

MRBP Coordination Meeting Notes

September 13th-14th, 2022

[Reelfoot Lake State Park](#)

2595 Highway 21 East

Tiptonville, TN 38079

Decisions

1. A motion was passed to change the name of the MRBP to “Mississippi River Basin Panel on Aquatic Invasive Species” pending a discussion with ANSTF Executive Secretary Susan Pasko.

Action Items

1. (ALL) Check membership directory for accuracy and indicate which committees you would like to be a member of.
2. (ALL) Consider volunteering to serve as the newly created MICRA Liaison. Contact anyone on the Executive Committee if you are interested or have questions.
3. (ALL) Consider serving as the Research and Risk Assessment Committee chairperson.
4. (EDUCATION AND OUTREACH) Update MRBP information fact sheet for ANSTF webpage.
5. (EDUCATION AND OUTREACH) Review and decide on possible MRBP rebranding and/or logo.
6. (EDUCATION AND OUTREACH) Review MRBP website and report to Executive Committee any needed changes and the possibility of a website overhaul
7. (EDUCATION AND OUTREACH) Review the MRBP web page (<http://micrarivers.org/committees/mrbp/>) on MICRA’s website and provide feedback on needed updates and revisions.
8. (PREVENTION AND CONTROL) Review Committee webpage on MRBP website
9. (PREVENTION AND CONTROL) Add links to other regional panels and partner resources (Federal, NGO’s, Etc.) on MRBP website
10. (PREVENTION AND CONTROL) Work on updating ANS highest priority list.
11. (PREVENTION AND CONTROL) Review MICRA’s current priority list to make progress and think of MRBP input for next 5-yr plan.

12. (STUMP/CONOVER) Discuss MRBP interest in developing a new logo with the Panel Principals and ask if there is interest or need to have some level of consistency in the regional panels' logos.
13. (RESEARCH AND RISK) Verify black carp contacts are up to date.
14. (RESEARCH AND RISK) Create a presentation or paper on baitfish regulations for the Mississippi River Basin States for presentation to MICRA.
15. (RESEARCH AND RISK) Review other regional panels' possible solutions for baitfish in their regions.
16. (RESEARCH AND RISK) Review Baitfish report and weigh-in on any parts that need more review and/or clarification.
17. (EXCOMM) Does MRBP need to compile all member states' baitfish regulations for MICRA?
Ex. [Model Bait Regulation for Limiting Invasive Species - MASGLP \(olemiss.edu\)](http://olemiss.edu)
18. (EXCOMM) Add a secure panel members-only section to website. Include partner resources and web addresses on the MRBP website.

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Meeting Notes

Welcome and introductions – Andrew Stump (KDFWR)

- Second-term co-chair Andrew Stump welcomed meeting participants and thanked TWRA and Cole Harty for hosting the meeting at Reelfoot Lake State Park.
- 25 in-person and 7 remote participants introduced themselves (see Attachment 1)
- CDC COVID-19 level for Lake County, Tennessee, is Low
- Participants asked to review the membership directory and committee rosters – correct as needed and sign up for each committee that you are interested in participating on
- Sign-up sheet available for Public Comment; people on-line can sign up by entering a request in chat.

AIS Priorities in Tennessee – Cole Harty (TWRA)

- Welcomed MRBP members to Tennessee
- Harty gave a provided information on Reelfoot Lake and AIS priorities in Tennessee ([presentation slides](#)).
 - Tennessee ANS Plan
 - Developed in 2008
 - Objectives
 - ❖ Prevent introduction and spread of new and existing invasives
 - ❖ Manage priority invasives to minimize impacts
 - Current Priorities
 - ❖ Education
 - ❖ Early detection and response
 - ❖ Monitoring
 - TWRA hired first full-time ANS Coordinator (Cole Harty) in December 2019
 - Tennessee Challenges
 - Multiple jurisdictions – TWRA manages fish and wildlife
 - ❖ Four regions across the state – issues differ across regions
 - Primary resources are mainstem reservoirs
 - ❖ High connectivity between waterways makes it hard to prevent/slow spread of ANS
 - Many access points make it difficult to pinpoint locations for preventative educational resources
 - Invasive carp is highest priority

- Projects initiated in 2015 – several active projects
- Evaluation of carp removal program
- Early detection surveys in upstream areas
- Tennessee carp harvest incentive program (TCHIP)
 - Work with wholesale fish dealers rather than commercial fishers
 - Minimum payout structure incentivizes purchase of invasive carp
 - 17,000,000 pounds of invasive carp removed since September 2018
- Interest in deterrents for invasive carp
 - Support ongoing BAFF work at Barkley Lock in Kentucky
 - Working with TVA and other partners to provide input on Tennessee River deterrents
- Alabama bass 2nd highest priority
 - Native only to Conasauga River
 - Outcompete native Largemouth and Smallmouth Bass
 - Readily hybridizes with smallmouth bass
- Snakeheads in Arkansas another potential threat
- Tilapia in warmwater discharges
 - May all be dead dues to cold-water
- Whirling disease in Northeast trout streams
 - Very few positive cases in native brook trout

Discussion:

Stump: Kentucky is also concerned about Alabama Bass. Is TWRA systematically using fin clips to look at genetics to identify areas or are you just looking at areas that you know have Alabama Bass?

Harty: Early in development of a project proposal with Tennessee Tech. The idea would be to pick some of the highest priority resources and then expand from there. We are planning on a significant project utilizing staff from all regions. There will likely be some targeted sampling as well based on existing information.

Spider maps can be a useful tool to look at potential distribution from known points.

Hoff: It wasn't clear what baseline information is available. I wanted to make sure you are aware that the Tennessee Valley Authority (TVA) has some historic cove rotenone survey data from some reservoirs. These surveys would provide fish community information that could potentially allow for before and after analyses. There are also gillnet CPUE data, electrofishing, larval fish sampling, and other data from TVA. This may be useful when looking at high risk areas of concern.

Harty: The baseline data I was referring to is genetic data. TWRA has been collecting fin clips from individual fish in different reservoirs that were suspected as potential Alabama Bass. Looking for a broad, statewide, and narrow collection window for bass genetic information.

Regarding invasive carp, the state has definitely been working closely with the folks at TVA.

There are also National Park Service data from the Great Smokey Mountains on invasive salmonids in relation to native Brook Trout.

In general, there are a lot of historic fish community data available in Tennessee.

