Monitoring Cayuga Lake

The Cayuga Lake HABs Monitoring Program is led by the Community Science Institute (CSI) in collaboration with the Cayuga Lake Watershed Network (CLWN) and Discover Cayuga Lake (DCL). We operate under the auspices of the NYS Department of Environmental Conservation. Our goal is to provide timely information and hazard warnings of HABs occurring on Cayuga Lake. We partner with dedicated volunteers who monitor the shoreline, identify blooms, and collect samples for analysis at CSI's certified water testing lab in Ithaca.

HABs Reporting Page

Stay alert to blooms on Cayuga Lake by visiting CSI's **Cayuga Lake HABs Reporting Page** on our website at **www.communityscience.org.** The locations of HABs are posted on our **HABs Reporting Map** the same day they are reported. Results of laboratory analysis are generally reported in three days or less. NYSDEC maintains a statewide HABs reporting map called **NYHABs** that includes CSI's results from Cayuga lake.

Check the Cayuga Lake HABs Reporting Page with your smartphone using this QR code:

Weekly HABs Updates

The Cayuga Lake Watershed Network sends out weekly reports summarizing recent cyanobacteria bloom occurrences on Cayuga Lake.

To sign up, please email:

programs@cayugalake.org

For more information, visit their website at:

www.cayugalake.org

Volunteer

Become a HABs Harrier! HABs Harrier volunteers track where and when HABs occur. This helps us alert the public to potentially toxic blooms, and advances the scientific understanding HABs occurrences on Cayuga Lake. All HABs Harriers do the following:

- Attend an identification and sampling workshop.
- Survey a stretch of shoreline on Cayuga Lake once per week, July through October.
- Report suspicious blooms, collect suspicious bloom samples, and transport them to the CSI lab for analysis.
- Are available to respond to HAB sightings reported by members of the public.

For more information about volunteering, contact:

Cayuga Lake HABs Monitoring Program Coordinator
info@communityscience.org
607-257-6606

Donate

Donations of any amount help support our work to monitor HABs on Cayuga Lake.

Donations can be made online:
www.communityscience.org/donate/

Donations can also be made by sending checks payable to the Community Science Institute to the address below:
Community Science Institute
Room 283 Langmuir Lab/ Box 1044
95 Brown Road, Ithaca NY 14850

CSI is a 501(c)3 not-for-profit organization. All donations are tax-deductible to the extent allowed by law.

Cayuga Lake Harmful Algal Bloom (HABs) Monitoring Program

Information and Reporting Guide

Community Science Institute

Harmful Algal Blooms (HABs)

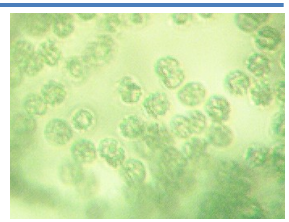
Though often referred to as "Harmful Algal Blooms" or "Blue-Green Algae", these blooms are formed by cyanobacteria, not algae. Cyanobacteria are a more ancient type of organism that evolved around 3.5 billion years ago. Like plants and algae, cyanobacteria capture energy from sunlight through a process called photosynthesis. Cyanobacteria are a natural part of aquatic ecosystems and can be found in freshwater lakes and ponds, as well as oceans, around the world.

Cyanobacteria are always present in Cayuga Lake. However, under certain conditions, cyanobacteria may quickly concentrate in certain areas, forming a bloom or "HAB". These blooms can be harmful to humans, animals, and lake ecosystems. The factors that promote these blooms are not fully understood but may include warm water temperatures, high nutrient levels, and calm, stratified waters.

There are many types of bloom-forming cyanobacteria. A few of these can produce chemical compounds that are toxic to humans and animals. Common types of toxin-producing cyanobacteria found in Cayuga Lake include *Microcystis* and *Dolichospermum*.

A Microscopic View of Cyanobacteria

Microcystis spp.
- Cayuga Lake bloom sample



Microcystis sp. at higher magnification

Dolichospermum sp.
- Cayuga Lake bloom sample

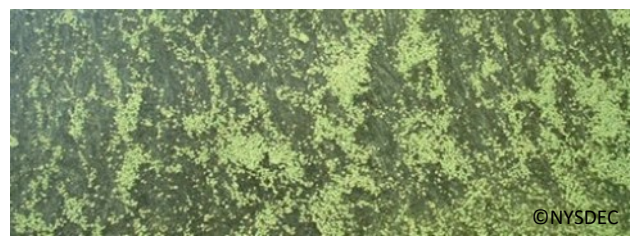
Dolichospermum sp.
- Cayuga Lake bloom sample

What do they look like?

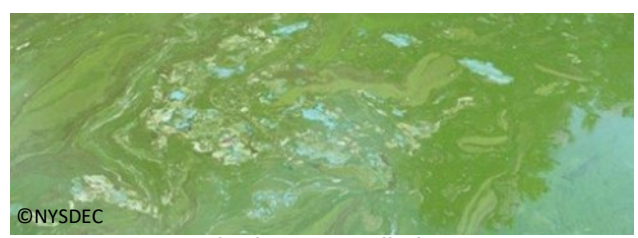
Harmful algal blooms (HABs) may look like parallel streaks, clumps on the water, spilled paint or pea soup (see below). They are commonly green, but can appear blue, brown or white. Bloom appearance does not indicate the type of cyanobacteria or the level of toxins present.

If you see a suspicious looking bloom, AVOID IT and report it. Keep kids and pets away!

Parallel Streaks



Small Clumps



Oily Sheen or Spilled Paint Appearance

Pea Soup Appearance

Report a HAB

You can help monitor Cayuga Lake for HABs. To learn more about HABs and how to identify them, visit: www.communityscience.org or www.dec.ny.gov

If you see a suspicious looking bloom, AVOID IT and report it. Keep kids and pets away!

Quickly report it using the "Report a HAB" form on CSI's website at: www.communityscience.org/habreport/ or by emailing habshotline@gmail.com

Please provide the following information:

- Two photos of the bloom
- Location of the bloom
  - GPS coordinates are helpful
- Date and time of observation

A member of the team will respond shortly.

Health Concerns

Stay away from any suspicious blooms. If contact with a HAB occurs, rinse off immediately. For any health-related concerns, please contact your physician and your local health department.

Tompkins County Health Dept. | (607) 274-6688

Cayuga County Health Dept. | (315) 253-1405

Seneca County Health Dept. | (315) 539-1920

For animal and pet health concerns, contact:
Cornell Veterinary Emergency Hotline | (607) 253-3060

Contact NYS Department of Health for more info:
Email: harmfulalgae@health.state.ny.us
www.health.ny.gov/environmental/water/drinking/bluegreenalgae.htm