

Mississippi River Basin Panel On Aquatic Nuisance Species

April 20-21, 2010

Nashville, TN

Decisions Points and Action

1. Conover will provide information on the cost of registering a domain name, and website development and hosting to the MRBP Executive Committee.
2. Panel members should send their recommendations for a new MRBP website domain name to Conover. Recommendations on new web site content should also be sent to Conover.
3. Panel members are asked to consider running in the next election for co-chair and to nominate themselves or others for the next election. Nominations should be submitted to Conover.
4. Committees were asked to consider the need for a synthesis of MRBP supported ANS boater surveys.
5. The Prevention and Control Committee will provide recommendations back to the full panel regarding how to proceed on the Triploid Grass Carp Program Review project.
6. The MRBP should again recommend to the ANSTF that the Asian carp management and control plan be funded and implemented.
7. Panel members should work through their respective agencies to remind people that the Asian carp management and control plan exists and is in need of funding for implementation on a national level.
8. The Prevention and Control Committee will provide recommendations back to the full panel regarding a letter or position statement on the need for a regional regulatory approach for the use of triploid grass carp rather than diploid grass carp.
9. Conover will provide Mitchell Cohen with a copy of the MRBP's model rapid response plan.
10. Cohen will review the MRBP's draft model rapid response plan and ensure that it includes at least the known legal issues that every aquatic rapid response action is likely to encounter.

11. Panel members should make sure that their Fish Chief received a copy of the draft MICRA AIS Action Plan and encourage them to review and comment on the plan. Comments should be submitted to MICRA Chairman Bobby Reed and Conover. In addition, members should encourage their Fish Chief to actively promote the plan.
12. Panel members should provide comments on the draft model rapid response plan to Conover by April 30. Contact Conover to request additional time, if necessary.
13. Conover will inform Panel members of meeting dates and logistics for the next MRBP meeting as they become available.
14. Conover will compile a complete list of Action Items in the meeting notes. Members should notify Conover if there are additional recommendations or Action Items that are not captured in the meeting notes.
15. The Outreach and Education Committee will announce the availability of Panel funds for 2010 AIS boater surveys after PA responds regarding their intentions to use 2010 funds to complete a survey this year.
16. The Outreach and Education Committee will contact Wildlife Forever to flesh out ways the MRBP can cooperate with them on AIS outreach.
17. The Outreach and Education Committee will develop an email poll regarding guidelines for water gardeners which will be forwarded out to the MRBP states to assess their level of concern regarding this pathway.
18. Copies of the DVD developed by LSU, Louisiana Sea Grant, and IL/IN Sea Grant on how to prepare Asian carp for cooking can be requested from Conover.
19. Prevention and Control Committee members will review and provide comments to Doug Keller regarding the committee's roles, responsibilities, goals.
20. The Prevention and Control Committee will draft a letter that the Panel will ask MICRA to send to the Mississippi River Basin states regarding the need for a regional regulatory approach to the use of grass carp.
21. The Prevention and Control Committee will develop recommendations and guidelines regarding dry hydrants based on materials already developed in Kansas.
22. Prevention and Control Committee recommended that the MRBP send out a "Request for Quotes" to the possible consultants and universities identified by the Triploid Grass Carp Program Review Steering Committee.
23. If not funded through GLRI, the Prevention and Control Committee will begin to look for a contractor to develop a species ranking system for detailed risk assessment.
24. The Prevention and Control Committee will investigate opportunities and costs for advanced ICS training offered by the Illinois Fire Service Institute.

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Meeting Notes

1. **Welcome and Introductions**

Meeting attendees (Attachment 1) introduced themselves and were welcomed by 2nd Year Co-Chair Jason Goeckler. A final meeting agenda (Attachment 2) and MRBP Member Updates (Attachment 3) were made available. Goeckler reviewed the MRBP's mission and membership structure. He recognized past MRBP leadership and encouraged other panel members to consider participating as a panel co-chair or committee chair.

No Action.

2. **Review of Pittsburgh Meeting and Action**

Goeckler reviewed the panel's previous meeting in Pittsburgh during September 2009, including Action and decisions from that meeting.

No Action.

3. **Host presentation: ANS issues in Tennessee**

Bobby Wilson welcomed the meeting attendees to Nashville and gave an overview Tennessee's aquatic resources and aquatic nuisance species (ANS) issues. Some of the most problematic ANS in Tennessee are bighead and silver carp, hydrilla, milfoil. Although bighead carp were reported in the state first, silver carp have been more problematic of the two species. Silver carp have become especially problematic in the Barkley and Kentucky Lakes, the lowermost impoundments on the Cumberland and Tennessee Rivers, respectively. Asian carp from the Ohio River have entered through navigation locks. TWRA is now providing information on Asian carp to the public and state legislators. Tennessee's ANS management plan was approved by the ANS Task Force more than 2 years ago, but due to inadequate funding does not have a full-time dedicated ANS Coordinator. TWRA is updating its publication *An Angler's Guide to Tennessee Fish*. The new version will include a section on ANS of concern in Tennessee, including fish, invertebrates, and plants. The guide will provide information to help identify ANS and distinguish them from native species. Tennessee is also involved with monitoring of crayfish populations where non-native crayfish have been introduced, particularly the rusty and Rio crayfish. Zebra mussel monitoring is also planned.

No Action.

4. **ANSTF, Panel Principals, and MICRA updates**

Goeckler provided updates on the panel's activities with the ANSTF, Regional Panel Principals, and the Mississippi Interstate Cooperative Resources Association (MICRA). He reviewed the panel's priorities, concerns, accomplishments, and recommendations reported to the ANSTF. Nineteen MRBP states have approved ANS management plans, seven states are developing plans, and only two states (Arkansas and West Virginia) have not initiated work on an ANS management plan. During the previous panel meeting, members developed a budget needs document outlining short-term and long-term projects and priorities that the panel is unable to complete. All of the Regional Panels developed similar documents and all were provided to the ANSTF prior to its last meeting. The MRBP requested \$2.4 million over the next 5 years. All funds were identified to specific projects. It is hoped that this demonstrated need for funding will result in increased authorization and appropriations for all of the regional panels.

The Western Regional Panel's (WRP) Quagga-Zebra Mussel Action Plan was a major topic of discussion at the most recent ANSTF meeting. All states, not just WRP states, had an opportunity for increased funding as a result of that plan. The ANSTF approved Minnesota's ANS management plan and discussed the Asian Carp Management and Control Plan. The USFWS's Triploid Grass Carp Inspection and Certification Program was another topic of interest at the ANSTF meeting.

MRBP is hosted by MICRA and serves as MICRA's official ANS committee. MICRA is facilitating the MRBP with the development of a model rapid response plan for ANS in the Mississippi River Basin. A draft plan has been sent to MRBP members for review and will be discussed later in the meeting. Likewise, MICRA is in the process of developing an ANS Action Plan for the Mississippi River Basin. The draft action plan was presented to MRBP members during the panel's most recent meeting and members were requested to review the document and provide comments. The action plan is an exciting and important opportunity for the Mississippi River Basin states to come together and bring attention to ANS issues and needs within the Basin. Panel members need to get their respective agencies excited and on board with this opportunity. The draft action plan will also be discussed later in the meeting.

Discussion:

Rapid risk assessment and screening were mentioned as a panel priority. There is a tool that members should be aware of at www.gbif.org. The website has a data porthole where you can find information and maps on worldwide establishment of different species of interest. History of invasiveness and climate match are important pieces of information in the rapid risk screening and assessment process. Mike Hoff can be contacted for additional information.

