

MRBP Member Updates May 2011

Arkansas – Submitted by: Brian Wagner, Arkansas Game & Fish Commission

Arkansas continues to move forward on our ANS Management Plan. The draft plan has been reviewed by the Arkansas Game & Fish Commission's administration and legal staff. Fisheries Bureau Chief Mark Oliver now has the draft and is working to address the concerns raised by the legal review.

The attempted eradication of the introduced population of Northern Snakeheads in eastern Arkansas appears to have reduced the population a good deal. Our District Office in the area still gets frequent calls to report sightings, most of which turn out to be Bowfin. However, several have been confirmed as Northern Snakeheads, showing that some have survived. The confirmed reports continue to be in the Piney Creek watershed and adjacent watersheds. With the enactment of the new labeling of rotenone, AGFC has discontinued its use in standard sampling, and we are investigating alternatives for detecting Northern Snakehead presence.

Indiana - Submitted by: Doug Keller, Indiana Department of Natural Resources

Indiana Department of Natural Resources (DNR) in conjunction with the U.S. Geological Survey and Army Corps of Engineers investigated a natural inter-basin watershed connection that occurs during flood stage at the boundary between the watersheds of the Maumee River (Great Lakes drainage) and Wabash River (Mississippi drainage) at Ft. Wayne, Ind. This appears to be a very large connection that likely occurs relatively frequently, perhaps an annual connection. One of the main concerns is that adult Asian carp have been confirmed in the Wabash River just 20 miles from the basin boundary. In addition, a silver carp spawn was confirmed in the Wabash River approximately 100 miles downstream of this area in late May 2010. Indiana DNR installed a mesh fence across a recently restored wetland complex known as Eagle Marsh in the fall of 2010 as a temporary solution to block the movement of Asian carp into the Great Lakes watershed. GLRI funds were used to fund the construction. The Army Corps of Engineers is investigating a permanent solution to be applied at this watershed boundary connection.

A number of studies are underway to understand more about Asian carp and their movements near the Ft. Wayne watershed connection area and in the upper Wabash River. Indiana DNR contracted with Notre Dame to perform Asian carp eDNA analysis on each side of the watershed divide in the fall of 2010. There was no Asian carp DNA detected in any of the samples. Due to the extremely low water in late 2010 due to drought, any Asian carp that may have previously been in the upper Wabash watershed likely moved downstream in search of more water. Additional eDNA work is planned for late spring/early summer 2011 when water levels are higher and Asian carp will likely be more mobile due to spawning. Indiana DNR has also contracted with Purdue to assess Asian carp movement and spawning in the upper Wabash. We hope to learn how far up in the Wabash they actually spawn to possibly aid in predicting potential spawning rivers in the Great Lakes watershed should they establish a population. All of our Asian carp work is funded through the Great Lakes Restoration Initiative (GLRI).

Using GLRI funding, we will be continuing our assault on newly invading aquatic plants. Our 5th consecutive year for a whole-lake Sonar treatment will occur at Lake Manitou in our battle

against hydrilla. Through 4 years we have achieved a 99% reduction in hydrilla tuber abundance. We will be into a third year of parrot feather eradication at a small natural lake in northeast Indiana although we are now more into monitoring rather than chemical treatment because only one small sprig was found in 2010. One of the most difficult new invaders we have encountered has been starry stonewort which is now in three natural lakes in northeast Indiana. This macroalgae has proven very difficult to control but we continue to try different chemical prescriptions with hopes of finding one that is effective at eliminating the plant. Finally, this year we will also take a much more aggressive role in treating Eurasian watermilfoil at some of our high use public waters that have had very little attention paid to them.

Iowa - Submitted by: Kim Bogenschutz, Iowa Department of Natural Resources

The Aquatic Nuisance Species Program (DNR-ANS) staff will consist of 1 full-time Coordinator/Natural Resources Biologist, 1 full-time Natural Resources Technician, and 5 seasonal Natural Resources Aides in 2011. The number of seasonal staff is down from 21 in 2010 due to a Fish and Wildlife Trust Fund cap proposed by the governor.

Major accomplishments in 2010 included the following.

- Surveyed vegetation in 83 waterbodies and discovered 4 new infestations of brittle naiad
- Chemically treated 19 waterbodies with Eurasian watermilfoil or brittle naiad
- Surveyed zebra mussels in 2 lakes
- Placed 75 zebra mussel veliger settlement samplers in 24 lakes and reservoirs
- Sampled water for zebra mussel veligers in 8 lakes and rivers
- Surveyed Asian carp below dams on 2 interior rivers
- Purchased equipment for DNR Fisheries management stations to prevent the spread of ANS during operations
- Conducted 7,606 watercraft inspections reaching over 21,000 people
- Leased 14 billboards with ANS prevention messages on interstate and state highways
- Distributed signs, brochures, identifications cards, posters, tattoos, maps, and regulations booklets; broadcast a public television documentary, radio advertisements, a travelers information system, and local television programming; and conducted press releases, radio and television interviews, and presentations
- Supported 16 partnerships and cooperative projects

Iowa had two interior lakes with known infestations of zebra mussels before summer 2010: Clear Lake (discovered in 2005) and Lake Delhi (discovered in 2006). Survey data indicate that the zebra mussel population in Clear Lake and adjacent Ventura Marsh is continuing to grow, expand in spatial extent, and colonize marginal habitat. The Lake Delhi dam failed in July 2010 and eliminated the zebra mussel population in the former lake on the Maquoketa River. It is unknown if a population is surviving in the river channel; however, zebra mussel veligers have been sampled in the Maquoketa River below Lake Delhi since 2007. Monitoring will continue in the Maquoketa River to determine the status of zebra mussel distribution and reproduction. In 2007, zebra mussels were discovered on a boat at Lake Rathbun that had been transported from the Mississippi River earlier in the summer. No zebra mussels were discovered in the lake at that time nor during dive surveys in 2008, 2009, and 2010. No zebra mussels have also been observed on settlement samplers placed in Lake Rathbun each summer since 2008. Very low

numbers of veligers (0.05-0.5 per liter) were recorded, however, in water samples collected in June and August 2010. Monitoring will continue to determine if an adult population is established in the lake. No zebra mussels were detected in other lakes and reservoirs in 2010.

During the summer of 2010, DNR-ANS staff conducted 7,606 watercraft inspections reaching over 21,000 boat operators and passengers on 71 waterbodies. Five percent of inspected watercraft had vegetation, zebra mussels, mud, or other species attached. The vegetation attached to most watercraft were native species. Ten boats had Eurasian watermilfoil and seven boats had brittle naiad attached to them. Thirty-six boats inspected at infested waters had zebra mussels in them. Data collected during watercraft inspections indicates that public awareness of ANS in Iowa has increased as a result of outreach activities. Fifty-one percent of boaters interviewed in 2001 said they were familiar with invasive species. By 2009, that number had increased to 80% statewide. Northwest Iowa has more intensive public outreach efforts compared to other regions in Iowa, and 92% of the boaters interviewed there in 2010 were aware of invasive species. Results of a survey mailed to registered boat owners in 2008 indicated that 71% were very likely to take steps to prevent the spread of ANS, while another 23% said they took some steps.

The DNR-ANS has many different types of outreach materials targeting boaters and anglers in Iowa. A new one for 2010 was a 6-minute documentary and accompanying PSA on ANS in Iowa produced and distributed by the Public Television series *Insights*. A web-encoded version of each will be available for viewing on the updated Iowa DNR website in 2011.

Kansas - Submitted by: Jason Goeckler, Kansas Department of Wildlife and Parks

1.0 ANS Program Summary

The Kansas Aquatic Nuisance Species Management Plan was approved by the ANSTF in May 2005. The goals of the plan are to prevent new introductions of ANS to Kansas, prevent dispersal of established populations of ANS, eradicate or control to minimize the adverse ecological, economic, social, and public health effects of ANS, educate all aquatic users of ANS risks, and to support research ANS in Kansas. The coordinated efforts contained within the plan are designed to protect residents of Kansas and the state's aquatic resources from the multitude of potential losses associated with ANS plants and animals.

2.0 Major Accomplishments

(DM) (3A1) Continue to monitor zebra mussel reproduction in El Dorado Reservoir with monthly plankton tows. The first major die-off was observed in 2007 and the population has been slow to recover.

(DM) Zebra mussels were discovered in Winfield City Lake in December 2006, Cheney Reservoir, and Perry Reservoir in 2007, Marion Reservoir and Lake Afton in 2008, Milford and Wilson Reservoirs in 2009, and Council Grove City Lake and John Redmond Reservoir in 2010. Monitoring and outreach activities are underway including monthly veliger enumeration.

(DM) Continue to monitor (Portland samplers and/or plankton tows) all department waters for the presence of zebra mussels. 293 plankton samples were processed for detection purposes.

(DM) (4A2) Conducted special assessment of Asian carp in KS rivers.

(R) (6A1) Research to evaluate zebra mussel ecological and environmental impacts on the Neosho River basin is underway.

