

**Great Lakes Panel on Aquatic Nuisance Species
Joint Meeting with Mississippi River Basin Panel**

**June 17-19, 2008
Milwaukee, Wisconsin**

Action Items

Joint GLP-MRBP Action Items:

1. **Snakehead in Arkansas:** Contact MRBP Arkansas representative to gather more information on the the confirmed sighting of a breeding population of northern snakehead in state waters this past spring. Both the MRBP and GLP Panels are interested in taking an active role to help address the situation.
 - **Lead:** Doug Keller, MRBP Co-Chair
2. **Risk Assessment:** Develop letter to the ANSTF identifying the need to compare/combine risk assessment frameworks to develop a "gold standard."
 - **Lead:** Mike Hoff, MRBP & GLP Member

Form a joint subcommittee of the GLP Research Coordination and MRBP Research and Risk Assessment Committees to guide the evaluation of risk assessment frameworks. In efforts to secure funding of comparison study, a one page document will be developed for agency RFP's.

- **Lead:** Lindsay Chadderton, GLP Research Coordination Committee Chair, & Duane Chapman, MRBP Research and Risk Assessment Committee Chair
3. **VHS Control Guidelines:** State/provincial Panel members should communicate with their agencies regarding the importance of consistency in VHS control guidelines.
 - **Lead:** State/provincial Panel members

GLP will follow-up with the Great Lakes Fish Health Committee regarding their recommendations.

- **Lead:** Rochelle Sturtevant, GLP Information/Education Committee Chair
4. **Asian Carp Monitoring Project:** Investigate funding opportunities to purchasing transmitters to monitor the movement of Asian carp (\$300/transmitter).
 - **Lead:** GLP Executive Committee and Policy Coordination Committee

Develop a one-page fact sheet on the project and project needs to facilitate the request for contributions and contact the Gulf and South Atlantic Panel Coordinator to gauge their interest.

- **Lead:** Greg Conover, MRBP Coordinator, & Steve Shults, MRBP Prevention and Control Committee Chair
5. **Panel Funding Strategies:** GLP and MRBP Executive Committees will investigate additional opportunities for funding Panel operations or special projects (with both federal and non-federal funding sources).
 - **Lead:** GLP & MRBP Executive Committees
 6. **Funding Statement of Need:** Develop a statement of need regarding funding of regional panels and state management plans based on (a) federal mandate; (b) what panels/states are able to do with current funding; (c) what they are not able to do; and (d) what they need to fulfill their federal mandate. Get all six regional panels to sign on to the letter.
 - **Lead:** Mike Murray, GLP Policy Coordination Committee Chair, & Steve Shults, MRBP Prevention and Control Committee Chair

GLP Action Items:

1. **Panel Funding Strategies:** GLP Executive Committee will work to identify funding opportunities for Panel operations and/or special priority projects. (*Refer to Joint GLP-MRBP Action Items*)
2. **Fall Meeting Theme:** GLP Executive Committee will investigate an “evaluation” theme for the fall GLP meeting, including an adjacent NOAA CSC workshop (*Recommendation from the Information/Education Committee*). Input is requested on other “theme” ideas for the fall meeting.
3. **GLP List Serve:** Staff will contact GLP members and interested parties with procedural information on how to register for committee list serves.

Research Coordination Committee:

4. **Risk Assessment:** Committee will coordinate with MRBP on a joint subcommittee looking at risk assessment frameworks. (*Refer to Joint GLP-MRBP Action Items*)
5. **Priority Species List:** Committee will identify specific high-priority research needs for each of the species, of which a subset of annual research needs will be identified. Committee will also work with the Information/Education Committee on a list of entities to communicate these needs to inform RFPs (contact via mail first with a follow-up phone call / face-to-face).
6. **Research Priorities Document:** Committee will revisit the document and identify those areas where progress has been made, revising as needed.
7. **Future Work:** Members will look at new potential projects/directions for the Committee.

Information/Education Committee:

8. **ANSTF Annual Report to Congress:** Committee recommended developing a communication to the ANSTF that they resume submitting their annual report to Congress. This communication may be done at the next ANSTF meeting or once new leadership is fully established.
9. **Great Lakes Panel Wiki:** Committee will work with Panel staff to develop a Great Lakes Panel wiki to house information on Panel member organization activities to streamline the member update process. The wiki will be organized by themes and will allow members to update activities on an ongoing basis. The wiki may be used to identify priority activities to highlight at meetings.
10. **ANSTF Experts Database:** Committee Chair will contact the current experts to query areas where there is a need for additional expertise to be accessible on the database. Other Committee efforts will include determining a role for the Experts Database in rapid response scenarios (e.g. the mock exercise for which planning is underway) and what additional expertise would be needed to serve this function.

Policy Coordination Committee:

11. **Asian Carp Monitoring Project:** Committee will draft a letter to pursue financial support for purchasing of transmitters for the project. (*Refer to Joint GLP-MRBP Action Items*)
12. **Funding Statement of Need:** Committee will work with MRBP to develop a funding statement of need. (*Refer to Joint GLP-MRBP Action Items*)
13. **Committee Priorities Work Plan:** Committee will review and prioritize GLRC policy-related recommendations to develop a work plan. This may include an update of the 1999 model legislation to extend regulations as related to organisms in trade.

14. **Rapid Response / Risk Assessment Ad hoc Committees:** Committee identified a continued need for an integrated/coordinated regional framework. Committee Chair will communicate with key individuals on the role the Panel may play in ongoing regional initiatives (e.g. GLRC rapid response communications protocol / mock exercise).
15. **ANS/AIS Terminology:** Committee will look into making a recommendation to the ANSTF that ANS be changed to AIS when referencing the Task Force, Panels or state management plans. This may be included as part of a broader recommendation on reauthorizing legislation. (*Recommendation from the Information/Education Committee*)
16. **Other Projects:** Committee will look into the potential for involvement or support in other areas such as coordination of VHS policies (including GLFC work on movement of live fish regulations) and recent AIS and climate change work.

Joint Meeting of the Great Lakes & Mississippi River Basin Panels on Aquatic Nuisance Species

June 17-19, 2008
Doubletree Hotel, Milwaukee City Center
Milwaukee, Wisconsin

Meeting Summary

Tuesday, June 17, 2008

Welcome

Phil Moy, Wisconsin Sea Grant; Chair, Great Lakes Panel Research Coordination Committee

Moy gave the introductory remarks for the joint Panel meeting, making reference to “convening of the waters” of the Great Lakes and Mississippi River basins. Mentioned was the economic growth in both regions coupled with the impacts caused by aquatic invasive species. He also led a round of introductions.

ANS Panel Introductions: Successes, Challenges & Work Priorities

Great Lakes Panel (GLP)

Mike Conlin, Illinois Department of Natural Resources; GLP Chair

Conlin gave an overview of the history of the Great Lakes Panel, including the mandates set by the Nonindigenous Aquatic Nuisance Prevention and Control Act (NANPCA) of 1990 which designated the Great Lakes Commission as the administrator for the Panel. The Commission also manages other aquatic invasive species projects and ensures that those projects are consistent with the priorities of the Panel and often engages the Panel in an advisory capacity. Conlin highlighted the need for communication and collaboration when addressing aquatic invasive species. Conlin reviewed many Panel activities that have occurred since its inception in areas of communication, regional coordination, building consensus, model plans and guidance, information tools and recommendations to the national Aquatic Nuisance Species Task Force (ANSTF). Throughout those accomplishments, the Panel also faced many challenges, including funding; maintaining/strengthening regional partnerships; communication of needs/priorities to entities other than ANSTF; and being proactive (instead of reactive) to emerging issues. Work priorities of the Panel are primarily addressed through the standing Committees. In the near future, these priorities are likely to include rapid response, screening and global warming.

Mississippi River Basin Panel (MRBP)

Doug Keller, Indiana Department of Natural Resources; MRBP Co-Chair

Keller briefly mentioned some commonalities between the two Panels such as sharing members, water and invasive species. He reviewed several of the successes, accomplished by the MRBP, including development of a screening process, implementation of aquatic invasive species awareness surveys and adoption of the Asian Carp Management Plan by the ANSTF. Associated challenges for the Panel are the implementation of the Asian Carp Management Plan; the large size of the basin; the recent discovery of snakehead in Arkansas; VHS prevention; and the westward movement of the zebra and Quagga mussels. Keller also reviewed the current work priorities for the Panel which include the development of a print field guide to aquatic invasives; supporting state boater surveys; completion of the Asian carp symposium proceedings which previously took place; Hydrilla and Brazilian elodea watch cards; purchasing another 10 radio tags for Asian carp telemetry; providing support to a doctoral project to develop a decision support system; and the conduct of a mock exercise on an incident command system for the discovery of VHS.

