The Lake Huron Centre for Coastal Conservation

Happy New Year from the Coastal Centre!

What a year it has been! We are wishing you and your families good health and happiness in 2021. Here's to a new year and new beginnings. This is what's new with us:

Toronto Zoo Webinar

Aquatic Species at Risk in the Great Lakes

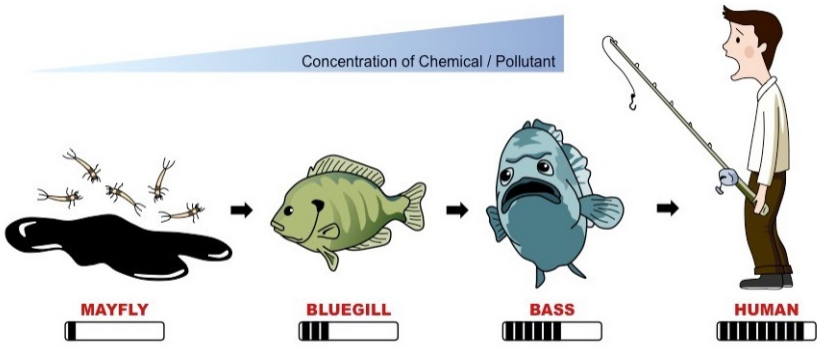
The Toronto Zoo Great has teamed up with the Coastal Centre and Green Goderich to provide a **free** educational webinar on aquatic species at risk in the Great Lakes. Our Great Lakes support a diverse array of plants and animals, with rich ecosystems that are unique in the world. The lakes provide us with fresh drinking water, food and recreational opportunities. **This session will focus on some of the species at risk in our Great Lakes and our role as individuals to protect this sensitive ecosystem**. The presentation will be given by Kat Lucas of the Toronto Zoo Great Lakes Program. Kat is the Aqua-Links Program Assistant and has a passion for conservation education and connecting others with the environment. She graduated from the University of Guelph with a Bachelor of Science, Zoology and a Master of Environmental

Science with a focus on aquatic toxicology and fish reproduction. **The webinar will be held on Monday, January 18th at 7:00 pm EST. Join us by clicking on the link below to register for free!**

Register Here

TOYOTA BOSHOKU CANADA DONATES $3,200 TO REDUCE PLASTIC POLLUTION

Our coastal ecosystems are at risk because of the plastic pollution problem in our Great Lakes. Last year, micro-plastics were found in 97% of our water samples taken from Lake Huron. This poses a threat to the health of both humans and wildlife. Our water filtration systems often do not have the technology to capture small micro-plastic fibers, putting our drinking water at risk. Additionally, wildlife health is compromised by the entanglement, and ingestion of plastic. As plastic slowly breaks down toxins are leached into the environment and begin to accumulated in animals, moving its way up the food chain in a process called “biomagnification”. Plastic pollution is a problem that will not go away without action.



This year the Centre received a generous donation from Toyota Boshoku Canada to fight plastic pollution in Lake Huron. Here’s what Jason Psutka, Senior Specialist at Toyota Boshoku Canada had to say:

"Toyota Boshoku Canada has two automotive manufacturing plants in

southern Ontario – one in Elmira and one in Woodstock. Our parent company in Japan challenged us to raise Team Member awareness of the problem of plastics and other wastes in our coastal marine eco-systems. By introducing the problem during June's annual Environmental Month activities, our Team Members supported a fund-raising campaign that saw $3,200 raised!

We are happy to have donated the money to The Lake Huron Centre for Coastal Conservation (LHCCC) because we feel their goals align closely with our own environmental efforts. Toyota Boshoku Canada believes strongly in respecting the environment and we hope this is just the start of this kind of support to LHCCC. I feel that some of our Team Members and their families may want to participate in some of this year's Lake Huron shoreline clean-up events and we all look forward to preserving the beautiful coastal areas so near to us." ~Jason Psutka, Energy & Environmental

It is so important to connect with companies that share the same values of conservation as we do. This generous donation will help us to complete our 2021 shoreline cleanups, and expand our Coast Watchers micro-plastic monitoring program!

The Coast Watchers Citizen Science program has been running for 16 years now, with dozens of volunteers acting as our "eyes and ears" for the coast. They collect important data like water temperature and wind speed, and monitor things like wildlife, algae blooms, and plastic pollution. With this new expansion we are asking YOU to become a Coast Watchers Citizen Scientist. Volunteers are asked to commit to monitoring the same area of shoreline once a week from May to October. For more information and to register click the button below.

