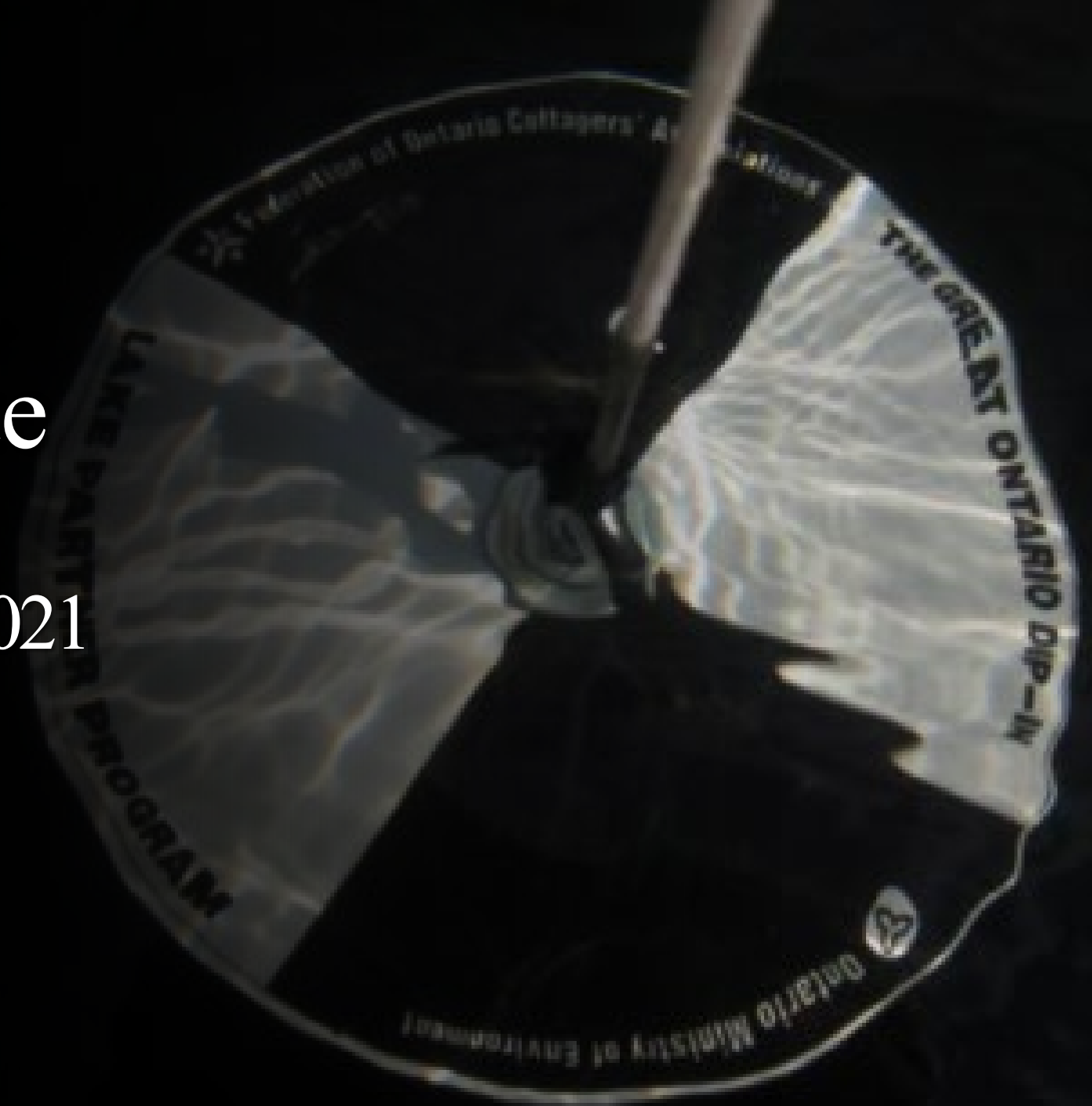




Lake Partner Program Update

FOCA Fall Seminar 2021

Liz Favot, PhD
Assistant Lake Stewardship Coordinator
Federation of Ontario Cottagers' Associations



LAKE PARTNER PROGRAM: 25 YEARS OF VOLUNTEER MONITORING!

We work to: foster interest and promote stewardship of water quality across Ontario, and maintain a long-term data set on water quality in inland lakes.