Aquatic Invasions: Lessons Learned & Future Issues

Retrospective on Zebra Mussel Invasion of the Great Lakes

David Reid, NOAA - Great Lakes Environmental Research Lab (GLERL)

Reid gave a presentation on how the discovery of zebra mussels in the Great Lakes drove policy, changed invasion science, and affected public outreach and education. Zebra mussels were first discovered in June 1988 by a University of Windsor research team. Prior to the zebra mussel invasion, U.S. regulations focused primarily on protecting agriculture and livestock from terrestrial and agricultural pests. Aquatic species entered the picture slowly, with attention first being given to aquatic weeds that might inhibit navigation. Regulations were primarily reactive, however. The Lacey Act was established but did not initially focus on aquatic organisms. A more proactive approach (i.e. white list) was encouraged by a 1977 Presidential Executive Order, but met significant resistance. “Exotic” terrestrial and aquatic species were recognized as an ecosystem problem, leading to a precautionary policy which

was not successful in implementing change. By the late 1980s, organizations such as the International Joint Commission (IJC) and Great Lakes Fishery Commission (GLFC) were paying more attention to the recurring appearance of non-native aquatic species, such as spiny water flea and Eurasian ruffe, with ballast water identified as the likely source. By 1990, NANPCA was passed. While primarily focused on zebra mussels, NANPCA also provided a general framework for prevention and control management for all aquatic nuisance species and represented a significant shift in the U.S. "invasive" species policy. Reid showed how the Great Lakes zebra mussel invasion was also a driver of invasion science, evidenced by a significant increase in invasive species studies. Finally, Reid discussed how the zebra mussels were also a catalyst for increasing aquatic invasive species awareness efforts. NANPCA authorized grants for research and education programs. Traditional Sea Grant stakeholders were affected by the mussels, as well as non-traditional stakeholders. There was a need for more information and partnerships were created between the education, outreach and scientific communities and stakeholders. Reid also gave some recent information on economic cost estimates related to zebra mussels, but explained that there may be some problems with the statistical validity of data. Zebra mussel invasions of the 1980s influenced policy development and led scientists to focus on biological invasions.

[Movement of AIS between the Mississippi River and Great Lakes Basin](#)

Jay Rendall, Minnesota Department of Natural Resources

Rendall gave an overview of aquatic invasive species in the Great Lakes and Mississippi River basins. He reviewed species that were widespread in both basins, species that were not widespread, and species that are starting to move from one basin to the other. Rendall also discussed that pathways for aquatic invasive species introduction and spread that connect the basins, including artificial connections (canals); boats and trailers; anglers/bait; aquarium sales and releases, water garden/aquatic plant sales and aquaculture escapes and stocking. He gave examples of species that could be moved by each of the pathways (e.g. hydrilla has been found as a hitchhiker in aquatic plant sales). The priority pathway between two the basins is the Illinois River; noted was the high level of time, energy, work, and funding that has been directed at this connection to prevent transfer of species. The pathway is still a problem, however, and it makes ballast water a pathway for the Mississippi River.

[AIS Databases Update](#)

Rochelle Sturtevant, NOAA-GLERL & Great Lakes Sea Grant Extension; Chair, GLP Information/Education Committee

Sturtevant gave a presentation outlining the various databases in existence that house aquatic invasive species related information. She emphasized that all databases are "hungry" (e.g. in need of more information) and only as good as information put in them. She explained the NIASDWG (nonindigenous aquatic species database working group) that works to coordinate cross-agency efforts relating to the databases to promote greater efficacy in communication of data and greater efficiency of database management. The databases were categorized into three types: species information, vector-based information and reference information. Sturtevant also gave a brief overview of the U.S. Geological Society's (USGS) NISbase, a searchable database the pulls information from multiple databases. She gave an update on the national Aquatic Nuisance Species Task Force Experts Database (<http://www.anstaskforce.gov/experts>), explaining how the database is structured based on a two tiered system with Tier I interfacing with the public and Tier II with experts that is hidden from the public. Also covered was GLANSIS which is the Great Lakes node of the national Nonindigenous Aquatic Species Database (NASbase) maintained by USGS. She encouraged members of the MRBP to contribute species information (e.g., lake/basin, genus, species, common name, status, freshwater/marine, pathway) to GLANSIS. Sturtevant presented a Great Lakes nonindigenous aquatic species poster that includes 185 species and encouraged participants to take one and post it to help increase public awareness.

VHS Prevention/Control Updates

[Great Lakes Fishery Commission](#)

John Dettmers, Great Lakes Fishery Commission

Dettmers provided an overview of what is known of the virus viral hemorrhagic septicemia (VHS). He explained that VHS is a fish virus that thusfar has no evidence of harming humans. He said not all fish show signs of the disease and when they do, symptoms look much like other fish disease symptoms. It affects many fish species, including some that are important to the great Lakes region. It is spread primarily by infected fish that are in close proximity to another fish through mechanisms such as feeding and bodily fluids. The virus can remain viable in the water up to a couple of weeks in water below 15 degrees C. There is ongoing research to understand how long the virus can be viable, based on differing conditions. He also said mortality events tend to be associated with other stressors such as population, temperature and spawning. There are three strains of VHS in Europe, and one in N. America, although the Great Lakes virus is a variant of the N. American strain. The origin of the virus in the Great Lakes is still unknown although initial disease outbreaks were reported in 2005 and 2006. Dettmers said it was too soon to know whether there would be a population adjustment to the virus. He provided a map of water bodies containing fish that have tested positive for VHS both within the Great Lakes themselves and within the basin. There were also appearances of

VHS in the Ohio River drainage where muskellunge tested positive. Also mentioned were the recent fish kills in VHS-infected round goby populations in Milwaukee Harbor. In summary, Dettmers indicated that multiple vectors were at play for introduction and transportation of the VHS virus including human transport of VHS infected live bait, recreational boats as well as ballast water. Dettmers showed the similarities in aquatic invasive species management needs and VHS management needs (e.g., consistent regulations, outreach and communication) and encouraged that precautions be taken, including comprehensive legislation to prevent future invasions.

U.S. Coast Guard

Captain Lorne Thomas, U.S. Coast Guard, Ninth District

Capt. Thomas gave an overview of the joint U.S. and Canada Ballast Water Inspection Program. The program includes a comprehensive examination including talking to the crew, examining the management system, salinity testing of tanks and examining record keeping to determine if they are doing as much as possible to have the best ballast water management system available. He said to goal for the program was to increase the number of exams. In addition, starting this year the St. Lawrence Seaway is requiring saltwater flushing for no-ballast-on-board (NOBOB) vessels. The results of the program in 2007 show that there is no unmanaged inbound ballast water being discharged into the Great Lakes. Also mentioned was the work of Lake Carriers in developing best management program specifically focused on VHS. In regards to ballast water management and its relationship to preventing the movement of aquatic invasive species such as VHS, the USCG convened a workshop to review management plans and best practices for the industry. Since the workshop, USCG has been engaged with the Great Lakes Fishery Commission (GLFC) to plan how to share information. As a result, a communications protocol was developed for reporting fish kills. At the workshop, participants also learned that the VHS virus is only spread through water, fish parts or whole fish and that there is a low likelihood that whole fish or fish parts will be transported by a ship due to strainers in tanks. Capt. Thomas concluded saying that, given what was learned at the workshop, best management practices and the communications protocol are the best options in terms of risk mitigation.

