

Invasive Plants in Pennsylvania

Carolina Fanwort

Cabomba caroliniana A.Gray



Photo: Washington State Department of Ecology

Background:

Fanwort is popular as an aquarium plant. It is native to the southeastern United States and has spread and naturalized north to Massachusetts as well as to Oregon, Washington and California. In Pennsylvania it has been recorded in both the eastern and western portions of the state.

Range:

Some of the states in its native range list this species as endangered or extirpated, but many northeastern and north-western U.S. states ban its sale (CA, CT, ME, NH, VT, WA and WI) or list it as an invasive.

Description:

Fanwort is a perennial, submerged, rooted plant. The underwater leaves are opposite, petioled and palmately divided. The leaves are fan-like and measure up to two-inches across.

In late summer the white, half-inch, six-part solitary flowers appear above the surface with small oval floating leaves on the surface. The underwater or submersed stems can reach six-feet in length.



Photo: University of New Hampshire

Habitat:

This aquatic invader prefers the shallow water found in ponds, lakes and slow moving streams.

Biology and Spread:

Reproduction occurs either vegetatively when stems break or sexually through seeds. Stems and seeds can be carried by water, on boating or fishing equipment, and when people dump the content of aquariums into water bodies.

Ecological Threat:

Like other aquatic plants that form dense mats, the presence of fanwort in lakes and ponds changes the habitat for fish and other aquatic species, interferes with recreational use of the water body, changes oxygen levels and pH, and increases the organic content of the water body.

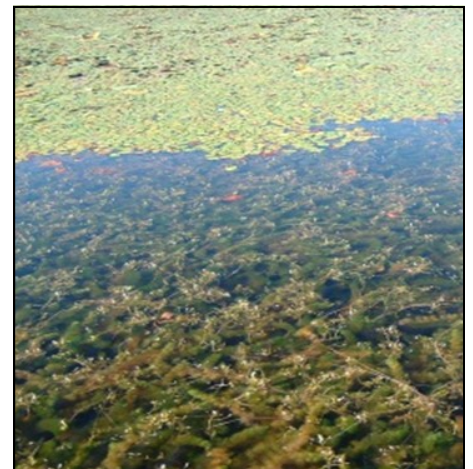


Photo: Jane Herbert, Michigan State University Extension

How to Control this Species:

Prevention is easier than control so careful cleaning of boating and fishing equipment is always recommended. Efforts for herbicide use and water drawdown control need to be coordinated through the Pennsylvania Fish and Boat Commission. A permit from the PA Fish and Boat Commission is needed to apply herbicide to water bodies.

Before applying control options that may affect the entire water body it is important to know the other aquatic plant species in the water body and the effect of that control on particular species. An application of an herbicide labeled for aquatic use over the entire water body will impact all aquatic plants and may alter fish habitat and water chemistry.

If the water body also contains threatened and endangered plant species these may also be impacted by control efforts. In the presence of these species please coordinate with DCNR's Bureau of Forestry, Division of Ecological Resources and Conservation Science.

Look-A-Likes:

Coontail (*Ceratophyllum echinatum*) and water marigold (*Bidens beckii*) do not have the distinct petiole that Cabomba has. Both of those species are native to Pennsylvania. Water marigold is an endangered species in Pennsylvania.

References:

Block, T.A. and Rhoads, Ann Fowler. 2011. *Aquatic Plants of Pennsylvania: A Complete Reference Guide*. University of Pennsylvania Press.

Bugbee, G.J. and Balfour, M.E.. 2010 *Connecticut's Invasive Aquatic and Wetland Plants: Identification Guide*. Bulletin NO. 1027. The Connecticut Agricultural Experiment Station, Department of Environmental Sciences.



Photo: Graves Lovell, Alabama DCNR,
www.forestryimages.org

For More Information:

"Rapid Response Plan for Fanwort (*Cabomba caroliniana*) in Massachusetts": <http://www.mass.gov/dcr/watersupply/lakepond/downloads/rrp/fanwort.pdf>

Pennsylvania SeaGrant: <http://seagrant.psu.edu>

Stop Aquatic Hitchhikers: www.protectyourwaters.net

PA Fish and Boat Commission: www.fish.state.pa.us

DCNR Invasive Plant Site: <http://www.dcnr.state.pa.us/conservationscience/invasivespecies/index.htm>