

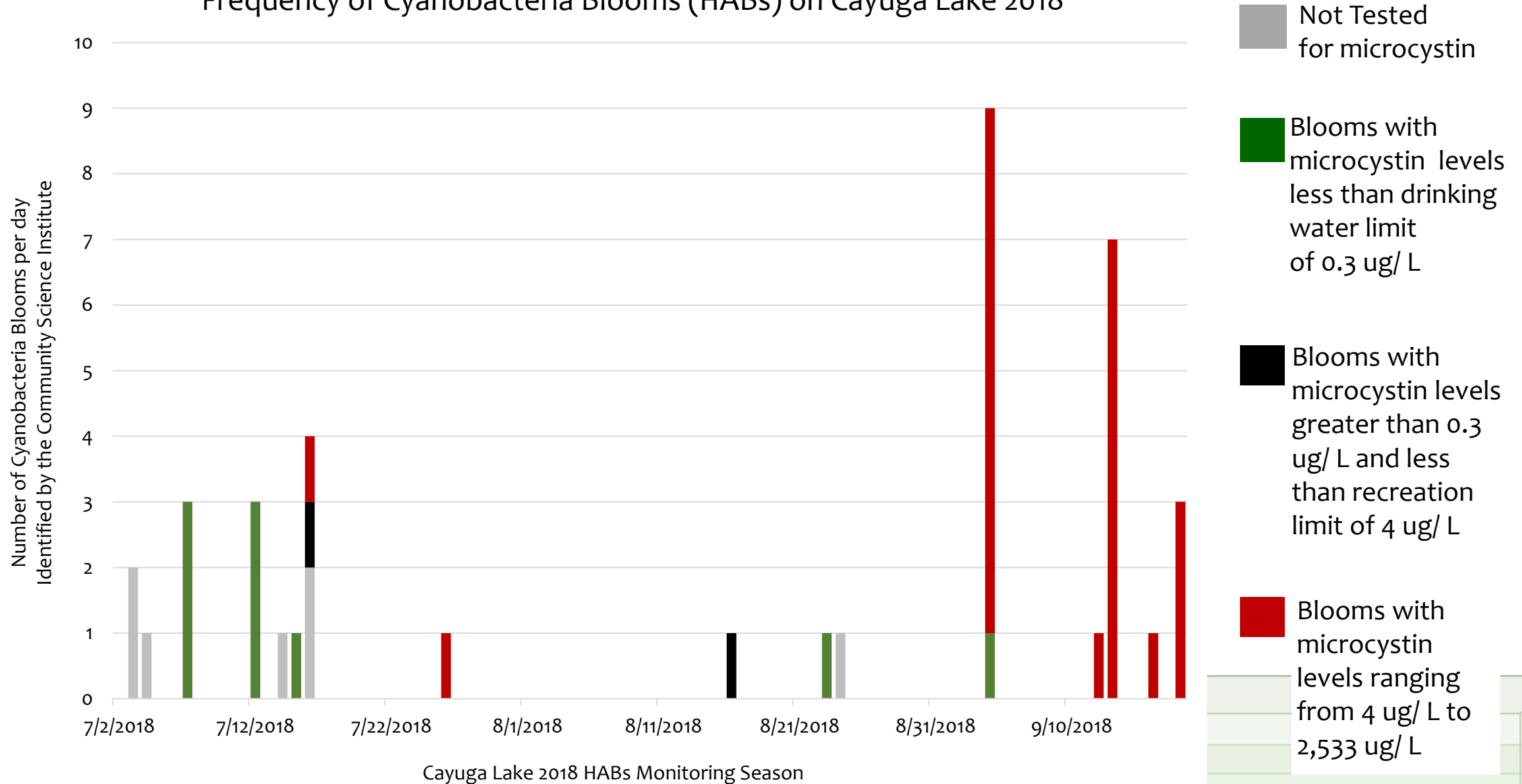


The 2018 Cayuga Lake HABs Monitoring Program

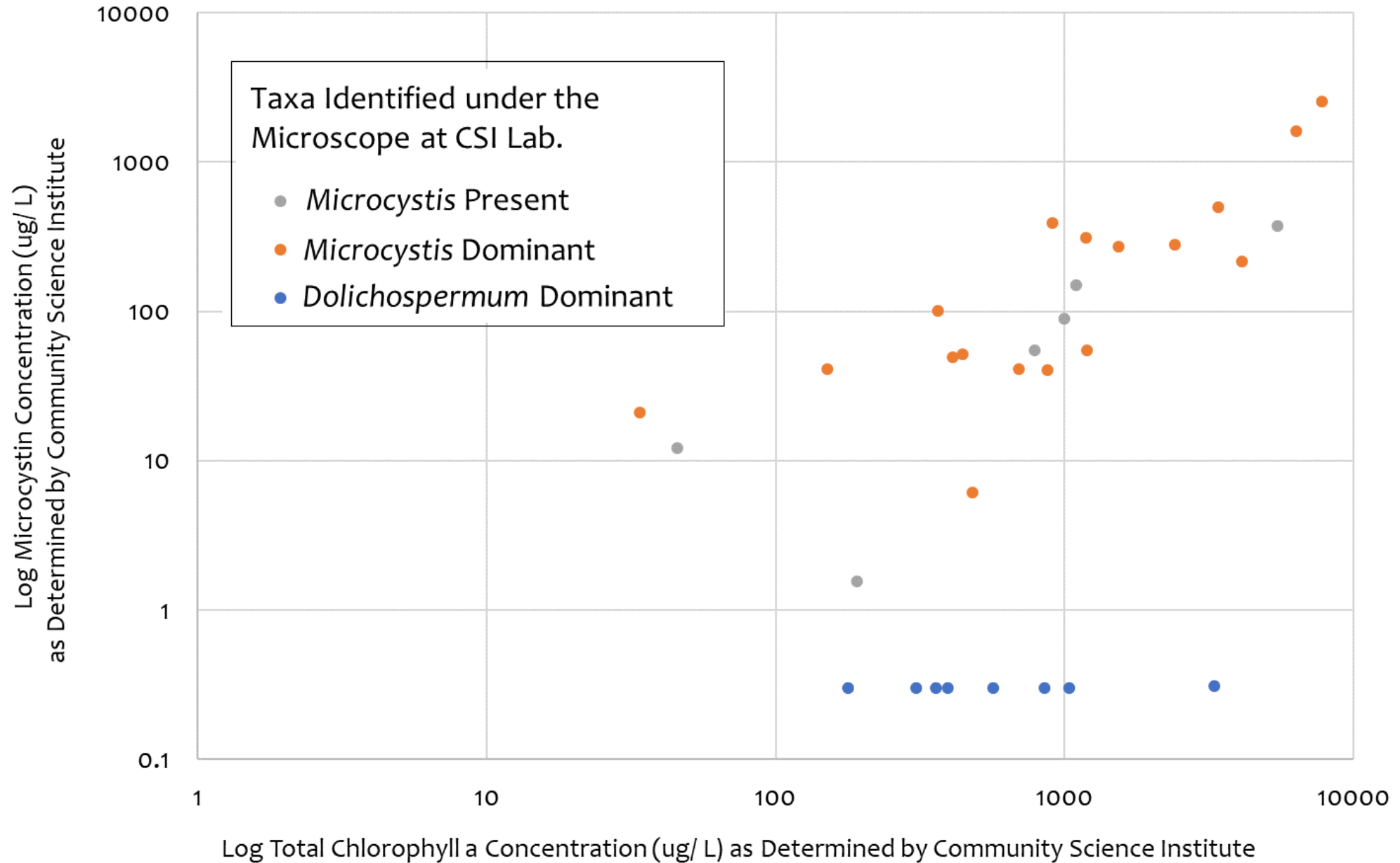


Presented by Nathaniel Launer, *Outreach Coordinator*