(CM) (4A1) Completed year 2 on a project to eradicate hydrilla from Kansas.

(CM) Completed the initial treatment to control Eurasian watermilfoil at Cowley SFL.

(CM) (4A2) Developed department policy requiring HACCP/decontamination plans

(CM) (5A2) Present ANS information to outdoor groups including anglers, boaters, sailors, and college students.

(CM)(5A3) Assist several communities with ANS infested water sources outline necessary management techniques.

(CM) (1A2) Support Statewide ANS Coordinator salary.

(CM) (1A3) ANS Coordinator serves as Co-Chair to the MRBP.

(CM) (4A1) Developed/deployed zebra mussel exclusion equipment for fisheries activities.

(EO) (5A2) Maintain Clean Drain Dry message on all agency fisheries section vehicle tailgates and fish hauling boxes.

(EO) (5A1) Continue to distribute educational materials to users utilizing various media outlets.

(EO) (5A2) Distribute ANS materials to all registered boaters, bait shops, and marinas.

(EO) (5A1) ANS press releases were produced to inform the public about various ANS. Continue to include large section in fishing regulations dedicated to ANS.

(EO) 2 Web-based videos were developed.

(EO) (5A2) Distribute ANS prevention materials to registered fishing tournaments.

(EO) Stop Aquatic Hitchhiker signs maintained at all boat ramps across Kansas.

(EO) Maintain informational signage at infested waters.

(EO) Maintain awareness signs at all KS lakes

Louisiana – Submitted by: Rebecca Hillebrandt, Louisiana Department of Wildlife & Fisheries

A contract with Tips from the Pros (Chef Philippe Parola) for the promotion/marketing of Asian carp as a new seafood option was completed. In addition, new catch methods for Asian carp were legalized. Asian carp may now be legally taken by boat, dip net, spears, and snagging.

Starting in 2010, a volunteer spraying program was started in Toledo Bend to combat Giant Salvinia. Willing participants attend a training seminar and obtain a permit in order to spray. A

similar program is being considered for Lake Bistineau. New *Salvinia* weevil ponds have been started, bringing the total number of ponds to 7 in the State. Harsh winters have reduced the plants numbers, particularly in the Shreveport/Lake Bistineau area, where they experienced several periods of subzero temperatures. In addition to the harsh winters, Toledo Bend Reservoir underwent a major drawdown for dam maintenance. The drawdown has isolated much of the Giant *Salvinia* into small pockets in the northern part of the Reservoir. Crews are working to treat the small pockets before the water levels return to normal and re-introduce the plant to the main water body.

A large effort has been made for better public outreach/education. The Departments ANS section has partnered up with our Aquatic Outreach section for joint displays/booths at tradeshows, outdoors events, and various other fishing related events. In addition, new brochures and educational material have been generated.

The contract with USGS National Wetlands Research Center for Louisiana Non-native Aquatic Species Pathway Analysis and Early Detection Field Manual was completed at the end of 2010.

Mississippi – Submitted by: Dennis Riecke, Mississippi Department of Wildlife, Fisheries & Parks

New Activities since April 2010

Sent letters to Corps of Engineers districts asking them to address their national policy for invasive species in all Public Notice project plan documents. Corps reaction has been mixed with some districts not responding and some stating that this policy need not be addressed at the Public Notice stage of the project review process.

Sent electronic file of North Carolina's version of "*Help Stop Aquatic Hitchhikers*" brochure to Rob Emens, NC Division of Water Resources.

Presentation on ANS issues to students at Camp Fish.

Gulf and South Atlantic Panel EDRR Workgroup meeting in New Orleans in July 2010 to revise panel EDRR document.

Attended April 2010 and Oct 2010 Gulf and South Atlantic Panel meetings in Gulfport, MS and St. Petersburg, FL, respectively.

MDWFP regulation (Public Notice 1405) was revised to prohibit transport into the state, offer for sale or possession within the state, live forms snakeheads (all species in the Family *Channidae*) and swamp eels (All species in the Family *Synbranchidae*). Stocking of any nonnative fish except common carp, goldfish, grass carp and rainbow trout would also be prohibited in private ponds except for legally permitted aquaculture facilities. Revision was triggered by discovery of tilapia in a private recreational fishing pond. Previously (since 1969) only live forms of piranhas and walking catfish could not be transported, offered for sale and possessed within Mississippi and there were not any restrictions on stocking nonnative species in recreational fishing ponds. We did not succeed in prohibiting the stocking of only certified triploid grass carp stockings in private ponds due to opposition from Mississippi fish producers and the fact that agency hatcheries do not get the "triploid" grass carp they produce tested and certified as triploids. The cost of certification and the decision not to buy certified triploid grass carp fry and grow them out caused the agency not to include certified triploid grass carp on the prohibited stocking list.

We responded to requests from 3 Mississippi fish farms on Lacey Act regulations regarding shipment of bighead carp. In March 2010 we learned that at least 750,000 bighead carp are being cultured in Mississippi commercial fish ponds.

Responded to information requests from Sam Finney regarding black carp stockings in Mississippi from 1999-2007.

The yellow plastic Stop Aquatic Hitchhiker posters obtained from the Atlanta, USFWS office were distributed to our boat ramp construction crew for posting on boat ramp access signs.

Worked to guide submission of an AFS resolution on the ecological separation of the Great Lakes and Mississippi River Basin Drainage to the AFS Governing Board. The resolution will be published in Fisheries and may be submitted to the AFS membership for a vote.

Submitted letter of support and comments to the US Army Corps of Engineers for the Great Lakes and Mississippi River Interbasin Study.

Ongoing Activities

The *Mississippi State Management Plan for Aquatic Invasive Species* has undergone state review and public comments were received. It was sent to the National ANS Task Force in January 2010 for their review and extensive comments were received. The Mississippi Department of Environmental Quality (MDEQ) is the designated lead agency for plan development. The MDEQ was heavily involved in response to Deepwater Horizon oil spill event and this has prevented revision of the State Management Plan for Aquatic Invasive Species. The MDEQ did hire a contractor to revise the plan for final submission to National ANS Task Force in the fall of 2011. We updated the number of fishing licenses and boat registrations sold for inclusion in the revised final document.

Represented the Mississippi Department of Wildlife, Fisheries & Parks on the Mississippi Aquatic Invasive Species Task Force. Last meeting was Nov. 2007.

Reprinted and continued distributing "Stop Aquatic Hitchhiker" cards along with all boat registrations or renewals that are mailed out.

Continued printing The Stop Aquatic Hitchhiker logo and bullet list in the annual regulation guides --- *Mississippi Outdoor Digest* and *Guide to Mississippi Saltwater Fishing*.

Links to the Mississippi River Basin Panel on Aquatic Nuisance Species and the Gulf and South Atlantic Panel on Aquatic Invasive Species, Stop Aquatic Hitchhiker and Habitattitude websites are on the department website.

The Mississippi Museum of Natural Science has a permanent exhibit on exotic species.

The Mississippi Department of Marine Resources has been monitoring and treating Giant Salvinia (*Salvinia molesta*) in the Pascagoula River system.

Future Activities

Implement the activities specified in the Mississippi State Management Plan for Aquatic Invasive Species.

Compose freshwater fishing bait regulations to specify what bait can be legally, sold, possessed, transported and used in Mississippi.

Pursue licensing of retail bait outlets selling live freshwater fishing bait.

Adopt list of approved, restricted and prohibited species under the authority specified in MS Code 49-7-80 and as specified in the *Mississippi State Management Plan for Aquatic Invasive Species* Amend list of approved, restricted and prohibited species as specified in the public notice that regulates aquaculture activities in Mississippi.

The Mississippi Department of Marine Resource has secured Mississippi Coastal Impact Assistance Program funding authority to hire a Conservation Resource Biologist under a 4 year contract to form an Aquatic Nuisance Species Advisory Council and begin implementation of action items contained in the Mississippi State Management Plan for Aquatic Invasive Species.

Establish a EDRR monitoring program comprised of state and federal personnel who sample aquatic species in Mississippi public waterways on a routine basis.

Update and expand information for Mississippi contacts listed in the Expert Taxonomic Database.

