

DON'T MOVE A MUSSEL:

Preventing Aquatic Invasive Species in Wyoming



Wyoming Game and Fish Department



The Threat

- Non-native organisms that cause harm when introduced
 - Includes fish, amphibians, mollusks, crustaceans, plants, and pathogens
 - Some already present in Wyoming
 - Most significant threats not yet in Wyoming



Wyoming's reaction

- The legislature statutorily established a state AIS program, authorizing the WGFD and state parks to promulgate and enforce rules in order to implement the legislation to protect all waters and water users in the state.



State AIS program

- “Our mission is to prevent the spread of aquatic invasive species to Wyoming Waters”
- Our Goals:
 - Increase the public awareness of AIS risks
 - Improve boater’s attention to draining, cleaning and drying their boats after every use.
 - Maximize the potential that AIS check stations will contact and decontaminate boats coming from high-risk waters prior to launching
 - Create a highly vigilant and proactive boating community

Background

- AIS not in Wyoming
 - Zebra/Quagga mussels (*Dreissena polymorpha*/*D. rostriformis*)
 - Introduced into Great Lakes in ballast water
 - Transported on trailered watercraft
 - Impedes water delivery, biofoul, decreases natives, changes fish community, changes water quality



Zebra mussel

Quagga mussel

Impacts

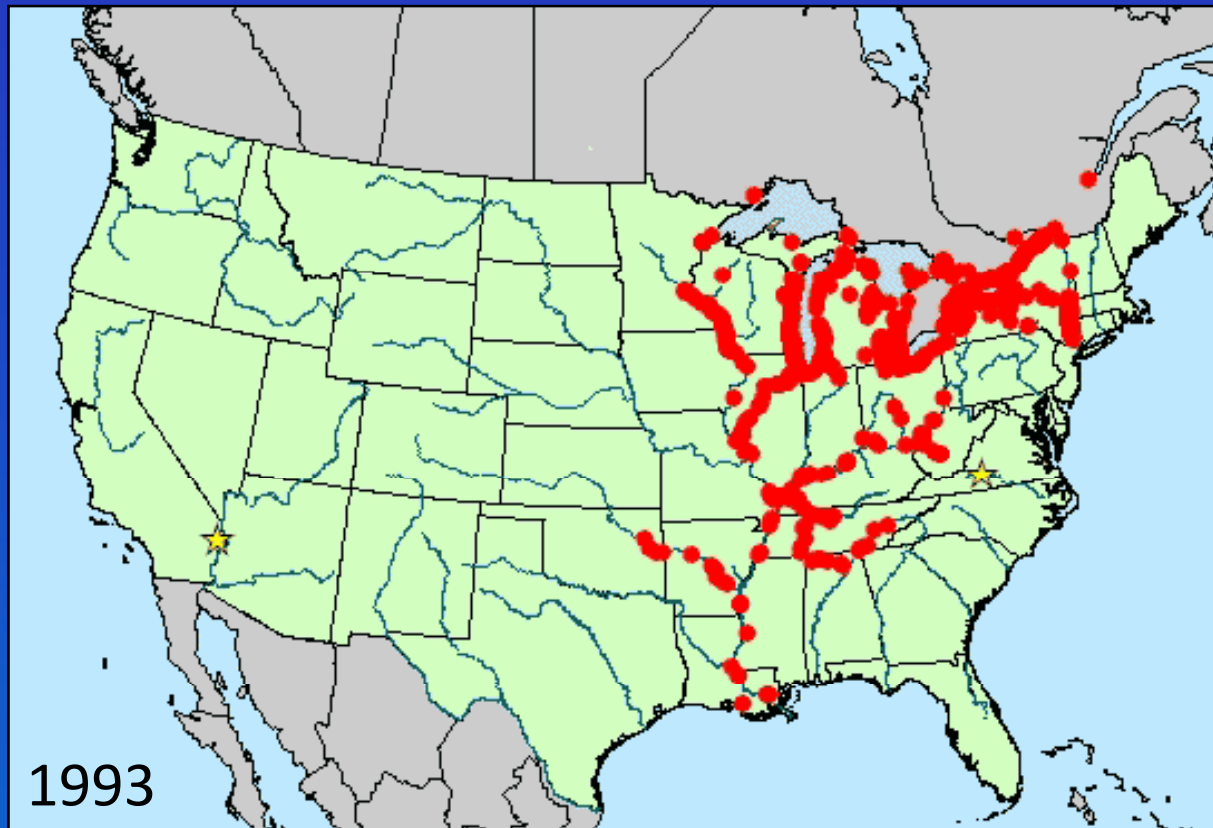
- Present in neighboring states and can spread rapidly



