MICRA Paddlefish-Sturgeon Committee Meeting Minutes – 1/24/2012

Powder Valley Conservation Nature Center

MICRA Paddlefish -Sturgeon Committee Action Items and Decisions

1. Email voting is needed to accept the modified SOP document, as amended. The amendments included: (1) that the assistant chair has the duty of writing the minutes, (2) if the chair resigns an election will be held at the next meeting for the assistant chair, sub-basin tag coordinators be made official positions in the SOP document, the chair-elect will be renamed the assistant chair, and the last duty of the chair is to give presentation at the executive board meeting.
2. Email voting is needed for the officers. Jeff Quinn (AR) was nominated for the Chair and Jason Sorenson (SD) for the Chair-Elect.
3. Email voting is needed to approve use of the database by Alexei Sharov.
4. States need to get paddlefish tagging data to the sub-basin coordinators. Fish should be entered for the data merge by June 28th. Patty Herman of USFWS Columbia will meet this summer with the sub-basin coordinators to perform the data merge.
5. The tagging protocols document will be revised by an ad hoc committee of Gerald Mestl, Mark Boone, Jason Sorenson, and Jason Schooley.
6. Dave Herzog will lead an ad hoc committee (George Scholten, Eric Ganus) to look into online commercial harvest reporting.
7. The Chair will call Ohio River basin state representatives to see if moving the meeting into their basin will it help them attend and if they can provide free meeting space.
8. Send data to Alexi by August-September of this year for the stock assessment, upon receiving the letter from AFWA .
9. Dave Herzog volunteered to maintain annual fish and roe harvest tables for commercially fished states. Everyone needs to get harvest information to Dave.

Welcome / Introductions / Opening Remarks - George Scholten welcomed meeting attendees (see attached). George passed out the agenda, 2011 meeting minutes, a list of state delegates, and the draft SOP document. Only 8 state delegates were in attendance and 15 is a quorum, thus voting to approve official business must be done by email.

Standard Operating Procedures - SOP

1. George started by leading a discussion of the standard operating procedures document. Jeff Quinn suggested having the chair-elect write the minutes. A 3-y term was discussed, but a total of 6 years of leadership may cause burn out. The group decided that if the chair resigns to have the chair-elect position election at the next meeting. The last duty of the chair is to give presentation at the executive board meeting.
2. There was discussion about rotating the Chair by sub-basin, but some states are in multiple sub-basins (Iowa, Missouri, Kentucky).

3. Mark Boone suggested that the Chair-Elect name be changed to Assistant Chair, because it may help with obtaining travel authorization.
4. Gerald Mestl started discussion on travel support. Greg Conover indicated that the Chair submits budget requests for travel to the Governing Board. George suggested the MICRA Chair may want to ask for travel for state delegates. We may need to ask everyone when the annual meeting announcement comes out if they need travel help. Sub-basin reps are not in the SOP.
5. Gerald suggested the sub-basin tagging coordinators be made official? Greg indicated these sub-basin positions could help with travel. Gerald proposed sub-basin tag coordinators be official in the SOP. Missouri seconded the proposal, and an email vote is needed. ***ACTION ITEM: Email voting is needed to accept the modified SOP document, as amended!***

NOMINATIONS - Gerald Mestl and Mark Boone nominated Jeff Quinn for chair, who accepted. George asked for nominations for chair elect. Gerald nominated Jason Sorenson, Jeff Quinn seconded the nomination. Final vote must be done by email. Gerald requested we send out a personal invitation to all the states who did not attend the meeting. ***ACTION ITEM: Email voting is needed to elect officers!***

STATE/SUB-BASIN REPORTS

Illinois DNR Activities (Les Franklin): No update - Rob or Butch were not able to attend for Illinois to give the state update
Indiana (Tom Stefanavage): No update due to limited sampling because of high water
Kentucky (Doug Henley/Paul Rister) : No update
Ohio (Tony Sindt): No update
West Virginia DNR (Chris O'Bara): Broodstock were collected from the Greenup Pool (R.C. Byrd Tailwater) and the Racine Pool (Belleville Tailwater). Eight males and four females were used as broodstock. Fish were reared at the Palestine and Apple Grove State Fish Hatcheries. Hatchery reared fish were tested for fish disease and pathogens following the USFWS Wild Fish Survey protocols. Collections and sample preparation was conducted by WVDNR staff and laboratory testing by the USFWS Lamar Fish Health Laboratory. All fish were negative for deleterious pathogens**.** Age-0 paddlefish were stocked into three river systems in 2011. All released fish were inserted with a CWT, as well as elastomer mark. A total of 4,880 fish were released into the Ohio River (3,580), Kanawha River (1,100) and Monongahela River (200). Field surveys were conducted at the R.C. Byrd tailwater using 5-inch square bar mesh gill nets. In addition, paddlefish were collected during pDC electrofishing surveys for percid and black bass at the Belleville, Willow Island, and Hannibal tailwaters. Projected 2012 Activities: Paddlefish will be reared at WVDNR facilities for introductions into the Ohio and Kanawha rivers.

