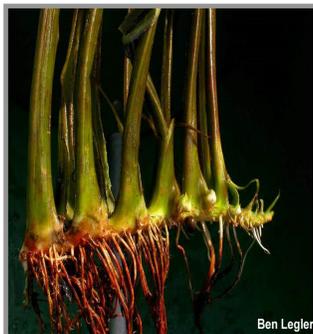


# FLOWERING RUSH: Options for control

**Flowering Rush** (*Butomus umbellatus*), a class-A noxious weed in Lincoln County, Washington is of the Butomaceae family (Flowering-rush family). Flowering rush is a native of Europe, Asia and Northern Africa. It is sometimes known as grass rush. It is considered an aggressive colonizer. Currently there is a very limited distribution in Washington state.

Flowering-rush is an aquatic plant found along lake shores and slow-moving rivers, and in water up to 9 feet deep. Although it resembles a true rush, flowering-rush is in its own family and can be distinguished by its attractive pink flowers. Native to Eurasia, flowering-rush was introduced first to the eastern United States and Canada as an ornamental and continues to be brought in to the country as an ornamental. It has spread to large areas of Canada and the northern United States. There is a large infestation on Silver Lake in Whatcom County,



Roots are bulb-like and appear to “hug” or cup one another.



Flowering rush can be identified by its distinct triangular leaves.



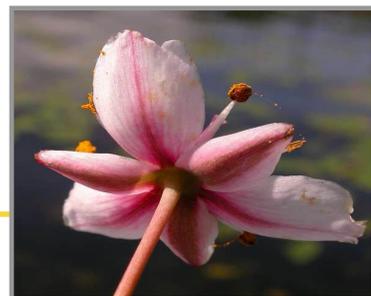
Flowers occur in a rounded cluster (umbel) of 20 or more light pink flowers, with red or purple veins at the end of the flower stalk.

Washington. It impacts both the ecological and recreational values of shallow water and shorelines.

This plant spreads mostly from rhizomes and occurs in wet areas with muddy soil, such as freshwater marshlands, lakes and streams. It can clog slow moving waterways and impede boat travel and fishing along shoreline, thus degrading both their recreational and ecological value.



The rhizomes become brittle with age and develop structurally weak constrictions along their length which spontaneously fragment or break readily following a minor disturbance (e.g. from waves, boat wake, feeding waterfowl, & human disturbance) and have a strong survivorship. It is extremely difficult to control once established and with its ability to rapidly disperse, new sites are being found every year.



Flowers have three sepals, three petals, nine stamens and pink pistils.



Flowers comprise of three pink petals and three sepals arranged in clusters or umbels (umbrella shaped) on a flower stalk.



Flowering rush has proven very challenging to remove once it is established.

## Key identifying traits

- Leaves are thin, straight, sword-shaped, triangular in cross-section, and up to 40 inches long.
- **Flowers** have 5 petals with many stamens, are yellowish-orange and may have minute black dots along edges.
- Flowering plants can be up to 5 feet tall.
- Flowers grow on tall, cylindrical stalks in round-topped **umbrella-like clusters** of 20-50 flowers.
- Flowers have **three large pink petals** (the three sepals under the petals are also pink and look like small petals).
- In deeper water, the plant grows submerged with floating leaves.
- **Bloom** time is June to August.
- About 25–100 **flowers** can be found in broad clusters at the top of each stem.

## Biology and ecology

- Produces numerous pea-sized **bulbils** that easily detach from the rhizome and are dispersed by the water.
- **Perennial forb**, growing 1 to 3 feet tall.
- Also spreads from broken off rhizomes.
- **Quickly** germinates on the soil or water surface.

# CONTROL MEASURES:

For this and other publications, see our website at: [www.co.lincoln.wa.us](http://www.co.lincoln.wa.us)

## Prevention:

- Beware of fill dirt, hay and seed from outside your area. **Early detection** is vital to prevent invasion.

## Biological:

- Biological control agents are not used on "A" listed weeds. If this weed is found, it will be targeted for eradication or containment. However, there is none available at this time.

## Cultural:

- Healthy competitive vegetation helps lessen chance of invasion, but doesn't stop it entirely.

## Mechanical:

- Hand digging is best for small infestations, especially when water levels are low. Hand dig isolated plants with care, as root fragments can spread and sprout.
- Be sure to monitor sites carefully for regrowth, as disturbed soil aids in germination of any seeds present.

## Chemical:

- Preliminary testing indicates that a mid-summer application during calm wind conditions of Imazapyr may be most effective.



Flowering-rush has two growth forms. In shallow water or along shorelines, plants have stiff, upright leaves. In deeper water, the plants grow submerged and have flexible floating leaves that reach the surface and move with the water.



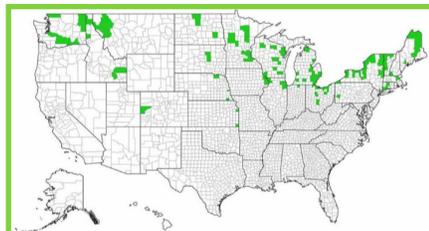
Flowering rush is found in Lake Roosevelt across from the Hawk Creek confluence, the Spokane River, 9-Mile, Lake Spokane and Little Falls Reservoirs. Flowering rush was first found in Lake Spokane and Little Falls Reservoir in 2010, and confirmed in 9-Mile Reservoir in 2012. Since 2011 portions, of the populations in 9-Mile and Lake Spokane are hand pulled using divers annually, funded by Avista Utilities to fulfill their Federal Energy Regulatory Commission license requirements. No control work has taken place in Little Falls Reservoir to date.

## **What you should do:**

Flowering rush is considered an aggressive colonizer in many ecological circumstances and may specifically hinder recreational and industrial uses of shallow water habitat.

People spread flowering rush primarily through movement of water-related equipment and illegal release of water garden plants into public waters. The small rhizome buds, or bulbils, can be hidden in mud and debris, and can stick to boots, waders, and other fishing and hunting gear.

- ◆ **Clean** watercraft of all aquatic plants and prohibited invasive species.
- ◆ **Drain** all water by removing drain plugs and keeping them out during transport.
- ◆ **Dispose** of unwanted bait in the trash.
- ◆ **Dry** docks, lifts, swim rafts and other equipment for at least 21 days before placing equipment into another water body.



Flowering rush is *mainly* found in the northern hemisphere.

Distribution map

Photos and references courtesy of: Columbia Basin Flowering Rush Management Plan; NWCB written findings; King County NWCB; Ben Legler photos; Minnesota DNR; Michigan State University.

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