

Brian Graeb

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American Fisheries Society**



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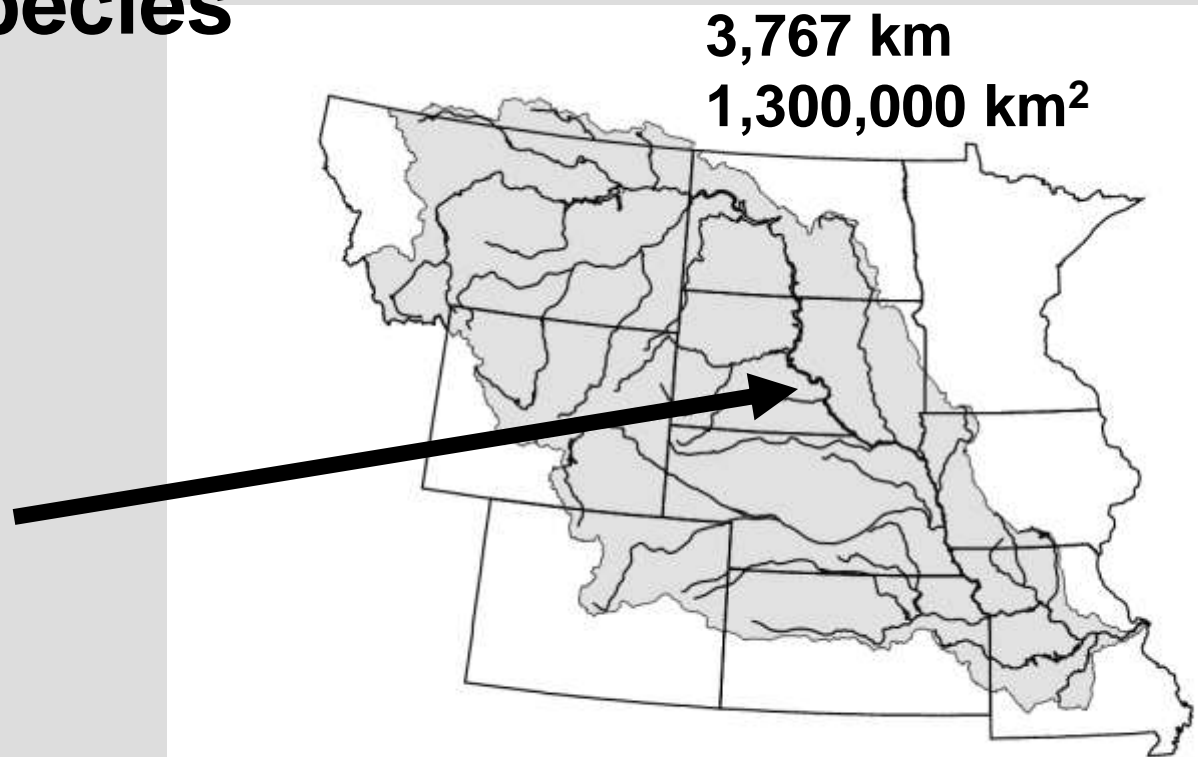
Graduate Students



Missouri River:

1. Sport fisheries
2. Native fish conservation
3. Reservoir aging
4. Invasive species

**South
Dakota**

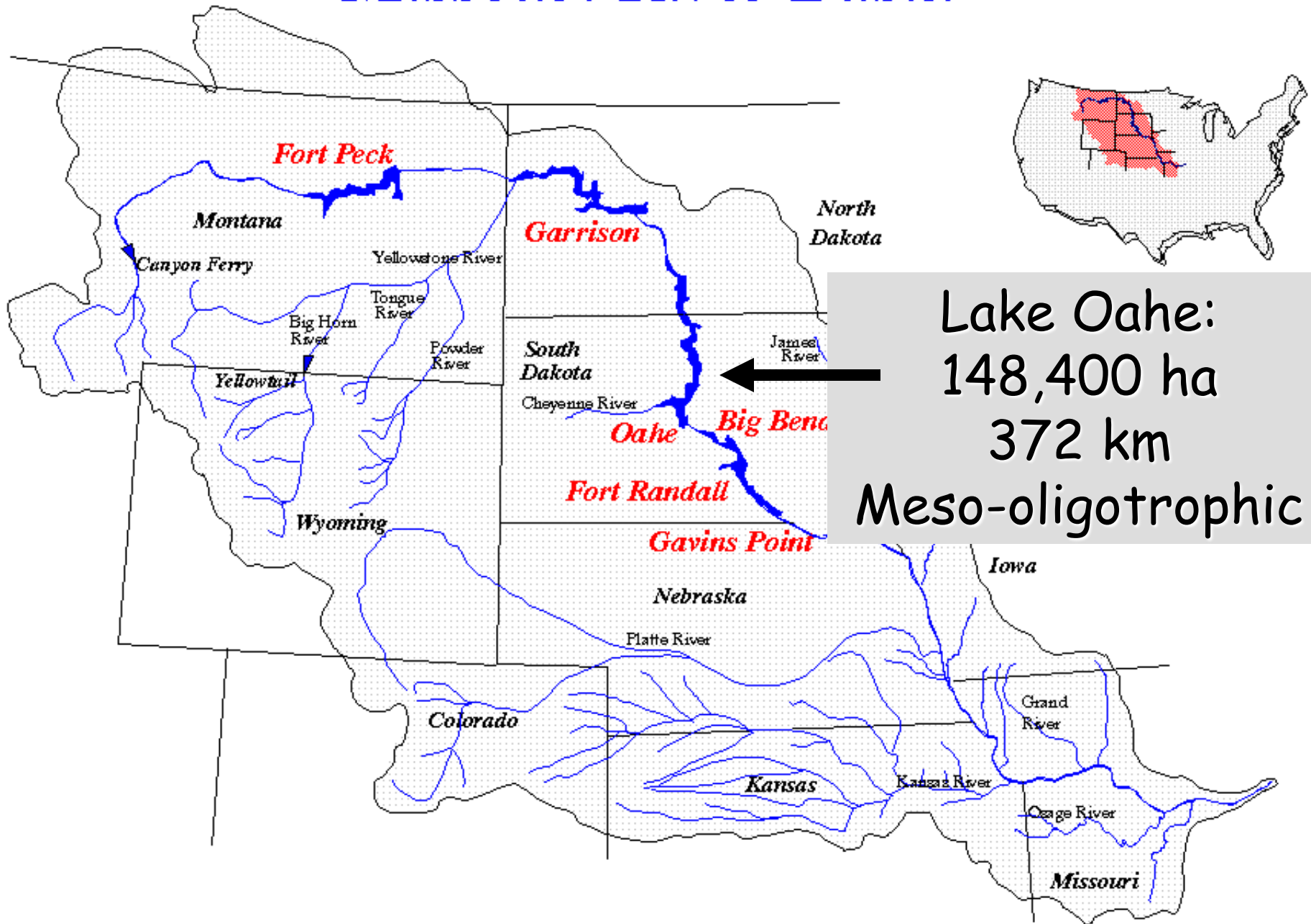


Modern Riverscapes

An aerial photograph showing a large reservoir on the left, a dam with multiple spillways in the center, and a winding river extending to the right. The surrounding landscape is a mix of green fields, brown agricultural fields, and some forested areas. The sky is blue with light clouds.

Large Reservoir Ecosystems

Missouri River Basin

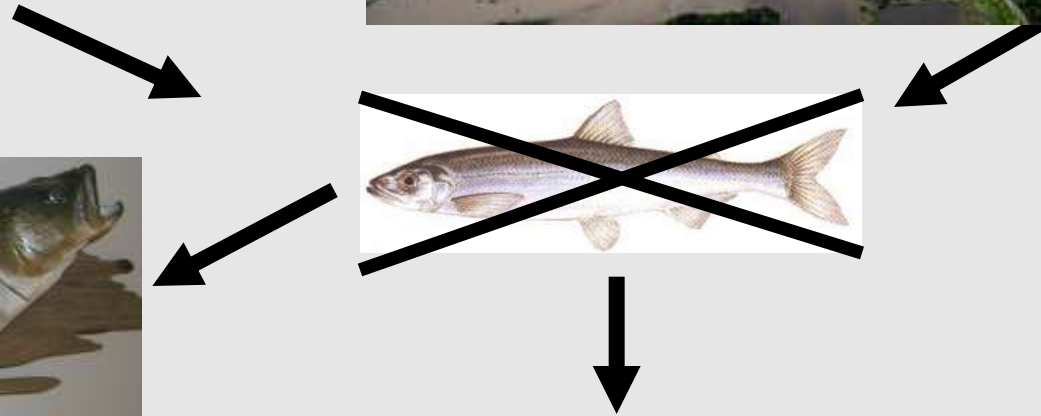
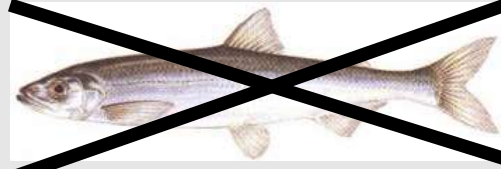