No Action.

5. AFWA Invasive Species Committee Update

Kim Bogenschutz is the vice-chair of AFWA's Invasive Species Committee. The committee's chair, Tom Remington, represents AFWA on the Invasive Species Advisory Committee. A major difference between AFWA and the Regional Panels is that AFWA is able to lobby. Writing letters and providing testimony on behalf of the state agency directors is a key function of the organization. The committee's most recent meeting was held in March 2010. Bogenschutz highlighted topics of interest from the meeting, as well as a number of legislative and regulatory updates from AFWA.

- Charlie Wooley (USFWS) discussed the Asian carp rapid response project in the Upper Illinois River system last December and actions that have occurred since the response.
- National Invasive Species Awareness week was held in January. It was an off shoot of the National Weed Awareness week that the Weed Science Society has held each of the last several years. AFWA is involved with organizing the event. State participation was very low due to budget constraints, and January was a poor time because legislators were in their districts and not on the Hill. There were 3 white papers developed for the event: 1) AIS and climate change, 2) AIS and the green economy, and 3) energy and biofuels. One of the papers has been forwarded to ISAC and the ANSTF for their approval. The paper includes recommended actions. The idea was popular, however no one has expressed a willingness to organize the event again for next year. A volunteer is needed!
- Throughout the year AFWA has provided testimony on screening bills, a proposed python ban, a 100th Meridian related bill, and the Clean Boating Act. The Clean Boating Act is something that agencies will want to keep an eye on. It is likely that there will be regulations for recreational boats passed within the next couple of years.
- The Invasive Species Committee is working with the Biofuels Working Group to provide comments on the use of nonnative species as biofuel crops. Invasive species and algae have been listed as potential biofuel crops.
- The Invasive Species Committee is publishing a quarterly bulletin that goes directly to the Directors. It is a good tool to get issues in front of the Directors.
- The Invasive Species Committee is developing a white paper on the roles, responsibilities, and gaps in state versus federal roles as they relate to invasive species management.
- AFWA has a multi-state competitive grant program. The program has \$6M each year that comes from sportfish and wildlife restoration funds. About half of the funds goes to completing the national survey of hunters and anglers that is published every 5 years. The remaining \$3+ M is available to fund national conservation needs (NCN). Each AFWA committee is able to submit an NCN. The Invasive Species Committee submitted an NCN that addressed improving early detection and rapid response tools. The proposal ranked 8, but only the top 7 were recommended for funding. The committee hopes that the NCN will be selected for funding next year. This would make funding available to groups working on early detection or rapid response.

- The EPA is working on a general draft of the permit for the new requirement to get NPDES permits for aquatic herbicide/pesticide applications. The EPA regulates NPDES permits in only 7 states; state agencies regulate the permits in the remaining states. The EPA's proposed permits are expected to be published in the Federal Register in May; formal implementation will begin in April 2011.
- The National Governors Association has an invasive species policy that was developed a couple of years ago. The paper was just revised and AFWA provided comments. AFWA attempts to get invasive species issues in front of state agency directors and governors.
- The next AFWA meeting will be in September in Grand Rapids, Michigan. The following meeting will be in Kansas City.

Discussion:

Kim mentioned the rapid response fund that was introduced by Senator Reed. He has expressed a willingness and interest to expand the rapid response fund to the east. He is looking for co-sponsors and some support to make the funding available to all states. States should be aware of the opportunity to expand this bill to the entire nation.

No Action.

6. MRBP Coordinator Report

The MRBP meeting was sponsored by the American Fisheries Society (AFS). The AFS annual meeting was held in Nashville during August 2009 and the society was on the hook for a number of unused lodging rooms at the Holiday Inn Express due to low meeting attendance. The MRBP agreed to hold its meeting in Nashville to help reduce AFS's financial obligation with the hotel. As a result, AFS provided sponsorship funds which will cover much of the panel's meeting expenses.

Changes to the membership section of the MRBP By-Laws were approved during the last meeting. An updated MRBP Membership Directory (Attachment 4) was circulated and members were asked to verify their contact information.

Conover spent a considerable amount of time since the September 2009 meeting working on rapid response. He participated on the Incident Management Team for the Asian carp rotenone project in Illinois last December. That project took much of his time that would have gone to working on Panel issues. Following his work on that project, he spent most of his Panel related time developing the draft model rapid response plan that is out for review and will be discussed later during the meeting.

Nominations and an election for the next MRBP First Year Co-Chair is the most immediate order of business for the panel following the meeting. The new terms begin July 1st. The Co-Chair is a three year commitment that progresses from 1st Year Co-Chair to 2nd Year Co-Chair to Immediate Past Co-Chair. This structure allows the new co-chair to transition in and out of this leadership role.

Conover has been working with MICRA to develop a new web site. MICRA's current website is hosted by the USGS, but it is becoming increasingly difficult for someone outside the USGS to maintain the website due to IT security. MICRA has purchased a new domain name and has contracted with a commercial entity to design and host the new website. This is an opportunity for the MRBP to make changes to its website. The current website is nested within MICRA's website. MRBP members may want to consider purchasing a domain name (e.g., www.MRBP.org or www.midwestANS.org) and contracting for hosting and development of a new website.

Conover provided a budget and finance report (Attachment 5). All funding due through FY09 has been received. The Executive Committee obligated FY10 funds following the September 2009 meeting. Project obligations and status were reviewed.

Discussion:

The website definitely needs redesigned. The panel should use the most direct web address possible if you're wanting the public to use it. The cost is minimal when you consider the value of having a website that the public can easily find and visit. Considering the geographic size of the MRBP, it should have its own web address.

Action: Conover will provide information on the cost of registering a domain name, and website development and hosting to the MRBP Executive Committee.

Action: Members should send their recommendations for an MRBP website domain name to Conover.

What is the time commitment for the panel co-chairs? There are a lot of things going on that the Co-Chair can be involved in, but it's really what you make of it. Much of the work happens in the Committees and the Committee Chairs do a great job of helping to reduce the Co-Chairs' workload. There are some commitments, but the biggest burden is for the 2nd Year Co-Chair. The 2nd Year Co-Chair represents the MRBP at ANSTF and MICRA meetings, runs the MRBP meetings, and has some administrative responsibilities (e.g., approving MRBP expenses and panel paperwork that is submitted to the ANSTF). MRBP related travel is covered by the Panel. The 1st Year Co-Chair participates on the Executive Committee and gets up to speed before taking over as 2nd Year Co-Chair. The 1st Year Co-Chair also is responsible for setting the MRBP meeting agenda. The Immediate Past Co-Chair participates on the Executive Committee and provides some institutional knowledge. The Co-Chair structure allows for the chairs to lean on each other when needed. The MRBP Operational Guidance states that "Co-Chairpersons shall be selected from among state and federal members" and that "emphasis will be placed on having at least one of the co-chair positions filled by a state member at all times, and on rotating the co-chairs geographically among the six sub basins." Many states have already participated as a panel co-chair or committee chair, and new leadership is needed.

Action: Members are asked to consider running in the next election for co-chair and to submit nominations for the next election to the Coordinator.

7. **Missouri ANS Boater Survey**

The MRBP helped to fund an ANS Boater Survey (Attachment 6) in Missouri during 2009. This was the first such survey conducted in Missouri. The survey cost was closer to \$18,000, than the \$5,000 provided by MRBP. Tim Banek provided a summary of some of the preliminary survey results.

