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GEORGIAN BAY FOREVER

Protecting your water.

WATER LEVELS. WATER QUALITY. ECOSYSTEMS. INVASIVE SPECIES.

PAGE 4

THE SUBJECT ON EVERYONE'S MIND:

WATER

INSIDE:

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

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GEORGIAN BAY FOREVER

Georgian Bay Forever is a community response to the growing need for major research and education 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 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.

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Canadian citizens may send their donations to the Caledon address above.

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

Follow us on

PROTECTING YOUR WATER

By Brenda Drinkwalter

As a new summer season approaches, Georgian Bay Forever is looking forward to an active 'on the water' program. We'll be working with communities to control phragmites, collaborating with the Georgian Bay Biosphere Reserve to establish common protocols for water quality testing, continuing to document the Bay's biodiversity with genetic DNA barcoding, and lending logistical support to other research teams as part of the Georgian Bay Research Collaborative.

With our long-term commitment to water levels, our newest project is an engineering feasibility study that will contribute new knowledge to the best structural climate adaptation measures to address fluctuating water levels in Lakes Michigan/Huron, including Georgian Bay—the only Great Lakes with no control to manage lake levels.

Another cold winter, high ice cover and increased precipitation will likely deliver high water levels again this summer. Climate experts are now acknowledging the big challenge in understanding the abrupt changes in water levels over the last two years. Risk management measures such as structures for Michigan/Huron that help protect against such extremes, are now even more important.

Did you know that the US Army Corps of Engineers (USACE) Institute for Water Resources has been considering climate change adaptation measures for many years? Like GBF, the Institute advocates a systems approach that recognizes the interdependence of watersheds, the need for long-term solutions, while encouraging collaboration and partnerships with tribes, local governments and not-for-profit organizations like ours.

But while USACE is working hard on streamlining processes as required by the 2014 Water Resources Reform and Development Act, it is faced with a huge number of competing high priority projects and takes its direction from governments on how to allocate scarce resources.

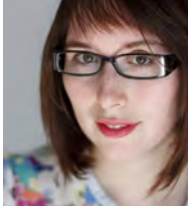
USACE is further handicapped by an outdated 1954 authorization that restricts consideration of where measures could be implemented to the St. Clair River in spite of the Upper Great Lakes Study which points to a range of options. However, this study only considered structural options in any detail that pre-date 1977. So there is a significant knowledge gap to be filled, which we want to contribute to with the results of our feasibility study.

In our view, advances in materials, technologies, hydrology and climate science could lead us to modern, flexible, navigable, climate-resilient structures and locations, that could help maintain water levels within an acceptable range, garner broad stakeholder support and protect the region's economy and ecosystems. This study would help governments provide USACE with a new authorization to ensure a well-designed, detailed engineering study—the critical next step in arriving at a long-term solution to fluctuating Great Lakes water levels.

Finally, I want to welcome aquatic toxicologist, Dr. Neil Hutchinson, President of Hutchinson Environmental Sciences to GBF's Board. Neil has been a member of GBF's external Science Advisory Committee, and brings over 30 years of experience in limnology and watershed studies. His professional career has focused on pollutants and aquatic system stressors.

I also want to thank Board members Leslie Hayes, Mike Hensel and Gail Krantzberg for their service to GBF. Both Mike and Gail will join GBF's Science Advisory Board.

And a huge thanks as always to you, our donors, and the many volunteers who contribute their personal time to make all that Georgian Bay Forever is doing to protect your water possible! Please remember, all of it is for our children's children's children.



VITAL SIGNS 2015 ROUND-UP

By Madeleine White

Vital Signs is as much a report on the health of Georgian Bay as it is a morning of learning about the research GBF is conducting.

This year's seminar was attended by about 100 curious bay-dwellers and stakeholders, who had the opportunity to gain insight on everything from reverse-engineering food webs from the stomach contents of fish to how an outer-space view can help us understand what changes are happening in our wetlands.

Elizabeth Dowdeswell, Lieutenant Governor of Ontario

Elizabeth Dowdeswell, the Lieutenant Governor of Ontario, started off the morning by setting a philosophical road map for attendees.

During her keynote address, she outlined the major theme of the day: science as form of social empowerment.

"We are not individual land holders in a particular geographic part of the Great Lakes systems. Our influence, our impact is so much greater," she reminded the crowd. "You exemplify what happens when place matters to people."

She identified three key ingredients to social change: science and technology, government and civil society. She stressed that change cannot happen unless all three work together.

