

How do we translate research into action in the water

- How do management, policy, community needs inform future research needs?
- What impediments and opportunities exist for action? (research implementation, management coordination)
- At what scale should we be working? (Federal, state, county, lake district, lake)

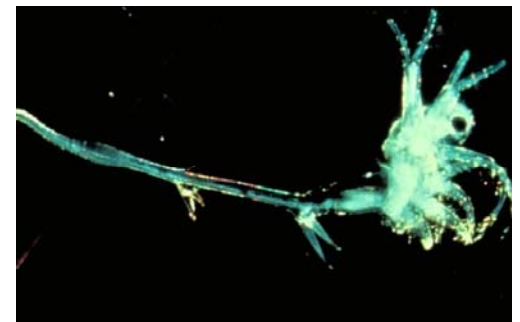
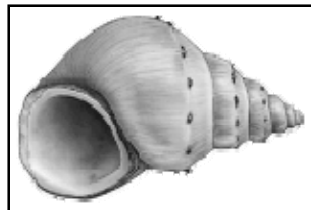


Define an invasive species

- Outside native range
- Established self sustaining populations (e.g. Hybridizing with natives species)
- Net harm > net benefit ?

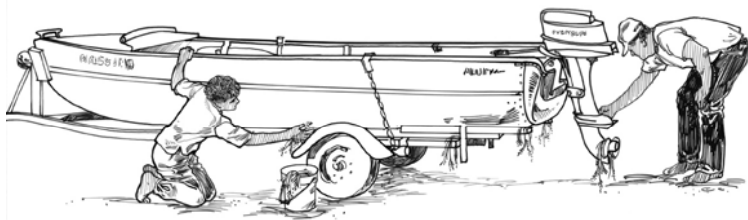


'Which species - the dirty dozen'



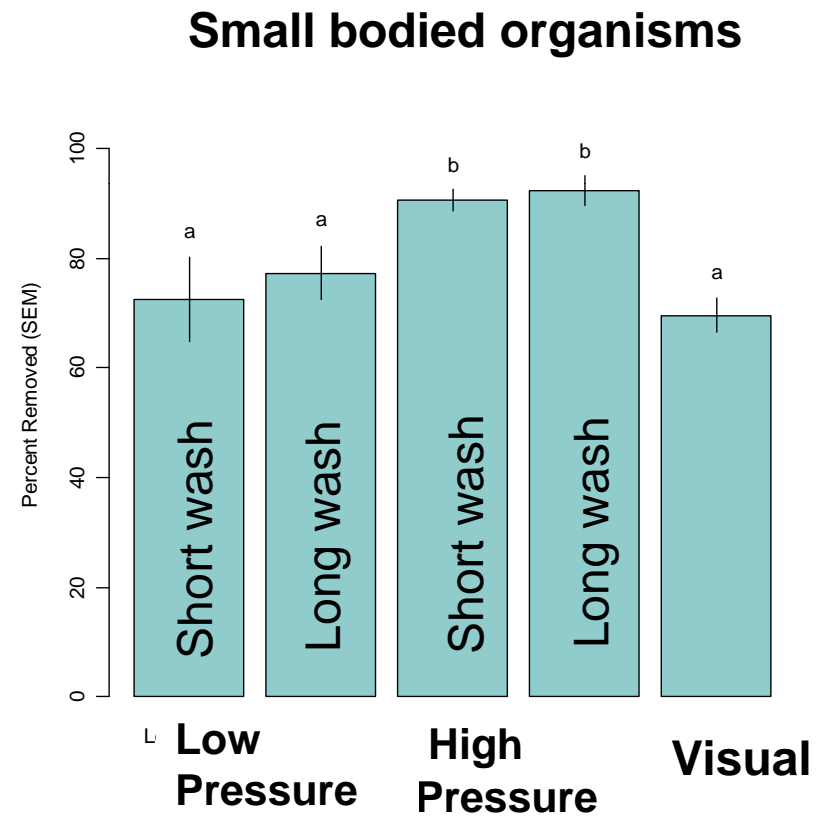
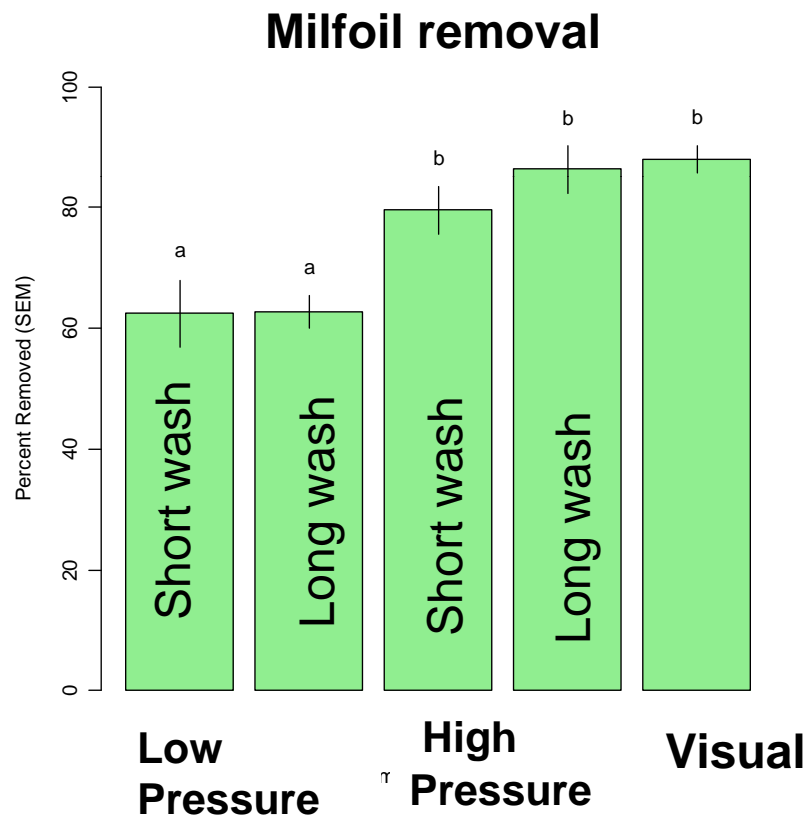
Super spreaders

