit of MWC and the Gravenhurst community.

Pete has been the lake steward for Morrison Lake for many years and has been involved with Lake Partner Program water testing for decades. He spearheaded implementation of the Love Your Lake program on Morrison Lake and is heavily involved in encouraging good stewardship practices on the lake.

Pete is also a familiar face in Gravenhurst, volunteering his time with Gravenhurst Against Poverty, where he fills in any where he is needed, from packaging food, loading carts and cars, delivering food, and even mopping floors. He served as a member of the Gravenhurst Environmental Advisory Committee and a director of the Parry Sound Muskoka Community Network.

Pete joined MWC in 2017, where his business background complements the ecology and science expertise of the other members. He very quickly became an invaluable volunteer, holding a variety of roles including chair of the Communications Committee, Co-chair of the Membership Committee, organizing events, presenting to municipal councils, developing the strategic plan, and, until recently, being a director.

Pete has been described as “humble, hard-working and wears his kind heart on his sleeve for all to see,” and everyone who has met him will agree. MWC is incredibly lucky to count Pete as a member we wanted to recognize his good work with this award.



Committee & Project Updates

- **Fundraising Committee** – Peter Sale reported that the Committee has been busy but has nothing concrete to report yet. They have had several meetings over the past few weeks. They have reached out for professional expertise and they hope to have a plan soon. The goal is to become a stronger, more capable organization.
- **Membership Committee** – Michael Peppard reminded all MWC members to fill out the survey that was sent out a couple of weeks ago on how we can better engage them in the work of MWC.
- **Integrated Watershed Management** – Kevin Trimble reported that seven of the nine watershed municipalities MWC requested money from to support the IWM program have approved the request. The Community Roundtable continues to meet monthly, and he noted that enthusiasm for moving IWM forward remains high in the Area Municipalities with a fall meeting planned, and the District of Muskoka continues to play an important role.
- **Muskoka Summit on the Environment** – Peter Sale reported that the 2024 Muskoka Summit on the Environment will be taking place on October 4th. It will be a one-day event with the theme “Resilience”. The Pre-planning Committee is starting to reach out to potential speakers. They are also looking at how to get high school students engaged. Peter is looking for more volunteers, specifically to help with the logistics of the event, like promotion, advertising, sponsorships, etc.

Presentations

- **Township of Georgian Bay** – *Peter Koetsier, Mayor*

Mayor Peter Koetsier welcomed everyone to the Township of Georgian Bay and highlighted some of the unique characteristics of the Township and its connection to the rest of Muskoka, as well as to Parry Sound to the north and Midland to the south. Water is the common connection for all.

- **[Severn Sound Environmental Association](#)** – *Sarah Song, Inland Lakes Water Quality Stewardship Intern*

Sarah Song gave a brief overview of the [Severn Sound Environmental Association](#) and highlighted some of their programs, including the State of Severn Sound report to be released this summer, the Sustainable Severn Sound (SSS) climate change collaborative, their invasive species program, tree planting program, and a couple of new programs they are carrying out this summer to naturalize shorelines.

- **Georgian Bay Biosphere** – *Katrina Krievins, Aquatic Conservation Programs Coordinator*

Katrina Krievins provided an overview of the [Georgian Bay Mniidoo Gamii Biosphere](#) and noted that they are celebrating their 20th anniversary of being a designated biosphere this year. She highlighted some of their work in education and monitoring, as well as their work with local indigenous communities.

- [Georgian Bay Land Trust](#) – Aaron Rusak, Protected Areas Manager

Aaron Rusak gave an overview of the [Georgian Bay Land Trust](#) and the field work they undertake. He highlighted the recent acquisition of the Alexander Archipelago, which is now approximately 80% protected, as well as phase 1 of the Corridor Project, which protects a swath of land along the coast from Honey Harbour to Twelve Mile Bay. 32,000 acres along the coast are now protected from road development, through protected land and road allowances. GBLT currently has two ongoing research projects: tagging Prairie Warblers and Whip-poor-wills.

- [Georgian Bay Association](#) – Rupert Kindersley, Executive Director, and Andy Metelka, Director

Rupert Kindersley introduced the [Georgian Bay Association](#) and highlighted how the GB5 organizations all work together to maximize resources. Since 1916, GBA has taken a leadership role, advocating to all levels of government and other stakeholders on behalf of 18 water-based communities on the eastern and northern shores of Georgian Bay, on a broad range of issues, to protect and preserve this precious and fragile freshwater ecosystem for generations to come. Following Rupert's introduction, Andy Metelka played a video featuring [underwater footage](#), highlighting why Georgian Bay is so special and should be protected.

