

Minutes
100th Meridian Initiative
2003 Annual Meeting
Benedictine College, Atchison, Kansas
June 4-5, 2003

Bob Pitman welcomed everyone and we all introduced ourselves.

1. Updates

North Dakota - looking at putting in two Traveler Information Stations (TIS), one at Lake Sakakawea and one at Grands Lake State Park. New brochures are at the printer right now. ANS information will be at Department of Game and Fish Home Page. Outreach projects include Public Service Announcements, TV program, 3 radio programs with ANS message, signs at major boat ramps. Zebra mussel (zm) substrates have been distributed, crews monitoring the lakes.

USGS - Columbia Environmental Research Center - Duane Chapman - will be USGS representative to new MRB regional panel. Researcher on Asian Carp, the most abundant species of large fish in the Missouri River. Silver carp are on their way up the river. Research shows that they will not be stopped by cold weather. They will love the big reservoirs if they can get past the dams. In Missouri, they are preferred bait for catfish, so it is expected that they will be transferred by bait bucket around the dams eventually. Different species have different winter strategies. Duane tagged fish in October and biologists are tracking their movements.

South Dakota - Jeff Shearer - Zm substrates have been distributed in Lake Oahe, Lake Sharpe and Lake Francis Case. Steve Wilson from NPS will be monitoring the Missouri River recreational stretch and Lewis & Clark Lake. TIS systems: Ft. Randall Dam, State Park below Oahe Dam, Cabela's Store along I-90 at Mitchell. Current signs will be phased out and replaced with Missouri River Basin sign. Concern over the potential of fishermen collecting bait below Gavins Point and using it at Lewis and Clark Lake - possible transport of Asian carp above the dam. State fisheries programs from SD and NE are looking to prohibit bait collection by individual fishermen below Gavin's Point Dam. Bait collection by commercial bait dealers is currently prohibited.

Nebraska - Steve Schainost - Steve will be putting out information and signs at Missouri River marinas. He will also distribute Asian Carp watch cards. Four sites of Eurasian watermilfoil have been found so a new ID guide was developed and sent out to staff. ACOE TIS at Gavins Point has agreed to add the ANS message.

Kansas - Tom Mosher - Staff inspected every boat at recent Walleye Tournament, sponsored by Cabella's. Any boat not inspected was not allowed in the water. Will do the same thing at B.A.S.S. Tournament, later in June. These are the first national tournaments in Kansas. Tom got a message that zebra mussels have been found in Oologah Reservoir in Oklahoma, a new site. Boat traffic from Verdigris River. Two

years ago, during a drawdown at the reservoir, no zm's present. Kansas will post signs at four boat ramps on Missouri River. Will participate in Lewis and Clark celebration in Atchison in 2004. Approached nursery owners who had been selling giant salvinia and they agreed to take them out of their store.

University of Texas at Arlington Center for Macrofouling Research - Bob

McMahon - Giant salvinia still a problem in SE Texas. Apple snail, a freshwater snail as big as an apple, is showing up near Houston. It lives in standing water and is very invasive. It eats rice and is found in the rice fields. Could potentially spread in SE US. Erin mentioned there is a population in CA also. Bob said to get rid of it because they can spread so rapidly. They are a popular aquarium species. They lay their eggs in the air. No predators here.

At the Ft. Worth botanical gardens - Bob found three species of Purple Loosestrife purposely planted. He wrote them a letter pointing out the mistake.

Zm's in the Arkansas River in Oklahoma is the warmest environment that they are found in the U.S. He believes this is a race of thermal tolerant zm's because it is isolated. They are in the navigable part of the River, where it is cooler. Green mussel introduced in Tampa Bay is spreading - Bob is studying the biology to see where it might spread. This would be a serious problem in California. They are very large estuarine mussels, and have shut down every power plant in Tampa Bay. This mussel is all over the world now. Issue of mussels on anchors or anchor chains - can live in a damp chain box for weeks. A serious problem that we are not taking seriously enough. Bob Howell at TX Parks and Wildlife is monitoring ANS, but not much prevention occurring.

Discussion about increase in creation of water gardens and the potential spread of aquatic animals, plants, diseases and soil microbes.

2. Status of electronic data collection (Bob Pitman)

Bob described a collection unit (GPS type unit) for resource managers to use and collect information (maybe 12 that get passed around) and then can upload the information to 100th website. He still hasn't found a vendor, but thinks there is one out there somewhere. This would allow for analysis of data and more effective use of limited dollars for areas that are critical.

