



The Lake Huron Centre for Coastal Conservation

NOVEMBER

GIVING TUESDAY



DEC 1

GIVING TUESDAY

December 1st is Giving Tuesday, an international day of giving, and an opportunity for charities and their supporters to rally together for their favourite cause.

Help us to raise \$5,000 this Giving Tuesday as we fight to keep plastic pollution out of our lake!

Your gift will help our Coast Watchers volunteers collect important data on the amount of plastic in our lake, and will make our 2021 community beach cleanups possible!

**DONATE
NOW**

GIVING TUESDAY



THAT'S A WRAP!

The first ever virtual version of our Lake Huron Conference wrapped up earlier this month.

We heard from 29 coastal experts as they talked about important issues

affecting Lake Huron, such as plastic pollution, climate change, extreme water level fluctuations, and invasive species.

Over 200 people were able to attend the conference this year, making it our most well-attended conference to date!

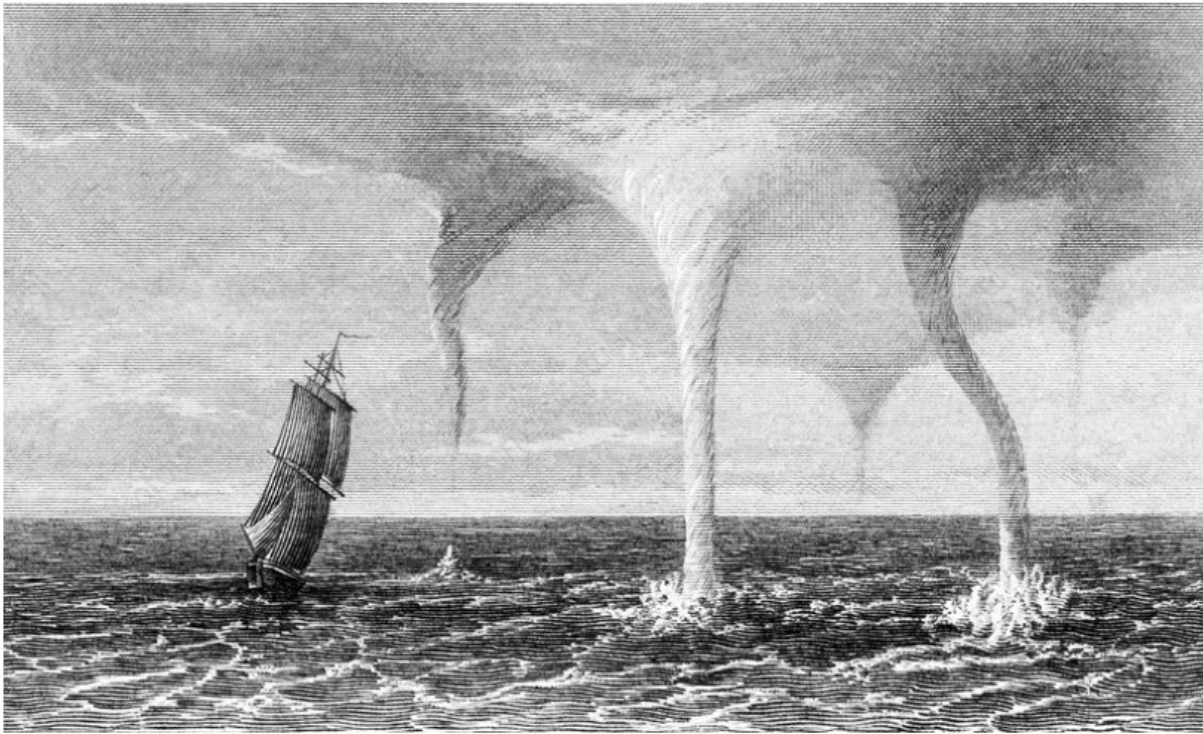
DID YOU MISS THE LIVE CONFERENCE?

It's not too late! For \$25 you can purchase access to the conference recordings on our [website](#).

This event is our most important charitable fundraiser, and your contribution helps support Lake Huron conservation programs like the Coastal Conservation Youth Corps, Coast Watchers citizen science, beach cleanups, and more!



Conference Recordings



“Waterspouts near a ship” historical artwork provided by Science Photo Library.

THE GREAT WATERSPOUT OUTBREAK OF 2020

By Patrick Donnelly, Coastal Science & Stewardship Advisor

Waterspouts can often be seen over Lake Huron, however they seemed to be getting a lot more attention this summer and fall. For those of us spending time along the Lake Huron shoreline at Sauble Beach, Grand Bend and Thornbury on Georgian Bay this relatively common occurrence seemed to be happening more frequently. So what’s with waterspouts?!

Several media outlets including The Weather Network, CTV News, Global News, ABC News, and MSN were reporting on an increased number of waterspouts seen across our favorite Lake. August and September is often the time when waterspouts will happen due to the changing air temperature arriving with the changing season as fall conditions set in. However this August seemed like a waterspout ‘windfall’:

- seven (7) in one day were viewed from the shores near Thornbury
- five (5) were spotted on the morning of Aug 17 between Sauble Beach and Kincardine

SO WHAT ARE THEY?