ORFMT Planned 2012 Activities: All states within the ORFMT have agreed to take part in a population demographics study. The goal is for each state within the group to get a representative sample (100?) from there reach of the river. From this we will be able to estimate age, growth, mortality, and potentially look at fecundity and maturation schedule. We will meet in February to hash out the details, but this is something all states within the ORFMT feel needs to be completed.

Oklahoma : Brent Gordon provided an overview of the Grand Lake roe processing station (RPC). At the RPC, 4,690 fish were observed in 2010. They sampled 3 lakes and tagged 2,300 fish. Jason Schooley will be giving a presentation tomorrow.

Arkansas: Jeff Quinn of AGFC provided the Arkansas overview. Lee Holt has obtained shovelnose sturgeon from many MICRA partners as part of the range-wide shovenose sturgeon genetics and physical characters project. Jeremy Risley is finishing up the Mississippi River paddlefish study and should have another report soon. The Arkansas River stock assessment has been ongoing since 2002-2003, and this year Lake Dardanelle is being sampled. We have continued to fund the lower Mississippi River pallid sturgeon telemetry project, and this project has been ongoing for 5 years at a cost of ~$250,000. This work was contracted to Dr. Schramm at Mississippi State University. Craig Jansen at Arkansas Tech University has been studying shovelnose sturgeon in the Arkansas River, and he captured 33 fish in Pool 12. We have seen an increase in shovelnose sturgeon harvest in the Arkansas River. Pallid sturgeon were detected in the lower Arkansas River with VR2 receivers during winter.

Missouri: Mark Boone – MDC established a Sturgeon Mortality Committee in February 2011 to review several methods to estimate shovelnose sturgeon mortality (e.g., Heincke's method, catch curve analysis, and mark-recapture (MARK)). Our goal was to reach consensus on the best, scientifically defensible method to estimate shovelnose sturgeon mortality. We were also directed to develop a path forward for future sturgeon management in our Upper Mississippi River pools. Two documents have been approved: A Comparison of Methods to Estimate Shovelnose Sturgeon Mortality in the Upper and Middle Mississippi River Adjacent to Missouri, and The Path Forward: Shovelnose Sturgeon Management in Missouri's Upper Mississippi River pools.

Staff used gillnets and trotlines to sample sturgeon in the upper Mississippi River pools adjacent to Missouri in fall 2011. We will use the data to further evaluate our shovelnose sturgeon population. Fin rays were collected for age and growth determinations and microchemistry analysis (trace element analysis of calcified structures). Microchemistry analysis will allow us to begin to identify the spatial extent of the shovelnose sturgeon population, movement patterns, and the contributions of certain river reaches to the UMR adult shovelnose sturgeon population.

Pallid Sturgeon Production: They evaluated 89 potential broodfish, 27 were reproductive – 9 females 18 males. After genetic analysis we crossed 4 females with 8 males. We collected 66,500 eggs from 7 family groups, and 32,806 eggs were sent to Gavin's Point NFH – 33,694 eggs were kept at Blind Pony Hatchery. Milt from 15 males was cryopreserved, and 3,222 fish were stocked into the MO river in fall of 2011. A total of 10,150 fish were transferred to Neosho NFH to overwinter and be stocked in 2012.

Lake Sturgeon production - Eggs were received from Wisconsin DNR and coordinated through Genoa NFH. Between Genoa and Blind Pony production a total of 11,412 fish were stocked into the Mississippi and Missouri rivers.

Paddlefish - MDC raised and stocked paddlefish in 2011. Brood stock were collected from Table Rock Lake and paddlefish were raised at Blind Pony Hatchery. Fingerlings (12-16") were stocked in late October. Only the Black River fish were tagged with coded wire tags. Stockings included: Table Rock Lake - 7,574, Lake Ozark - 5,905; Truman Lake-9,699; Black River (below Clearwater dam) – 505; TOTAL - 23,683.

We completed a paper, *A Summary of Paddlefish Life History Information in Big Rivers*, which includes a literature review about paddlefish in big rivers. It also includes information about Missouri's big river paddlefish.

MDC has identified statewide paddlefish population status and statewide harvest data as information needs. The overall project will be composed of two components: sport fisheries statewide and commercial fishery in the Mississippi River. The primary goals of the paddlefish management program in Missouri are to manage our reservoir fisheries as trophy sport fish and to provide quality self-sustaining wild populations in our big rivers. For the sport fish component we would like to learn where snagging and harvest is occurring throughout Missouri (reservoirs and rivers), evaluate our stocking program, and determine the effectiveness of existing harvest regulations to sustain healthy populations. For the commercial component we will work with commercial fishers for collecting additional information on the paddlefish fishery in the Mississippi River.

MDC reviewed and provided comments and recommendations on MICRA paddlefish stocking and tagging protocols. We also provided comments on MICRA's position statement regarding Asian carp. We reviewed and provided comments concerning the Scope of Work for a paddlefish study proposed by AFWA to FWS. Dave Herzog suggested we form an ad hoc committee for Lake sturgeon, especially to address genetics issues. They have been stocking for 27 years. Stocking, tagging, protocols are needed rangewide.