MRBP AIS Challenges and Successes Highlights – Duane Chapman (USGS) and Greg Conover (USFWS)

- The MRBP is one of six regional panels to the ANS Task Force.
- As part of the May 2022 ANS Task Force meeting, each regional panel was asked to highlight a particular challenge or success in their respective regions.
 - Duane Chapman and Greg Conover provided a presentation for the MRBP at the ANS Task Force meeting and are giving that same presentation here ([presentation slides](#)).
 - MRBP Formation
 - Hosted by MICRA
 - First meeting in July 2003
 - MICRA provides coordination support to panel
 - MRBP survey of the “most troublesome ANS” in Mississippi River Basin in 2003
 - 46 total organisms identified
 - ❖ 1/3 plants
 - ❖ 1/3 fish
 - ❖ 1/3 mollusks, crustaceans, mammals, and microorganisms
 - 15 most troublesome fish included 5 carp species
 - Common carp and all four invasive carp – bighead, silver, black, and grass
 - Common carp identified by more states than any invasive carp species
 - Management and Control Plan for Bighead, Black, Grass, and Silver Carps in the United States
 - 2002: ANS Task Force determined invasive carp warranted a national plan
 - 2004: USFWS established a multi-stakeholder Invasive Carp Working Group
 - ❖ Many MRBP members actively participated in working group and development of the national plan
 - ❖ MRBP’s 3rd meeting held in conjunction with the initial Invasive Carp Working Group meeting
 - 2007 national plan for invasive carp implemented
 - ❖ Common priority among many MRBP member agencies
 - ❖ MRBP has served a unique role supporting coordination of basinwide efforts
 - ANS Task Force strategic plan goals
 - Invasive carp is just one priority of MRBP
 - MRBP invasive carp work addresses all ANSTF goals
 - ❖ Numerous examples of MRBP accomplishments of invasive carp

work under each goal: coordination, prevention, EDRR, control and restoration, research, and outreach and education

- Conclusions
 - MRBP is a valuable group for inter-agency coordination, collaboration, and information sharing
 - MRBP has been a catalyst for identifying and addressing needs
 - ❖ Some work completed by MRBP, some priority needs identified or initiated by MRBP and completed by others
 - MRBP remains an important forum for coordination, collaboration, and information sharing on invasive carp management and control, and other impending AIS.
 - There are other ANS priorities in the basin and MRBP is focused on these broader needs – invasive carp is just one specific example of panel's work

Discussion:

Hoff: AIS priorities brochure provided to MICRA Executive Board many years ago. That document was used in Congressional outreach. There are opportunities to update that document with current priorities and help inform decision makers, including how additional resources can be allocated by Congress to support national efforts. The old AIS priorities were based on a survey. Priorities for each jurisdiction will be different for a variety of reasons. One of the best predictors of a non-native species establishment is climate match. It's important to keep in mind that establishing a list of priorities for the Mississippi River Basin will be based on the priorities of the different jurisdictions. Minnesota and Wisconsin priorities will be much different from priorities in Mississippi and Louisiana. We will likely need to consider sub-basin or other regional approaches. There are tools available to inform climate match in different parts of the basin.

Congress appropriates nearly \$20 million annually to support the Great Lakes Fishery Commission. A fishery commission could provide tremendous benefits to a Mississippi River Basin Fishery Commission.

Chapman: With respect to the basin fisheries, people get focused on the river fisheries, but the issues are bigger than that. Economic value is greater in the reservoirs than in the large rivers. There is more public interest in the reservoirs than in the big river fisheries. There are many more reservoirs at risk.

Conover: The MRBP is an advisory panel of the ANS Task Force and falls under rules of the Federal Advisory Committee Act (FACA). As a federal advisory committee, the panel is limited in what it can do. There are things that the panels are not allowed to do. We heard about educating Congress and moving things forward outside of the ANS Task Force. These are reasons for MICRA to reestablish an AIS Committee and have a forum for the member agency ANS Coordinators to collaborate in addition to the specific advisory panel role of the MRBP.

Lacey Act, America Competes act, and Restoring America's Wildlife Act updates – Kerry Wixted (AFWA) - remote

- Kerry Wixted has worked with AFWA for about a year as the Amphibian, Reptile, and Invasive Species Program Manager
- She provided a presentation with background information on AFWA ([presentation slides](#))
- AFWA tagline is “a voice for fish and wildlife agencies” and they work to support and advocate for science-based conservation.
- Committee driven conservation – over 70 committees, subcommittees, and working groups
- 6 strategic focus areas within core mission
 - Advocate for funding, policy, and legislation that fulfill the missions of members
 - Increase participation and diversity in conservation and nature-based recreation
 - Provide leadership in developing conservation science
 - Attain comprehensive and dedicated funding for conservation
 - Provide communication and training to support member fish and game agencies
 - Improve fiscal and operational excellence of the association
- Invasive Species Committee
 - 3 main objectives:
 - Increasing communication among the states and partners
 - Coordinating needs for high priority invasive species
 - Promoting sound policies
 - Kim Bogenschutz, IA DNR is Vice Chair of the committee
 - Kerry Wixted provides staff support to the committee
- Blue Ribbon AIS Commission was put together this year by members of the outdoor recreation industry
 - Part of the Theodore Roosevelt Conservation Partnership
 - Kerry temporarily serving on this commission until AFWA hires a new fisheries and aquatic resources policy program manager
 - The Commission convened at ICAST this past summer to bring together biologist, environmentalists, policy makers, and resource managers to look at eradication solutions, mitigation efforts, and other issues related to AIS
 - Ultimate goal of the Commission is to put together findings for Congress and the Administration in 2023 with a goal of passing comprehensive legislation to better manage and eliminate AIS
- Government Affairs
 - Led by Kurt Thiede
 - Tracks Federal legislation that may be relevant to the states
 - Congress's ongoing efforts for conservation
 - Several pieces of legislation were discussed
 - Lacey Act
 - Title 18 focuses on invasive species, particularly those identified as injurious
 - ❖ Limits their importation and shipments

- >700 species listed as injurious under the Lacey Act
 - ❖ Some fish and amphibians are not injurious themselves but are listed because they can carry pathogens that affect other wildlife species
- >94% of species listed preemptively and none of those have become established
- Title 18 also addresses interstate transport
 - ❖ 2017 lawsuit by USARK regarding listing of several constrictor species
 - Court ruled that interstate transport within the continental US is not prohibited
 - This ruling was problematic for several states
 - ❖ Senate Bill 626 by Senator Rubio in 2017 to re-establish statute prohibiting interstate transport and additional provisions for emergency listing and presumptive prohibition list for species not currently in trade
 - AFWA did not develop an official position on this bill
 - Referred to the Committee of Environment and Public Works
 - Did not pass out of committee
- America COMPETES Act
 - ❖ Introduced in Spring 2022
 - ❖ Not focused on invasive species
 - ❖ House version included the Lacey Act provisions from S.626
 - ❖ A key difference is they changed the liability by adding “knowingly”
 - ❖ Problematic to AFWA because current act includes strict liability clause
 - Adding “knowingly” clause would require states to prove that someone was intentionally transporting a listed species
 - ❖ The COMPETES Act was changed to the CHIPS and Science Act
 - ❖ Changed to CHIPS and Science Act and the Lacey Act provisions were removed from the House Bill before the Bill was passed
- AFWA is still looking at ways to prevent the interstate transport of injurious wildlife species
- Inflation Reduction Act or “Build Back Better Agenda”
 - This act was just passed and has \$ billions for conservation
 - ❖ \$2.6 billion for coastal resilience projects
 - ❖ \$500 million for habitat conservation on BLM and NPS lands
 - Section 60302 may be of interest
 - ❖ Provides \$120 million to USFWS to address weather events on National Wildlife Refuges and State Wildlife Management Areas
 - ❖ Specifically calls out “Invasive Species”