National Park Service

Bob Krumenaker, Apostle Islands, National Park Service

Krumenaker gave a presentation discussing the National Park Service's (NPS) involvement in the VHS issue. NPS involvement centers on protecting the four National Parks in Lake Superior, of which the boundaries extend into the lake. He explained the congressionally mandated dual mission of the NPS which is to conserve National Park areas and leave them unimpaired. He said that while USCG regulations are intended to protect sensitive areas from aquatic invasive species introductions that may occur from ballast water, it is unclear whether this includes National Parks. NPS is primarily concerned with protecting the significant natural resources found within the Parks, such as the fisheries that transcend political boundaries, but recognizes that NPS jurisdiction is limited. Krumenaker emphasized a need to need to work in a multi-agency, multi-jurisdictional arena to sufficiently protect the lake, and thus the Parks. Toward this end, he explained the NPS strategy to (1) do everything within their authority; (2) to encourage others to exercise their authorities; (3) to establish new authorities, technologies, and approaches; and (4) to keep/increase the sense of urgency. NPS and the Grand Portage Indian Band sponsored a workshop to develop an *Emergency Prevention and Response Plan for Viral Hemorrhagic Septicemia* that was approved in March 2008. The plan is currently in implementation, following priority action items of education, addressing the pathways of boats, bait and ballast, and developing new regulations. Krumenaker said the NPS will remain engaged in the basin-wide effort to prevent VHS and other aquatic invasive species introductions, leading by example within NPS boundaries. He highlighted the Parks as an opportunity to education thousands of people and recognized other agencies taking action to prevent the spread of VHS. In efforts to protect all of Lake Superior, NPS is committed to respectfully and persistently engage with other entities outside of park boundaries.

Domestic Shipping

Jim Weakley, Lake Carriers' Association

Weakley discussed the efforts of the Lake Carriers' Association (LCA) in terms of ballast water management and VHS prevention. He first gave an overview of the U.S. "laker" (domestic U.S. flag vessels) fleet and its contribution to the economy including market value, jobs and the ability to move cargo. He also highlighted the efficiency of the U.S. laker fleet and the complexity of the ballast water system. In terms of management, LCA is involved in voluntary best management practices, the Northeast Midwest Institute ballast water demonstration project and VHS specific best management practices. Weakley described the process that was used to develop the VHS management practices, including a review of federal requirements, a literature review, obtaining expert advice and investigating risk scenarios, among others. The resulting plan illustrates to vessel operators the importance of best management practices, the VHS threat, and a corresponding vessel action plan. Weakley explained the Vessel Action Plan and steps for implementation, including inspection of sea chests annually to prohibit that fish parts to be taken into ballast tank, minimizing ballast uptake, elevating intakes before ballasting, and avoiding "gravity feeds." He also discussed a supplemental best management practice plan that was put into place in March 2008 as a result of confirmed and unconfirmed VHS outbreaks. It was noted that all lakers comply with the best management practices, as documented through the National Ballast Water Center. In conclusion, Weakley suggested future needs for VHS management and

reminded participants of the Great Lakes Regional Collaboration of stopping introductions and controlling the spread of aquatic invasive species.

[Stop Aquatic Hitchhikers-Threat Campaign: Invasive Species Outreach to Hunters and Anglers](#)

Doug Grann, Wildlife Forever; and Doug Jensen, Minnesota Sea Grant

Grann spoke about the organization Wildlife Forever and their Threat Campaign to raise awareness of invasive species issues among hunters and anglers. Wildlife Forever is a non-government organization founded by North American hunting and fishing clubs. It represents the conservation interests of those clubs and has emerged with a strong conservation education focus. Grann discussed Wildlife Forever's history of supporting proactive management and commented that sportsmen are the "first conservationists". Grann highlighted the unique aspects of their stakeholder group which place an emphasis on information sharing, mentoring and individual responsibility. In the development of their outreach campaign on invasive species, Wildlife Forever saw an opportunity to apply existing codes of behavior, ethics and awareness of surroundings to the problem. Wildlife Forever teamed up with the U.S. Forest Service Eastern Regional Office and other partners to create the Threat Campaign targeted to hunters and anglers. The campaign uses celebrity public service announcements, print media, billboards and other avenues to increase awareness of the issues and best management practices among their stakeholders. Grann also recommended that, ultimately, Congress must step forward to limit the threat of invasive species. Wildlife Forever would like to continue and expand their work with states, agencies and other partners to increase outreach.

Jensen discussed the importance of evaluation to determine the success of efforts, such as outreach campaigns. He specifically mentioned surveys as one tool to use in evaluation and gave a description of a survey implemented in Minnesota, Wisconsin and Iowa regarding the *Stop Aquatic Hitchhikers!* campaign. The survey of boaters and anglers in these three states showed that campaign efforts are an effective platform to convey simple consistent messages. Concluding his remarks, Jensen recommended that based on the survey results, effective public education needs to be made a priority and resources are well spent on outreach given such a return on investment.

Addressing Risk: Canals and Waterways

Phil Moy, Wisconsin Sea Grant; Chair, GLP Research Coordination Committee

Moy opened the session of the meeting discussing the importance of the Chicago Sanitary and Ship Canal (CSSC) in terms of connections between the Great Lakes and Mississippi River basins, noting that the threat of AIS comes from both directions. He gave an overview of efforts to close this pathway of invasive species spread including the existing electric dispersal barrier and the need to find a more permanent solution to separate the basins.

[ANS Dispersal Barrier System](#)

Chuck Shea, U.S. Army Corps of Engineers

Shea gave an update on the aquatic nuisance species dispersal barrier system on the CSSC. Currently the U.S. Army Corps of Engineers (USACE) Chicago district is the lead on closing this pathway to the transfer of organisms. The passage of the Water Resources Development Act (WRDA) 2007 reauthorized the project, including funding, and made it 100 percent a federal responsibility. It also authorized a feasibility study of the full range of options and technologies for inter-basin control of aquatic nuisance species, although no funding has been allocated to this study thusfar. In terms of operation, the demonstration barrier (barrier I) is in operation, despite being well beyond its design life, and the permanent barrier is not online awaiting results from safety testing and completion of the second part of the barrier. Once the permanent barrier (barrier II) is online, barrier I will be taken offline to be made permanent as well. The safety testing of barrier II is focused on a "person in the water study" looking at the worst-case scenarios (e.g., heart fibrillation), based on a number of variables. A safety working group has been formed and a public education campaign is underway. Total project costs when the system is complete are estimated at \$29.6 million, not adjusted for inflation. The cost estimate for the feasibility study is \$10 million.

[Asian Carp Management & Related Early Detection and Monitoring Efforts](#)

Greg Conover, U.S. Fish and Wildlife Service; MRBP Coordinator

Conover gave an overview of Asian carp management efforts, noting his service as chair of the national Aquatic Nuisance Species Task Force's Asian Carp Working Group. The group developed and Asian Carp Management Plan that was approved in November 2007. The plan includes 48 strategies and 131 recommendations. Implementation of the plan has been delayed due to staff turnover, but an Oversight Team has been convened. Despite the current lack of coordinated implementation, there are activities underway as part of other initiatives that meet the goals of the plans. Management objectives include containing feral populations and surveillance and detection. With regards to early detection and monitoring, USACE is working with a multi-agency advisory plan to lead such efforts. Sampling has been completed from 2004 through 2007. Based on those results, the leading edge of the Asian carp population is likely the upper Illinois River (Dresden pool). Conover explained that the fish are hard to collect and detect, especially at such low abundances. He hopes to see an improvement in the ability to detect the fish before they reach larger population numbers. Several entities, including USACE and the U.S. Fish and Wildlife Service (USFWS) are partnering to monitor carp movement using an acoustic network that includes tagging the fish with receivers. Thusfar,

38 fish were tagged (in 2007) and they are hoping to increase that number for 2008. Detailed information on the results of this effort so far is expected sometime in 2008. Conover also noted that there are at least two areas between the Mississippi River and Great Lakes basin at which the carp could potentially bypass the CSSC (and the barrier) with the help of overland flows which may occur as a result of recent flooding events in the Midwest.

Addressing Risk: Trade & Recreational Activities

[MRBP Screening Protocol](#)

Mike Hoff, U.S. Fish and Wildlife Service

Hoff provided an overview and update on the work of the MRBP to develop a model risk assessment tool. The MRBP held a Risk Assessment Workshop which provided the foundation for development of Model Risk Assessment/Risk Management tool. The tool is intended as a rapid assessment (screening) tool that can be used to rapidly evaluate the level of invasiveness (harmful) potential of a non-native species prior to its importation. The levels of risk include low (i.e. ok for trade), high (i.e. decisions needed for regulation and/or further management) or uncertain. Outcomes of the screening process should be used to determine whether a further, comprehensive risk assessment is need for a specific species. Hoff discussed the steps and the decision-making tree that comprised the MRBP Model Risk Assessment tool. Next steps for the tool will be focused on developing criteria (such as the scientific basis for survival) to use in prioritizing species that will need a full risk assessment. Hoff also discussed the Trilateral Committee for Wildlife and Ecosystem Conservation and Management (between the U.S., Canada and Mexico) that is working to coordinate, cooperate, and develop partnerships for conservation and management of biological diversity between the three countries. At one of their meetings, the Mexican Commission on Biodiversity expressed interest in the MRBP tool for comparative testing with the U.K. version, which is an adoption of the Australian protocol. Hoff would also like to incorporate climate change considerations into the tool.

