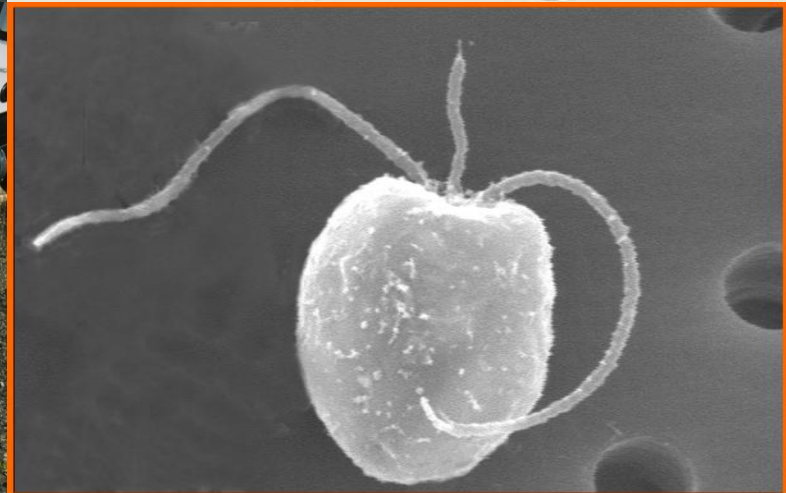


Oklahoma's Aquatic Nuisance Species Management Plan





The Purpose of the Plan

- The federal government passed the Non-indigenous Aquatic Nuisance Prevention and Control Act (NANPCA) in 1990. This legislation provided a funding mechanism for states to address ANS issues. This legislation was expanded with passage of the National Invasive Species Act (NISA) in 1996
- Oklahoma State Wildlife Action Plan identifies invasive species as one of 5 priority issues that threaten Oklahoma wildlife resources.



Ultimate Goal

- **Minimize the harmful ecological, economic, and social impact of ANS through preventing the introduction and managing the population growth and dispersal of ANS into, within, and from Oklahoma.**

OBJECTIVE 1 The Plan

- **Coordinate and implement a comprehensive management plan**
(Completed)
 - Strategy: Coordinate all ANS management programs and activities within Oklahoma
 - Strategy: Participate in and support regional, federal, and international efforts to control ANS

OBJECTIVE 1 The Plan

- Strategy: Develop a permanent funding mechanism for ANS management in Oklahoma
(Completed)
- Strategy: Review and evaluate state efforts in addressing ANS

OBJECTIVE 2 Prevention

- **Prevent the introduction of new ANS into Oklahoma**
 - Strategy: Identify ANS that have the greatest potential to infest Oklahoma waters and identify existing and potential pathways that facilitate new ANS introductions
 - Strategy: Establish approaches to facilitate legislative, regulatory, and other actions needed to prevent new ANS movements into and out of Oklahoma and promote rules that establish the state's authority to control these movements

OBJECTIVE 3 Detection

- **Detect, monitor, and eradicate ANS**
 - Strategy: Implement a surveillance and early detection program
 - Strategy: Develop an early response mechanism to deal with detected and potential invasive species
 - Strategy: Eradicate pioneering populations of ANS Ex: Hydrilla on Sooner Lake

OBJECTIVE 4 Management

- **Control and eradicate established ANS that have significant impacts**
 - Strategy: Limit the dispersal of established ANS to new waterbodies or to new areas of a waterbody



OBJECTIVE 5 Public Outreach


- **Inform the public, policy makers, natural resource workers, private industry, and user groups about the risks and impacts of ANS**

OBJECTIVE 5 Public Outreach

- Strategy: Educate the public about ANS, how their actions can prevent the spread and introduction of ANS and how they can help reduce the impacts of existing ANS
- Strategy: Inform policymakers on the extent, impact, and potential for harm of ANS
- Strategy: Train natural resource workers in identifying ANS
- Strategy: Educate private industry on the laws regulating and effects of ANS

OBJECTIVE 6 Research

- **Conduct/support research to determine:**
 - **Risks associated with pathways of introduction/spread**
 - **Environmental conditions favorable for establishment of ANS**
 - **Interactions with native species**
 - **Cost-effective and environmentally safe control/eradication measures**



OBJECTIVE 6 Research

- Strategy: Support research that identifies, predicts, and prioritizes potential ANS introductions
- Strategy: Research management alternatives for their effect on ANS and native species
- Strategy: Facilitate the collection and dispersal of information, research results, and data on ANS in Oklahoma

Oklahoma's Species of Concern

- Asian Carps
 - Black Carp
 - Bighead Carp
 - Grass Carp
 - Silver Carp
- Northern Snakehead
- Brook Stickleback
- Exotic Waterflea
- New Zealand Mudsnail
- Viral Hemorrhagic Septicemia
- Whirling Disease
- Didymo
- Nutria
- Spring Viremia of Carp
- Quagga Mussel
- Rudd
- Rusty Crayfish
- White Perch
- Zebra Mussel
- Hydrilla
- Golden Alga
- Salvinia
- Alligator Weed
- Purple Loosestrife
- Eurasian Water Milfoil
- Water Hyacinth
- Largemouth Bass Virus



PRIORITY CLASS 1

- Priority Class 1 species are present and established in Oklahoma, have the potential to spread in Oklahoma, and there are limited or no known management strategies for these species. These species can be managed through actions that involve mitigation of impact, control of population size, and prevention of dispersal to other water bodies.



PRIORITY CLASS 1

- Bighead Carp
- Golden Alga
- Grass Carp
- Hydrilla
- Silver Carp
- White Perch
- Zebra Mussels
- Didymo (2009)

PRIORITY CLASS 2

- Priority Class 2 species are currently not known to be present in Oklahoma, but have a high potential to invade and there are limited or no known management strategies for these species. Appropriate management for this class includes prevention of introductions and/or eradication of pioneering populations.