Erin and Bob will do research on systems before the next meeting.

3. Update on website and database

New items: Stop Exotics - Clean your Boat video is now on the website. New page with state regulations, such as fishing tournaments. New documents added. 2000 visitors to the website in May. Average hits per session is 7. Average page views: 1.5. Average time spent 65 seconds. People coming from search engines is 6.6 percent. 60 percent of people coming in by typing in the address directly.

Database: 7,412 boater interviews; 2,707 trailered-boat traffic counties; 6,273 trailer counts in parking lots. Less data in 2002 because most states are no longer doing surveys. Data being collected currently in Lake Mead from University of Nevada at Las Vegas.

David has been working to get the database in a form that it can be used. The data have geographic coordinates now. Map with zm locations and survey locations. Boaters are asked their zip codes and David has plotted this on a map. Then David put on boater destinations, which includes where they are being interviewed, where they say they are going, and where they say they have been. Dots are spread out over the US. There is a layer of major US highways. David then ranked all the highway segments to see which ones are more frequently used. Obviously data is biased toward those places where there is a lot of data. We can ID specific highway segments that are getting a lot of boat traffic. This is very useful for outreach - where would we want to direct signs or other outreach. David color-coded US by mean air temperatures. Especially shows how zm's in Arkansas hug the temperature zone of less than 33 C degrees. Would like to get analysis about where boaters go all over the western US. It will allow states to target where they do inspections and education.

It is possible to click on a lake and see where all the zip codes that the boats come from and if they are from infested areas as well. These data will be added to the website by the end of the summer.

Question: where can we get data on water temperatures? Is it available from USGS? David's experience is that it is very generalized or very detailed and expensive. Bob McMahon said there is a strong correlation between mean air temperature and mean water temperature. Tanya cautioned that in California many areas are managed for salmon and is at a cooler temperature than it may show by the mean air temperature map. Bob said that zm's cannot tolerate low oxygen areas.

Discussion of future of website about how we organize the website. David also maintains the database. He can be contacted with a specific question and can set up queries which can be updated each year.

There will be Hazard Analysis and Critical Control Points (HACCP) plans, examples and forms on the website by June 18th. Bob will introduce them at the AFS Fish Culture Conference.

4. Asian Carp in the Missouri River - Wayne Stancill (USFWS)

Wayne has finished two years of research in the Missouri River below Gavins Point Dam. They started with bighead carp and worked on age structure. Mostly they were seeing larger fish and they wondered where the younger fish were. They collected gonads to find out when and where they spawned. They wanted to know if they fish were moving into the tributaries. These fish are difficult to sample and literally can avoid

the sampling gear. The fish are extremely sensitive to disturbance, including outboard motors. Wayne said that their catch per unit effort is no indication of the abundance.

There was speculation that the Asian carp would not spawn in the upper River. Based on Wayne's research, they are reproducing and feeding year-round. Rob Strum is doing fish community sampling above and below the Gavins Point Dam. Physically, they are 30-40 miles separated. The difference is the dam and also the presence and absence of Asian carp. This will help determine what the carp impact on the riverine communities are. This information will help the states of SD and NE with their bait harvesting restrictions.

5. Report from the Washington Office - Don MacLean (USFWS)

USFWS just got our budget. There is a slight decrease in 100th Meridian Initiative budget this year. Next year the ANS budget should be increased by \$1 M so there should be an increase for 100th Meridian. The listserver is up and running so please use it and put interesting items on it.

100th Meridian Initiative Display: Concept by Don, now some design being done by graphic designers at NCTC. They are searching for high quality photos now. Don would like a 8ft by 10ft free standing and also create a table top display. Table top display could be put on website.

100th Meridian logo: Don handed out various logo ideas. He will put a couple on the website and ask for comments.

Accomplishment report: Don would like to develop an accomplishment report. He will contact folks asking for suggestions. FWS coordinators will be on a team to put together a way of reporting accomplishments using DOI requirements and then contact other members for their ideas and inputs. Discussion about how to report accomplishments based on prevention. Don mentioned that the Protect Your Waters campaign will be used in pilot projects and evaluated for success in reaching people. Bob M. mentioned that our boater surveys also ask people if they know about ANS. That is part of the data that will be useful to measure success. We could ask very specific information about what people know and where they learned it. This could be a standardized assessment tool. Bob P. mentioned that Minnesota Sea Grant did a study that we could modify. He will contact Doug Jenson.