- ❖ Information how the funding will be allocated has not been released yet
- Recovering America's Wildlife Act (RAWA)
 - >12,000 species have been identified as species of greatest conservation need (SGCN)
 - ❖ Many SGCN are impacted by invasive species
 - Congress requires each state to develop state wildlife action plans
 - ❖ Significantly underfunded ~1.3-billion-dollar yearly budget shortfall
 - New funding would go directly to state wildlife agencies for wildlife action plans
 - ❖ \$1.3 billion to state/territories and \$97.5 million to tribes
 - ❖ Requires 25% match
 - Match can be in kind or existing funds
 - Funds from USDA or DOI cannot be used as match
 - ❖ 10% of funding will be available through competitive innovation grants
 - ❖ Funding can go to (so long as a focus on a SGCN)
 - Conservation education
 - Law enforcement
 - Disease prevention and management
 - Invasive species
 - Passed through the House in June with bipartisan support
 - ❖ House amendments included expanding eligible funding for invasive species and disease management
 - Working its way through Senate
 - ❖ Senate Bill 2372
 - ❖ 42 co-sponsors
 - ❖ Expected to pass Senate and to be supported by Administration
 - What does this mean for the agencies?
 - ❖ Agencies should be developing RAWA ready projects
 - ❖ Identifying sources of required match
 - ❖ Many states are in the process of updating state wildlife plans
 - Revised SWAPs will be due by 2025
 - Consider invasive species that could be managed to protect SGCNs and their habitat
 - Many guidance documents available from AFWA and others
 - State apportionment table coming soon
 - [State Info - Recovering America's Wildlife Act.xlsx \(nwf.org\)](#)

Discussion:

Hoff: Has the Biden Administration weighed in on the Rubio-Schatz Bill? S.626? That Bill did not go anywhere. We did not hear any feedback. The Bill was introduced but didn't get referred to committee. You may hear a recommendation later in the meeting about recommendations the MRBP can deliver to the ANS Task Force about how to better protect the biosecurity of the US. There are weaknesses, including the new interpretation of the Lacey Act, in the nation's biosecurity needs.

Experts database proposed revisions – Wes Daniels (USGS) - remote

- The MRBP submitted a recommendation to the ANS Task Force in November 2021 for the Task Force to evaluate the need for, and utility of, the Invasive Species Experts Database, and consider the need for continued maintenance of the database.
- Wes Daniels is a fishery biologist with the USGS Wetland and Aquatic Research Center located in Gainesville, Florida. Wes leads the USGS Nonindigenous Aquatic Species Database. Wes also Chairs the ANS Task Force Early Detection and Rapid Response (EDRR) Subcommittee.
- Wes provided an overview of the subcommittee's proposed revisions and enhancements to the ANS Task Force's experts database (presentation slides).
 - The committee has been re-envisioning how the database can be a resource for resource managers. Wes and Susan Pasko have been leading the effort.
 - The current version is still available on the ANS Task Force website. It is only promoted on the website and through a USFWS link. It is hard to find.
 - It is only searchable by state or province. It cannot be searched for a specific expertise or individual.
 - Expertise is focused on AIS and taxonomic expertise. There is a lot of opportunity to expand.
 - Experts database 2.0 vision
 - More searchable
 - ❖ State/province
 - ❖ Expertise
 - ❖ Agency, university, NGO
 - ❖ More?
 - Expanded expertise – research, eDNA, control, etc.
 - Will be promoted more to make it easier to find – e.g., USGS, NAS, NISC,
 - MRBP concern – How do we keep this up to date?
 - ANSTF EDRR subcommittee annual reoccurring work element to update
 - Chair will request an updated list from all regional panels
 - Create a listserv of all experts with an auto-generated email annually (January) to confirm interest in participating and keep information current
 - Will need to recruit new experts
 - American Fisheries Society and Freshwater Mussel Conservation Society have expressed interest in promoting to recruit
 - Will need as many groups as possible to help promote
 - How can you help?
 - Communicate your ideas – survey coming soon

- Sign-up to be on the Experts Database
- Promote the Experts Database

Discussion:

Chapman: Is there a demand or need for this service? Willing to help but not convinced it will be worth the effort. There needs to be an evaluation if the ANS Task Force decides to go forward with the revisions. We are planning to move forward with this. It absolutely should be evaluated. Not all resource managers and researchers are well connected. There are many new people that are not connected. It makes sense to have a directory to provide more interconnection. More intended to help managers and researchers than the public. If it is promoted, we will get a better sense of its utility. This is a volunteer effort. We do not want to burden anyone with a bunch of junk email and requests, but there is certainly value if someone provide an initial species report in a new location.

Stump: Evaluation may be possible by setting up usage tracking on the front end. Is there a way on the USGS NAS database to create a query that identifies experts when someone conducts a species search? That is an interesting long-term idea for connecting these two systems. We can certainly track the number of unique logins, impressions, the number and origin of links, etc.

McGarrity: I'm not sure how much the public will use this, but will there be a way for people to quickly identify who early detections should be reported to. Managers sometimes have a problem with initial reports being directed to researchers and the information not being relayed on. How will expertise be broken out? That is a great idea to highlight the state authority and include information on who sightings should be reported to for specific jurisdictions. Beyond AIS and taxonomic expertise, we can program more specifics into the search tool. There will be more information or detail requested from the experts.

Hitzroth: Are there goals that are being defined for this project to help guide long-term evaluation? For example, is EDRR the primary goal of this tool. EDRR is a big part of this project. We found out during the "moss ball incident" how ill prepared we were nationally. There were whole jurisdictions where we were scrambling to determine who to contact. Specifying goals is a good idea for the ANS Task Force and EDRR subcommittee to do. Improving communication is a big one.

