



Photo from CLWN website

HABS WEEKLY NEWSLETTER

2022 CAYUGA LAKE HABS MONITORING PROGRAM

JULY 28, 2022

by CLWN Staff Intern Maria Lee

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HABs Update

Since the last newsletter, there have been a total of **ten confirmed cyanobacteria bloom (HAB)** reports. The majority of these blooms are located in the **Southwest** quadrant of Cayuga Lake, while the remaining blooms were spotted either in the **Southeast** or **Northeast** quadrant.

Overall, this week has been much calmer than last week, when there were over twenty-two HABs. Some of last week's reports came in after the publishing of the weekly HABs newsletter, so they have been included in this week's edition as well as the Information Chart on page 2 and 3!

On the next page is the usual Bloom Report Map, with an updated index to navigate the map.

To view the most recent HAB reports visit the [Community Science Institute's HABs Reporting Page](#) -- their page is updated as quickly as every five minutes with new information

If you missed previous weekly HABs newsletters, you can always view them at our website's [2022 HABs Update Page](#),

HABs Update

On the right side of the page is a Map of Cayuga Lake indicating the location of this week's HAB reports.

Index of pin color and meaning:

(Update: In the last newsletter, we used red pins to indicate an unsafe bloom. This has recently been updated to the color purple to be inclusive of those with colorblindness.)

Purple pins: Unsafe bloom! Microcystin toxin concentration exceeds the limit for contact recreation (4.0 µg/L).

Grey pins: Cyanobacteria are present in bloom (HAB) sample. Potentially toxic/harmful bloom. No sample collected.

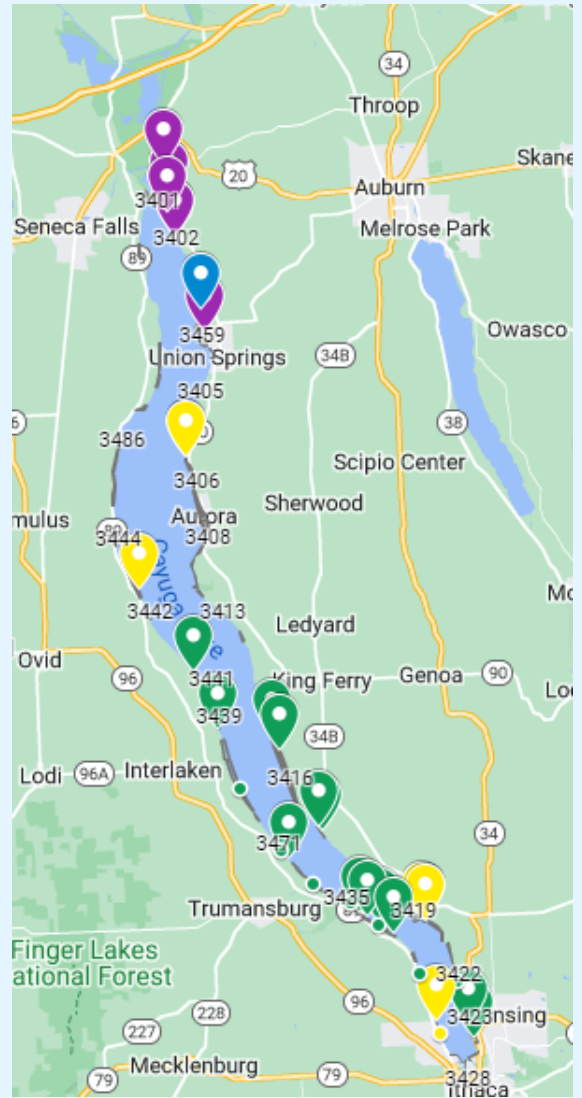
Blue pins: Suspicious HAB

Green pins: Cyanobacteria bloom with a microcystin toxin concentration less than the drinking water limit (0.3 µg/L).

Yellow pins: Cyanobacteria bloom with a microcystin toxin concentration in between the drinking water limit (0.3 µg/L) and the limit for contact recreation (4.0 µg/L).

Small green circle: Indicates that the bloom reported is an extension of a previously reported bloom.

To navigate the HABs map up close, visit CSI's [2022 Cayuga Lake HABs Reporting Map](#)



HABs Information Chart: 7/19 to 7/28

Dates presented are the date the sample was received at the CSI lab.