2011 Louisiana paddlefish/sturgeon activities: LDWF field crews continue to monitor paddlefish recovery following hurricanes Gustav and Ike (2008) through their annual standardized sampling. The estimated fish loss following the two storms totaled some 163 million fish of all species. Paddlefish were caught in 2011 samples so the populations are still showing signs of recovery. The extremely high river stages of 2011 certainly helped with habitat improvement and spawning conditions following the storms. Unfortunately, the MS river flood pulse also contributed to the spawning and recruitment of Asian carp, which are food competitors of paddlefish.

Paddlefish fry are still produced annually at Booker Fowler Fish Hatchery for the "Native Fishes in the Classroom Program". Students learn the early development and life history of this ancient river fish by raising them in tanks in their classroom each spring. There were approximately 30 teachers participating in the program from throughout the state during the 2011 year. Approximately 10 to 15 family groups of fry are produced each spring for the classroom rearing project.

LDWF Biologists continue to collect data on sturgeon tag returns. In 2011 there were eight tag returns: 4 pallids, 3 shovelnose, and 1 hybrid type. 2010 marked the last regular season of sampling for river sturgeon from the Old River Control Complex (ORCC) by the Natchitoches National Fish Hatchery and by the LDWF. The 2011 returns were as follows: one pallid from near Melville, LA (travelled about 18 river miles), two pallids from near Lock and Dam # 1 on the Red River at RM 41 (furthest upstream on Red a tagged fish has been observed), and one below the USACOE Low Sill Structure (where we normally tag). The two pallids taken at Lock and Dam # 1 were from the 2004 hatchery reared fish that were stocked in October that year. These six year old fish were 607mm and 650 mm in FL when recaptured, but averaged about 290 mm FL when tagged and released. Additionally, two shovelnose sturgeons also came from Lock and Dam # 1. All were tagged or released near Old River Control Structure and moved from 0 to 41 river miles since being tagged. Recaptures came from other researchers or commercial fishermen.

Tennessee – Eric Ganus – Paddlefish harvest is down in Tennessee. There has been a shift to harvest to the Mississippi River. In 2009, 50% of the harvest was from Kentucky Lake and now it is 33%. Catch rates are not as high on Kentucky Lake. TWRA still has pending lawsuits with commercial fishers.

Year	Statewide		
	No. Fish Harvested	Flesh (lbs)	Roe (lbs)
2002/2003	8,308		13,963
2003/2004	6,825		11,505
2004/2005	7,343		17,909
2005/2006	9,014		28,279
2006/2007	8,268	51,792	26,730
2007/2008	5,825	39,853	19,205
2008/2009	6,735	68,921	22,054
2009/2010	4,364	73,293	10,305
2010/2011	7,071	111,866	10,151

George Scholten (IADNR) – Commercial fishers are suing over too many regulations and too few regulations. At first, they sued for too many regulations, then TN dropped all regulations, then they sued over too few regulations because CITIES closed exports. This case is in state court.

Eric indicated there is a new commercial fishing law for the state. A commercial fishing advisory committee was formed. There is a trend for higher flesh sales. Eric did not sample Kentucky Lake last year due to high water. Harvest is down so they buyer are buying from everywhere else, especially Mississippi, Arkansas, and Kentucky products. They are trying to get some of Alabama's new harvest. Eric is doing evaluations for waters closed to commercial fishing. Eric will get into details tomorrow. TWRA is stocking lake sturgeon in the Tennessee and Cumberland rivers. They can't find funds to stock the larger fish anymore, so they are stocking young fish with lower survival.

Mississippi: Gary Lucas presented an update for Mississippi. Key Components of Mississippi's regulated commercial paddlefish fishery:

1. Persons must have special permits to take paddlefish and permits for the initial handling and processing of paddlefish. The state has a limit on the number of harvesters allowed to take paddlefish for roe: normally 25, but the quota is only 16 this season as two zones are new waters to be opened for the 2011-2012 season. These zones have plentiful stocks of paddlefish, but size structures of the stocks were not well known. As such, the harvester quota has been lowered from 25 to 16 as a conservative measure.
2. All harvested paddlefish must be at least 37" EF length (or 34" in border waters with Arkansas, per Arkansas regulations) and paddlefish must be tagged upon possession. The objective of the 37" length limit is based on research in Tennessee where that length restriction would protect 30% of the spawning stock. Mississippi is collecting information to verify that Mississippi stocks have the same reproductive size stock structure. During the 2010-2011 season the reported release of undersize paddlefish with eggs was about 1/3 of the catch of paddlefish with eggs.
3. Eggs must remain within fish till reach a permitted processor and cannot be removed on water).

4. Sale/exchange of paddlefish must be reported to MDWFP within 24 hours, with tag numbers and individual harvested fish length.
5. Seasons are open a maximum of 60 days. Exceptions are MS River Zone to allow residents to have same opportunity as Arkansas fishers.
6. Only portions of the available water associated with the river system, targeted as a zone, are open to harvest. This is expected to give a refuge to non-spawning paddlefish within that system.
7. Violations of paddlefish regulations are a serious Class 1 misdemeanor violation.
8. 2010-2011 Fishery. There were five zones open to harvest, 8 Harvester Permits,8 Helper Permits, 7 Processor Permits, 1 Buyer Permit. Below are tables of the past three harvests.

