Flowering Rush Symposium

Major Funding By:

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Symposium Planning Committee

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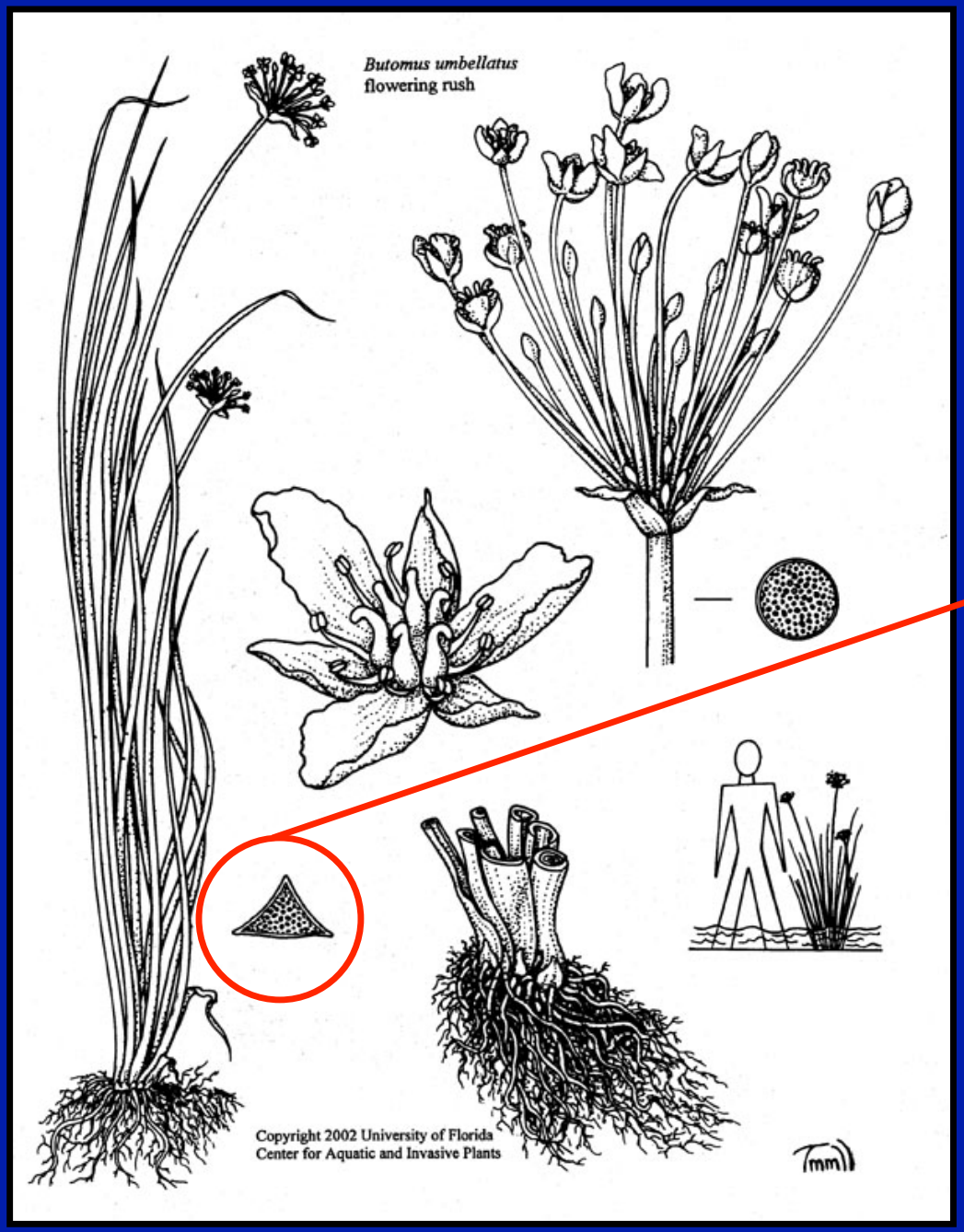
- Marijka Haverhals, NRIPC

IPM Outreach Project

- Tim Prather, University of Idaho
- Western IPM Center
  - Jim Farrar
  - Kassim Al-Khatib
  - Carla Thomas

