GYCC AIS Cooperative
Overview

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What Are Aquatic Invasive Species (AIS)?

Aquatic Nonnative:
# Introduction & Spread:

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Why Are AIS a Problem?

- Threaten:
  - Ecological stability
  - Diversity or abundance of native species
  - Commercial, agricultural, aquacultural, and recreational activities
Why Are AIS a Problem?

- Easily spread via a complex array of pathways and vectors
- Early detection is difficult (annual surveys of all but the highest use water bodies is cost prohibitive)
- Treatment and Control Measures
  - Extremely Costly (Yellowstone Lake Trout Suppression $1 million annually)
  - Largely ineffective and do not exist for many species
- Eradication is usually impossible
- Once established we’re usually stuck with the ecological, recreational, and economic impacts!
With few management options...

PREVENTION IS KEY!
What threat do AIS pose in the GYA?

Values at Risk

- World class wild trout fisheries $$$$  
- Unique aquatic ecosystems supporting cutthroat trout, western pearlshell mussel and many other native species.  
- Headwaters of the Missouri and Colombia River Basins (headwater invasions rapidly spread downstream)

High Threat Level

- GYA is a world renowned recreation destination  
- Pathways and vectors spread across state and other jurisdictional boundaries.  
- Several AIS already present.  
- Mussels not present - high introduction risk. Over 100 mussel fouled boats have been stopped in ID alone since 2009!
Committee History

- **2005** - Jackson Hole, WY. AIS meeting to encourage development of a GYA regionally coordinated AIS plan.

- **2007**
  - GYCC AIS Subcommittee formed
  - Quagga mussels found in Lake Mead.

- **2008** - only one of the three states had an ANS Taskforce approved plan (MT in 2002, ID in 2009, and WY 2010).

- **2009** - AIS Subcommittee Strategic and Implementation Plans developed
Membership

- Diverse and inclusive – the issue is too big and complex for us to not include as many partners at the table who would like to help.
  - GYCC Component Agencies:
    - Yellowstone & Grand Teton National Parks
    - Beaverhead-Deerlodge, Bridger Teton, Caribou Targhee, Custer Gallatin, & Shoshone National Forests
  - Other Federal partners:
    - BOR
    - USGS
  - State Agencies:
    - Wyoming Game & Fish
    - Idaho State Department of Agriculture
    - Montana Department of Fish, Wildlife & Parks
  - Local Government:
    - Examples include Teton County Weed and Pest District
    - Freemont County Weed and Pest
  - Non-profit Organizations:
    - Invasive Species Action Network
    - Snake River Fund
  - Businesses: Many have participated in prevention activities
Mission:

- Work cooperatively to develop effective programs that address the threat of AIS throughout the Greater Yellowstone Area (GYA).
1. Prevent new introductions of AIS into waters of the GYA.

- **Accomplishments**: Outreach materials, wash stations, training sessions, press releases, watercraft inspection/decontamination stations.

- **Challenges and Needs**: Developing agencies and a public that understands and actively assumes their role in AIS prevention. Identify gaps in prevention authorities and procedures. Insufficient funding committed to addressing prevention gaps.

- **Applying science**: Science has shown high potential for anglers moving sediment and AIS (Gates 2007). Changing behavior requires social marketing targeted at specific user groups.

- **Public Participation**: Individuals serve as ambassadors for their specific user groups in developing and implementing successful social marketing strategies.
WHAT ARE AQUATIC INVASIVE SPECIES?
Aquatic invasive species are non-native organisms that threaten rivers, lakes and streams everywhere.

Protecting the Greater Yellowstone Area from invasives:
WHAT CAN YOU DO?

CLEAN
INSPECT
DRY

www.cleaninspectdry.com
ISAN Boot Wash Station Deployment

- **User Group**: Fly Fisherman

- **Desired Behavior Change**: Wash waders and equipment before entering a new waterbody

- **Accomplishments**: 64 wash stations currently deployed throughout GYA. 110 will be deployed by fall 2015.

- **Funding**: RAC, GYCC, and others
2. Survey, report, and respond to AIS in GYA waters.

- **Accomplishments**: high risk water monitoring plan, AIS monitoring, AIS survey database, eDNA support, and rapid response plan development.

- **Challenges and Needs**: Standard survey and monitoring methods, prioritize survey locations based on geodatabase, complete rapid response plan, funding and capacity (mod-low risk waters)

- **Applying Science**: 2008 scientific panel developed high risk waters monitoring plan, eDNA markers, USGS developing random surveying protocol on low risk waters.

- **Public Participation**: Developing an informed public that can identify and report AIS.
3. Abate ecological, socioeconomic, and public health as well as safety impacts resulting from infestations of AIS within the GYA

- **Accomplishments**: Decontamination equipment, communication and coordination of infestation locations and responses.

- **Challenges and Needs**: Development of effective treatment, control, and containment measures for AIS, resources for decontamination, better understanding of the role climate change plays in facilitating expansion of AIS?

- **Applying science**: eDNA testing to identify infestations, development of treatment and control measures for AIS such as Eurasian water-milfoil.
4. Provide a cooperative environment that encourages coordinated activities among all interested parties throughout the GYA.

- **Accomplishments**: Pooled resources to survey and monitor, inspect/decontaminate, educate, etc... Our committee is one of the more diverse. Rapid response plan framework.

- **Challenges and Needs**: Membership turn-over, lack of representation from some agencies/units, duplication of efforts, limited capacity of members to contribute due to budget cuts and increased work-load.

- **Applying Science**:?
Take home Messages:

- AIS are a high resource threat in the GYA.
- PREVENTION IS KEY!
- The GYCC AIS Cooperative plays a key role in coordinating AIS efforts across a complex geopolitical landscape.
- Constant vigilance by managers and the public is needed and resources must continue to be committed to prevent new introductions.