Aquatic Weeds

stabilizing influence
diverse communities

aggressive competitors
monocultures
Eurasian milfoil

*Myriophyllum* spicatum

- Small reddish flowers above water (mid-summer)
- Stems branch near water surface
- Long, stringy stems
- 3-5 feathery leaves arranged in whorls (circles) off stems
- Each leaf with 12-21 leaflet pairs
EURASIAN WATER-MILFOIL

- Plant native to Europe, Asia, and northern Africa.
- Aquatic plant rooted to the bottom of the waterbed.
- Stems are underwater and long, branching off and producing many leaves near the water surface.
- This species can be distinguished from native northern watermilfoil (*Myriophyllum sibiricum*), whose long leaflets occur in fewer than 11 pairs and extend almost to the leaf tip, resulting in rounded uppermost leaves. In addition, northern watermilfoil tends to grow close to the bottom, while Eurasian watermilfoil grows up to the water surface.
Yellow Flag Iris

*Iris pseudacorus*

- It is the only iris with completely yellow flowers.
- Grows 0.4 – 1.5 m tall
- Stiff, sword-like leaves with thick, spongy midrib
- Leaves in a fan-like, overlapping arrangement.
- 3-sided, shiny green fruit
- Found in the riparian areas of slow moving water
Long distance dispersal via large, corky floating seeds, and reproduction via vigorous rhizomes.
Yellow Flag Iris colonies fuse together in meadows that impair flow and watershed functions
Yellow Flag Iris traps sediments creating meadows out of streams and lakes.
Flowering Rush (*Butomus umbellatus*)
East Bay Flathead Lake MT
Flowering Rush (not a true rush)  
*Butomus umbellatus*

- umbel shaped cluster of ~30 flowers
- 3 whitish pink petals & 3 similar sepals
- green leaves are triangular in cross section
- leaf tips may be spirally twisted
- strongly rhizomatous
PURPLE LOOSESTRIFE  
(*LYTHRUM SALICARIA*)

- Tall plant with magenta flowers
- Square Stems
- Found in wetlands
- Flowers June - August
IMPACTS of Purple Loosestrife

- Dominates riparian landscapes
- Alters food web by reducing litter input critical for stream health, fish and invertebrates
- Changes soil chemistry (Alleopathic - inhibits other plants)
- Compared to native plants, knotweed ties up higher ratio of nutrients in rhizome biomass
- Prevents establishment of native riparian trees and understory
Giant Hogweed *Heracleum mantegazzianum*

- Massively tall plant (15-20 ft).
- Large umbrella shaped flowers.
- Wide (2-4 inch) hollow stems with red-purple blotches and single erect hair in the center.
- Large (2.5-3ft wide) deeply incised leaves.
Giant Hogweed

*Heracleum mantegazzianum*

*Oils in this plant cause severe skin burns! Wear protective clothing and gloves!!*

**CAUTION!**

**TOXIC!**

**phyto-photodermatitis**
Giant Hogweed
*Heracleum mantegazzianum*

**WHEN TO LOOK**
- Flowers May-July

**WHERE TO LOOK**
- Along streambanks, fields, forest understory
Giant Hogweed vs. Cow Parsnip

Giant Hogweed

Cow Parsnip
Marsh Plume Thistle (*Cirsium palustre*)

Spreads in pastures, moist fields and meadows, where it replaces desirable plants. Forms dense stands that compete with tree seedlings. Biennial. Single, slender, unbranched stem with a cluster of purple flowers at the tops. 2 m tall. Leaves deeply segmented.

Photos from: bcinvasive.ca
March Plume Thistle Rapid Spread in BC

In 1991 an infestation of Marsh Plume Thistle was found approximately 20 Km west of McBride, BC. By 1998, it had spread 115 west along the Fraser River and 30 km north along the MacGregor River. By 1999 it spread another 41 km along the Fraser River, 7.5 km along the MacGregor River, 27 km southwest up the Holmes River, and 22.5 km south along the Milk River. (Note that the map to the right shows the Fraser river watershed, not the extent of the infestation)
Water Primrose Species

*Ludwigia hexapetala* – water primrose and
*Ludwigia peploides* – floating primrose willow

Water primrose grows in dense mats along shorelines and out into the water. They favor the margins of lakes, ponds, ditches, and streams.

Identification characteristics

- Bright, yellow flowers; normally with 5 petals
- Alternately-arranged, slightly hairy, willow-like leaves
- Dense sprawling, tangled mat of vegetation
Water Primrose

- Control: mechanical, cutting, covering with opaque materials, and using the aquatic herbicide (Rodeo®) may be effective.
- Originally from South America; introduced into Europe and North America.
- One source says Ludwigia covers “half of France”
Himalayan Balsam/Policemans’ helmet

*Impatiens glandulifera*

- Highly invasive, aggressive invader of wetlands, streams and moist woodlands
- Displaces native and beneficial plants
- Contributes to flooding and erosion by changing or stopping water movement
Policemans’ helmet Identification

- Annual; very tall - 3 to 8 feet
- Hollow, upright stems; purple or reddish tinge
- Irregular five-parted flowers resemble an English policeman’s helmet
- Flower colors range from white to pink to purple; flowers mid June – Oct.
- Seeds dispersed through explosive capsules
- Large oblong leaves with serrated edges; opposite or whorled in groups of 3