

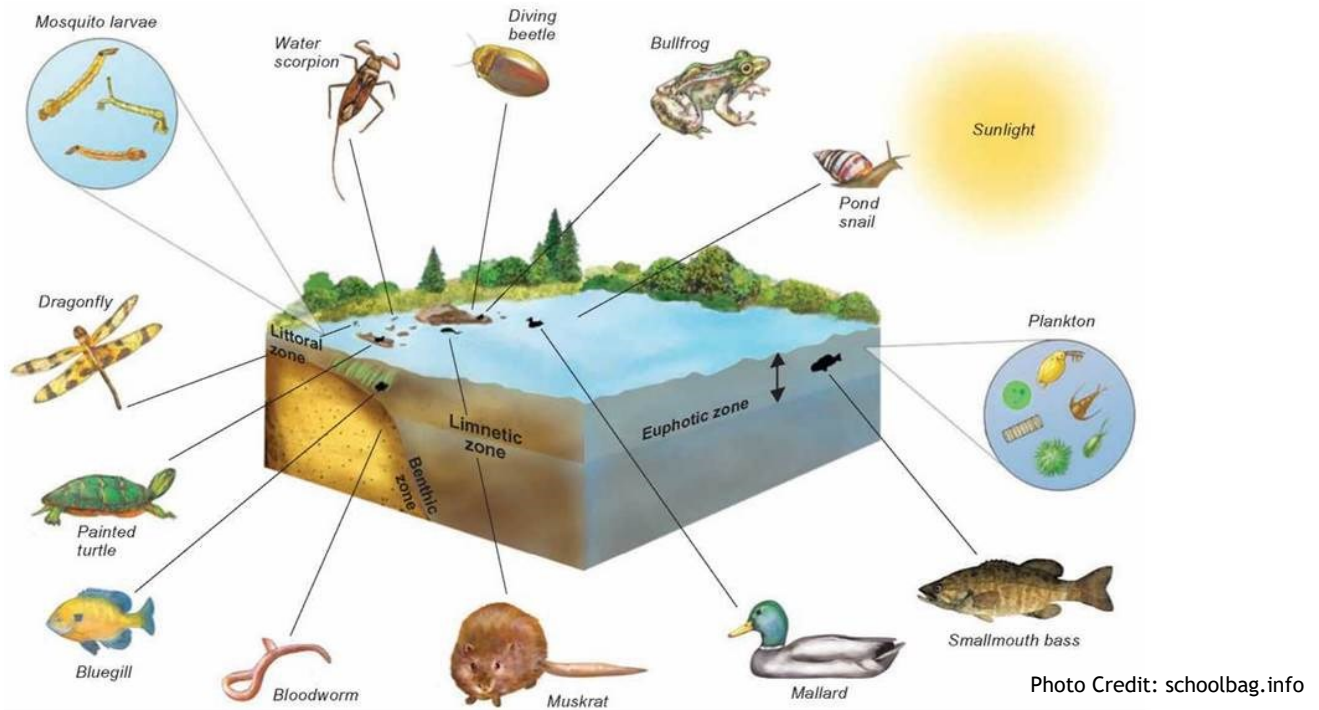
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Lake Evaluation Record

