

Invasive Species Monitoring in the Elk River Chain of Lakes

When contemplating the likelihood of encountering invasive species in a waterbody, it quickly becomes evident that geography plays a key role. Consider the following two lake scenarios: A small lake is tucked away in the remote hills of Northern Michigan. It sees limited boat traffic from its primitive launch and its only inlets are from springs or small streams. A second lake is part of a vast chain of lakes, connected by navigable rivers, and perched perilously close to the international traffic of a Great Lake. Boaters flock from all over the state to fish or boat recreationally at this second lake. In which lake would you expect to find invasive species? Although the first lake should be watched closely, there is a good chance it will face a lower risk from the impacts of aquatic invasive species. The second lake, on the other hand, is at much higher risk for invasion.

The Elk River Chain of Lakes (ERCOL) falls within this high-risk category, which is why the Watershed Council recently undertook a comprehensive monitoring effort, funded by the Michigan Department of Environmental Quality, to document aquatic invasive species within its connecting waterways. Watershed Council staff and interns inspected every aquatic plant community of the ERCOL and documented infestations of the following: purple loosestrife, invasive *Phragmites*, curly-leaf pondweed, and Eurasian watermilfoil. In addition, an invasive mussel survey was conducted. Lastly, a comprehensive aquatic vegetation survey was completed for Elk, Skegemog, Intermediate, and Hanley Lakes. The results? Curly-leaf pondweed was found in the Intermediate and Torch Rivers, with infestations extending into the Cedar and Rapid Rivers. Eurasian watermilfoil beds were found in the upper and lower ends of the Chain, mostly small and light-density, except for widespread infestations in St. Clair Lake. Invasive *Phragmites* was found at just three locations on Six Mile and Intermediate Lakes. Purple loosestrife was found in nine of 14 lakes, with the largest infestation areas on Hanley and Six Mile Lakes. No Quagga mussels were found, although 16,174 zebra mussels were identified in the process! This data will be used by multiple ERCOL stakeholders to take informed action towards controlling these invaders.