Total chlorophyll a is used to estimate the biomass of the cyanobacteria bloom

Microcystin is the harmful toxin that cyanobacteria produce. Microcystin toxin levels are used to measure toxicity of a bloom.

Bloom Code	Date	Location Description	Bloom extent	Microscopy	Total Chlorophyll (ug/L)	Microcystin Toxin (ug/L)	Bloom Status
22-3436-B1	7/19	dock area on beach along S Frontenac Road in Trumansburg. Same bloom as 22-3472-B1.	Large Localized	moderate-dense Dolichospermum	586	<0.3	Cyanobacteria Bloom (HAB), indicated by photos and field reports.

HABs Information Chart: 7/19 to 7/28

Bloom Code	Date	Location Description	Bloom extent	Microscopy	Total Chlorophyll (ug/L)	Microcystin Toxin (ug/L)	Bloom Status
22-3437-B1	7/19	widespread bloom along Greenlane Shore Road. Same bloom as 22-3467-B1	widespread	moderate Dolichospermum, sparse Microcystis	461	<0.3	Cyanobacteria Bloom (HAB) , indicated by field reports.
22-3490-B1	7/20	bloom observed in dock area off Maplewood Rd in Ithaca	Large Localized	dense Dolichospermum, sparse Microcystis, sparse Oscillatoria	4626	1.01	Cyanobacteria Bloom (HAB) , indicated by photos and field reports.
22-3459-B1	7/20	single lakefront property by Trade-A-Yacht Marinas	Small Localized	moderate Dolichospermum, sparse Microcystis	Results pending	>5	Cyanobacteria are present in bloom (HAB) sample. Potentially toxic/harmful
22-3488-B1	7/22	Bloom observed along dock/beach near Taughannock Rd.	Small Localized	dense Dolichospermum, sparse Microcystis, sparse Oscillatoria	4626	Results pending	Cyanobacteria Bloom (HAB) , indicated by photos and field reports.
22-3418-B2	7/22	Bloom observed in Dock area near Lansing Station Rd	Large Localized	moderate Dolichospermum, sparse Microcystis	Results pending	0.42	Cyanobacteria are present in bloom (HAB) sample. Potentially toxic/harmful
22-3477-B3	7/22	Bloom observed at public access point at Ladoga Point	Large Localized	dense Dolichospermum, sparse Microcystis	Results pending	0.51	Cyanobacteria are present in bloom (HAB) sample. Potentially toxic/harmful
22-3475-B2	7/22	Bloom observed at Harris Beach Park in the Village of Cayuga	Large Localized	sparse/moderate Microcystis	Results pending	>45	Cyanobacteria Bloom (HAB) , indicated by photos and field reports.
22-3456-B1	7/22	Bloom observed localized near shore along Taughannock Blvd south of Willow Creek Point	Small localized	sparse/moderate Dolichospermum	Results pending	<0.3	Cyanobacteria Bloom (HAB) , indicated by field reports.
22-3400-B1	7/27	Bloom observed near Kozy Kove north of Hibiscus Harbor	Large localized	No sample collected	No sample collected	No sample collected	Suspicious Bloom. Photographs indicate that the suspicious bloom may be a harmful algal bloom (HAB).

The Costs of Cyanobacteria Blooms

The occurrence of HABs can be hard to predict -- they can quickly invade and create murky, green water that makes for an uninviting and toxic scene.

While their toxins, murky appearance, and odor are a nuisance, HABs are also a concern for the community around Cayuga Lake due to their potential to impact drinking water (see last week's Newsletter) and economic impact.