Register Here

Lake Huron Water Levels

Frequently Asked Questions

Rising water levels in Lake Huron is something we have all witnessed living near the coast. We know this is happening and that people are concerned. We have provided answers to frequently asked questions on this issue. Questions like: **where is the sand going? Can we predict Lake Huron water levels in the future? Who is responsible for shoreline protection?** The answers to

these questions are based on the expert panel discussion regarding Lake Huron water levels in this year's "Is the Coast Clear?" conference. The session is available for a $25 purchase on our website.

The Lake Huron Water Level Expert Panel Session is available for purchase here:

Watch Now!

Q: **Can we project Lake Huron water levels over the next 6-12 months based on the last 10 years of data?**
A: No. It is very difficult to predict water levels past 2-4 weeks. It depends on precipitation levels compared to rate of evaporation. Yet it has been stated that water levels will remain high over the next few months simply due to the volume of water currently in the system. The only way for that water to exit is through the great lakes and out the St. Lawrence River.

Q:**What accounts for the sudden change in evaporation in the last 10 years?**
A: Colder winters create more ice cover which results in a smaller temperature range between air and water, and therefore less evaporation.

Q: **What happens to the materials (ex. sand, clay, soil) that are eroded away on beaches?**

A: How materials move (eg. creation of sand bars, materials settling up or down the beach) can impact the enjoyment of beaches for visitors and local property owners. We have to consider how the loss of beaches will effect our neighbors when trying to protect this fragile coastal ecosystems.The following points explains the movement of sand, stones, silt, and clay.

1. **Solution**- occurs when material is dissolved into the water then is easily carried away.
2. **Suspension**: fine materials are carried away (eg. sand, silt and clay) from the beach to deep water where it settles.
3. **Saltation**: deposits sand along

different areas of the shore through wave action.

4. **Traction**: happens when larger rocks are rolled along the lake bottom by storm surges nearshore (roughly up to 10 meters in depth)

Learn More on Where Beach Materials Go

Q: What would the environmental consequences be of creating a continual hardened shoreline as protection erosion for infrastructure along the coast?

A: It is important to understand that **erosion is a natural process and is needed in some areas to provide sand for beaches further down the coast**. To conduct wise shoreline management, tools need to be provided to both encourage development and avoid the hazardous areas. Each shoreline protection project must be considered on its own merit. In urbanized locations cost / benefits analysis plays an important role. Some situations may find that social or economic benefits outweigh environmental costs. In these cases **proper design and maintenance are needed to minimize potential harm to coastal processes.**

Learn More on the Environmental Impacts of Hardened Shorelines

Q: Who is responsible for ensuring proper design, construction oversight, and risk management for shoreline protection projects?

A: The following outlines the different levels of responsibility for shore protection projects:

1. **Consultation with environmental experts** should be considered for new projects regarding erosion control based on scientific knowledge gained over the past 40 years.

2. Considerations made by environmental experts are then applied by **local decision-makers** following the policies and guidelines **provided by municipal and Conservation Authority Offices.**
3. **The Chief Building Official** has the ability to interpret and apply rules as laid out in the Building Code Act.
4. Depending on location **provincial (Ministry of Natural Resources and Forestry) and federal (Department of Fisheries and Oceans) legislation** may also apply
5. Regarding hand rails there are recent changes to the**Ontario Building Code under "Stairs, Guards, and Handrails"** but they do not come into force until January 2022 and it does not include public stairs.

Learn More on Who is Responsible for Shoreline Protection Projects

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APPLICATIONS OPEN FOR THE GEOFF PEACH MEMORIAL SCHOLARSHIP

The Coastal Centre was founded by two passionate and knowledgeable individuals driven to protect and preserve Lake Huron's coast and waters. Patrick Donnelly M.Sc, who is an important member of our team, and Geoff Peach, who was an environmental advocate whose actions and influence spanned 3 decades along the Lake Huron coast.

The Geoff Peach Memorial Scholarship Fund was created to continue Geoff's work and that of the Coastal Centre. It is available to university graduate students (Masters and PhD) with conservation and environmental research interests along Lake Huron on topics such as: Biodiversity, Coastal Processes, Dune Conservation, Water Quality, or Plastic Pollution.

Two grants per year of up to $1,500 are available to students interested in conducting research along the Lake Huron coast.

The deadline to apply for 2021 is January 30.

Learn More

The Lake Huron Centre for Coastal Conservation is a registered charity founded in 1998 with the goals of protecting and restoring Lake Huron's coastal environment. We are the voice for Lake Huron.

DONATE TODAY!

www.lakehuron.ca