Discussion:

One question dealt with how much would the respondent be willing to pay to support ANS management. Although 44% responded that they were willing to pay zero, it is good news that 56% (more than half) are willing to pay something. What was the highest response for those people who indicated they were willing to pay something more than zero. There were only 5 choices: \$0, \$1, \$5, \$10, or more than \$20. Banek did not have the data with him to know which positive dollar value (i.e., \$1, \$5, \$10, or more than \$20) had the highest response rate. Even if you could convince decision makers that more than 50% of respondents supported giving \$1 to ANS management, it could potentially provide some significant revenue. Yes, but in Missouri the Department of Conservation (MDC) does not register boats. There is no mechanism for MDC to get revenue from a boater registration, other than by new legislation which is not likely to happen given the current economy.

Did you get a sense whether or not the response rates may have been increased if the funds were designated for ANS management? Illinois respondents were not willing to pay any additional fees on boat registration or licenses, unless the funds were designated for only ANS management and could not be redirected by the state. Missouri's best option would probably be for a new designated fund by selling something like ANS stickers, but it is not a good time to start a new fee in Missouri.

Where do people in Missouri get their information on AIS? Is Missouri using all of these different outlets for AIS information? Missouri has been doing a number of things with brochures, public service announcements on radio, signage, and articles in magazines such as the Missouri Conservationist. The survey results indicate that the majority of people are getting their information from the Missouri Conservationist, so we can target that publication with more AIS information.

Question #5 asks how effective a number of different actions would be at getting the respondent to take steps to prevent spread of AIS. The Missouri results indicated this, and a number of other surveys have too, things like a sense of personal responsibility or a desire to keep ANS out are often the things that people indicate are the most likely for them to take action. How do we invoke change so that more of the public feels this sense of responsibility or desire to keep ANS out? In Missouri, the main thing the survey showed is that people would take steps if they knew what to do, but it is apparent that people just don't know what steps are really necessary. There are still people in Lake of the Ozarks that are not aware the lake

has zebra mussels, so it is evident that we need to continue to put the word out so that everyone becomes aware. It is likely that most people will take action once they know, but there will always be some that won't.

What is next with this information? This was just a very preliminary query of the data. It appears that the Missouri Conservationist is one of the most effective tools to get AIS information out. The data supports the use of signs at lakes, and this will be very useful when requesting additional expenditures.

No Action.

8. Wisconsin ANS boater survey

The MRBP helped to fund an ANS Boater Survey in Wisconsin during 2009. Wisconsin DNR worked with the University of Wisconsin to design and conduct the survey. Bob Wakeman provided an overview of the survey results, and included information from Brett Shaw's work at the University of Wisconsin and John Rothlisberger's work when he was at the University of Notre Dame.

Discussion:

The data shows that the survey respondents received the dominance of their information from boat landing signs. Are all public boat landings equipped with one of those signs? Yes. Wisconsin is spending about \$40,000 this year to revise and post another 1,000 signs. As an angler in Wisconsin I see these signs at the public boat landings. The signs are well done and appear to be effective. Other states may want to consider this approach. It is a real challenge logistically to get the signs set-up initially, but the survey results suggest that it is worth the effort.

How often do you have to replace the signs? Many are being replaced this year because of law changes. We try to keep signs up for 2 or 3 years before they need to be replaced due to changes or damage.

Indiana uses signs at all of their public boat landings, but it is just the Stop Aquatic Hitchhikers message. Indiana does not use signs to indicate what is in a lake, because they do not necessarily know when an introduction occurs. Are the Wisconsin signs mostly about prevention and what the laws are, or what is specifically in a body of water? Wisconsin does both. The signs inform the public of the need for prevention, but also include space where specific species for the particular water body can be written on the signs.

Do you have an idea how many citations the game wardens are writing for ANS violations? Since this is relatively new, the wardens were cautious about writing citations right away. The primary focus last year was to get the message out, so there may have been just a single citation written. Because of the law changes, any law enforcement officer can write a citation. DNR is working with law enforcement to make them comfortable knowing the laws and writing AIS related citations. The fine is from \$250 - \$350.

On the issue of VHS and bait dealers, have you had many problems with bait dealers violating the statutes in Wisconsin? Not sure.

This question is more for the Outreach Committee. Is there a way to summarize all of the MRBP supported surveys that have been completed to date? It would be nice to see what each of the states has done in common. It would be good to have a core set of common questions that are asked by all of the states so the results can be directly comparable if we are targeting the same audience. That was the intention of the committee was for the states to use a common set of questions that would allow us to compile all of the survey results.

What benefit is there to combining the results from different states and how would the compiled data be used? The states are different, but it may be interesting from a national perspective. For example, we may find that 10 questions were answered nearly the same in all surveys so it is likely that it is common on a national level, whereas there are likely to be a number of questions that responses vary among the states due to local differences. From a panel perspective, the compiled results may help us target information and craft outreach products for a regional approach rather than a state by state approach. The Great Lakes states have found that a state by state approach has been most effective. How would you compare the results of a mail survey (random) with targeted surveys conducted at boat ramps? The Wisconsin results may help to answer this. There appears to be greater compliance when you conduct face to face surveys, rather than mail or phone surveys. Wisconsin has discussed using passive surveys where boat launches are observed and behaviors recorded, but no interviews are conducted.

The question was asked, 'How would we benefit from the data on a basinwide basis'? In the draft Action Plan that will be discussed tomorrow, we will want to draw upon what we have learned on a basinwide basis. We do need some synthesis to look for commonalities. This may be a good project for the research committee to take on. Once we see what type of outreach is most effective in each of the states, then this will be helpful for communicating a unified panel message and for budget initiatives.

Action: Committees should consider the need for a synthesis of MRBP supported ANS boater surveys.

9. Triploid Grass Carp Program Review

Sam Finney gave an update on the status of the Triploid Grass Carp Program Review project. Finney is coordinating an MRBP effort to conduct an external review of the production, inspection, shipping, and use of triploid grass carp in the U.S. The MRBP Executive Committee organized a steering committee with at least one representative from each of the other ANS Regional Panels, as well as other interested parties from the aquaculture industry and the USFWS triploid grass carp inspection program. The steering committee has developed a Scope of Work and request for proposals to look at all those questions. This project was initiated by

recommendations in the national Asian carp management and control plan. The MRBP has put \$10,000 towards the project, but the amount of funding necessary for the project is not yet clear. One private contracting firm has suggested that the project could be completed for approximately \$60,000; others expect the cost to be as high as \$100,000 - \$200,000. Finney has been working on trying to identify additional sources of funding and with USFWS contracting staff to make sure that the project results in the right product. Should this project be executed as a contract, grant, or agreement? Not having a realistic cost estimate for the project, not having all of the money in hand to pay for the project, and not having identified other funding sources for the project are all presenting an number of challenges in keeping the project moving forward.

Discussion:

What do we need to do? There a number of options. We could take the MRBP's \$10,000 and begin to pay for the objectives one at a time. We could look for additional funding to try and secure the full amount we think will be necessary for the complete review. We could request cost estimates from contractors. The original plan was to send a request for quotes out to a list of approximately 20 contractors that have been identified. There are problems doing this through the FWS without knowing the approximate cost for the project.

Was the rough cost for the full review included in the funding needs that were identified for the ANS Task Force last fall? Yes, \$250,000 was specified for the review.

Does the project have to go through FWS contracting if there are a number of funding sources in addition to the FWS? Yes, but it should be a more simple process. FWS monies could be used as contribution to an effort that another entity might lead. SARP may be a group that could assist with contracting, especially if SARP were to put funds towards the project.

