

100th Meridian Missouri River Basin
Team Meeting
July 18 - 19, 2012 Rapid City, SD

Attending:

Steve Shainost – Nebraska Game and Parks Commission
Jason Goeckler – Kansas Department of Wildlife, Parks & Tourism
Eileen Ryce – Montana Department of Fish, Wildlife & Parks
Beth Bear – Wyoming Game and Fish Department
Tim Banek – Missouri Department of Conservation
Cari-Ann Hayer – South Dakota State University
Kristen Grohs – US Fish and Wildlife Service (Pierre)
Rob Klumb – US Fish and Wildlife Service (Pierre)
Jason Kral – South Dakota Department of Game, Fish & Parks
Dan James – US Fish and Wildlife Service (Pierre)
Steve Hirtzel – US Forest Service (Black Hills)
Kim Bogenschutz – Iowa Department of Natural Resources
Dave Britton – US Fish and Wildlife Service (Region 2)
Mike Smith – South Dakota Department of Game, Fish & Parks

DAY ONE

State Agency Updates

***Nebraska (Steve)**

Steve gave an update on the progress at Zorinsky Lake in Omaha. The NGPC and Corps of Engineers collaborated to lower the lake elevation and freeze the mussels over winter. Monitoring is ongoing at the lake.

Veliger sampling is being completed in reservoirs in the Southwest portion of the state including Lake McConaughy.

***Kansas (Jason)**

Since the last meeting there has been one new zebra mussel infestation (Kanopolis). Wolf Creek reservoir will become infested because of the pumping of water from an infested river. Any new discovery will be from new introductions, and not from downstream spread.

Kansas continues to collect monthly veliger samples from infested waters and annual samples from uninfested waters (110 complete so far in 2012). Kansas compared veliger density between oblique and vertical plankton net tows and found no significant difference. Therefore Kansas has switched to doing oblique (from boat ramps/docks/shore) tows for detection monitoring. This has saved quite a bit time and money due to minimal equipment decontamination.

Two municipal water suppliers have recently had to halt operations due to zebra mussel clogged pipes. Jason has photos and more information for anyone looking to work with water suppliers in their state.

Anti-fouling coatings are being tested in Kansas. A report will be available in the fall. Jason tested multiple filters in multiple configurations and found a pre/post filter system that is 100% effective for veliger removal through 4000 gallons. This system is relatively cheap, and supplies can be purchased relatively easily.

Boat inspections in Kansas are done as spot inspections. Almost all LE staff in the state are trained in inspection, ID, and decontamination procedures. So far, both the public and LE staff appear to like this method for boat inspections.

Kansas recently reviewed and changed bait regulations. Jason held and participated in many meetings to get support from both the bait industry and general anglers.

These new regulations and changes include:

Bait Dealers

A list of species legal for sale

Imported bait must be certified pathogen free

All bait must come from disease free farm (every load is NOT tested)

Can only harvest bait from Private Water Fishing Impoundments

The application/license process is now verified

Amphibians are no longer allowed to be sold

Wild Caught bait

Can only be used in the water where it was harvested

Transport upstream over a dam is illegal

All boating Equipment must be drained

No live fish can be taken from an ANS designated water

Kansas has a new ANS campaign (protectKSwaters.org) to go along with the changes. Jason has been using facebook and yahoo sports ads. These ads reach many people and cost \$.01 per click for facebook.

This will be Jason's last meeting. He accepted a new position as the Statewide Fisheries Research Supervisor. He is currently in the process of hiring his replacement.

***Montana (Eileen)**

Eileen presented a map illustrating the long distances boaters are traveling to reach Montana.

As a result of legislative appropriations, the budget for Montana has more than doubled. This has enabled 60 watercraft inspectors to be hired, as well as 3.5 FTE's. So far in 2012, these employees have completed over 10,000 boat inspections. There are currently 12 permanent inspection stations at the heavily

used border crossings and 6 roving crews that inspect boaters at interior waters. The busiest station in the state does approximately 250+ boats per day.

The EPA was performing a dredging project and contractors brought 2 large zebra mussel infested barges from Michigan. The vessels were decontaminated (although the procedure was very dangerous). More cooperation between agencies would be ideal.

Large, high risk boats being hauled by commercial haulers are being inspected. If the vessel is passing through the state, Montana notifies all affected states. If the boat is to be kept in Montana the boat is inspected. Anecdotally, most of the infested boats are coming from the Great Lakes Region.

Montana also changed some bait regulations. This included prohibiting the collection of bait in infested waters. Bait can however be purchased and used in an infested water and then transported in new/clean water.

Communications staff have been performing surveys to gauge the effectiveness of outreach and education campaigns. They have found that AIS awareness is good, but actions and behaviors are not being affected by this awareness.

Rapid response exercises are now an annual event in Montana. This year the event will likely be held at a BOR property east of the Continental divide.