Missouri – Submitted by: Tim Banek, Missouri Department of Conservation

1. Completed the Missouri Non-native Aquatic Species and Watercraft Survey, submitted the final report to the MRBP coordinator, Greg Conover and received a \$5,000 reimbursement. The survey showed that with the exception of Asian carp and zebra mussels, Missouri's boat owners knew very little about aquatic invasive species. Only about half of Missouri's boat owners took precautions to prevent spreading aquatic invasive species to other waters. Nearly 60% of boat owners never released unused live bait, but that leaves 40% that always or sometimes released their unused bait. Missouri boat owners reported that their best source for information on aquatic invasive species was the *Missouri Conservationist* magazine.
2. Continued implementing the Missouri Department of Conservation's fish hatchery biosecurity plans by supplying equipment and supplies indentified in the plans to prevent transferring non-target species or diseases into and within the hatcheries.
3. Developed agreements with local Coast Guard Auxiliaries to complete 100th Meridian boater surveys at Table Rock Lake and Lake of the Ozarks. One hundred surveys were completed at Table Rock Lake and seven at Lake of the Ozarks. The surveys were provided to Dave Britton for entry in the database.
4. Developed and constructed didymo wash stations and installed informational signs at several Missouri coldwater access sites (see photos on page 2)
5. Edited a 30 second radio spot using a Minnesota PSA for a paid radio spot on the Missouri Net radio station to air the week prior to Memorial Day.
6. Developed and posted signs related to potential bait bucket introduction of Asian carp into several reservoirs. A meeting was convened to discuss introduction into to Harry S Truman Reservoir, the most likely to have tributaries that would provide Asian carp with suitable habitat and conditions to successfully spawn.
7. Designed and printed 400 "general don't dump" signs to be posted at public lakes to help stop people from releasing exotic plants and animals into public lakes.
8. We believe the 2009 positive zebra mussel veliger samples from Pomme de Terre Reservoir were false positive. Plans have been made to sample Pomme de Terre more

intensively to confirm the presence or absence of zebra mussel veligers in June 2011. Both the Corps of Engineers and MDC staff will collect samples and have them analyzed independently.

9. Lastly, Missouri is hosting the 100th Meridian Missouri River Basin and South Central Basin state's joint meeting at Bass Pro Shops in Independence Missouri on July 19 & 20, 2011.

Nebraska – Submitted by: Steve Schainost, Nebraska Game and Parks Commission and Karie Decker, Nebraska Cooperative Fish and Wildlife Research Unit

Nebraska Game and Parks and the University of Nebraska (UNL) have been working cooperatively through the new state Invasive Species Council (formed as a result of a 2007 conference on invasive species sponsored by UNL). An Invasive Species Project Coordinator was hired (Karie Decker) and an Invasive Species Council (Council) has formed which conducts regular meetings. Ms. Decker spearheaded an effort to write the Nebraska Aquatic Invasive Species Management Plan, which was completed and approved by the ANS Task Force. Ms. Decker has also created an Invasive Species Project website, which can be viewed at <http://snr.unl.edu/invasives/>

Legislative bills have been submitted in the past three sessions to give official recognition to the Council and fund the project. The passage of the bill to recognize the Council looks like it will pass in this (2011) session but not the funding bill. The hiring of a full-time Aquatic Invasive Species Coordinator will have to wait until a stable funding source is enacted.

A project to eradicate zebra mussels from Offutt Base Lake through the application of copper sulfate was completed in September of 2008 and April of 2009. Monitoring results were promising but lives were found in 2010. A second attempt to eradicate will not be done but the lake owners have moved to long-term management of the infestation.

A second zebra mussel population was discovered in another lake (Zorinsky) in the fall of 2010. A work group consisting of Federal, State, and Local government was formed to attempt an eradication at Zorinsky Lake before they became established. The lake was drained (as far as possible) over the winter in the hope that desiccation/freezing might do the job. The group is discussing the possibility of a chemical treatment of the residual pool.

The discovery of zebra and quagga mussels in Colorado as well as the two infestations in eastern Nebraska has resulted in increased monitoring and outreach. A temporary employee was hired during the summer of 2010 to interview boaters and inspect boats at Lake McConaughy, a western Nebraska reservoir that is heavily visited by Colorado boaters. This will be continued in 2011. A monitoring program to collect veliger samples at a wide variety of lakes was initiated in 2010 and will continue in 2011.

Legislation was also introduced (LB 392) which would allow Nebraska Game and Parks Commission to define aquatic invasive species, and would provide them the authority to create rules and regulations pertaining to the possession and transport of aquatic invasive species. It also established a mechanism to fund an aquatic invasive species program. The bill (as Steve mentioned) did not make it out of committee but will be on the docket for next session.

There will also be increased efforts to sample for veligers in the reservoirs of eastern Nebraska (which are frequented by boaters who visit Zorinsky Lake) due to our findings last fall. The

Nebraska Invasive Species Project also received a grant from the Nebraska Environmental Trust (\$100,000) to begin an aquatic invasive species prevention program. Several summer technicians will be hired who will conduct boater surveys (and provide outreach) at several reservoirs across the state. We will also purchase decontamination units to use at various reservoirs for high-risk watercraft.

North Dakota – Submitted By: Lynn Schlueter, North Dakota Game and Fish Department

Background

The North Dakota Game and Fish Department (the Department) has an on-going aquatic nuisance species (ANS) monitoring and education program. The efforts began in the late 1990s and become formalized in the 2000.

Staffing

The ANS program has one full time employee and two summer seasonal aides with direction/oversight from Fisheries Administration personnel. Department's Conservation and Communication staff provides the ANS outreach information as part of their responsibilities.

Monitoring

Waterbodies at high risk for ANS infestation are monitored annually. The Department has developed its own Risk Assessment matrix for waterbodies and species of concern. North Dakota has limited ANS infestations and in only a few locations.

ANS monitoring often occurs on more than one occasion at a waterbody or at a site and at more than one site during a sampling period. Sampling follows Departmental protocols for plants, invertebrates, and parasites/pathogens. Data is stored in the Department's electronic archives.

North Dakota's major waters and the two Federal fish hatchery facilities in North Dakota are sampled for zebra mussel veligers using zooplankton tows. Samples processed by a certified laboratory. Artificial substrates and firm bottom substrates and/or boat docks/buoy lines/anchors/irrigation intakes/etc. are examined for zebra mussel colonization when they are removed in the fall. North Dakota Parks and Recreation, COE field staff, and other interested parties are very helpful in they set and retrieve the artificial substrates for the Department.

Sampling for ANS plants was done at numerous waterbodies throughout the state. A deep water technique for Curlyleaf pondweed and Eurasian watermilfoil has been developed by ANS staff.

A zebra mussel veliger was found in the headwaters of the Red River in the spring of 2010. There is intensive sampling for zebra mussels in the river and its watershed by aquatic resource agencies – South Dakota Game, Fish, and Parks, Minnesota Department of Natural Resources, and Manitoba Water Stewart Ship, and local cities. No other zebra mussels have been found in the Red River to date. The infestation in Pelican Lake chain which is a tributary to the Red River has an expanding population.

The Department inspects construction equipment that will be used in the state's waters. Construction permits issued by Corp of Engineers, State Water Commission, and/or others

include boiler plate language that requires ANS inspections prior to launch or use of the equipment.

The sale of live aquatic fishbait (leeches, minnows, insects, salamanders, crayfish, etc.) is by Department permit. Permit requirements include the completing and filing reports on types and sources of live aquatic fishbaits sold and or being moved into North Dakota. Resident wholesale facilities and non-resident wholesalers who export into North Dakota are inspected for ANS and operators provided training on ANS prevention.

Education

It is better to have an informed public which will voluntarily take ANS prevention seriously rather than have state agencies attempt to control unwanted infestations.

The Department has prepared or provided numerous news releases for the mass media (radio, television, newspapers, periodicals, magazines, etc.), used electronic media (internet links and the Department's home page and web casts), road side billboards, and personal contacts at sports shows, meetings of fishing and/or conservation clubs, and at selected fishing tournament rules meetings.

Partnerships

To achieve more outreach to the public with limited resources and manpower, the Department provided a grant to a NGO for the mass media outreach, the preparation of printed materials, and placing information in out-of-state e-media sites.

Partnerships were developed with municipal water works which includes pipeline authorities, local water resource boards, power companies, and water project proponents to prevent ANS transfer to waters they manage. These non-traditional organizations represent a large segment of the North Dakotans who are not outdoor recreators, but will still be affected by ANS infestations.

Other state agencies such as North Dakota Parks and Recreation, North Dakota Highway Patrol, North Dakota State Water Commission, North Dakota Department of Health, and federal agencies such as US Fish and Wildlife Service, Corps of Engineers, Bureau of Reclamation, and others which include NGOs are provided with educational information and/or training in ANS detection on trailered boats or construction equipment.

Funding

The ANS program funding is from grants from the US Fish and Wildlife Service ANS/Task Force and Dingell Johnson F-40 grant. Matching, non-federal monies are Department funds from license sales. Current funding levels are covering existing efforts. ANS prevention would benefit from increased educational efforts both within and outside of the state. ANS education of non-residents coming for aquatic recreation on North Dakota waters is important. ANS is a problem which can easily be transported from infestations outside of North Dakota. The ANS staff and program objectives would benefit from sufficient funds to contract for professional public outreach as mass media productions which would be provided in a timely manner. Additional ANS benefits would come with increased staffing, Departmental participation in monitoring efforts, and more budgeting authority.

Regulations

Live aquatic fishbait is defined by Department regulations and no other baits can be in possession. Non-resident anglers cannot bring live aquatic fishbaits into North Dakota.

The Department has worked to develop bait industry regulations which provides for clean baits which are ANS free. Inspections of resident and non-resident commercial wholesale bait facilities are part of Department permit requirements.

