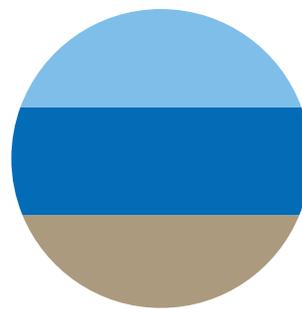


GEORGIAN BAY **FOREVER**



WINTER 2015
VOL 6, ISSUE 1

Protecting your water.

WATER LEVELS, WATER QUALITY, ECOSYSTEMS AND INVASIVE SPECIES

**VITAL SIGNS
IS BACK!**

SEE PAGE 6
FOR DETAILS

PAGE 11

RECLAIMING OUR WATERFRONT: **TAKING ACTION AGAINST A SILENT OCCUPATION**

INSIDE:

NASA DEVELOP EXPLORES
GEORGIAN BAY USING NASA
EARTH OBSERVATIONS

PAGE 4

FIVE GENERATIONS
OF BALLARDS
ON THE BAY

PAGE 5

EXPLORING STRATEGIES
FOR DEALING WITH
WATER LEVEL CHANGES

PAGE 10

Georgian Bay Forever is a proud member of the Waterkeeper Alliance.



GEORGIAN BAY
BAYKEEPER

GEORGIAN BAY
FOREVER



THE FOLLOWING INDIVIDUALS ARE GENEROUS PATRONS OF GEORGIAN BAY FOREVER

David and Shelagh Blenkarn
Philip Deck and Kimberley Bozak
Anthony and Janet Burt
The Carrick Family
Brian and Janey Chapman
Charles and Rita Field-Marsham
Mary Elizabeth Flynn
Ruth and Doug Grant
Jacquie and Mike Green
Peter Hatcher and Family
Robert Hay and Family
Donald Guloien and Irene Boychuk
John Honderich
The Geoff Hyland Family
Janet Turnbull Irving and John Irving
Eric Jackman
Rod and Joanne Jones
The Langar Foundation
Wil and Judith Matthews
Michael McCain
Jim Meekison
Frank and Patricia Mills
Anthony Munk and Amie Rocket Munk
Robert and Robin Ogilvie
Jeffrey Orr and Suzanne Legge
Chris Pfaff
Margot Roberts and David Williamson
William and Meredith Saunderson
Peter and Cathie Singer
Larry Smith
Rob and Val Thompson
David Roffey and Karen Walsh
Cameron Wardlaw
Sandy Wood and Don Darroch
Robin and David Young

Georgian Bay Forever is a community response to the growing need for major research and education projects to sustain the Georgian Bay aquatic ecosystem and the quality of life its communities and visitors enjoy.

We help monitor the Bay's well being, throughout the seasons, year after year.

We fund the research needed to protect the environmental health of Georgian Bay and the surrounding bodies of water. Using our research findings, we inform and educate the general public and governments about any threats to environmental health and propose possible solutions.

Through conferences, workshops and seminars we are educating the Georgian Bay community. By teaming up with reputable institutions we enhance the credibility of our research and we strengthen our ability to protect what's at stake.

Georgian Bay Forever, formerly the GBA Foundation, is a registered Canadian charity (#89531 1066 RR0001). We work with the Great Lakes Basin Conservancy in the United States, as well as other stakeholder groups all around the Great Lakes.

Deeply rooted and broadly drawn, Georgian Bay Forever is steered by lifelong devotees of the Bay. We are committed advocates, educators, environmentalists, realists, idealists, and of course, residents.

DIRECTORS

Derek Bowen	Michael Hensel
Janet Burt	Rod Jones
Adam Chamberlain	Gail Krantzberg
Terry Clark	Hugh McLelland
Brenda Drinkwalter, <i>Chair</i>	Anne Randell
Jennifer Ferguson	Peter Singer
Leslie Hayes	Eriwn Stuart

Executive Director

David Sweetnam

OUR CONTACT DETAILS

PO Box 163
Caledon, ON
L7E 5T2
tel: 905-880-4945

You can reach David Sweetnam, our Executive Director, at executivedirector@gbf.org or at (905) 880 4945 ext 1.