This will be Eileen's last meeting. Eileen accepted a new position of Hatchery Section Chief. Her replacement, Allison Bagley, recently started.

***Wyoming (Beth)**

Beth gave a brief overview of the Wyoming program since this was the first meeting a representative from Wyoming was able to attend.

The Wyoming program began in 2010. The program is funded by a combination of a boater fee (approximately \$450,000) and legislative appropriations. Currently the state operates both permanent stations and roving inspections. Decontaminations are done at "high and dry" locations to prevent contamination of other waters.

Wyoming's original outreach message in 201 was "Don't Move a Mussel" but since that time the state has now shifted to "Drain, Clean, Dry." This was done to include all water users (boaters, hunters, kayakers, etc.), as well as to include all invasive species. The current campaign utilizes billboards, radio, and television.

Beth has worked to educate companies that are transporting water in Wyoming. Large amounts of water are being transported for industries such as oil and gas exploration. Another vector being looked at is wildfire fighting equipment. Some of this equipment cannot be completely drained so Wyoming may look into using chemicals to aid in decontaminating.

Curly pondweed has recently been discovered in Wyoming. Asian clam have also recently been discovered in Wyoming. Information on aquatic plants in Wyoming has only recently been collected as no state agency has a clear mandate to manage aquatic plants.

***Missouri (Tim)**

Missouri has a prohibited species list. Aquatic species include: zebra mussels, quagga mussels, black carp, northern snakehead, walking catfish of the family Clariidae, New Zealand mudsnails, rusty crayfish, marbled crayfish, Australian crayfish of the genus Eriocheir, mitten crabs of the genus Eriocheir, and mystery snails of the genus Cipangopaludina, but not bighead carp or silver carp. There is also an approved aquatic species list. The approved list is mainly for aquaculture businesses and bait dealers. Bighead and diploid grass carps are on the approved aquatic species list, but tilapia are not.

A regulation banning the sale of live crayfish for bait became effective on March 1st, but complaints have caused the Department to work on a compromise with the aquaculture industry. Enforcement of the new crayfish regulation has been suspended while concerns from the aquaculture community are resolved. Live bighead and silver carp cannot be used as bait. Bait for sale cannot be taken from waters-of-the-state. Felt soled waders are now banned in most trout waters in Missouri. Anglers seem to be content with the regulation. Tim released instructions on how to convert felt soled boots to comply with the regulations (only lasts a short time). Salt-water decontamination stations were installed at some trout streams.

Adult zebra mussels were found in Smithville Lake in March of 2012. In 2010 an infested boat lift was moved from Lake of the Ozarks to Smithville. An eradication was attempted with cutrine plus (1ppm) and CuSo4. Zebra mussels are currently present in Smithville, Lake of the Ozarks, Blue Shoals, Lake Lotawana, Lake Taneycomo, and most of Missouri's largest three rivers. Missouri is no longer using veliger sampling for early detection of zebra mussel populations.

Tim hosted a workshop on wetland and aquatic invasive plants. He showed the group the EDDMapS program for mapping invasive plants. Hydrilla was found in a private pond near Stratford. It was likely brought in intentionally for fish habitat.

A 110 lb bighead carp was transported from Missouri to the Kansas City Cabela's store. This interstate transport of an injurious species was a violation of the Lacey act. A settlement with Cabela's is nearing completion.

***Iowa (Kim)**

Zebra mussels have been found on Clear Lake, Lake Rathbun (veligers), and Bluebill. These populations will continue to be monitored throughout the summer.

Quagga mussels were discovered at the Fairport Fish Hatchery. The mussels were found in one of the ponds.

A new state record bighead carp (93 lbs) was caught in Lake Rathbun. To date, reproduction of silver and bighead carp in Iowa has not been documented. Currently research is being done in the Des Moines River to determine if reproduction is happening. Gravid fish have been captured, but eggs/larval fish have not been captured in trawls.

The 2011 Missouri River flood has had effects on Asian carp in Iowa. Biologists are seeing a much higher percentage of silver carp vs. bighead carp. Many barrow pits and oxbows are now infested as a result of fish entering via flood waters. Flooding on the Little Sioux River allowed Asian carp to enter the Iowa Great Lakes since dams along the river were submerged. This past spring a commercial fisherman caught 80 bigheads and 50 silvers in East Okoboji. The lake association and DNR are developing and installing an electric barrier to prevent more Asian carp from entering the lake. Smith-Root is the contractor.

Watercraft inspections are voluntary. Twenty watercraft inspectors are stationed in the fisheries management districts across the state. The inspections are mostly an outreach/education tool.

Iowa now has a director appointed AIS committee made up of members of the general public.

