



Photo credit: Sue Ruoff, volunteer HABS Harrier

HABS WEEKLY NEWSLETTER

2022 CAYUGA LAKE HABS MONITORING PROGRAM

August 26, 2022

by CLWN Staff Intern Adele
Hancock

THIS WEEK'S CONTENTS:

HABs Update
pg. 1

A summary of HABs:
Summer 2022
pg. 4

FAQs
pg. 5

HABs Update

It's been two weeks since our last newsletter. This newsletter will include all HABs reports since our last update.

In the past two weeks there have been **11 blooms** recorded. At the moment we are still waiting on all the results for these samples, but they have all contained cyanobacteria, making them potentially harmful. **All four quadrants have recorded blooms** in the past two weeks. On page 2 and 3, look through the chart to find more details of when and where these blooms occurred.

On page 4 of this newsletter, learn about how our summer has been progressing. We began monitoring for HABs in July, and now have nearly two months of data and photos collected on the 2022 HABs season on Cayuga Lake. See how this compares to previous years!

The latest incoming HABs reports can be viewed at the [Community Science Institute's HABs Reporting Page](#).

All of the previous HABs newsletters can be found at the [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:

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

Black pins: Cyanobacteria are present in bloom (HAB) sample. Potentially toxic/harmful bloom. Results pending.

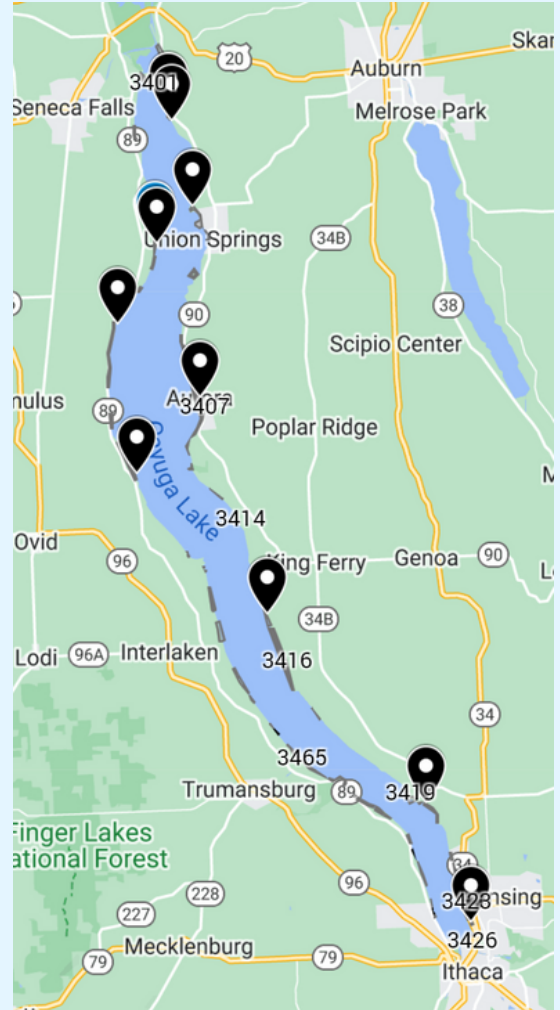
Blue pins: Suspicious HAB

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

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
22-3459-B3	8/16 - present	about 8-10 properties that run adjacent to the opening of Hibiscus Harbor	Large localized	moderate Microcystis, sparse Dolichospermum	Results pending	Results pending	Suspicious Bloom. Photos indicate that the suspicious bloom is highly likely to be a harmful algal bloom (HAB).
22-3475-B4	8/16	Shoreline along Lake St. in Village of Cayuga	Large localized	dense Microcystis, sparse Dolichospermum	Results pending	Results pending	Cyanobacteria are present in bloom (HAB) sample. Potentially harmful. Laboratory results are pending.