[Arkansas Department of Agriculture Inspection Program](#)

Dr. Andy Goodwin, University of Arkansas at Pine Bluff

Goodwin opened his presentation discussing the events involving the spread and impact of a fish virus that lead to the development of the Bait and Ornamental Fish Inspection Program in Arkansas. The Arkansas Bait and Ornamental Fish Growers Association asked for an inspection program to protect their industry. As a result, a new state law was enacted in 2005 that established a certification program. The program requires third party certification and is both voluntary and fee-based. The emergence of VHS has provided additional motivation for growers to participate in the program. Certification indicates three primary claims: disease free, exotic aquatic species free and implementation of biosecurity measures. In summary, the program implements stringent internationally recognized standards and employs true third party verification.

[GLC Organisms in Trade Project](#)

Kathe Glassner-Shwayder, Great Lakes Commission

Shwayder gave an overview of a recently initiated Great Lakes Commission (GLC) project looking at the trade of live organisms as a vector for aquatic invasive species introduction and spread. She emphasized that the project is focused on those species that are traded that are causing or might cause harm. Even though ballast water is a primary source of aquatic invasive species, a number of species have been unintentionally introduced through the trades. The GLC project is a planning effort to scope and assess the various pathways associated with the trade in live organisms. The GLC is the lead on the project, but has also pulled together an Advisory Committee of state, industry and non-government representatives to help guide the process. The overarching goal of the planning effort is to develop a project proposal that would address outstanding needs to advance the management of the organisms in trade vector. The GLC also hopes to build partnerships and knowledge through the project. Shwayder explained that information technology is an important component that the GLC hopes to apply to the issue. Thusfar, the GLC has convened one workshop under the project and plans to hold one more later in the year.

[Recreational Boating: AIS Impacts & Prevention Strategies](#)

Lindsay Chadderton, The Nature Conservancy

Chadderton gave a presentation describing work underway to look at recreational boating as a potentially significant pathway for aquatic invasive species spread from invaded sites to non-invaded sites. It is a collaborative effort between The Nature Conservancy, U.S. Forest Service and University of Notre Dame. There are approximately six million boaters within the Great Lakes region alone and limited resources to address the issue. He described two intervention strategies to stop the movement of species: source intervention and destination intervention. Chadderton said that source intervention, or containment, is where they believe the biggest difference can be made. He explained the need to identify "super spreaders", high use, highly invaded locations, and implement inspections, cleaning stations and education strategies. In terms of destination intervention, he described the use of gravity models to predict sites at high risk for invasion. In running this model, surrogates used to predict probability of AIS transport include lake size and distance from major population sites. Significant challenges to these efforts include trying to manage what are typically rare events and the limitations involved in making predictions. Thus, they are trying to target efforts on sources of AIS, protecting high value areas and where people are moving. Chadderton next

described efforts to determine how often boaters are utilizing best management practices, such as boat hygiene (e.g., weed removal, pressure washing, rinsing and wiping-down of boat). Recent survey efforts in northern Wisconsin have shown that some strategies are being applied “sometimes” or “never”, although he acknowledged that this might have changed with the implementation of Wisconsin’s new VHS rules. It was noted that those boats going to more than one lake in a day pose higher risks. Finally, Chadderton discussed some additional research needs and challenges associated with their work, including the need to improve the accuracy of models by collecting quantitative data on boater/ramp use patterns, updating documentation of AIS infestations, collecting data on the movement and hygiene behaviors of the full range of boaters. Other challenges mentioned include: how to design sampling strategies for rare invasion events, how to better target the high risk boaters, and what management strategies can effectively reduce the rate of invasions.

Clean Boats (Every)day

Lisa Wojnarowski, Council of Great Lakes Governors

Wojnarowski talked briefly about the Council of Great Lakes Governors and their role in the Clean Boats Every Day initiative. The initiative is part of Great Lakes Regional Collaboration (GLRC) efforts to help prevent the transfer of aquatic invasive species through educating recreational boaters and promoting sustainable recreational boating. Clean Boats Every Day is working with regional partners and the recreational boating community to increase awareness of these issues. There is information on the GLRC (<http://glrc.us>) website highlighting national, state and local outreach campaigns, as well as an inventory of boater education events. The GLRC is continuing to pull in new partners, although it is unclear whether the initiative will carry over to next year’s boating season. Wojnarowski gave an example of a recent event sponsored by the Indian Fish and Wildlife Commission which included an in-the-water demonstration and fishing tournament. She encouraged interested parties to get resources from the website, tailored to the needs of your area/region.

Wednesday, June 18, 2008

Tom Crane (Great Lakes Commission) opened the meeting for the day, reviewing the agenda and logistics.

Joint Committee Session Reports

GLP Research Coordination & MRBP Research & Risk Assessment Committees

Phil Moy, GLP Research Coordination Committee Chair

Moy described the theme of their committee discussions as “stopping leaks”. First, he reviewed Committee identified needs for further addressing the ballast water “leak” of aquatic invasive species, including identifying the potential for aquatic invasive species to be transported in barge hulls, the geographic scope of this problem and potential risks posed by recreational boating (e.g. bilge water). With regards to the organisms in trade vector (“leak”), the Committee identified the need to determine potential routes of illegal live bait trade, potential routes of wild harvest bait and look further at the issue of live food and their potential to transfer hitchhikers. The Committee had also discussed the recent discovery of a breeding population of snakehead in Arkansas and identified the need to get more information on what is being done to address this issue. Finally, Moy reported the Committees recommendations regarding risk assessment. The Committees recommended sending a letter to the Aquatic Nuisance Species Task Force identifying the priority need to conduct a study to compare/combine existing risk assessment frameworks toward the development of a “gold standard”. The Committees indicated they would develop a one-pager on this issue to be used as part of agency RFP’s in the fall to secure funding for such a study.

GLP Information/Education & MRBP Outreach and Education Committees

Rochelle Sturtevant, GLP Information/Education Committee Chair

Sturtevant gave an overview of the topics discussed during the Committee session, including opportunities for extending outreach activities within the region, awareness of VHS guidelines and national campaigns and products. The Committees identified opportunities for collaboration on education and outreach between several entities such as Discovery World, the Association of Zoos and Aquariums, the Shedd Aquarium and the Duluth aquarium. The Committees were concerned by inconsistency in messaging on VHS control guidelines within the region and differences between those guidelines and already established guidelines for aquatic invasive species. Inconsistent messaging can confuse the public and increase the probability that no guidelines will be followed. There was also some debate about the feasibility of some of the control methods. Discussed was the need to reinforce consistent messaging focusing on: drain and dry boats, no movement of live/dead fish, and discard unused bait in trash. It was suggested as an action item by the Committees that the Panels communicate with the fish health community and others working on VHS guidelines to discuss the issues. It was mentioned that the Council of Great Lakes Governor’s is already in discussion with the Great Lakes Fish Health Committee on consistency issues. The Council will defer to the recommendations of the Committee; however, as they have the expertise to make recommendations on what is necessary. With regards to national campaigns and outreach products, the Committees wanted to look further into the idea of inventories (some are in existence, including an outreach catalogue from Oregon) and the need to do more evaluation of the effectiveness of outreach.

GLP Policy Coordination & MRBP Prevention and Control Committees

Steve Shults, MRBP Prevention and Control Committee Chair

Shults said that despite the different focus of the two Committees, they are able to find common ground and develop several recommendations. First, the Committees recommended that the GLP look into the potential to contribute funds to purchase transmitters to tag and monitor Asian carp, as the MRBP has done. The Committees also discussed the need for increased federal funding for both the Panels, priority projects and state management plans. They recommended that the Panel Executive Committees investigate and develop funding plans, and that a letter be sent to the Aquatic Nuisance Species Task Force detailing the magnitude of the need. The letter would be developed as a statement of need (as opposed to a request for funding), so that all members of the Panels could sign on to the letter. The Committees also hoped to get the other four regional Panels to sign on to the letter as well. It was suggested that the letter take the approach of unmet needs, describing what the Panels are mandated to do and what they are not able to do as a result of limited funding. Finally, Shults reported on the Committees discussion regarding VHS. There was agreement on the need to support efforts of research and education on VHS. Concern was voiced by the Committees that any actions or recommendations taken by the Panels on VHS first consider pending lawsuits involving federal agencies to ensure that our actions do not bias those deliberations. Discussion on this issue indicated that Panels could move forward on the consistency in messaging issue and recreational boating issue, but should avoid the regulatory or ballast water aspects.