One of her principle ideas was the notion of a contract between science and society, which links research to policy action and "reconciles scientific excellence and social relevance."

She urged GBF members to ask themselves if our science is asking the right questions and if it is being brought through the right channels of our institutions.

"From everything I've read and seen, I'm confident that the intellectual capital, the passion and the enlightened leadership in this room can bring a renewed sense of urgency and commitment," she said.

And she ended by reminding us what is at stake: "The Great Lakes are really an iconic feature of this province. They are a part of who we are as Ontarians."

"While a safe and secure water supply will not guarantee us the future we seek, without it we will surely have no future."

> "While a safe and secure water supply will not guarantee us the future we seek, without it we will surely have no future."
>
> *Elizabeth Dowdeswell, Lieutenant Governor of Ontario*

All *Vital Signs* photos by Tynan Studio | tynanstudio.com

Dr. Robert Hanner, University of Guelph

Next Dr. Robert Hanner spoke about his DNA bar coding work at the University of Guelph's Biodiversity Institute of Ontario.

"Species is simply a hypothesis. Someone has observed some individual organisms in nature and based on some defining characteristic has tried to draw a binding box around them to identify them as a set," he said, adding that time is of the essence when it comes to cataloguing species DNA. "As [our environment] goes through this time of profound change, our window of sampling to understand the biodiversity around us is rapidly closing," he said.

A DNA barcode is a representation of the combination of DNA base pairs that makes the species unique, Dr. Hanner explained. Unlike genome projects, DNA barcodes aim for "genic minimalism."

"[We're looking for] how little DNA do we need to know to tell species apart," he clarified. "This allows us to identify species rapidly and cost-effectively."

> "We want to get to a place where we can identify what species of fish are in a bay just by sampling the water."
>
> *Dr. Robert Hanner, University of Guelph*

This technique has proven to have many uses including confirming individuals are a part of the same species, identifying new species and improving taxonomy, since some samples his team collects turn out not to have associated species name. In these cases, these specimens become known by their Barcode Index Numbers (or BIN).

Barcoding is also important because it allows scientists to identify not just mature species samples but also larvae and highly processed materials, like fish fillets.

The aim of Dr. Hanner's work is to generate a barcode database that can be used worldwide. And one of the first sets of species his team started to catalogue was freshwater fish in Canada.

This is the first piece in the puzzle of ultimately being able to meta-barcode an environment (gathering all of the barcodes that exist in a single habitat).

"We want to get to a place where we can identify what species of fish are in a bay just by sampling the water," he said.

"I think this is what is really exciting about this technology when it comes to the Great Lakes."

Nathan Owens and Jamie Favors, NASA Earth Sciences Division

This year GBF paired up with NASA to investigate water levels from a new perspective. And quite fittingly, they video-conferenced in for the morning to share their discoveries.

NASA conducts its observations of earthly changes through a network of 18 satellites in orbit.

"There are a few reasons why NASA looks at earth sciences," said Mr. Favors. "One is that you need a vantage point from space to really understand the planet. This allows us to approach looking at our Earth as an entire system."

The pair presented multiple images from orbit that showed massive ecological change on the planet's surface, from urbanization of Saudi Arabia's deserts to algae blooms in the Great Lakes.

Mr. Owens then went on to run through data collected with GBF through NASA's Develop program, which partners organizations with NASA to conduct observational studies. The GBF-guided study examined wetland habitats along Georgian Bay.

"We have been working on this project for 20 weeks – it just concluded last week," explained Mr. Owens. "We looked at the impact of decreasing lake water levels on the wetlands along the Great Lakes, and more specifically around Georgian Bay."

But why look at wetlands? Mr. Owens listed off the reasons: They are important ecosystems, they serve as groundwater recharge points, they are habitat for numerous species, they are a source of tourism, they can help control flooding and erosion and, on a global scale, they act as natural carbon sinks.

What they discovered is that there has been a loss of wetlands along the southern and western edges of Georgian Bay from 1987 to 2013. But there was an increase in wetlands in the northern area of the Bay in that same time frame.

"Overall for Georgian Bay from 1987 to 2013, there was a seven per cent wetland gain – mostly in the northern portion of the Bay – and a 10 per cent wetland loss mostly in the south. Meaning, overall there was a net loss of 3.8 per cent," concluded Mr. Owens.

