



# Flowering Rush Control

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Kalispel Natural Resources Department

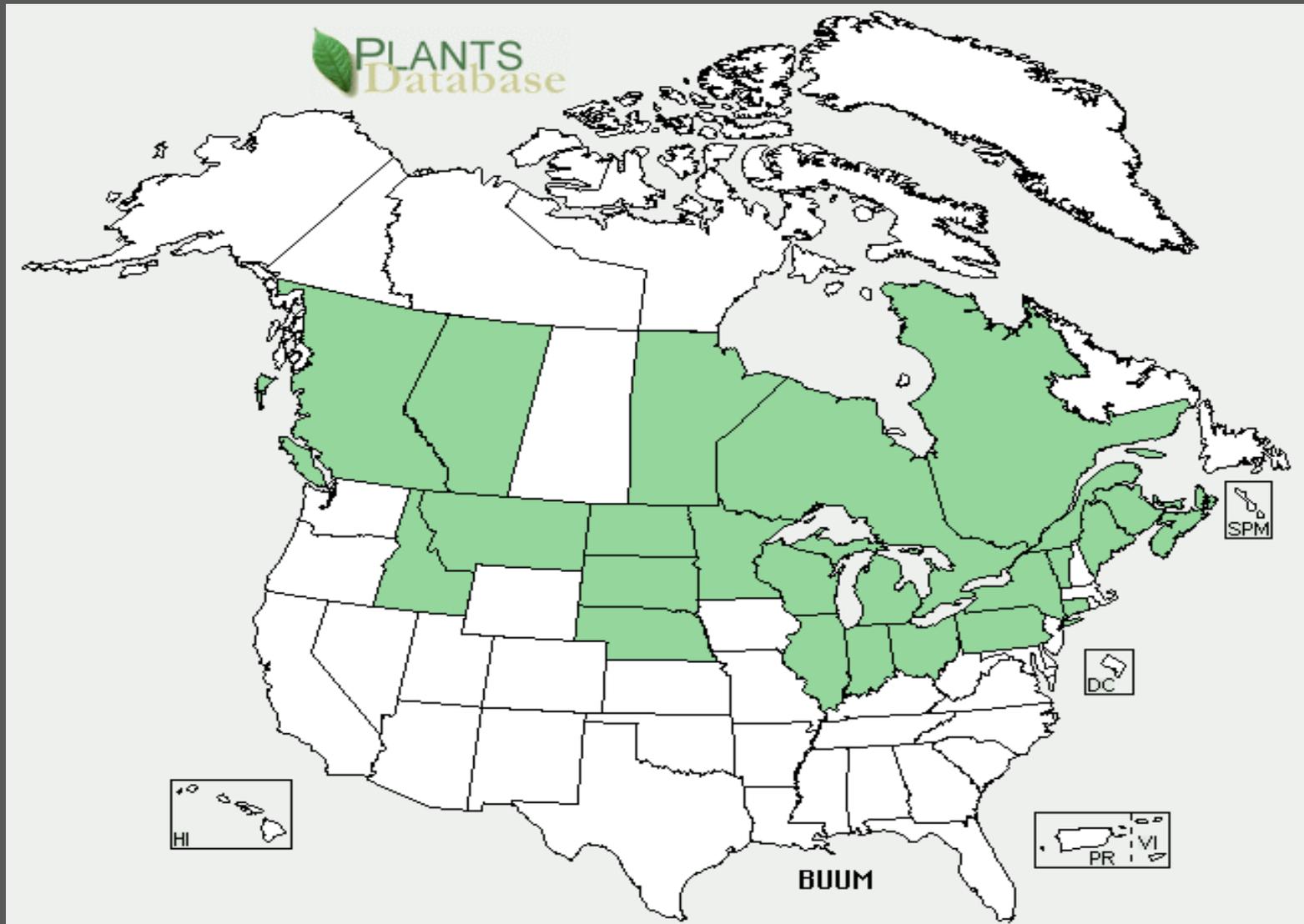


# Flowering Rush Background

- Flowering Rush (*Butomus umbellatus*)
- Perennial plant from the Butomaceae Family
- Related to Rushes in name only



# Flowering Rush Distribution



# Control Methods

- Chemicals
- Mechanical
- Physical – Hand Pulling
- Smothering
- Bio-agents

# Chemicals

- Easy solution for current population
- Cost effective compared to other methods
- Easy to apply
- Quick results

# Downside to Chemicals

- Toxic to other species
- Limited selection and mode of action
- Chemicals move off site
- Toxins build up and plant resistance
- More than one treatment required
- Timing of application

# Mechanical



# Physical – Hand pulling



# Smothering Control Method



- Cover vegetation with filter fabric & sand bags
- Cover to remain in place for 4 years

# Smothering Process



# Filling and Transporting Sand Bags



# Smothered Areas at Low Water



# Bio-agents

Intentional use of living organisms to  
suppress a population to an  
acceptable level

Limitations

Available and can establish

# BIO-AGENTS FOR FLOWERING RUSH

Europe – Germany, Czech, & Slovak Republic

- 2 Fungus
- 18 Insects (2 weevils and 2 Flies feed on just Flowering Rush)
- Best Bet – *Bagous nodulosus* Gyllenhal – larvae eats stem and rhizome above and below water line- research conducted in Switzerland – 10 years away from results

**Harriet L. Hinz** obtained her BSc in Horticulture in Germany, her MSc in Pest Management at Imperial College in the U.K., and her PhD at the Department of Biology/Ecology at the University of Fribourg, in Switzerland.

**1997 to 2005**, employed as a research scientist at CABI in Switzerland in the section for Biological Weed Control.

**In 2006**, she took over the lead of this section. Apart from administrative tasks and financial responsibility for the section, she is also still leading or actively involved in five weed biocontrol projects, some of direct relevance to Wyoming, e.g. hoary cress. In addition,

**Harriet** stays involved in science, mainly through supervision of graduate students. **Since 2002, she is Affiliated Professor at the University of Idaho, Department of Plant, Soil and Entomological Sciences**, and since 2011, Adjunct Professor at the University of Manitoba, Department of Entomology



**Thank You, Questions?**