- Prevent spread from high use sources of AIS
 - inspection
 - boat wash
 - compliance



Which intervention strategies

Wash treatment vs visual inspections



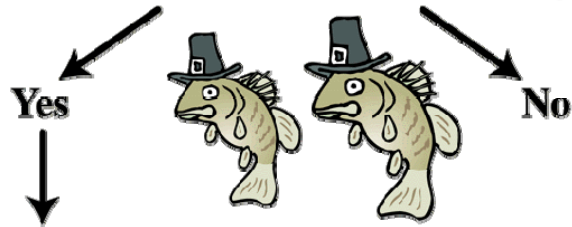
Super spreaders: Not all boaters pose the same risk



Protecting the most vulnerable lakes

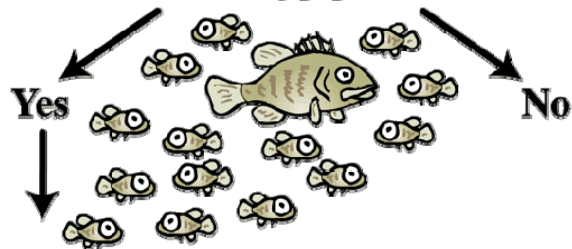
Colonization

Filter #1: Can invader colonists reach the new ecosystem?



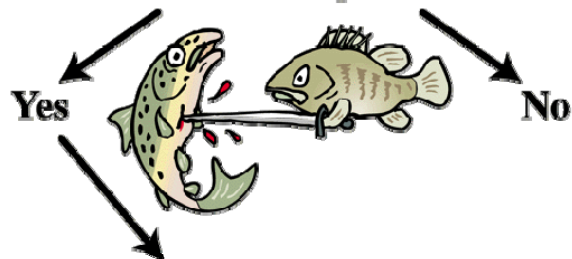
Establishment

Filter #2: Can a self-sustaining population of the invader become established?



Impact

Filter #3: Will there be adverse impacts on native biota?