ANS Task Force Updates – Susan Pasko (USFWS) - Remote ([presentation slides](#))

- Susan Pasko is the ANS Task Force Executive Secretary
- ANSTF Background
 - Established by Congress with passage of NANPCA in 1990
 - ANSTF formed to develop and implement a program for waters of US to prevent introduction and dispersal of ANS; monitor, control, and study ANS; and to disseminate related information.
 - 13 federal and 13 ex-officio members; 6 regional panels and five subcommittees that align with the goals for the ANSTF strategic plan: prevention, EDRR,

- research, etc.
 - Co-chaired by USFWS and NOAA
- Regional Panels –
 - Specific duties include:
 - Identify regional ANS priorities
 - Coordinate regional ANS activities
 - Provide advice to ANSTF pertinent to regional ANS issues
 - Make recommendations to ANSTF
 - Report annually
 - Supported with USFWS annual funding
 - Currently \$50,000 per panel annually
- Last ANSTF meeting
 - May 24-26, 2022
 - Reviewed meeting agenda highlights
 - Standing updates from partners
 - Agenda is focused on work of subcommittees
 - Current and future work
 - Relevant presentations
 - Updates, presentations, and recommendations from each Regional Panel
 - Reviewed Decision and Action Items from the meeting
 - Voted to approve the revised Minnesota's ANS management plan
 - Provide a recording of a webinar presentation on the National EDRR Framework
 - Distribute the draft framework for determining the need for an AIS control and management plan
 - Comments were due to Control Subcommittee July 15
 - Expect a revised framework to be presented to the ANSTF members at the next meeting for consideration
 - Work with agencies to update activities related to stony coral tissue loss disease
 - Special session on this topic planned for the Fall 2022 ANSTF meeting
 - Prevention Subcommittee will facilitate a discussion with NISC and agencies to encourage the use and adoption of guidelines to prevent AIS transport by wildland fire operations.
 - Organize a discussion to determine if the Boating Ad-Hoc Committee should be reestablished to update the design standards from the 2013 Technical Information Report.
 - ANSTF strategic plan 2020-2025
 - 6 goals and 5 subcommittees (No subcommittee for coordination goal)
 - Prevention goal subcommittee work plan
 - ❖ Identify priority pathways and species of concern
 - ❖ Encourage implementation of measures to manage high priority pathways and species

- ❖ New workgroup for Organisms-In-Trade
- ❖ EDRR goal subcommittee work plan
 - ❖ Facilitate monitoring efforts to detect and report new sightings of ANS
 - ❖ Facilitate the development of capacities to respond rapidly to new invasions
- ❖ Control and Restoration goal subcommittee work plan
 - Coordinate the development and implementation of ANS Manage and Control Plans
 - Identify gaps in available control and restoration measures and encourage innovation
- ❖ Research goal subcommittee work plan
 - Established and ANSTF research priorities and identify prospective partners
 - Facilitate activities that support priority ANS research needs
 - Track and disseminate study results to incorporate into ANS management decisions and activities
- ❖ Outreach and Education goal sub-committee work plan
 - Evaluate ANS communication, education, and outreach efforts
 - Develop process to share information and consistently implement ANS outreach strategies
- Next ANSTF meeting will be an in-person meeting January 11-12, 2023
 - USFWS Headquarters in Falls Church, VA
 - Option to participate remotely
- Weekly ANSTF newsletter
 - Contact Susan if you would like to subscribe (susan_pasko@fws.gov)

Discussion:

No Discussion

AFWA Updates – Kim Bogenschutz (Iowa DNR)

- Kim Bogenschutz, vice chair of the AFWA Invasive Species Committee, provided updates on the committee's last meeting, work plan, and the upcoming meeting
- Eric Sutton, Executive Director of FL FWC, is chair of the AFWA Invasive Species Committee and represents the committee to both ISAC and the ANSTF
- AFWA Invasive Species Committee is all encompassing – terrestrial, aquatics, pathogens
 - AFWA can lobby and work on AIS policy
 - Have a feral swine workgroup
 - BMP for state agencies to manage feral swine
- Last committee meeting was in March 2022

- Focused a lot on internet trade
 - Erika Jensen, Great Lakes Commission, presented on the Great Lakes Detector of Invasive Aquatics in Trade (GLDIATR) WebCrawler tool for ecommerce
 - Washington state Department of Ag O-I-T employee found over 1,000 violations
 - Kim Bogenschutz and Kerry Wixted are both on the O-I-T workgroup headed by Craig Martin, USFWS
 - Action Items
 - ❖ Continue tracking invasive species legislation
 - ❖ Establish list of projects for RAWA funds
 - ❖ Strengthen coordination among federal agencies and workgroups
- Next meeting week of 9/19/2022 in Fort Worth, Texas
 - Registration required
 - Registration fee for in-person or remote participation
 - Invasive Species holds quarterly meetings between the two in-person meetings that anyone can attend and do not have a registration fee
 - Agenda topics:
 - Government affairs and policy
 - Presentation on AIS Commission
 - ❖ PowerPoint summary of AIS Commission available from Kim Bogenschutz on request
 - Focus on EDRR Framework
 - EPA presentation on eDNA

Discussion:

Stump: Love the WebCrawler idea, especially from a prevention perspective.

Conover: Will the committee continue to discuss the Lacey Act? It will be part of the legislative updates. We also talk about state lists. If a federally listed species is also a state listed species, there is another provision of the Lacey Act that can be applied to interstate transport. AFWA encourages the states to all list federal injurious wildlife species as state prohibited species. Iowa regulations state that any Federally listed species is also a state listed species so that the state list does not have to be continually updated and there are no legislative delays at the state level.

Stump: Does AFWA have documents or information on the benefits of states developing whitelists? I don't believe AFWA has anything on that. There was National Sea Grant Law Center project evaluating state laws. Both the Rubio Bill and the Lacey Act language in the COMPETES Act mentioned both whitelists and blacklists. The language was vague and AFWA questioned how those lists would be developed. AFWA has not put together a whitelist or blacklist. AFWA put together a grant proposal with the University of Florida, Wes Daniels, and a few others to do an analysis of state regulations are regional scales to

identify weak links where species may be able to invade if a species isn't being well regulated. The proposal was not funded.

MICRA Updates – Eugene Braig (OSU Extension)

- Eugene represented the MRBP at MICRA Executive Board meetings in February and August 2022. Following are action items that emerged from those meetings for the MRBP.
 1. Review MICRA AIS priorities with the MRBP and AIS Committee with the request to begin addressing the priorities and report back to the MICRA Executive Board on progress or obstacles.
 - This is on the agenda as a standalone topic for discussion tomorrow morning.
 1. The MICRA Executive Board requested the MRBP and MICRA AIS Committee members review and recommend needed updates or revisions to the MRBP and AIS Committee web pages on the MICRA website (www.MICRArivers.org).
 - MRBP members were asked to review and provide any suggestions to the MRBP email account (MRBP@MICRArivers.org).
 - This is also something that will be addressed by the Outreach and Education Committee.
 2. The MRBP Executive Committee was asked to consider a request that the MICRA AIS Committee Chair serve as MICRA's primary representative to the ANS Task Force.
 - MICRA Chair is state fish chief, not someone who would typically attend ANSTF meetings or necessarily a technical expert on AIS. Fish Chiefs generally unable to justify commitment to attend ANSTF meetings. The MICRA Coordinator previously served as proxy, but it is no longer an option to have USFWS employee representing another entity on the ANS Task Force. MICRA would prefer to have a state person with ANS expertise representing the partnership and reporting back to the Executive Committee as needed.
 - MRBP Executive Committee recommends that the newly established MICRA Liaison position, a non-voting MRBP Executive Committee role, ideally would serve as the AIS Committee Chair and the primary MICRA representative to the ANS Task Force. This would provide ideal continuity between the three groups.
 - Please let Eugene, Andrew, or Greg know if you are interested in learning more about the vacant MICRA Liaison position.
 3. Braig was asked to share the TWRA video from the August 2021 Congressional field visit at Pickwick Dam, along with the appropriate context, to initiate a discussion of the potential to develop similar videos to address specific information and outreach needs.
 - This falls outside the scope of the MRBP and will be a discussion topic during the MICRA AIS Committee meeting Thursday.
 - Another agenda topic for the MICRA AIS Committee meeting Thursday

morning will be a request from the MICRA Executive Board for the development of standardized state fact sheets for MICRA's 2023 Congressional visits.