Algae, trace carbon and sediment

The final set of speakers for the day included Dr. Lewis Molot, Dr. Neil Hutchinson and Dr. Kevin McCann.

Dr. Molot shared his research on algae blooms. First, he outlined the conditions needed for these toxic occurrences to happen: lots of phosphorus, low winds and warm temperatures.

He then informed the crowd that the number of reports of algae blooms by the public has increased in recent years and there are more blooms happening later in the year. Part of this could be from increased awareness, he said, but

climate change may also be a factor in understanding why Georgian Bay is seeing more blooms.

Dr. Kevin McCann pulled together many themes raised by Dr. Hanner. By using DNA barcoding, Dr. McCann and his team have been able to reverse-engineer food webs from the stomach contents of aquatic creatures in the Bay.

The key is to trace carbon, which is the "lifeblood of ecosystems." Once that map is complete, you get a sense of what is normal for these habitats. This then allows researchers to pick up on early warning signs when something is off.

Lastly, Dr. Neil Hutchinson took the floor to give an update on his paleolimnological studies of Georgian Bay.

Using different sized sediment columns from different points of the floor of the Bay, Dr. Hutchinson and his team were able to not only date the age of that area but also understand its composition. These samples also shed insight into phosphorus levels, which can be a precursor to blue-green algae (the cause of the toxic blooms Dr. Molot discussed).

Together, the three panelists provided different litmus tests to understand the multi-faceted, complex health of Georgian Bay.

By Debra Stuart

CALIFORNIANS MAKE THEIR POINTE

Terry Clark on the Bay.

When a married couple from the small, town of Danville, California, load up their car and drive thousands of miles every summer to the Pointe au Baril Station, some might ask why. For Hilde and Terence (Terry) Clark, this annual journey takes them back to where their family's love affair with Georgian Bay first began, five generations ago.

Prior to calling the west coast home, the Clarks lived in the suburban retreat of Shaker Heights, Ohio, 10 km inland from Lake Erie. "I spent every summer in Pointe au Baril since I was a child, said Hilde."

"I know when my mind, body, soul and heart have arrived at the cottage. I can sit for an hour and reconnect with nature. It's where we recharge our batteries," said Hilde.

Hilde's great grandfather, Elbert Hall Baker Sr., came to Pointe au Baril in 1914 at the request of his daughter, Louise, a teacher who had visited a girlfriend and became enamoured with the area. In the 1920s, Elbert purchased Orion for his daughter, a two-acre island near the landmark Pointe au Baril lighthouse. This is where the family's original cottage was built.

A generation later, Elbert Jr. married Hildegarde Krause Baker, and they had four children, Hilde's mother Ann, and daughters Carlotte and Jane. The girls all honeymooned on Orion. When their brother Elbert H. Baker III was married, he was gifted a nearby island, and the family extended their property ownership within the archipelago.

Ann married Alfred (Bud) Body. They vacationed on Orion island every summer, as did Ann's siblings. "This is where I grew up," said Hilde. Ann and Bud purchased nearby Clare Island In 1967, a 10-acre utopian retreat, where Hilde and Terry built their cottage in 1992.

Terry and Hilde Clark with their grand kids.

"When people ask what I do at the cottage, I tell them I live there. I live in a world that can't be replicated anywhere else," said Terry.

"Terry and I are here from June until September, and enjoy time with our children and grand-children, who travel from Virginia, Kentucky and California. It's always been our family home," said Hilde.

Terry, a retired attorney, recognized as among the Best Lawyers in America, is the past President and Director of the Pointe au Baril Islanders' Association (PaBIA). He was also a founding member of the Board of the Ojibway Historical Preservation Society, serving as Director, and as Chair and President since 2010. Hilde is the Director of the PaBIA Communications Committee.

The Clark's are intimately involved with the Pointe au Baril community and appreciate the opportunity to give back to the Bay they love.

"Collectively, we have been able to strengthen our advocacy with local government, improve safety on the water, raise funds that preserve, protect and restore generations-old landmarks, and create a vibrant hub where area cottagers congregate and socialize," said Terry.

Terry joined the GBF Board last year. He said, "I wholeheartedly agree with GBF's philosophy and approach—to involve all constituencies, and focus on scientific research and public education."

THE SUBJECT ON EVERYONE'S MIND

By David Sweetnam

Water levels are up this year to their long-term average levels after hitting records lows two years ago. While this is good news, it isn't time to relax—especially when climate models predict further declines over the long-term. It's almost as though Mother Nature knows we are working hard to help her and has brought us frigid winters, increased ice cover and cooler water temperatures to reduce evaporative losses to give us time to prepare for the uncertainty that lies ahead.

