

Flowering Rush

Butomus umbellatus

What are invasive species?

Invasive species are species that may be invasive when introduced to an area outside of their native range. They can be introduced intentionally or unintentionally.

Why are invasive species a problem?

Once they establish, invasive plants can reproduce quickly because they have no natural predators or pathogens to keep them in check, and they often become the dominant species in an ecosystem. This can have devastating effects on the environment. Invasive species can displace native plants by monopolizing space, light, water and other resources needed for growth. They can completely alter native plant communities and drastically lower biodiversity. Invasive species can also adversely affect the economy and human health, and interfere with recreational activities.

HISTORY

Flowering rush is native to Eurasia. It was first found in North America in 1897 along the St. Lawrence River in Quebec and has become widespread in the Great Lakes region. It was introduced as a water garden ornamental and may also have been brought here in ballast water. It escaped into natural areas where it has a serious negative impact on shoreline and shallow water ecosystems and affects recreational activities. Flowering rush has a very limited distribution on PEI.

IDENTIFICATION

Flowering rush is a perennial aquatic (fresh water) herbaceous plant. It will grow in deep water, but when submerged it does not flower. It is difficult to identify when it is not in flower because the plant looks very similar to other shoreline plants such as broadleaf cattail. Here are some distinguishing features that may help you positively identify it:

- Leaves are sword shaped, twisted towards the tip and triangular in cross-section. They can be up to 2-3m long when submerged.
- Flowers grow on tall stalks and are arranged in umbrella-like clusters.
- Individual flowers have 3 larger light pink to rose colored petals and 3 smaller slightly greenish-pink sepals.
- Flowering rush blooms from June to August.
- It spreads by seed, rhizomes (underground stems) and bulbils which are found on the base of the flowers and rhizomes.

CONCERN

Flowering rush is an ornamental which is sold in nurseries and online as a water garden plant. This has likely contributed to the rate and distribution of its spread.

Due to its preferred aquatic habitat, bulbils, rhizome fragments and seed can be spread long distances by water currents. Bulbils easily detach from the main plant and germinate quickly allowing new populations to become established. Wildlife and human activity such as boating and fishing, contribute to its spread.

Flowering rush can grow in water up to 3m or deeper, and even though it will not flower when submerged, it continues to spread by rhizomes and bulbils.

Flowering rush reduces biodiversity by crowding out native wetland and shoreline plants. It creates dense mats which restrict light, dissolved gases and nutrients that would normally be available to other submerged plants and animals. It can also restrict boating, swimming and fishing activities.



Leaves in cross-section



Cluster of flowers



Rhizomes and bulbils



HABITAT

Flowering rush prefers full sun. It requires wet soil and can be found in riparian zones, water courses, wetlands, ditches, marshes, lakes, streams and muddy shores. It can be submerged fully in water or grow as an emergent plant (rooted in the soil but leaves and flowers extend above the water) in shallower water. It will grow in a wide range of soil conditions from sandy to loam and heavy clay soils. It tolerates a wide range of soil pH's from acidic to alkaline conditions.

PREVENTION AND CONTROL

When purchasing aquatic plants in garden centers, check the Latin name to avoid planting and spreading flowering rush to new locations.

Thoroughly wash all recreational equipment before moving from one body of water to another.

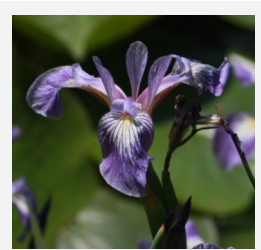
Hand dig isolated plants or small patches. Digging must be done carefully as it can result in spreading the plants further. All plant material should be removed from the water. Repeated digging will probably be required.

Management that increases the vigor of native plants will reduce available flowering rush habitat and slow its spread.

Prevention and education are the best tools to slowing the spread of flowering rush. Large infestations are challenging to control and ongoing research may offer some management tools in the future.

GARDEN ALTERNATIVES

Sweet flag (*Acorus americanus*) is native to PEI. It is an aquatic plant that does well in quiet, shallow water. It prefers full sun and grows up to 1m tall. It has erect, slender leaves and flowering spikes that have a spicy fragrance. Yellow green flowers appear from May to July. It can be used to help with shoreline stabilization.



Blue flag iris (*Iris versicolor*) is native to PEI.

It grows in marshes, wet meadows and lakeshores. It will grow in full to part sun and a wide variety of soil types from wet sand to sedge peat to water saturated soils. It can grow up to 1m tall. Plants bloom from June to July. Flowers are blue-violet in color.

Large bur-reed (*Sparganium eurycarpum*) is native to PEI. It is an aquatic/transitional plant that prefers full sun. It will grow in shallow water or mud and can get up to 1m tall. It blooms in June and July and has an interesting seed head. It spreads by rhizomes so is good for bank stabilization.



Prince Edward Island
Wildlife Conservation Fund



Photos credits: Jenifer Parsons, WA DOE; Richard Davies; Gary Fewless; Kathleen MacInnis; Jack Greenlee, U.S. Forest Service; Bob Harris, Natural History Museum at TREC

How can you help?

Here are a few things you can do to help stop the introduction and spread of alien invasive species:

- Learn more about invasive species in PEI, including how to identify species of concern
- Choose native species whenever possible
- Carefully inspect and clean clothing, gear, animals, and vehicles before visiting a new natural area
- Never dump garden or pond waste in a natural area
- When disposing of invasive species, they should be placed in a clear or dark plastic bag and taken to Island Waste Management for incineration
- Report a sighting

How to report:

If you think you have seen an invasive species on PEI, please report your sighting to the PEI Invasive Species Council at:

www.peiinvasives.com

or email:

peiinvasives@gmail.com