- Eugene ended his update with a personal note recognizing the passing of Earl Chilton, a former member of the MRBP. After retiring from TPWD, Earl returned to Ohio and continued to do a lot of valuable AIS work for the state of Ohio. Eugene had the pleasure of working with Earl.

Discussion:

Conover: Explained that as the host for the MRBP, the MICRA website is intended only to provide general information on AIS and direct people to the MRBP for more information. MICRA does not want to duplicate the MRBP website, but they are interested to hear if there is some general AIS information that would be beneficial to add to the MICRA website.

MRBP Updates-Andrew Stump (KDFWR)

- A virtual panel meeting and committee meetings were held in March 2022
 - Revisions to MRBP operational guidance (by-laws) were approved and are available on MRBP website
- Andrew reminded MRBP members that revisions to the MRBP By-laws were approved at the last MRBP meeting in March.
- MRBP recommendations to the ANS Task Force were covered previously by Susan Pasko.
- Andrew thanked Cole for stepping in as the new First-term Co-chair for the MRBP, and Ben Ewoldt for his assistance with administrative support.
- Andrew reminded the panel members that a Research and Risk Assessment Committee Chair and MICRA Liaison are needed for the MRBP Executive Committee.
 - Duane Chapman endorsed the Research and Risk Assessment Committee Chair
 - Can inform research where agencies should be looking
 - Highly recommend for someone who wants to get science done
 - Opportunity to collaborate with other agencies and partners
 - Committee has a unique role collaborating with other MRBP committees and supplement their needs
 - Help prioritize research and science needs
- Updated panel members that a new contract for administrative support has been signed with Elizabeth Brown for 2023
 - Executive Committee published an RFP and received several good applications – Elizabeth Brown was the unanimous selection
 - Ben Ewoldt transitioned into role in April and the current contract with WI DNR will be finished at the end of 2022
- Andrew and Eugene represented MRBP at Regional Panel Principals and ANSTF in May
 - Eugene reported on MRBP work on “Most Troublesome AIS” updates and standardized boaters’ surveys at the Panel Principals meeting
 - There was no indication of broader participation or standardization of

- boater surveys, however several panel principals provided information from their work on boater surveys
 - These will continue to be discussed within committee
 - The new ANS Task Force website is live, however some of the old documents are not ADA compliant and are no longer available on the ANSTF website
 - There was some discussion about the panels identifying state ANS management plans and species management plans that they would like to house
 - There was an inquiry about work on genetic biocontrols within the panels
 - MRBP last addressed genetic biocontrols in 2008
 - This has been a topic in the Research and Risk Assessment Committee more recent than 2008
- Andrew presented several awards to MRBP members who served on the Executive Committee in recent years
 - Co-Chair Tim Campbell
 - Co-Chair Eric Fischer
 - Co-Chair Chris Steffen
 - Committee Chairs
 - Jimmy Barnett- Prevention and Control Committee
 - Duane Chapman Research and Risk Assessment

Discussion:

No Discussion

MRBP Coordinator Updates – Greg Conover (USFWS)

- Meeting agenda is structured so that informational presentations and updates occur before the committee meetings
- Conover provided an update on the MRBP budget and available project funds
 - \$50,000 yearly budget for MRBP
 - As host organization, MICRA administers grant with USFWS for MRBP operations
 - Current 5-year grant cycle ends December 31, 2023
 - All money needs to be spent by end of 2023, including new projects
- Conover reviewed several on-going projects using funds from FY2020-FY2022
- Fiscal Year 2023 next funding cycle
 - Performance period for MRBP funding is calendar year: January 1 – December 31, 2023
 - Administrative Support contract will be funded as part of 2023 budget
 - Other obligations for meetings, travel, MRBP web page, and Whac-A-Mussel
 - Balance of \$16,000 in 2023 for project funds

Discussion:

Chapman: Is funding obligated for Tim Campbell's publication? No.

MRBP project updates – Ben Ewoldt (Wisconsin DNR)

- Priority pathogens
 - 21 of 26 states have responded
 - Missing Alabama, Colorado, Montana, Nebraska, and Virginia
 - Top 4 priority Pathogen responses
 1. VHSV-21 of 21 respondents
 2. SVCV-16 of 21 respondents
 3. LMBV-14 of 21 respondents
 4. IPNV-14 of 21 respondents
- Carp genetics
 - As of 9/8/2022 lab has received samples from 12 of 25 locations
 - 24 of 25 sites volunteered to take samples
 - Hoping to get all samples into lab by 9/30/2022
- Carp regulations
 - All states' have submitted their regulations
 - Review your state's regulations for any needed updates
- MRBP member directory
 - Updated 9/2022
 - Check information for corrections

Discussion:

No Discussion

Baitfish as a Potential ANS Pathway Mini-Symposium

Fish Diseases in Baitfish – Dr. Meg McEachran (University of Massachusetts-Amherst) – remote

[\(presentation slides\)](#)

- Baitfish risk pathways
 - Lakes
 - Rivers
 - Bait stores
 - Commercial Aquaculture
- Risks from baitfish
 - AIS
 - Pathogenic microbes
 - Millions of baitfish with minimal disease testing used in 1000's of waterbodies by a highly transient angling population each year= potential pathways for the spread of pathogens
- Challenges in live baitfish management
 - Very few states do comprehensive baitfish testing