Action: The Prevention and Control Committee was asked to discuss this further and make recommendations back to the full panel.

Asian Carp Plan Implementation

Finney is the coordinator for implementation of the Asian carp management and control plan. There is a draft implementation team structure (Attachment 7). John Rogner (IL DNR) and Mike Weimer (USFWS) have been identified as co-chairs for the implementation team. The proposed time line has been completely delayed by the Asian carp issues in upper Illinois River and Great Lakes region that have occupied the IL DNR and FWS for the last several months. Finney will be discussing other options for moving the implementation team along with the co-chairs.

Discussion

Is Weimer as consumed as Rogner with the Asian carp issues in Illinois? Not as much, but it is a very time consuming issue for our region from the Regional Director to field offices. Finney has spent a considerable amount of time identifying recommendations in the Asian carp plan that relates to the Great Lakes. Congress has provided substantial funding for many of the recommendations as they relate to the Great Lakes, it's just not happening on a national scale.

Action: The MRBP should again recommend to the ANSTF that Asian carp management control plan needs funding and should be implemented.

Action: Panel members should work through their respective agencies to remind people that the plan exists and is in need of funding for implementation on a national level.

Funding for implementation of the Asian carp management and control plan is included in the draft AIS Action Plan that Hoff will discuss in more detail tomorrow.

Triploid Grass Carp Regulations

Many states have changed their regulations recently:

- Kansas now requires triploids and prohibits diploids.
- Oklahoma now requires triploids and prohibits diploids.
- Alabama now requires triploids for open waters above a certain side, but pond owners can still stock diploids.
- Missouri was discussing potential changes.

There was an article in AFS *Fisheries* magazine in 2009 on the disparate crayfish regulations among the Great Lakes states and stressed the need for a regional regulatory approach for AIS.

Is this an issue that the Panel should develop a position on?

Discussion:

There are 7 states that allow diploids: Iowa, Arkansas, Colorado (part of state), Hawaii, Mississippi, Missouri, and Nebraska. Iowa has changed its statewide policy to prohibit agency stocking of any grass carp. There have been no regulatory changes affecting stockings in private ponds, however there is some interest in Iowa to changing to triploids only.

The Asian carp plan was approved in 2007. The plan recommends that states prohibit stocking of diploids and use certified triploids. For those states that have not looked at initiating this recommendation, is there something that the Panel can do to help? One thing that has come up is the need to get the external review of the program completed. This was talked about during the Panel's meeting in Montana. There was some discussion of providing a letter to the states recommending diploids

be prohibited and including justification for the recommendation. At that meeting, it was decided that the review should be completed first and then a letter should be sent to the states. It is now several years later and the review has not been completed and several states have begun to consider the issue. Should the panel reconsider the decision that was made in Montana several years ago based on the current situation? Kansas listed diploids as a prohibited species and periodically tests fish sold in the state. It was proposed within the state as a good neighbor policy and has been very simple to implement. Missouri was presented with the idea of changing based on a number of reasons, including a regional approach, and the idea was shot down because the fish are reproducing all over the state. The increased cost was another concern. It would be very difficult to get this change through in Missouri without having the aquaculture industry on board. It took 3 years of meeting with producers in Kansas before everyone was on board.

A key piece of information that has been missing is the research to show that propogule pressure is actually increased by the stocking of diploid grass carp, versus the reproduction that is occurring by the fish that are already in the system. It would be very helpful to know how many diploids are moving into the system and adding to propogule pressure.

Action: The Prevention and Control Committee was asked to discuss this issue and provide recommendations back to the full panel.

10. **Asian Carp Rotenone Project Report**

Steve Shults gave an overview of the Asian Carp issues in the Chicago Waterways System and the resulting rotenone project (Operation Silver Screen) that occurred in December 2009. Operation Silver Screen was implemented using the ICS system. Shults presented some of the challenges and lessons learned from the "rapid response" project.

Discussion:

Did Illinois have to do an Environmental Assessment (EA)? If so, it must have been completed very quickly. The EA was completed in about 6-7 weeks. A Categorical exclusion would have been preferred.

Did you monitor rotenone concentrations? Monitoring was conducted in 3 ways: 1) sentinel organisms; 2) Illinois EPA monitored rotenone carrier components in water samples; and 3) USGS dye monitoring of leading and trailing edges of rotenone.

Were there any dead radio tagged fish collected? The project that utilized the radio tagged common carp has been over for some time. The predominant species was common carp and they were not checked for radio tags.

Was there goldfish mortality in the kill zone? Yes there was some goldfish mortality, but there were some large goldfish that survived.

No Action.

11. **Asian Carp in the Chicago Area Waterways System Update**

Shults gave an overview of the 'Asian Carp Control Strategy Draft Framework' recently developed by the Asian Carp Rapid Response Working Group or the newly named Regional Coordinating Committee (RCC). The goal of the inter-agency RCC is to prevent the establishment of self-sustaining populations of Asian Carp in the Great Lakes. The RCC identified short-term and long-term actions to address potential by-pass of the electric barrier and five points of connection between the Chicago Area Waterways System (CAWS) and Lake Michigan.

Discussion:

Is the eDNA similar to the PCR being used for zebra mussel detection? Yes it is very similar. Notre Dame University (NDU) collects either a 2 liter or 20 liter sample, most are 2 liter. The water sample is collected and processed with considerable quality control and quality assurance measures. The water sample is filtered in sterile conditions. DNA extraction is done to the filter pad and then a nested PCR is performed to detect the bighead or silver carp DNA if it is present.

Has any other lab performed the eDNA analysis? Fish health analysis is typically performed at multiple independent laboratories to verify the results. Yes and no. Yes the technique is used by APHIS to test for VHS and it has been used for several other applications. The primers that are used to detect bighead and silver carps are exclusive to NDU and no other entity has developed primers for Asian carps. Therefore, NDU is the only lab that has analyzed the water samples for Asian carps.

No Action.

12. **Legal Aspects of the Illinois Rotenone Project and Rapid Response in General**

Mitchell Cohen, General Counsel for the Illinois Department of Natural Resources, was invited to discuss legal aspects of the December 2009 rotenone project and considerations for rapid response in general. Cohen has considerable experience in environmental law. Although not an expert on Asian carp, rotenone, or the Incident Command System, Cohen spoke about his experiences with the legal aspects of the recently completed AIS "rapid response" project. He made a strong recommendation to include members of your agency's contract and legal departments when developing rapid response plans. Cohen offered to review the MRBP's draft "Model Rapid Response Plan" to ensure it includes at least the known legal issues probably every aquatic rapid response action might encounter.

Discussion:

NEPA and ESA should also be considered well in advance if federal agency participation in a rapid response project is anticipated. There was considerable assistance for the December 2009 project in expediting processes.

Are there written records of the project that can be reference by others who may implement rapid response projects in the future? Under the Incident Command

System structure there is considerable documentation for the complete project and the development of an After Action Report.

Action: Conover will provide Mitchell Cohen with a copy of the MRBP's model rapid response plan.

Action: Cohen will review the MRBP's draft model rapid response plan and ensure that it includes at least the known legal issues that every aquatic rapid response action is likely to encounter.

13. **Committee Meetings**

The committee members were asked to review and update their committee's responsibilities, goals, and objectives; short- and long-term committee priority actions to accomplish the committee goals and objectives; to identify priority needs to address the short- and long-term priority actions; review on-going projects and the committee's 2010 work plan; develop a 2011 work plan; and identify recommendations for the ANS Task Force. Each committee chair provided a brief overview of what their respective committee will be addressing during the breakout session. The remainder of the day was spent working in committee sessions.

