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Diverse and important underwater forests

By Dawn Tanner
Contributing Writer

VLAWMO and partners work on improving water quality in a variety of ways. One way is to conduct surveys to better understand what's living in our lakes and analyze what those species mean for water quality. Healthy native aquatic plants are often a sign of improving water quality. These native plants take up nutrients from the lake and make the water more clear; instead of algae, especially blue-green algae, taking up the nutrients and making the water murky and green.

VLAWMO and NOHOA are working with Ramsey County Soil and Water Conservation Division (RCWCD) to conduct aquatic vegetation surveys in Pleasant Lake to monitor the status of plants in our lakes. Those plant surveys and reports are available on the VLAWMO website (www.vlawmo.org). In this article and over the coming months, we are sharing highlights from those surveys to help residents better understand our diverse and important underwater forests.

Aquatic plants are especially interesting because we continue to learn more about them the more we look. This is true in our State, and it's also true in our watershed. There are many native species that provide habitat for fish, food for wildlife, and are beautiful and important in and of themselves. There are also plant look-alikes that most people would not be able to distinguish from true plants. The differences are found in their cellular structure. These plant look-alikes are called macroalgae. Their cellular structure is more simple than true plants, but they look and behave very similarly to plants. Native macroalgae also help to improve water quality. They are not part of the problem-causing blue-green algae that can trigger alerts to keep us, and our pets, out of our lakes.

In addition to local partners, the Minnesota Biological Survey (MBS) with the Minnesota Department of Natural Resources (MN DNR), recently visited lakes in our watershed, including Pleasant Lake. What they found in Pleasant Lake was astounding. It turns out that a macroalga species that was fairly recently thought to only exist in the fossil record is also found in Pleasant Lake. Prior to investigations in the Midwestern United States, this particular species had only been found outside of the fossil record in a few locations in Europe and Australia. It is so rare that it doesn't even have a common name; its scientific name is Lychnothamnus barbatus. A map is currently being prepared by MN DNR with results of this and other macroalgae distributions in Minnesota as a result of the recent survey work.

In total, 15 native plant and macroalgae species were found in Pleasant Lake as part of the MBS survey. In addition to these aquatic plants, two rare emergent plants were found on the MBS survey. Emergent in this context means plants with leaves that extend above the surface of the water. Emergent plants are often found in shallow water and along the shoreline. Protecting shoreline areas helps to protect these plants. Invasive plant removal efforts, such as the Yellow iris removal partnership with VLAWMO and NOHOA, help to support a healthy shoreline plant community and rare emergent plants. The invasive yellow iris removal effort is now in its second year with plans to continue in 2024. A healthy plant community is more resilient to environmental stressors such as extreme storm events, water-level fluctuations, drought and can help prevent establishment of new invasive species.

There's more than initially meets the eye when we look into a clear lake and observe a tangle of plants. Supporting those native plants and macroalgae means supporting clear lakes and improved water quality.

Dawn Tanner is the VLAWMO Program Development Coordinator. This article was submitted in partnership with the North Oaks Home Owners' Association (NOHOA) and St. Paul Regional Water Services (SPRWS)

CONTRIBUTED

Diverse and important underwater forests 'Aquatic Plants and Plant look-alikes in Pleasant Lake'.