In 2010, the Department modified the ANS regulations to now require that all livewells, baitwells, and bilges be drained when off the water. The regulation includes waterfowl hunters, recreational boaters, and construction equipment. No longer can anglers haul their catch in water to their residence, camp site, or fish cleaning station.

Live aquatic baits can be transported in containers that are 5 gallons or less, but the water must be free of aquatic vegetation.

Existing ANS regulations require that vessels be free of aquatic vegetation when not on the water.

On-going efforts

The Department will continue the ANS efforts in to the future. Adjustments will be made as needed to the procedures and process.

Ohio – Submitted by: Eugene Braig, Ohio Sea Grant College Program

1. Ohio continues to use GLRI funding to the ODNR to combat AIS. Funding will be used mainly on invasive plant control along Lake Erie.
2. Ohio Sea Grant is currently working on behalf of the ODNR to update Ohio's AIS State Management Plan.
3. Ohio Sea Grant has taken over facilitation responsibilities for Ohio's AIS Committee.
4. Ohio River project received an award from National Forest Service for a three state cooperative project that surveyed aquatic and riparian species along the Ohio River. Cheryl Coon (Wayne National Forest), Chris Evans (River to River CWMA), Teena Ligman (Hoosier National Forest), Lindsay Chadderton (TNC), Doug Keller (Indiana DNR), and John Navarro (Ohio DNR) were recognized for their efforts.
5. Via a collaborative project through the Great Lakes Sea Grant Network to receive funding from the competed portion of the GLRI, Ohio Sea Grant is bringing A *Comprehensive Regional Public Outreach Campaign on Aquatic Invasive Species* to Ohio. The project is funded into 2012 and will involve collaboration with the ODNR to post outreach materials and signage at state-managed access points.
6. The Great Lakes Sea Grant Network has received funding through a National Sea Grant Office National Strategic Investment to bring Hazard Analysis and Critical Control Point (HACCP) training to fishing tournaments and their organizers throughout the region in an effort to minimize AIS transfers. Ohio's scope of work will bring the campaign to fishing tournaments throughout the state.
7. Eugene Braig, Ohio Sea Grant, will represent Ohio with seats on the *Research, Assessment, and Monitoring* and *Outreach and Education* committees of the Implementation Working Group of the *Management and Control Plan for Bighead, Black, Grass, and Silver Carps in the United States*.

Oklahoma – Submitted by: Curtis Tackett, Oklahoma Department of Wildlife Conservation

■ The ANS coordinator serves on the board of the Oklahoma Invasive Plant Council. The OKIPC facilitates efficient and effective management of invasive plants for the protection of the economic and natural resources of Oklahoma's private and public land and water. Three presentations were given to blue thumb water monitoring volunteers concerning aquatic invasive plants.

■ Two grants were awarded by the ANS Task Force and are underway. One is to purchase power washers for marinas and other entities at OK lakes with zebra mussel infestations. The other is a risk assessment of bighead carp and zebra mussels in OK and this project is being done by Oklahoma State University.

■ A grant was awarded to the ODWC from the USDA to administer VHS research on OK lakes and state hatcheries. Nine sites were preselected for sampling due to either the likelihood of spread through association with fish culture activities (water source for a hatchery or brood stock collection site) or increased threat of introduction due to the presence of a popular fishery.

■ Zebra Mussel veliger sampling was conducted in 2010 and water samples are currently in the process of being analyzed. A total of 15 lakes were sampled. Veliger sampling for 2011 will be 18 lakes and will begin in mid- May.

■ The ANS coordinator is currently working on an in house project proposal to sample Asian Carp (bigheads and silvers) in the Neosho, Red and Kiamichi Rivers for the fall/spring of 2011. There have been several reports of adult fish in these rivers but ODWC wants to investigate the probability of reproduction. Any sampling suggestions are welcomed.

■ In 2010 several regulation changes were proposed and approved. ODWC has changed import/export requirements for all loads of aquatic wildlife crossing Oklahoma's borders. Each transporter must receive an approved import/export permit for each load of aquatic wildlife prior to entering or leaving the state. These permits are free of charge and issued by the ANS coordinator. This involved several meetings with aquaculture producers. It is also now illegal to launch any watercraft into public waters with attached zebra mussels and or aquatic vegetation. Oklahoma has also prohibited the sale of diploid grass carp for stocking in private waters. Only triploids may be stocked in private waters. Diploid grass carp may only be sold for the food market or exported to other states which allow the stocking of diploids.

■ Various ANS messages were broadcasted on the Outdoor Oklahoma TV show and local news stations. Various presentations were given to the aquaculture producers, invasive species courses at universities and community groups. ANS publications include the OK Fishing Guide, and the OK Water Atlas. ANS booths were operated at various boat and tackle shows as well as the ODWC Wildlife Expo.

■ The ODWC sponsored a boat washing program at the Three Forks Bassmaster Tournament. ODWC employees used heated power washers to decontaminate boats as they arrived for the tournament weigh in. This event brought great publicity and a few professional anglers provided sound bites for our TV show.

Tennessee – Submitted by: Bobby Wilson, Tennessee Wildlife Resources Agency

Zebra mussels were discovered in Norris Lake in eastern Tennessee. Norris Lake is a TVA tributary impoundment that does not have a lock for dam passage therefore they must have arrived by way of a boat from infected waters.

The Chattanooga Aquarium received a grant from the Tennessee Wildlife Resources Agency (TWRA) to establish an ANS display. This display should be ready for the public this summer (2011) and will be in place for at least a year.

The TWRA is trying to work out the red tape involved in hiring a part time ANS coordinator. Tennessee has no ANS coordinator but they have identified a semi retired person with an extensive background in fisheries science who is eager to go to work.

Sport and Commercial fishermen are reporting the presence of silver carp in Kentucky Lake and Lake Barkley. There has been no documented reproduction in either of these two lakes however TVA biologists reported that they found young of the year silver carp in Wheeler Reservoir, located upstream from Kentucky Lake.

Wisconsin – Submitted by: Robert Wakeman, Wisconsin Department of Natural Resources

Perhaps the single most demanding task over the past year has been applying for, and managing Great Lakes Restoration Initiative (GLRI) funded projects. These funds have significantly increased Wisconsin's capacity to build partnership at the local level, increase our early detection monitoring, educate boaters and anglers about Wisconsin's AIS laws, improve capacity to report findings and information on AIS on our website, and use social marketing to target specific user groups to solicit their involvement in AIS messaging. These funds have come at a great time for Wisconsin.

Challenges continue to knock on Wisconsin's door. New invasive species enter Wisconsin from legal and illegal means requiring the Department of Natural Resources to respond to new sightings. Developing a rapid response plan to meet U.S. FWS, GLRI requirements continue to be discussed. Small scale rapid response efforts have been conducted and moderately successful.

Sea Grant (Upper Basin) – Submitted by: Pat Charlebois, Illinois-Indiana Sea Grant Program

Illinois-Indiana

Illinois-Indiana Sea Grant's (IISG) hosted an Asian Carp Marketing Summit in fall 2010 in Grafton, IL. The summit brought together the various stakeholders in the issue including managers, harvesters, and processors to identify the opportunities and impediments to creating an economically viable market for these fish. Proceedings from this summit are available at www.iiseagrant.org/asiancarp. IISG also is finalizing an update to the Asian carp WATCH card. We will be contacting MRBP members within the next few weeks with information on the print run. Contact: Pat Charlebois, IISG, charlebo@illinois.edu.

Wisconsin

Wisconsin Sea Grant (WISG) will be working with the other Great Lakes Sea Grant Network partners as well as Wildlife Forever, Cabela's Masters Walleye Circuit and The Bass Federation to develop steps or methods to help fishing tournament organizers prevent the spread of AIS through tournament activities. The two-year National Sea Grant funded project started last fall and will use a HACCP approach to incorporate AIS prevention strategies into tournament operations. Contact: Phil Moy, WISG, pmoy@uwc.edu.

Minnesota

Contact: Doug Jensen, MN Sea Grant, djensen1@umn.edu

Sea Grant (Lower Basin) – Submitted by: Julie Anderson, Louisiana Sea Grant Program

Louisiana Sea Grant (LSG) has been involved with outreach and public awareness of AIS. First, we have partnered with Operation Blessing International to create a canned Asian carp (bighead and silver) product to be sent to Haiti where it will serve as a protein source. This project will also create a market for Asian carp, hopefully reducing populations. We are currently working with canning companies to produce enough cans to fill a 40 ft shipping container.

Additionally, LSG launched a Lionfish awareness webpage on their main site. This was accompanied by several press releases which gained statewide attention for the potential spread of lionfish. A similar Asian carp website is also in the works, but it not live yet.

Finally, LSG promoted public awareness of AIS at numerous educational events. These included Louisiana Earth Day (Audubon Zoo and Baton Rouge) and Ocean Commotion (over 2,000 2nd-8th graders; and 400+ teachers and chaperones). The LSG educational invasive species website was also updated and reformatted for easier use specifically highlighting Nutria, Zebra mussels, water hyacinth, and Hydrilla. Recipes for AIS and educational articles have been featured in the monthly fisheries letter *Lagniappe* (2000+ subscriptions).