Ballast Water Regulatory Updates

[U.S. Coast Guard: Legislation and Rulemaking Process](#)

Bivan Patnaik, U.S. Coast Guard Regulatory Coordinator

Patnaik gave an overview of U.S. Coast Guard (USCG) progress in developing a standard for ballast water discharge, as well as an update pending ballast water legislation in the U.S. Congress. He explained that USCG was developing a standard because of the limited effectiveness of the current ballast water exchange regime, which is dependent on many variables, and the need to develop a benchmark to evaluate ballast water management systems. He reviewed the history of this rule-making process thus far and the elements of the proposed rule. The primary elements are a concentration-based standard for discharge (i.e. number of organism per volume of water); an implementation schedule; vessel applicability, legal and regulatory exemptions, and incorporation of existing ballast water management systems. Ballast water technologies are being examined in terms of testing for biological efficacy. USCG is also working on meeting their requirements under the National Environmental Policy Act (NEPA) by developing a draft environmental impact statement (EIS) that analyzes five different alternatives, including doing nothing. As part of NEPA, an assessment of costs and benefits is required. Next, Patnaik discussed legislative progress on the issue. While there were at least ten bills introduced in Congress in 2007, only two have significant traction: H.R. 2830 – Coast Guard Reauthorization Act (which includes more than just ballast water management) and S. 1578 – Ballast Water Management Act. H.R. 2830 passed the House of Representatives, however, the White House has issued a veto threat and USCG is not satisfied with some pieces of the bill. The White House also submitted a proposal to the Senate with regards to S. 1578 which addresses the court order requiring the U.S. Environmental Protection Agency to permit all vessel discharges. Also recognized in this proposal are the differences between “lakers” and “salties”, allowing the USCG to set different standards accordingly. Patnaik explained the upcoming election will play a role in both the legislative process as well as the USCG rule-making process. The USCG is to publish the proposed rule-making prior to the election. He said that litigation has been the largest obstacle thusfar to completing the rule.

[Effectiveness of Salinity in Protecting the Great Lakes](#)

David Reid, NOAA - Great Lakes Environmental Research Lab (GLERL)

Reid opened his presentation explaining that the ballast water exchange requirements that went into effect in 1993 did not cover those vessels declaring “no ballast on board” (NOBOBs), thus creating a gap in the regulations. A 2001-2005 assessment of NOBOBs documented low salinity residuals and thousands of live organisms in NOBOB ballast tanks. Since 2005, through USCG voluntary guidelines, NOBOBs have been encouraged to use saltwater flushing to eliminate those organisms. In Canada, regulations were enacted in 2006, requiring salinity and sediment management for all water ballast tanks entering Canada greater than 30 parts per thousand. In 2008, regulations established in the St. Lawrence Seaway made saltwater flushing mandatory for all vessels entering the Great Lakes, harmonizing regulations between the U.S. and in Canada. Reid explained the hypothesis behind these practices is two-fold: 1) organisms adapted to low-salinity and salinity freshwater ecosystems are less likely to survive saltwater exposure, and 2) organisms adapted to higher salinity environments are less likely to survive in freshwater ecosystems. He described several salinity tolerance experiments to test these hypotheses. Although there were no signs of freshwater organisms after saltwater flushing, the resting eggs found embedded in the sediments were still viable. To address the resting egg problem, regulators are trying to reduce the amount of sediment in NOBOB tanks. Reid commented that the bottom-line was that although saltwater is not a perfect biocide, it can be an effective tool when carried out properly. Additionally, he said that NaCl (sodium chloride) brine, which is easily available, is a very effective biocide. The effectiveness of both saltwater and NaCl brine can be increased by adjusting exposure time,

concentration, and timing of flushing. To maximize exposure to saltwater, it was found that ships should flush their tanks early in the voyage. It was also recommended that ballast water exchange be considered when on-board treatment systems are implemented to reduce the concentration of organisms in mid ocean saltwater.

Enhancing Enforcement of Regulations and Continuing Research in Canada

Chris Wiley, Transport Canada; Fisheries and Oceans Canada

Wiley gave an overview of efforts to enhance aquatic invasive species management in Canada. He said the most effective regime is in place for ballast water and is a result of cooperation between Canada, the U.S. and the St. Lawrence Seaway. He described the daily coordination required to carry out the ballast water management program. He reviewed progress in the program since 2005, including implementation of the GloBallast Risk Assessment. Wiley also discussed a recent experiment that showed rock salt could be a very effective biocide in ballast tanks. He gave an update of Canadian ballast water database and the flow of information. He went on to describe recent efforts to assess the potential effectiveness of the International Maritime Organization (IMO) ballast water discharge standard. Wiley said the preliminary conclusions show that the standard will be an improvement over ballast water exchange and indicated that Canada intends to ratify the IMO. Next he spoke on the U.S. and Canadian flag vessels ("lakers") which are currently exempt from regulations. Preliminary data is being collected, looking at domestic shipping operations as a risk in transfer of aquatic invasive species. Through biological sampling, the study is determining the density and diversity of taxa transported in domestic ballast water. Wiley next discussed initiatives underway to address other priority AIS issues. The Canadian Centre for Expertise for Aquatic Risk Assessment is conducting pathway and species risk assessments, including the Chinese mitten crab, *Hemimysis anomala*, spiny rayed fishes, and live organism trades (in collaboration with Ontario Ministry of Natural Resources). Fisheries and Oceans Canada is also monitoring the spread of *Hemimysis*, following up on a VHS outbreak in Hamilton Harbour, tracking the spread of other AIS (e.g. gobies) and conducting outreach to stakeholder groups.

Advancements in Ballast Water Treatment Technology

Allegra Cangelosi, Northeast Midwest Institute (Great Ships Initiative)

Cangelosi gave a presentation on the Northeast Midwest Institute's Great Ships Initiative (GSI) established to advance ballast water treatment technology. One of the primary features of this initiative is the construction of a stationary platform with controls to test proposed ship treatments. The testing facility is designed to run large volumes of ballast water through the treatment technology and sample the "treated" water for live organisms. She discussed some driving forces behind the need for ballast water treatment technology including the IMO standard and U.S. legislation (H.R. 2830) which establishes timelines for implementation that would have ships installing and improving treatment systems over the next 15 years. She gave an overview of the number technologies that are in various stages of validation (e.g., IMO approval, ship or land testing, etc.). Cangelosi then spoke more specifically about the Great Ships Initiative (GSI) which was created to move forward on ballast water technology in advance of the implementation of new policies. The ultimate objective of the GSI is to end ship mediated introductions of AIS into the Great Lakes. She explained the organizational structure for implementation of the GSI which includes advisors and an implementation team. Cangelosi discussed in more detail the elements of the program, focusing on technology incubation whereby specialized methods are used to predict technology performance on Seaway sized ships. For technology developers that apply with promising ideas, GSI provides research services to assist in the development process. In addition, GSI offers the only freshwater testing facility in the world. Cangelosi then gave an overview of the testing facility which is located in Duluth, Minn. She reviewed the various testing methodologies they use to evaluate technologies and their timeline for moving through this process. In conclusion, Cangelosi acknowledged the GSI funders and directed interested parties to the website (<http://www.nemw.org/GSI/>).

Discussion & Next Steps

Kim Bogenschutz, Iowa Department of Natural Resources, MRBP Co-Chair, and Jim Grazio, Pennsylvania Department of Environmental Protection, GLP Vice Chair

Bogenschutz and Grazio led a discussion on the potential action items identified in the joint committee sessions.

Snakehead Situation in Arkansas

Both Panels agreed that this was a high priority issue and wanted to see aggressive action taken to eradicate the population. Given the lack of information on the specifics of the situation, however, it was suggested that a phone call be made to get more information. Doug Keller (MRBP Co-Chair) said he would contact the MRBP state representative from Arkansas and then a decision could be made on how the Panels should move forward.

Risk Assessment Needs

Mike Hoff volunteered to take the lead on developing a letter to the ANSTF identifying the need for a risk assessment comparison study. The letter is intended to identify risk assessment as a priority to the ANSTF and that it could be included in future agency RFPs, although it was unclear how the Panels thought the ANSTF might respond. In addition, the research committees of both Panels will continue joint work to guide the development of a risk assessment framework or "gold standard".