- [Georgian Bay Forever](#) – David Sweetnam, Executive Director & Georgian Baykeeper

David Sweetnam introduced the [Georgian Bay Forever](#) organization and talked about the impact climate change and rising global temperatures are having on Georgian Bay. David highlighted some of the programs GBF has to combat litter ([Diversion 2.0 Project](#), [Plastic Free Georgian Bay](#), [Unsmoke](#), [The Critical Catch](#)) and microfibre pollution ([Divert & Capture](#)), as well as their new documentary "[All Too Clear: Rebuilding the Great Lakes](#)".

Aaron thanked everyone for their very interesting presentations.

Adjournment

Aaron Rusak adjourned the meeting at 3:00 pm.

SSEA in Georgian Bay & Severn Sound

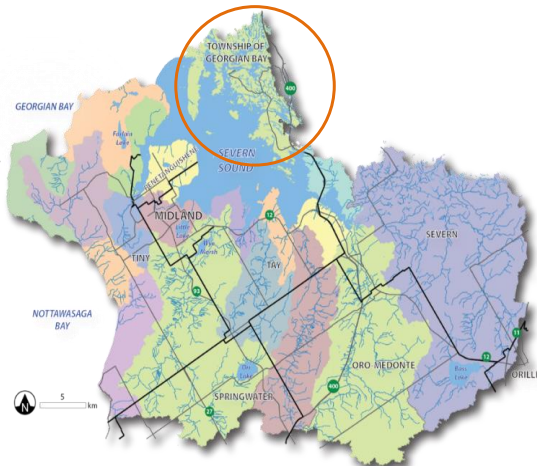
Highlights from Sarah Song, Inland Lakes Water Quality Stewardship Intern
June 21, 2024



1

What is the Severn Sound Environmental Association (SSEA)?

- 1987 - Severn Sound identified as *Great Lakes Area of Concern (AOC)*
- 1997 - SSEA Founded
- 2003 - *Severn Sound Delisted as AOC*
- 2009 - *SSEA Joint Municipal Service Board (JMSB)* Established (Municipal Act s.202) – 8 municipal members
 - *Shared service, shared cost, shared waters, shared benefit*
- Source Protection Authority (Ont. Clean Water Act, 2006)



2

Drinking Water Source Protection

- SSEA is the **Source Protection Authority** (Clean Water Act 2006)
- AND**
- **Risk Management Official / Risk Management Inspector** for 7 of the 8 SSEA member municipalities (including GB Twp)



Intake Protection Zone within the Township of Georgian Bay



3

Field Monitoring Highlights – 2024

- Open Water Sampling** (d/s Port Severn, open waters of Severn Sound)
 - May-Oct – ice-free period, tracking seasonal/annual changes in water quality parameters
 - **Blue-green algal bloom** monitoring – in-house fluorometers for early warning detection (and algae ID expertise)

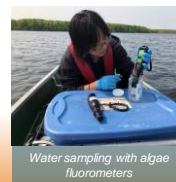


- Climate/Water Level Monitoring**
 - Weather stations (Midland and Lafontaine)
 - Maintain water level monitoring gauge (Midland Harbour)

- Tributary Monitoring**
 - Severn R at Port Severn (Provincial Water Quality Monitoring Network & temperature) and Baxter Lk Dam (benthic invertebrate monitoring)

- Citizen Science Monitoring Programs**
 - Ice Spotters, Shore Watch, Stream Watch, Invasive Species Spotters

Data Analysis and Reporting (in-house)



4



5

SSEA Programs Overview

Water Quality – CONCERNS

Open Water Quality

- Degrading water quality (low clarity), algae concerns in some areas based on past sampling (2022 and previous) – South Bay (high chlorophyll-a)

Climate/Water Level Monitoring

- Long term air and water temperature increases
- Significance re: water quality, algae growth, dissolved oxygen

Tributary Monitoring

- Severn R at Port Severn – increasing trend in sodium and chloride
- Significance re: drinking water intakes (Port Severn & Rope [Tay])

2022 Water Quality Data

Embayment	Station	Total Phosphorus (µg/L)	Chlorophyll a (µg/L)	Water Clarity (Secchi depth, m)	Min Bottom Dissolved Oxygen (mg/L)
Severn River Mouth	PS	10.71	2.22	2.75	6.37
Honey Harbour	HH	9.51	4.66	2.31	6.87
North Bay	NB	13.44	4.17	2.49	0.42**
South Bay	SB	14.71	7.37	2.23	0.35**

Values bolded in red did not meet RAP targets in 2022

**North & South Bays are prone to low bottom water oxygen due to lake bathymetry



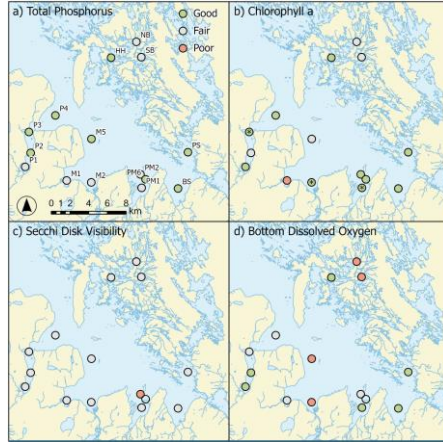
6

State of Severn Sound Report



Aisha Chiandret, former SSEA Water Scientist/Limnologist and Sarah Playfoot, key authors of the State of SS report.