- Confirmed collections or observations of adults, juveniles, or veligers.
- ★ Discovery of the overland transport of zebra mussels on trailered boats.

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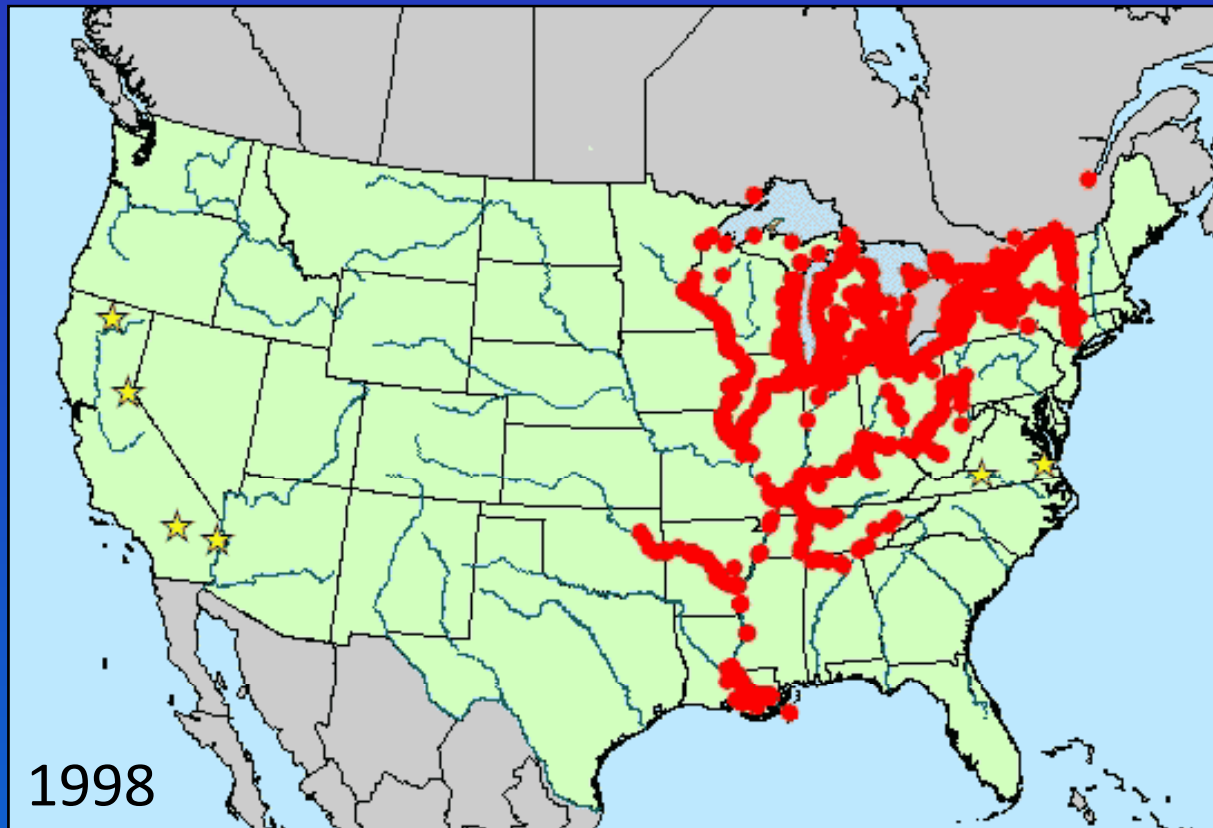
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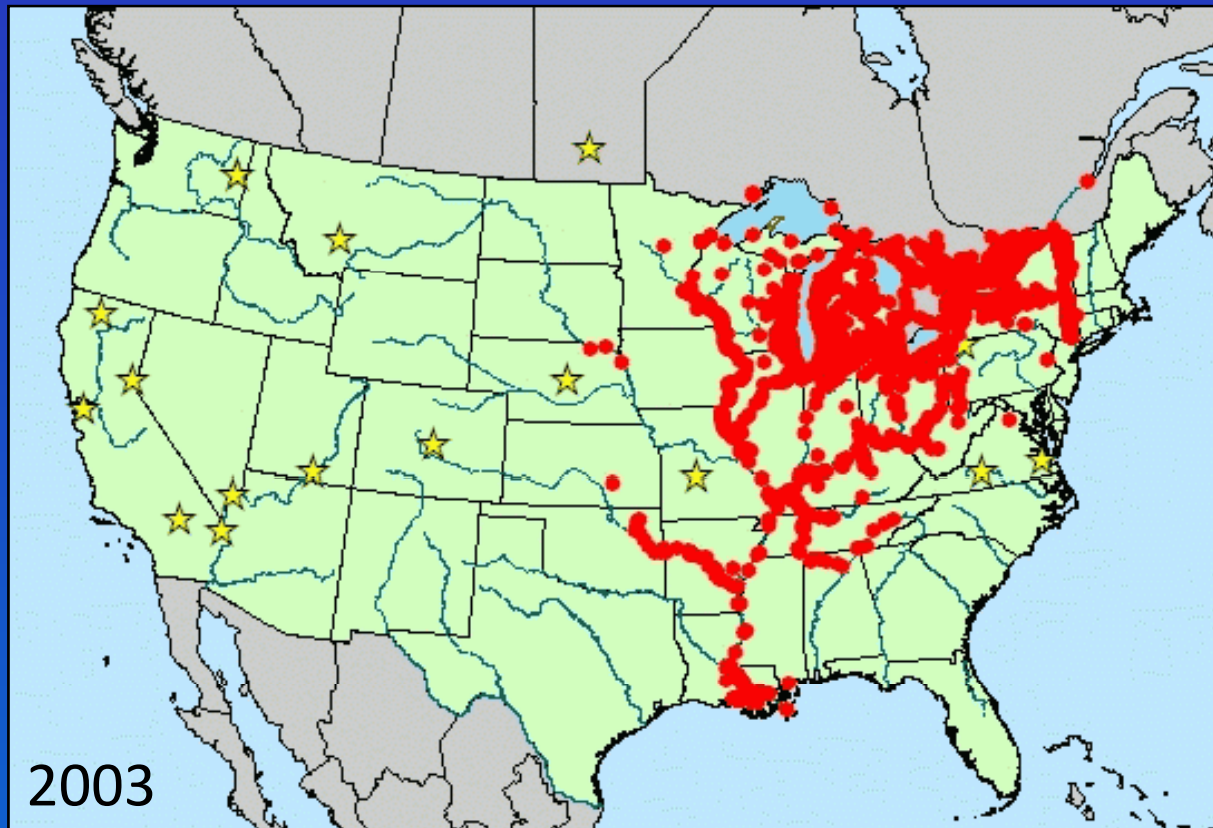
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