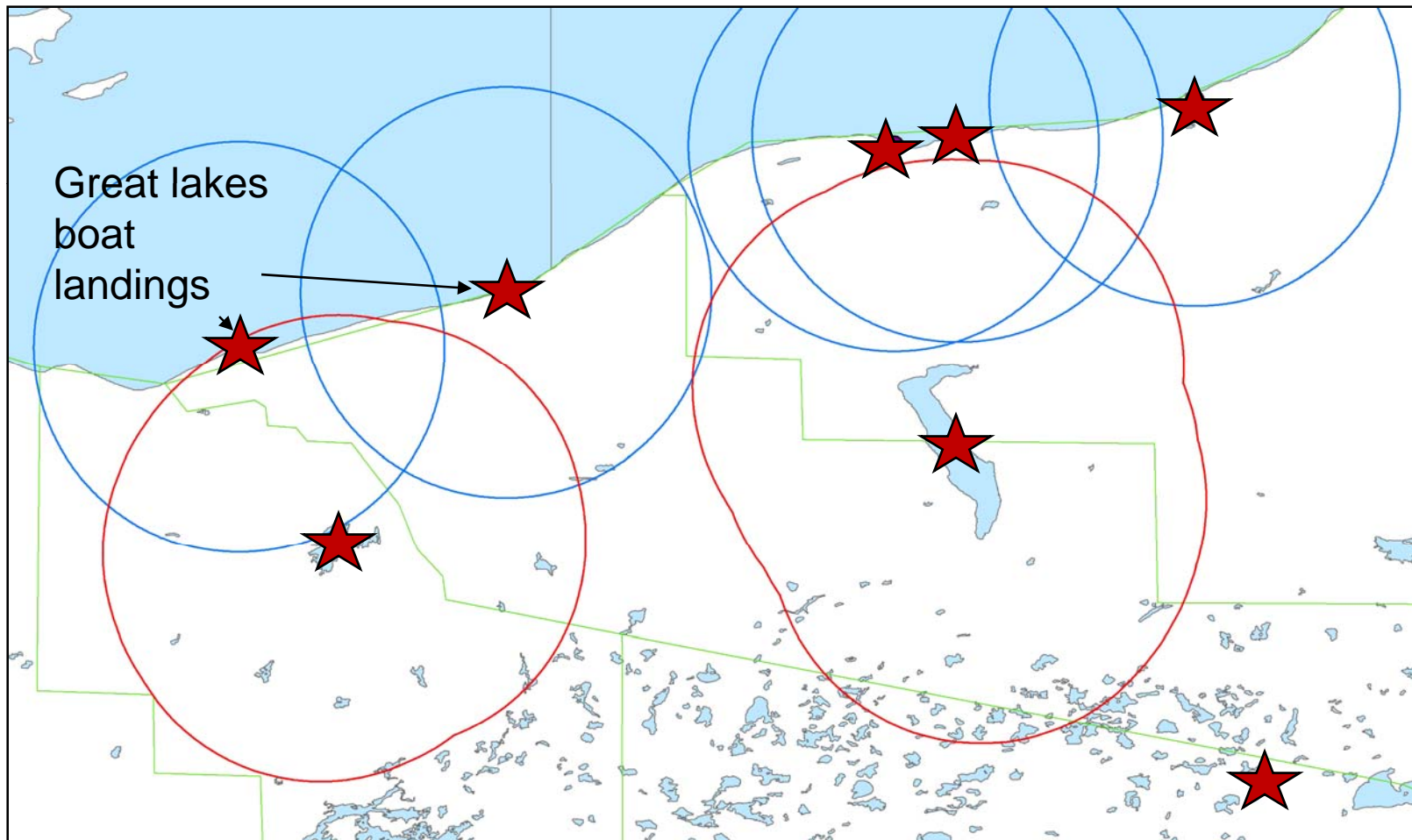


**Vulnerable;
high priority lake**

**Not vulnerable;
low priority lake**

How do we integrate strategies: Super spreaders and vulnerable lakes

- *Spiny water flea (Bythotrephes)*
- *Average boater travel distance (15 miles)*



