

Worcester Cyanobacteria Monitoring Collaborative

Monthly Report

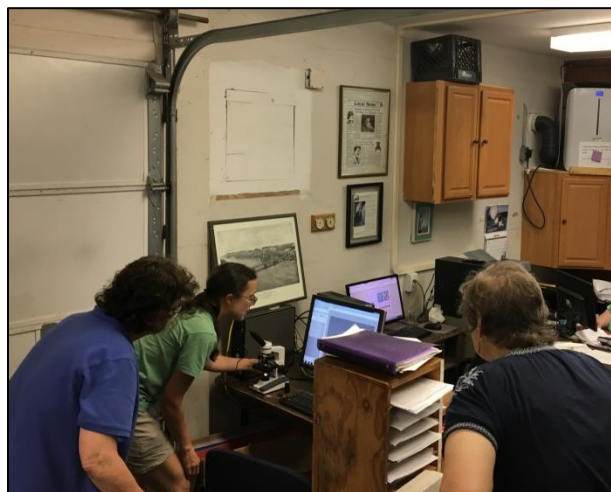
June 2017

On Saturday, June 24th, members of the Worcester Cyanobacteria Monitoring Collaborative (WCMC) put their newly learned algae collecting skills to work. Volunteers from Patch Reservoir, Coes Reservoir, Indian Lake and Lake Quinsigamond brought water samples collected with plankton tow nets to Regatta Point to be examined for cyanobacteria. We were joined by Dr. Karolina Fucikova of Assumption College, who has experience finding and identifying the many microscopic critters that live in Worcester's waters.

Sampling Weather: Overcast and drizzly, with air temperatures ranging from 72-75° F. There had been rain on and off all night. All samples were collected between 8:30 and 10:20 am of that morning.

General Findings: Happily, there was little cyanobacteria to be found, and the majority of the critters identified in the samples were harmless green, golden algae and diatoms, which are typical for this time of year. One colony of microcystis, a well-studied blue green algae, was identified in a sample from Indian Lake, but the low density at which it was found led us to believe that there was no need for alarm.

What it means: The difficulty that we had in finding harmful cyanobacteria in the samples was good news, and the algae species that were identified reflect what is usually seen in lakes and ponds. As all of these creatures use similar resources, will be continuing to note the appearance of these non-target organisms, so as to gain a better understanding of how the communities shift over the course of the summer, in addition to keeping an eye out for cyanobacteria.



Dr. Fucikova points out some green algae found in Coes Reservoir on the microscope's computer camera extension.



Volunteers Peg and Michele from Patch Reservoir collect practice samples for algae and cyanobacteria

Other notes: Indian Lake will be receiving a treatment of aluminum sulfate the week of June 26, which will remove phosphorus, a staple food source for algae and cyanobacteria, from the water column. This is done as a preventative treatment for cyanobacteria blooms. It will be interesting to see how the community of algae and cyanobacteria shifts in the following weeks.

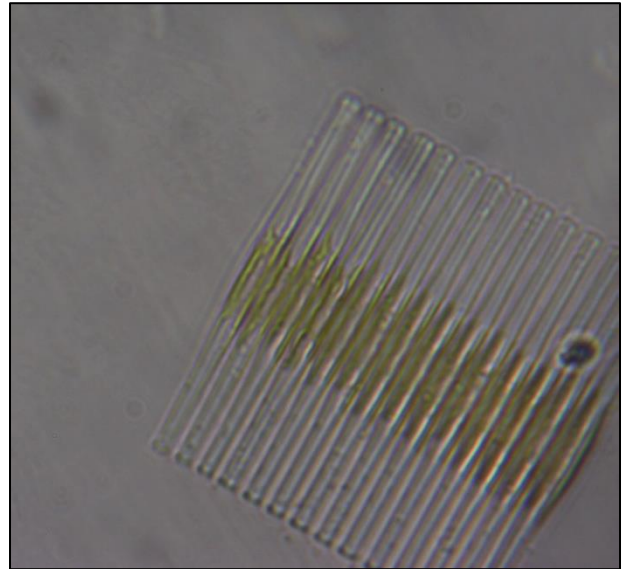
Thanks again to Regatta Point Sailing, DCR, Dr. Fucikova and the volunteers for their support!

Highlights



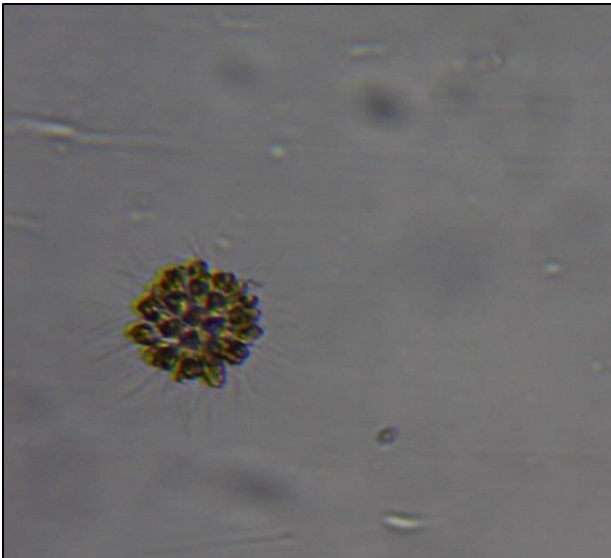
Ceratium, a dinoflagellate with an armored plate, two flagella (locomotive tails), and horns. There is some concern that they can lead to algal blooms, but do not produce cyanotoxins.

Found at: Coes Reservoir



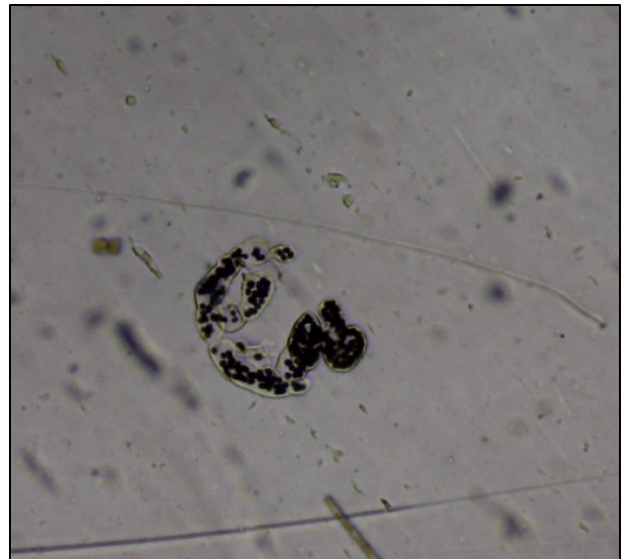
Fragilaria, a freshwater diatom, a unicellular phytoplankton that can live in colonies.

Found at: Patch Reservoir at the dock at 12 Hunthurst Circle



Chrysochaerella, a golden alga, is unicellular with small silica spines. It is a colony forming algae in which organisms group into dense balls.

Found at: Lake Quinsigamond



Microcystis, a naturally occurring cyanobacteria, is a spherical, unicellular organism that lives in colonies surrounded by mucilage. Members of this genus are capable of producing harmful cyanotoxins if found in high density (this sample was not). We are further examining this sample to see if we can better identify it this week.

Found at: Indian Lake