Actions are identified in the committee reports.

14. **Committee Reports**

Each Committee Chair reported out on the previous day's breakout meeting. Committee meeting notes and 2011 work plans are included below the general meeting notes.

Actions are identified in the committee reports.

15. **Montana's 2009 Aquatic Invasive Species Act**

Eileen Ryce provided an overview of Montana's new Aquatic Invasive Species Act (SB 343) that took effect on July 1, 2009. Ryce discussed changes to Montana's AIS Program since the Bill took effect.

Discussion:

What is a tailgate wrap? It looks like a billboard on a tailgate. It is similar to camo-clad or other graphics that you see used on vehicles. Wraps will be put on all of the Fisheries Department vehicles, and will hopefully be expanded to other departments in the agency. Kansas and Utah are also using tailgate wraps.

No Action.

16. **Northern Snakehead Eradication Results and Future Efforts**

Mark Oliver provided an overview of Arkansas's rapid response effort against northern Snakehead. Brian Wagner had previously presented on Arkansas plan for the rapid response project. Oliver discussed how the project actually unfolded and the state's continuing efforts to monitor and control snakeheads since the completion of Operation Mongoose in March 2009.

Discussion:

Louisiana is conducting some monitoring for snakeheads.

Were any tissue samples sent to the University of Notre Dame to develop genetic surveillance markers for snakeheads? If so, that would have been coordinated with University of Central Arkansas as they handled all of the specimens.

No Action.

17. **AIS Action Plan for Mississippi River Basin Update**

Mike Hoff reviewed the draft MICRA AIS Action Plan and discussed developments since he last presented the plan to MRBP members during the October 2009 meeting. Panel members were encouraged to be active and to communicate with their respective fish chief to review and comment on the plan, as well as to become involved in actively marketing the plan.

Discussion:

The Western Regional Panel (WRP) went through a similar process at the request of the ANS Task Force. The WRP plan identified budget needs starting at \$82 million, but was only funded for a small portion of the plan and only received \$2 million. There is a lot of overlap among Regional Panels and other plans, how are or how do we address this? The MICRA draft action plan is a little different than the quagga/zebra mussel action plan in that it is developed based on an ecosystem approach. This approach was very successful for states in the Great Lakes. Overlap can be dealt with at a later time.

What I hear is that the bulk of this is to go to the states to help them implement state AIS management plans. That is correct.

There are at least 4 National Fish Habitat Partnerships in the Mississippi River Basin. In addition, the FWS is now developing Landscape Conservation Cooperatives within the Mississippi River Basin. Dealing with AIS in the basin would be much easier to do for these different groups if the MICRA AIS plan is available.

What is the deadline for comments? It previously went out to Panel members. It is currently out to the Fish Chiefs for comment. Comments are due from Fish Chiefs May 3, but can be submitted later. Please just notify Greg Conover if your state would like some additional time to provide comments.

Action: Panel members should make sure that their Fish Chief received a copy of the draft MICRA AIS Action Plan and encourage them to review and comment on the plan. Comments should be submitted to MICRA Chairman Bobby Reed and Conover. In addition, encourage Fish Chief to actively market the plan.

18. **Overview and Discussion of MRBP Draft Rapid Response Plan**

Greg Conover reviewed the first draft of the MRBP's model rapid response plan that was sent to panel members for review prior to the meeting. Development of the rapid response plan is funded by NOAA and the deadline for the plan is June 2010. The panel will need to move quickly to finalize the plan by the submission deadline. Comments and input on the draft plan were requested.

Discussion:

The section on the Incident Command System could expand more on the Unified Command. Most large responses use a Unified Command so more explanation on what Unified Command is would be beneficial.

One thing that I did not see that I would like to see is a section to recommend actions that states can do ahead of time for planning. The lawyer that spoke yesterday addressed many of these items. Experience with invasive species rapid assessments has shown that some really simple and silly things can stop these cooperative actions. Records of these sorts of details should be maintained and shared among the states

The Columbia River Basin Rapid Response Plan includes an appendix that has a matrix of the legal and permit requirements for rapid response.

Illinois may be able to make the legal packet available that was used for all personnel that signed into Operation Silver Screen.

Are panel members comfortable with the format using major components of other plans and documents? Yes.

Action: Panel members should provide comments on the draft model rapid response plan to Conover by April 30. Contact Conover to request additional time, if necessary.

19. **Public Comment Period**

There were no public comments.

20. **Integrated, Sustainable Control of Common Carp in Lakes**

Peter Sorensen provided an update on population control efforts for common carp in Minnesota using an Integrated Pest Management (IPM) approach. Sorensen reviewed results of 5 years of research on population dynamics; distribution and movement; recruitment and survivorship; and IPM.

Discussion:

There was no discussion or questions.

No Action.

21. **Marketing Asian Carp**

Ron Brooks informed the group about a potential opportunity to market Asian carp as bait. Brooks recently spoke with a representative of the lobster fishing industry in the Northeast. Lobster fishermen are paying about 50 cents per pound for herring, and are interested in cheaper alternatives. The 2 coops (175 boats) that Brooks spoke with is interested in 40,000 pounds of Asian carp per day, 5 days per week and wanted to know the cost for Asian carp. Commercial fishermen in Kentucky estimated the cost would be 15-20 cents per pound for Asian carp. They are interested in delivering live lobster to markets in the Midwest, and returning with Asian carp for lobster bait. Some of the lobster fishermen are concerned that Asian carp will not be as good a bait as herring. About 100 pounds of carp have been sent out. Kentucky was planning on sending 1,000 - 10,000 pounds of Asian carp out for the fishermen to evaluate as bait. The shipment has been postponed due to concerns by the Northeast states regarding the potential for Asian carp to transport and introduce VHS. There does not seem to be much information on VHS in Asian carp. There is some demand, but we can't start moving fish until we have some answers regarding VHS. Brooks has spoke with 3 other coops that have expressed interest and there are bait industries other than lobster that may be interested. There is a lot of potential here.

Steve Shults spoke in more detail regarding the VHS concerns. Both Atlantic and Pacific herring carry VHS, but it is a different type strain than what is in the Great Lakes. Another concern is that lake herring in Lake Superior have been found positive for VHS. The Lake Superior lake herring finding is of concern because it is both a new location and a new species. There are no data as to whether Asian carp are a susceptible species or a carrier species for VHS. APHIS has been testing only known susceptible species. Illinois has a cooperative agreement with APHIS and requested APHIS to include bighead and silver carps into the statewide big river sampling for VHS surveillance. This will provide at least some baseline data. We need to get some answers regarding VHS so that states can begin marketing Asian carp.

Discussion:

Is there something the Panel can do to move this forward or speed up progress? Other states that have cooperative agreements with APHIS for VHS surveillance may want to modify those agreements to include bighead and silver carps. APHIS has expressed interest because they want to be sure that marketed products are safe and not a threat to aquaculture interest in other areas.

Commercial fishermen in Kentucky and Barkley Lakes each catch upwards of 5,000 pounds by-catch of Asian carp every day, and they are not targeting them.

The main lobster fishery is already using common carp from the Midwest. We should be careful not to affect the common carp market. There is a VHS testing lab at the University of Minnesota but it is not cheap. They must run 50 -100 samples at about \$3.00 per sample. There are other labs in Wisconsin and Maine.