Lake Oahe:
148,400 ha
372 km
Meso-oligotrophic

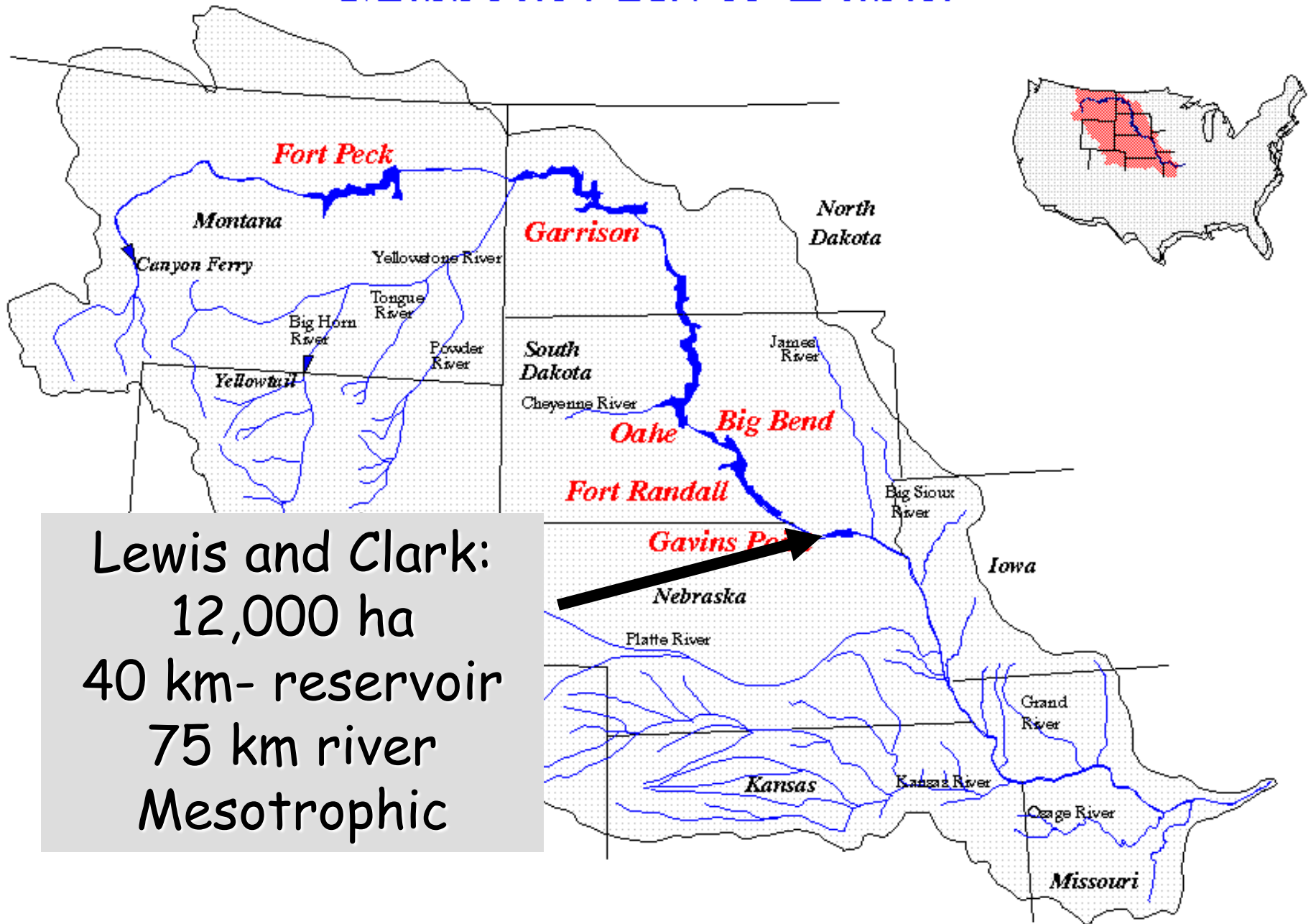
\$30 Million- direct
1.32 million angler hr
600,000 walleye harvested