Flowering Rush

- *Butomus umbellatus* L.
- The only species in the plant family Butomaceae
- Rhizomatous perennial native to Eurasia
- It as introduced into North America as an aquatic ornamental species
- It is an endangered species in Israel due to habitat loss



- Umbrella-shaped cluster of ~30 flowers borne on non-leafy stems
- 3 whitish pink petals and 3 similar sepals
- Green leaves are triangular in cross section
- Leaves may be spirally twisted
- Midrib not evident on leaves
- Plants are strongly rhizomatous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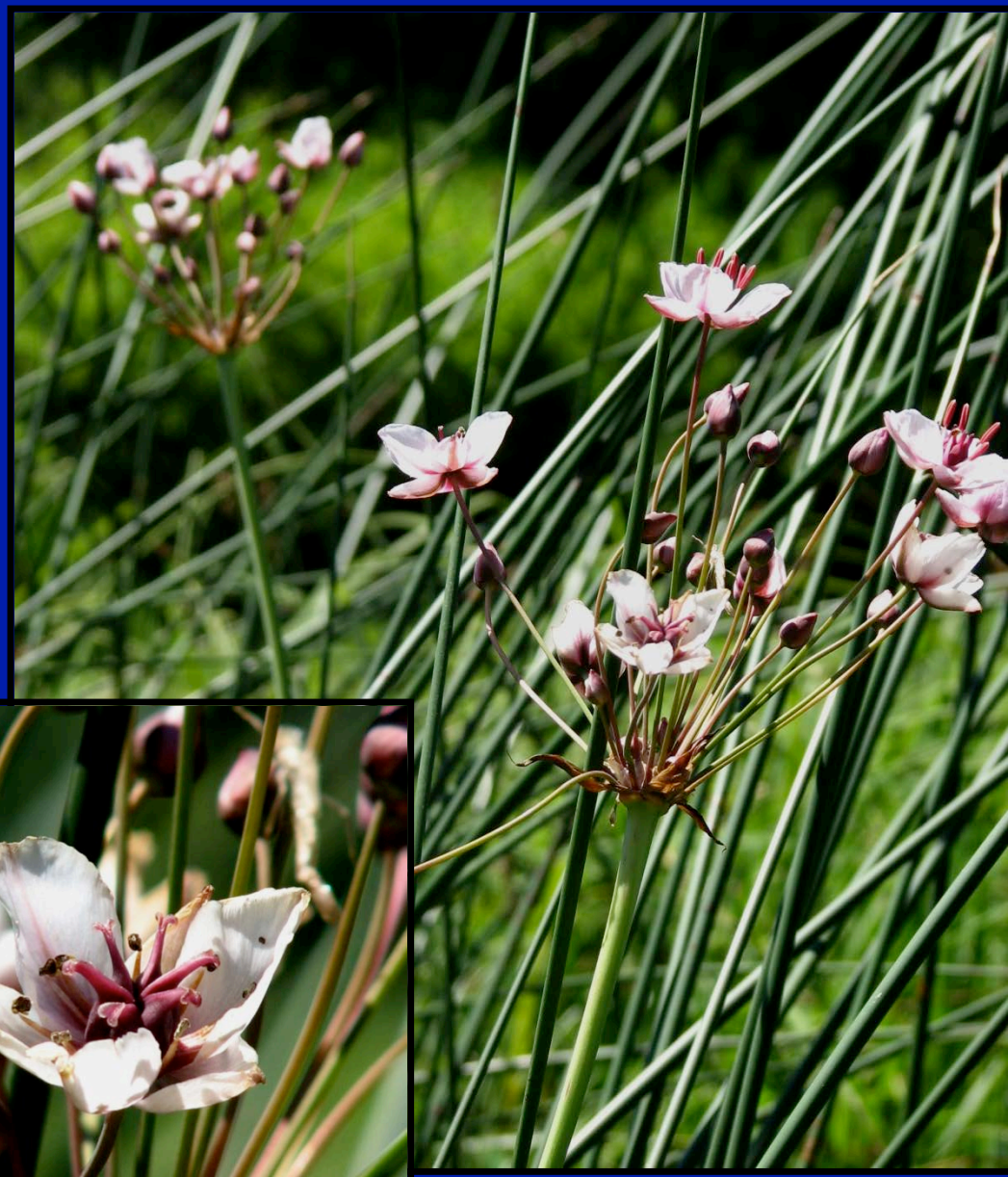
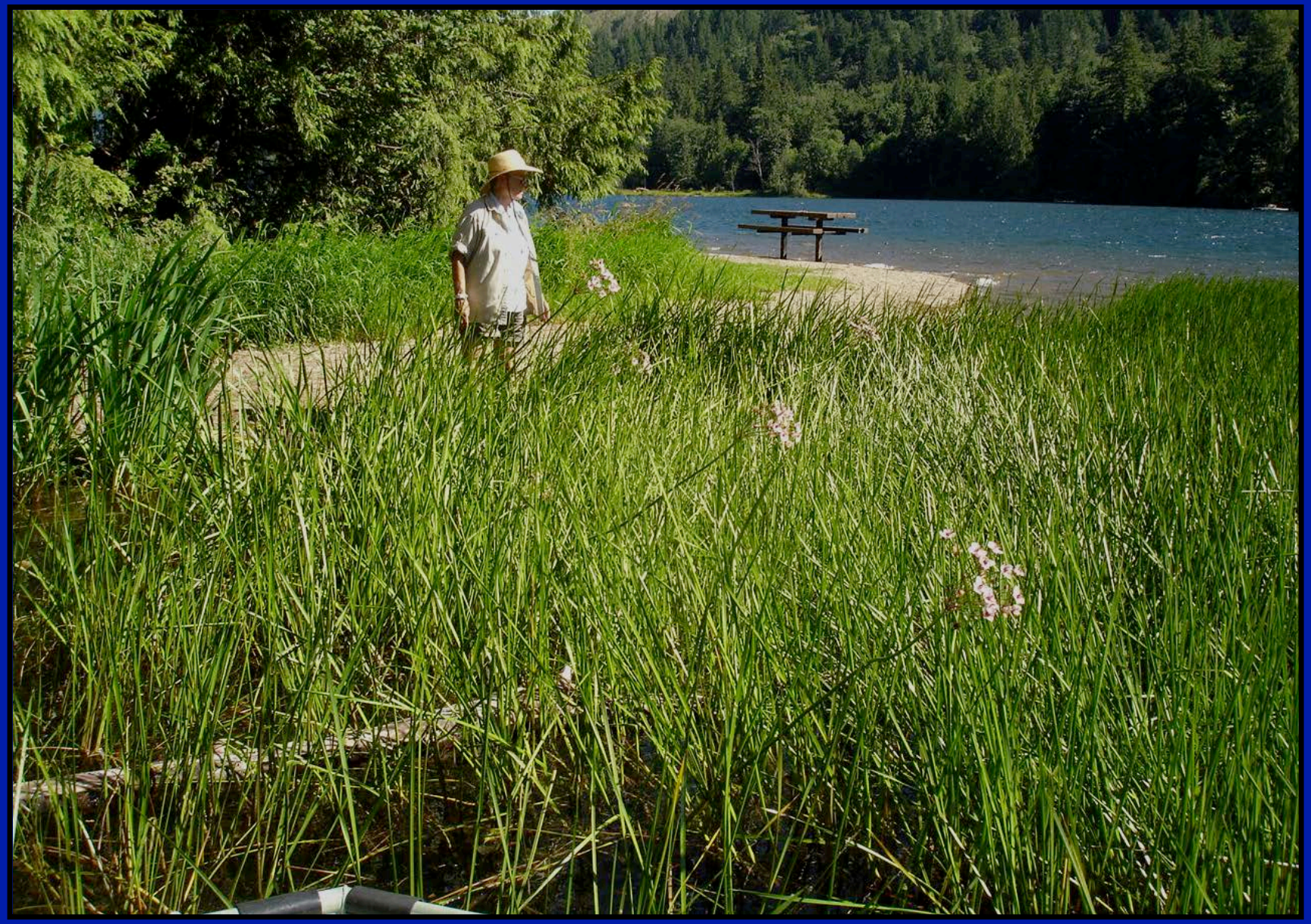