	2008 - 2009	2009-2010	2010-2011
Paddlefish Harvested	26	175	2,405
Wt. egg sacs	73	n/a	17,136
Wt. screened eggs (lbs.)	64	602	11,186
No. paddlefish released	29	988	9,405
No. released w/ eggs	4	70	1,087

	MS River	Delta	Sunflower R.	Bear Cr	Moon Lake	
Paddlefish Harvested	264	78	911	75	1,077	2,405
Wt. egg sacs	1,100	635	4,835	598	9,968	17,136
Wt. screened eggs (lbs.)	802	448	3,889	318	5,729	11,186
No. released	923	265	6,117	649	1,451	9,405
No. released w/ eggs	35	17	965	59	11	1,087

2011-2012 Fishery - Five zones open to harvest with Participants –15 Harvester Permits, 12 Helper Permits, 8 Processor Permits, 2 Buyer Permit. New zone open is Yazoo River. Paddlefish Harvest, 201 2012 season, as of January 22, 2012.

PADDLEFISH HARVEST

	2008 - 2009	2009-2010	2010-2011	2011-2012
Paddlefish Harvested	26	175	2,405	929
Wt. egg sacs	73	XX	17,136	3,354
Wt. screened eggs (lbs.)	64	602	11,186	2,510
No. released	29	988	9,405	4,732
No. released w/ eggs	4	70	1,087	1,002

10. MS has a summer fishery where up to 5 paddlefish per day can be harvested, but all fish have to be tagged at time of possession. No one has chosen to participate in the summer fishery.
11. Pascagoula River Paddlefish Restoration (SWG grant). They collect brood stock from Pascagoula River, spawn at the National Fish Hatchery at Tupelo (follow MICRA stocking protocol), and grow-out at North MS Fish Hatchery (follow MICRA stocking protocol). They stock progeny and parents in Pascagoula watershed
12. Aquaculture Operation - A 2 ½ acre pond was stocked in 2003 with 450 paddlefish. The pond was harvested in 2011 where 4 paddlefish were harvested that were 31-34inches EFL.

13. Sturgeon report – Nathan Aycock The MDWFP crew began sturgeon sampling in 2010 as part of the range Lower Basin *Scaphirhynchus* ID study in coordination with the USFWS. Our goal is to collect and keep 20 pallids, 20 shovelnose, and 20 intermediates for morphometric and genetic analysis. In 2011 we also started implanting shovelnose and pallids > 700 mm with sonic transmitters in coordination with MSU students working on tracking/habitat project. Sampling location were Mhoon Bend near Tunica, MS (RM 684 – RM 690). The totals so far: 172 trotlines set, caught 1,107 shovelnose, 33 pallids, 19 intermediates. For the ID study: 20 pallids retained, 20 shovelnose retained, 18 intermediates retained. For the sonic tagging: We have implanted and released alive 10 pallids, 18 shovelnose, and 1 intermediate. We will continue sampling monthly through May 2012

14. MDWFP Sturgeon Report – Jerry Brown - Our sample area is at Vicksburg, MS and sites have ranged from River Mile 429-443. Samples have been conducted during Oct-Dec, 2011 with 38 trotlines set, each having 40 hooks baited with Canadian night crawlers. The average depth of our sample sites have ranged from 4-16 meters and in currents of approximately 2-3 km/hour along the main channel, secondary channels, dike tips, and island tips. We've collect a total of 132 sturgeon (124 shovelnose, 6 pallids, & 2 intermediates). Our by-catch has consisted of 88 blue catfish, 2 channel catfish, 6 flathead catfish, 1 freshwater drum, 1 American eel, and 1 small mouth buffalo. We have implanted 2 intermediates, 4 pallids, and 10 shovelnose with sonic tags (only fish >700mm are implanted). We have kept 2 pallids and 14 shovelnose for the ongoing ID study. We have recently started to sex and stage gonad development of sturgeon that we implant with sonic tags.

NEBRASKA: Gerald Mestl described the high flow event (160,000 cfs) on the Missouri River. This has caused lots of negative press and the Corps was blamed. The COE raised the dam gates to get pool surcharge (storage above flood pool) on the Missouri River. The Corps operated within 1% of river regulation plan. Pinch points of levees were a problem. The Coast Guard closed the river to all river traffic including emergency personnel. They were able to get out to sample with daily permission and a plan, but no wakes could be made and they needed to be only in floodplain because of no wake restrictions. They identified 4-5 pallids using the floodplain near the mouth of a tributary. They used a variety of gears used, mini fykes. They had multiple samples with 2,000-4,000 blue catfish in a mini-fyke net.

Paddlefish were everywhere in the Missouri River, they could grab them in August by hand or dip net at the stage they do not dive well. The body is smaller than the paddle for 10-days to 2 weeks and this is when they are vulnerable. They sampled tons of larval paddlefish coming out of the James River. Larval fish studies were done on edge of channel, but the numbers were not very high due to dilution factors. Reproduction in paddlefish was extended throughout the entire summer. Usually, they pick up young fish at the end of June, and have a 35-day sampling window to the first of August. This year they caught fish through September. The Missouri River water was clear this year. They ran drift nets for 1 hour this year, whereas in a normal year only 2 minutes will fill them with debris. Brenda Prachil Ph.D. looked at movement information from the MICRA database and results and recommendations are coming out in Fisheries soon.