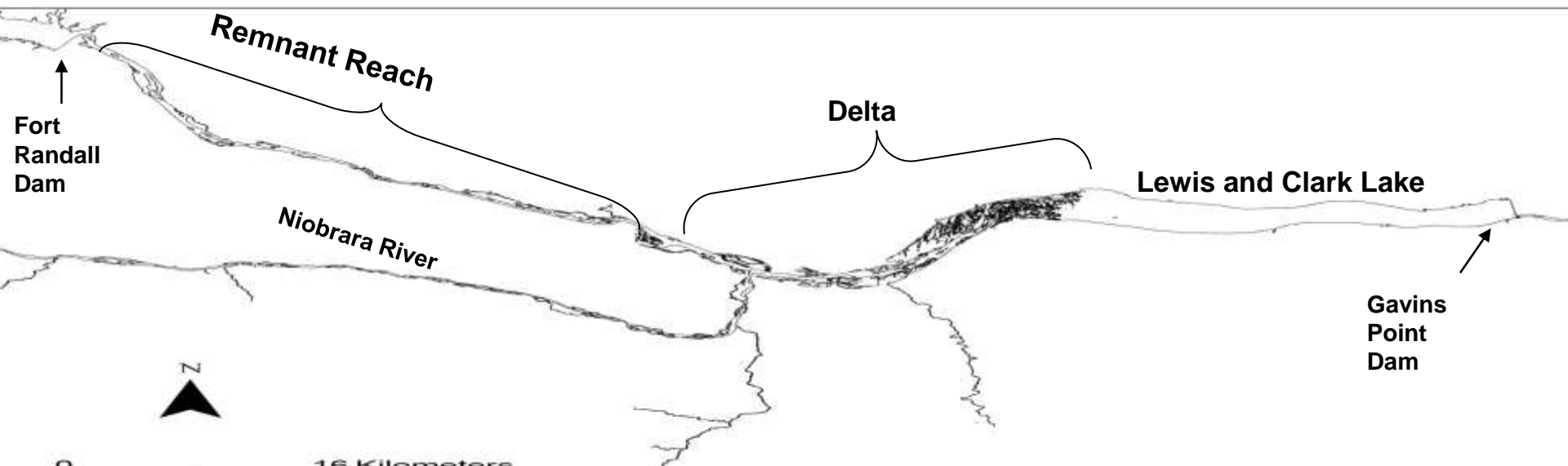
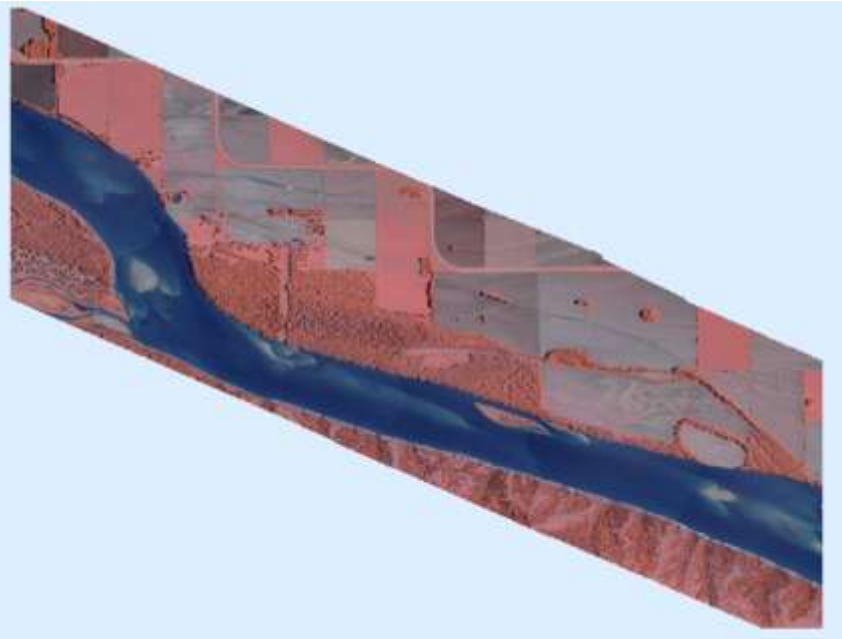
Floods, Droughts, Predators and Prey



