Socio-Economic Impacts of **Flowering Rush**

Flowering rush (Butomus umbellatus) is an invasive aquatic plant species that produces striking pink flowers which grow in a cluster resembling an umbrella. It is an established invasive species in all provinces in Canada and most of the northern United States.



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There are several potential negative socioeconomic impacts in the Canadian Prairies from Flowering Rush establishment and spread:

Irrigation | Flowering Rush directly threatens the \$3.6 billion irrigation industry in the Prairies as it reduces water quality and availability when it clogs infrastructure. The value of this industry is anticipated to grow significantly in the future as the Westside Irrigation Project moves forward in Saskatchewan, adding \$40 to \$80 billion over the next 50 years. Flowering Rush establishes readily in irrigation canals, reservoirs, and stormwater management ponds (Jacobs, 2018).

Tourism | The tourism industry in Prairie provinces is valued at over \$13 billion per year, most of which is resourcebased tourism that is reliant on visitors using the natural environment. Flowering Rush forms dense stands that restrict access to water bodies for recreational activities such as swimming, boating, and fishing (Cahoon, 2018).

Cultural | Flowering rush has been identified as a threat to wild rice (*Zizania aquatica* and *Zizania palustris*) which is a culturally significant native plant species for Indigenous groups in the Canadian Prairies. Flowering rush establishes earlier in the spring than native plants (e.g., wild rice) providing it a competitive advantage for resources that can allow it to dominate ecosystems.

Ecological and socio-economic impacts of Flowering Rush

Flowering Rush



Ecological impacts

Flowering Rush is a hardy invader with many traits that can disrupt ecological systems and make it challenging to manage (US Fish and Wildlife Service, 2018)

- threatens species at risk •
- spreads easily via transport of hardy plant fragments when . disturbed
- displaces native vegetation with dense vegetation stands and competition for resources
- alters water conditions by increasing in nutrient levels and reducing in dissolved oxygen levels.
- altered water conditions have been known to lead to algal blooms, increased water turbidity, reduced water quality, and light restrictions
- alters fish and wildlife habitat and reduces biodiversity

Cahoon, L. M. (2018). Development of Best Strategies for the Control of Butomus umbellatus L. (Flowering Rush) In Alberta (Unpublished master's thesis) [University of Calgary]. doi.org/10.11575/PRISM/5441

Jacobs, J., Parkinson, H., Mangold, J., Dupuis, V., & Rice, P. (2011). Biology, ecology and management of flowering rush (Butomus umbellatus). December, 1–9.

US Fish and Wildlife Service. (2018). Flowering Rush (Butomus umbellatus): Ecological Risk Screening Summary.



Species

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Fisheries and Oceans Canada

Prevent further spread of Flowering Rush:

Clean, Drain, and Dry your watercraft and

equipment every time



Don't Let it Loose

Never release aquarium pets, water garden plants, live food, or live bait into any water body or storm sewer



Report any sightings

to provincial reporting platforms such as EDDMapS or provincial hot lines

Know Before You Go

Know the laws in your jurisdiction and those you are travelling to: invasivespeciescentre.ca/ <u>know-ḃefore-you-go</u>