Flowering rush can form dense wet meadows

Flowering rush usually grows in narrow bands along the shore

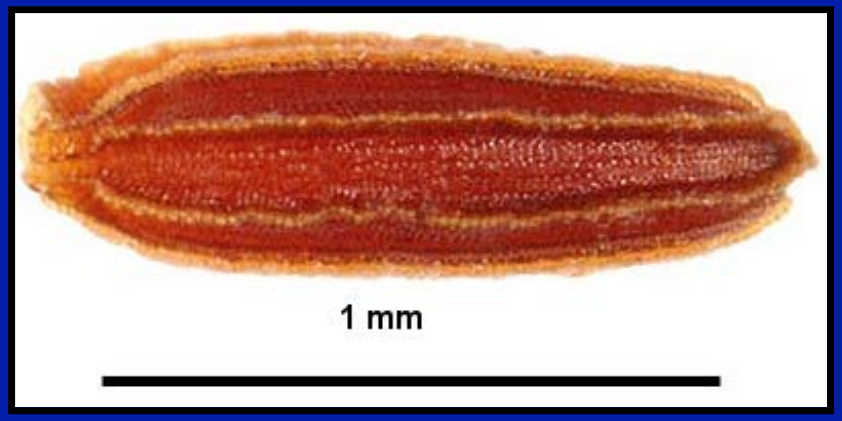
Flowering rush is often fully submerged, never emerging above water level