Frequency of Cyanobacteria Blooms (HABs) on Cayuga Lake 2018

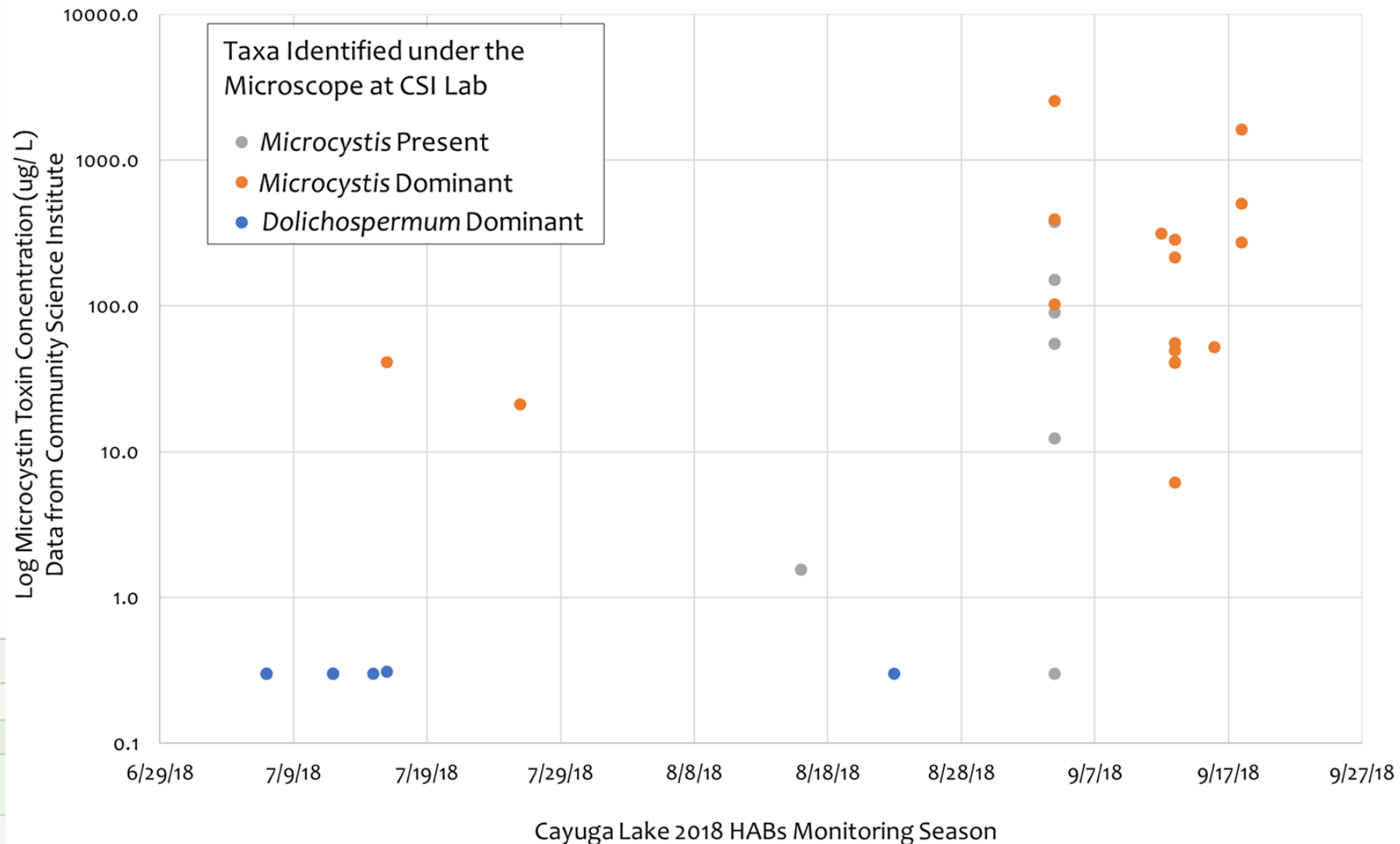


Microcystin Toxin Increased with Cyanobacteria Biomass when *Microcystis* Taxa were Present or Dominant



When did blooms have the highest toxin levels in 2018?

- blooms sampled in September had higher toxin concentrations than those sampled in July and August.