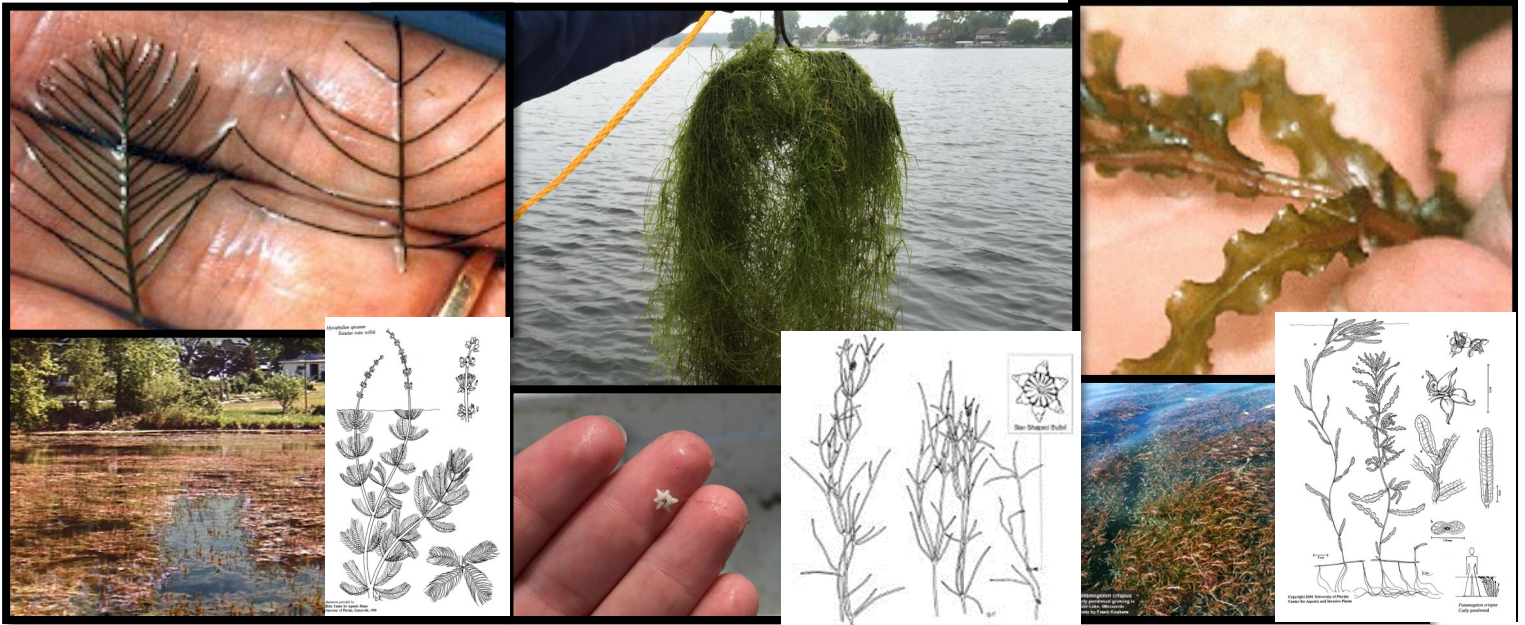
Lake Name: Ann Lake County: Benzie

Evaluated by: Mike Pichla Reviewed by: Bre Grabill Date: August 5, 2023

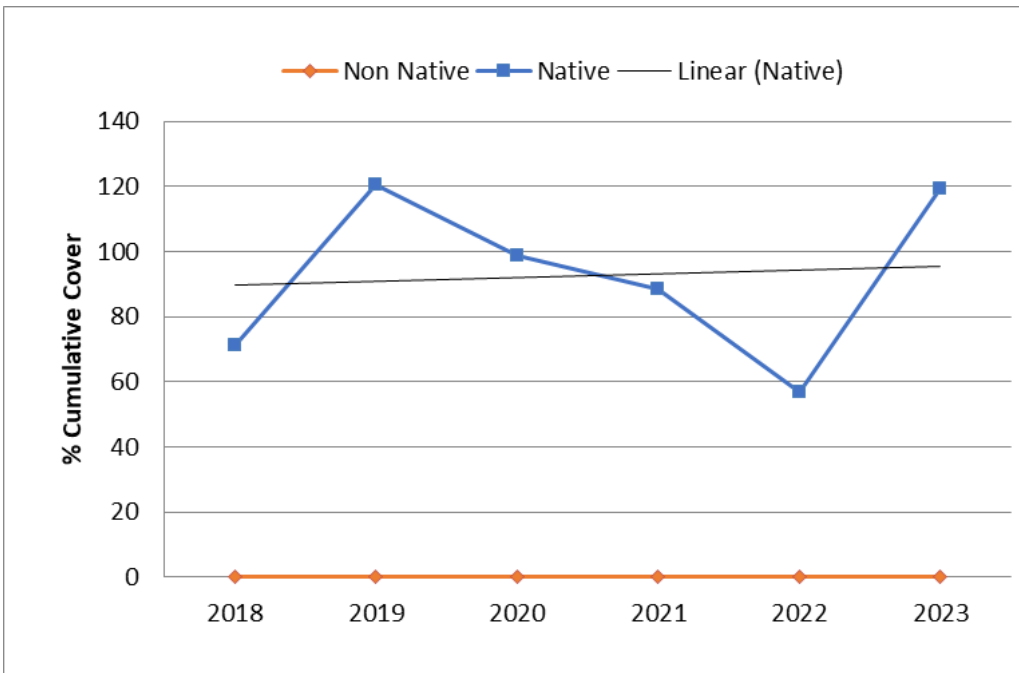
Purpose of evaluation: AVAS Survey



Ann Lake was surveyed on August 2nd, by experienced PLM scientists. The goal of this survey was to identify any exotic species and document native plant diversity. An AVAS Survey was performed, using EGLE approved survey techniques which broke the lake down into 82 segments to document all vegetation present by species and density. July through September are ideal months for finding peak biomass in this geographical area. Out of the 82 sites surveyed, 17 native (submersed) species were found and no nonnative species were identified. Overall, the growth in Ann Lake was moderate and Chara, Naiad, Water lilies, Northern milfoil and various pondweeds were the most prevalent species found. Chara is a vital part of the lake ecosystem, providing sediment control and is a natural filter for the lake, while providing habitat for fish. Over the past few years, Ann Lake is showing strong trend lines with a healthy native plant community and no immediate concerns regarding invasive or exotic plants exist. It is not uncommon to have native biomass at the levels in some areas on Ann Lake receive recreational concern due to density. It is recommended to rake/remove biomass from beach areas whenever possible to improve swimming areas. Additional management options are available if needed but currently, no concerns have been made. Phragmites was located in a few areas around the lake as seen in previous surveys.



Exotic Plants—Exotic plant species cause most of the serious weed problems in Michigan’s lakes. Exotic plants (or nonnative) are plants that are not native to this geographical area, which have been brought to the region inadvertently. Because they often have few natural enemies (their pests, pathogens, etc. may not have come over with them) therefore, they grow out of control. When exotic aquatic plants such as Eurasian watermilfoil, Starry stonewort and Curlyleaf pondweed invade a lake, they often form extensive dense populations, crowd out native species, negatively impact fisheries, reducing the quality of habitat for other organisms and impacting the entire lake ecosystem. Management efforts are underway across Michigan to reduce the spread of nonnative aquatic plants, yet typically property owners and local municipalities are left to oversee and pay for management efforts.



This graph compares native plant cover to nonnative plant cover throughout Ann Lake. Participating in an annual management program, allows plant trends to be tracked over time. This allows for oversight over nonnative plants as well as tracking new infestations of any plants (early detection rapid response for nonnative species) and fluctuations in the native plant community. An annual management program can be vital in tracking changes over time and a great addition to any citizen scientist programs underway. Overall, this graph shows stability in the native plant community, an excellent sign for Ann Lake!

Ann Lake’s Recommended Management Program:

- Survey Program including:
Annual AVAS Survey
- Water quality evaluation (optional)



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