VHS Control Guidelines

Some discussion was had on the best way to communicate with the Great Lakes Fish Health Committee (GLFHC) on the importance of consistency in communicating with stakeholders, particularly regarding VHS control guidelines on how recreational boats should be treated. It was decided that the state representatives on the Panels should raise awareness with their state fishery chiefs on the concerns of the Panels related to consistent messaging on VHS. State representatives should then communicate with the Panel education committee chairs on the outcomes of those discussions. Following this, the GLP Information/Education Committee would communicate with the GLFHC, including getting an update on the progress of GLFHC recommendations on VHS control. It was also suggested that the ANSTF be informed if the Panels decide to take formal action on this issue.

Asian Carp Monitoring

A need for 30 more transmitters was identified for the Asian carp monitoring project. The transmitters are \$300 a piece and the MRBP had previously contributed \$3,000 towards the purchase of 10 transmitters. The GLP agreed to explore the potential for funding of this project by the Panel and/or by individual Panel members. It was also suggested that the Gulf and South Atlantic Panel coordinator be contacted to see if they would be interested in contributing.

Panel Funding Strategies

Ideas of registration fees or meeting sponsorships were suggested to help cover the cost of meetings. It was also pointed out that this may not be feasible in some cases as Panels also have some members that require travel support due to budget constraints. It was also suggested that Panels work with others to leverage funding for high priority projects. The Panel Executive Committees will explore these suggestions further.

Funding "Statement of Need"

The Chairs of the MRBP Prevention and Control and GLP Policy Coordination Committees volunteered to take the lead on developing a letter to the ANSTF on a statement of funding needs. Common needs will need to be identified between the Panels. It was suggested that the term "unfunded mandate" be used. With regards to state management planning needs, most states should have implementation tables that identify how much money is needed and what they plan to do with it. The goal was to have this done for the next ANSTF meeting in November (2008).

Joint Meeting Wrap-up

A call was made for public comment at which point one participant congratulated the Panels on a successful and well run meeting. Logistical items for the rest of the day were reviewed. Kathe Glassner-Shwayder acknowledged and thanked all those who contributed to the meeting.

**Mississippi River Basin Panel Meeting
Milwaukee, WI
June 18, 2008**

Meeting Minutes

Call to Order

Welcome and introductions. A list of meeting attendees is attached (Attachment 1).

Keller reviewed the meeting agenda. Agenda approved.

Bogenschutz reported that notes from the January 2008 meeting in Nashville, TN were provided by TWRD staff not familiar with AIS or MRBP members. Therefore the notes are pretty rough. It is taking a considerable amount of time for Bogenschutz to compile the meeting notes into a readable summary. Bogenschutz will send out draft minutes notes for review sometime after the current meeting.

Coordinator's Report

Funding

Everything appears to be on track for MICRA to receive funding for previous and current years. FWS has obligated funding for FY2006 and FY2007. MICRA submitted an invoice and received funding for half of the obligated funds. A second invoice for the remaining funds has been prepared and will be submitted to the FWS next week. A request for 2008 funds to be obligated will also be submitted to the FWS next week. An invoice for the 2008 funds will be submitted to the FWS in September or October. An Annual Report and 2009 Workplan will need submitted in October. A request for 2009 funds to be obligated will be submitted in early 2009.

Budget

MICRA should receive a total of \$148,336 during 2008. The FWS reduced the total amount of funding received by travel costs for Kim Bogenschutz to attend the Fall 2007 ANSTF meeting. The Executive Board has set aside a portion of the funding to cover travel costs and meeting expenses. Part of the funding will go to reimburse MICRA for MRBP expenses paid over the last two years. MRBP has a total of \$89,000 available to go towards projects during 2008. The Executive Board prioritized projects identified in the committee workplans. The following projects are being funded during 2008:

- Print the "Field Guide to Aquatic Nuisance Species"
- ANS and boater surveys in OK and IN
- Print the Asian carp symposium proceedings
- Print Hydrilla/Brazilian elodea watch cards
- Purchase 10 sonic tags for Asian carp telemetry project in Upper Illinois River
- Support Leah Sharpe's PhD Project "A Decision Support System for Improved Management of Established Aquatic Invasive Species"
- Plan and host an ICS based mock rapid response exercise

Election Results

Conover reported that Jason Goeckler (KS) was elected by mail ballot as the incoming MRBP First-Year Co-Chair.

MRBP Committee Break-out Sessions and Reports

Outreach and Education Committee

Attendees: Jay Rendall, MN
Dennis Riecke, MS
Ashley Foster, OK
Pat Charlebois, IL/IN
Doug Grann, Wildlife Forever
Steve Schainost, NE, Chair

There were no copies of last meeting's workplan to hand out. The meeting consisted of reviewing the handwritten copy of the previous workplan and updating it for the next year. We began with budgeted items.

The first of these was the "Field Guide to Aquatic Nuisance Species". Mandy Beall has produced copy which had been delivered to Jay Rendall for review. The review was not complete at this time. When this first review is done, the document will be sent out to the Committee for their review. It was noted that not all Committee members will be familiar with all the AIS that will be in the brochure so they may confine their review to those species that they know. 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. Doug Grann suggested a possibility that Wildlife Forever could print and sell this. The milestone of 1 August was left in place as well as the requested \$18,000. These funds are to pay Mandy and print as many as possible.

The next budgeted item was the "Aquatic Nuisance Species and Boater Survey". This survey is 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. Two states were able to conduct surveys last year (KS and MT) and each was given \$5,000 to help pay for these. This year, Oklahoma and Indiana are conducting surveys. It was concluded that we would continue to try to offer this same deal each year.

The next budgeted item was the development of a library of stock video footage. We had put \$20,000 into our budget request to help pay for producing additional footage, however the budget crunch necessitated that this be deleted.

The final budgeted item was the hydrilla watchcards. Illinois/Indiana Seagrant is heading up the design of these cards. Pat Charlebois reported that the text is close to being ready and a final draft will be done soon. It will be sent to experts on hydrilla for final review and then the Committee and MRBP Chair and Coordinator will approve. A total of \$15,000 was budgeted for these and, as will previous watchcards, the print run will be divided and delivered to the MRBP states. It is expected that this project can be completed this year.

The 2006-07 workplan had several items that had not been budgeted but were in there for further development.

It was proposed that we investigate the possibility of contacting major sporting goods catalog retailers to see if they would be willing to put ANS messages in their catalogs. A letter has been sent out but, to date, no responses had come back. This elicited much discussion. Doug Grann has experience with this and explained that including our message in a catalog can be very expensive and retailers do not like to give up catalog space to something that will not bring in income. Several alternatives along this line were discussed including catalog inserts, blow-in cards, and inclusion of the Stop Aquatic Hitchhikers logo along with a short Public Service Announcement (among others). Since Dennis Rieke has contacts at Bass Pro Shops, he volunteered to explore the idea with them. Jay Rendall will do the same for Cabela's. Doug Grann said that Wildlife Forever could produce the PSA with logo.

Next was the idea that we partner with NGO's like Wildlife Forever and B.A.S.S. In this case, these entities are primarily active at the state level. Doug Grann, representing Wildlife Forever, discussed how that organization (and similar organizations) can work with us. Nothing formal was decided here but we did get a lot of valuable information which we should be able to use in the future.

Last year, the "Stop Aquatic Hitchhikers" brochure had been produced and delivered to all the states. A few states had exhausted their supplies and requested more. As the MRBP was not in a position to do another print run, a copy of the brochure template was obtained from Jay Rendall and delivered to these states so that they might print their own.

The final item of discussion was the suggestion that a letter be written to boat manufacturers encouraging the design of boat and trailers in a way that would facilitate inspection and cleaning. This was discussed at the last meeting with the recommendation that such a letter be sent to the ANSTF for their action. At this meeting we decided that such a letter should probably come directly from the MRBP and be directed towards the Marine Manufacturing Association. This is an umbrella organization for the boating industry as a whole. Jay thought that he might be able to locate contact info for such a letter.

Prevention and Control Committee

Attendees: Steve Shults (IL)
Kim Bogenschutz (IA)
Greg Conover (USFSW)
Louie Thompson (CFA)
Jason Goeckler (KS)
Eileen Ryce (MT)
Jeff Bode (WI)

2008 Budget Requests

Shults provided a handout summarizing the Prevention and Control Committee's 2008 budget requests developed during the January 2008 meeting in Nashville, TN.