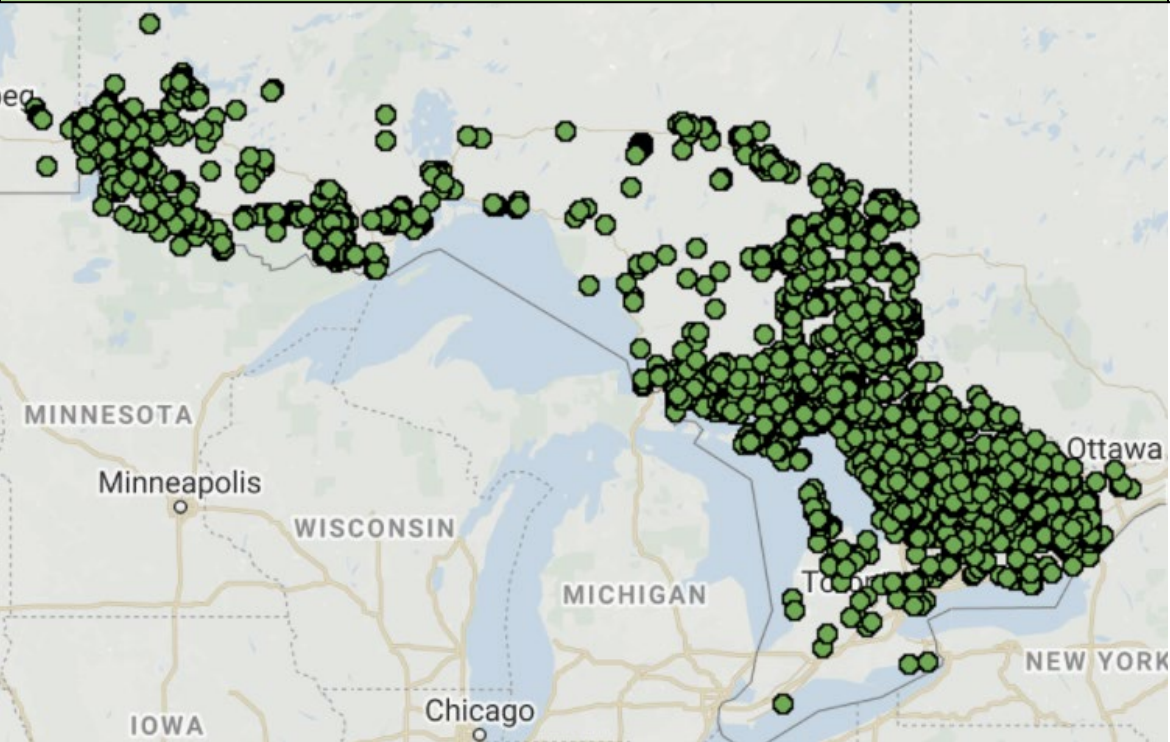
- Each year, over 700 volunteers collect water samples and record water clarity in more than 550 lakes at over 950 sampling locations
- Volunteers send water samples to Ministry of the Environment, Conservation and Parks (MECP) lab for analyses. Data are available online
- The data are used for many purposes, including informing policy and program decisions, and looking at trends in water quality over space and time to understand the state of the environment

Largest volunteer-based water quality monitoring program of its kind in Canada



WHERE & WHAT THE LAKE PARTNER PROGRAM MEASURES

Locations



Parameters

Total Phosphorus (TP)

- Important nutrient controlling the growth of algae in Ontario Lakes



Water clarity

- Estimated using a Secchi Disk



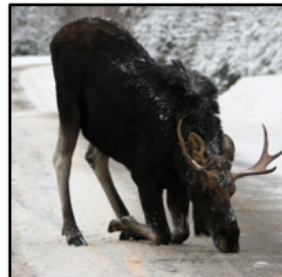
Calcium (since 2008)

- Essential element that is required by all living organisms



Chloride (since 2015)

- There have been increases in chloride levels across the province due to road salt



LAKE PARTNER PROGRAM: 2021 UPDATE

- Reduced sampling in 2020 due to the pandemic
- Program got back on track in 2021, with over 1600 sets of samples collected by our volunteers this season sent through the lab for chemical analyses
- Just over 100 new volunteers in 2021, and many new requests have already come in for new volunteers in 2022
- Lake Partner Program 2021 data is being prepared for public release early next year

**1600 sets of samples
= 80 racks and
baskets like these**



WHERE TO ACCESS LPP DATA

1

<https://data.ontario.ca/dataset/ontario-lake-partner>

Subscribe to updates to this dataset using RSS.