Nebraska had a major effort focused on pallid sturgeon. They do a 2 week intensive broodstock collection effort at the end of March through the first two weeks of April. They have 5-6 boats out at a

time. They sampled 200 pallid sturgeon and 40-50 were shipped for evaluation. They developed local population estimates. They are not far away from understanding genetics in Missouri River basin.

Gerald is looking at what does flood effects have on microchemistry. His flood samples are processed for the future. Alexi noted that microchemistry out east for striped bass had limitations on precision, signatures were not always statistically identifiable, and the cost was very expensive.

South Dakota: Jason Sorenson provided an update. Paddlefish were stocked into Lake Francis Case (23,000 fish). The objective was to start a sport fishery. They will open a sport harvest in 2012 – 1st in 30 years. They are starting out conservative and moving slowly. No non-resident permits will be issued. They will issue 350 permits, plus Native American tribes issue 25 each for a total of 400 fish. This should keep exploitation in the 3-4% range. The tribes can issue as many permits as they want within their boundaries, and their permits likely go to tribal members. Most harvest will likely occur in tailrace below the dam or the White River. This is a good opportunity to get some known-age fish for ageing. No size restrictions are being used. Checking stations may be used to collect jaw bones. They got a call about several yoy paddlefish in a dam intake structure. They caught 6-7 fish. They want to know where fish came from with otolith microchemistry

Iowa: Van Sterner: 200 adult paddlefish were collected on Missouri River before the flood, including 183 fish that were jaw tagged, 8 coded wire tag recoveries, and several jaw tags from NE. In the spring samples, the recaps were from the Gavin's Point Dam snag fishery. Two tag recoveries were from fall sampled fish in the Mississippi River. One fish was released at mile 710 in the Missouri, but recapped at the mouth of Ohio in ~25 days. They had one recovery from near Memphis.

They looked at post-flood fish in agriculture pools. 1-2 acres of sheet water in agriculture fields were full of paddlefish on September 20th. Only paddlefish were in seine hauls and Asian carp were rare. Lots of stranding of paddlefish was noted, and adults were laying on their sides.

Shovelnose sturgeon were sampled on the Mississippi River, Pool 13 and the Cedar River. They collected fish for Lee Holt's studies on the Cedar River. High water hindered sampling. A State Wildlfe Grant was applied for to do shovelnose sturgeon work on more upper Mississippi tributaries. They want online reporting for commercial fishermen and they are still working on it. They are still tagging in the pectoral with floy tags. Older fish are still easily read. Iowa is no longer tagging the cheek with PIT tags.

REVIEW OF ACTIVITIES FOR MICRA TAGGING PROJECT - There was a brief update on this item. Jeff Quinn needs to send tagging data to Jason Schooley. Fish should be entered for the data merge by June 30th. Data goes to Patty Herman of USFWS Columbia. The merge group may try to meet in Ohio or Kentucky because of travel restrictions. Eight extra paddlefish books were distributed. George will check into if AFS will allow MICRA to get all the pdf files from the book.

TAGGING PROTOCOLS REVISION DOCUMENT:

- Mark Boone developed a good outline for the tagging protocols revision document. Mark Boone, Gerald Mestl, Jason Sorenson, and Jason Schooley formed an ad hoc committee to revise the document.
- Draft outline: Introduction, Goals, Management Authority, Organization, Tags and Equipment, Procedures (hatchery vs. wild), recording and reporting. Add data entry QA/QC, recovering and cleaning tags, ordering and numbering tags, data sheets, archiving tags, age validation, and collecting age structures.
- The last update was in the 1998 appendix to the Conover/Grady report.
- Multiple people are trained on data merge, Patty is training them.
- Quinn wanted to make sure the goals, objectives and products are clear. He uses data for CWT for the known-age fish project. We need valid statistical outputs. We look forward to Dr. Brenda's results. Gerald uses is the tagging results for their Missouri Basin management plan.
- Due to funding limitations, USFWS role in managing the database has been reduced and state reps are being trained to handle it. If MICRA had the money, USFWS would do it, since they are a soft-funded office.
- Greg – long-term maintenance was done with the states to makes sure we have a good system in place for them to take the database over.
- On online interactive system would be good, but the cost maybe high. MICRA moved their webpage from USGS to a new company.
- Gerald – people can enter their own data, but someone needs to merge it at the end. By having only a few sub-basin managers it should reduce data entry errors.
- Patty – someone could overwrite validation rules and data will not be able to be merged if we went from sub-basin managers to individual entry.
- Gerald – front-end data entry on a web page may not be very expensive. IF we try to automate it, the database would get expensive. A blank front end we could do online for a small investment. Gerald said queries are already in the database to kick out annual reports pretty easy. They are usually date specific. Lots of stuff is in there and all you need to do is punch a button and you get canned queries.
- Capture histories are complicated linear. Tags that are changing for an individual fish complicates it quick, especially if there are coded wire and jaw tags.
- Tracy – Too many people entering data usually adds too many errors. They have up to 4 people working on it full time 6-7 months. Patty got trained for consistency.
- Patty – For an online form, you need certain QA/QC rules to fill out fields. Proofing was done previously. All of it was double checked. Double blind entry.
- Gerald – We rolled recap info into SAS to make MARK recap files. We do not need to change the database but it will always be a cumbersome database.
- Tracy – Joanne had a database management group contracted with to do the work of making routines.
- If we discontinue CWT back, we need known age fish.
- Patty knows of a cleaning method to remove flesh from coded wire tags.
- Greg – we need procedures for the known-age fish project that is separate from the tag database.