U.S. citizens wishing to make a donation to support our work can do so by giving to:

Great Lakes Basin Conservancy
PO Box 504, Gates Mills OH
44040-0504, USA

(Please add a note saying: "For Georgian Bay Forever")

.....
This newsletter is just a snapshot of our work. For the most up-to-date information on our projects, longer versions of newsletter articles and on breaking news about Georgian Bay, please become a regular visitor to our website and Facebook page.

GBF.ORG

.....
Design by Key Gordon (keygordon.com)
Editor: David Sweetnam & Carole White

.....
Follow us on  



By Brenda
Drinkwalter

PROTECTING YOUR WATER

“Water is a fundamental piece of infrastructure for all our economies—water is needed to produce food, energy and to run our cities.... Most people do not know much about it and people take water for granted.”

Guilio Boccaletti, Managing Director, Nature Conservancy, in an interview with Reuter's Antony Currie from the 2015 Global Economic Forum on the Growing International Water Crisis which is considered to be the world's greatest risk to human and economic well-being.

Our first issue of the newsletter this year speaks to the many ways that Georgian Bay Forever (GBF) is engaged in Protecting your Water. Our research and education initiatives continue to cover water levels, water quality, ecosystems and invasive species. And once again, we offer a huge thank you to you our donors for your generous support that ensures that none of us ‘takes for granted’ the pristine waters of Georgian Bay.

On page four, NASA describes the work it is doing with GBF to quantify changes to wetlands over time using satellite imaging technology. The goal is to correlate any changes recorded with water levels at the time. Wetlands have been described as the ‘washing machines’ of the Great Lakes, protecting the quality of our waters so that they are drinkable, fishable and swimmable.

Tim Morris, fresh water policy expert and a resident of Lighthouse Point in Collingwood, talks about how GBF helped his community tackle a huge stand of the invasive weed, phragmites. He tells us how, with a ‘can do’ approach, communities can work with Georgian Bay Forever who, with support from Environment Canada, will team up with the GBA and others this summer to help address what is ranked as Canada’s worst terrestrial invasive plant by Agriculture and Agri-Food Canada.

In *What's Up With Water Levels*, David Sweetnam, Executive Director explains that Georgian Bay Forever is participating on the steering committees of two new initiatives, one in Canada and the other in the US. They are examining structural and non-structural adaptation measures used to manage water levels in the Great Lakes. Building on our successful policy research with the Council of the Great Lakes Region and the Mowat Centre, we have begun discussions with engineering firms to contribute thinking on flexible contemporary, climate resilient solutions that will enable broad stakeholder support for a solution to Great Lakes water level issues.

We are also very proud to have been formally invited to join the Georgian Bay Research Consortium (GBRC) created by the Water Science and Technology Directorate of Environment Canada (EC). EC's concerns focus on water quality and ecosystem health, which are under threat due to excessive inputs of phosphorus, nuisance and toxic algal growth, habitat loss and shoreline development—all areas where GBF has been conducting research and will be able to contribute to shared knowledge repositories going forward.

And I'm sure you will enjoy reading—as I did—our donor profile of Mary Elizabeth Flynn, who reminisces about her childhood and other memorable moments from her family's long history on the Bay in *Five Generations of Ballards on the Bay*.

2015 is going to be an exciting year at GBF—look for us to add an impressive Great Lakes scientist to our Board to strengthen our well-respected external Science Advisory group, and to continue to work collaboratively with other Georgian Bay and Great Lakes organizations to protect our water for our children's children's children!





By Nathan Owens

NASA DEVELOP EXPLORES GEORGIAN BAY USING NASA EARTH OBSERVATIONS

NASA's DEVELOP National Program is one of four capacity-building elements within the NASA Applied Sciences Program. Operating in three, rapid 10-week terms per year, DEVELOP places students, young professionals, and career-transitioning professionals on teams to conduct interdisciplinary research demonstrating the applications of NASA Earth observations by addressing real environmental issues. These projects serve to bridge the gap between NASA Earth science and society, building the capacity in both participants and partner organizations to better prepare them to handle the challenges that face our society and future generations.

During the Fall of 2014, a DEVELOP team at Langley Research Center in Virginia partnered with Georgian Bay Forever and the Great Lakes and St. Lawrence Cities Initiative (GLSLCI) to explore the use of NASA Earth observations to monitor the changing water levels and extent of wetlands around Georgian Bay.

