

# Hydrilla

Colorado Department of  
Agriculture

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## Key ID Points

1. Stems are slender, branched and up to 25 feet long.
2. Tiny white flowers on long stalks.

## Hydrilla Identification and Management



### Identification and Impacts

Hydrilla (*Hydrilla verticillata*) is a submersed invasive aquatic plant. It can grow to the surface and form dense mats. It may be found in all types of water bodies. The stems are slender, branched, and up to 25 feet long. Hydrilla's small leaves are strap-like and pointed. They grow in whorls of four to eight around the stem and below the growing tips are straight or curved. The leaf margins are distinctly saw-toothed. Hydrilla often has one or more sharp teeth along the length of the leaf midrib. Hydrilla produces tiny white flowers on long stalks from June to October. Stems typically grow rooted but fragment easily. The plant also produces 1/4 inch turions, or overwintering buds, at the leaf axils and potato-like tubers attached to the roots in the mud. The flowers are wind pollinated.

Hydrilla is very small in its initial stages of life and can therefore go undetected until it quickly fills a lake or river that it infests. The plant can grow one inch per day. Hydrilla produces thick mats and outcompetes, shades out or simply eliminates ecologically important native submersed plants. It greatly slows water flow and clogs irrigation and flood-control canals. Hydrilla seriously interferes with boating, both recreational and commercial, prevents swimming and fishing, and alters water chemistry and oxygen levels.

Habitats for hydrilla include virtually all types of freshwater: springs, lakes, marshes, ditches, rivers, and tidal zones. The plant can grow in water as shallow as a few inches deep, to water more than 20 feet deep. It can thrive in oligotrophic (low nutrient) to eutrophic (high nutrient) conditions and can grow in 7% salinity of seawater. Low light compensation and saturation points and low CO<sub>2</sub> compensation point make it a competitive plant because it can start growing in low light before other plants do.

The key to effective control of hydrilla is preventing establishment of uncontrolled monocultures. Mechanical and herbicide controls give short-term to medium-term effectiveness and need to be repeated at least annually. Details on the back of this sheet can help to create a management plan compatible with your site ecology.

Hydrilla is designated as a "List A" species in the Colorado Noxious Weed Act. It is required to be eradicated wherever found in the State. For more information visit [www.colorado.gov/ag/weeds](http://www.colorado.gov/ag/weeds) and click on the Noxious Weed Management Program. Or call the State Weed Coordinator at the Colorado Department of Agriculture, Conservation Services Division, 303-239-4100.



Photo clockwise, from lower left © USDA APHIS PPQ Archives; Alison Fox; Vic Ramey, Univ. of Florida; Chris Evans, CWMA River to River; Leslie J. Mehrhoff, University of Connecticut.

*Hydrilla verticillata*

**CULTURAL**

Cultural prevention is the only effective way to control hydrilla. Removing all plants parts from recreational boats and preventing transport to unaffected waters is the easiest way to prevent the plant's establishment.

**BIOLOGICAL**

Biocontrol agents are not included in the prescribed management plans by the State for List A species. Eradication is the management objective of all List A's. No biocontrol agent for Hydrilla is available. For more information on biocontrol in Colorado, please contact the Palisade Insectary of the Colorado Department of Agriculture at 970-464-7916.

**MECHANICAL**

Hand pulling is an option when populations are small, but only offers short-term effectiveness. Dredging is effective and available, but is cost prohibitive. Make sure to pull all the tubers and bag specimens carefully so as not to scatter plant parts or seeds. Dispose of in an land fill where runoff can not threaten other waterways.

*Integrated Weed Management:*

*Hydrilla is extremely difficult to control once it has become established. Prevention of infestations and early detection of this very aggressive aquatic weed is essential in stopping the plant from becoming a widespread problem in suitable water bodies. An integrated approach using cultural, mechanical, biological and chemical can achieve some long-term effectiveness.*

# Hydrilla

**HERBICIDES**

**NOTE:** The following are recommendations for herbicides that can be applied to bodies of water. Recommendations are unique with aquatic weed species and need to be based on water body type, and water volume. Please read label for exact rates. **Always read, understand, and follow the label directions. The label is the LAW!**

Herbicide	Rate	Application Timing
Fluridone (Sonar - general use)	Refer to label.	Refer to label.
Endothall + Diquat (Aquathal K + Reward - general use)	Refer to label.	Refer to label.
Endothall (Aquathal K - general use)	Refer to label.	Refer to label.

Additional herbicide recommendations for other species can be found at:  
[www.colorado.gov/agconservation/CSUHerbicideRecommendations.pdf](http://www.colorado.gov/agconservation/CSUHerbicideRecommendations.pdf)

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