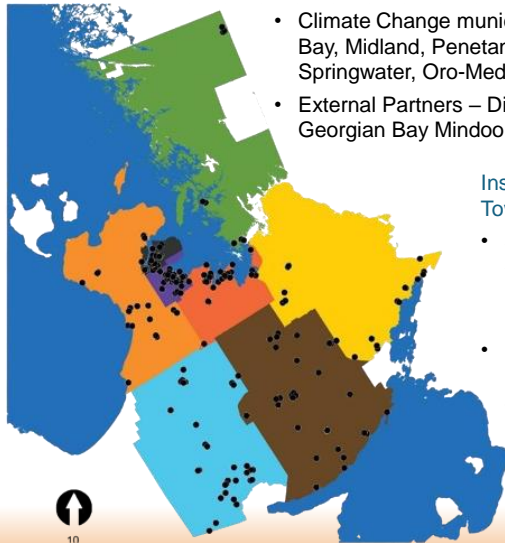
- SSEA undertook a comprehensive review of trends and current status of environmental indicators over the last 20 years in Severn Sound
- We will be creating a public friendly summary along with social media campaign to communicate results with the community and celebrate over 20 years after being delisted as a Great Lakes Area of Concern



Current (2022) status (good, fair, poor) of key open water quality indicators within Severn Sound. Points with an asterisk (*) indicate data is from 2021 and open points indicate no available data.



Sustainable Severn Sound (SSS)



- Climate Change municipal collaboration between – Georgian Bay, Midland, Penetanguishene, Tiny, Tay, Severn, Springwater, Oro-Medonte
- External Partners – District of Muskoka, County of Simcoe, Georgian Bay Mindoo Gamii Biosphere, SMDHU, FCM & ICLEI

Inspiring Example of Climate Action – GB Township: Energy Audit Project

- \$200,000 Green Municipal Fund towards energy audits for all municipal facilities – Georgian Bay Township paid \$60,000 matching
- GHG Reduction Pathways to look at scenarios of 50% to 80% GHG reduction at each facility



Invasive Species (IS) Program Highlights

- Identification, mapping, management, and public education
- Participation in several working groups and collaborations with partner organizations to avoid overlap/duplication (e.g. Roadside phragmites mapping) – partnerships & collaborations are essential
- Annual Georgian Bay specific IS report
- We welcome citizen science observations of invasive species through our iNaturalist project!
- More than 5,300 non-native species observations made through the Invasive Species Spotter citizen science program since 2022



IS and pollinator education and outreach at Baxter-Ward Centre



Invasive aquatic phragmites found in Severn Sound



Collaborative phragmites removal at Quarry Island

9

Tree Planting Program Highlights

- Collaborating with local property owners, schools, businesses, agencies and volunteers on tree plant projects
- Program objectives:
 - Increase forest cover and biological diversity
 - Improve wildlife habitat and water quality
 - Increase climate change adaptation and mitigation
- **New milestone:** facilitating the planting of over 400,000 native tree and shrub seedlings
- 2007-2024: Township of Georgian Bay participants have purchased and planted over 7,000 seedlings

Price \$27

ORDER SPRING TREES

Tree seedlings must be pre-ordered. The deadline for ordering is **Friday, January 12th, 2024**. A limited number of seedlings are available and the program often sells out of many species - order early to avoid disappointment.

[Order Now](#)

www.severnound.ca/about-upstream-sound/

Types of Trees:

- White Pine
- White Spruce
- Eastern Hemlock
- White Cedar
- Tamarack
- White Birch
- Nannyberry (shrub)



10

NEW Naturalization Projects for 2024

Restore the Shore – shoreline naturalization project – the resources and guidance needed to help landowners be lake/river stewards (in partnership with Watersheds Canada Natural Edge) – similar to MWC *Natural Edge* program

Biodiversity Enhancement and Education Parks (BEE Parks) and **Severn Sound Engagement and Education (SSEED)** – technical support and site-specific guidance for planning and implementing naturalization and habitat enhancement projects in municipal parks and schoolyards/gardens, plus education and outreach to improve ecological literacy and empower broader community action in naturalization and stewardship



Protecting and creating pollinator habitats



Example of a natural shoreline in the Severn Sound watershed



Trees and shrubs for Restore the Shore project



Thank You for Listening!
Questions?

www.severnsound.ca
sseainfo@severnsound.ca
705-534-7283






@ssea_ssrp | @severnsoundea | @severnsound.ssea | @severnsoundea



Georgian Bay Land Trust



1

Recent Acquisitions

- 1800-acre conservation easement north of Honey Harbour
- Additional 100 acres worth of islands across the eastern coast of Georgian Bay
- Habitat for Spotted Turtle, Massasauga, Prairie Warbler, and several other provincially significant species