Is there anything in the most recent APHIS proclamation that would prohibit the shipment of silver carp, especially frozen, from Kentucky? Is this just a gentlemen's agreement? The coops have said that they will not import until they know it is safe to do so. This is not a legal requirement, but the market has a concern that we need to address to begin shipping fish. There is an Asian Carp Marketing Summit being planned for later this fall.

No Action.

22. **Awards and Recognition**

Chairman Goeckler presented Steve Shults with a plaque recognizing his work as the Prevention and Control Committee Chair for the past 3 years. Shults stepped down from the position after being elected as MRBP Co-Chair in 2009. Goeckler also recognized and thanked the other committee chairs, Steve Schainost and Duane Chapman, for their continued dedication and service.

Goeckler presented Immediate Past Co-Chair Doug Keller with a plaque recognizing his work as Panel Co-Chair for the last 2 years.

No Action.

23. **Recommendations and Decision Items for ANSTF**

- 1) Request the ANSTF implement the Asian carp management plan and control plan that was approved in November 2007.
- 2) Develop a federal rapid response team to assist states implement rapid response actions.

Action will be summarized after the meeting and will include:

- 1) Comments on the draft MICRA AIS Action Plan
- 2) Comments on the draft model rapid response plan
- 3) Ideas on the MRBP website
- 4) Suggestions for a new domain name for the MRBP website
- 5) Committee Action

Action: Conover will compile a complete list of Action in the meeting notes. Members should notify Conover if there are additional recommendations or Action that are not captured in the meeting notes.

24. **Meeting Wrap-up**

The next MRBP meeting will be scheduled during January 2011 in Little Rock, Arkansas.

Action: Conover will inform Panel members of meeting dates and logistics as they become available.

Outreach and Education Committee Meeting Notes

Members in attendance:

Marilyn O'Leary
Nick Schmal
Pat Charlebois
Julie Anderson
Curtis Tackett
Steve Schainost, Chair

We began with reviewing the previous workplan and budgeted items.

The first of these was the "Field Guide to Aquatic Nuisance Species". It was explained that this would be a resource for those that need the information but not considered to be a freebie for the general public. This project is headed by Jay Rendell (MN) with much of the work being done by Mandy Beall as a private contractor. At last word, the document is in final revision. This activity was carried over into the next segment and has a projected completion date of 15 November 2010. There was some discussion of putting some sort of time limit on projects of this nature in an attempt to get more timely completion but nothing was done on this idea.

No Action.

The next budgeted item was the "Aquatic Nuisance Species and Boater Surveys". These surveys are designed to collect information about our public's knowledge of ANS, where they get their information, and their boating activities. Designed as a phone or mail survey, it has proven useful in directing (or redirecting) agencies information programs. It was suggested that the survey, in addition to the individual states, would prove valuable to the MRBP in addressing its public outreach efforts at the basin level. We have offered to cost/share the completion of more surveys in more states to get a more complete, basin-wide picture of the situation. Including last year's work by MO and WI, six states have been able to conduct surveys (KS, MT, IN, IL OK, WI, and MO) and each was given \$5,000 to help pay for these. We had received a request from PA for 2010 but they have not confirmed this.

Action: We will announce the availability of funds for 2010 surveys after we hear from PA.

We then moved to discuss non-budgeted items.

Next was the idea that we partner with NGOs like Wildlife Forever and B.A.S.S. While our contacts with B.A.S.S. haven't seem to gone anywhere, we will try to maintain contacts with both. In addition, we may be able to use the resources available through Wildlife Forever to implement our larger plan if we can get additional funding from the ANSTF. We discussed various ways that they could help us get the message out but concluded that we really needed talk with them for their ideas.

Action: Pat C. offered to call Wildlife Forever to flesh out ways we can cooperate.

Pat Charlebois previously reported that IL/IN Seagrant was working on ideas for the water garden hobby and retail outlets of plants. Several studies have found that this hobby is one recurring source of exotic, invasive plants (and sometimes small critters too). Ideas included development of a “black list” of plants, development of general guidelines for handling materials, production of a DVD that could be used by retailers to train employees, and production of a poster for retail shops. We needed to find out if the MRBP was interested in pursuing this concept as they (IL/IN Seagrant) would need funding to develop these. I offered to poll the MRBP states for their thoughts and ideas. I got exactly two replies. She stated that they are continuing to develop the DVD idea but, at this time, hasn’t gone as far as to develop a production budget.

IL/IN Seagrant is also developing a set of guidelines for water gardeners that could be included on handout materials. At this time, the guidelines would be similar to these:

- isolate your water garden from natural waterways or flood-prone areas
- purchase from licensed, reputable nurseries
- choose non-weedy or regionally-native plants
- rinse plants until clean of dirt and any attached eggs, plants or animals before planting
- freeze unwanted plants in a sealed plastic bag and dispose in the trash
- find a new home for unwanted plants or animals such as a plant retailer, humane society, or water gardener

Action: Pat is going to develop an email poll regarding these guidelines which I will have forwarded out to the MRBP states to assess their level of concern regarding this pathway.

There have been various initiatives regarding the idea of attempting to control Asian carp via increased commercial harvest. At the San Antonio meeting, Pat C. said they were working on a video showing how to remove the bones. It just so happened that Glenn Thomas (LA) said they were trying to do the same thing in LA with the help of Duane Chapman. They joined forces and this project was completed last year. LSU and LA Seagrant did the photography and IL/IN Seagrant provided the script for Duane Chapman who starred in the production.

Action: Copies of the DVD were brought to this meeting for distribution. Additional copies can be requested from Conover.

On the same issue, IL/IN Seagrant is working to put together a Summit on Asian carp marketing to be held in August, 2010. The objective of the Summit is to assemble everyone working on this concept to develop an action plan on commercial harvest and marketing. They requested \$8,000 to assist with expenses.

In addition to revising their workplans, the Committees were also charged with reviewing 1) their committee responsibilities, goals, and objectives, 2) their short and

long-term priority actions, and 3) priority needs to address their priority actions. The Committee responsibilities are:

- Develop recommended member actions
- Identify education product priorities
- Identify possible collaborative projects
- Ensure coordination with other Regional panels
- Support other Panel Committee needs

The discussion of these responsibilities basically concluded to leave them as they were. With meetings every nine months or so, our short-term priority actions are contained within the workplan developed at each meeting. It was noted that Committee actions and workplans tend to develop depending on who shows up at meetings. At the same time, projects tend to carry over from multiple meetings so the workplans also reflect our long-term priority actions. In most cases, our priority needs to address these actions is more money, either from the Panel or the Task Force as both short-term and long-term actions are limited by available funds. So no changes were suggested and they were left alone.

No Action.

The meeting adjourned at 5:12.