[Subscribe](#)

Ontario Lake Partner

Get data about the water quality for Ontario's inland lakes. The data is collected through volunteer monitoring efforts – citizen science.

The Lake Partner Program (LPP) measures water quality in inland lakes across Ontario. This dataset provides water quality and water clarity data, as well as data on the concentrations of:

- total phosphorus
- calcium

Spatial information for lake monitoring locations across Ontario are also available.

For more information
anna.desellas@ontario.ca

Data

Data Available
The data described here is available for you to use. [\[Learn more\]](#)
[\[See the licence for how you're allowed to use this data.\]](#)

2015 - 2020

Chloride
Last Updated: June 2, 2021 | [English](#)

[\[Preview\]](#) [\[Download\]](#)

2008-04-01 - 2020-12-31

Calcium
Last Updated: June 2, 2021 | [English](#)

[\[Preview\]](#) [\[Download\]](#)

License
Open Government Licence – Ontario

2

Ontario

How can we help you? Search

contact us | français

Popular +

Map Satellite

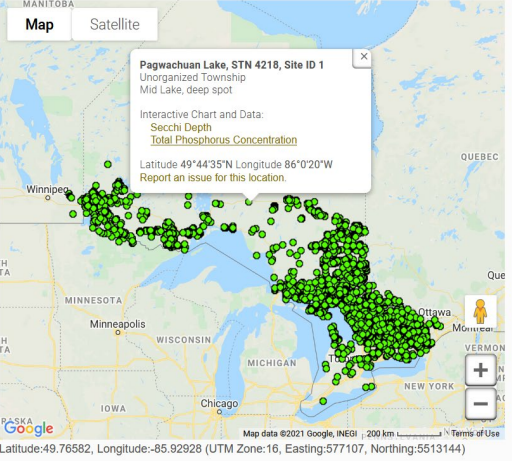
Pagwachuan Lake, STN 4218, Site ID 1
Unorganized Township
Mid Lake, deep spot

Interactive Chart and Data:
Secchi Depth
[Total Phosphorus Concentration](#)
Latitude: 49°44'35"N Longitude: 86°0'20"W
Report an issue for this location.

Recommended for you

How to use a Ministry of the Environment, Conservation and Parks map

Technical documentation: Metadata record



1) Ontario Data Catalogue:

<https://data.ontario.ca/dataset/ontario-lake-partner>

2) Interactive Map:

<https://www.ontario.ca/environment-and-energy/map-lake-partner>

3) FOCA Webpage:

<https://foca.on.ca/lake-partner-program/>

3

Lake Partner Program – Sampling Results & Assistance

A note to lake association volunteers: FOCA reminds and encourages everyone to always keep physical distancing in mind while at the lake. It is incumbent on each individual to monitor their own behaviour and volunteering activities to adhere to the latest Public Health protocols related to COVID-19.

October 26, 2021 – See over 7 million water quality data points (including all the Lake Partner data) on [Great Lakes Datastream!](#)

June 4, 2021 – The Lake Partner Program's province-wide sampling results from 2020* are available for download:

1. Total Phosphorous results (Excel; 3 MB)
2. Average Secchi depth (water transparency) results (Excel; 3 MB)
3. Calcium results (Excel; under 1 MB)
4. Chloride results (Excel; under 1 MB)

* Please note that your lake may not have been sampled in 2020, as the program was placed on hold for many months due to COVID-19 restrictions.

Contact the [Lake Partner Program Coordinator](#) if you cannot access the results.



View More

News

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Resources

Recent Posts

FOCA 2021 Fall Seminar for L Associations
(August 26, 2021)

2021 Lake Stewards Newslett

4


https://greatlakesdatastream.ca/explore/#/dataset/9387/291-9114-4ace-ad5f-e6a6d43c3c8a/guideline.../reshwater_CCM_LCA_ch...

Provincial Water Quality Monitoring Network (PWQMN)

Chart type: Scatter

Media: Surface Water

Characteristics (Y-Axis): Chloride, Unfiltered (mg/L) | Guidelines: CCME FRESHWAT...



Questions about the Lake Partner Program?