Wetlands are considered to be some of the most productive and diverse ecosystems on Earth. The Great Lakes St. Lawrence Region of North America includes diverse types of coastal wetlands. Studies of this ecosystem are very important for ecological communities and economic sectors such as recreational and commercial fisheries and tourism. The Georgian Bay wetlands are sensitive to extremes resulting from climate change and could be impacted and placed at risk by increased variations in temperature, precipitation and evaporation. NASA Earth observations (EO) offer policy and decision makers a low-cost source of data to monitor these variations.

To investigate the changing water levels, the team used NASA's Topography Experiment (TOPEX)/Poseidon, Jason-1, and Ocean Surface Topography Mission (OSTM)/Jason-2 radar altimeters. By comparing the satellite-based observations to the in situ gauge measurements, compiled by Environment Canada and provided by Georgian Bay Forever, the team could determine whether NASA Earth

observations could be used as an adequate source of data where limited or no gauge data is available.

To monitor the change in wetlands over time, the team began by selecting May 1987 and June 2013 as the two initial study times to represent wetlands at historical high and low water level periods, respectively. Using the Thematic Mapper on board Landsat 5 and the Operational Land Imager on board Landsat 8, the team developed initial land cover maps for both 1987 and 2013 using a supervised classification method known as a Random Forest Model. From here, the team could identify the wetlands to highlight any changes between the two years. For the June 2013 image, the overall accuracy of identifying wetlands versus non-wetlands was determined to be approximately 91%. However, for the May 1987 image, wetlands classifications by the Random Forest Model were erroneous. Modifications to the model are planned in order to improve the accuracy of the May 1987 image classification. Once these modifications are completed, maps will be generated to show wetland changes due to decreasing water levels between 1987 and 2013.

The final step of this project is to include data from more years between 1987 and 2013 to identify

the changes in response to the fluctuating water levels of Georgian Bay. The team will also explore the possibility of transferring the methods used in this project to other locations around the Great Lakes to extend the benefit of this research in the region.

The strong partnership between NASA DEVELOP and Georgian Bay Forever has been and will continue to be invaluable to the completion of this project. Without the guidance, information, and local knowledge provided by Georgian Bay Forever, validating the land cover classification would not have been possible. As well, without this validation it would be difficult to quantify the effectiveness of the team's methodologies in using NASA Earth observations to monitor the changing wetlands that impact the numerous communities around Georgian Bay.

NASA DEVELOP will begin the final phase of this project on January 26th and conclude the project on April 3rd. Project results will be presented at the Annual GLSLCI Meeting in June.

Nathan Owens is the Langley Centre Lead for the NASA DEVELOP National Program. He is also a former Graduate Fellow of the National Science Foundation.





By Debra Stuart

FIVE GENERATIONS OF BALLARDS ON THE BAY



Mary-Elizabeth Flynn, and Bill and Harold Ballard Jr. spent their childhood summers at their grandparents' white clapboard cottage

Entrepreneur Sydney Ballard founded the Ballard Textile Machinery Company in the early 1900s, but was best known for establishing the Ballard Skate Co., which manufactured world famous tube skates for speed skaters and hockey players.

When Sydney, an avid hunter and fisherman, married Mary Garner, they discovered their passion for spending time on the sandy beaches and pristine waters of Thunder Beach, located in Tiny Township. Mary built several waterfront cottages in the quaint community that has since become noted for its affluent, celebrity-type cottagers.

“I remember sitting on the cottage porch listening to my grandmother play the banjo.”

Mary-Elizabeth reminisced, “I remember sitting on the cottage porch listening to my grandmother play the banjo.” She recalls picking raspberries and baking pies with her mother, Dorothy Beatrice Higgs, who married Toronto Maple Leaf’s mogul, (Edwin) Harold Ballard—Sydney and Mary’s only child.

When not on the ice, Harold was on the water. An Olympic speed skater, he represented Canada as the 1928 flag bearer. He was also an

accomplished hydroplane racer and competitive swimmer, and would swim for miles on the bay.

Mary-Elizabeth recalls, “My mom would pack up hot dogs and marshmallows and take me and my girlfriends in a tiny rowboat to Beckwith Island, where we would sleep on the beach under the stars. My Dad took my brothers on annual camping trips up the shore. My brothers would talk about their summer adventures all year round, long after cottage season ended.”