Missouri River Basin



Lewis and Clark:
12,000 ha
40 km- reservoir
75 km river
Mesotrophic



Aging reservoirs

Delta

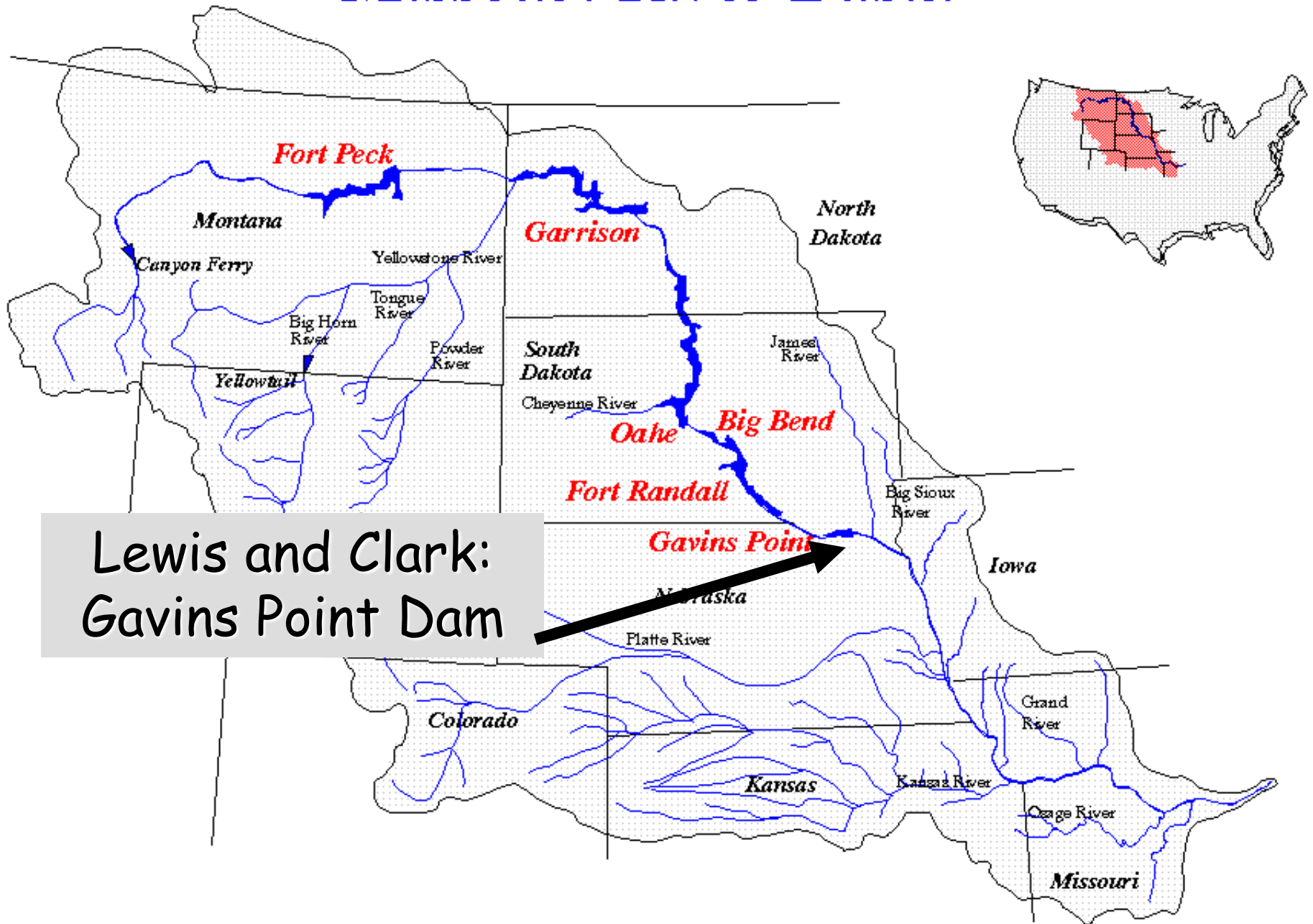
Springfield



