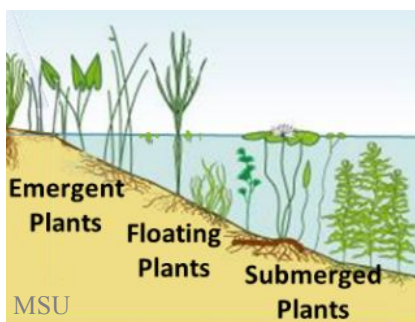


2025 Three Lakes Association Aquatic Science High School Summer Internship

Aquatic Plant Survey in Clam Lake

Each summer Three Lakes Association (TLA) studies some aspect of our watershed with ambitious high school students. Our objectives are to monitor and improve water quality and to help young people gain experience with aquatic science and build their connection to the water bodies that define the landscape they live in. This year, TLA interns will complete an aquatic plant survey of Clam Lake, and see if any invasive species have come in since the last aquatic plant survey in 2013.

Aquatic plants can be fully submerged below the water, often what we call “seaweed;” they can be floating like “lily pads” and duckweed; or they can have their roots in the water, but stick out into the air, like cattails and arrowheads. We will focus on submerged and floating plants this summer.

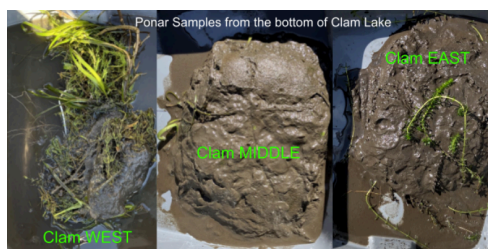


Lots of people dislike aquatic plants, but they deserve a closer look because they are so valuable to underwater ecosystems. Imagine the land without any plants – no trees, no grass, no shrubs, no wildflowers – and you will start to understand how vital aquatic plants are for lakes.

Aquatic plants are extremely important, and therefore worthwhile to monitor. They provide:

1. hiding places and food for small fish
2. oxygen (aquatic life requires oxygen)
3. shoreline protection from wave action
4. competition against algae and invasive plants
5. nutrient absorption and release
6. beauty

Monitoring also means we can detect problems in the lake, such as the arrival of invasive species. Aquatic invasive plants tend to overgrow and clog waterways making boating and swimming impossible, and they can be very hard to eradicate. They also outcompete native plants, which native fish and invertebrates rely on for survival. No aquatic invasive plants were found in the 2013 Clam Lake survey.



In 2024, TLA high school interns spent one day on Clam Lake collecting bottom samples from the lake. They were looking for invasive zebra and quagga mussels, but the samples also turned up a real difference in the plant communities in different locations. The west end was full of plants. The Middle was sparse. The east end also contained few plants, but different species than the other locations. We know there is a lot to discover here!

There are a number of sites in Torch Lake that house Eurasian Water Milfoil. Three Lakes Association and their partners have a rigorous monitoring and control program there to prevent this invasive species from spreading and overgrowing. They are hopeful that their efforts will not need to include Clam Lake. We will find out!

Because aquatic plants die off each fall and must regrow each summer, it is best to do plant surveys in July and August, when plants have regrown. For this reason, we are delaying our first field day until June 26. Then, we will be on the water every week through August 7, collecting and identifying aquatic plants. We will use an underwater camera with a live video feed and double-rake system to haul plants on board.

We have reserved the next two weeks in August to compile data, look for patterns and prepare a presentation. One presentation will be given to the TLA board and the slideshow will be part of the TLA archives. Presentations will also be given to the students' school boards in the fall.



We hope you will join us!

2025 Three Lakes Association Aquatic Science High School Summer Internship

How to apply

- Apply online at 3lakes.com/summer-internship-program
- Only online applications are accepted
- Deadline is Monday, May 12 at 5PM
- Successful Applicants will be notified by May 19



Application is here

Open to ambitious Sophomores, Juniors, and Seniors

Summer Schedule

June 5 at 4:00 PM Interns are required to attend a 1-hour orientation (location TBD)

- Bring with you a signed Student Agreement (given when accepted to the program)
- Background reading will be assigned. Please read before June 26.

Thursday mornings, June 26 – August 7, 8AM-Noon (Jun 26, Jul 3, 10, 17, 24, 31, Aug 7)

- First week involves a shakedown and training on equipment.
- The next six weeks we are on Clam Lake. Weather may require us to reschedule.
- Meeting location will change weekly, depending on where we are sampling.
- Reliable transportation is required.
- We will occasionally meet beyond noon with advance notice.

Two mornings per week, August 11-20, 8AM-Noon (Aug, 11, 14, 18, 20)

- We have two weeks to compile our data & create a presentation for the TLA board of directors.
- Monday and Thursday: August 11 and 14, and Monday and Wednesday: Aug 18 and 20.

August 26 at 9:00 AM Presentation to the TLA Board of Directors in Bellaire

About the Program Lead

Jeanie Williams is the former Executive Director of Three Lakes Association. She has a master's degree in environmental science, a bachelor's degree in biology, and has been certified as a secondary science teacher. She has worked with teens in numerous field research programs in Vermont, Minnesota, and Michigan. This is her fifth summer working with TLA summer interns.

She will be assisted by TLA volunteers, including Gary Bart.



To contact us

Intern Program Lead, Jeanie Williams at jwilliams.threelakes@gmail.com or 231-492-0424

TLA Executive Director, Lois MacLean at 3lakes.info@gmail.com or 231-412-7551



The mission of the Three Lakes Association is to provide leadership to preserve, protect, and improve the environmental quality of the Elk River Chain of Lakes Watershed for all generations with emphasis on Lake Bellaire, Clam Lake, Torch Lake and their tributaries.