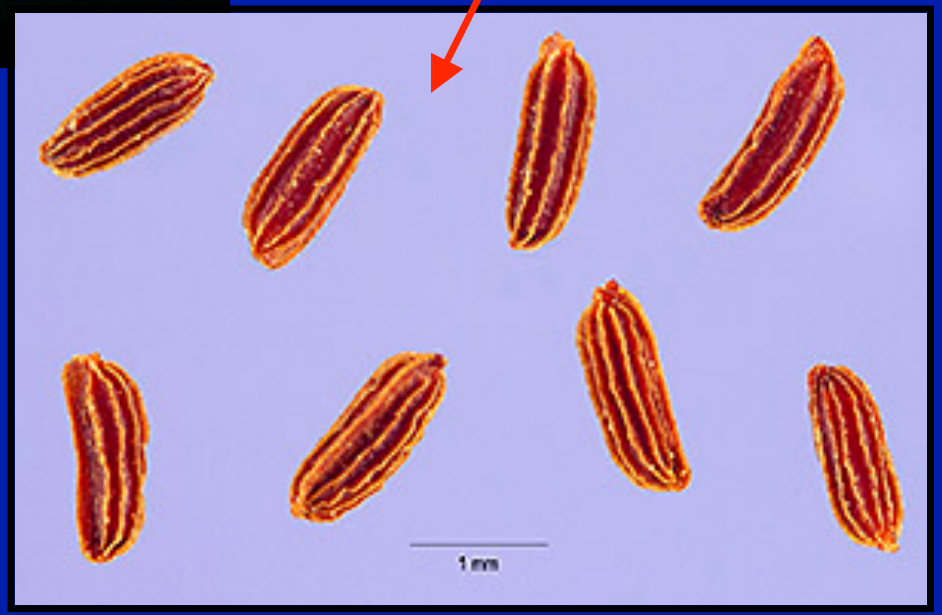
Four Types of FR Dispersal

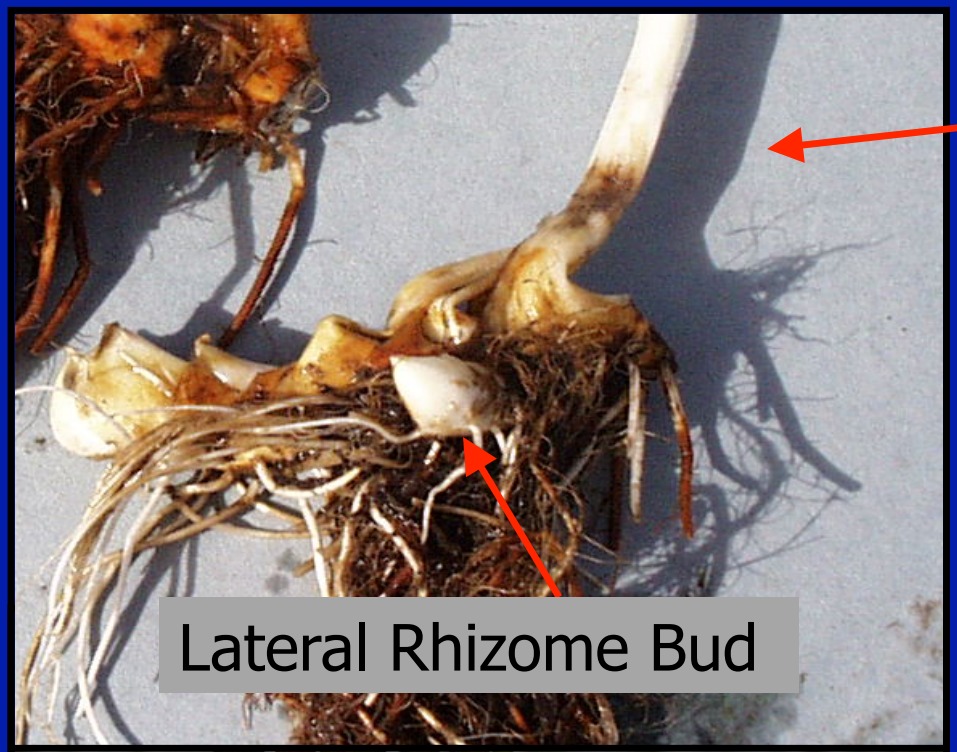
- Seeds
- Vegetative bulbils in the inflorescence
- Vegetative buds on the rhizome
- Rhizome growth/fragmentation

Axillary Bulbils

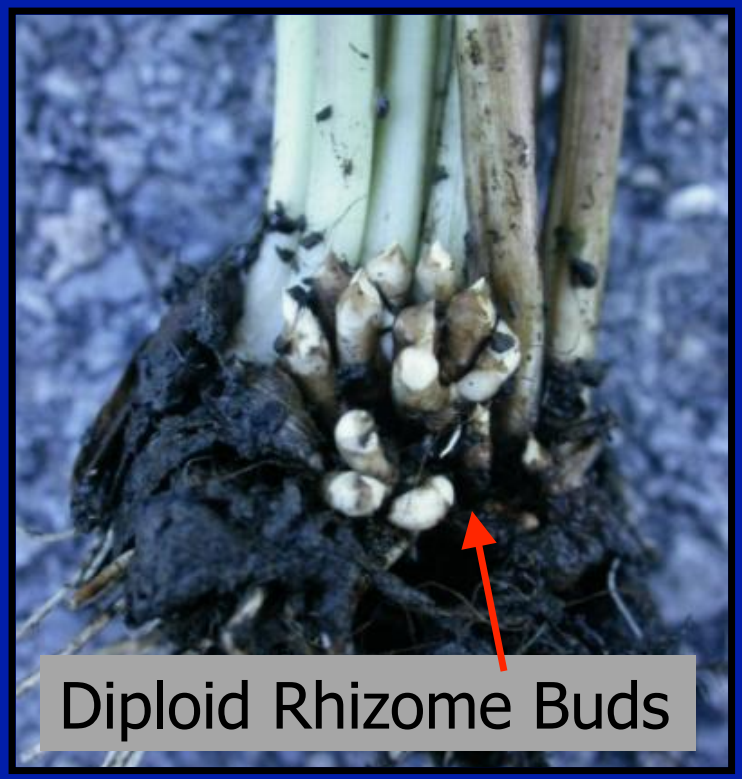
Ridged seeds, each about 1.5 mm long







Triploid FR in Flathead Basin



Rhizome Buds in Washington FR

Diploid Eastern NA	Triploid Western NA
Self-compatible	Self-sterile within clones
Prolific flowering	Infrequent flowering
High seed production	Low seed production
Produces many bulbils in inflorescence and lateral buds on rhizome	Produces few inflorescence bulbils but many lateral rhizome buds
Disperses by seed and vegetative means	Disperses primarily by rhizome fragmentation