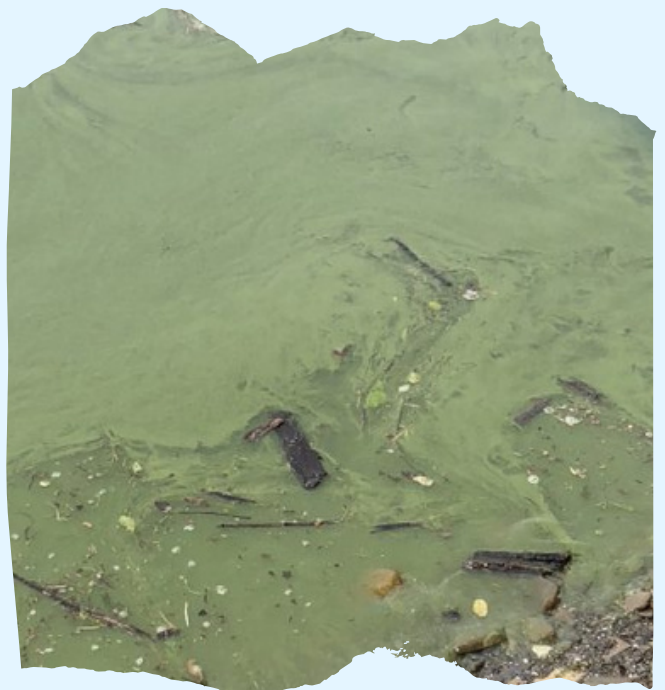
CYANOBACTERIA BLOOMS (HABS) CAN COST THE U.S. UP TO AN ESTIMATED \$4.6 BILLION EVERY YEAR.

HABs all around the world are a concern for the communities they impact because they can lead to a loss in the following:

- **Tourism revenue**
- **Property value**
- **Recreational water usage**

HABs can be a serious health risk and can prevent people from enjoying and recreating on the lake. Fun summer lake activities like swimming, wading, or windsurfing could become dangerous when done near a HAB,

In most lakes across the U.S., Harmful Algal Blooms can be tough to track or monitor. We still don't have the information to know the full extent to which HABs are costing communities.



A cyanobacteria bloom (HAB) alongside the shore of Cayuga Lake (image credit: [CSI website](#)).

As HABs become more prevalent across the U.S., there will be a **need for increased funding towards research** about HABs' effects on lake ecosystems and human health.

Additionally, there will be an increase of **water treatment costs** as well as more **water quality monitoring programs**, such as our Cayuga Lake HABs Monitoring Program made possible by partnership between the Cayuga Lake Watershed Network, the Community Science Institute, and Discover Cayuga Lake.



The Cayuga Lake HABs Monitoring Program is unique in that it provides detailed data about HABs, and is the only HABs monitoring program in the state with its own local certified water testing lab. We are very fortunate to have such an efficient program that is made possible by the dedication of HABs Harrier volunteers. [Visit our webpage](#) to learn more!

Creatures of Cayuga Lake

The Great Blue Heron is a majestic, distinctive bird with an extensive range, found throughout North America, South America, Oceania, Africa, and Europe. This skilled fisher is not hard to spot – marked with a long, sharp beak, blue-grey plumage, and a long black eyebrow-looking feather above its eye. Its distinctive, bright yellow eyes have special photoreceptors that allow the heron to hunt day or night. Blue herons eat not only fish, but also reptiles, amphibians, and even small mammals and birds.

TO LISTEN TO GREAT BLUE HERON CALLS, VISIT THE [CORNELL LAB OF ORNITHOLOGY](#) [WEBPAGE](#)



Image by Jabes Heenck, 1776. Public Domain

Cyanotoxins can be poisonous and potentially fatal to birds. Birds can be directly exposed through contact or ingestion of HAB-infested water, or indirectly exposed through their diet of smaller fish, insects, etc. that could be contaminated with cyanotoxins.

We want to hear from you!

Email habs.newsletter@gmail.com with feedback on the weekly HABs newsletters, suggestions for future topics, your favorite creatures in Cayuga Lake, or HABs stories you would like to share!

FAQs

Where can I look for HABs updates near me?

To keep an eye out for HABs in your area or anywhere around Cayuga Lake, visit the [CSI's HAB's Reporting Page](#). In addition, this newsletter will contain weekly updates about reported HABs.

Where can I report a HAB or a suspicious HAB?

Please fill out the [HAB Report form](#) with the required information or email us at habshotline@gmail.com. When you are sending in a report, please make sure to include your contact information and photos of the bloom (one close-up for detail and one further away to show the extent of the bloom), location, date, and time.

Safety Tips:

1. Stay away from any suspicious blooms
2. Never swallow untreated lake water.
3. Don't swim in cloudy, discolored, or suspicious-looking water - it could contain microorganisms that are harmful to humans
4. Make sure to wash your hands after contact with water before you eat, or shower after swimming



KNOW IT, AVOID IT, REPORT IT!

Questions? Contact:



Cayuga Lake Watershed Network (CLWN)

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Discover Cayuga Lake

607-327-LAKE/5253

Photo by Bill Hecht