National Park Service – Submitted by: Byron Karns, National Park Service

St. Croix NSR:

- Continue the USGS Study in the lower river to assess the effects of zm/native mussel competition. We are collecting data on settling rates from Stillwater to Prescott, fish consumption, and Native mussel health in light, medium and heavily zm infested reaches. And the effect of zms on yoy native mussels. Year 2 of 3.
- Continued monitoring (scuba and plate samplers) of the St. Croix and Namekagon rivers from Stillwater upstream to the headwaters to determine zm presence/absence.
- Asian Carp Monitoring (see MISS below)
- Active control of several plants by staff, volunteers and MCC (funded and directed by NPS), including garlic mustard, Japanese barberry, Grecian Foxglove, honeysuckle, buckthorn, and PL.

- Received report from a macrophytes survey on St. Croix from Gordon to St. Croix Falls. Identifies locations of EWM, CLP, and other exotics/invasives. May attempt controls of milfoil at several locations this summer.
- Will continue to aid MDA and USDAFS in monitoring for several insect pests (EAB, Gypsy moth, stinkbug?)

Mississippi River and Recreation Area:

- Asian Carp Monitoring this spring and summer. Will fund and hire a private company to perform eDNA testing at 3 locations on the Miss (Pools 1, 2, 16) and the St. Croix Falls Dam. Positive finds will be followed with netting efforts. DNA samples will be stored at the UMN for archiving.

Pipestone NM:

- Invasive Plant Control

Voyageurs NP:

- Veliger testing using FlowCam technology at various lakes in the park (all neg.) as an addendum to St. Croix testing
- Conducted a survey for zebra and quagga mussels at Voyageurs National Park last summer. We did not detect any zebra or quagga mussels.
- Collected zooplankton and fish as part of a multipark study of spiny water flea distribution and effects in 2010 - the third and final year of the project. The study is a cooperative effort between Michigan Tech and the NPS and focused on lakes in SLBE, PIRO, ISRO, and VOYA. A final report and several manuscripts summarizing the multipark project are in preparation.
- Invasive Plant control

Grand Portage:

- Continues invasive plant control with burns and mechanical control.
- Zm monitoring continues on the big lake (in conjunction with efforts at Isle Royale)
- Boater workshop and training staff with AIS information
- AIS launch signs (with DNR) are being placed throughout the Grand Portage Reservation area.
- Sea Grant/NPS have partnered to hire an outreach staff member for Lake Superior

Great Lakes Network:

- Supports Midwest and Mississippi Parks with a variety of interpretive products through the Great Lakes Initiative. AIS billboards should be up soon and our ranger/ interpretive kiosks will be ready in June.
- GLKN staff who conduct monitoring at Network parks regularly decontaminate equipment when working within or across parks. Decontamination of equipment is typically done through drying (desiccation), heat, (e.g., cleaning gear in heated water), mechanical scrubbing, and cleaning agents (e.g., weak bleach solution). The method of decontamination depends on the particular situation and factors such as frequency and location of monitoring.
- With respect to water quality monitoring, GLKN staff have up to date Hazard Analysis and Critical Control Point Plans for each of the parks we work at. In addition, Standard Operating Procedure #5 - Decontamination of Equipment to Remove Exotic Species, for water quality work at inland lakes and large rivers can be found at http://science.nature.nps.gov/im/units/GLKN/Protocol/GLKN_LakesWQ_201003.pdf and

http://science.nature.nps.gov/im/units/GLKN/Protocol/GLKN_RiversProtocol_withSOPs_201003.pdf, respectively.

NOAA – Submitted by: Richard Hartman, NOAA

OHC Updates for the Week of 28 Mar 2011 provided by Peg Brady /Susan Pasko:

Aquatic Nuisance Species Task Force (ANSTF) Spring 2011 Meeting is scheduled for May 4 – 6, 2011 in Little Rock, Arkansas. Informational sessions on the agenda include a Risk Assessments and Status Updates on Asian Carp, Use of eDNA as a Tool for Surveillance Monitoring, Lacey Act Tiger Team Update, and International Invasive Species Issues. Other issues to be discussed include updating the ANSTF Strategic Plan and develop on on-line reporting system, revising the ANSTF Recreational Guidelines for Invasive Species, and approval of the Arizona State Management Plan for Invasive Species. Additional meeting details and the draft agenda can be found at http://www.anstaskforce.gov/meeting_5_2011.php. (Contact: Peg.Brady@noaa.gov or Susan.Pasko@noaa.gov).

Hazard Analysis and Critical Control Point (HACCP) Planning Meeting. Susan Pasko (NOAA, NMFS) met with staff from U.S. Fish and Wildlife Service at the National Conservation Training Center (NCTC) in Shepardstown, WV from March 28 – April 1, 2011. The purpose of the meeting was to finalize changes to the Hazard Analysis & Critical Control Point (HACCP) Planning to Prevent the Spread of Invasive Species. This planning process is a five step tool used to reduce the risk of invasive species during natural resource management activities. During the week, the team revised the previous HACCP program to incorporate a risk assessment and management component, composed new manual and related forms, and created a lesson plan and presentation slides to be used for future training sessions. They will continue to develop online resources and tools to be used for plan development. The HACCP training course will be regularly offered at the NCTC beginning fall, 2011. Training can also be given to agencies and organizations by request. (Contact: Susan.Pasko@noaa.gov, 301-714-0174 x165)

Invasive Species Experts Database. NOAA, along with the Aquatic Nuisance Species Task Force, has continued efforts to update and expand the Invasive Species Expert Database. This database is an important resource to many; including state and federal agencies, colleges and universities, non-profit organizations, volunteer monitoring groups as well as the general public as it puts individuals in contact with local professionals who can provide assistance in invasive species issues including species identification, preventative operations, control techniques, monitoring, outreach, and local legislation. A survey to expand the number of participants as well as update existing information within the database has received clearance by OMB (following procedures established by the Paperwork Reduction Act) and will be sent electronically to targeted participants beginning April, 2011. Susan Pasko (NOAA, NMFS) will compile the responses and work with U.S. Geological Survey to restructure the online database. NOAA will also utilize the information from the database to develop a technical support network consisting of individuals that could assist with invasive species issues (e.g. rapid response to newly detected species) on an ad hoc basis. The existing Invasive Species Experts Database can be found on the ANSTF website (<http://www.anstaskforce.gov/experts/search.php>). (Contact: Susan.Pasko@noaa.gov, 301-714-0174 x165)

OHC Updates for the Week of 28 Feb 2011 provided by Peg Brady /Susan Pasko:

2nd Annual National Invasive Species Awareness Week (NISAW) State, federal, tribal and local officials, along with representatives of private sector and environmental groups, met in Washington D.C during National Invasive Species Awareness Week (Feb. 28 – Mar. 4, 2011) to find ways to prevent and control “invasive species” - species that are both non-native and harmful to the environment, the economy and human health. (Asian carp, large constrictor snakes, wood-boring beetles, kudzu and West Nile Virus are a few examples of invasive species.) DOI Deputy Secretary of the Interior David J. Hayes launched National Invasive Species Awareness Week 2011 on Monday, February 28 at the Department of the Interior. The week also featured briefings, events and workshops to highlight what can be done to stop or slow the spread of invasive species. The complete agenda is available at <http://www.nisaw.org/>. A broad coalition of groups sponsored these events including federal agencies, the National Invasive Species Council, the Association of Fish and Wildlife Agencies, the Great Lakes Commission, and the Aquatic Nuisance Species Task Force.

NOAA participated in the event by hosting a reception at the National Aquarium on the evening of February 28 and organizing two panel sessions held during the State and Regional Invasive Species Workshop on March 1, 2011 at the DuPont Hotel, Washington DC. The panel sessions included:

- Federal Update on Aquatic Invasive Species Issues. Speakers include Susan Mangin (Aquatic Nuisance Species Task Force), Gary Croot (U.S. Coast Guard), Robin Danesi (Environmental Protection Agency), and James Morris (NOAA) (Moderator: Peg.Brady@noaa.gov , 301-943-5613)
- Hazard Analysis and Critical Control Point (HACCP): Invasive Species Applications: The HACCP planning process is a five step tool used to reduce the risk of spreading invasive species and other non-targets in human related pathways. This session provided a brief description of the steps necessary to develop and implement a HACCP plan. It also provided examples of projects where HACCP has been utilized, emphasizing the benefit of this tool to state and federal agencies as well as other organizations involved in natural resource management. (Moderator: Susan.Pasko@noaa.gov, 301-714-0174 x165)

Other highlights of the week included:

- Launch of NISAW 2011 with Deputy Secretary Hayes and forum on invasive species impacts on American Indian Communities kicked off by Bureau of Indian Affairs Director Michael Black.
- ANSTF & National Aquarium reception Monday, 28 Feb 6-8pm @ the Commerce Bldg. Sam Rauch (NOAA Fisheries), Eileen Sobeck (DOI), Lab Adkins (REEF), and Leah Neal (National Aquarium) were the speakers at the event.
- State and Regional Invasive Species Workshop with John Goss, Asian Carp Director, Council on Environmental Quality, as featured speaker and participants from more than 20 states and 15 federal agencies (Mar. 1, 2011, Dupont Hotel, 1500 New Hampshire Avenue, N.W.

