

Invasive Plants in Pennsylvania

Curly Pondweed

Potamogeton crispus



Photo: Leslie Mehrhoff, U. of Connecticut,
www.invasive.org

Background:

This aquatic invader is also known as curlyleaf, curly-leaved or crispy-leaved pondweed. It was introduced into the U.S. in the mid-1800s from its native range in Eurasia, Africa and Australia, possibly as a hitchhiker on boats.

Range:

The earliest known records of this plant in the U.S. occurred in Philadelphia in 1841, with limited distribution to the northeast and part of California by 1900. It can now be found throughout most of the U.S. and Ontario.

Description:

This is the only species of pondweeds in North America with serrate leaves, making it easily identifiable. The plant gets its name from the wavy edges on the one to two-inch long, dark green submerged leaves. Leaves alternate along the stem. Each plant may grow up to six feet long.

Habitat:

Curly pondweed tolerates fresh or slightly brackish water and can grow in shallow, deep, still or flowing waters. It prefers clear or slightly turbid waters as it is fairly shade intolerant.



Photo: Richard Old, XID Services,
www.invasive.org

Biology and Spread:

This plant is unusual in that it flowers and fruits in late spring and early summer; the rest of the plant decays. Small new plants overwinter, even under ice, and continue to grow once the water warms. Plant buds called turions (*see photo below*) and other plant fragments can be spread by waterfowl, boaters and aquatic plant enthusiast and re-root in new habitats.



Photo: Leslie Mehrhoff, U. of Connecticut,
www.invasive.org

Ecological Threat:

Due to the excessive growth of this plant, it can become a nuisance and inhibit recreation. It also competes with, and sometime displaces, native plant life. When it dies back in mid-summer it can lead to algal blooms from an increase in phosphorus concentration in the water.

How to Control this Species:

Manual removal of this plant is difficult due to the brittle nature of the plant. Avoid fragmenting the plant and be sure to remove all stem parts for effective control.

Several herbicides that are approved for aquatic use can effectively kill curly pondweed. Be sure to follow the label and all state herbicide requirements.

References:

USGS Nonindigenous Aquatic Species: <http://nas.er.usgs.gov>

Center for Invasive Species and Ecosystem Health:
<http://www.invasive.org/browse/subinfo.cfm?sub=6219>

Invasive Exotic Plant Tutorial for Natural Lands Managers:
http://www.dcnr.state.pa.us/forestry/invasivetutorial/curly_pondweed_M_C.htm

For More Information:

To learn more about invasive plants in Pennsylvania and the northeast, here are some useful resources:

Plant Invaders of Mid-Atlantic Natural Areas, National Park Service:
<http://www.nps.gov/plants/alien/pubs/midatlantic/midatlantic.pdf>

A Field Guide to Common Aquatic Plants of Pennsylvania:
<http://pubs.cas.psu.edu/FreePubs/pdfs/agrs110.pdf>

Pennsylvania SeaGrant:
<http://seagrant.psu.edu/publications/ais.htm>

Native Alternatives:

American lotus (*Nelumbo lutea*)



Graves Lovell, Alabama DCNR
www.forestryimages.com

Pond weed (*Potamogeton nodosus*)



Hermann Falkner, www.freeimagefinder.com

Wild celery (*Vallisneria americana*)



Photo: Nancy Rybicki, USGS



Photo: Chris Evans, River to River CWMA,
www.invasive.org