Asian carps- bighead and silver



Missouri River Basin

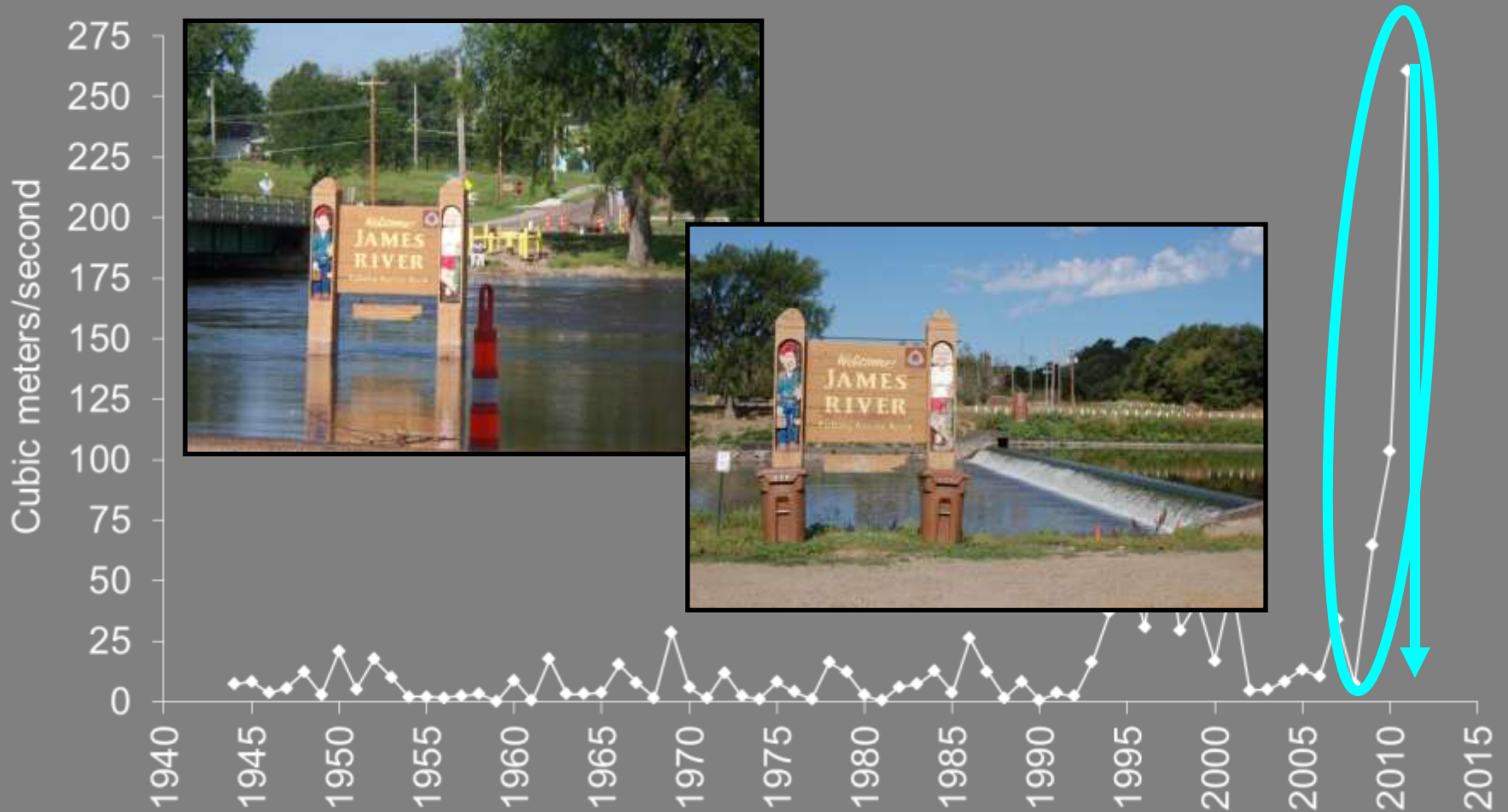


Lewis and Clark:
Gavins Point Dam

The Perfect Storm

Dissipates!