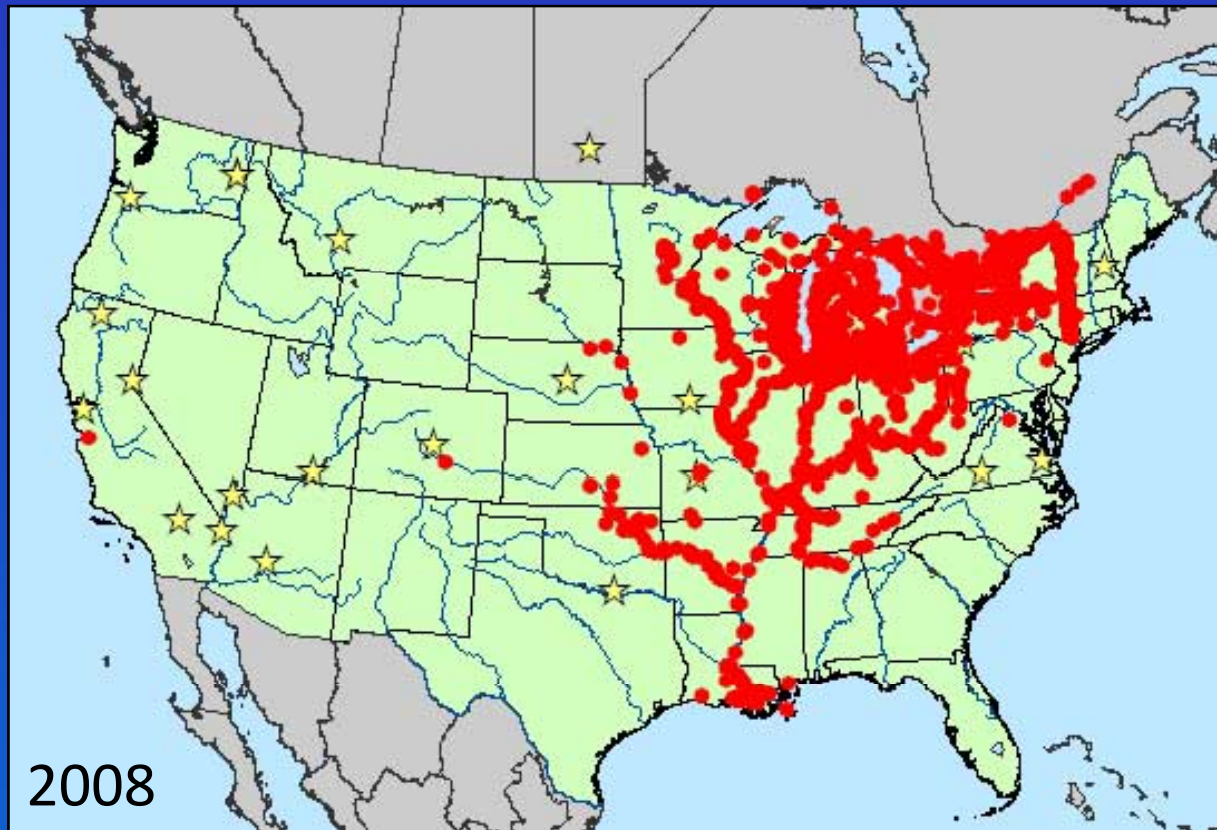
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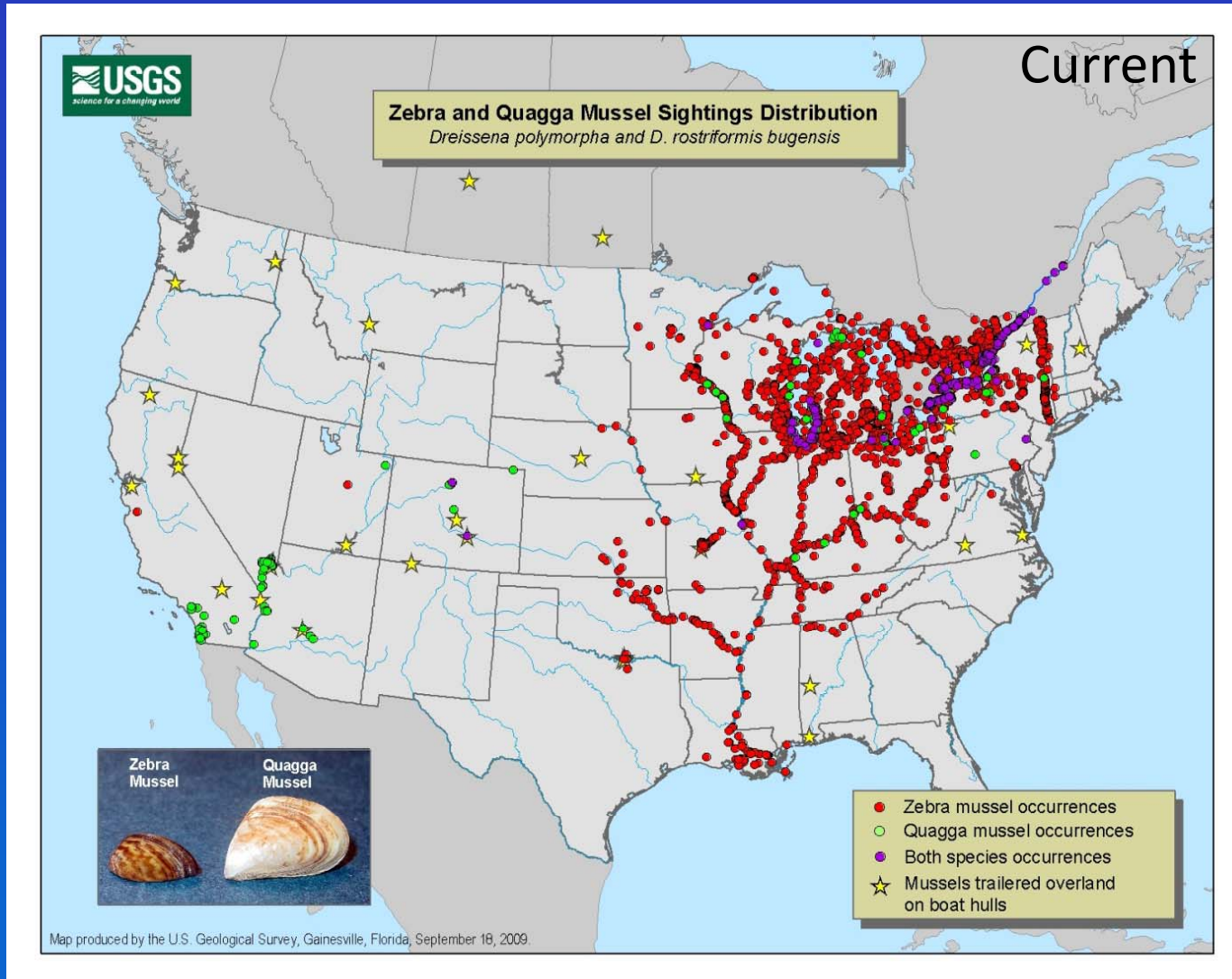
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Impacts

