

# WORCESTER CYANOBACTERIA MONITORING COLLABORATIVE

## Monthly Report

September 2019

September 14<sup>th</sup> was the final meeting of 2019 for the Worcester Cyanobacteria Monitoring Collaborative, although it is unclear if the cyanobacteria got the memo, as we saw the greatest proportion of our observations be cyanobacteria. This month, volunteers participated from Patch Reservoir, Bell Pond, Indian Lake, Coes Reservoir, Crystal Pond, Cooks Pond, Burncoat Pond, and Lake Quinsigamond; in addition to Manchaug Pond and Singletary Lake in Sutton and Cedar Meadow Pond in Leicester.

**Sampling Weather:** This Saturday was clear and warm. Air temperatures across the sites varied between 53 and 62 degrees F, and water temperature between 60 and 68 degrees F. Volunteers took most of the water samples day-of, and between 7:05 and 10:00 am.

**General Findings:** Our fall blooms have been particularly challenging this year, and it was evident in our samples. We found cyanobacteria in Burncoat Pond, Lake Quinsigamond, Coes Reservoir, Patch Reservoir, Lake Singletary, Manchaug Pond, and, for the first time ever, Bell Pond. In fact, Bell Pond volunteers observed what seemed to be a bloom on the shore of the waterbody, though, like many blooms spotted this year, it was ephemeral and gone by the time the Lakes and Ponds arrived.

**What it means:** For the past few years, the Lakes and Ponds Program has been treating cyanobacteria blooms as a summer occurrence. However, it is becoming clear that the risk of a bloom in Worcester runs through September. Are the responsible cyanobacteria the same genera as the ones in the beginning of the season? Are our treatments affecting the beneficial algae community dynamics negatively? These are the questions that the WCMC is helping to figure out! Join us next April to continue to study these questions and more.



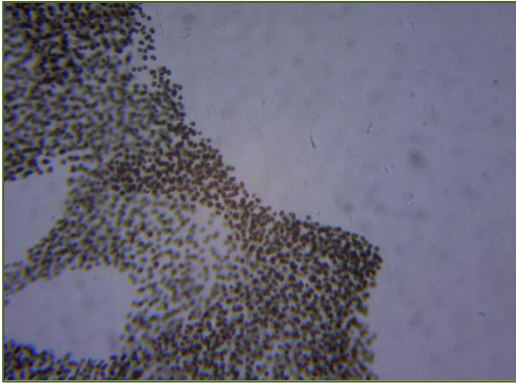
*A thin layer of green scum covers the water's edge at Bell Pond on September 14<sup>th</sup>. When we visited the following day, it was gone.*



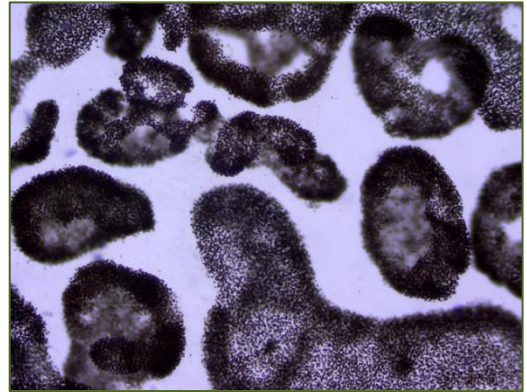
**WORCESTER CYANOBACTERIA MONITORING COLLABORATIVE VOLUNTEERS**

*Thank to our volunteers for a great summer! We couldn't have done it without you!*

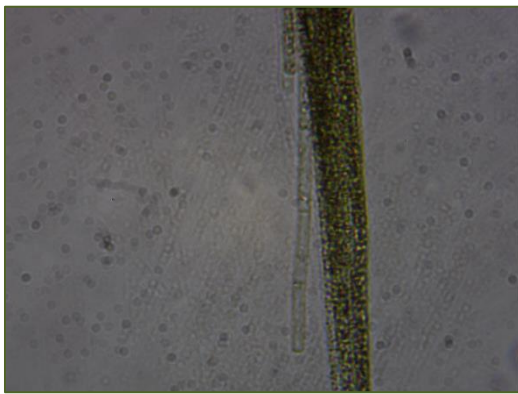
## CYANOBACTERIA



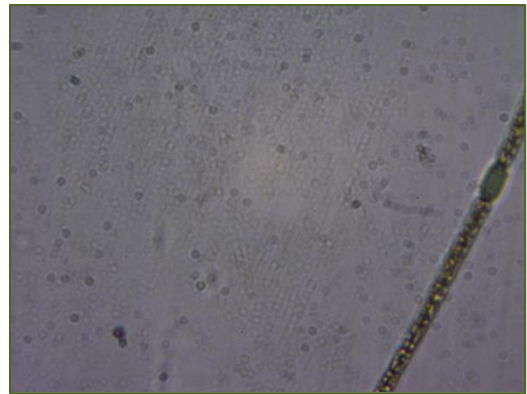
*Mircocystis* at Bell Pond (40x)