ONLINE COMMERCIAL HARVEST REPORTING – Dave Herzog indicated that Missouri has been looking into this for 10 years. Dave contacted Canadians and Louisiana on infrastructure. TN and IA are developing online reporting. LA already has one for marine commercial fisheries. Generally positive comments about this movement were received from MO fishers. There is trepidation over the number of folks that can access data. Roe dealers should have computer. Dealers should be able to do this online. Currently, Missouri has a 60-day reporting lag and there are legibility and data entry issues. Online reporting will streamline the process and reduce staff time for reporting. Telecheck is another option. Iowa plans to have a voluntary program for online reporting and continue to use paper form. A big headache for MICRA is there are different forms in different states, and collecting data in standardized manner important. Deer checking is online and phone checking may be a good model.

Alexei – every state has their own database. Statistics have been worked out for decades. Rather than invent a new database structure, you may want to call marine commercial statistics programs, they would be happy to share. His state uses web-based reporting, bar coding for fishermen, each fisherman is bar coded. Computerize the form instead of typing it, auto QA/QC. Atlantic States Statistics program is from 15 states and is a rather expensive database. They have lots of information on structure of the databases. The issue of confidentiality is important. Anyone can sign up to use it, but you need to get permission to access it. Individual landings are not allowed to be released. The Atlantic States Cooperative Statistics Program (ASCSP) has great experience with this, and please save time looking at these sources.

Dan Burlson - Enforcement needs individual transactions. We need electronic signatures to make sure they know who entered the data. They need to certify the data is correct using passwords. The more standardized between the states the better. Make sure column a is column a everywhere. Every state is currently different on reporting forms with completely different formats. Kentucky does not put individual days in the database.

Herzog: Coastal states have trip tickets. MO requires forms be filled out 60 days later, so there is a disconnect for when fish are harvested and reported. He wants to make data quality better. A system for all commercial licenses, including mussels, fur bearers, turtles. Dave wants daily trip tickets similar to templates for creel information. We can get biological data too. Mississippi requires reporting of harvests within 36-hours.

George – getting back to baby steps, Dave needs an ad hoc committee. Dave can move forward with developing a standardized sheet, then take it to his IT to develop the system.

Marie – CITIES point of view. She would work with you. This is a perishable product and they want instant permitting. Now it takes time to contact all state coordinators. For CITIES this would greatly expedite permitting and help get law enforcement involved where needed. She wants harvest data more readily available. Every single state reports differently and that is a problem.

ACTION ITEM – The committee needs to compile harvest by water body and year, updated annually, and by fiscal year (July 1 start).

Dave wants to involve harvesters to get support for developing online databases to expedite permits. Dave noted we are not getting data we need from fishers like rostrums and jaw tags right now.

George – Text messaging could be done to archive the information. By the end of the year 60% of Americans will have a smart phone. The majority of harvesters seem to have this technology.

AFWA PROJECT - Jack Buckly is on the CITIES technical committee. He was here in 2009 to do a CITIES 101 class, then TN problems developed, and the European Union (EU) sent concerns about the status of paddlefish. Rose has held at bay the EU's demands. The EU can go beyond CITIES requirements for imports. Tennessee's non-detriment finding places our problems under a microscope with the EU. Jack wants an overall view of paddlefish framework. The FAO did a study of Caspian states and Alexi did that report for sturgeon. USFWS wants a similar study, and Alexi is a state employee. He wants to try to get states front and center for states to collectively contribute and critique the project rather than a 3rd party. Alexei will get comments on his planned work. They have talked to state directors several times through AFWA. Jack sent the proposal to state fish chiefs. It is your product since you are AFWA.

Rose – USFWS has been active to get better management in the Caspian sea. At same time they wonder if U.S. was looked at with same scrutiny, how would the states do. Right now for beluga sturgeon there is a zero-harvest quota. This will increase pressure on US stocks. Can we sustain or increase our harvest, because pressure is on us to supply the world. The EU wants our caviar since the Caspian sea is closed.

Alexei Sharov was educated in Russia. He has worked at the Institute of Marine Fisheries doing bearing sea, Japanese long line, and salmon evaluations. He worked in Louisiana in 1993. In the mid 1990's he did work on Caspian Sea and sturgeon ranching. Rose contacted him to do paddlefish. He is not representing Maryland on this project. This is an ambitious project. He wants to quantify parameters, develop biological reference points, metrics for definition of population status, develop recommendations to get max yield or benefit, and conduct a workshop with state agencies to present results.