2



Additional Securement

- Completed Phase 1 of our Corridor Project
- This creates an approximate 32,000-acre OECM extending from Honey Harbour to 12 Mile Bay Road
- Protects habitat for over 50 provincially significant species

3

Ongoing Research Projects

- Prairie Warbler MOTUS tagging to determine territory size
- Eastern Whip-poor-will tagging for breeding habitat assessments
- Planning for future projects underway



4

Georgian Bay Association

2024 Presentation to Muskoka Watershed Council

PROTECTING YOUR COAST

YOUR VOICE ON THE BAY



1

Role of GBA & Other GB Organizations



Georgian Bay Association: Advocacy Not-For-Profit Organization Founded 1916



Georgian Bay Land Trust: Land Conservation & Stewardship Charity Founded 1991



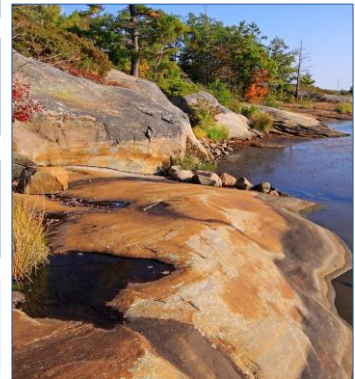
Georgian Bay Forever: Aquatic Ecosystem Charity Founded 1995



Severn Sound Environmental Association: Partnership of 8 municipalities Founded 1997



