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Flowering rush *(Butomus umbellatus)*

aka grassy rush, water gladiolus

Provincial Designation: Prohibited Noxious

Overview:

Flowering rush is a cattail-like perennial of freshwater wetlands. It is native to Africa, Asia and Europe[1] and was likely introduced to North America as an ornamental plant. It is the only member of the Butomaceae family and is able to reproduce both by seed and vegetatively (rhizomatous roots form bulbits which separate from the parent plant[3]). Flowering rush infestations can displace native vegetation and result in reduced water quality which may disrupt valuable fish and wildlife habitat. Dense stands in irrigation ditches can reduce water availability, and in lakes can can interfere with boat propellers and swimming.[3] Plants flower summer to fall.[1] Flowers are hermaphroditic (contain both male and female organs) and are pollinated by bees, flies and butterflies.[2]

Habitat:

Flowering rush can grow on water margins or as a submerged plant with flexible leaves suspended in deeper water (3-6 m).[3] It is widely tolerant of soil types (sandy to clay) and soil acidity, but does require wet soil and full sun.[4] It is hardy to Zone 2 in Canada.[2]

Identification:

Flowering rush can be confused with sedges when not in bloom but is usually a much larger plant.[3]


Flowers

PHOTO: www.vashsad.ua

Stems: Stems are erect and triangular near the base. Plants grow to 150 cm[1]

PHOTO: Alvin Mitchell, Salish Kootenai College

Leaves: Leaves are green and sword-shaped,[5] originate from base of plant,[2] and are triangular in cross-section, twisted toward the tip, and feel spongy when compressed.[3]

Flowers: Flowers are 2-2.5 cm wide with 3 slightly greenish sepals and 3 petals.[3] Twenty to fifty pink through white flowers are borne on umbrella shaped clusters[3]. Anthers are red.[5] There are 9 stamens arranged in an inner whorl of 3 and outer whorl of 6.[3]

Prevention:

Do not use in water gardens – talk to your local nursery about non-invasive alternatives. Flowering rush can spread by seed or root fragments so care must be taken with attempts to remove existing plants. It has been observed to invade aquatic areas with existing vegetation more slowly[3] – maintain existing stands and prevent disturbance.

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Flowering rush *(continued)*

PHOTO: Don Battiste

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PHOTO: Steve Hurst, USDA NRCS plants database, bugwood.org

PHOTO: Leslie J. Mehrhoff, University of Connecticut, bugwood.org

Control:

Mechanical: Cutting below the water surface can suppress plants but will need to be repeated. Hand digging is feasible with small infestations but care must be taken to remove all parts of the plant - root fragments can drift with water movement and result in new infestations[2]. All plant matter should be removed and disposed of in landfill-bound garbage.

Chemical: Currently no selective herbicides are registered for use on flowering rush. Herbicide applications near water bodies requires specific applicator certification and permits from Alberta Environment. Always check product labels to ensure the herbicide is registered for use on the target plant in Canada by the Pesticide Management Regulatory Agency. Consult your local Agricultural Fieldman or Certified Pesticide Dispenser for more information.

Biological: None researched to date.

PHOTO: Leslie J. Mehrhoff, University of Connecticut, bugwood.org

REFERENCES

1 Flora of North America. Butomus umbellatus www.eFloras.org

2 Global Invasive Species Database. *Butomus umbellatus*. www.issg.org

3 Montana State University Extension. Flowering Rush. http://msuextension.org/publications/AgandNaturalResources/EB0201.pdf

4 USDA Forest Service. Weed of the Week, Flowering Rush. www.na.fs.fed.us/fhp/invasive_plants

5 Hitchcock and Cronquist. Flora of the Pacific Northwest. 1973. University of Washington Press. p 557.