There is no question that water levels in Lake Michigan-Huron fluctuate over time. Natural highs and lows are separated by two metres (6 feet). The problem is the new uncertainty that climate change brings to how often and by how much historic extremes will be exceeded, and to the overall downward trend in water levels.

The effects of climate change will be around for a while and we need to understand what modern solutions are available to help. I sit on the advisory panel for an integrated assessment study of non-structural ways to address fluctuating water levels currently being conducted by the University of Michigan's Graham Sustainability Institute. The study has awarded a number of grants to teams investigating promising solutions. Results will be reported in 2017. In addition to non-structural adaptations, researchers need to look at possible structural solutions. All of the previous studies on water level regulation are based on structural technologies created before modern computer controls, satellite monitoring technologies, improvements in materials science and the effects of climate change. GBF has issued a request for proposals to engage our best engineers and scientists in creating a vision of these possible contemporary, climate-resilient solutions.

Water levels and wetlands

Low water levels have also had an impact on wetlands in Georgian Bay but, until our recently completed study with NASA, there was no way to measure the changes in wetlands inventories. In our project, earth observing satellites and sophisticated imaging algorithms were used to measure and compare the types of ground cover present in the 1980s when water levels were high and in 2013 when they were low. One of the objectives of the study was to develop an efficient and cost-effective methodology that can be replicated and used in the future to monitor the effects of climate change or other stressors like development on our precious Georgian Bay wetlands and throughout the Great Lakes region.

This important study has just wrapped up. Results indicate that when water levels dropped, wetlands in the southern part of the Bay decreased by 10 per cent while wetlands in the northern end increased by seven per cent for an overall reduction in wetlands at low water levels of three per cent. The findings suggest that the system is more resilient than previously reported and better able to withstand the impacts of climate change-induced water level declines than previously thought.

Exploring the depths of the Bay

While satellites in space and natural fluctuations in water levels can be used to assess and measure changes taking place on the surface of the Bay, other tools and techniques are needed to help us understand what changes may be taking place under water. Coastal bathymetry measurements (the underwater equivalent to topographical mapping) are required to give us a true sense of what will happen if water levels continue to drop.

Light Radar (LIDAR) uses penetrating wavelengths to map the contours of underwater terrain more accurately. While this technique has been widely used on the U.S. side of the Great Lakes, the costs associated with this type of underwater mapping are high, which is why LIDAR has not been used extensively here with the exception of some small swaths of the Nottawasaga Bay area. Vessel based side-scanning sonar is impractical in the Georgian Bay archipelago region due to the thousands of kilometres of coastline that would need to be surveyed. Anyone who saw the detailed images of the doomed Franklin expedition vessel found in the Arctic last year will appreciate the high resolution of the underwater imaging technology now available, and some of this technology is mounted on recreational boats. Georgian Bay Forever is looking into a project that would take advantage of this equipment and engage communities around the Bay in citizen bathymetry.

Stay tuned for more on this project, and contact us if you are interested in helping GBF map the Bay.

Eradicating phragmites

Low water levels also let invasive species like phragmites take root and flourish along our coasts. In some area wetlands, this has led to the loss of native species diversity and their use by organisms that need wetlands to survive. To reverse this infestation and protect our wetlands, it is critical that we act quickly to eradicate this plant. Georgian Bay Forever has been working on building this capacity and expertise for the past three years. After a successful pilot project season in 2014, and with the help of the community, we are now ready to make some significant progress in this fight this summer. Please contact us if you wish to learn more about how you can join this project and protect your own area.

Other news

Teams from Georgian Bay Forever, Environment Canada and the Ontario Ministry of Natural Resources have been working to answer a number of research questions in an effort to better understand and protect our ecosystems. Finding out who is out there doing research and how teams might work more collaboratively has been challenging. The Georgian Bay Research Consortium was recently established to remedy this situation, and to improve the sharing of information and make more efficient use of research resources. GBF was invited to join the committee as a member-at-large.

Vital Signs IV was a great success. Turn to page 6 to see more about our great speakers and their interesting presentations.

We will have future news about Ontario's Great Lakes Protection Act introduced for the third time – hopefully it will pass through the House this time.