***South Dakota (Mike)**

South Dakota now has ANS regulations. Three administrative rules were approved by the GFP commission in November and became laws in January. <http://legis.state.sd.us/rules/DisplayRule.aspx?Rule=41:10:04>). The first is a list of what is considered and ANS species. The second makes it illegal to transport, purchase, propagate....etc. any ANS species. The third gives the state the authority to require boat inspections and requires that an infested boat be decontaminated. Decontamination protocols are still in the works. Currently each regional office has a heated pressure washer for decontamination. Boaters would likely have to drive to the office (at times this could easily be over 100 miles one way).

The ANS staff in South Dakota consists of Mike and six summer interns. The program is not funded by any appropriations or fees, only the ANSTF plan funds. South Dakota GFP does contribute hard dollars to the program.

ANS sampling and monitoring is being done as it was last year. High risk lakes are sampled annually, medium risk every other year, and low risk lakes every 3 years. GFP is performing veliger sampling on the 4 mainstem Missouri River Reservoirs. BOR is taking veliger samples from waterbodies in the Black Hills.

Asian carp are quickly becoming the number one problem for South Dakota. So as not to take away from Cari-Ann's presentation tomorrow, Mike only briefly updated the group. A large portion of Eastern South Dakota will soon be closed to bait harvest (both commercial and personal use). Currently the mainstem James, Big Sioux and Vermillion Rivers are closed to bait harvest. Changes to this law that include tributaries of these rivers will hopefully slow the spread of Asian carp. SD GFP receives dozens of calls weekly on "new" sightings of Asian carp. The reports became so numerous that GFP had to put out a news release asking only for reports if they were seen outside of the known infested rivers.

Federal Agency Updates

***USFWS – Joanne Grady**

Joanne was unable to attend the meeting, but emailed an update that Mike read

***USFWS – Dave Britton**

Dave updated the group on the ongoing zebra mussel fight in North Texas. The North Texas Municipal water district obtains some of its water for its 1.8 million customers from Lake Texoma via the Trinity River System (specifically Sister Grove Creek). Zebra mussels have been found in both Lake Texoma and Sister Grove Creek. TDWP attempted an eradication on the creek in 2011.

A project was proposed to build a 72 to 84 inch pipeline directly from Lake Texoma to a water treatment facility below Lake Lavon at a cost of approximately \$300 million.

The USFWS was directed to spend \$2 million in QZAP funds on federally managed waterbodies in the west (Lake Mead). The funding breakdown included \$455k to Lake Mead, \$100k to NPS for interdiction @ Glen Canyon, \$100k to New Mexico Game and Fish for interdiction @ Navajo Reservoir, \$180k for Law enforcement activities outside of Lake Mead, and various other disbursements targeted at containing the existing infestation and preventing its spread from the Colorado River

***USFWS – Rob Klumb**

Asian carp have not been found in any waters they monitor. Some new work is being done on didymo in the Black Hills (Dan James to explain on the field trip).

***US Forest Service – Steve Hirtzel**

Steve gave some background as this was his first meeting. Approximately five years ago each Forrest in the region was directed to designate an ANS coordinator by the regional office in Colorado. Steve serves as the coordinator for the Black Hills Forrest. Funding is variable, with approximately \$10k in the budget in 2011. No ANS funding in FY2012

Steve has been working with contractors to ensure that equipment brought in to the Forest is ANS free. Like Wyoming there are some concerns with equipment brought in to fight wildfires. Steve will give more information to the group on the field trip.

2012 World ANS Bowling Championship

The 2012 World ANS Bowling Championship was held at Meadowood Lanes the night of the 18th. This was the first Championship after the retirement of perennial powerhouse Bill Zook, which stunned the ANS bowling world last season. Dave Britton journeyed from the heart of Texas to defend the title he earned last year in Independence, MO. Eileen Ryce was unable to bowl after suffering a devastating injury in the off season. This unforeseen addition to the IR list left 12 people to vie for the titles of both team and individual World ANS Champions.

Although there were contenders from seven states, six of the bowlers hailed from the Mount Rushmore State. Therefore, the 2012 team match-up was South Dakota vs. the World. Game one was a battle to the end with Team South Dakota squeaking out a victory by approximately 30 pins. Team World was ready to even the score with game two, but they ran into the buzz-saw duo of Dan James and Cari-Ann Hayer who bowled a 186 and 185 respectively.

Team South Dakota claimed the team championship, and Dan James (USFWS) claimed the individual title with a two game score of 301. Allegations of the host bringing in ringers were muttered, but nevertheless everyone accepted their win or loss and had a great time! Word after the match was that Jason and Eileen may be considering retirement from the league; however a comeback at a future date cannot be ruled out at this time. Will we see the debut of some new bowlers in Wyoming?????