Mapping

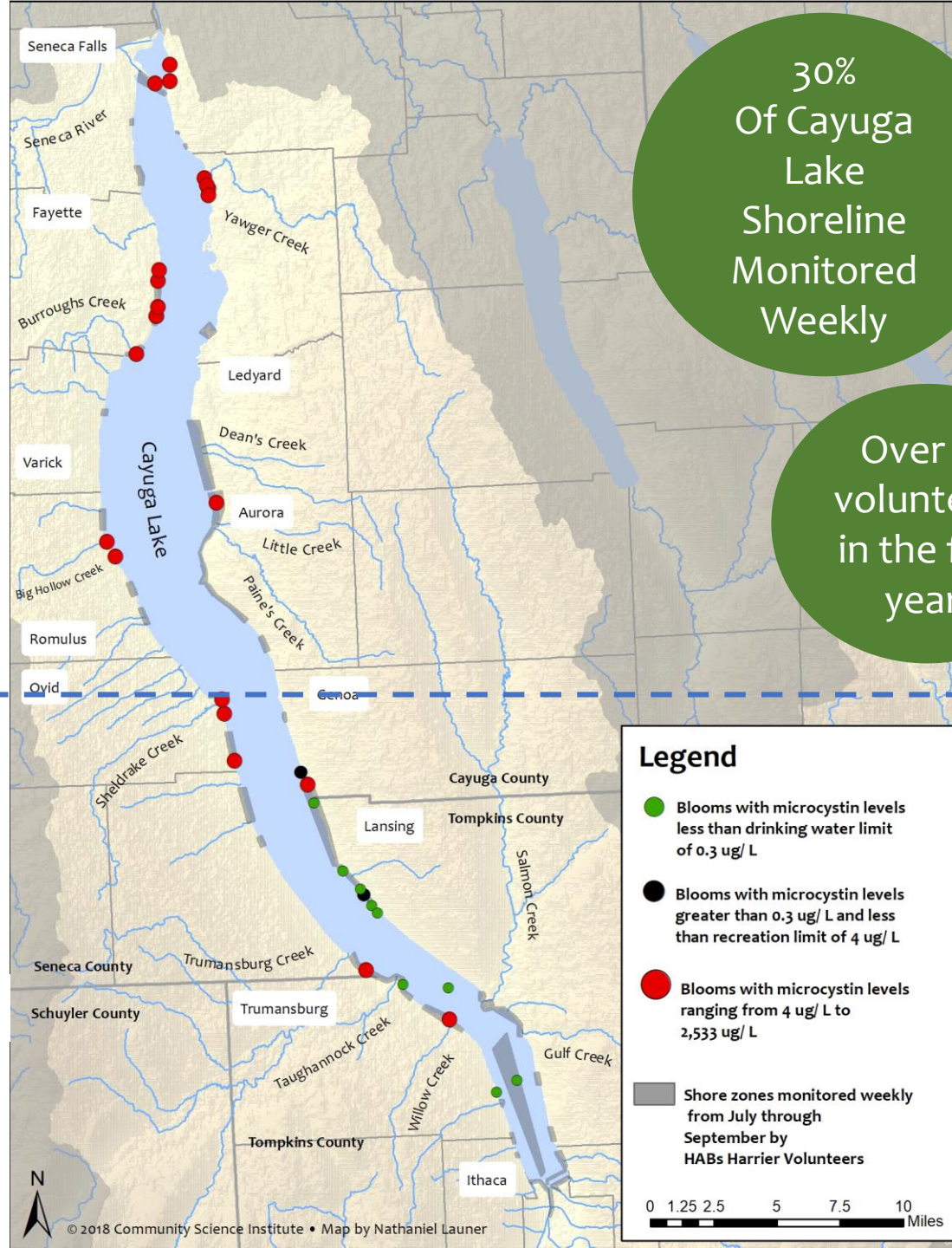
Northwestern Quadrant

Northeastern Quadrant

Southwestern Quadrant

Southeastern Quadrant

Sheldrake Point



30%
Of Cayuga
Lake
Shoreline
Monitored
Weekly

Over 75
volunteers
in the first
year!

Occurrence of confirmed cyanobacteria blooms on Cayuga Lake appeared to increased in 2018 compared to the previous year, though much of this may be due to improved monitoring efforts.

Nearly all blooms on Cayuga Lake in 2018 with toxin levels above state drinking water and recreation limits contained the cyanobacteria *Microcystis*.

A sharp rise in bloom toxin levels was observed in later summer months on Cayuga Lake in 2018.

On Cayuga Lake in 2018, 77% of the blooms with microcystin concentrations above 4 ug/ L occurred in the northern half of the lake.

Monitoring is essential for

1. Assessing the risk that cyanobacteria blooms may or may not present.
2. Data collection to support risk management

We Need Your Help This Summer Protecting Cayuga Lake from Harmful Algal Blooms (HABs)!



Who can volunteer?

- Anyone! Lake shore homeowners and avid boaters and anglers are especially encouraged to participate.

What does being a HABs Harrier entail?

- Attend a two hour HABs identification and sampling workshop in June.
- Survey assigned length of shoreline once a week, mid-July through September.
- Collect HABs samples and transport them to CSI lab for further analysis.
- Be available to respond to HABs sightings reported by members of the public

We want to reach at least 50% of lakeshore coverage in 2019!



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Cayuga Lake Watershed Network
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Discover Cayuga Lake
(607) 327-5253

Nutrients in the Watershed, Unusual Weather, and Harmful Algal Blooms: A Public Conversation

Saturday, March 23rd

1:00 - 4:00 PM

**The beautiful Lakeside Room at
the Inns of Aurora
391 Main St. Aurora, NY**

Refreshments will be provided by the Inns of Aurora

**We invite you to come and listen to
the discussion, and we encourage you
to participate!**

Sharon Anderson, *Environmental Team Leader, Tompkins County Cornell Cooperative Extension*
Moderator

Panelists will provide brief overviews of their topics prior to an open discussion

Greg Boyer, *Director, Great Lakes Research Consortium and Professor of Biochemistry, SUNY - College of Environmental Science and Forestry*
Cyanobacteria , Blooms, and Nutrients

Mark W. Wysocki, *Senior Lecturer in Meteorology and New York State Climatologist, Cornell University*
Floods, Droughts, and Temperature Swings: Not Your Grandfather's Weather

Stephen Penningroth, *Executive Director, Community Science Institute (CSI)*
Long-Term Nutrient Data Sets in the Cayuga Lake Watershed

Greg Albrecht, *Agricultural Environmental Management (AEM) Coordinator, NYS Soil & Water Conservation Committee and NYS Dept. of Agriculture and Markets*
Nutrient Management and Conservation Practices by Farms