Plants In Our Lakes
and
Lake Weed Watchers

Joe Neumann- King County
Noxious Weed Control Program

Aquatic Plant Benefits

- Stabilize shorelines

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- Stabilize shorelines
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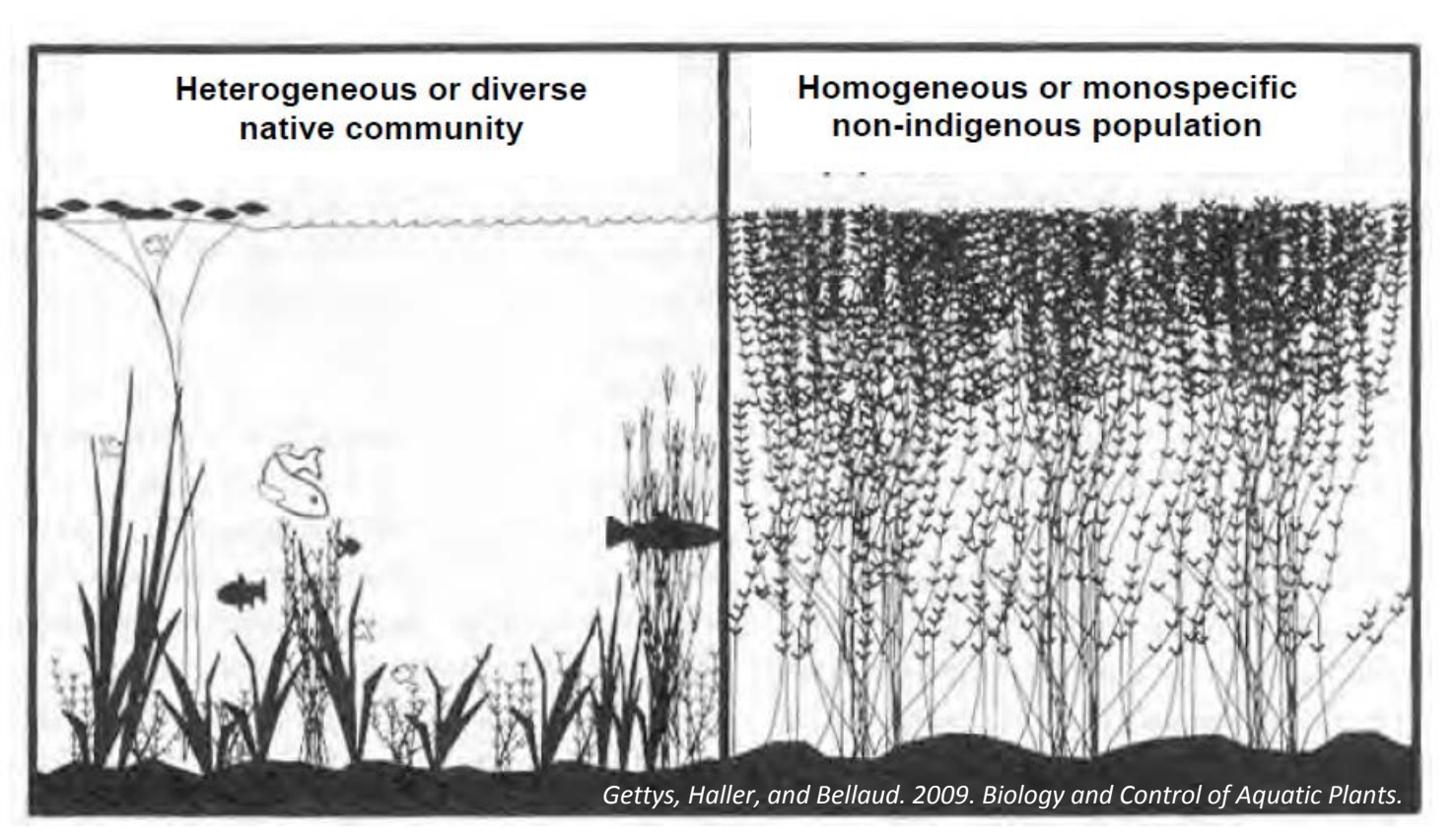
- Reduce nutrients
- Prevent algal blooms
- Produce oxygen

the native plant matrix in lakes: what is healthy



Good **Bad**

Striking a balance with aquatic plants

- Aquatic weed monoculture
  - Very dense
  - No diversity of habitat/food source
- Healthy native ecosystem
  - Diverse in structure and species
  - Open water and vegetated water
  - Adapted for native animals, fish, insects
- Sandy-bottomed, plant-free, recreational lake
  - Poor habitat value
  - All open water

A few aquatic noxious weeds (…and native plants)

Eurasian watermilfoil
Myriophyllum spicatum

Class B Noxious Weed (non- reg. in K.C.)