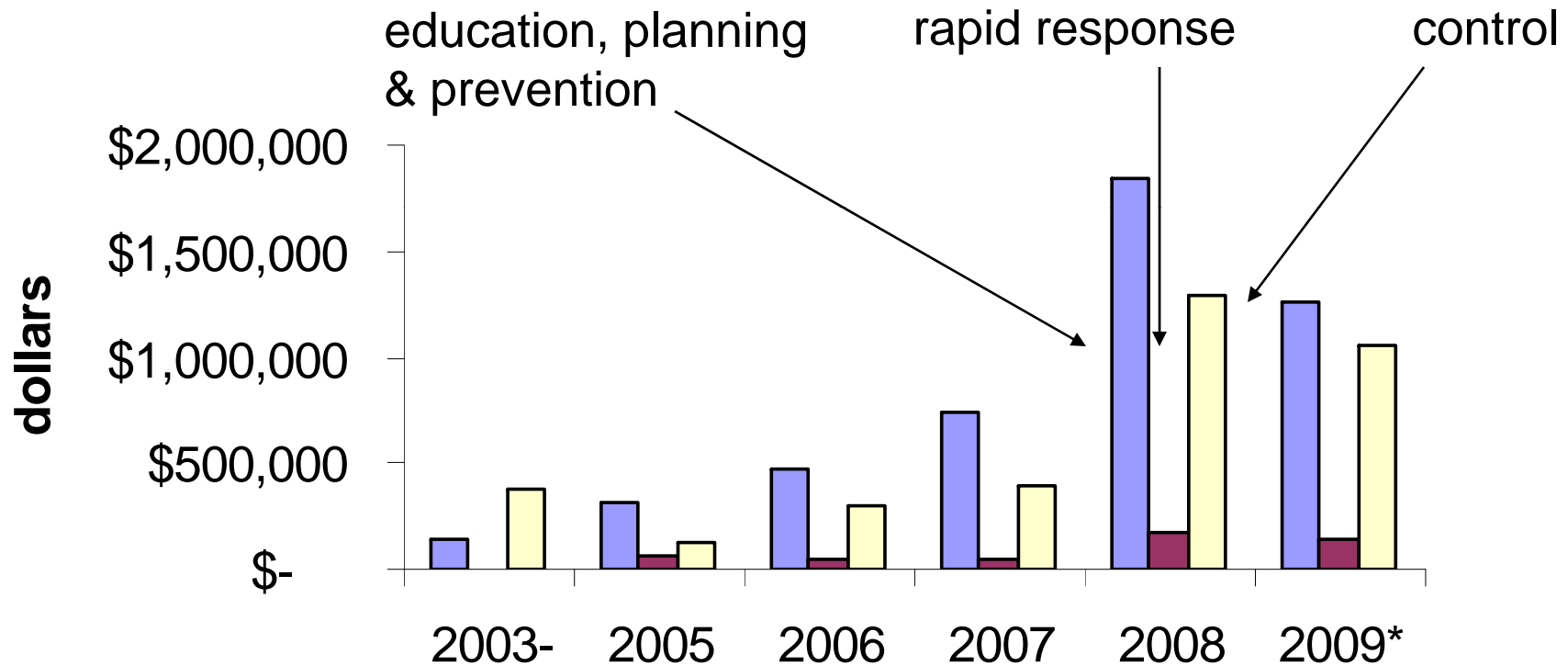
Control vs eradication

What science can do for you?

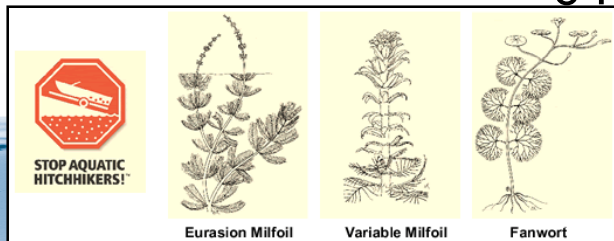
- Which species
- and Why? (hydrilla vs EWM)
- Which techniques (chemical, harvest, biological)
- Non target impacts



Management expenditure (WI) – how do we use these resources wisely ?



04



date



How do we integrate the super spreaders and vulnerable lakes