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- High economic and social costs once established
- Recreational
 - Ecological
 - Economical



Control

- Closed-water system
 - Chemical or mechanical treatments
 - Continuous
 - Costly



Control

- Open-water system
 - Chemical eradication attempted
 - Limited success
 - Costly



Prevention

- What can you expect in 2010?
 - HB 0018-Aquatic Invasive Species Bill
 - Inspection and decontamination of watercraft
 - Authority to develop regulations
 - Civil and criminal penalties
 - A user fee to help pay for the program
 - Funding of \$1.5 million
 - A coordinator for the program

Prevention

- What can you expect in 2010?
 - Chapter 62-WGFD Emergency Regulation
 - AIS check stations
 - Watercraft inspection and decontamination
 - Authority for impoundment and quarantine if necessary
 - Requirement for mandatory reporting of AIS
 - AIS program fees and decal and requirements

Prevention

- What can you expect in 2010?
 - Outreach
 - Billboards
 - Media
 - Bumper stickers, key chains, brochures, etc.



Prevention

- What can you expect in 2010?
 - Priority waters: 10 High, 13 Moderate, 29 Low
 - High

Big Horn Lake

Glendo Reservoir

Boysen Reservoir

Grayrocks Reservoir

Buffalo Bill Reservoir

Jackson Lake

Flaming Gorge Reservoir

Keyhole Reservoir

Fontenelle Reservoir

Seminole Reservoir

Prevention

- What can you expect in 2010?
 - Priority waters
 - Moderate

Alcova Reservoir

Big Sandy Reservoir

Fremont Reservoir

Granite Reservoir

Guernsey Reservoir

Hawk Spring Reservoir

Lake DeSmet

Ocean Lake

Palisades Reservoir

Pathfinder Reservoir

Sulphur Creek Reservoir

Viva Naughton Reservoir

Wheatland #1 Reservoir

Prevention

- What can you expect in 2010?
 - Personnel
 - Coordinator
 - Assistant
 - 30 seasonal inspectors