- Current disease prevention aimed toward gamefish and aquaculture species not baitfish. Aquaculture species need to be certified disease free before release. e.g., *Yersinia ruckeri* regulated in salmonids in MN but not in live baitfish
- Regulations can be burdensome to anglers and bait dealers. Research shows 1/3 of costs to aquaculture facilities comes directly from regulations.
- Human behavior is complex and sometimes unpredictable- people are sometimes going to break the law no matter what precautions are in place; people might move into an illegal market where we have even less power to regulate.
- Multiple conflicting objectives
- Risks vs benefits
 - Benefits-huge cultural and economic impact
 - Risks- what the resource can tolerate
- Complex governance (multiple agency's jurisdictions), state baitfish laws often debated in state legislatures.
- Decision-making for live baitfish management
 - Who is the decision maker? Government agencies? State legislatures? Multiple agencies need to work together?
 - What are the fundamental objectives? Are there legal mandates needed be follow? What is the acceptable level of risk?
 - What are the management alternatives? What actions can be taken? Can actions be combined?
 - What are the consequences of those alternatives? What are the impacts of alternatives against the desired outcomes?
 - What are the tradeoffs associated with an alternative? Want to protect the lake but also don't want to alienate visitors and users of the lake
- Minnesota as a case study
 - Minnesota >10,000 lakes, 1 million anglers, 70% use live baitfish at some point. \$2.4 million baitfish industry of which 60% is wild harvest
- Import of baitfish prohibited= angler perceived shortage of baitfish
- Hazard prioritization?
 - All pathogens
 - Pathogens that cause disease in MN
 - Pathogens able to be transmitted by live bait
 - Potential hazards of concern N=15 pathogens
 - Scored on 7 weighted criteria and ranked
 1. Likelihood of transfer in bait
 2. Prevalence in bait
 3. Current distribution in MN
 4. Colonization potential
 5. Host species
 6. Ecological impact if established
 7. Economic impact if established
 - Top 3 in Minnesota

1. VHSV
 2. Asian fish tapeworm
 3. O. Ovariae
- What's the actual risk?
 - Risk pathway
 - ❖ Uses live baitfish + Uses susceptible fish + Uses infected fish + Releases infected fish = Risky trip
 - VHSV studied in 3 minnow species- two shiner species and fathead minnow
 - Potential pathway for future infections
 - Lots of fishing trips increase potential risk
 - Human behavior: how do we change risky behaviors?
 - Mail survey n=8,000 anglers, 1691 responses
 - ❖ 70% used live baitfish
 - ❖ 30% said live baitfish were extremely important to them
 - ❖ 28% expect to release baitfish in the future
 - What's needed?
 - Risk is never zero, need clear ID of risk tolerance
 - Transparent assessment of risks vs benefits
 - Better science for higher certainty, high risk pathogens
 - Effective communication and outreach with stakeholders

Discussion:

No Discussion

Federal Fish Health Procedures-Ken Phillips (USFWS)

- Could not attend due to personal emergency
- Briefing paper will be provided after the meeting

Arkansas Baitfish Certification Program-Zac Wellman (Arkansas Department of Agriculture) ([presentation slides](#))

- Background of baitfish program
 - Purpose: To provide high quality farm-raised bait and ornamental fish, free of certain diseases, undesirable plants and animals and other contaminants deemed injurious to fish or fisheries
 - Need arose due to VHSV and SVCV along with other diseases and ANS
 - University of Arkansas-Pine Bluff worked with producers to develop the program
 - Started in 2007
 - 9 producers in program w/ 9,841 total surface acres
 - 2022 19 producers in program w/ 14,435 total surface acres
 - Program advantages
 - Certified free of ANS
 - Certified free of most diseases
 - Certified farm-raised

- Fish in program were able to move while other's fish were not
 - Farm requirements
 - Farms must have 2 years disease free testing by approved labs
 - Follow biosecurity requirements
 - ❖ Use only well water
 - ❖ Can use on-farm recycled water
 - ❖ Cannot bring uncertified fish onto a certified farm
 - Submit to annual inspections by ADA
 - ❖ Visit to facility
 - ❖ Examine records
 - ❖ Visits and inspect ponds
 - Certificates have 6 security features to prevent forgeries
 1. Genuine watermark of the state seal
 2. Hidden message
 3. Change stain, if try to alter leave behind a stain
 4. Chemically tagged for identification
 5. Identifier
 6. Random threads throughout paper
 - Farm Inspections
 - Annually inspect 50% of the ponds on location
 - ❖ Even numbered ponds in even years/ odd numbered in odd years
 - Review maps and shipping records
 - Inspectors get training every 2 years
 - Visually inspect ponds and infrastructure looking for 17 pathogens and ANS
 - ❖ Drive around pond edge
 - ❖ Examine all hard surfaces
 - ❖ Dip net tests
 - ❖ Zebra mussel traps
 - ❖ Visual inspections
 - ❖ Visual inspections of vats
 - ❖ Checking biosecurity
 - Following program BMP's
- How to get into the baitfish program?
 - Lab sends 2 years of disease-free test results
 - ADA sends out applications to farms
 - Program is voluntary
 - Producer sends in application, biosecurity protocols and a check-\$1 per surface acre
 - Need to follow biosecurity protocols
 - Different protocols if the producer is certified vs uncertified
 - Get certification letter from ADA
- Biosecurity protocols

- One set of protocols for farms with certified and uncertified ponds
- Another set for farms with only certified ponds

Discussion:

McGarrity: If this program is voluntary is there a quarantine requirement if there is a ANS detection?

Wellman: If a ANS is detected the whole farm is not quarantined, only the pond where ANS is found is quarantined. Come back after ANS is taken care to recertify the positive pond as ANS-free.

Bogenschutz: What is the cost to the producers to be certified as disease-free for the 2 years?

Wellman: There is a cost to get disease-free certified. For 150 fish the vets test it costs around \$500-750 twice a year for the 2 years.

Wolf: What do you mean by a “visual inspection” can you provide more detail?

Wellman: We will drive the pond banks for a visual test, for the vats we will stand over the vats and visually inspect and do a dipnet test as well. Don't pull rakes or seines in the production ponds, do have the zebra mussel traps in the ponds. Don't get in the production ponds.

Jensen: In the western states they scrap the sides of the raceways and vats to test for ANS. That's how they found New Zealand mud snails. Might be a good practice to implement to the program. A rake throw would be a good idea to test for aquatic plants as well. Are there protocols in place if there is a positive detection?

Wellman: If there is a detection there is quarantine protocols in place to quarantine that one pond.

Jensen: Is there specific protocols the farmer must follow after a positive detection?

Wellman: I am not aware of any specific protocols they have to follow but we do work with them to get the issues cleared up.

Jensen: If there is a positive detection does it take another 2 years to get that pond certified again?

Wellman: I don't believe it takes another 2 years to get the pond certified again. The 2 years is for the disease testing in the lab.

Horton: Do you certify state hatcheries?

Wellman: We do not certify state fish hatcheries. Its maybe that the hatcheries don't do out of state commerce and keeping all their fish within the state.