*Mircocystis* at Bell Pond (10x)



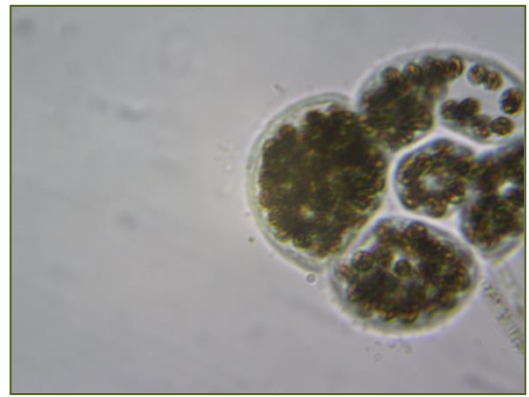
*Aphanizomenon* at Burncoat Pond (10x)



*Dolichospermum* at Burncoat Pond (40x)



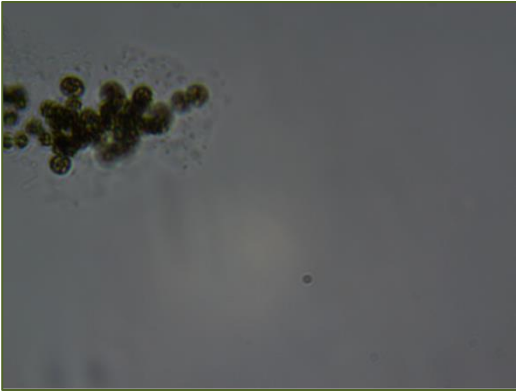
*Dolichospermum* at Burncoat Pond  
(40x)



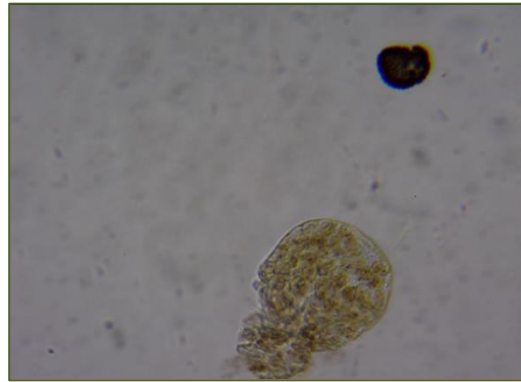
*Mircocystis* at Burncoat Pond (40x)

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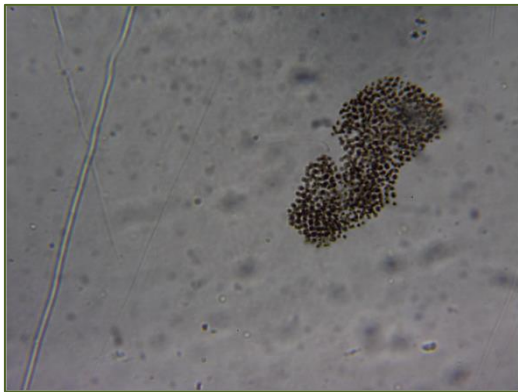
## CYANOBACTERIA continued



*Mircocyctis* at Burncoat Pond (40x)



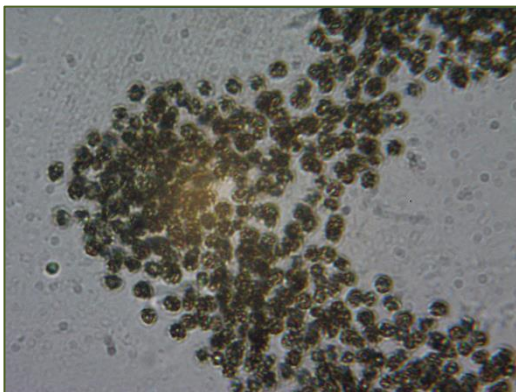
*Woronichinia* at Coes Reservoir (10x)