2010-11 Work Plan and Budget Needs

Activity	Milestones	Deliverables	Funding Request
“Field Guide to Aquatic Nuisance (Invasive) Species”	15 Nov 2010	Print and distribute	\$18,000
ANS and Boater surveys	Next meeting	State survey results	Up to \$5,000 per state, two states per year
NGO’s like Wildlife Forever and B.A.S.S.	Next meeting	Pat C. will call and investigate ways that we can cooperate on producing outreach products	None at this time

Water Garden outreach	1 July 2010	Pat C. will produce email query designed to assess the level of concern among basin states regarding this pathway	None
Asian carp marketing summit	August 2010	An action plan for Asian Carp marketing as an aid to control	\$8,000

Prevention and Control Committee Meeting Notes

Members in attendance:

Doug Keller, Chair
Sam Finney
Kim Bogenschutz
Greg Conover
Jason Goeckler
Eileen Ryce
Nathan Stone
Tim Banek
Andy Burgess
Byron Karns
Steve Shults

- I. Review and update PCC responsibilities, goals, and long and short term actions.
 - Document was prepared at the 2004 New Orleans meeting and has not been revised since then.
 - Most in attendance were unfamiliar with this document except for Kim.
 - **ACTION:** PCC members will be asked to review electronic version and provide comments to bring the document up to date

- II. NOAA funded model rapid response plan for the Mississippi River Basin
 - No action taken in committee, discussion held before the full committee on 4/21/10
 - **ACTION:** All members need to provide comments to Greg by 4/30/10

- III. Triploid Grass Carp Program External Review
 - Contracting difficulty has been encountered by Sam because we do not know how much it might cost for the review and we haven't identified sources for funding.
 - Suggestion to take this back and make it MRBP contract to allow more flexibility and to get more details to determine a reasonable dollar amount for the work.
 - **ACTION:** MRBP send out "Request for Quotes" to the possible consultants or universities already identified by the participants on the group.

- IV. Desire for grass carp states to only allow triploids.
 - Some discussion before the full panel and revisited in PCC
 - Some of the current diploid states are resisting change to triploids because either there is a lack of evidence that triploid loads are pure or at least there is the opportunity for diploid contamination, or there are feelings that "what is the point of restricting diploids since there are reproducing populations in a number of rivers in the basin".

- To be effective in limiting further population increases, triploids in states that allow grass carp has to be adopted through the entire basin and preferably the entire nation.
- With diploids in the supply chain the possibility for load contamination will continue to be an issue.
- The TGC external review findings will hopefully alleviate some of the state fears as weaknesses in the system will be identified and recommendations given to assure certified triploid loads are not contaminated with diploids.
- One of the recommendations in the Asian Carp Management and Control Plan is to persuade diploid states to move to only allowing triploids. However, there has been no one pressuring those states to make the change.
- **ACTION:** MICRA will write letter to states in the Mississippi River Basin that allow diploids urging them to adopt laws which would prevent the release of diploids in public and private waters. Tight controls should be put on aquaculture facilities that hold diploids which are used to produce the triploids.
- Possibly by the fall 2010 ANSTF meeting we will be ready to make a recommendation to the Task Force urging them to take action to persuade all diploid states to move to triploids.

V. Species Ranking System for Detailed Risk Assessment

- This has been a priority during a few meetings, however little progress has been made.
- There was a suggestion that possibly we should budget some money (\$10k) to hire a graduate student, coop, or university to complete this.
- Mike Hoff indicated that this may proceed using GLRI funding
- **ACTION:** See if GLRI funding will make this happen, if not then dedicate some of our funding.

VI. Guidance / Policy recommendation for risk management associated with dry hydrants and related vectors.

- This is a vector that has generated panel interest since the San Antonio meeting but no action has been taken.
- Jason has developed a policy recommendation for Kansas and developed materials to educate fire departments.
- **ACTION:** Jason will share policy and materials with MRBP.

VII. Issue paper on hydrologic separation between Mississippi River and Great Lakes basins.

- Many groups have prepared resolutions recently pushing for the need for separation of the basins to close the two-way street for invasive species transfer.
- The Army Corps is supposed to be studying the pros and cons of watershed separation through funding provided by WRDA
- **NO ACTION:** With the ongoing litigation involving some states that participate in MRBP and considering studies are being conducted to evaluate separation, PCC decided we would not draft an issue paper or a resolution on the issue at this time.

VIII. Incident Command System Training (ICS)

- MRBP sponsored an ICS mock exercise in Sparta, IL in November 2008.
- Many felt this training did not fully prepare membership to lead an ICS rapid response
- Additional advanced training was identified as a need so that we could get enough panel members “Command Qualified” which could then be offered to assist in AIS rapid response efforts.
- Steve Shults took a 5 day training offered by the Illinois Fire Service Institute.
- **ACTION:** Steve will investigate costs for this training. Likely to occur in Illinois to keep training staff costs to a minimum. Could be held at a state facility to again keep costs low. It could be difficult for some to participate for 5 days, so Steve will also see if some could participate for a shorter length just to become more familiar with ICS. Budget will include travel costs for members.

2010-11 Work Plan and Budget Needs

Topic	Issue	Funding Request
PCC Responsibilities, Goals, and Actions	Revise document to bring up to date	NONE
MRBP Rapid Response Plan	Complete document	NONE
Triploid Grass Carp Program External Review	Begin contracting process to initiate the review. Determine costs for full review.	Unknown whether additional MRBP funds will be required.
Diploid Grass Carp states	Letter from MICRA urging states that allow diploids to move to triploids only. Prepare recommendation to present to ANSTF in fall 2010	NONE
Species Ranking System for Detailed Risk assessment	Hire a graduate student, coop, or university to develop ranking system	Potentially done with GLRI funding. If not done, MRBP budget \$10,000.
Dry Hydrants	Develop a policy recommendation on dry hydrants.	NONE
ICS training	Advanced ICS training to get members “Command Qualified” to lead ICS rapid response efforts.	\$20,000 for hiring instructors and member travel support.

Research and Risk Assessment Committee Meeting Notes

Mike Hoff stood in for Committee Chair Duane Chapman. Following is an updated version of the FY2009 Research and Risk Assessment Committee report and Work Plan based on the committee's April 2010 meeting.

ANS and Water Quality

At the September 2009 meeting, the committee recognized ANS affects on water quality as an under-investigated and poorly understood, but important, factor. Asian carps, common carp, zebra mussels, and nuisance aquatic vegetation all have substantial and often highly undesirable effects on water quality, both directly and indirectly. Water quality effects resulting from species invasions can have human health effects and often affect fisheries and general environmental health. The committee requested funding for a symposium to be held with an as-yet-undetermined professional society meeting that would focus on water quality effects of ANS in fresh water, including enough money to bring international speakers (\$8000).

Experts Database

At the September 2009 meeting we determined that it is time again to update the database to correct it for people that have changed positions. Because this annual activity is time-consuming and it is difficult to account for non-responses, the committee determined that it would be valuable to investigate the possibility for some improvements to the database. These include: 1) automated annual notification to Tier 1 and 2 experts requesting that they update their information in the ANS Experts Database. 2) Include email bounce notification, so that people with incorrect contact information are known and can be removed or contacted through other means and notified to modify their entries. 3) Allow people to update their own information once on the list, rather than going through the research committee chair. 4) Add facility for experts to add links to their publications and websites.

Risk Assessment Framework/Screening Tool

At the June 2008 meeting, a joint GLP MRBP subcommittee for development of a Risk Assessment Framework was formed. Mike Hoff, Lindsay Chadderton (TNC), and Christina Donnelly (GLP, Great Lake Commission) were subcommittee members. The completed framework was presented to the ANS Task Force and posted on the MRBP website. The framework was also updated during 2009 with decision support tools and a climate change component. There remains a need for a database with information on invasive organisms that can be rapidly plugged into this framework.