Bogenschutz: Iowa Baitfish Updates

- Iowa DNR sends employees into bait shops to test for Invasive Carp

- Visited 20 bait shops in Iowa, 4 came back positive for invasive carp eDNA
- Have not found any live or dead ANS in any bait shop in Iowa
- Follow-up will include determining water source or if they are bringing in bait from somewhere else

Steffen: Kansas Baitfish updates Steffen

- 20 bait shops in Kansas tested for invasive carp eDNA
 - One bait store came back positive
 - Bait shop already on watchlist for past issues
 - River that flows nearby has invasive carp population
 - Questionable businesses practices in the past

Question: For eDNA are they testing bait shops once or are they coming back to test multiple times?

Bogenschutz: The project is continuing next year and will probably have follow-up tests.

Chapman: Do you know what DNA marker they are using?

Bogenschutz: Yes, they are using the invasive carp one with the silver, bighead, and grass carp. Some are specific species tests, and some are the general invasive carp tests.

Chapman: If you are worried about grass carp, they look a lot like baitfish when smaller, you really should be using the grass carp DNA marker to test for them.

Bogenschutz: I am pretty sure she is testing for grass carp as well.

Holen: I talked with Hannah, and she is still waiting on invasive carp eDNA results for North and South Dakota

Private Aquaculture Industry Perspective on Baitfish Diseases-Dr Eric Parker (Gentry and Canterbury Fish Farms)

- What does the private industry do to prevent the spread of ANS and disease?
 - Arkansas private industry very pro-active
 - 1996 started to get disease-free certifications
 - Shipping fish to Europe=lots of incentive to be disease-free
 - Highly perishable product=customer doesn't want diseased/dying fish
 - Certification program defines what is a "farmed fish"
 - Arkansas baitfish producers asked state legislation to regulate the baitfish industry
 - ❖ Don't necessarily want lots of regulations but know some are needed to protect the resource
 - Prevention and quick identification of problems is key to stop spread
 - Entire business is at risk of a disease positive case
 - <http://safebaitfish.org>
 - ANS certified Not to be in Arkansas fish farms
 - Arkansas 25-30,000 acres of fishponds
 - Arkansas ships 6 billion fish a year

- Once a pond has been breached (ex. Flood) it is taken out of production

Discussion:

Stump: How do you keep viruses and pathogens out with birds and the need to feed the fish?

Parker: Studies from Europe show viruses can survive long in/on birds. We can't keep out all the birds, they eat 10% of our product every year. We don't allow any outside fish to come in. If a pond is breached it is taken out of production, possibly forever. The product is destroyed it is no longer a sellable product. Work very hard to keep gambusia out of the ponds, if left unchecked can destroy all the sellable product in that pond in months.

McEachran: Can you talk about some of the detection limits for detecting some inspections or diagnostic tests you perform.

Parker: We use the OIE with a 90% confidence interval. For invasive species use Department of Ag and that is 100% zero, not all species inspected for can survive in Arkansas.

Conover: Are you worried about big storm events moving plant fragments around the state?

Parker: There is always a risk of storms moving stuff around, there is concern that if we come up positive for anything there is always the risk of Department of Ag coming in and shutting us down.

Conover: Seems like there is more risk than just someone moving equipment around?

Parker: Again, there is risk and then there is the probability. There is always a risk, but the probability of infection is most of the time low. I don't trust anyone, if I need new brood stock, I always quarantine them.

Question: Do you do anything to control crayfish?

Parker: Sterilize every pond every year for crayfish dry the ponds, till them up. Insecticides use reduces crayfish as much as possible. And once the fish go into the sorter, it also separates out the crayfish. There is a very narrow window in the year where the crayfish are the same size of the minnows and get through the sorter onto the truck. Some farms sell the crayfish on the side to make up the loss of lost fish.

Hitzroth: Do you know the species of crayfish?

Parker: Generally, its white river, very rarely is it red swamp. Maybe the farms in southern Arkansas have more red swamp crayfish.

Harmonization of Baitfish Regulations-Jill Wingfield (Great Lakes Fishery Commission)-remote ([presentation slides](#))

- Great Lakes law enforcement committee
 - Committee meets twice annually
 - Forum for information sharing

- Agency support (training)
- Recommendations to fishery managers
 - Cooperative procedures
 - Consistent regulations
 - Enforceable policies
- Law enforcement committee reports directly to the Council of Lakes Committee
- 2014 OMNRF report showed high occurrence of baitfish violations and baitfish pathway as a “significant risk” for ANS
- 2015 OMNRF report showed variability in responsible agency, limited enforcement resources, fragmented legislative processes, varying penalties, disparate methods for invasive listings, varying regulation of activities and pathways
- Great Lakes resolution to protect against AIS
 - Harmonizing the objectives of AIS regulations to strengthen the basin-wide approach to AIS prevention and enforcement
 - Document current regulations and existing fines and penalties for possessing AIS
 - Document process for promulgating regulations and harmonize objectives-hoping to streamline the process
 - ❖ Conclusion was very complex regulations with lots of variation based on jurisdictions
 - ❖ Ex. Definition of bait- varying meanings of permitted/allowed and prohibited
 - Regulation’s review
 - Transportation
 - ❖ Restrictions based on area and/or species
 - ❖ Some states transportation not addressed
 - ❖ Regulations varied on reuse/keep/dispose.
 - ❖ Quantity allowed for transport varied widely
 - ❖ Commercial and personal use definitions varied
 - ❖ Clear lack of constituency among jurisdictions
 - Conclusions
 - ❖ Clear lack of consistency among jurisdictions with respect to baitfish regulations
 - ❖ Many variables to regulations to consider
 - ❖ Baitfish pathway presents a clear risk of introduction of AIS
- Progress to date
 - Currently have a list of 22 “Least Wanted” species
 - 50+ separate actions taken on listed species since 2013
 - Ongoing effort to strengthen process to promulgate regulations once added to least wanted lists
 - Building consensus among jurisdictions started in 2019
 - 89 species in 12 jurisdictions

Discussion:

No discussion

Ontario's New Approach to Bait-Brenda Koenig (Ontario Ministry of Natural Resources and Forestry)-Remote ([presentation slides](#))

- Ontario baitfish background
 - 60-80% on Ontario anglers use live baitfish at least some of the time
 - Use of live bait higher in winter
- Ecological risk
 - Bait is moved great distances by anglers and operators
 - Commercial bait shipped all over Ontario
 - Anglers travel considerable distances to go fishing (average travel distance of 319km)
 - Bait moved all throughout Ontario
- Previous bait management approach
 - Focused on slowing the spread of VHSV and AIS
 - Commercial bait license holders prohibited from moving live bait out of VHS zones
 - No angler restrictions on live bait movement
- Baitfish regulations review started in 2012
 - Lots of consultation with stakeholders
 - 2017-Draft proposal posted to Environmental registry
 - 2019-Revised proposal
 - 2020-Strategy finalized
 - Minimize ecological risks and maintain healthy fisheries
 - Reduce complexity of previous management regime
 - Provide business certainty and maintain flexibility to industry
 - Balance responsibility between industry and anglers
 - 2022-Implementation Begins
- Ontario Bait Management Zone (BMZ) Framework 2022
 - Ontario broken down into 4 BMZs
 - Bait must stay within a BMZ
 - Anglers must purchase or harvest bait in “home” BMZ
 - Anglers using bait outside “home” BMZ must purchase bait
 - Non-Residents must buy bait from BMZ they are fishing in
 - Need to keep receipts for bait used outside of “home” BMZ
 - Must use bait within 2 weeks of purchase
 - Exceptions
 - Anglers can take bait outside of BMZ to use in the Great Lakes
 - To immediately dispose
 - By license conditions
 - ❖ Bait harvesters can move into adjacent BMZ
 - ❖ Bait operators can transport bait through BMZ's to export

