

What is flowering rush?

Flowering rush (*Butomus umbellatus* L.) is a perennial aquatic plant, native to Europe and Asia. It grows along lake and river shores as an emergent plant. Emergent plants are rooted in the lake bottom with stems and leaves that grow above the surface of the water. A familiar emergent plant is cattail. Flowering rush may also grow as a non-flowering, submersed plant, growing below the surface of the water, with limp, ribbon-like leaves.

How to identify it

Identification of flowering rush can be difficult, especially when the plants do not have flowers. It closely resembles many native emergent plants, such as bulrush. The emergent form of flowering rush has three-angled fleshy leaves and may produce a cluster of pink flowers (Figure above and photo below).

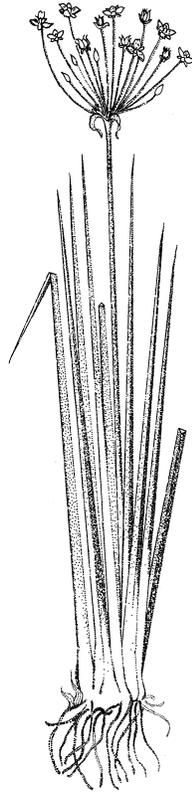


Photo: Peter Dziuk

How does it spread?

Flowering rush has been sold as an ornamental garden plant and is most likely introduced into new waterbodies by humans. The plant spreads primarily by vegetative means, usually not by seed. Vegetative reproduction can result from growth of thick rhizomes, which are underground stems. Rhizomes also may produce small tubers or buds, which can disperse and grow into new plants. Also, small buds or "bulblets" that form in the clusters of flowers also can disperse and grow into new plants. Water currents, ice movement, muskrats, and geese can easily move these reproductive structures to new locations within a water body.

Why is it a problem?

Dense stands of flowering rush may interfere with swimming and other use of lakes. Resource managers are concerned that flowering rush may become an aggressive competitor and displace native emergent vegetation, such as hardstem bulrush.

Where is flowering rush in Minnesota?

Flowering rush was first recorded in Anoka County in 1968 and has since been located in these counties: Aitkin, Becker, Dakota, Hennepin, Itasca, Le Sueur, Rice, Todd, and Washington. Despite its 30-year presence in the state, the distribution of flowering rush is widely scattered and uncommon.

Regulatory Classification

Flowering rush is classified as a *prohibited invasive species* in Minnesota. It is illegal to possess, buy, sell, transport, and plant.

Management of flowering rush in MN

The DNR has two goals that apply to flowering rush management: 1) to prevent the spread of flowering rush within Minnesota; and 2) to reduce the impacts caused by invasive species to Minnesota's ecology, society, and economy.

To attain these goals, the following four strategies are used:

- Prohibit the sale of flowering rush in Minnesota.
- Monitor current distribution and assess changes.
- Support research to develop and implement better management methods.
- Provide information to those interested in how to best manage flowering rush.

Control of Flowering Rush

The Minnesota Department of Natural Resources (DNR) supports well-planned control of flowering rush. Nevertheless, lakeshore residents and users must ensure that control of this plant does not cause unintended harm, such as the removal of native bulrush. Native plants protect lake water quality and provide valuable fish and wildlife habitat. If you are a landowner who is interested in controlling flowering rush along your shoreline, you should be aware of the following:

Removal of emergent aquatic plants, including flowering rush, in public waters requires a permit from the DNR. *Anyone who wants to control flowering rush must apply to the DNR for a permit. With proper justification, a DNR aquatic plant management permit may be issued to remove the invasive plant in order to provide reasonable use and access for landowners.*

Invasive species often move into disturbed areas, for example, those from which native plants have been removed. Improper control methods can worsen the flowering rush problem. Information on control methods is given below.

Hand digging and removal will decrease the abundance of flowering rush. This method can be used to remove isolated plants but hand digging will also uproot rhizomes or buds, which can disperse and grow into new plants. Proper care must be taken to contain and remove all plant fragments from the water.

This side effect of hand digging means that this method may not be acceptable in all lakes.

Cutting flowering rush using both hand tools and mechanical devices below the water surface will not kill the plant but will decrease the abundance of visible foliage during the year of cutting. Multiple cuts may be required during the summer as flowering rush grows back from the root. Again, proper care must be taken to remove all cut plant fragments from the water and to keep mechanical devices from inadvertently uprooting rhizomes or buds from the lake bottom.

Herbicide treatments have been used to control flowering rush. At present, it is not clear whether any of the available herbicides can be used to provide long-lasting control without harming native plants growing with or near flowering rush. Efforts to improve control with herbicides are continuing. People considering control of flowering rush with herbicide should know that ***any use of herbicide in public waters in Minnesota requires a DNR permit.***

Information and technical assistance

If you would like additional information on management of flowering rush or other, aquatic invasive species, contact the nearest DNR Invasive Species Program staff member:

Northwest MN, Park Rapids 218-699-7293

Northeast MN, Grand Rapids 218-999-7805

Central and West Central MN, Brainerd 218-833-8645; Fergus Falls 218-739-7576 ext. 259

Central and Southeast MN,
St. Paul 651-259-5828

Southern MN, New Ulm
507-359-6079

Statewide, DNR Central Office -
St. Paul 651-259-5100