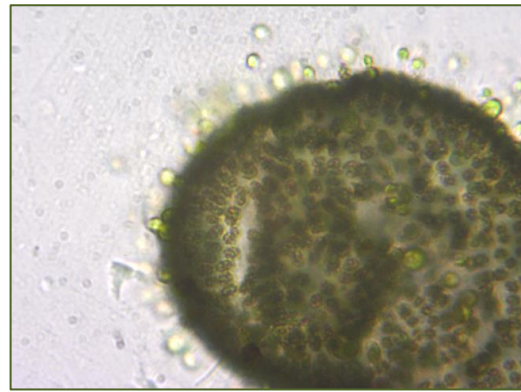
*Mircocyctis* at Lake Quinsigamond (40x)



*Dolichospermum* at Lake Quinsigamond (10x)



*Mircocyctis* at Manchaug Pond (40x)

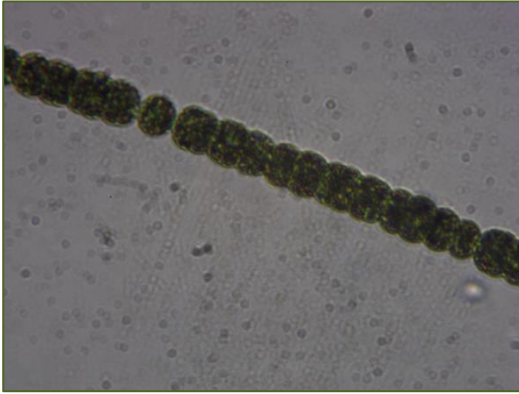


*Woronichinia* at Patch Reservoir (40x)

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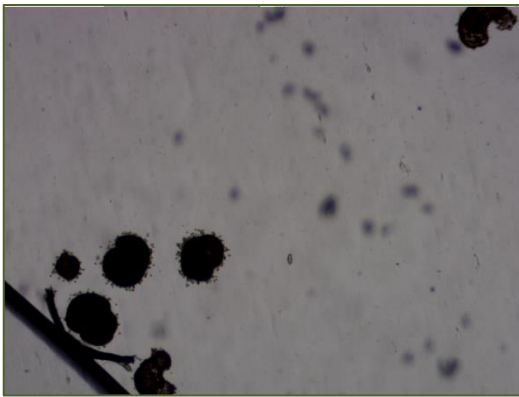
## CYANOBACTERIA continued



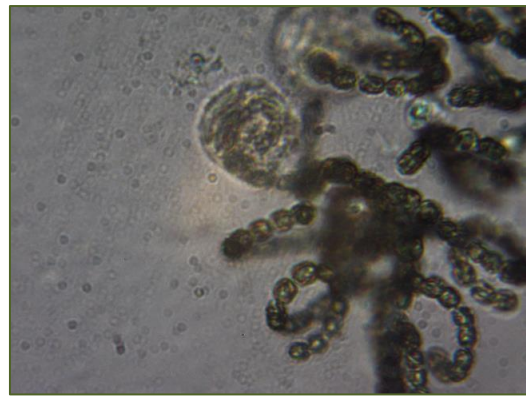
*Dolichospermum* at Patch Reservoir  
(40x)



*Woronichinia* at Patch Reservoir (40x)

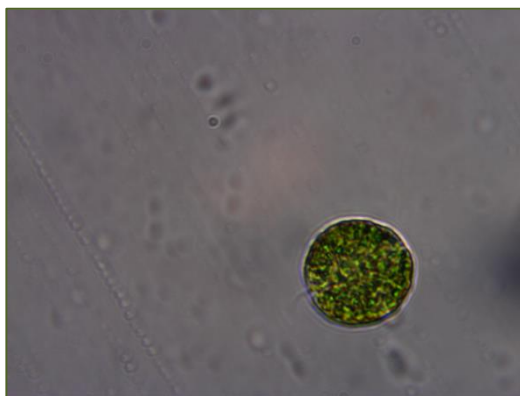


*Woronichinia* at Patch Reservoir (10x)



*Dolichospermum* with *Vorticella* at  
Lake Singletary (40x)

## NON-CYANOS



Perhaps a *Volvox* at Cooks Pond (10x)



*Fragilaria* at Crystal Pond (10x)

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