Georgian Bay Biosphere: UNESCO designated Biosphere Charity Founded 2004



GEORGIAN BAY ASSOCIATION

2

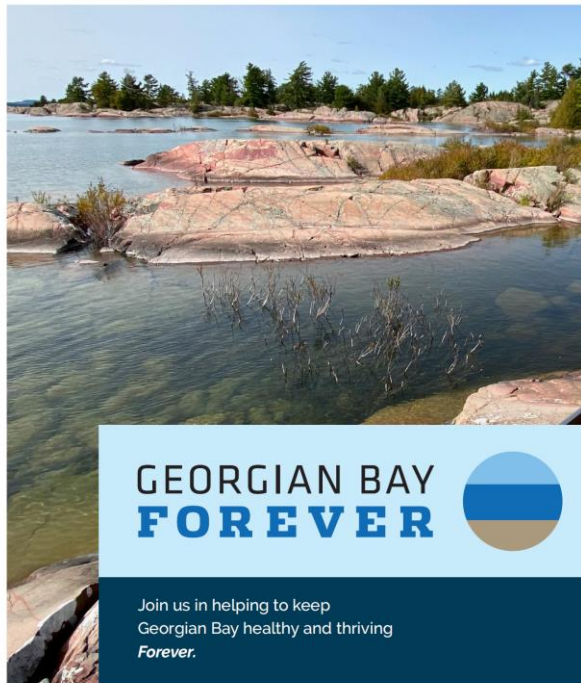
GEORGIAN BAY
FOREVER



David Sweetnam
Executive Director & Georgian Baykeeper

Photo Credit: MNR, Eric McIntyre

1

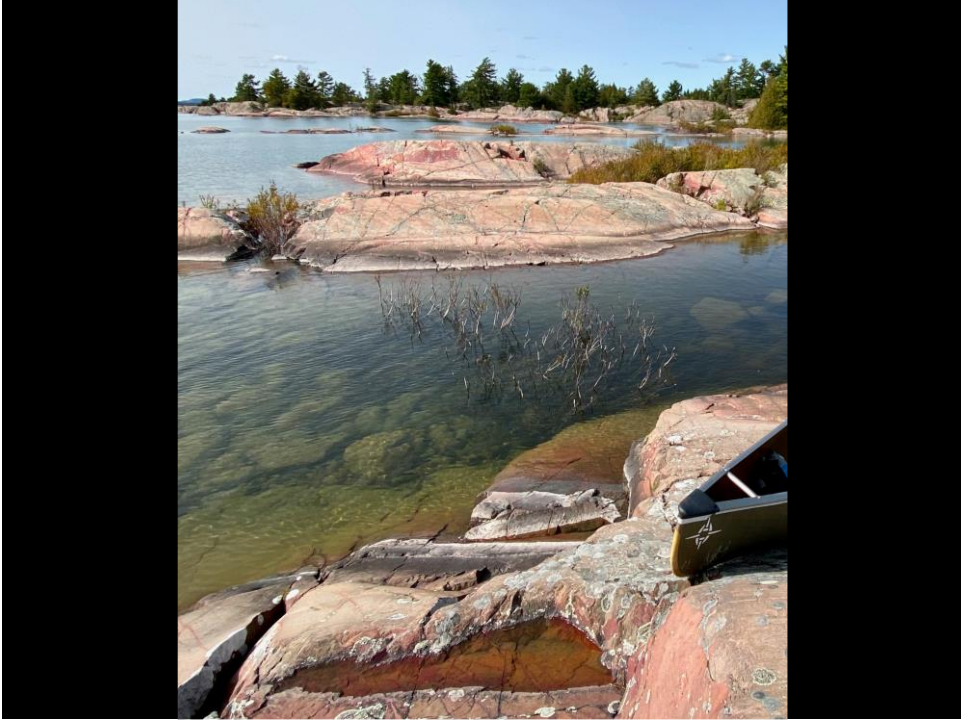


GEORGIAN BAY
FOREVER



Join us in helping to keep
Georgian Bay healthy and thriving
Forever.

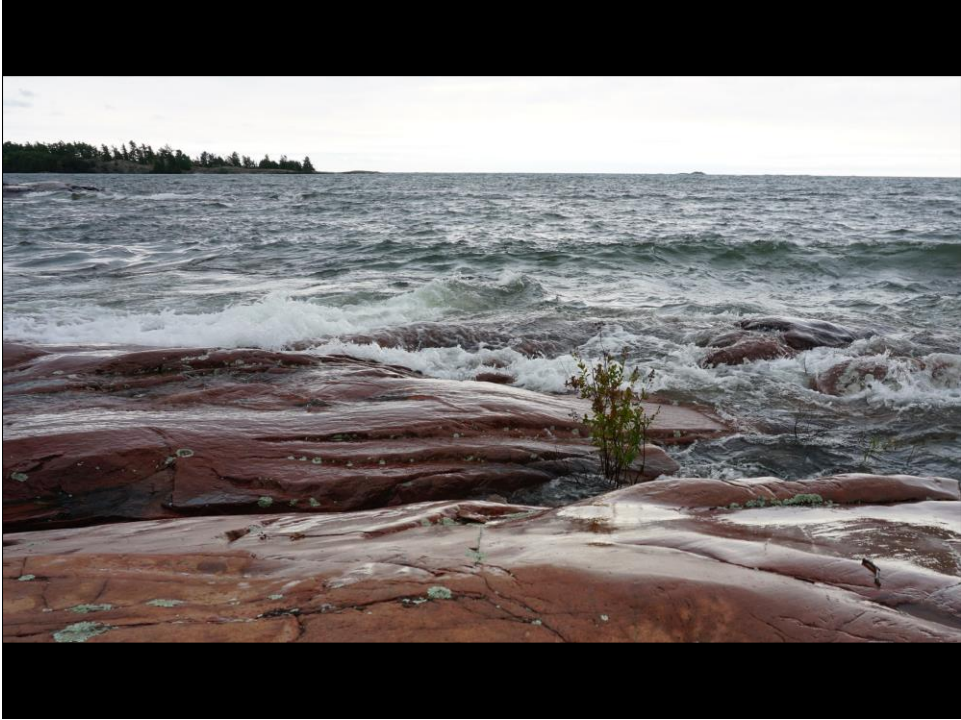
3



4



5



6

Impact matters

- Volunteers, students, classrooms, impressions, likes, subscribers, circulation
- Pieces, kgs, km, km²
- Wetlands, turtles, fish, other animals and organisms, watersheds, communities & people

7

But what is our benchmark for excellence?
What are we aspiring towards?

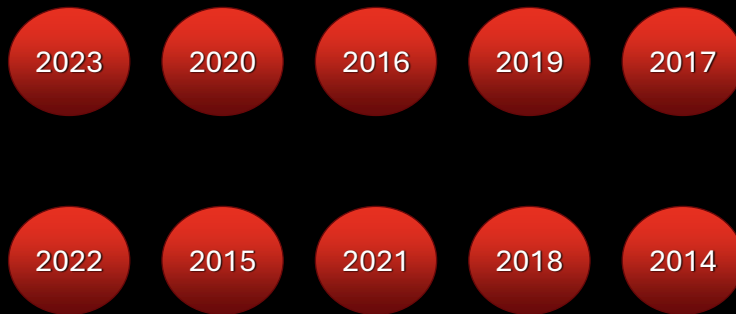
The elders remember a time when the water levels would rise as the lake trout chased the herring into the Bay.

A time where the lake sturgeon could be seen eating the cranberries from the bushes along the shoreline.

In otherwords, they speak of an ecosystem we have never experienced.

