

Curlyleaf Pondweed: Impact Felt in NW Iowa Lakes

By Mike Hawkins, Iowa DNR Fisheries Biologist

Invasive plants and animals are all around us and continue to threaten our natural resources. A stark reminder of the impact these species can have is currently very visible in East Okoboji Lake. Curlyleaf pondweed was introduced into Iowa in the early 1900's and is prevalent in all but 2 states in the U.S. It is a plant that we find in many lakes in Iowa and has been in the Iowa Great Lakes for quite a while. This plant has had extraordinary growing conditions this year as evidenced by the thick mats of this plant that have grown to the surface of East Okoboji Lake. The water has stayed very cool and clear this spring. Those conditions combined with lower than usual spring lake levels create a great growing environment for this plant. Curlyleaf pondweed is considered a cool water plant and begins growing under the ice. It tops out in early May in northern Iowa to flower and then begins to die back. It is normally gone by the end of June or early July.



This year's growth of curlyleaf pondweed is one of the most extensive on record. It is hard to predict how extensive this plant's growth will be in any given year.

By many accounts, this year's extensive growth is some of the greatest remembered. It was quite extensive during the late 1980's, however, and one set of notes from the Fisheries Research Section in Spirit Lake noted their sampling efforts on the north end of East Okoboji had to be suspended because of this plant in 1988. The extent of curlyleaf pondweed diminished in the following years. It remained present but in low density until we noted its increasing abundance a couple of years ago. It is hard to understand the dynamics of this particular plant and how extensive it will be in any given year. The curlyleaf experts I've spoken to say it is far from predictable. In other words, just because it is bad now doesn't mean we will see it again at this level. It does seem that years of dense coverage come in strings and may follow periods of drought and low water. One school of thought is that early ice-out years with minimal snow cover through the winter can be exceptionally bad because these conditions allow the plant extra time to develop early.

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-Mike Hawkins, DNR Fisheries Biologist

Treatment of aquatic plants in Minnesota must be done as part of lake-wide aquatic plant management plan which is developed by lake groups working the DNR. In Minnesota, lake groups and local communities pay for chemicals and the application. As in Iowa, all herbicides must be applied by professional, licensed applicators that follow the guidelines of the management plan. Whole lake treatments are generally not allowed. Minnesota does provide some grants to help pay for the treatment of curlyleaf.

There seems to be positive sides to everything and it is important to note that this plant, like our diverse native plant community, is providing incredible habitat for a number of aquatic critters. In years when we have extensive plant growth on East Okoboji Lake, fish populations do very well.

Once the plant matures to its current level the only control measure effective against it is to mechanically cut it or pull it. At this mature stage herbicides will not significantly impact the plant. Mechanically cutting or removing the plant from around docks, hoists, and in paths to open water is allowed by new rules that went into effect in January. The rule allows dock owners to clear a 15 ft area around a dock and hoist and a 15 ft wide path to open water. This method works best if it is performed regularly instead of waiting until the plant has grown to the surface. This method of cutting or pulling can be done without a permit. Application of pesticides by lake homeowners is illegal and should be reported. The application of some types of pesticides can endanger our drinking water source. I've been in contact with resource professionals in Minnesota because their state deals extensively with curlyleaf pondweed in many lakes and has been investigating control techniques.

Final thoughts and summary

There is no easy solution once this plant has grown to the water's surface. Managing the plant around your dock and hoist and out to open water is allowed.

Curlyleaf pondweed is more prevalent this year in other lakes too, which indicates there are regional environmental conditions driving its growth.

Invasive species a pain! Please clean, drain, and dry your boats, trailers, and water related equipment before traveling between lakes. There are more of these invaders on the way.