Prevention

- What can you expect in 2010?
 - Watercraft inspections

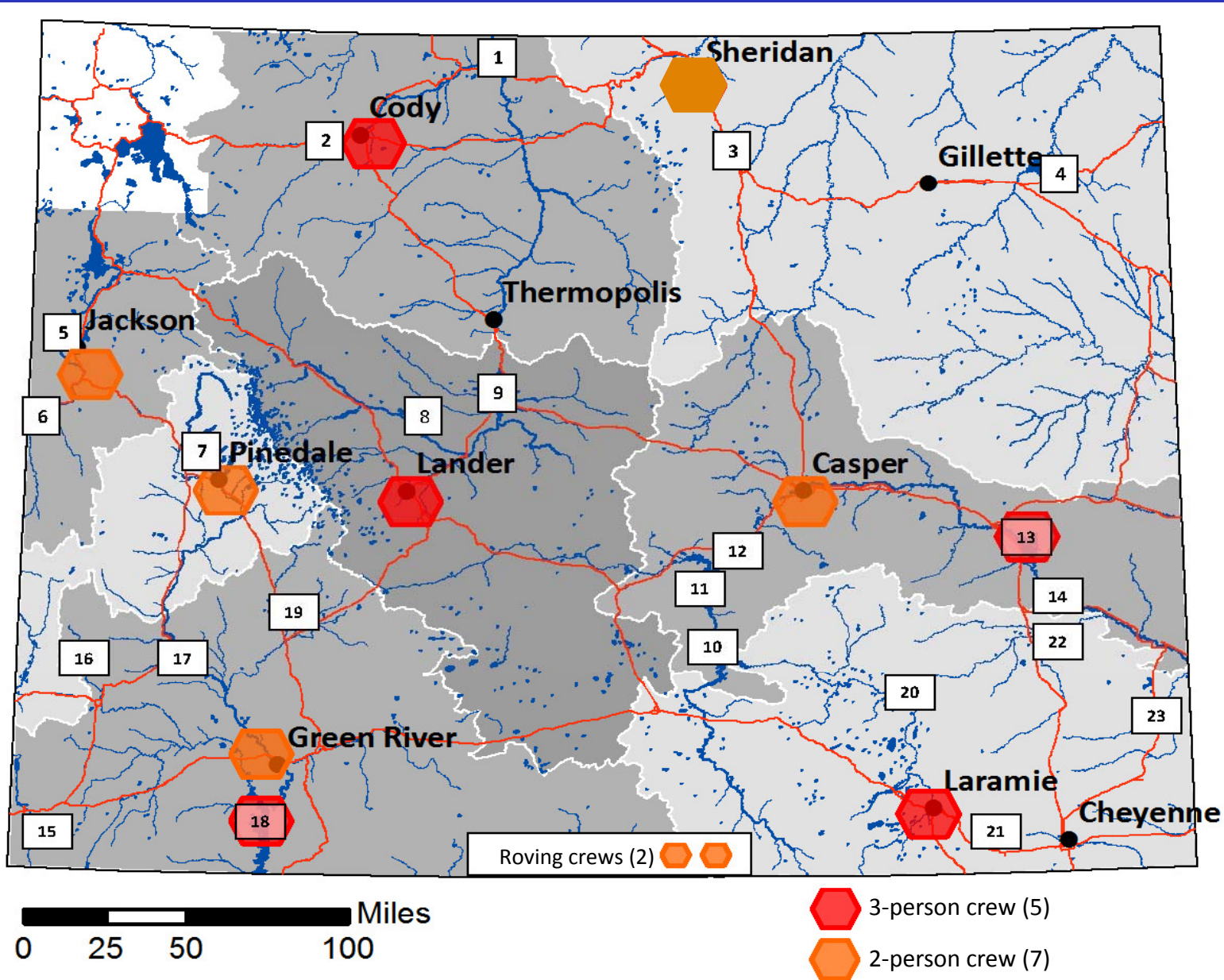


Prevention

- What can you expect in 2010?
 - Watercraft decontaminations



Prevention



Prevention

- What can you expect in 2010?
 - Self-Check

Don't Move a Mussel

SELF-CHECK BEFORE YOU LAUNCH IN ANY WATER
 protect your water resource and boat motor from invasive zebra and quagga mussels



Follow these simple steps to protect your waters:

- ✓ **DRAIN** All water must be drained from your boat. This includes the ballast, bilge, livewell and motor. Leave wet compartments open.
- ✓ **CLEAN** Remove all plants, mud and debris from equipment and boat.
- ✓ **DRY** Dry your boat or equipment 5 days in the summer, 18 days spring/fall or 3 days of freezing.
- OR** Contact the WGFD to have your boat and trailer decontaminated.