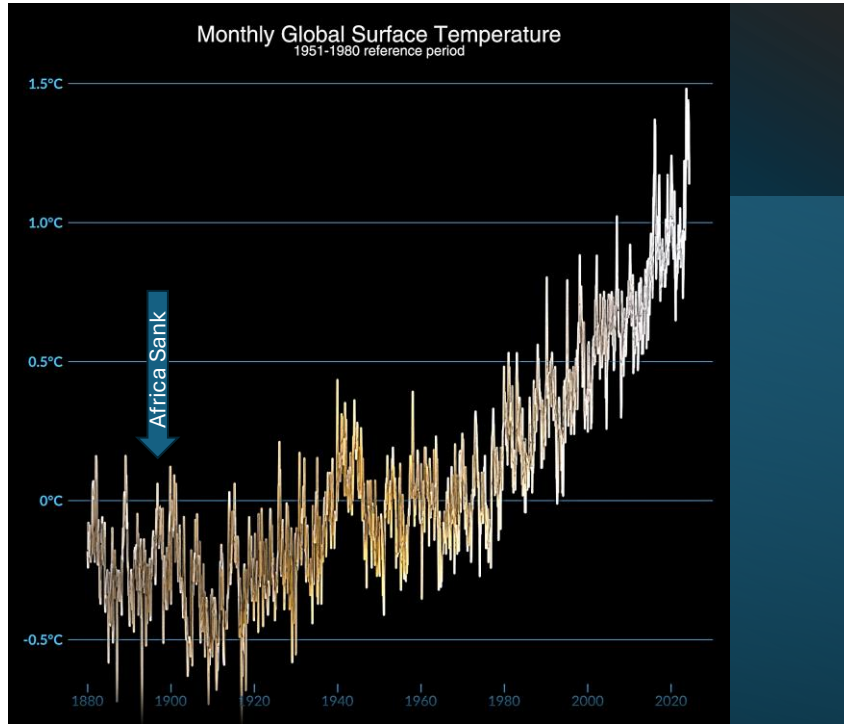
8

The Ten Hottest Years on Record Have Been the Last Ten Years



Data: NASA/GISS

10



11

The Risk of Inaction

 Without intervention on behalf of the natural aquatic ecosystem, all manner of life in this area will continue to progressively suffer.

20

Mitigating
Plastic
Waste



Macro Plastics



Micro Plastics



Micro Fibres
-Anthropogenic
-Anthropogenically
modified natural fibres

21



22



23



Strength in Numbers

Our Science-Based Approach

Knowledge is Power

Our donor-funded scientific research helps inform politicians and other decision-makers so that they are equipped with the latest and most objective research when it comes to the state of Georgian Bay's ecosystem. Our purpose is to create a record of vital knowledge that can be used not only to encourage immediate action, but to be referenced for generations to come.

Assess and Address

We use an objective, data-driven approach to our programming; through multiple concurrent projects we work tirelessly to intervene on the biggest threats to water quality and the health of Georgian Bay such as pollution, plastics, invasive species, development, and global heating, using proven efficient methods and carefully planned strategies to maximize our impact.

24

Divert & Capture



- **Microfiber Project**
 - Completed 100 Households in Parry Sound, ON
 - Completed 300 homes in Collingwood, ON
 - Installed secondary Dryer Filters
 - Conducted a Plastic use behavioural survey



25

ORIGINAL RESEARCH article

Front. Mar. Sci., 18 November 2021 | <https://doi.org/10.3389/fmars.2021.777865>



Washing Machine Filters Reduce Microfiber Emissions: Evidence From a Community-Scale Pilot in Parry Sound, Ontario

✉ Lisa M. Erdle^{1,2†}, ✉ Dorsa Nouri Parto^{1†}, ✉ David Sweetnam³ and ✉ Chelsea M. Rochman¹

¹Department of Ecology and Evolutionary Biology, University of Toronto, Toronto, ON, Canada

²The 5 Gyres Institute, Santa Monica, CA, United States

³Georgian Bay Forever, Toronto, ON, Canada



← [Link to the paper](#)

Erdle et al., (2021), Frontiers in Marine Science

<https://www.frontiersin.org/articles/10.3389/fmars.2021.777865/full>

26

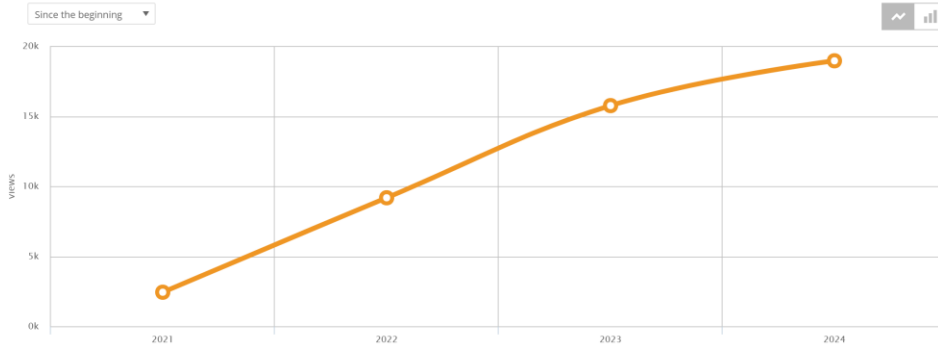
18,952
Frontiers

10
Research Gate



Since the beginning

This article has more views than 97% of all Frontiers articles.