Invasive Species Information Management Discussion. On March 3, 2011 NOAA staff met with representatives from the National Invasive Species Council, U.S Geological Survey, U.S. Fish and Wildlife Service, U.S. Army Corp of Engineers, and the National Park Service to discuss

how to better manage and standardize data related to invasive species maintained by US federal agencies. It was agreed there was a need to develop a blueprint for the integration of this data and should include an inventory of existing databases, a standardized protocol to enable the transfer of data across systems, and recommended actions to address major gaps in coverage. Further discussions to continue to develop this blueprint will focus on standardization of metadata, identification of taxonomic gaps, address different scales of data, assess existing user needs, and identify key individuals, agencies and databases to broaden this inter-agency discussion. The next meeting will be held April, 2011. (Contact: Peg.Brady@noaa.gov or Susan.Pasko@noaa.gov).

Invasive Lionfish Action Plan 2011. Staff from NOAA's National Marine Fisheries Service, National Ocean Service, and Office of Oceanic and Atmospheric Research is in the beginning stages of drafting a Lionfish Action Plan for understanding and mitigating lionfish impacts on U.S. marine habitats. The purpose of this document is to identify priorities for NOAA to better understand the impacts of the lionfish invasion and develop management guidance for local control. The action plan will determine agency goals, identify critical needs, and establish guiding principles to encourage long-term and sustainable solutions for **control** of local lionfish populations. The second draft of this document is currently under review; estimated time for completion is May, 2011. (Contact: Peg.Brady@noaa.gov or Susan.Pasko@noaa.gov).

Representative Donna Christensen and Senator Ronald Russell (USVI) introduce Lionfish Resolutions. On February 28, 2011 Representative Donna Christensen (USVI) submitted a resolution entitled "Expressing the need to raise awareness and promote capacity building to strategically address the lionfish invasion in the Atlantic Ocean" This document (H. RES. 132) was drafted in response to the invasive lionfish populations that have established throughout the coastal southeastern United States, the Caribbean, and many regions of the Gulf of Mexico and requests that the House of Representatives:

- (1) Urge development of a comprehensive, scientifically based, region-wide strategy to address the lionfish invasion in the Atlantic Ocean, that includes actions such as local management plans and international partnerships;
- (2) Support scientific research and capacity building to develop and implement responses to the lionfish invasion; and
- (3) Encourage raising public awareness about the lionfish invasion across the United States and its territories, especially in coastal communities, through outreach and education.

The full text of the resolution can be found at: <http://thomas.loc.gov/cgi-bin/query/z?c112:h.res.132>: Senator Ronald Russell, the new President of the USVI Senate, will introduce a separate bill focused on potential USVI territorial actions that can be undertaken in regards to the lionfish invasion. This bill will be in the USVI legislature, and will not be a congressional effort.

OHC Updates for the Week of 21 Feb 2011 provided by Peg Brady /Susan Pasko:

US Coast Guard & EPA – Ballast Water rule and the Vessel General Permit (VGP) The US Coast Guard and the Environmental Protection Agency (EPA) entered into a Memorandum of Understanding (MOU) outlining steps the two agencies will take to better coordinate efforts to ensure compliance with the Vessel General Permit (VGP) provisions of the National Pollutant Discharge Elimination System (NPDES). The VGP applies to specific discharges that are incidental to the normal operation of a vessel and are discharged from non-recreational vessels of 79 feet or greater in length. In addition, the ballast water discharge provisions apply to any non-recreational vessel of less than 79 feet or any commercial fishing vessel of any size discharging ballast water. The Coast Guard issued a Policy Letter providing guidelines for its

evaluation of compliance with the VGP provisions by US and foreign vessels operating in US waters. USCG is on schedule to release the next version of the federal ballast water rule in April 2011. (Contact: Peg.Brady@noaa.gov , 301-943-5613)

2nd Annual National Invasive Species Awareness Week (NISAW) State, federal, tribal and local officials, along with representatives of private sector and environmental groups, will meet in Washington D.C during National Invasive Species Awareness Week (Feb. 28 – Mar. 4, 2011) to find ways to prevent and control “invasive species”--species that are both non-native and harmful to the environment, the economy and human health. (Asian carp, large constrictor snakes, wood-boring beetles, kudzu and West Nile Virus are a few examples of invasive species.) DOI Deputy Secretary of the Interior David J. Hayes will launch National Invasive Species Awareness Week 2011 on Monday at 9:30 am at the Department of the Interior. The week will feature briefings, events and workshops to highlight what can be done to stop or slow the spread of invasive species. The complete agenda and exact locations and times of events are available at <http://www.nisaw.org/>. A broad coalition of groups are supporting and sponsoring these events including federal agencies, the National Invasive Species Council, the Association of Fish and Wildlife Agencies, the Great Lakes Commission, and the Aquatic Nuisance Species Task Force.

This week will feature activities, briefings, and events to highlight what is being participate in the event by hosting a reception at the Nation Aquarium on the evening of February 28. Other planned events include a state invasive species council and regional coordination workshop, National Press Club Announcement of National Invasive Species Agenda, and a reception at the United States Botanical Garden. In addition, NOAA staff is organizing two panel sessions to be held during the State and Regional Invasive Species Workshop in March 1, 2011 at the DuPont Hotel, Washington DC. The panel sessions include:

Highlights of the week include:

- Launch of NISAW 2011 with Deputy Secretary Hayes and forum on invasive species impacts on American Indian Communities kicked off by Bureau of Indian Affairs Director Michael Black. (9:30 a.m., Feb. 28, 2011, Interior’s Yates auditorium, 1849 C Street, N.W.)
- ANSTF & National Aquarium reception Monday, 28 Feb 6-8pm @ the Commerce Bldg. Participating in the reception events are Sam Rauch (NOAA Fisheries) & Eileen Sobeck (DOI).
- State and Regional Invasive Species Workshop with John Goss, Asian Carp Director, Council on Environmental Quality, as featured speaker and participants from more than 20 states and 15 federal agencies (8 a.m. – 5:30 p.m., Mar. 1, 2011, Dupont Hotel, 1500 New Hampshire Avenue, N.W.
- Federal Update on Aquatic Invasive Species Issues. Confirmed speakers include Susan Mangin (Aquatic Nuisance Species Task Force), Gary Croot (U.S. Coast Guard), and Robin Danesi (Environmental Protection Agency). (Moderator: Peg.Brady@noaa.gov , 301-943-5613)
- Hazard Analysis and Critical Control Point (HACCP): Invasive Species Applications: The HACCP planning process is a five step tool used to reduce the risk of spreading invasive species and other non-targets in human related pathways. This session will provide a brief description of the steps necessary to develop and implement a HACCP plan. It will also provide examples of projects where HACCP has been utilized, emphasizing the benefit of this tool to state and federal agencies as well as other organizations involved

in natural resource management. (Moderator: Susan.Pasko@noaa.gov, 301-714-0174 x165)

OHC Updates for the Week of 17 January 2011 provided by Peg Brady /Susan Pasko:

National Conference on Science, Policy, and the Environment: Our Changing Oceans: The National Council for Science and the Environment (NCSE) held its 11th National Conference on Science, Policy and the Environment: Our Changing Oceans on January 19-21, 2011 in Washington, DC at the Ronald Reagan Building and International Trade Center. The conference included a Marine Bioinvasions session on Thursday, Jan 20th. During this session, four panelists presented recent findings and explored the patterns of invasive species in context of a changing climate. The invited panelists include:

- Dr. Celia Smith - Univ. of Hawaii, Professor of Botany
- Dr. Susan Williams - UC Davis Bodega Marine Laboratory
- Dr. Greg Ruiz - Smithsonian Environmental Research Center
- Dr. Tom Stohlgren, US Geological Survey; Colorado State University

The session highlighted the information and recommendations from the “Marine Bioinvasions and Climate Change” briefing paper that resulted from a panel discussion at the 2010 National Invasive Species Awareness Week (Available online at:

<http://www.nisaw.org/MarineBioinvasions.pdf>). The panelists and session participants made additional recommendations regarding the needs and future directions for invasive species prevention and management. These recommendations included:

- Congress should reauthorize the National Invasive Species Act
- Marine vectors should be evaluated to prevent additional invasions
- A national strategy for monitoring should be established
- Educational and outreach programs should be expanded
- Research programs designed to predict, and possibly prevent, the impact of invasion resulting from global climate change should be developed and adequately funded.

