



BIOLOGIST:
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CALL/TEXT WITH ANY QUESTIONS!



FIELD NOTES SUMMARY

Customer: Hop Brook Protection Association

Pond Name: Carding Millpond

Site Location: Sudbury, MA

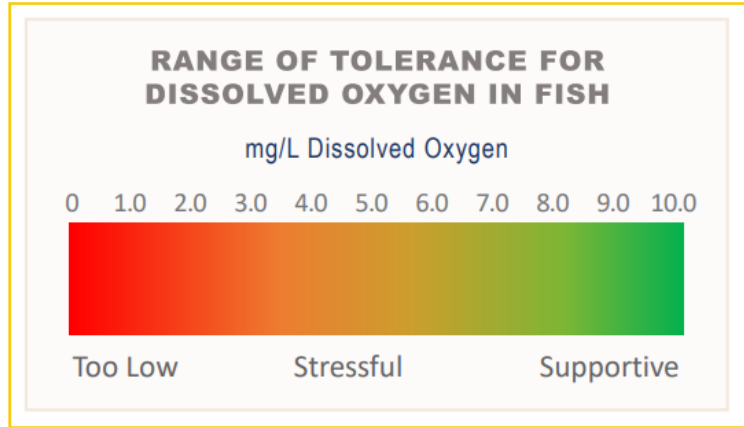
Date: 6/30/23

On 6/30/23, Co-Owner/Senior Aquatic Biologist, Colin Gosselin, made a visit to Carding Millpond. The following services were completed during the visit:

Upon arrival to the site, a survey was conducted using visual observation paired with a standard throw-rake and handheld GPS/ArcGIS Field Maps, as applicable. Plants documented during the survey are documented in the table below. (*) denotes an invasive species. Invasive species are non-native to the ecosystem and are likely to cause economic harm, environmental harm, or harm to human health.

Species Identified	
Common Name	Latin Name
Waterweed	<i>Elodea</i>
Water Chestnut*	<i>Trapa natans</i>
Watermeal	<i>Wolffia</i>
Filamentous Algae	
Duckweed	<i>Lemnoidae</i>
Waterlilies	<i>Nymphaeaceae</i>
Thin-leaf Pondweed	<i>Potamogeton pusillus</i>
Coontail	<i>Ceratophyllum demersum</i>
Curly-leaf Pondweed*	<i>Potamogeton crispus</i>

While on-site, dissolved oxygen (DO) and temperature readings were collected using a calibrated YSI meter with optical sensor. Dissolved oxygen is the amount of oxygen in water that is available to aquatic organisms. DO is necessary to support fish spawning, growth, and activity. Tolerance varies by species, but the figure below provides a general range of fish tolerance (Source: epa.gov). Dissolved oxygen can be affected by many outside factors, such as: temperature, time of day, and pollution. Dissolved oxygen levels are typically lowest early in the morning. Healthy water should generally have concentrations of about 6.5-8+ mg/L.



Results from the visit are included in the table below:

Depth	Temperature (°C)	Dissolved Oxygen (mg/L)
Surface	25.5	8.30
1 Foot	25.3	7.71
2 Feet	24.0	5.70
3 Feet	22.6	4.30
4 Feet	21.6	3.37
Bottom	21.4	3.32

A treatment was conducted for the control of water chestnut. The liquid herbicide, Clearcast (imazamox), was applied using the most appropriate boat, equipped with a calibrated pump, which is used to target the water chestnut plants via foliar application methodology. This method allows for even and precise coverage. Weather was also closely monitored prior to treatment to ensure a treatment date without rain or high winds. The treatment was rescheduled from 6/30/2023 due to the previous forecast.

Prior to the treatment(s), the shoreline was posted with neon pink signs noting the treatment, affiliated water use restrictions, and Water & Wetland contact information. The signs fulfill permit obligations for

shoreline posting. All required pre-treatment information and documents were also sent to Sudbury Conservation Commission.

Additional Notes from the Biologist

Areas of water chestnut were expanded when compared to those of 2022. The water chestnut was extremely dense in areas, and an odor was noticed in certain sections of the Pond. Excellent coverage was achieved and the weather was ideal for treatment.

As always, we will notify you prior to any upcoming visits, as applicable. Please feel free to reach out to us directly with any questions.

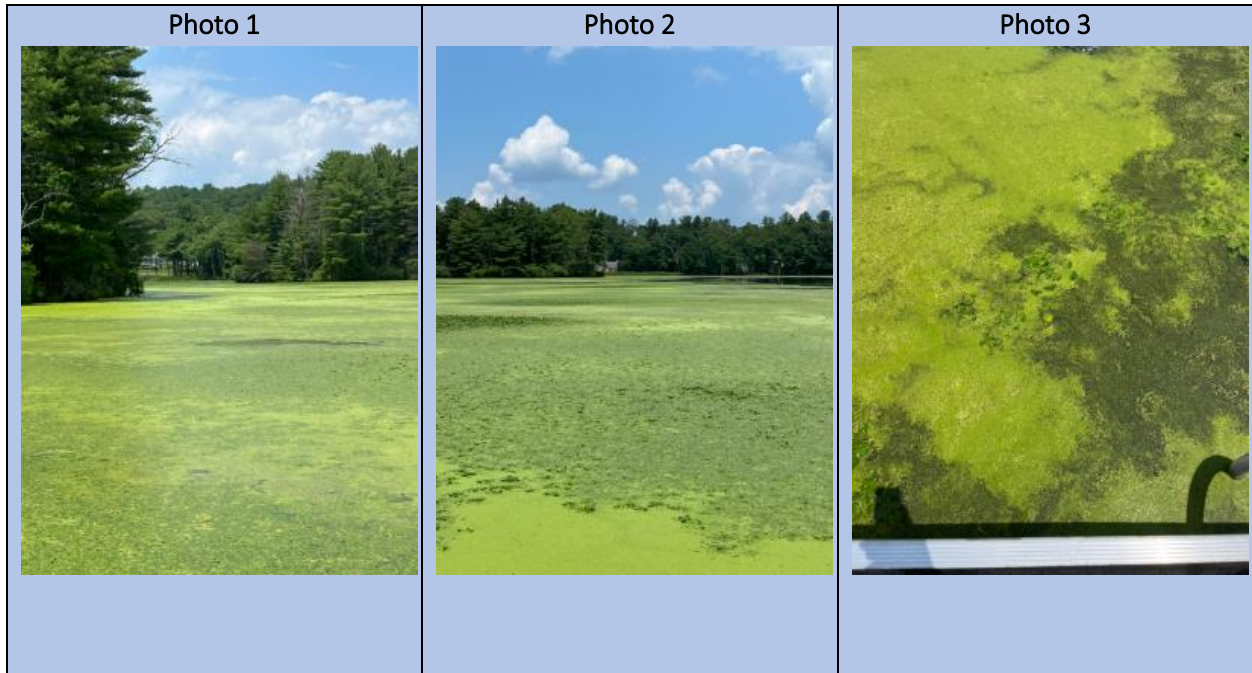


Photo 4



Photo 5



Photo 6