“Georgian Bay is where our soul is. Our family has never left the area,” said Mary-Elizabeth

When Bill graduated from law school, he purchased the land at Cedar Point, just outside Lafontaine, and developed the entire area. The waterfront property he built for his family was a carefully crafted log home, tucked discreetly in the woods. An ardent boater, Bill passed away in 2014, but his legacy lives on.

Harold Jr. sold his cottage on the beach. Married with two children, he is an accomplished fine artist, who now owns a country home and studio in Lafontaine.

Like her siblings, and generations before, Mary-Elizabeth continues her lifelong love affair with Georgian Bay. She purchased a private island near Giants Tomb Island with her husband, Michael, who passed away 13 years ago just as they were building their cottage.

Michael and Mary-Elizabeth owned a container company and retrofitted these structures for organic, sustainable habitation. They transported two from Toronto on a flat deck trailer and floated them out to the island on a huge barge.

“It’s God’s country here,” proclaims Mary-Elizabeth.

Mary-Elizabeth has three children and six grandchildren. She said, “My progeny have been on the Bay their entire lives. I brought my firstborn here right after we left the hospital, just like my parents did with me. I love our island on Georgian Bay—the solitude, the family time and the unpredictable weather. It’s a lot of work bringing everything up in the spring, but it’s worth it. Once we’re here, it’s heaven on earth.”

VITAL SIGNS 2015

Save the Date!

SATURDAY APRIL 11, 2015

9:00am–12:00pm

THE BRAM & BLUMA APPEL SALON

TORONTO REFERENCE LIBRARY

789 Yonge St, Toronto, ON, M4W 2G9

Light refreshments provided.

Seating is limited so **register early** by calling **905-880-4945** or by going online at **GBF.org**

Swimming around for ways to get involved?



Legacy Giving

Talk to your financial advisor about leaving a “forever” gift in your will to ensure that the pristine water and natural beauty of Georgian Bay remains for your kids’ kids’ kids.

Monthly Giving

Join our monthly giving program and provide GBF with the opportunity to make strategic decisions on important research projects that will keep your water drinkable, fishable and swimmable.

Tribute Gift

Do you have a friend or loved one who loves or loved Georgian Bay like you do? It is simple to direct gifts to Georgian Bay Forever to honour them or in their memory.

Host an event

And collect donations for GBF instead of gift exchanges.

Recognizing our donors: Introducing the Georgian Bay Forever Circle

These are two critical actions that you, the supporters of Georgian Bay Forever, commit to accomplish when you invest in projects led by our organization. You are the driving force behind Georgian Bay Forever.

Your support is protecting the waters of Georgian Bay; you are impacting the sustainability of our water through funding scientific research and public education projects that focus on the aquatic ecosystems of Georgian Bay; you are ensuring that Georgian Bay will always be drinkable, swimmable and fishable for your kid’s kid’s kids. Without you, none of this is possible.

As a way of thanking and recognizing you, our generous donors, for your ongoing support, we are pleased to announce the creation of a special recognition program which will officially launch in the Spring of 2015 — the Georgian Bay Forever Circle.

This program is based on cumulative or lifetime giving to the organization and will be updated annually. This will allow us to

Protect [pruh-tekt] to defend or guard from attack, invasion, loss, annoyance, insult, etc.; cover or shield from injury or danger.

Impact [n. im-pakt; v. im-pakt] to have an impact or effect on; influence; alter

welcome new donors as well as move current donors into the appropriate categories based on their annual gifts. Once your giving reaches the first level of the program, \$15,000, you will be recognized as a member of the GBF Circle in perpetuity. As well, we are pleased to offer exclusive recognition benefits to all members within the circle.

If you would like **more information** about the program, or would like to know what your cumulative giving total to date is, please connect with **Amber Gordon-Bunn** at **905-880-4945 extension 3** or at **amber.gordon-bunn@gbf.org**.

Your involvement and wish to protect Georgian Bay, through your financial support is providing Georgian Bay Forever with the ability to conduct vital, leading-edge and strategic projects to ensure that Georgian Bay’s pristine and natural beauty is the legacy we all leave for generations to come.

With heartfelt thanks for your support!