BUILDING A BIOLITERATE WORLD

By Dirk Steinke

Imagine a world in which you can know the name of any animal, any plant, any fungus, any organism, on the spot, in an instant, anywhere on our planet. Imagine that you had access to the sum of humanity's knowledge about that species - is it harmful, is it part of a healthy ecosystem - or is it endangered and in need of protection? How would this change our lives, our perspectives, and our impact on this planet's biodiversity? What would it be like to live in such a bioliterate world?

To date, this world has largely remained within the realm of science fiction, and its users restricted to explorers of new and distant planets. But the rationale for developing such a system includes clear applications here and now. The globalization of trade, food safety, increasing impacts of climate change, and calls for biodiversity conservation make rapid species identification a world-wide need.

DNA barcoding first came to the attention of the scientific community in 2003 when Paul Hebert's research group at the University of Guelph published a paper titled "Biological identifications through DNA barcodes". In it, they proposed a new system of species identification and discovery using a short section of DNA from a standardized region of the genome. That DNA sequence can be used to identify different species, in the same way a supermarket scanner uses the familiar black stripes of the UPC barcode to identify your purchases.

Identifying species is no easy task. After all, there are millions of different species of animals and plants across the globe (about 100,000 of them occur in Canada alone) not to mention the diverse world of microbes. In addition, it is often difficult, even for experts, to separate closely-related species by their appearance.

DNA barcoding is a remarkable Canadian scientific success story. What started as the vision of one man in a laboratory in Guelph has turned into a global research endeavour and evolved into an idea that will transform the way we look at biodiversity.

DNA barcoding had a much wider impact than initially anticipated. This technique enhanced our ability to identify species from all life stages (such as eggs and larvae) and in all forms (such as processed foods and partial remains). Among many other things it enabled researchers to detect market substitution in seafood, to monitor the health of aquatic ecosystems and to track the spread of invasive species or disease vectors.

The research group that proposed this new method 12 years ago evolved into what is today known as the Biodiversity Institute of Ontario. This cutting edge facility is at the forefront of assembling a DNA barcode reference library for all of the world's species through an international research program called the International Barcode of Life (iBOL) project. Today several thousand researchers world-wide are using DNA barcoding to identify and discover new species, hundreds of them will meet for an international conference this summer on the University of Guelph campus.

As the technology to read DNA continues to improve, we move closer to a world in which the identification of species, and access to information on their biology, ecology, and socio-economic significance, can be provided with all the ease of scanning soup cans at the supermarket check-out. DNA barcoding aims to realize that world.

Dr. Dirk Steinke is Director of Education and Outreach at the Biodiversity Institute of Ontario, University of Guelph. To read more on barcoding go to tinyurl.com/GBFBioliterate

Photo by Tynan Studio | tynanstudio.com

GBBR RECEIVES ENVIRONMENT CANADA CLEAN-UP FUND GRANT

By David Bywater, State of the Bay Co-ordinator at GBBR

The Coordinated Nutrient Monitoring project, led by the Georgian Bay Biosphere Reserve (GBBR) in partnership with Georgian Bay Forever, Severn Sound Environmental Association, the Ministry of the Environment and Climate Change Canada, as well as other organizations, agencies and local townships has been granted $191,300 over two years to make water quality monitoring more consistent to facilitate research and government decision-making.

"With over 15 different water quality monitoring programs in use on the Bay, we need to focus on the priorities for scientific purposes and then support volunteers within the Townships and cottage associations to collect consistent data. We need to compare apples to apples to improve our understanding of how water quality might be changing and help local governments respond," says David Bywater, project coordinator with the GBBR.

This project will establish common monitoring objectives and expand the monitoring activities in Georgian Bay, ensuring that stakeholders measure nutrients in a similar and comparative fashion. At a recent Georgian Bay Research Consortium meeting, the need for enhanced communication and coordination research programs was emphasized, which GBBR's project should help to facilitate.

Georgian Bay Forever (GBF) is a key partner on this project, given its experience facilitating the review of water quality monitoring programs in the Township of Georgian Bay. "By working with our partners to rationalize and coordinate this monitoring, we have improved the science, reduced the costs, engaged governments and broadened our scientific understanding of both historic and present conditions in the area," noted David Sweetnam, Executive Director of GBF. "This work gives us a springboard moving forward on the GBBR initiative."

Project activities will include 10 workshops in the region that provide residents and cottagers with an opportunity to learn about local water quality conditions and best practices to mitigate our impact on the Bay. The project will also develop a user-friendly water quality website that maps nutrient monitoring activities, research, and stewardship activities.