PRIORITY CLASS 2

- Black Carp
- Northern Snakehead
- Quagga Mussels
- Viral Hemorrhagic Septicemia
- New Zealand Mudsnail
- Rusty Crayfish
- Spring Viremia of Carp
- Whirling Disease



PRIORITY CLASS 3

- Priority Class 3 species are not known to be established in Oklahoma and have a high potential for invasion and appropriate management techniques are available. Appropriate management for this class includes prevention of introductions and/or eradication of pioneering populations.



PRIORITY CLASS 3

- Giant Salvinia

PRIORITY CLASS 4

- Priority Class 4 species are present and have the potential to spread in Oklahoma but there are management strategies available for these species. These species can be managed through actions that involve mitigation of impact, control of population size, and/or prevention of dispersal to other water bodies.

PRIORITY CLASS 4

- Purple Loosestrife
- Alligatorweed
- Exotic Water Flea
- Eurasian Watermilfoil
- Nutria
- Largemouth Bass Virus
- Rudd
- Brook Stickleback
- Water Hyacinth



Program Monitoring and Evaluation

- Establishment of an Oversight Committee
 - Annual reviews of management actions and objectives
 - Identifying funding sources
 - Establish performance measures to assess the effectiveness of management actions.



Existing Authorities and Programs

- Oklahoma currently has a limited number of statutory and regulatory authorities aimed at prevention and control of ANS.
- Objectives:
 - Identify gaps in existing statutes and regulations.
 - Recommend development of new legislation to address shortcomings in existing authorities and programs.



Regulation Changes

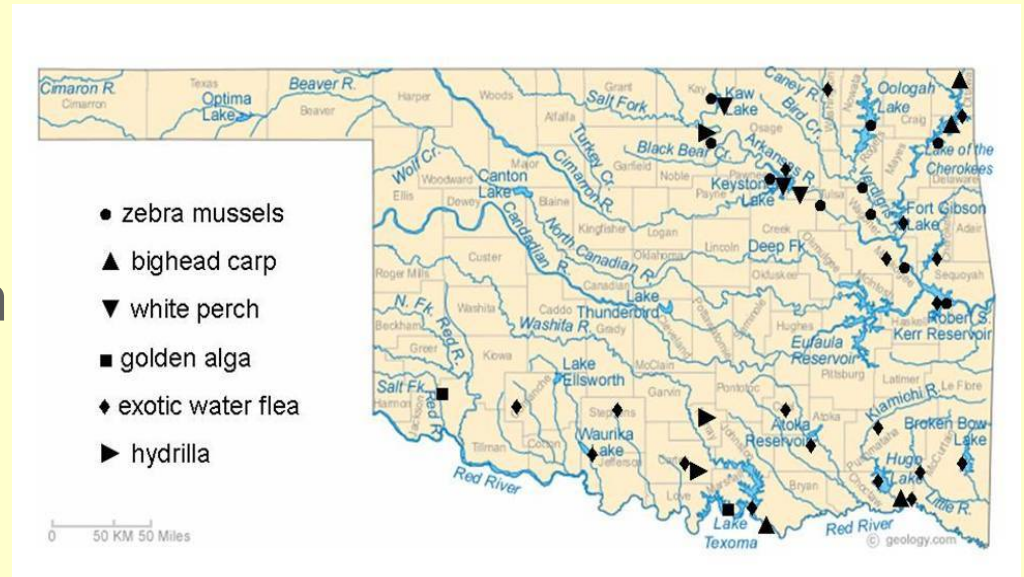
- Prohibit the possession and transport of zebra and quagga mussels in Oklahoma.
- Prohibit the sale and transport of diploid grass carp in Oklahoma.
- Prohibit transport of any aquatic plants between the waters of the state of Oklahoma.

Outreach Focus

- Zebra mussels are currently established in:
 - Kaw
 - Keystone
 - Sooner
 - Oologah
 - Arkansas Navigation System
- Possible infestations in:
 - Grand
 - Skiatook
 - Fort Cobb
 - Foss
 - Elmer Thomas
 - Texoma

Other ANS in Oklahoma

- Hydrilla
 - Arbuckle
 - Sooner
 - Murray
- White Perch
 - Kaw
 - Sooner
 - Keystone
- Golden Alga
 - Texoma
 - Altus City



ODWC Projects

- Hydrilla Treatment on Sooner Lake

Enclosed pioneering populations in an isolated cove.
Then treated with herbicides. Aquathol
Continuous treatment for several years.
Have seen positive results.

Contact: Bill Wentroth

ODWC Projects

- Alligatorweed Treatment

Treated stands on private ponds with alligatorweed flea beetles

Successful at controlling these stands.

Flea beetles cultured in Florida and shipped to OK.

Flea beetles die off in winter so they have to be purchased and shipped in each year.

ODWC Projects

- Zebra Mussel Sampling on OK Lakes with USFWS. Currently collecting plankton samples on 14 lakes. Samples are collected using plankton nets and are preserved in 70% ETOH. These nets collect plankton and the free floating larval form of zebra mussels called veligers. Samples will be shipped next week to BOR in Denver for PCR analysis. Intense monitoring program that will show current infestations and possible future infestations.



Hydrilla Task Force

- Organized in 2006
- Focus on treatment and outreach efforts of Hydrilla on OK lakes
- Target lake: Murray
- Herbicide and opaque mesh
- Agencies: ODWC, ODA, OWRB, USACE, OK State Parks
- Anyone interested?

Questions?