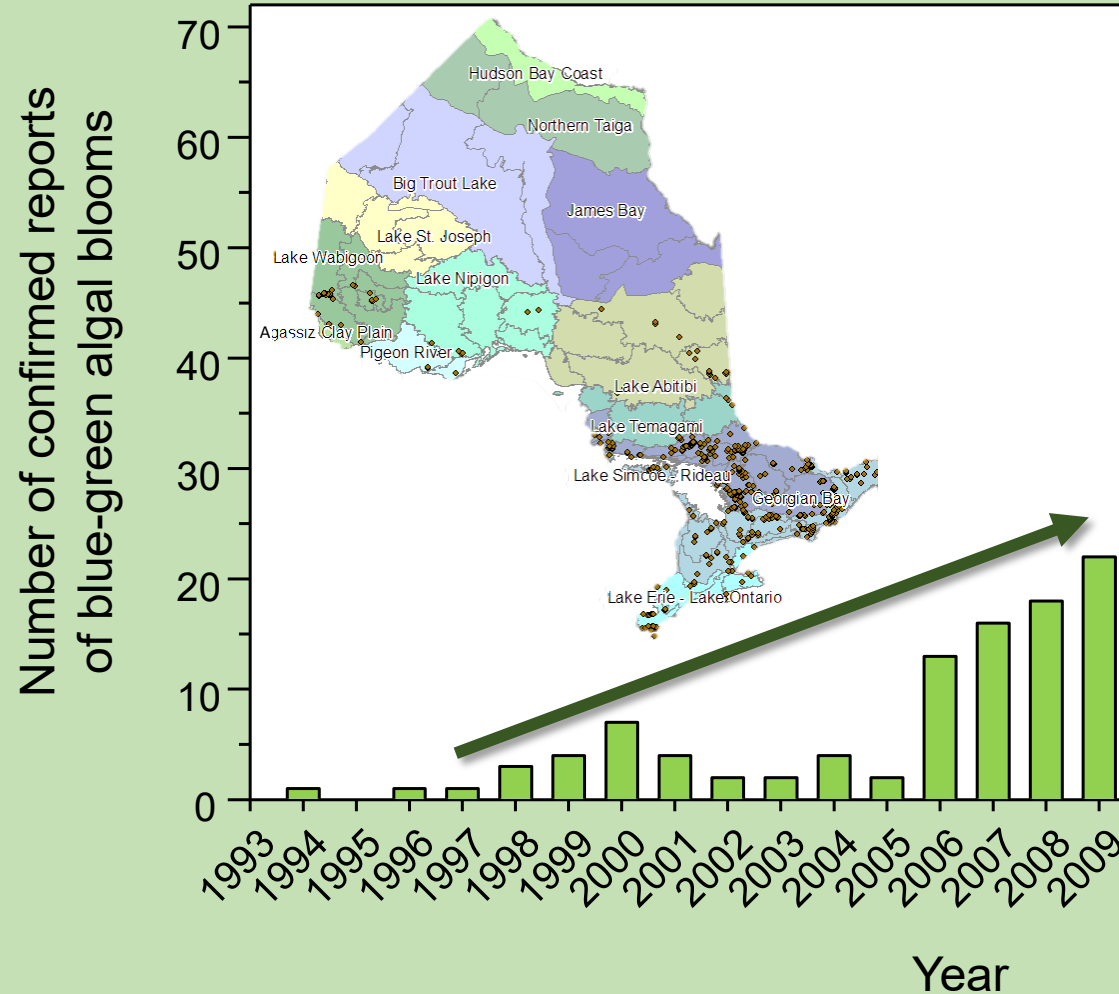
lakepartner@ontario.ca



1-800-470-8322

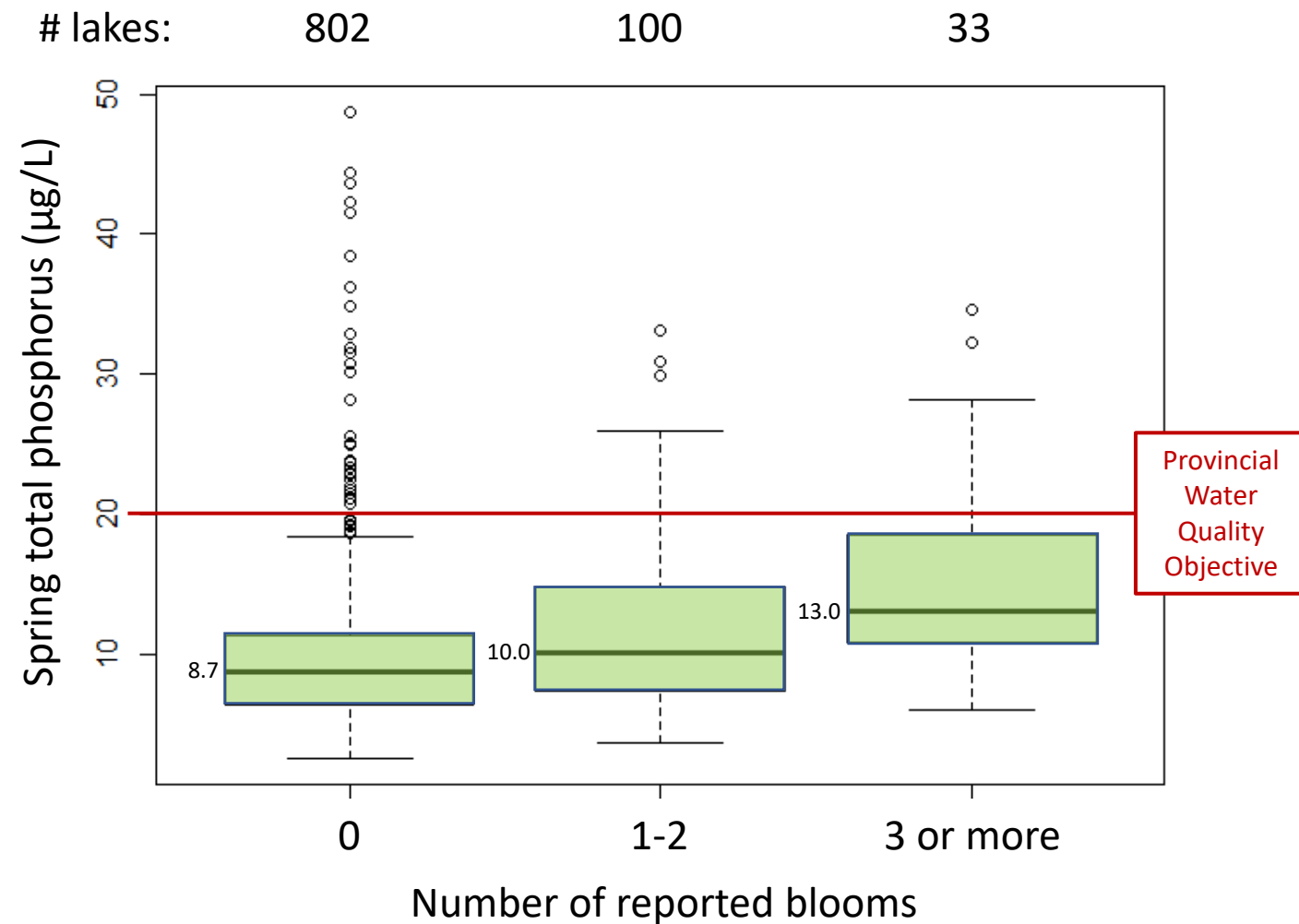
LAKE PARTNER PROGRAM DATA USED IN ALGAL BLOOM RESEARCH

- Winter et al. (2011) documented a significant increase in the number of confirmed blue-green algal blooms reported in Ontario between 1994-2009
- Over the last decade since this publication, blue-green algal bloom reports have continued to rise



LAKE PARTNER PROGRAM DATA USED IN ALGAL BLOOM RESEARCH

- Phosphorus is the limiting nutrient controlling the growth of algae in most Ontario lakes
- Compared spring total phosphorus (TP) concentrations in Lake Partner Program lakes with no reported blooms, lakes with 1 or 2 blooms, and lakes with 3 or more blooms
- TP was significantly higher in lakes with more reported blooms
- A surprisingly large proportion of lakes reporting blooms (42% of 133 lakes) are oligotrophic or “low-productivity” systems with spring TP < 10.0 µg/L
- This proportion has increased from previous findings documenting that 25% of reported blooms in Ontario were from oligotrophic lakes



LAKE PARTNER PROGRAM DATA USED IN ALGAL BLOOM RESEARCH

- Blue-green algal blooms are a natural phenomenon; However, many studies have documented an intensification of blooms globally over the last several decades, possibly due to climate warming
- Uptick in blooms in Ontario could be due to increased public awareness
- The high proportion of blooms occurring at low nutrient concentrations in Ontario suggests factors other than nutrient enrichment as an important cause of blooms (e.g., climate)

Thank you for monitoring with the Lake Partner Program to contribute the data necessary to explore complex research questions like these!

Chlorophyll-a interval frequency versus total phosphorus.

