Invasive Species Alert
Hydrilla

An Educational Series For Stream Teams To Learn and Collect

By Kara Tvedt, MDC Fisheries Management Biologist

What Is Hydrilla?

Hydrilla (*Hydrilla verticillata*) is a federally listed noxious weed that can be detrimental to our aquatic resources. It is a submerged aquatic plant that can quickly choke out many aquatic habitats by forming dense mats. It is native to the Indian sub-continent and was introduced to the United States in the early 1950s, more than likely through the aquarium trade. Today, hydrilla has spread from Florida to Maine on the Eastern Seaboard and is even found in the state of Washington. Currently, at least 29 states including Missouri are dealing with introduced populations of hydrilla.

Hydrilla was first discovered in Missouri in 2012 in northeastern Greene County. It has since been found in Dallas, Warren, and St. Louis counties. Inspections and outreach efforts have been integral to finding the other locations.

No aquatic habitat is immune from being impacted by hydrilla. It can grow in a variety of freshwater conditions including streams, drainage ditches, and large reservoirs. Hydrilla needs very little light and grows in areas that are inhospitable for many native aquatic plants. In clear water, hydrilla has been found in areas over 30 feet deep.

How Does Hydrilla Spread?

Fragmentation is the primary means for spread and it only takes one small piece of plant to enter a waterbody to start a new stand. Other common modes of spread include plant fragments "hitching a ride" on boat trailers, fishing gear, waterfowl, and wildlife. Hydrilla can even be introduced into another waterbody by moving fish and plants from hydrilla-infested waterbodies. Aquarium dumping is another common method of introduction, especially in urban areas.

Hydrilla also uses tubers and turions for propagation. Tubers are subterranean potato-like structures that are produced by the plant. Under ideal conditions, approximately 6,000 tubers can be produced per square meter. Depending on the variety of hydrilla, the tubers can stay viable in the soil for at least four years or up to 10 years. Tubers can also be ingested by waterfowl and regurgitated at new locations. Turions are overwintering buds that fall and lay on the surface of the sediment and survive about eight months, providing another avenue for producing new plants the following spring. Hydrilla does produce seeds, but they play a minimal role in new plant generation. The persistence of this invasive plant's tubers and multiple methods of propagation have given the plant the "Perfect Weed" label.

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Photo by Kara Tvedt

Unfortunately, hydrilla can be easily transported by a boat trailer axle.

MISSOURI STREAM TEAM

Stream Team Academy Fact Sheet Series

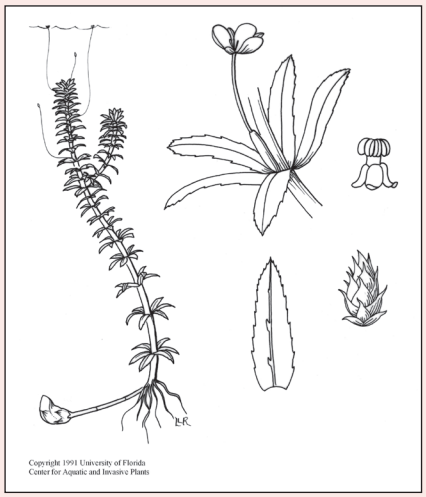
Collect this entire educational series for future reference! Contact us at 1-800-781-1989 if you'd like copies of previous Fact Sheets and a binder for storing them.

Why Is It Bad?

Hydrilla displaces the local aquatic plant community, interferes with boating and fishing, clogs water intake systems, and adversely changes the dynamics of fish populations. In places that have hydrilla, pond owners and lake managers are faced with expensive control measures. In short, this plant is not only detrimental to small ponds and lakes; it can impact our float streams and large reservoirs. If allowed to spread, it will harm Missouri's economy through hindering fishing and other recreational uses of our large reservoirs and streams. Drinking water and power generation can also be impacted if their water supply sources become infested with hydrilla.

Hydrilla can also harm waterfowl and raptors. It has been linked to Avian Vacuolar Myelinopathy, or AVM, by being a host plant to a cyanobacterium that produces a novel neurotoxin linked to the disease. In areas where AVM was prevalent, removal of hydrilla plants eliminated AVM deaths in waterfowl and raptors.

How To Identify Hydrilla



- A submerged, rooted plant with whorled leaf pattern with 3 to 8 leaves per whorl, mostly whorled in fives.
- Leaves are narrow and have serrated margins.
- Leaves are roughly 1/16 to 1/8 of an inch wide and 3/8 to 3/4 of an inch long.
- Branching is normally limited until the plant is close to the water's surface.
- Leaf mid-rib is often red.
- Most reliable identification is the potato-like tuber attached to the roots.

How Can I Help?

In Missouri, anglers and recreationalists should be on the lookout for hydrilla from July through October. It disappears during the winter months and then re-emerges in early May. By early July the plants are readily visible and will continue to grow and top out at the water's surface through late October or early November.

Once established, hydrilla is difficult to eradicate. It takes at least four to five years of successful, season-long control to rid a site of hydrilla, partly due to the longevity of the subterranean tubers. This means **PREVENTION IS CRUCIAL**. Please take the following precautions to prevent the spread of hydrilla.

- ❑ **Clean:** When leaving a body of water, remove all mud, plants, fish or animals before transporting your equipment. Thoroughly clean all fishing gear, including boats and trailers, after each trip.
- ❑ **Drain:** Eliminate any water from your equipment before leaving the area that you visited. Always drain water from boats, motors, live wells, etc.
- ❑ **Dry:** Dry anything that comes in contact with water.

Where Can I Learn More?

For more information on cleaning options, go to protectyourwaters.net/prevention. Also, never release plants, fish, or animals into a body of water unless they came out of that body of water. Never dump live bait and aquarium contents into a waterbody.

If you see the plant, please contact your local Missouri Department of Conservation office.

For further information about hydrilla, please visit mdc.mo.gov/discover-nature/field-guide/hydrilla.

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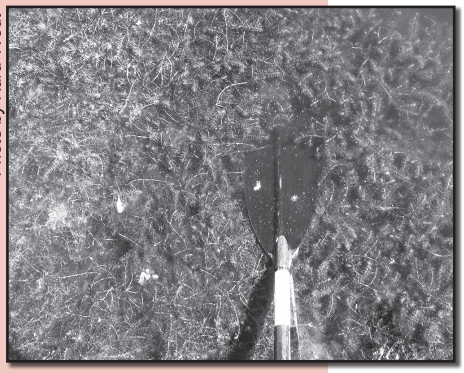
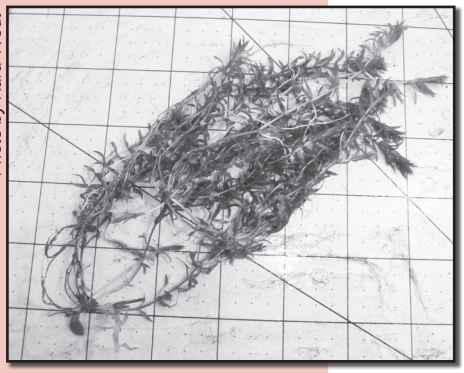
Photo by Kara Tvedt



Hydrilla impeding navigation during late summer months.

Photo by Kara Tvedt



A young hydrilla plant.

Don't forget to send your questions to streamteam@mdc.mo.gov or call 1-800-781-1989.