Eurasian watermilfoil

- Native to Europe and Asia
- One of the most widespread aquatic pests in North America
- Reproduces by plant fragments

- Leads to:
  - Increased water temp
  - Mosquito breeding areas
  - Decay in fall can lead to increased algal growth
  - Reduces biodiversity

Eurasian watermilfoil

Class B Noxious Weed (non-reg. in K.C.)

Eurasian watermilfoil

Key characteristics:

- 14 or more leaflet pairs
- leaves whorled
- usually red stem, branched
- leaves usually collapse against stem when pulled from water
- flower spike held above water

Eurasian watermilfoil – *Myriophyllum spicatum* *vs.* Native: northern watermilfoil *M. sibiricum*

Eurasian watermilfoil has 14 or more leaflet pairs

Northern watermilfoil has fewer than 14 leaflet pairs

Collapses out of water

Holds shape out of water

Eurasian watermilfoil

Brazilian elodea
Egeria densa

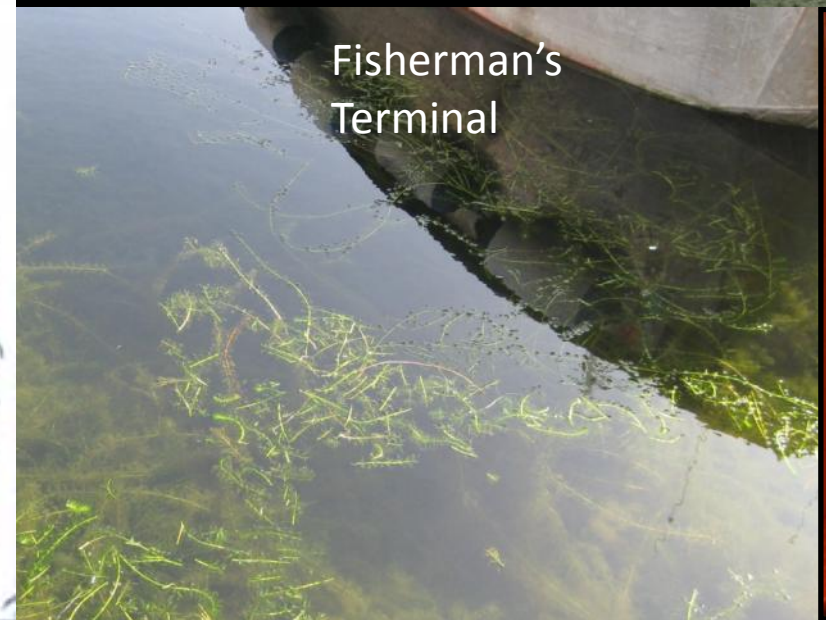
Class B Noxious Weed

Brazilian elodea

Key characteristics:

- leaf edges visibly smooth
- leaves in whorls of 4 (up to 6)
- relatively showy flower
- In up to 20 feet of water

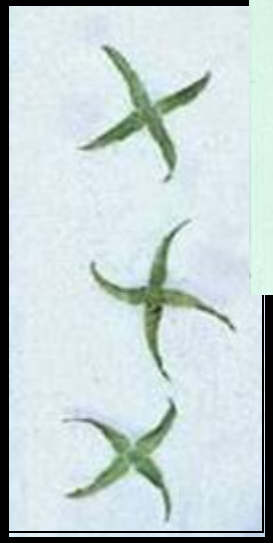
Spreads by fragmentation



Brazilian elodea vs. our native American waterweed *Elodea canadensis*

Brazilian elodea

Brazilian elodea usually has 4 leaflets



Native usually has 3 leaflets

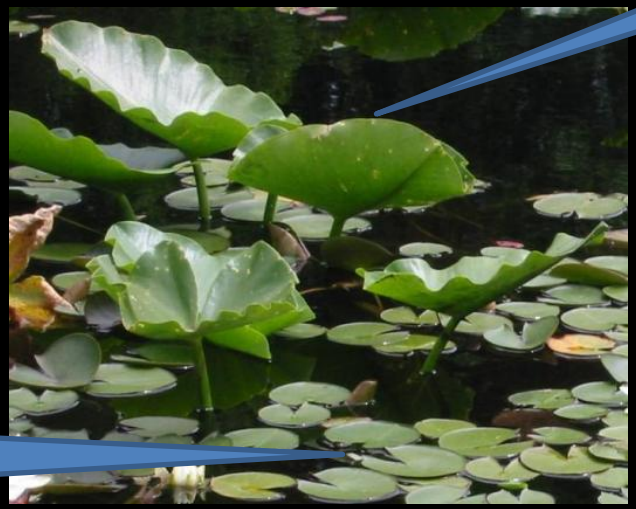
Fragrant water lily
Nymphaea odorata

Class C Noxious Weed

fragrant water lily

Key characteristics:

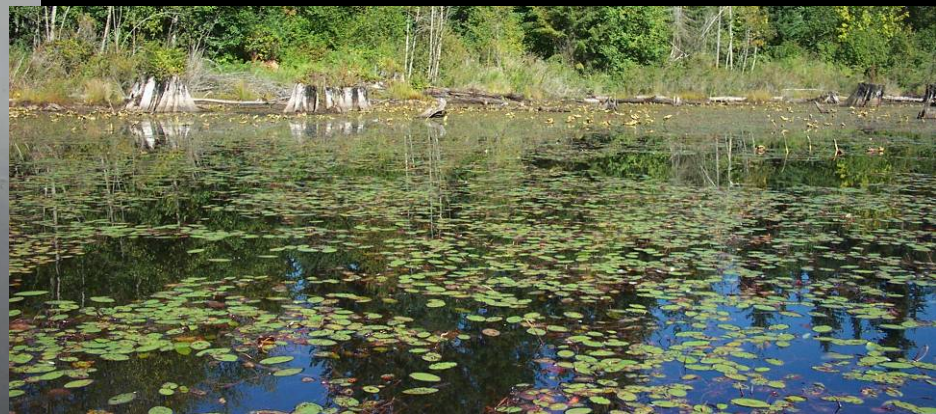
- floating perennial
- flowers <u>white to pink</u> on separate flexible stalks
- thick fleshy rhizomes
- <u>round leaves</u>



Brasenia schreberi
Watershield – Native

Key characteristics:

- Entire, oval leaves about 4” long with stem attached to center
- Inconspicuous purplish flowers
- stem, buds and lower leaf surface covered with slippery gelatinous substance



Garden Loosestrife
(*Lysimachia vulgaris*)

Class B Noxious Weed

garden loosestrife

2-10 foot tall perennial of wetlands and shorelines

Flowers: showy yellow primrose-like flowers clustered at top of stem (terminal pannicle)

Flowers in July and August

Leaves: opposite or whorled (in threes or fours), leaves usually have small orange or black glands visible with magnification

Garden Loosestrife
(*Lysimachia vulgaris*)

Growing among cattails

Along shoreline in flower

Class B Noxious Weed

Purple Loosestrife (*Lythrum salicaria*)

Key characteristics:

- Perennial rhizomatous emergent with showy magenta flower spikes
- Branched stems are square, can root at nodes
- Leaves opposite, lanceolate
- Up to 2.5 million tiny seeds/plant
- Flowers July and August

Look-alikes:

Purple Loosestrife vs. Spiraea, Fireweed, & Watson's Willowherb

Noxious weed

Purple Loosestrife

Native plant

Douglas Spiraea (hardhack)

Native plant

Fireweed

Native plant

Watson's Willowherb

Yellow Flag Iris (*Iris pseudacorus*)

- Large yellow iris –blooms April – June
- Prominent midrib in leaf
- Found on lakes, streams, wetlands
- Outcompetes native plants and animals for habitat
- Forms impenetrable mats, accumulates sediment

Seed pod

Cattails

Typha latifolia:
common cattail –
native

Typha angustifolia:
narrow-leaf cattail –
introduced

Key characteristics:

- leaves narrow and up to 1.5 meters long
- stems round, pithy and up to 3 meters tall
- *T.latifolia*: male and female flowers adjacent on stem
- *T. angustifolia*: male and female flowers separated by 1-4 cm on stem

Lake Weed Watcher Program

- Identification of aquatic plants (native and invasive weeds)
- Survey a small lake 1-2 times/summer
  - Early July
  - Late August/Early September
- Goal: to find new noxious weeds before they get established
  - Early detection – Rapid response
- Participants will need a small boat (canoe/kayak) and PFD
- Training at the Seward Park Audoban Center, Seattle, WA (date TBD)
  - Plant identification
  - Survey method
  - Data gathering and entry
  - Survey equipment

Collecting plant samples with a weed rake

Lake Weed Watcher Program

You don't want these plants in your lake!

These noxious weeds are in or near King County and could travel to your lake on boat trailers, boots, duck feet, or from dumped aquariums

Fanwort

Brazilian elodea

Hydrilla

Variable milfoil

Yellow floating heart

Parrotfeather

Water primrose

Garden loosestrife

Become a Weed Watcher and be the first line of defense for your lake!

Questions?

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