They are basically “tornadoes over water” as described by David Sills, executive director of the [Northern Tornadoes Project \(NTP\) at Western University](#) (note: since tornadoes have historically been attributed to tornado-alley in the mid-western states of the USA, the description “Northern” seemed appropriate for this Canadian-based project). His team of

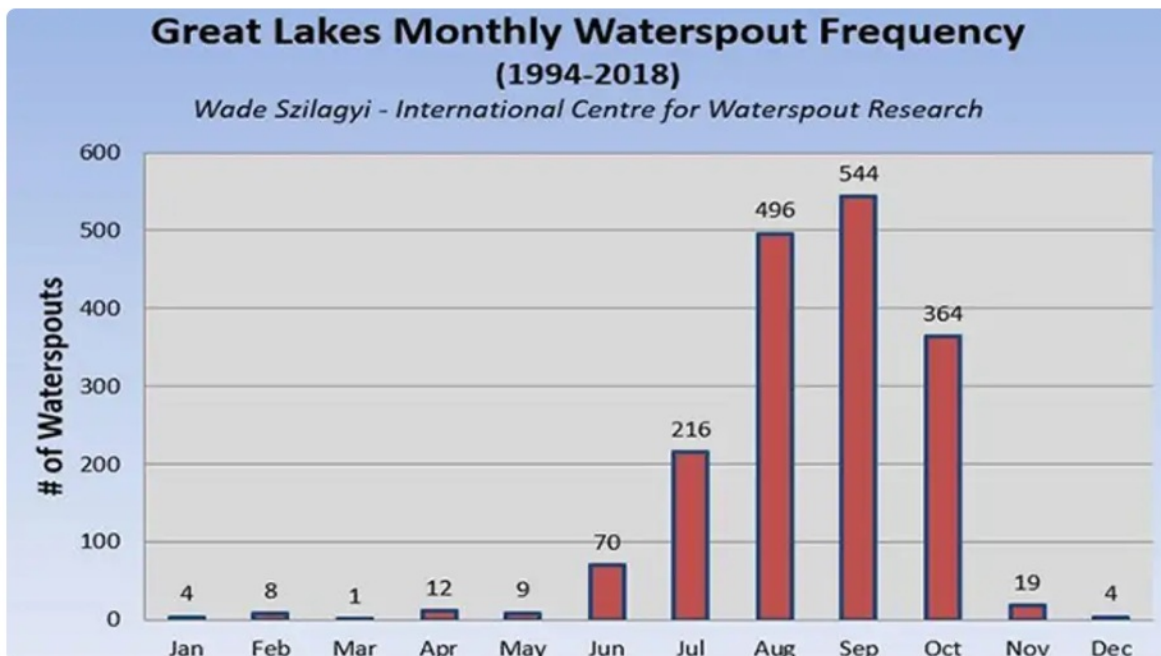
scientists and storm chasers are warning shoreline residents and boaters to be aware.

There are 2 different types of waterspouts as determined by their formation.

- “Top- down” or “Tornadic” waterspouts are the more dangerous with characteristics more similar to tornadoes (note: the 2011 Goderich tornado was the result of a “top down” spout and funnel formation).
- “Water-up” or “fair weather” waterspouts are typically weaker and dissipate quickly over land. They are sometimes referred to as “cold air funnels” due to their formation.

WORLD RECORD?

A new world record was set according to the [International Centre for Waterspout Research \(ICWR\)](#) which is a non-government organization and research centre formed by Wade Szilagyi, an Environment Canada meteorologist. They report that 88 waterspouts / or funnels were spotted across the Great Lakes in the week of August 16 to 19 (primarily over Huron, Erie, and Ontario). The Centre also reported that 51 were spotted on one day being August 18 across the lakes and that 42 occurred on August 5 the week before. The previous daily record for waterspouts over the Great Lakes was 67 back in 2013. Then in the week from September 28 to October 4, 2020 the Great Lakes shattered all records with 232 waterspouts.



Monthly waterspout frequency on the Great Lakes from 1994 through 2010. The season typically begins in late July and extends through October.

(Wade Szilagyi, International Waterspout Research Centre)

WHAT CAUSES THEM?

Past e-newsletters by the Coastal Centre have shared information on the different heating and cooling attributes of land and water along the shoreline that create the phenomena of lake breezes during the day and offshore breezes at night. “Water-up” formations of waterspouts occur when cooler air passes over warmer water, which typically happens in late summer / early fall. And July 2020 was the hottest July on record which warmed the lake waters making the temperature differential even more pronounced this August. Therefore, this waterspout outbreak was created by a cold air mass travelling across our region creating these mesmerizing white or bluish waterspouts. The colour is created by water and air that is being uplifted within the spout and differs from tornadoes that are often

coloured brown over land as they suck up soil and debris.

ARE THEY DANGEROUS?

“Water-up” waterspouts are weaker and can usually be seen from a distance during fair weather. Therefore, the ability to move away and avoid them is much greater. But, they can still overturn boats and cause damage if they reach the shore.

“Top-down” waterspouts contain more aggressive winds and are often associated with storm clouds and associated extreme weather conditions.

Therefore, both types of waterspouts can be dangerous and should be carefully monitored. As the Latin passage states “**Praemonitus, praemunitus**”, or “**To be forewarned is to be forearmed**”.

FOR MORE INFORMATION:

<https://www.facebook.com/InternationalCentreForWaterspoutResearch/>

<https://www.youtube.com/channel/UCFNKN-c3eBxsMgbUVX03TaQ>

<https://www.uwo.ca/ntp/>

Note: Information contained in this article was sourced from NTP and IWRC reports contained in Global News and The Weather Network articles.



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