For information about the NCSE conference, visit: <http://communities.earthportal.org/ncseoceans2011> (Contact: Peg.Brady@noaa.gov, 301-943-5613)

International Maritime Organization (IMO) subcommittee meetings set for the week of February 6th: The IMO, a specialized agency of the UN, is responsible for the development a regulatory framework for worldwide shipping. The IMO implements international conventions, supported by recommendations governing shipping including safety, environmental concerns, legal matters, technical co-operation, and maritime security. The IMO Sub-Committee on Bulk Liquids and Gases (BLG) considers matters related to the following subjects: 1) prevention and control of marine pollution from ships and other related maritime operations involved in the transport and handling of oil and dangerous and noxious liquids substances in bulk; & 2) control and management of ships' ballast water and sediments. Peg Brady will be participating on the US delegation at the next session of BLG -15 held @ the IMO HQ in London, UK (6-13 February 2011). BLG-15 agenda items include:

- Development of guidelines and other documents for uniform implementation of the 2004 Ballast Water Management (BWM) Convention
- Development of international measures for minimizing the transfer of invasive aquatic species through bio-fouling of ships

USCG & State Dept are holding a public meeting re: the BLG agenda items in preparation of the meeting @ IMO. The public hearing is set for 26 January 2011 (9:00-noon)

(Contact: Peg.Brady@noaa.gov, 301-943-5613)

Aquatic Nuisance Species Task Force (ANSTF) Briefing for Dr. Robinson: A briefing is scheduled with Dr Robinson on January 27th to provide him an overview of the scope of activities and future directions of the ANSTF. The next meeting of the ANSTF is set for the first week of May 2011 in Little Rock, Arkansas.

(Contact: Peg.Brady@noaa.gov, 301-943-5613)

U.S. Army Corps of Engineers – Submitted by: Jan Hoover, US Army Engineer Research and Development Center- Waterways Experiment Station

In 2010, Asian carp studies conducted at or facilitated by the US Army Engineer Research and Development Center, Vicksburg included:

- 1) Population monitoring in a Mississippi River Backwater [Jan Hoover, POC];
- 2) Feeding ecology of silver carp in a Mississippi River Backwater [Cliff Ochs, University of Mississippi, POC];
- 3) Optimal settings for the Chicago Sanitary and Ship Canal electrical barrier [Mike Holliman, Smith-Root, Inc., POC]
- 4) Swimming performance studies of juvenile carp in the Lower Mississippi River [Jan Hoover, POC]

Planned for 2011: 1) eDNA studies in collaboration with USGS [Rick Lance and Jack Killgore, ERDC POCs; Duane Chapman, USGS POC];

2) Swimming performance studies of juveniles from the Lower Missouri River [Jan Hoover, POC].

US Forest Service – Submitted by: John Rothlisberger, Eastern Regional Office

The U.S. Forest Service (USFS) continues to work with many partners to prevent, control, and contain aquatic invasive species, and to educate citizens about the threats of invasive species and what individuals can do to stop their spread. In January, John Rothlisberger, Aquatic Ecologist for the USFS Eastern Region, attended the Annual Meeting of the National Professional Anglers Association. At the meeting, Rothlisberger spoke about aquatic invasive species and the opportunity that tournament anglers have to be ambassadors and opinion leaders among other anglers to promote behaviors that prevent the spread of invasive species.

In early March, the USFS National Invasive Species Program honored several individuals and groups working on AIS in the Mississippi River Basin. “Through their outstanding service and leadership, these people are helping to stem the tide of invasive species,” said U.S. Forest Service Chief Tom Tidwell. “They are ensuring the protection of our forests, grasslands and watersheds for future generations.”

Those recognized include:

Early Detection Rapid Response

Lindsey Chadderton (The Nature Conservancy), Cheryl Coon (Wayne National Forest), Teena Ligman (Hoosier National Forest), and Chris Evans (River to River CWMA), for their team efforts to establish and maintain an early detection and rapid response system to detect and

control aquatic and terrestrial invasive species along the Ohio River System across Ohio, Indiana and Illinois. *(See below for more information about this work.)*

Education and Awareness on Invasive Species

Wildlife Forever Inc., in recognition of their partnership with the Forest Service to educate the public and raise awareness of the invasive species threat to aquatic and terrestrial resources,. They contributed efforts to the Invasive Species Threat Campaign that generated more than \$1.78 million for public education to stop invasive species threatening the National Forest System. *(See below for more information about this work.)*

Outstanding Partner Against Invasive Species

Elizabeth Brown, Colorado Division of Wildlife, for her partnership with the Forest Service to bring together agencies and the public on important aquatic invasive species issues affecting the National Forest System

2 0 1 0 A N N U A L R E P O R T

THREATTM CAMPAIGN

National Invasive Species
Outreach & Education



718,900,000 Impressions Reached



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Wildlife Forever, President & CEO: Douglas Grann
Wildlife Forever, Program Manager: Pat Conzemius
Wildlife Forever, Government Affairs: Tim Richardson

Special thanks to our partners:

U.S. Forest Service, Eastern Region: Nick Schmal, John Rothlisberger
U.S. Forest Service, National Invasive Species Program Coordinator: Mike Ielmini
U.S. Fish & Wildlife Service, Region 3, Project Officer: Mike Hoff
National Park Service: Carmen Chapin
Bureau of Land Management: Raul Morales, John Moore, Gina Ramos
National Fish and Wildlife Foundation: Maureen Carothers
Minnesota DNR: Jay Rendall, Luke Skinner, Wendy Crowell
Wisconsin DNR: Christal Campbell, Mindy Wilkinson, Jeff Bode, Bob Wakeman
Iowa DNR: Kim Bogenschutz
Minnesota Sea Grant: Doug Jensen, Marte Kitson
New Mexico Game and Fish: Barbara Coulter
South Dakota Game Fish and Parks: Andy Burgess
Michigan DNRE: Emily Finnell

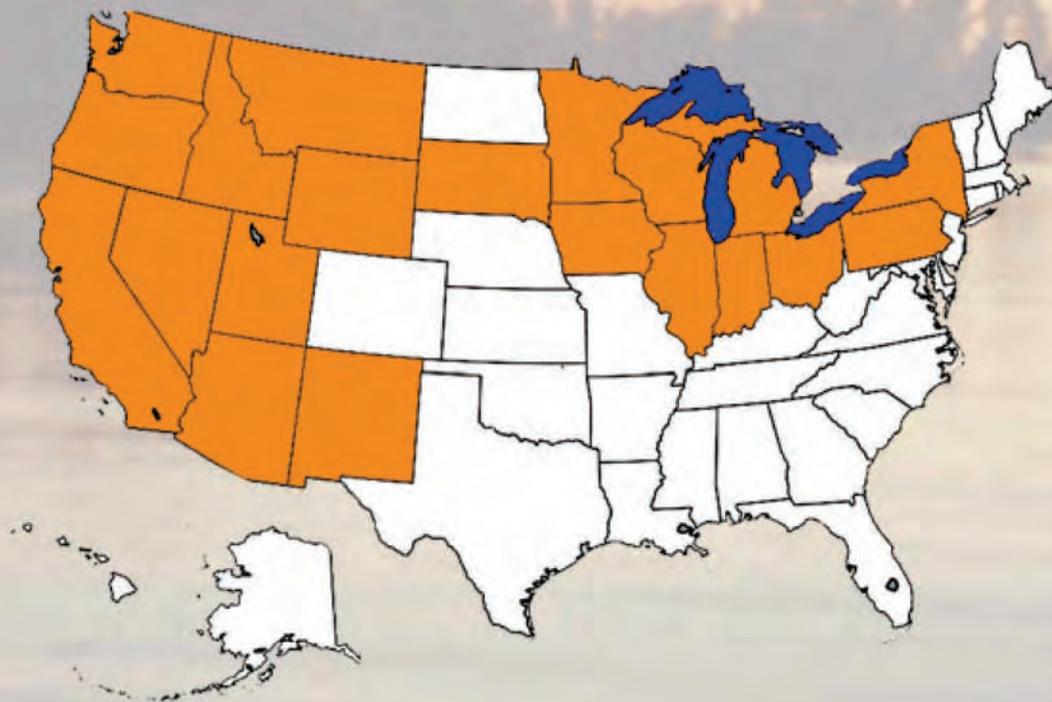
Hubbard County COLA: Bob Berdahl
Big Sandy Lake Association: Mark Anderson
Leech Lake Band of Ojibwa: Susan Kedzie
Crow Wing LARA: Paula West
Douglas County COLA: Bonnie Huettle
North American Fishing Club: Steve Pennaz, Kelly Gohman, Dan Johnson, Jeff Britenstein
BoatU.S. Foundation: Alanna Keating



Executive Summary

Threat Campaign™ 2006 - 2010 **Five Years of Outreach to Stop Invasive Species!**

It has been five years since Wildlife Forever took up the challenging charge to educate the outdoor community to stop the spread of invasive species. During Wildlife Forever's evolution into the world of invasive species we have embraced new partners, industries and markets that wondered how a fish and wildlife conservation group could help. Yet, with the scientific community, the outdoor media, television networks and the invasive species industry, we interacted providing expertise in direct and social marketing plus insights of our constituent base, outdoor recreational users. Together we met at an intersection of ideas, unique concepts and outdoor cultures to make change. The outcome, was innovation in 20 states, known as the Threat Campaign.