- Record flooding 2010-2011





Gizzard shad



Walleye



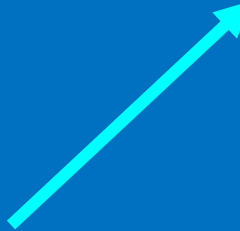
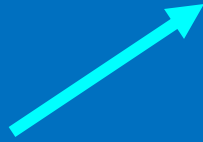
Small cyprinids



Zooplankton



Algae





Walleye



Small
cyprinids



Bighead carp



Zooplankton



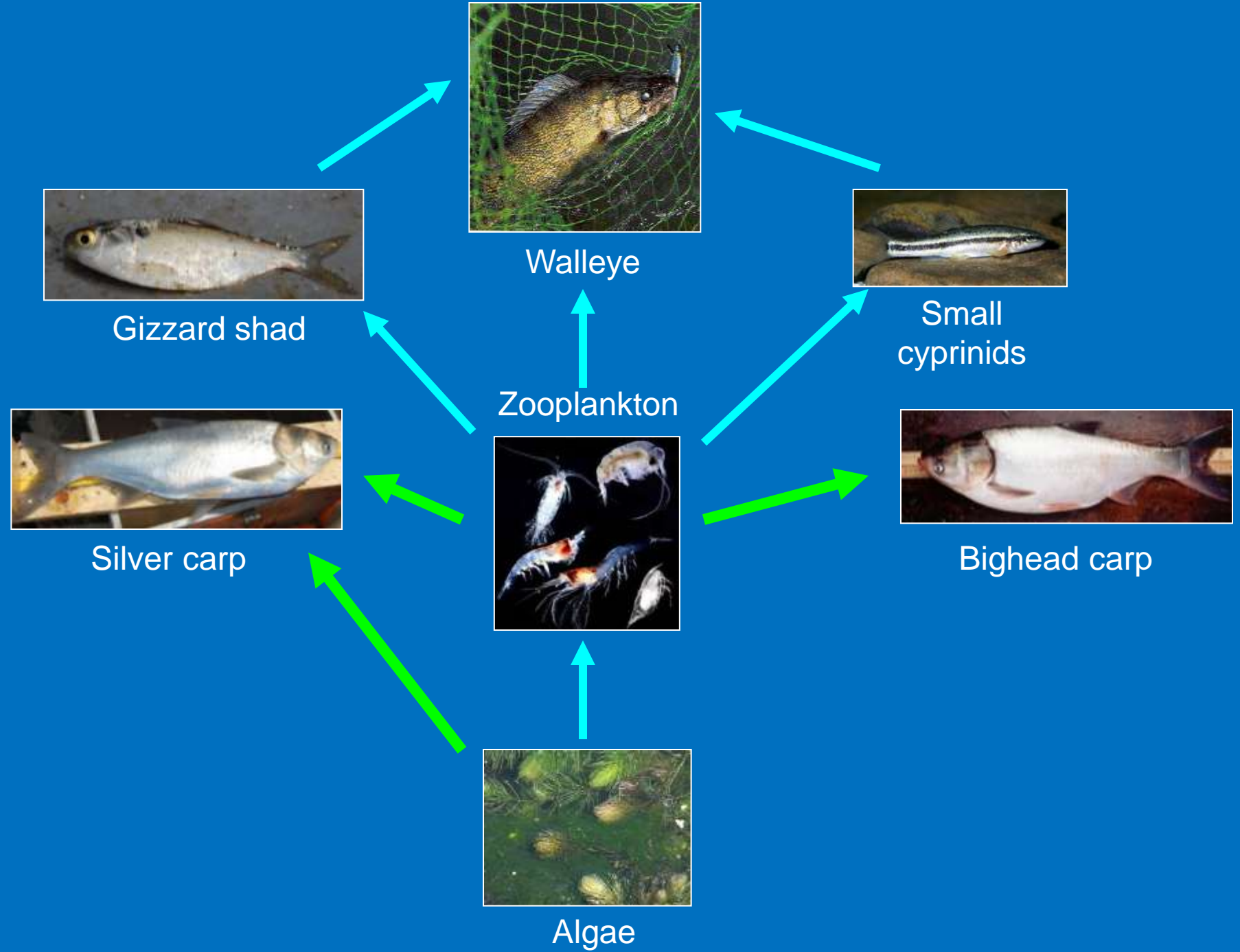
Algae



Gizzard shad



Silver carp



Aquatic/Terrestrial
vegetation



Zooplankton



Grass carp

Algae



Bighead/silver carp



Gizzard shad



Walleye



Small
cyprinids