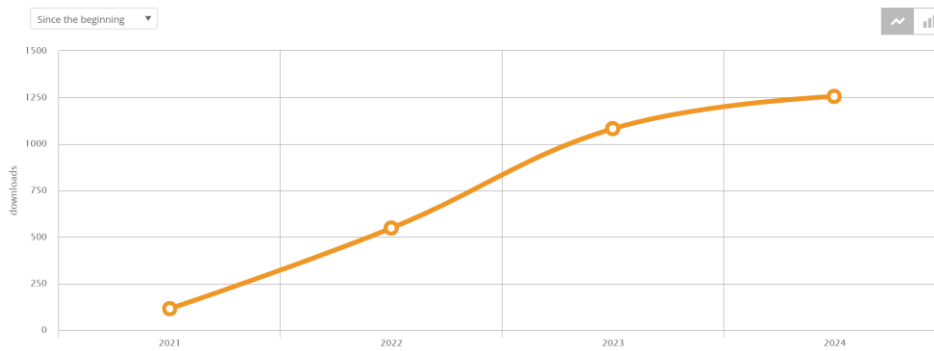
27

1,255
Frontiers



Since the beginning

This article has more downloads than 78% of all Frontiers articles.



28

Diversion 2.0 Project



Gutter Bins



Trash Traps



Seabins

29



Photo Credit: David Sweetman

30

Yellow Fish Road and Enviroscape



31



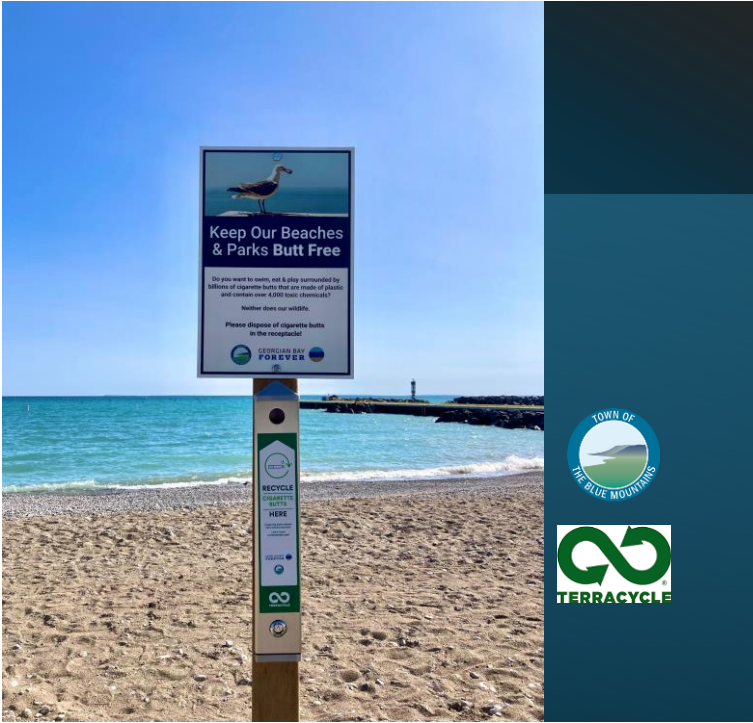
Plastic Free Georgian Bay

Plastic-Free Georgian Bay (PFGB) is a campaign with the goal to reduce plastic waste, expand public awareness about plastic in the environment, and create a network of like-minded businesses focused on reducing their plastic use.



32

Unsmoke



33

Critical Catch



34



- 61 Shoreline cleanups
- 122 km of shoreline
- 455 volunteers
- 17 community education events
- 923 participants



Thanks to the 1779 volunteers came to GBF events to help protect the Bay

- 1000 invasive Phragmites stands in management (74% eradicated)
- In 2023 GBF cut 11,114 m² (7 hockey rinks)