6. Zebra Mussel Prevention in California - Cindy Messer and Tanya Velhuizen

The project is funded by Dept. Of Water Resources and by Cal-Fed (20 state and federal agencies in California). Seven Tasks: Risk Assessment and Rapid Response Plan; centralized report system; monitoring plan; volunteer training; sub-contract for sample analysis; public education and outreach activities and final report.

Monitoring Plan: They developed a list of high-risk areas, using water chemistry, primary productivity, boat traffic, connectivity, substrate. They came up with 28 sites to monitor. They are limited to Cal-Fed's area of interest which is the Sacramento-San Joaquin Delta, tributaries. It is localized to the Central and Northern part of the state.

Cindy is conducting site visits and collecting information on: geography, authorities, recreational activities, information dissemination, structures present, water quality data available, presence of *Corbicula fluminea*, and contacts and/or potential volunteers. Bob M. suggested that power stations will be interested in helping the monitoring. He also mentioned that looking for *Corbicula* is a great indicator of a place where zebra mussels might be. He suggested getting watch cards to school kids who are interested in finding things.

Monitoring: They are doing passive sampling with artificial substrates which will be checked monthly. Active sampling at some sites. They will use planktonic net tows at surface waters. Bob M. Mentioned that the veligers will show up in these tows.

They are developing a database which will be put on a website. It could be put on the 100th Meridian website since our audience is already interested. Or we could have a link to Cal-Fed. Cindy is in contact with zebra mussel monitoring program at Portland State U. Bob M. suggested that they do some boater surveys that will be compatible with our data.

California Rapid Response Plan - Tanya

1. Zebra mussel sighting validation
2. Notification of confirmed sighting (list of organizations)
3. Site assessment and vector control
 - delineate population
 - prevent release of veligers and movement of adults
 - quarantine infested waterbody
 - prevent overland veliger transport to other waterbodies
4. Selection of eradication method
 - have menu laid out ahead of time
 - determine factors in selecting method
5. Notification and public education
6. Obtain permits
 - have information ready to go
7. Eradication implementation
8. Post-treatment monitoring and follow-up treatments

Advance preparation:

- Establish website, listserv and information packets
- Conduct fire drills
- Designate as species for eradication

- Legislative bill to obtain quarantine authority
- Form "Zebra Mussel Science Panel"
- Secure funding source

Funding for the zebra mussel monitoring program ends in June 2004. The monitoring program is considered a pilot study. Cindy and study want to secure funding to continue the monitoring program and to expand the education task to include other ANS. Tanya will also seek funding to conduct boater surveys.

According to Bob M. There have been no successful eradication of zebra mussels because usually people wait too long. A quarry in Virginia is working on eradication right now. In small lakes, water can be pumped out.

7. Lewis and Clark Bicentennial Report - Bill Zook

Missouri River Team met in Pierre, SD in March to formalize an action plan to prevent zebra mussels from spreading during the Lewis and Clark Bicentennial Commemoration. Membership is from all seven Missouri River Basin states and from FWS, ACOE and NPS. The strategy is to get the message to people in many different forms: trip planning on the Internet, TIS along highways, marine operators will have information, and signs at the boat ramps.

a. Trip planning

Bill has started developing a list of Internet sites, national and regional boating publications, ESPN, Lewis and Clark Bicentennial national and state planning groups, state and local chambers of commerce, state parks, state and local tourism offices, Cabella's store and catalog, National Walleye Federation, outdoor adventure publications. Bill is working in conjunction with Joe Starinck and the Protect Your Waters Campaign. These contacts will be made before the boating season of 2004.

b. Traveling en route

We will be using short range radio systems (TIS) along the highway routes that follow the river courses. Discussion about what the highway signs say to alert travelers to tune into the TIS. John will try: Boaters and Angers, Tune into 1610, Stop Aquatic Hitchhikers. In Montana, at the weigh stations where the TIS stations are located, they will be doing voluntary boat inspections. Group to develop evaluation system is Erin, John, Lynn, Bob, Bill.

We have enough funds for 2-3 more sites. We have 5 proposals. Four TIS are already funded in Montana, three in South Dakota and one in North Dakota. In addition, six existing TIS have agreed to broadcast our message.

c. River Watch Program

The River Watch program is the name given to the partnership between water resource management agencies and private marine, USACE concession and portage operators on the MO River. Partners agree to

1. Prominently display and actively distribute educational material throughout the boating season using the display case provided by the water management agencies.
2. Include a copy of the "Zap the Zebra" brochure with at least one mailing to every customer on an annual basis.
3. Prominently display the "POWER WASHING AVAILABLE HERE" banner provided by the water management agencies if power washing is available on site.