Contact the Wyoming Game and Fish Department if you see attached mussels on your equipment or in Wyoming waters. We can provide more information and assistance in removal. Call 1-877-WGFD-AIS - (877-943-3247)



WYOMING GAME & FISH DEPARTMENT
 "Conserving Wildlife Serving People"

ARTS, PARKS, HISTORY.
 Wyoming State Parks & Cultural Resources



STOP AQUATIC HITCHHIKERS!
 www.ProtectYourWaters.net

Self-Check Before Launching

Expect to be Inspected Be prepared for inspections near all Wyoming boat ramps.

If you have boated in a known infested water in the last 30 days, your boat must be inspected before launching in Wyoming.



In the last 30 days, if you have boated in an uninfested water of a state highlighted on the above map, you must **Drain, Clean, and Dry** before launching in Wyoming. Remember, invasive mussels can be transported before we even know a water is infected. Prevention is the only tool we have to fight these invasive mussels and protect Wyoming's waters.

Help Save Your Waters From Invasive Zebra and Quagga Mussels!

- I have not used my boat in any infested waters
OR
- My boat and trailer have been decontaminated
OR
- I have followed the Drain, Clean, Dry procedure

Sign: _____

Date: _____

Buy your Aquatic Invasive Species Decal before launching your watercraft!

ALL WATERCRAFT (INFLATABLES 10 FEET OR LESS IN LENGTH ARE EXEMPT) USING WYOMING WATERS ARE REQUIRED TO DISPLAY AN AQUATIC INVASIVE SPECIES DECAL. DECALS MAY BE OBTAINED FROM THE WGFD WEBSITE OR LICENSE AGENTS. (<http://gf.state.wy.us>)

Prevention

- What can you expect?
 - Monitoring
 - BOR – 7 high priority waters
 - 16 other priority waters



Prevention

- What can you expect?
 - User-pay fee

Don't Move a Mussel

10R

EXPIRES: 12/31/2010

\$5 non-motorized *WY 000001*

Don't Move a Mussel

10R

EXPIRES: 12/31/2010

\$10 motorized *WY 000001*

Closing

- Introduction of invasive mussels would have dramatic impacts on our resources and cost tens of millions annually to contain.
- Prevention is cheaper than control.
- The existing program is not designed for containment.
- We need help building the capacity to better cover the boat ramps of all waters.

What do we have to lose?



Acknowledgments

- Photo credits: United States Geological Survey (USGS); Utah Division of Wildlife Resources; Whirling Disease Initiative; Dan Gustafson, Montana State University; Alison Fox, University of Florida, Bugwood.org; Chris Evans, River to River CWMA, Bugwood.org; Joy Viola, Northeastern University, bugwood.org; Noel Burkhead, USGS; Myriah Richerson; Department of Fisheries and Allied Aquacultures, Auburn University; Rob Cosgriff, Illinois Natural History Survey; Kerry Dressler; Leslie Mehrhoff, Invasive Plant Atlas of New England; Frank Koshere , Wisconsin Department of Natural Resources; Joe F. Duft, USDA-NRCS; John M. Randall, The Nature Conservancy; J. E. Marsden, Lake Michigan Biological Station, Dave Jude, Center for Great Lakes Aquatic Sciences; Steffen Zienert; NH Dept. Safety; Mohammed Faisal, USGS; J. Schmidt; Craig Rieben; Ronald Laubenstein; Pedro Ramirez Jr.; Steve Hillebrand; Gary Kramer; Montana Wheat and Barley Committee, Yellowstone National Park.

Questions & Discussion