GEORGIAN BAYKEEPER

**THESE MARINAS STEPPED UP
TO HELP PROTECT THE BAY.
IS YOURS ONE OF THEM?**



GEORGIAN BAY FOREVER THANKS THE ABOVE MARINAS FOR THEIR STEADFAST SUPPORT OF OUR WATERKEEPERS' BOAT FOR SCIENTIFIC RESEARCH. WITHOUT THEIR HELP, WE WOULDN'T STAY AFLOAT!

"THE BAYKEEPER" INDICATES THAT GEORGIAN BAY FOREVER IS A MEMBER OF THE WATERKEEPER ALLIANCE, A GLOBAL MOVEMENT OF ON-THE-WATER ADVOCATES WHO PATROL AND PROTECT OVER 100,000 MILES OF RIVERS, STREAMS AND COASTLINES IN NORTH AND SOUTH AMERICA, EUROPE, AUSTRALIA, ASIA AND AFRICA. FOR MORE INFORMATION GO TO WATERKEEPER.ORG



By David Sweetnam

WHAT'S UP WITH WATER LEVELS?

Lakes Michigan-Huron and Georgian Bay have finally broken out of the longest period of low water levels ever recorded. Levels now sit at about 19 cm (7.5 inches) above the long-term average and forecasts for the first half of 2015 suggest they will remain above average at least until June.

This is due in part to last winter's Arctic polar vortex spreading over the Great Lakes basin. This resulted in near-record ice coverage and a late ice melt that lowered spring evaporation and produced cooler surface water temperatures.

These conditions created a surplus of water available from Lake Superior and the highest outflows released into Lake Michigan-Huron since the 1950s, reversing their normal seasonal declines right through November. But once the water from Lake Superior enters Lake Michigan-Huron, it flows unimpeded into Lake Erie and over Niagara Falls. Unlike Lake Superior and Lake Ontario whose levels are controlled, Lake Michigan-Huron and Lake Erie are not regulated.

The International Joint Commission (IJC), the National Oceanic and Atmospheric Administration (NOAA), Environment Canada (EC) and other scientists have cautioned that last winter was just a blip in the weather that won't alter the ongoing impacts of climate change on the Great Lakes.

While weather in the Great Lakes area was cool throughout 2014 and the Great Lakes received more than average precipitation, the world set a record high temperature in 2014. The west and east coasts of Canada experienced one of the warmest summers ever. South of the border, 81% of California was under a state of "extreme drought," which affected more than 37 million people.

If we continue to experience flashier storms and more protracted drought-like conditions, we will be vulnerable to larger, unnatural oscillations in water levels in the years ahead.

This leaves us with a bigger challenge going forward: managing the volatile impacts of climate change.

There are two categories of adaptive measures

to respond to this threat: structural and non-structural. Georgian Bay Forever (GBF) is active in both areas. The IJC's Upper Great Lakes Study examined the former. A report from the University of Michigan, which I am an advisor to, addresses the latter.

The United States Army Corps of Engineers (USACE) is currently following up on its 1950s authorization to compensate for the 25 foot (1930s) and 27 foot (1960s) dredging projects. USACE is now estimating the time and cost to complete such a study. According to USACE, "It is a delicate balance between doing enough work to make a good decision and not making this a long drawn out and costly study." However, USACE, on its own, cannot expand the scope of the study beyond the St. Clair River. Governments could, however, based on the most up to date information.

GBF's Science Committee recently spoke with one of Canada's foremost hydrology experts to gain a better understanding of the complexities of the water level issues. Committee members also discussed other water retention strategies based on new technologies that are now available.

Neither the hydrology expert GBF consulted nor the IJC Study Board appeared convinced that the St. Clair River, on its own, can offer substantive solutions to maintaining water levels in Lake Michigan-Huron and Erie. This was discussed in some detail by the IJC in its Upper Great Lakes Study.

If we want to eliminate extreme high and low water levels caused by climate change and return to more natural historic water level fluctuations, we need to be able to modulate lakes outflows by increasing or decreasing them at times to maintain the desired water level.

As noted in the Water Reform and Resources Development Act 2014 and also acknowledged by the Great Lakes Commission and Council of Great Lakes Governors, the Great Lakes have to be looked at as an integrated system.

