

The Tiniest Creatures

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Torch Lake is often talked about in grand fashion, as it is the deepest inland lake in Michigan and rated among the top most beautiful lakes in the world. The lake itself is large and so are its major inlets and outlets, the Clam and Torch rivers, which connect Torch Lake to the 75-mile Chain of Lakes. While many of us have boated or kayaked in these rivers, have you ever thought about the miniscule streams that feed Torch Lake? What about the tiniest creatures that live in them, act as indicators of stream health, and provide food for fish?

Streams like Eastport, Spencer, and Wilkinson creeks can contribute cold water and nutrients to the lake as well as provide for fish habitat. Within them live tiny aquatic creatures, called macroinvertebrates, that can tell us about water quality. Two organizations monitor those streams for macroinvertebrates and are looking for your help!

The Watershed Center Grand Traverse Bay (Traverse City, MI) and Tip of the Mitt Watershed Council (Petoskey, MI) work together to protect surface water in Antrim County. Both organizations have stream monitoring programs based on the Michigan Clean Water Corps (MiCorps), a statewide network of volunteers who collect and share water quality data. MiCorps protocols were developed by state water resource professionals to gather valuable data on stream

Mayflies are sensitive macroinvertebrates with gills on the outside of their bodies. Before they hatch into flying adults, their presence in streams can tell us good things about water quality. Photo courtesy of Tip of the Mitt Watershed Council.



A Stream Monitoring team readies a tray of macroinvertebrates for sorting. Photo courtesy of Tip of the Mitt Watershed Council.

health. By using MiCorp's protocols, The Watershed Center and Watershed Council compare stream scores across space and time to understand trends and identify potential issues. Each stream is assigned a score, which is based on macroinvertebrate sensitivity to organic pollution.

Previous macroinvertebrate monitoring on Eastport, Spencer, and Wilkinson creeks found that these tributaries range in quality from poor to good on a scale of very poor to excellent.

Eastport Creek runs 8.5 miles into the north end of Torch Lake. It was monitored from 2005 to the present by Watershed Council volunteers, earning a score of good.

From 2009-2011, Watershed Center volunteers monitored Spencer and Wilkinson creeks. Spencer Creek runs 5.5 mile before emptying into Torch Lake on its southwestern side. Wilkinson Creek connects

with Torch Lake on the lake's northern side and runs nearly 3 miles in length. While data is limited on these two tributaries, both streams fluctuated between "poor" and "fair" scores.

According to habitat surveys conducted in 2009, both Wilkinson and Spencer creeks have suitable in-stream habitat diversity; Spencer is dominated by silk/muck/detritus substrates while Wilkinson has more diverse substrates that include boulders, cobble/gravel, sand, and silk/muck/detritus. Monitoring these streams again will allow us to assess whether their water quality has changed in any way.

Three Lakes Association is working with the Watershed Center and Watershed Council to recruit more volunteers to help monitor these streams.

The next training will be held by the Watershed Council in the Torch Lake area in September 2022, and all interested volunteers are encouraged to attend. Volunteers will learn the basics of stream monitoring before stepping into a pair of waders and using nets to collect macroinvertebrates.

There are additional volunteer tasks beyond collecting macroinvertebrates, such as sorting through macroinvertebrates and filling out datasheets. Visit <https://www.watershedcouncil.org/attend-an-event.html> to sign up or call the Watershed Council's office at 231-347-1181 to learn more.