HABS UPDATE / HABS INFO CHART

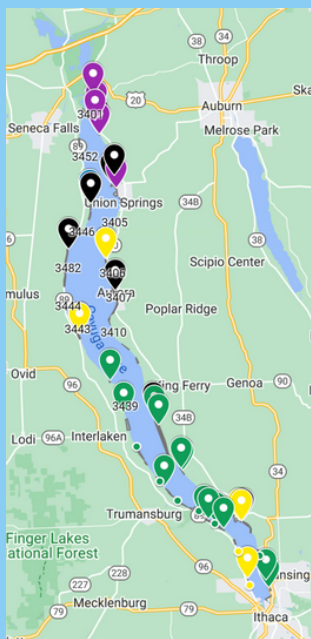
Bloom Code	Date	Location Description	Bloom extent	Microscopy	Total Chlorophyll (ug/L)	Microcystin Toxin (ug/L)	Bloom Status
22-3424-B2	8/17	East Shore park off highway 34	small localized	dense Dolichospermum	Results pending	Results pending	Cyanobacteria are present in bloom (HAB) sample. Potentially harmful. Laboratory results are pending.
22-3402-B4	8/17	Private shoreline in a small bay along Lower Lake Rd. south of village of Cayuga	Large localized	dense Microcystis, sparse Dolichospermum	Results pending	Results pending	Cyanobacteria are present in bloom (HAB) sample. Potentially harmful. Laboratory results are pending.
22-3443-B3	8/17	Bloom near Lower Lakewood Drive cottages	small localized	sparse/moderate Microcystis, sparse Dolichospermum	Results pending	Results pending	Cyanobacteria are present in bloom (HAB) sample. Potentially harmful. Laboratory results are pending.
22-3406-B2	8/17	Shoreline near dock from Lafayette St. Ext.	large localized	sparse/moderate Microcystis, sparse/moderate Dolichospermum	Results pending	Results pending	Cyanobacteria are present in bloom (HAB) sample. Potentially harmful. Laboratory results are pending.
22-3451-B1	8/17	Observed near Gusty Lane	unclear	no sample	no sample	no sample	Suspicious Bloom. Photos indicate that the suspicious bloom is highly likely to be a harmful algal bloom (HAB).
22-3477-B4	8/18	Off Ladoga Park Rd, south of Lansing Harbor and Myers Park	small localized	dense Dolichospermum, very sparse Microcystis	Results pending	Results pending	Cyanobacteria are present in bloom (HAB) sample. Potentially harmful. Laboratory results are pending.
22-3460-B2	8/19	shoreline by Don's Marina	widespread	sparse Dolichospermum	Results pending	Results pending	Cyanobacteria are present in bloom (HAB) sample. Potentially harmful. Laboratory results are pending.
22-3486-B1	8/22	Near county road 124	widespread	Dense Microcystis, Dolichospermum present	Results pending	Results pending	Cyanobacteria are present in bloom (HAB) sample. Potentially harmful. Laboratory results are pending.
22-3450-B1	8/22	From zone 3447 to past Red Jacket Yacht Club	widespread	moderate/dense Microcystis, Dolichospermum present	Results pending	Results pending	Cyanobacteria are present in bloom (HAB) sample. Potentially harmful. Laboratory results are pending.

Summer Update: What has the 2022 HABs season looked like on Cayuga so far?

Thank you to all the volunteers who have been helping monitor the lake. We depend on all the samples and reports to monitor the health of the lake.

Summary of the 2022 HABs Season

Since June 26 we have had 52 reported blooms, 44 confirmed. Of the confirmed blooms, 8 have had a microcystin toxin concentration that exceeds the limit for contact recreation (4.0 ug/ L), and 5 have been above the drinking limit but below the contact recreation limit. Higher toxicity blooms have been concentrated towards the north end of the lake. The unconfirmed blooms are generally from samples that appear to be part of larger blooms already recorded at a different monitoring section.



See the key on page 2 for pin colors

What we've seen



From Left: Map of all reported blooms from this year. HAB Photo taken on 8/22 by William Hecht. HAB in town of Fayette, photo from Bill Ebert



How does this compare to other years?

Over the past several years, the extent of the monitoring program has grown and more blooms have been observed. In 2018 the HABs monitoring program recorded 46 blooms, 69 in 2019, 87 in 2020 and 102 in 2021. We won't know until the end of summer whether that trend is continuing. At the start of the monitoring program, blooms were being recorded July to September. In more recent years, we've seen a few more reaching into October and some starting in June. There isn't much consistency year to year in the average level of toxicity of blooms, but it appears as though more of the blooms sampled this year have lower levels of Microcystin.

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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607-327-LAKE/5253

Photo by Bill Hecht