The Upper Great Lakes Study identified options for moderating flows, including a Niagara three-

point solution (current controls on Lakes Ontario and Superior being the other two points) and a Niagara four-point plan, which added a fourth control point in the St. Clair River. Neither of these models included the use of contemporary structures or a detailed look at the downstream effects on the St. Lawrence River.

In its recent report entitled "Low Water Blues: The Economic Impacts of Low Water Levels in the Great Lakes/St. Lawrence River Region", the Council of the Great Lakes Region stated that, if no action is taken to manage water levels, the impact on the region's economy could be a conservatively estimated \$18.82B. So doing nothing is not an option.

I sit on the advisory committee of a current study, funded by Natural Resources Canada that is examining the costs and benefits of previously developed plans based on 40-year-old technologies. The results of this study may be enough to indicate that the development of more comprehensive and contemporary solutions would be beneficial. As the 2012 Upper Great Lakes Study says, "it may be possible to develop [plans] that deliver better performance and at lower costs. As a result, it may be advisable to revisit such plans as even now knowledge is improving about the future climate conditions and the resulting impacts on water levels in the Great Lakes."

This is why GBF recommends that a comprehensive engineering study be completed. Such a study should build on the Upper Great Lakes Study, examine the Niagara and St. Clair Rivers, explore various state-of-the-art climate resilient options, and identify viable long-term solutions to extremes in fluctuating water levels throughout the Great Lakes.

This is one way to ensure buy-in from a broad range of important stakeholders on both sides of the Canada-U.S. border, particularly those set out in the Boundary Water's Treaty. The shipping industry ranks second under that treaty and will insist on an integrated systems approach and flexible structures to adequately control the system under a wide range of water level scenarios.



By John Callewaert

EXPLORING STRATEGIES FOR DEALING WITH WATER LEVEL CHANGES

Extrême water-level fluctuations in the Great Lakes, including historic lows on Lakes Michigan and Huron in 2013 and substantial upward trends in 2014, are creating serious challenges for many shoreline property owners, tourism-related businesses, municipal planners and others.

To help community stakeholders and decision makers determine the best strategies for dealing with these water-level changes, the University of Michigan’s Graham Sustainability Institute is launching a two-tiered, two-year collaborative research initiative called the Great Lakes Water Levels Integrated Assessment.

The purpose of the assessment, which is a joint initiative between the Graham Institute’s Water Center and Integrated Assessment Center, is to develop information, tools and partnerships to help decision makers address challenges and opportunities posed by water-level variability. With a focus on Lakes Michigan, Huron and Erie, including the Huron-Erie corridor, the assessment will seek to identify and evaluate environmentally, politically, socially and economically feasible adaptive actions and policy options.

The question of what to do about lake level variability is extremely complex. Our assessment is focused on bringing relevant researchers and stakeholders together from both the U.S. and Canada to determine the most viable paths for moving forward.

Up to ten teams will be selected to receive planning grants of up to \$10,000 each for projects to run between March and August 2015. Each project will be led by at least two investigators affiliated with an academic institution. Selected projects will focus on identifying key geographies and issues impacted by water-level fluctuations and analyzing viable policies and potential adaptive actions that would meet local objectives as identified with community partners.

By pinpointing appropriate locations and presenting different approaches, these preliminary projects will lay the groundwork for the full 18-month integrated assessment. Four to five teams will receive funding of approximately \$50,000 each. The final assessment will run from November 2015 to April 2017 and its purpose will be to equip the region with a robust set of water level adaptation strategies that protect the ecological integrity, economic stability and cultural values of each region.

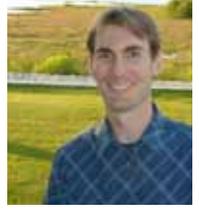
“Water-level variability is impacting multiple areas, ranging from shoreline habitats to infrastructure, recreation and tourism, regional economies and more,” said Water Center Director Jennifer Read, a contributor to the International Joint Commission’s (IJC) 2013 Upper Great Lakes Study, which will help inform the assessment. “While there has been extensive research about water levels, flows and impacts—including significant work by the IJC—this assessment is geared toward transforming findings into practical, localized strategies,” Read said.

The University of Michigan is funding the water levels assessment, with additional anticipated support from regional partners. The assessment is focusing on Lakes Michigan, Huron and Erie, since specific regulatory frameworks are already in place for Lakes Ontario and Superior.