Wild-caught Bait, Live Food, Pay Lakes

These were identified as substantial important data gaps in 2008. There has been no substantial committee action on aquatic organisms shipped live as human food or the wild bait issue, but the committee chair researched the paylakes issue and provided a report to the MRBP at the February 2009 panel meeting. The committee chair determined that there is no organization of paylakes operators and that the range of business models is extreme. The committee chair surveyed the National Association of

State Aquaculture Coordinators and MRBP representatives regarding paylake operations in different states. Findings were that regulations and number of warmwater paylakes differed dramatically between states, with Kentucky and Ohio having the most paylakes in the MRB region. Some states require disease-free certification on all fish brought in. Most states have no regulations specifically concerning paylakes. Illinois and Kentucky have a licensing system, but some pay lakes operate unlicensed. Kentucky reported providing ANS outreach materials to pay lake operators and clients. This has been identified as a substantial potential vector for ANS, and some cases of Asian carp transport into paylakes far from existing ranges of Asian carps were identified. There is a need to collate information on wild bait harvest and shipping routes. Also, information needed on how different states monitor or regulate the sale of live aquatic food organisms. Information needed on warmwater pay lakes. Cold water paylakes use almost entirely cultured rainbow trout which are closely monitored for disease issues and not co-cultured with other species and so are likely to pose less risk than warmwater pay lakes. Warmwater pay lakes use cultured fish and wild-caught fish. Both are sometimes transported long distances. Transport of wild fish is thought to have a higher degree of risk than aquaculture fish. There is need to collate information on how different states manage and regulate paylakes, how pay lakes are operated, where their fish come from, what happens to the fish after being captured, and the possibility of escape from paylakes. There is a need to collaborate with Great Lakes and east coast and gulf panels on the paylakes issue, because there is substantial overlap and fish are transported between these regions, in all directions. MRBP co-chairs later provided the presentation to the ANSTF and the MICRA Executive Board.

In late July 2009, Committee Chair contacted HDR, Inc. (formerly Fish-Pro) and requested an estimate of expenses for development of a risk assessment on paylakes-related activities. In September 2009 HDR provided two estimates on potential risk assessment/evaluations that could be performed. EXCOM determined that the lower level assessment (~12,000 dollars) would not provide useful information, and that the higher level assessment (~25,000) would provide most needs, but would not address some needed information, especially that related to fish transporters.

Genetics and control of exotics symposium

Ten thousand dollars remains in the budget to support of the *International Symposium on Genetic Biocontrol of Invasive Fish*. The symposium has been rescheduled for June 21-24, 2010, and will be held at the Doubletree Hotel in Minneapolis, Minnesota. The goal of the symposium is to explore the potential, development, and risk assessment of genetic biocontrol of established invasive finfish species.

Asian Carp Proceedings

Work continues on the publication of the Proceedings of the International Asian Carp Symposium hosted by the MRBP in Peoria, IL during August 2006. Thirteen chapters have completed the peer-review process and been submitted to the American Fisheries Society. A few remaining chapters are in final modification. Printing and publication is planned for 2010

Research Needs

At the 2009 September meeting, the committee discussed priority needs that MRBP and the committee should support. Funding requirements were loosely estimated for these needs.

Very short term:

1. Support a symposium at AFS 2010 on “Commercial Navigation Transfer of ANS within Freshwater Systems” including presentation on barges within the Mississippi River basin, and potential for transport of carp or other ANS upstream through CSSC barrier. Could also address movement within Great Lakes. \$3000 for travel support for invited speakers.
2. Support a symposium at a scientific society (perhaps ICAIS) on “Invasive Species Effects on Water Quality in Freshwater”. \$8000 – includes travel support for invited speakers, some international.

Short term:

1. Support symposium on genetic control of ANS (10K, already obligated)
2. Support triploid grass carp review – dollar amount required uncertain. Prevention and Control Committee taking the lead on this issue; R&RA committee also supports this as a very high priority.
3. Implement automated annual notification to update ANS Experts Database info. Should include email bounce notification, to remove people with incorrect contact information. Allow people to update their own information once on the list. Add facility for links to experts’ publications and websites. 10K
4. Develop dataset to provide data for insertion into Risk Assessment/Risk Management Framework. Should be global in nature, because organisms invade from global sources. One option is to support the Global Register of Invasive Species. The Invasive Species Specialist Group is looking for ~85 thousand to complete the GRIS.
5. Risk assessment for barge traffic, including study on bilge water and external transport of materials on barges within the Mississippi River Basin. Suggest 125K for risk assessment, including support of a doctoral candidate. Study should identify potential methods to manage risk.
6. Risk assessment for fee-fishing lakes – 50K
7. Study of operations of live fish transporters – fish transported for fee fishing lakes, cultured fish including diploid and triploid grass carp, bait fish and live food trade fish, including but not limited to bighead carp, and including bighead carp transported live for sale freshly dead. Are these the same people? Do they transport more than one of these at a time? How do their operations affect risk of transport and escape/release of ANS? 50K

Long term:

1. Development of rapid accurate screening tool for presence of invasives in live bait trade and fish hauling operations. 125K
2. Development of viable integrated control mechanisms and models to support them. 500K to be used over several projects, matching funding

3. Support research that determines the socioeconomic effects of invasive species. Include direct and indirect effects – 100K
4. Make criteria for distinguishing between range extensions due to global warming and nuisance invasions 100K
5. Wild bait industry basin-wide risk assessment 125K
6. Continue to identify and prioritize ANS issues (including new invaders, unaddressed vectors, and pathways, potential control methods) that require attention in the basin. No new dollars.

ANSTF Recommendations:

1. Develop a Federal Rapid Response Team that can support States and others planning and implementing rapid response actions.

2010-11 Work Plan and Budget Needs

Activity	Description	Deliverables	Funding Needed
International Symposium on Genetic Biocontrol of Invasive Fish	Provide financial support to help ensure the symposium is held in June 2010.	Symposium held in 2010 to provide an Increased level of understanding among MRBP and other AIS managers regarding emerging technologies and their potential use to control AIS	\$10,000 funded in FY2009
ANS and Water Quality	Support symposium on effects of ANS on water quality and food webs at a Midwest Fish and Wildlife Conference, December 2010	Symposium	\$4,000 (Based on Committee input)
River Barges	Support symposium at 2010 annual meeting of the American Fisheries Society on commercial navigation as a vector within freshwater. Approach Introduced Fish Section of AFS for potential co-sponsorship.	Symposium	\$2,500

Experts Database	Investigate potential for improvements to experts database, including automation of update requests, and ability to add links or other information	Database support	None in FY2010
Paylakes	Contact other panels, other potential funding sources for risk assessment for paylakes-associated activities.	Decision as to whether to move forward with risk assessment or other product	None in FY2010
Develop standardized boaters survey	Fund development of a standardized boater survey that can be used by all Panel member states. This survey must answer important information needs, including what will it take the respondent to reduce risky behaviors.	Model survey (includes)	FY10 \$10 K
Develop boater survey database architecture, and load data from MRBP-supported surveys	Develop and maintain MRBP-supported boater survey database, so that data are accessible on Panel's website	Database	No request at this time
Expand on WI's boater survey	Conduct boater survey in WI to focus on select user groups	Boater survey	FY10 \$5K
Sponsor International Symposium at AFS or other venue in Calendar 2011 (Point of Contact Peter Sorensen)	Focus of symposium will be on integrated management (including monitoring techniques, water quality, and food web dynamics)	Considering a symposium proceedings	F11 provisional budget request of \$10 K

ICS training	Conduct ICS training, with special emphasis on aspects/issues recommended by Steve Shults, Greg Conover, and others involved in the Chicago Canal Action; also, use After Action Report to help guide the training	Training	FY 11 \$25 K
Distribute After Action Report (AAR)	Distribute AAR to Panel members, so they can review and use the report to guide their future rapid response actions	Distribute AAR	No request
Support graduate student	Support graduate student in some area of AIS research; use RFP process to issue this opportunity annually, if funding is available	Partial support of a graduate student	FY11 (and continuing) \$20 K annually