- ICS-based mock rapid response exercise is a very high priority for 2008.
- Asian Carp Telemetry Project – MRBP has purchased 9 sonic transmitters for Early Detection Monitoring (EDM) of Asian carps in the upper Illinois River near the dispersal barrier. This project does more for the Great Lakes than the Mississippi River Basin. The MRBP should challenge the Great Lakes Panel to purchase 9 sonic transmitters to increase the number of fish tagged for EDM.
- Common Carp Coordination Symposium - request from Dr. Peter Sorensen for \$5,000 was withdrawn.
- Triploid Grass Carp Inspection Program Review – This is a very low priority for 2008, but likely to be identified in 2009 workplan.
- Travel support – The Committee should recommend that the Executive Committee develop guidelines for providing travel assistance to panel members.

Shults provided a handout summarizing Prevention and Control Committee activities since October 2007.

Grass Carp Letter

The Committee discussed a draft letter proposed for distribution to member states regarding the use of diploid grass carp. One correction was provided by Goeckler. The committee discussed who the letter should be sent to. In some states the DNR may not be the appropriate or the sole agency to which the letter should be sent. Shults said that NCRAC has a database of permit authority for each state and suggested that Conover contact Chris Weeks for this information.

! Conover was asked to contact member states to ask who the letter should be sent to in each state.

The Committee also discussed how the letter should be distributed to the states. Can the MRBP send the letter to member states as a recommendation from the panel? The letter could be provided to other regional panels to provide to their member states. It is not clear if regional panels are allowed to provide recommendations directly to member states regarding state policy. Should the panel provide the letter to the ANSTF or MICRA as a recommendation to come out from these organizations?

Snakeheads in Arkansas

Shults provided copies of a press release from Arkansas Game and Fish Commission reporting the confirmation of a breeding population of northern snakeheads in the state. Shults has been talking with Mike Armstrong (AGFC Fish Chief) about the agencies planned attempt to eradicate the introduced population with rotenone. This issue is also being discussed in the Research and Risk Assessment committee, and will likely be discussed more in the full panel session following the Committee breakouts. Are there any particular concerns that should be raised by the Prevention and Control Committee? Does Arkansas need any assistance from Mississippi River Basin states?

! Shults will ask Keller to contact Mike Armstrong to relay MRBP's support.

Recommendations for joint projects w/ GLP Policy Coordination Committee?

Shults reviewed the joint action items from the joint meeting with the Great Lakes Panel Policy Coordination Committee.

Screening Process

Shults reminded the committee that during the Nashville meeting in January 2008, the committee was assigned the task of developing criteria for prioritizing a list of species for detailed Risk Assessment. This is a component to be added to the Screening Tool developed by Mike Hoff.

Shults asked if anyone was interested in taking the lead on this and requested suggestions on how the committee should proceed. We need to develop a ranking system, either as a flow chart or a spreadsheet.

! Ryce and Bode will send Shults ranking systems already developed in MT and WI.

Research and Risk Assessment

Experts Database: Many state contacts are now directed at the wrong people due to personnel turnover. There is still a need to continue to add experts to the database.

! Action item: Committee chair will contact all states and ask for updates to Tier 1 contacts, and renew call for new members.

Also at the June meeting, there was concern that the experts database may not be found by citizens that would like to contact Tier 1 experts.

! Action Item: Committee Chair will contact webmasters of other exotic species-related web sites and ask them to post links to the database, and request that Tier 1 contacts supply suggestions for other places to post the experts database link.

Risk Assessment Framework/Screening Tool: Mike Hoff (FWS) has been leading the development of a Risk Assessment framework for non-native introductions. At this meeting, we formed a joint GLP MRBP subcommittee for development of the Risk

Assessment Framework was formed. Mike Hoff, Lindsay Chadderton (TNC), Christina Donnelly (GLP, Great Lake Commission) are subcommittee members. The subcommittee will direct the development of the Gold standard RA, but not be in charge of developing the RA rules.

! Action Item: Mike Hoff to send out updated working version of the Risk Assessment screening protocol to the panel members. The next version of the RA is to contain more decision support information (models, publications, and websites). RA screening tool is to be continually updated when additional support information becomes available. A climate change component will be added to the screening process.

River Barges as Vectors: The committee identified a data gap in regard to barge traffic (including tows) bilge and ballast water on the Mississippi River. It is unknown whether commercial traffic on the Mississippi River and between the Mississippi River and the Great Lakes are a potential vector for aquatic nuisance species or not. There is a need for an understanding of types of tows, where different types of tows are used, and how bilge and ballast water (if any) are managed. Possible need for a symposium at the AFS meeting in Nashville (2009) or Pittsburg (2010). Need for coordination with GLP on this issue was noted.

! Action Item: Invite member(s) of barge association (American Waterways Operators) and other knowledgeable individuals such as knowledgeable Coast Guard personnel to talk at next MRBP meeting about barges and tows and the potential for transport of ANS.

Live Bait, Live Food, and Pay Lakes: These were identified as substantial important data gaps. 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. Several members noted that warmwater pay lakes use cultured fish and wild-caught fish. Both are sometimes transported long distances. Members agreed that transport of wild fish probably has a higher degree of risk than aquaculture fish. Group identified 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 GLP on the paylake issue.

! Action Item: Committee Chair will investigate to see if there are any experts on this issue and if there is a paylake operator organization that can speak to us or can facilitate discussion with operators.

Snakeheads in Arkansas: Committee discussed the snakehead introduction in Arkansas and discussed whether the committee should be come involved in any way.

! Action Item: Doug Keller (INDNR, Panel co-chair) agreed to contact Arkansas to ask how MRBP or the Research and Risk Assessment committee can contribute to

their rapid response effort, such as in determination of snakehead sensitivity to rotenone, or other needs.

Budget requests: The committee discussed and submitted budget requests to the panel to fund two proposals submitted to the panel in 2007. The committee requested 10,000 to support Leah Sharpe's PhD Project "A Decision Support System for Improved Management of Established Aquatic Invasive Species", and \$10,000 to Co-sponsor "International Symposium on Genetic Biocontrol of Invasive Species"

2009 Work plan

Outreach and Education Committee

Activity	Description	Deliverables	Funding Needed
ANS and Boater surveys	Survey of registered boaters and/or licensed anglers to determine level of ANS knowledge	Report on state survey results	Up to \$5,000 per state, two states per year
"Field Guide to Aquatic Nuisance Species"	Complete final review of draft field guide and submit print order.	Printed field guides for distribution to MRBP members	None in FY2009
Hydrilla and Brazilian elodea WATCH cards	Printing of final version of WATCH cards	50,000 – 100,000 WATCH cards for distribution to MRBP members	None in FY2009
Contact major sporting goods catalog retailers about putting ANS message in catalogs	Correspond with various retailers such as <i>Cabelas</i> and <i>Bass Pro Shop</i> .	Identify partners, level of interest, and potential joint projects	None
Partner with environmental and outdoor recreation organizations to deliver ANS messages	Correspond with various boating manufacturers and groups such as <i>B.A.S.S.</i> and <i>Wildlife Forever</i> to seek out projects of mutual interest.	Identify partners, level of interest, and potential joint projects	None

Prevention and Control Committee

Activity	Description	Deliverables	Funding Needed
Finalize Statement of Need Letter to ANSTF	Work with MRBP and Great Lakes Panel Executive Committees to gain support of all Regional Panels and finalize as an all Panels letter to the ANSTF	All Panels letter sent to ANSTF as a statement of need for accomplishing Panel mandates	None

Completion of ICS Rapid Response Exercise	Finalize plans and host a Mock Rapid Response exercise in the Upper Mississippi River	1-1/2 day workshop facilitated by Tetra Tech EM Inc. and completion of an After Action Report	None in FY2009
Develop RFP for Triploid Grass Carp Inspection Program External Review	Organize an MRBP led committee of grass carp stakeholders to develop a Request for Proposal and select a Scope of Work for funding. Seek to broaden support for review to a national scale (e.g., other Regional Panels, AFWA)	Independent scientific review of USFWS national Triploid Grass Carp Inspection and Certification Program resulting in final report with recommendations to reduce the introduction of diploid grass carp.	\$10,000
Develop a ranking system for prioritizing species needing detailed risk assessment	The MRBP previously developed a risk assessment screening tool to determine which species warrant a detailed risk assessment. As a next step in the process, a systematic approach is needed to prioritize species for which detailed risk assessments are needed.	Model tool to prioritize species needing detailed risk assessment.	None
Support early detection monitoring for Asian carps near the dispersal barrier in the upper Illinois Waterway	Support multi-agency surveillance efforts of Asian carps near the dispersal barrier in the upper Illinois Waterway by providing sonic transmitters.	Increased numbers of bighead and silver carps monitored for movements near the barrier resulting in more effective early detection monitoring to prevent the spread of Asian carps into the Great Lakes.	None in FY2009
Identify barriers to rapid response efforts	Build from the ICS mock rapid response exercise to identify barriers to rapid response efforts and make recommendations for agency cooperation and coordination.	Identification of needs and recommended actions to improve agencies abilities to plan and execute rapid response actions in a timely manner.	None in FY2009
Develop guidance on dry hydrants to prevent the spread of AIS	Invite Oneida County (WI) Land and Water Conservation District AIS Coordinator to attend the MRBP annual meeting and discuss the risk of spreading AIS associated with dry hydrants.	Increase MRBP members understanding of risks associated with dry hydrants, and identify next steps to address risks.	\$1,000 travel support to MRBP annual meeting