One of the key objectives of Environment Canada's Lake Simcoe & South-eastern Georgian Bay Clean Up Fund is conservation of critical aquatic habitats and species, as well as the reduction of pollution. We hope that this project will begin to give people the tools to track water quality and put those environmental management programs in place based on better science.

Data collected and trends observed as part of this project will also be reported in a special update of the State of the Bay ecosystem health report card program for eastern Georgian Bay in 2018.

Designated by UNESCO in 2004, the Georgian Bay Biosphere Reserve is an area of 347,000 hectares that stretches 200 km along the eastern coast from Port Severn to the French River, in the world's largest freshwater archipelago. Based in Parry Sound, the non-profit organization works to protect the environment, create vibrant communities, and build a healthy economy. To learn more, please visit: www.gbbr.ca.

Photo by Tynan Studio | tynanstudio.com

How to make your ripple make WAVES!

Every month of the year is special for its own reason—maybe because of a birthday or an anniversary, a "can't wait until its here" family get together or simply because it's part of your favourite season.

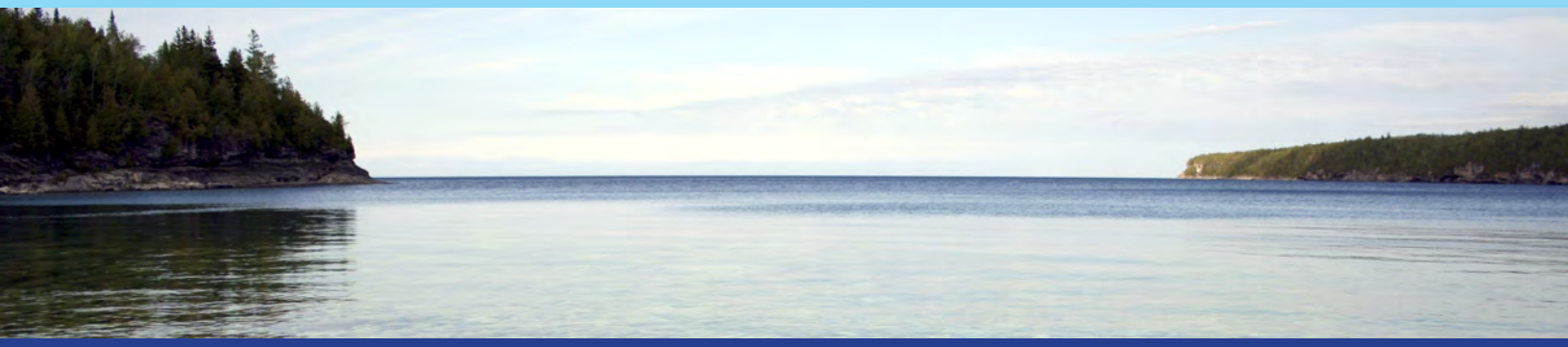
For people who love the Bay, the summer months are the most precious of all. Watching loved ones swim in the pristine water, fish from the dock or catch tadpoles and frogs by the shoreline are wondrous moments. The memories made over those few short months can last a lifetime!

You can help to ensure that your loved ones continue to experience those memory-making months on the Bay by providing support through informed and impactful charitable donations. Have you ever looked at your charitable giving and thought, "I wish I could do more" but just don't think you can? We might have the answer for you—make your annual gift a recurring gift instead. This simply means that you make a commitment to donate a certain amount each month. You never have to worry about mailing in a cheque or calling in with your credit card number. Best of all, when you spread out your payments over the course of a year, you can increase your charitable giving without putting a strain on your pocketbook.

There are many benefits to making recurring gifts. You, as the supporter, enjoy peace of mind as you watch your giving grow without having that yearend lump sum to worry about. You get the convenience of providing your information once and letting us take care of the rest. And, you can be confident that your regular gift is providing stable and reliable income that will help Georgian Bay Forever plan for the future.

Monthly giving allows us to have the pleasure of thanking you instead of always asking for a gift. It helps us be more efficient which means more of your contribution is spent on things that really matter. Lastly, it allows us to invest in longer-term projects to protect the Bay because we have stable funding to help us look further into the future.

If you have never considered monthly giving, we urge you to give it some thought! It is a great way to make your contribution have an even larger impact for your favourite cause. It's a relatively easy way to make your ripple make waves across Georgian Bay and ensure that generations to come have the chance to experience the Bay and make their own memories!



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