THE BIG 3 Questions: What is the resource status, what should the status be and how sure are you.

He will use YPR and SSBRP as reference points. The goal is to find the fishing mortality that provides maximum yield with respect to yield per recruit. He will use the Fmedian concept of Sissenwine to help determine BRPs. He will do elasticity analysis to figure out how sensitive the population is to changes in certain parameters. Alexei needs help. The product we get will depend on broad participation. The service would fund the AFWA proposal if it is approved.

Data Needs

1. L-W-Sex
2. AGE-length, single years, time series, fecundity and maturity as a function of size and age
3. Landings by year, region, type of gear,

4. Indices of abundance, both fishery dependent and independent. Hatchery releases, tagging information.

They ignore area specifics and look at the population as a whole. The whole Mississippi River basin as a mixed stock. Break pieces define the boundaries for the most data rich regions. He will contact us with a list of requests, and try to be as cooperative as you can. Some datasets are easier, some are not computerized. Needs what is available. Dennis Scarnecchia has the paddlefish bibliography.

QUESTION from Jack: Is this crazy? Jeff Quinn indicated the whole stock approach is confusing with what looks like separate management units. Rose said that we need national framework. Lots of data from the harvest is not being collected. Gerald is it an acceptable outcome that we don't have enough data. Jack – yes because then we will identify data gaps. That is fine but it is an attempt to look at things comprehensively. USFWS is being proactive because of the CITIES need. Alexi – we do have methods for data poor stocks. We will document what was tried. USFWS wants at least a basin specific approach to what is a stock, not state by state.

Alexi should be able to characterize resilience based on life history. Define limits of exploitation rates based on models that should be sustainable. Certain measurement tools guarantee sustainability, but may not be acceptable to fishers. They will show the path to non-detrimental findings. They will explain what needs to be done to get what is known.

USFWS funded Dr. Garvey to do a lower Mississippi River basin project. This report should be out in the next week or so.

Rose - If every water is unique, USFWS needs a stock assessment for each lake. This would make the permitting very difficult. Then the USFWS would need states to prove each water should be opened based on science.

ACTION ITEM: George will put out an email vote to approve ALEXI using the database.

ALEXI will submit emails to each state, then compile information, work simple and go to more complex. Request will go through AFWA from USFWS. AFWA will communicate to the states on this through the directors if funded.

CITIES UPDATE – Marie Maltese – 1/25/2012.

There has been a surge in shovelnose sturgeon (SNS) permits. She had 18 SNS permits this year and none in previous years. A total of 157 permits were issued for paddlefish. Kentucky has had the highest roe harvest of ~21,000 lbs. Some states did not report. Marie would like us to verify our harvest for our state. She will share when final. U.S. paddlefish exports – 26,840 lbs for the 2010-11 harvest season. SNS exports – 1,834 lbs of roe in 2010-11. Rose – We have not seen labeled shovelnose sturgeon being sold on the U.S. market. Marie would like to keep to fiscal year reporting framework, July 1 start to the fiscal year. Dave Herzog volunteered to maintain the roe harvest tables. The database is update to 2008.

Marie put together a list of commercial harvest regulations, and would like to obtain the number of licensed harvesters for each state. Marie would like to put together a table of sport fish regulations for Alexei. Marie will share all these when they are final.

A lot of the exports are going to Japan and some to Europe. There are still exports to Cruze ships. These are considered an export. Once product leaves waters of the U.S., it is considered an export. Live eggs are going to China for stocking the reservoir ranching program. China is setting up aquaculture farms for turtles too. There are no regulations preventing export of live paddlefish eggs.

Gary Lucas – this should be a red flag. It can destroy the ecology of the area in China. Only states have authority to limit exports of live paddlefish eggs.

Japan goes by what CITIES says, but the EU has a stricter standard. If the EU closes paddlefish imports, it should not affect the Japanese market.

PRESENTATIONS

ERIC GANUS (TWRA presentation). This year a new law was enacted: TN Code, title 70, chapter 2. This law requires reasonable rules to promote commercial fishing activities. This includes: a 36-inch length limit of 36 inches, a season, the agency develop a plan to study sustainability, study closed waters, and develop a commercial fishery advisory committee. Commercial fishers want a 38-inch length limit for Kentucky Lake to secure CITIES permits. They want to open Norris Reservoir immediately on a limited basis, and they want to increase the maximum size limit of 34 inches for catfish

Tennessee is evaluating bycatch in 5 Tennessee reservoirs. The are collecting contaminants data from Watts Bar due to the TVA ash spill. They budgeted $750,000. Commission went to legislature to get an appropriation because the commission did not want to pay for it. This is a 6-year project. Commercial fisherman agreed to use 7 inch mesh to try to keep from catching stripers if these reservoirs are opened.