Research and Risk Assessment

Activity	Description	Deliverables	Funding Needed
Proceedings of International Symposium on Asian Carp Management and Control	Final revisions and publication of Proceedings document.	Peer-reviewed Proceedings document available for purchase from AFS.	\$9000
Plan Risk Framework / Screening Tool	Joint project with Great Lakes Regional Panel to develop a "gold standard" risk assessment screening tool.	Model risk assessment framework and screening tool for use by states	None in FY2009
Experts Database	Recruit new Tier 2 contacts, regularly update Tier 1 contacts, and increase accessibility to the public.	Database support	None in FY2009
Assess Risk of River Barges for Transporting ANS in Barge Ballast or Bilge Water	Experts with the U.S. Coast Guard and the American Waterways Operators will be invited to address the MRBP to elevate the understanding of barge operations, so that the risk of transport of ANS in barge ballast or bilge water can be addressed	Increased understanding by MRBP members and identification of unaddressed risks requiring action	\$1,500 - May need to provide travel support for speakers to attend MRBP 2009 annual meeting
Assess Risk of Pay / Fee-Fishing Lakes for spreading ANS as the result of live fish transport	MRBP will contact other Regional ANS Panels to seek collaboration on a risk assessment.	Increased understanding of risks associated with Pay / Fee-Fishing Lakes, identify other Panels' interest in a collaborative risk assessment, and identify next steps to address risks	None in FY2009
Developing a Decision Support System for Control of AIS	Support PhD student project to develop a decision-support tool for assessing, in a transparent manner, when and how to best control an invasive species on a case by case basis.	Web accessible decision support tool for natural resources managers.	None in FY2009 (\$5,000 support provided in FY2009, project scheduled for completion in FY2010)

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
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Other Business

Ohio River VHS update

John Navarro reported on the recent confirmation of VHS in muskellunge in Ohio. The virus was detected during routine testing of ovarion fluid from brood fish collected from Clear Fork Reservoir. Samples were sent to and virus was detected by LaCrosse Fish Health Center. APHIS confirmed the virus. ODNR quarantined the London Fish Hatchery where the infected eggs were taken.

There was no fish kill in association with this detection of VHS; the virus was only detected as part of routine testing. A press release came out yesterday (handout).

ODNR has been proactive with signage to prevent the inland transfer of fish from Lake Erie Basin. Now plan to post signs at Clear Fork Reservoir. Also assisting the OH Department of Agriculture prepare for testing fish.

ODNR is disinfecting all eggs in their hatchery operations with iodine. Iodine treatments are conducted in the field before the eggs are taken into the hatchery. Biologists are on notice regarding fish kills.

Jeff Rach is evaluating the efficacy of iodine to kill the virus.

Konrad Dabrowski (OSU) is conducting iodine treatments for the state.

ODNR has ceased egg collections from Lake Erie. The agency is establishing a handling facility separate from hatcheries for wild captured brood fish. No fish are coming into the London facility. All musky coming out of facility will be stocked into Clear Fork Reservoir.

It sounds like there may be some repetitive effort among states conducting iodine studies. Should an entity be cataloguing results and on-going research projects to prevent funds being spent on repetitive studies? The Great Lakes Fish Health Committee is coordinating this at some level among the Great Lakes states.

! Conover was asked to send out a message to panel members requesting information on all completed or on-going studies related to VHS in the Mississippi River Basin. Should this request be categorized? Jeff Bode will work with WI biologists to develop the categories. There are often different regulatory

authorities within individual states; therefore the request may need to be sent to more than each state's Panel representative. How does the panel want to help facilitate communication? Ultimately this information should be placed on panel's web site.

ICS-based mock rapid response exercise

The MRBP Executive Committee has agreed to fund a tabletop exercise in 2008. The exercise will likely be held in Sparta, IL during September or October. The exercise is expected to last for 2 days.

The focus of the exercise will be on preventing spread, containment, and ICS training.

PA is convening a similar rapid response exercise in August. The MRBP will be able to use the same vendor and some of the materials from the PA exercise, which will reduce our costs for the exercise. MRBP will also be able to modify and improve the PA exercise.

The geographic focus of the exercise will be the mainstem Mississippi River between IL and IA. There will be a number of opportunities to participate in the exercise: planning, participants, and evaluators.

The next steps are to confirm the date and location, send requests to panel for member participation, and request members describe their desired role in the exercise.

The end result will be an After Action Report containing an evaluation of the exercise and identifying next steps for states to prepare for a real-life rapid response.

The Western Regional Panel conducted a mock exercise for the Columbia River Basin last year and a second exercise in October of this year.

Has ICS been used as part of rapid response in the past? Yes, most recently in CA for quagga mussels and the report is on the 100th meridian website.

On-line ICS training is available through the Department of Homeland Security (100, 200, 700, and 800). Anyone actively participating in the mock exercise should take the on-line training. All four courses are recommended; each last approximately 4 hrs. Observers may only need to take the 100 and 200 level courses.

! Panel members were requested to consider participating in the exercise and what role they might want to play in the exercise? The on-line training will help to clarify the different roles.

The ANSTF has recommended the ICS model for rapid response.

Public comment

There were no public comments.

Next meeting

The panel held two meetings during 2008, a stand alone meeting in Nashville, TN in January, and the joint meeting with the Great Lakes Panel in June. The next panel meeting should be in 2009. Should we plan on holding only one meeting per year in the future? Meeting every 9 months had been proposed before. The group supported attempting to hold meetings every 9 months. Nine months would put us into March 2009. March seemed an acceptable timeframe, with the exception of the first week of March.

Discussion turned to where to hold the meeting and which panel member would host. We should continue to move meetings around to different parts of the Basin. Including this meeting, meetings have been held in the Upper Mississippi River (Milwaukee, WI), Ohio River (Nashville, TN), Missouri River (Prey, MT), Upper Mississippi River (Peoria, IL), Missouri River (Wichita, KS and Columbia, MO), Lower Missouri River (New Orleans, LA), and Upper Mississippi River (?, MN). We have not held a meeting in the Arkansas/Red River sub-basin.

! Ashley Foster (OK) agreed to host the next MRBP meeting.

MRBP Meeting Attendance, 18 June 2008

Kim Bogenschutz

Doug Keller

Sue Thompson

John Navarro

Doug Grann

Steve Shults

Louie Thompson

Terry Hubert

Mike Hoff

Pat Charlebois

Dennis Riecke

Ashley Foster

Jeff Rach

Eileen Ryce

Steve Schainost

Jason Goeckler

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DRAFT

**Joint Meeting of the
Great Lakes & Mississippi River Basin Panels on Aquatic Nuisance
Species**

June 17-19, 2008

FINAL DRAFT AGENDA

Wednesday, June 18, 2008

Mississippi River Basin Panel Meeting

Wisconsin Room

- 1:15pm **Call to Order** **Panel Chairs**
Roll call, agenda review, Nashville January 2008 meeting summary approval
- 1:30pm **MRBP Update**
Funding, Budget, Panel Elections
- 1:45pm **MRBP Committee Break-out Sessions**
Committee Business / Work Plans
- 3:45pm **BREAK**
- 4:00pm **MRBP Committee Reports** **MRBP Committee Chairs**
(10 minutes each)
- 4:30pm **MRBP Business**
2009 work plan development, membership, Public comment, next meeting, review action items
- 5:15pm **ADJOURN**
- 7:05pm **Optional Activity: Baseball Game**
Milwaukee Brewers vs. Toronto Blue Jays