

NORTH DAKOTA GAME and FISH DEPARTMENT

Aquatic Nuisance Species:
Monitoring,
Prevention,
and
Education Efforts



presented by
LR Schlueter, ANS Coordinator

Reasons

- **North Dakota Game and Fish Department's Mission** — “ to protect ... fish and wildlife populations ... habitats for sustained ... use”
- **Habitat destruction/modification** - reduces carrying capacity; reduction in desirable or native fish populations; and less waterfowl numbers
- **Intra species competition** - food, space, niche; reduction in desirable or native fish populations; and less waterfowl numbers
- **Diversion of manpower, resources, and funds** — cost to U.S. economy <\$137 billion annually; invasive species are implicated in the decline of 46 percent of the species listed on the Endangered Species Act; requires reassignment of staff and funds to conduct ANS projects; reduced management efforts toward angler desirable species projects; more than 4,500 nonnative species are known to be present in the United States, number will continue to grow; and treatment is not always effective, the problem comes back, cheaper to prevent than attempt control

Efforts

- **Baseline Data** — what is already known to be here
- **Risk Assessment/Analysis** — what could be coming, how will it get here, and likelihood of establishing to cause problems
- **Monitoring** — what is/has changed; what is where
- **Education** — public/private involvement in precautions
- **Regulations** - requires prevention activities
- **Continue to define problem/re-define solutions** — adapting to changes

Baseline

- Reviewed information on file, field staff's knowledge, and pertinent data
 - What is here?
 - How did the problem get here?
 - What have we done about it?
 - Was solution(s) effective?
 - Persistent problem or was the infestation controlled
- Statewide ANS management plan and rapid response plan_(s)
 - Aquatic Invasive Species Committee formed
 - NDGF priority efforts

Risk Assessment/Analysis

- **What is out there and what damage will cause** — Risk Assessment Matrix, Risk Analysis Modeling, and Pathway Routing/Likelihood of Introduction
- **Discussions with other entities and individuals** — what do they foresee coming in and what damages will they create
- **Non-recreational impacts** — water projects, construction programs, etc.

Monitoring

Year	Sites
2007	130
2006	693
2005	43
2004	58
2003	55
2002	143

Sample sites – location at the water, such as boat lift, dock, offshore, ramp, or other

Sampling effort - one or more sample types/and efforts per site

Sampling types –

- ANS – includes a rake (garden rake) sample for vegetation, substrate sample (post-hole diggers), and dip-net sampled (sweeping vegetation for invertebrates);
- Grab sample – vegetative sample;
- Substrate sample – post-hole digger;
- ZM traps – artificial substrates;
- Trawl samples – zooplankton tows;
- Other – what has not been thought of

Education

- Targeted outreach to specific audiences
- Repetitive Messaging
 - Same message different format
 - Exposed to 3 -12 messages to achieve audience recall
- Information at audience used sites
 - Mass media (TV, newspapers, magazines, radio, etc.)
 - Need to know where to find the audience
 - Audiences' time limit (printed, audile, or visual)
- In-state and out-of-state markets are different
- Change strategies when needed
 - Same product in a new package

Regulations

- ANS is State Law
 - Department
 - Promulgate Regulation
 - ANS list and permitting
- All segments of aquatic users impacted
 - Resident and non residents
 - Anglers, boaters, hunters, commercial, construction
- Basic Regulations
 - No vegetation
 - No water
 - No dumping bait or vegetation (water gardens)
 - Importation of aquatic baits
 - Anglers cannot bring live aquatic baits into ND
 - Commercial bait importation from ANS free sites
 - No minnow importation
- HACCP protocols – Department staff and other agencies use in field activities, Hatchery operations

Continue to
Define the problem_(s)
Re-define the solution_(s)

- Staying ahead of the problem
- Making others aware of changing efforts
- Enlisting help of others
 - Private/public groups
 - State/federal entities
 - Administrative/Legislative branch
- Proactive to new problems
 - Reaction after an infestation is discovered
 - Battle is already lost

The End

NO!!!!

As long as there are new species moved into areas, as long as we are not taking needed preventive actions, as long as governmental agencies underestimate the problem - - -

The END is not yet in sight