Team SD: Dan, Cari-Ann, Jason, Rob, Kristen, Mike

Team World: Beth, Kim, Tim, Jason, Steve, Dave

DAY TWO

Asian Carp Discussion

Cari-Ann Hayer – South Dakota State University (SDSU)

Cari-Ann is a PhD. Student at SDSU studying the invasion, food habits, and reproduction of Asian carp in South Dakota. She gave a presentation outlining her work. Cari-Ann has seen an exponential increase in the population size of silver carp in South Dakota. In the three years of her study, catch rates have drastically increased and, anecdotally, the numbers of fish jumping are much higher. On the James River, Cari-Ann has been able to capture age-0 silver carp far enough from the confluence with Missouri River to strongly support that reproduction is happening in the tributaries. Data is still being collected for the project. For more information, please contact Cari-Ann.

Asian Carp eDNA Laboratory

Mike updated the group on the status of starting an eDNA laboratory at South Dakota State University. At South Dakota's winter fisheries meeting in February, the idea of utilizing eDNA analysis for determining Asian carp distribution in the state was discussed. This project gained support within SDGFP, and in late May/early June, many of the state coordinators and Joanne

participated in a conference call to discuss funding for starting an Asian carp eDNA laboratory at SDSU. After some discussion between the members of the group, Region 6 was able to provide \$13,000 for purchasing two thermocyclers for the lab. This would allow any Missouri Basin Team State to send samples to the lab and have them processed for a \$40 fee.

South Dakota is planning to use the lab largely to guide in bait closures in the Eastern part of the state. The lab is not yet operational. When the lab is ready for samples, all states will be given protocols for sample collection, shipment, and analysis.

Jason and Tim updated the group on a different eDNA project that they are working on in conjunction with the Kansas Biological survey. A major goal for this project is to determine if Asian carp are present in a Missouri Reservoir.

A discussion on Asian carp then began and included topics such as the uses of eDNA, Asian carp reproduction, and their infestation into the Iowa Great Lakes.

Funding

In her email, Joanne informed the group that \$30,000 needed to be appropriated by the team. This money was sent to the group by the PSFMC last year for use on projects in the basin. No projects were funded, so these funds needed to be spent ASAP. Many ideas were discussed including:

- Assistance to the SDSU Asian carp eDNA lab
- Purchasing filtration systems for hatcheries
- Radio/television PSA's
- Basin-wide signage
- Mobile boat wash trailers
- Promotional items

Some members of the team expressed that they felt that money like this would be best used either basin-wide or used for projects in states that are not as well funded (no legislative appropriations, fees, etc.).

The team decided to give \$15,000 to the SDSU eDNA lab. This money will either be used to pay processing fees (approximately 375 samples @ \$40/sample), or to purchase disposable equipment for the states. The team asked Mike to contact SDSU and find out what they believed the most efficient use of these funds would be.

Nebraska was awarded \$2,000 for signs. Recently officials at Gavins Point Dam requested signs from South Dakota to post at their boat ramps; however the signs would actually have been in Nebraska. Nebraska had zebra mussel signs, but no Asian carp signs. This money would allow Nebraska to purchase signs to use in the state.

South Dakota was awarded \$8,000 to purchase a trailered mobile boat wash. Currently an infested boat could have to be transported over 100 miles for decontamination. A mobile unit would allow the state to perform inspections and decontaminations at the same location.

Finally, \$5,000 was set aside for promotional items or "swag." Many of the states in the basin are working or have just finished working on bait

regulations. The team agreed that providing some items related to bait for each state would be helpful. Beth agreed to look into this project.

2013 Meeting Location

The 2013 meeting will be held in Wyoming. The city is TBA. Beth will let us know where she has selected.

Field Trip

The field trip was split into two parts for this meeting. Part one was a trip to Rapid Creek immediately below Pactola Reservoir. This is the site of the largest Didymo bloom in South Dakota. Steve Hirtzel talked about the background and history of Didymo in the Black Hills. Dr. Dan James then explained his PhD. work that was done on Didymo in the Black Hills, as well as a new research project funded in part by Joanne and the Region 6 office. After Pactola, one group went South towards Hot Springs and the other returned to Rapid City for early flights and departures.

On the way to Hot Springs, the group noticed a growing column of smoke. As we neared Pringle, SD we could see helicopters in the air and fire-fighting vehicles on the ground. The fire, called the Myrtle fire, began at about 1:30 PM and was declared 100 percent contained on July 25th (nearly a week after the field trip). It burned approximately 10,080 acres (\approx 16 sq miles).

After a short detour around the wildfire, the group made it to Hot Springs, SD to electrofish some Jack Dempsey Cichlids. Mike was able to find some, and the group saw at least 2 year classes of JD's. Surprisingly, a new location for an ANS species was discovered while looking for the fish. Red-Rimmed Melania were known to be in Cascade Creek, however the group found many live and dead snails in Hot Springs. Mike is sending them off for ID confirmation and will keep the group updated.