There is also a cash incentive program for the operators who take extra steps.

We will provide:

1. Counter top or wall mounted brochure display case with an imbedded zebra mussel sample and affixed zebra mussel poster.
2. High quality 10 X 3' outdoor banner reading "POWER WASH AVAILABLE HERE" to those facilities with power wash equipment on site.
3. A \$50-\$100 annual cash subsidy for postage and handling of customer mailings that include the Zap the Zebra brochure
4. An adequate supply of educational brochures samples poster and other zebra mussel and ANS educational materials as requested.
5. A cash award of between \$100-\$500 will be presented to each business based on their level of participation as determined by the corresponding State ANS coordinator.

Suggestion: we could include a survey form with the mailings they send out.

d. At the boat ramp

States agreed that the same sign would be used at all the 400 plus Missouri River boat ramps. Each state will have its own contact information at the bottom of the sign. There will be two different sizes available for kiosks or stand-alone. Each state will order the signs that they need. The signs will be plastic and yellow with black. An electronic copy will be put on the website.

e. Monitoring

Portland State U. provides PVC pipe with screening or veiling inside to hang from docks and are checked regularly. The data is sent to PSU. Dry out the shells - they can be identified by Bob M. if necessary. Lynn has many of these monitors at Lake Sakakawea. Monitoring will also occur in all the other Missouri River

reservoirs. Encourage state parks or fish and game staff to check buoys or removable docks at end of the season. According to Bob M., zm's get pointed end shape when they are about 1mm and are easy to recognize.

Next year, many of these River Watch processes will be used in the Columbia River Basin.

Tom Mosher reported the zm's were brought into the state of Kansas by a high school student to show in the school aquarium. Kansas Fish and Game put a article in biology teachers newsletter to warn teachers not to allow this kind of activity.

Next Meeting: In St. Charles, MO during the Lewis and Clark Bicentennial Commemoration which occurs May 14-23, 2004.

Minutes compiled by Tina Proctor, (303) 236-7862

Work Plan 2003-2004

- 1. Research on systems for electronic data collection to collect information that can be loaded on the database on the 100th Meridian website.
Bob and Erin**
- 2. David will add layers on database of zipcodes and major US highways so that a query can show where people are bringing their boats from but**

which highways they are using as well.

3. David will add Hazard Analysis and Critical Control Points (HACCP) plans, examples and forms on the website. Bob P. will provide by June 18th.
4. 100th Meridian display - Don is working with designers at the FWS National Conservation Training Center and the display will be available in the next few months.
5. Don will put the top logos on the website and ask for comments. When a final logo is picked, we can order business cards and stationery.
6. Don will develop an accomplishment report for the 100th Meridian. FWS ANS Coordinators (Tina, Mike, Bob P., Erin) will work with Don to report accomplishments using Department of Interior requirements, then contact others for ideas and input.
7. Bob P. will contact Doug Jensen at Minnesota Sea Grant for information on survey questions regarding ANS. Bob M. suggested that the boater surveys could include questions about ANS.
8. Cindy will work with David to put California database on 100th Meridian website.
9. Bill will work with Joe Starinchuk and the Protect Your Waters Campaign to contact a list of Internet sites, state tourism offices, Lewis and Clark Bicentennial planning groups, etc. to distribute ANS information.
10. Bill and Stephen will provide to marina operators (can also be ordered by States):
 - plastic brochure holders - counter top or wall mounted
 - zebra mussel samples
 - zap the zebra brochures, posters and other materials
 - "Power Washing Available Here" banners
 - cash subsidy for mailing zap the zebra brochures to customers
10. Bill and Stephen will provide signs to be distributed at all 400 plus Missouri River boat ramps.
11. Stephen will provide 100th Meridian funds (through a cooperative agreement with the US FWS) to States to buy TIS systems along the highway routes that follow the Missouri River.
12. Bob, Lynn, Erin, Tina and Bill will develop a TIS canned message that can be used at any of the stations. They will also work on developing a way of evaluating the effectiveness of the TIS systems.

- 13. Bob and Tina will continue to work with Pam Meacham at Washington Department of Fish and Wildlife to develop a training video for Departments of Public Safety about how to look for zm's on commercially hauled recreational boats. The video should be completed by September, 2003.**