For more information about the assessment, contact John Callewaert, Integrated Assessment Center Director, Graham Sustainability Institute. 734-615-3752 or jcallew@umich.edu



IN ADDITION TO OUR PATRONS AND OUR MARINA SPONSORS GEORGIAN BAY FOREVER IS PROFOUNDLY GRATEFUL FOR THE GENEROUS SUPPORT OF OUR CORPORATE DONORS.



By Tim Morris

RECLAIMING OUR WATERFRONT: TAKING A STAND AGAINST A SILENT OCCUPATION

Three years ago, a word our community had never heard before became part of our vocabulary—PHRAGMITES. This Greek-god-like word initially seemed fairly benign until we started to learn more about this insidious plant.

At Lighthouse Point (a waterfront condominium community in Collingwood, Ontario), our introduction to 'Phrag' began when several residents noticed new vegetation along our shoreline. It began as slender, pale green stalks, but over the summer these grew taller and thicker, eventually developing feathery, purplish seed heads. Initially, they appeared ornamental, and some residents commented on how pleasant they made our shoreline look.

Unfortunately, the next summer, the small cluster spread and matured into a larger and denser patch of stiff reeds. They were no longer wispy and beautiful, but harder and uglier than the previous year. New patches started showing up in other pockets along the shoreline as well.

While most of us were oblivious to this silent occupation, one inquisitive resident decided to investigate. Having previously dealt with the invasive purple loosestrife, our hearts sank a

little when he informed us that phrag was also invasive and even heartier. On closer inspection, we discovered that, like an alien taking over its host, phrag sends out long tentacle-like feelers (rhizomes and stolons) to establish in other areas. It was a troubling discovery.

We wanted to act immediately to stop the spread, but further research suggested that acting impulsively without a plan could actually make the situation worse (by increasing seed dispersal); it was hard to watch it take over, but we were concerned our actions would be counter-productive.

So another year passed and we were no closer to a solution. Then, this past August, our condominium property manager contacted Georgian Bay Forever, which had recently launched a pilot program for phragmites removal. GBF sent their Phragmites Project Lead, Katrina Gaibisels, who educated us on how and when to tackle the phrag. As we worked, we discovered the techniques and tools which worked best. The work was surprisingly addictive. There was something deeply satisfying about seeing the progressively shrinking patch of phrag.

And there were significant payoffs—our views

of the Bay improved. Birds and wildlife started returning to areas that had been exclusively occupied by phrag. A diverse range of native vegetation reappeared, and for the first time in several years, water was flowing up to our beachfront (phrag, it turns out, is a large water-suck).

We have been warned to expect regrowth this summer (this weed does not give up without a fight). Our fingers are crossed that it won't be substantial, but it's not going to stop our perseverance. We recently joined several neighbouring communities to form a coalition to eradicate this troublesome invader along our shared shoreline. Working with Georgian Bay Forever, Nottawasaga Valley Conservation Authority, Blue Mountain Watershed Trust, and Stop the Invasion, this coalition is working on a plan to take the lessons from our pilot and apply them to a much larger area of Collingwood's waterfront. We know the war is not over, but we are committed to the fight.

Tim Morris is a resident of Lighthouse Point and a freshwater policy expert and strategic consultant. Over the last decade Tim has worked to protect Canada's lakes and rivers as an academic, advocate, grant-maker and capacity builder.



Top left: volunteers using the tarp technique.



Bottom left: Phragmite infestation before clean up.

Same area after phragmites clean up.



**“OUR FAMILY HAS BEEN HERE
FOR FIVE GENERATIONS. THE
BAY IS WHERE OUR HEART AND
SOUL IS. PROTECTING IT MEANS
EVERYTHING TO US. THANK
YOU GBF FOR ALL THE CRUCIAL
WORK YOU DO.
KEEP IT UP—
FOREVER!”**

- Mary-Elizabeth Flynn
GBF Patron



**GEORGIAN BAY
FOREVER**



HELP US PROTECT GEORGIAN BAY. FOREVER.
USING THE ENCLOSED ENVELOPE, SEND IN YOUR DONATION TODAY!

GBF.org | 905.880.4945

Would you prefer to stay in touch via email? send your email address to executivedirector@GBF.org