The stocked 15,899 lake sturgeon in the Cumberland River, and sport anglers are catching them. Fish were stocked in Cheatham, Old Hickory, and Cordell Hull reservoirs. They use anchored, submersible ultrasonic receivers, run in tandem., and they track from miles 134 to 263. Sonotronics CT-82-2-I, 14 month tags were used. They tagged 34 in year 1 and 33 in year 2. They have a boat mounted TH-2 hydrophone, and an omnidirctional towed hydrophone. They are doing a tag retention study. They are using the wolf river strain of lake sturgeon.

Hilary Meyer Presentation– USFWS Columbia – They looked at lateral distribution of sturgeon during summer high flow events. No sturgeons were found in the floodplain, several in flooded riparian area, and lots in main channel border vegetated zone. Age 0 fish were in flooded riparian area, with low velocity, shallow depths, and higher vegetation. These are very narrow zones of the river. It seems likely the lack of refuge areas could be important. Flooded vegetation is usually willow tops and shaking terrestrial vegetation. Dave Herzog finds this on the Mississippi River too. In Missouri, the high flow was 250,000 cfs and flood of 1993 was ~700,000 cfs. Dave found larval sturgeon in the New Madrid

floodway that has not been used in decades. Gerald is putting a symposium together at the National AFS meeting on the effects of the 2011 flood on the Mississippi and Missouri Rivers.

Jason Schooley – This year the ODWC operated the Roe Processing Center (RPC), gill netted fish, started a telemetry project, and surveyed angler. For gill net studies, they use 24-ft deep gill nets with 6-inch bar mesh. They are tracking 30 mature females, and have SUR submersibles in the lake. Angler surveys helped them understand residency information. The population is large and healthy in Grand Lake. CPUE is highly variable. The population estimates are 125,000 to 200,000 adults in the lake. They have big error bars. They only see 3% band returns. These are only the adults recruited to the gill nets. Anglers say fish were bigger in past, and they were bigger since data indicates they are now 7-20% lighter. The maximum weight has gently declined over the past 4 years. 75% of fish aged were from the 1999 year class, and one massive spawn. The big question is what caused the recruitment boom. Data indicate a lesser recruitment bump in 2008. They looked at swimming depths. 95% of detections are < 10 m from the surface. All 30 tracked fish went on spawning runs. They only have 4-6 years of quality spawning in the compressed southern life history. Raw roe weight increased from 3 to 5 kg, and GSI increased 0.17 to 0.23. The 1999 year class is approaching peaked out egg production. The have catch and release on Monday and Friday to reduce out of state harvest. Netting and the RPC data indicate that 14-20% of fish have hooking scars. One fish had 13 different hook scars. The fishery had folks from 48 states and international visitors. Grand Lake has 65% nonresidents fishing for paddlefish. 90% of anglers keep 3 or fewer fish annually. 59-74% of fish harvested from Grand Lake were processed at the RPC. RPC is open for 2 months. Last year they cleared $2 million and it cost ~$200,000 to run.

WEBSITE - Greg Conover would like to update the website. The website is micrariver.org. We do not have access to the old website that was housed by USGS. No links are active at this time, they were on the USGS site. Greg did receive known-age fish information from Jeff Quinn that has not been added yet. What purposes do we have for the web site? The bibliography would be good to add. George thinks we need a document library with the SOP, the tagging protocols, minutes, and delegates should be added. Maybe blurbs to each agency paddlefish programs. The sub-basin work plans and the stocking protocols should be on the web site. We would like to get pdfs of Brenda's work, and the picture library. The picture library could be a tool in itself.

Three ad hoc committees had brief meetings: lake sturgeon, tagging protocols, and database coordinators. We want a plan for the next year with a time line of work activities. The tagging protocol ad hoc committee will meet at the MRNRC committee in Pierre SD in March. The goal for the finished product is a new report.

The Lake sturgeon ad hoc committee will try to send out email for the Mississippi basin lake sturgeon recovery plan. We need to look at the existing recovery plan. We may need lake sturgeon session at the next annual meeting. New York, Georgia and Wisconsin are involved in lake sturgeon. The Service will make fish available if you want them.

ACTION ITEM: Quinn will call Ohio River folks to see if moving the meeting into their basin will it help them attend and can they provide free meeting space, otherwise keep it in St. Louis.

The database committee will meet June 28th to do the data merge. The location is not decided, and this may be done in the Ohio River states because of travel. The Ohio sub-basin rep is Katy Zipfel from WV. We may need to talk to Chris O'Bara to figure out why she is not participating. She never sent data, and has not attended meetings. Bobby Reed said Scott Hale indicated Ohio would be more active soon.

Objectives and Products for 2012: We had a **r**equest for to conference call from Dennis Scarnecchia. This was not possible this year, but in the future Live Meeting or Web Ex would be good. The Busch Regional Office has video conferencing. The concern of the group is that participation may decline. With a group this size it is really challenging to pull off a web ex. We can offer it if it is not overly cumbersome. Hearing can be tough. The consensus seemed to be it is not a priority to set it up.

ACTION ITEM: Send Alexei data by August-September of this year.

ACTION ITEMS: Send written reports to Jeff for the minutes; George has a list.

BUDGET REQUESTS: They request $5,000 for travel to the annual meeting. Greg proposed $3,000 for meeting, 3,000 for tags, and few requests for travel assistance. Rob Benjamin will be MICRA chair next year.