35

Public Outreach



36

Tracking Trash Trips



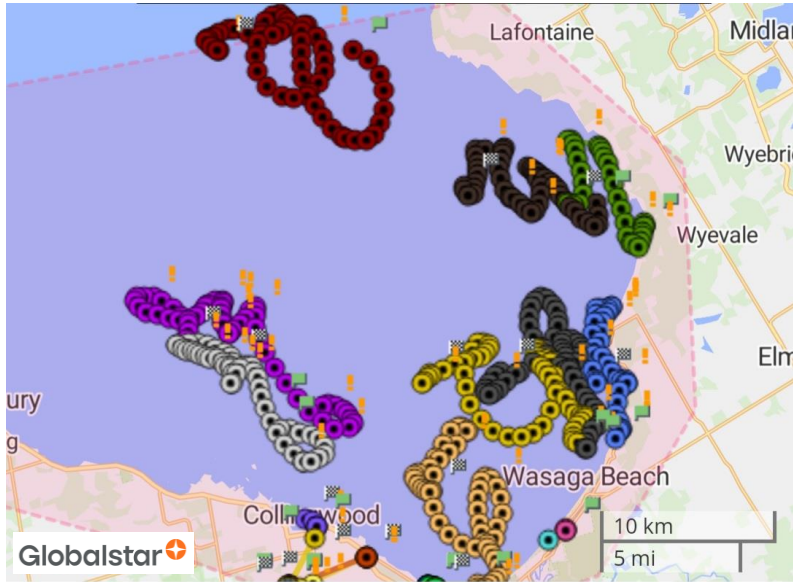
37

Tracking Trash Trips



38

Tracking Trash Trips



39

RPAS

- DJI Matrice 300 RTK
- 2 Advanced Certified Pilots
- Multispectral camera
- D-RTK 2 High Precision GNSS Mobile Station
- Deep Learning Technologies

40

AUV

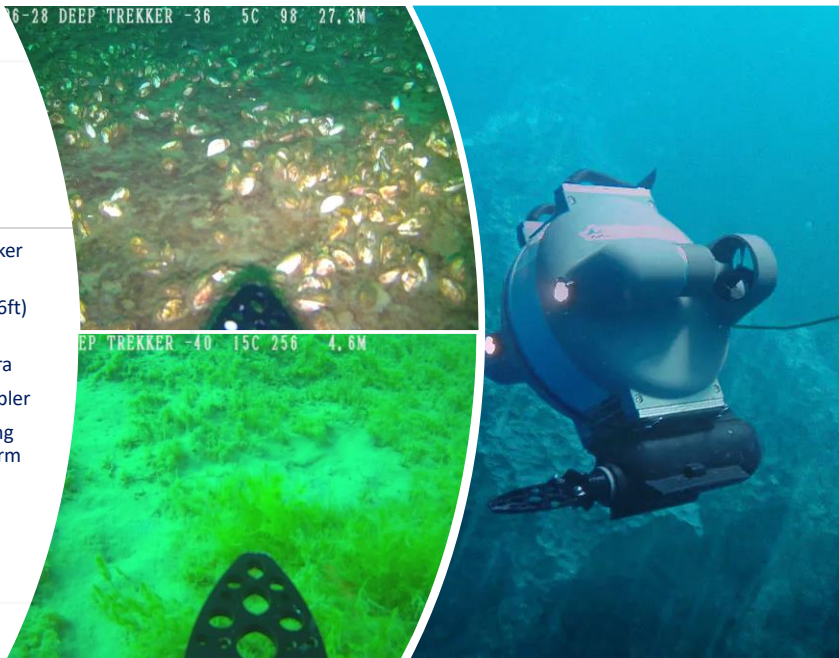
- YSI i3XO EcoMapper
- 100m depth
- 360-degree camera (30m)
- Starfish SS
- EXO1 Sonde for WQ (4 smart sensor ports)
- Teledyne RDI DVL (ADCP)



41

ROV

- DeepTrekker DTG-3
- 200m (656ft) depth
- HD Camera
- Grab sampler
- Articulating grabber arm



42

ATC

All Too Clear
Rebuilding the Great Lakes

- Lead Canadian Funder
- Film and TVO Series
- Bringing the issues beneath the surface to light
- Inspired Planet Productions
- Parry Sound Debut
- Aug 10, 2024, 6:00 p.m. - 9:00 p.m.

43

ATC

All Too Clear
Rebuilding the Great Lakes

- Lead Canadian Funder
- Film and TVO Series
- Bringing the issues beneath the surface to light
- Inspired Planet Productions
- Parry Sound Debut
- Aug 10, 2024, 6:00 p.m. - 9:00 p.m.


44

All Too Clear

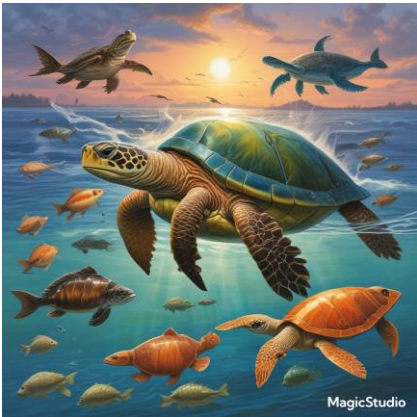
Premiere at the Charles W. Stockey Centre for the Performing Arts
 Parry Sound
 Aug 10, 2024, 6:00 p.m. – 9:00 p.m

© 2022 INSPIRED PLANET PRODUCTIONS • SAUGEEN (BRUCE) PENINSULA • ONTARIO, CANADA

45

GEORGIAN BAY FOREVER 

Working together for future generations



MagicStudio

Thanks to all of our Great Muskoka Region Partners

- Township of Georgian Bay
- Severn Sound Environmental Association
- Georgian Bay Biosphere
- Georgian Bay Land Trust
- Georgian Bay Association

46