The Threat Campaign is a unique multimedia educational effort targeted to anglers, boaters, hunters and outdoor recreationists to stop the spread of invasive species. Outreach efforts include extensive television, print ads, billboards, airport dioramas, and Public Service Announcements (PSAs). Partners value the diverse field of expertise among members. Federal and state agencies serve as the scientific and messaging arm ensuring the Best Management Practices (BMPs) are based on the findings of the professionals. Wildlife Forever has expanded invasive species outreach through media contacts developed from 23 years of conservation efforts. As a non-profit organization it promotes PSAs to television, radio, and print outlets targeting the outdoor community.



Executive Summary

The partnership reaches across America with multiple state fish and game agencies, 8 federal agencies, a native tribal organization, numerous NGOs and lake associations. Starting with the U.S. Forest Service, Wildlife Forever's partners include:



From 2006 through 2010, the Threat Campaign partnership generated an outreach value of over \$2.8 million. Federal support of \$708,666 combined with state funding of \$389,510 was matched with over \$1.7 million in partner contributions.

In five short years, Threat Campaign partners created an unprecedented cost effective campaign reaching 1000 people for every \$1.50 invested. In total, over 718,900,000 impressions have been reached. On average 143.7 million impressions annually educated a highly targeted outdoor market.

In addition to high exposure and millions of impressions, the Threat Campaign uses innovative outreach techniques to change behavior. Educating outdoor recreational users on how to stop the spread of invasive species, the Threat Campaign teamed up with the Stop Aquatic Hitchhikers! (SAH) campaign targeting boaters, anglers, and hunters.

Campaign tools also include special DVDs (*Defending Favorite Places* and *Playing Smart Against Invasive Species*) produced by the U.S. Forest Service and funded in part by the National Fish and Wildlife Foundation. The newest DVD, *Playing Smart Against Invasive Species* targets non-consumptive outdoor recreational users and includes camping, ATVs, horseback riding, canoeing, snowmobiling, cross-country skiing, and biking.



Executive Summary

The partnership has developed proven resources ready for the field. Outreach methods include radio ads, talk shows, newspaper ads, public speaking, rest area displays, retail kiosks, gas pump ads, lawn banners, regulation booklets, watercraft inspectors, signs at water accesses, windshield flyers, stickers, and print materials.

Media messages have been crafted to grab quick attention and take advantage of current thought trends and concerns of the American public. Leveraging and matching partner dollars have become hallmarks of the campaign. Through Wildlife Forever's expertise in marketing and volume media buying, the combined efforts generate strong results.

In 2010, the partnership expanded into all bordering Great Lake states plus 10 states across the western United States. Expansion of billboard designs, targeted marketing, creative print ads, a second DVD and even a special invasive species television show became a reality. **Together the Threat Campaign reached 190 million impressions in 2010.**

Through Wildlife Forever's Threat Campaign, the partnership efforts have generated demonstrable behavior-changing results among outdoor recreationists.

In five short years 718.9 MILLION invasive species impressions targeting anglers, hunters, boaters and outdoor recreationists were achieved.

Invasive species continue to be a top public concern. 2010 survey results show that not only are anglers aware of invasive species but over 90% feel it's a very real threat and are willing to take action. In a recent survey from The Bass Federation and the Masters Walleye Circuit, over 66% of the anglers knew about the Stop Aquatic Hitchhikers! message with 91% taking action to prevent spreading invasive species.

The outdoor community is being informed how they can make a difference to protect their land and waters from the spread of harmful invasive species. The Threat Campaign extends the "call to action" beyond hunters and anglers to include all recreational stakeholders. The serious threats of silent invaders are damaging fishing and destroying habitat, impeding navigation and devastating the food chain. Wildlife Forever's Threat Campaign is making a difference that will be sustainable through education to the American public.

"The Threat Campaign partners are making huge strides in the fight against invasive species both on land and water. Through continued education to the American public, we're connecting citizens back to nature in defense of our outdoor heritage."

- Doug Grann, President and CEO, Wildlife Forever

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Ohio River Project Receives National Award

posted Friday, March 3, 2011 by [Teena Ligman](#)



Chris Evans, Teena Ligman, Cheryl Coon, and Mike Ielmini (Forest Service NNIS Coordinator) at the awards ceremony.

Three state cooperative project surveying for aquatic and riparian species along the Ohio River one of 12 efforts recognized by the national office for 2010.

Two years ago on a conference call to explore ways that cooperative weed management areas (CWMA) in the Midwest could work together and learn from each other, an idea was born to do an invasive project at a landscape scale. We decided the CWMA had the Ohio River in common. And one of the issues we all were concerned about were mapping protocols. We also knew we needed to do surveys to know what we had. Aquatic and riparian species were serious concerns for invasives and we didn't think any other agency was really focusing on those. So we developed an idea and two years later we

found ourselves standing on the USDA patio receiving accolades for our work.

Cheryl Coon from the Wayne National Forest, Chris Evans representing the River to River CWMA and the Shawnee National Forest, and Teena Ligman from the Hoosier National Forest attended an awards ceremony on March 2nd in Washington DC. Lindsay Chadderton from The Nature Conservancy, Doug Keller from Indiana DNR, and John Navarro from Ohio DNR were also recognized. Lori Williams, Executive Director of the National Invasive Species Council spoke at the event. She noted, "Invasive species are not an insolvable problem, it is a difficult problem. Rather than throwing up their hands, these people jumped in and did something." It was good company to be in.

Hilda Diaz-Soltera, USDA Invasive Coordinator also spoke to the group and advised them to be strategic, be focused, and look at teams to help attack the problem. She suggested it was important to prioritize the areas where biodiversity was most at risk.

The project the tri-state group was recognized for was dubbed Central Hardwoods Invasive Partnership Network or "CHIP-N." The partnership brought together four CWMA and three National Forests to work towards a common goal to extend the reach of individual efforts and determine the extent and distribution of aquatic and riparian invasive species along the lower Ohio River Valley. Department of Natural Resource Aquatic Biologists from Indiana and Ohio worked with the team and helped fund the project. Other funding was received from USFS State and Private, the USFS Eastern Region, and the Oberweiller Foundation. Surveys were done by a team of graduate students employed by Notre Dame University and supervised by Lindsay Chadderton (The Nature Conservancy).

The initial early detection project has three components: 1) Survey design and data standardization (2009/2010), 2) Survey implementation (2010) and 3) Data compilation and dissemination (2010/2011). Two parts of the project are now complete and the third is currently underway.

Aquatic systems in the Ohio River Valley were mapped, and infestation levels of aquatic and riparian non-native invasive plants inventoried. The survey teams surveyed aquatic species at inland lakes, along the Ohio River, and along major tributaries to the Ohio River. Their focus was on boat ramps. Many aquatic invasive species are easily transported on boats or trailers. Infestations near boat ramps, and other high-use areas, serve as sources for the introduction and spread of these invasive species.

The team used a cost effective method developed by The Nature Conservancy. The method uses a snorkeler and kayak companion to complete aquatic inventories. A survey around each boat ramp is done for 30 minutes, resulting in 6-8 site surveys a day. The survey team also did a search for terrestrial and wetland invasive plants around each boat ramp and parking area. Over the three

state area, 329 ramps were surveyed and 513 infestations were documented for 15 different species. The data are being compiled and uploaded to the EDDMapS website (<http://www.rtrcwma.org/chip-n/>), to promote public awareness of invasive species in the Lower Ohio River Valley.

Of the 15 species found the number of infestations varied from 3 sites with mile-a-minute vine, 34 sites where hydrilla was found, 20 sites with purple loosestrife, 49 sites with curlyleaf pondweed, 99 sites with Eurasian watermilfoil, 35 sites with zebra mussel and 26 sites with Chinese mystery snail, and 109 sites with brittleleaf naiad.

The next step is to use the data to develop an interstate strategic plan for prioritization and treatment of invasives. Strategized treatments will contain and prevent the spread of invasives beyond current locations, protect native aquatic and terrestrial vegetation thus providing a positive, landscape-level ecological impact in the Lower Ohio River Basin.

Future plans are to: 1) install invasive plant awareness signs with boat cleaning guidelines at infested boat ramps, 2) determine hydrilla viability on trailered boats, to identify the distance from known infestations to monitor for EDRR, and 3) organize volunteers to inventory purple loosestrife infestations along the Ohio River in 2011.

In addition to receiving the award, Coon, Evans and Ligman were able to attend the National Invasive Species Awareness Week workshop in DC. The workshop was excellent - discussing ways the now 323 CWMAs across the United States can work together and communicate their successes and issues.

A reception featured the problems with lionfish- a beautiful aquarium fish from the Pacific coral reefs that have unfortunately been released into the Atlantic Ocean. The fish are now a significant threat to our coral reef systems and are expected to spread from North Carolina to Argentina. To make a small dent in the problem, deep fried lionfish were served at the reception - they were excellent eating.

We received beautiful awards, were able to network and meet interesting people and learn about their projects. We came back more determined than ever to make a difference in our corners of the world in the work to protect our native species.

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