- ❖ Dead white suckers, longnose suckers and lake herring may be transported out of BMZ to eat
- ❖ Lake Simcoe fish testing program
- Compliance-promotion insights
 - Since 2014 looking at commercial and recreational bait used use and movement of live bait
 - ❖ Boundary issues affect the ability to buy bait
 - ❖ Issuance of receipts inconsistent between bait shops
 - ❖ Anglers sharing bait
 - ❖ Overland transport especially in southeast zone
 - ❖ Personal harvest at “secondary” residence
- www.Ontario.ca/baitfish

Discussion:

Hitzroth: If the gap analysis is available or is it still being processed?

Wingfield: Yes, I would be happy to share it. I will share it through email.

Hoff: Has there been discussions between the Great Lakes Fish commission, the law enforcement committee or the Great Lakes Governors and Premiers to work towards harmonization of U.S and Canadian federal laws?

Wingfield: Not to my knowledge, as you know the Lacey Act is the strongest federal resource. Lacey Act prohibits importation into the United States, but once a species is here, we concentrate on preventing the spread. Strengthening the Lacey Act is the easiest path forward.

Hoff: So basically, what I’m saying is harmonize the U.S and Canada federal laws to strengthen the protections at the border.

Wingfield: So, what you are saying is harmonizing the Whitelist/blacklist at the federal levels.

Hoff: Yes, basically harmonizing them between U.S and Canada to strengthen at the border.

Wingfield: Strengthen the Lacey is still the strongest to protect at the border and conversation is needed to strengthen the Lacey Act even more.

Hoff: There are a million reasons to have that conversation on strengthen the Lacey Act. There is great incentive to harmonizing the regulations between U.S and Canada.

Panel Discussion on Baitfish (ALL)

J. Barnett: How can we as a panel work toward harmonizing baitfish regulations within the Mississippi River Basin?

M. Barnett: So, I get a certificate from a bait dealer in Arkansas that says they are disease free but then they put the fish in water on their property in Iowa, and then they move them again. So, they would need to be tested again to be certified disease free. How can I guarantee the fish health without interrupting business?

J. Barnett: Some states have a fish health veterinary on staff to check for disease in state fish hatcheries, can't rule out everything but can rule out a lot of fish disease.

M. Barnett: It starts to get tricky when say you have a permit to move 5000lbs. that are certified but then they are put in a holding pond with other fish, so they are no longer certified. Lots of fish getting moved around and hard to keep track of certified/ noncertified fish.

J. Barnett: Must address current shortfalls in the certification and baitfish programs within individual states.

Hitzroth: Is there a current data evaluating what policies are effective or not effective.

J. Barnett: The governors report does list regulations by various states within it. Two-page fact sheet that goes along with the report that makes it clear what needs to be done.

Chapman: The way to influence regulations is to create a document or paper to present to MICRA

- Create a presentation or paper to present to MICRA
- MICRA could create a model regulation that many states could implement
- Information must come from MRBP and presented to MICRA's executive board
- Add to MICRA's priorities list

J. Barnett: Producers complain about having to jump through lots of different hoops in order to ship their product to individual states. There is a need to harmonize regulations between states.

Bogenschutz: Do we need to compile all MRBP states' baitfish regulation for MICRA?

- Sea grant has model regulation
- Harmonize regulations focusing on what common goal?
 - Main goal to stop the spread of disease and ANS

McGarrity: The Mississippi-Alabama Sea Grant Legal Program (MASGLP) received funding from the U.S. Fish and Wildlife Service and the Gulf States Marine Fisheries Commission to develop a model regulation to limit the spread of aquatic invasive species by the use of bait. The regulation is intended for states that are members of the Gulf and South Atlantic Regional Panel on Aquatic Invasive Species (GSARP). Kristina Alexander is working on this project. The report is available at:

<http://masglp.olemiss.edu/projects/modelbaitregulation/files/modelbaitregulation.pdf>.

Steffen: Look at what other regional panels have come up with for baitfish regulation in their region

- Minimum set of standards
- Is there a success story of harmonizing regulations we could use as a foundation?

- Might have to find a way to harmonize with your individual state laws and regulations

M. Barnett: How often are ANS currently found within live baitfish shipments? Do we need to do a study to determine how big of a problem it is?

Conover: **Panel members should read the baitfish report and weigh-in on parts that need more research/information or clarification**

From the baitfish report: Regulations are a complicated issue with multiple jurisdictions within individual states, with a need for states to update baitfish regulations periodically as problems and new AIS arise.

Day 2

Welcome and Housekeeping Items– Andrew Stump (KDFWR)

- Second-term co-chair Andrew Stump welcomed meeting participants back
- Remember to sign-in if you didn't on day one, and check to make sure your contact information is up to date
- Sign-up sheet available for Public Comment; people on-line can sign up by entering a request in the chat
- 27 in-person and 9 remote participants introduced themselves (see Attachment 1)

Public Comments

- Michael Hoff
 - ANSTF and MRBP uses the term nuisance in their names should change to aquatic invasive species
 - Other panels have changed their name to include “aquatic invasive species”
 - ❖ MRBP on ANS to MRBP on AIS
 - M. Barnett: Nuisance species applies to native species as well
 - The term “nuisance species” is confusing to the public
 - Amy: The state of Wisconsin is being careful in what terms we use to describe AIS to be more aware of cultural impacts. While I agree with Mike about the name change, we must be careful in the terms we are using.
 - Bogenschutz: Nuisance species is written in the executive order, is there any concern from ANSTF in changing to invasive
 - Michael: ANSTF is under the order of the executive branch and the executive branch is using the term invasive species. I brought the up to the task force and it has kind of fizzled out. We as a panel must take our future into our own hands. The executive order is expired and needs to be updated as well.
- No other public comments

WHAC-A-MUSSEL Updates and Background (Greg Conover)

- Similar to WHAC-A-MOLE arcade game
 - Custom built for MICRA for outreach
- Not currently working, in need of repair
 - Company thinks it is something that could be fixed without shipping in for repairs
- MRBP members can use it for educational outreach
 - Needs to be reserved and a use agreement signed
 - MRBP pays shipping to user
 - Members are responsible for return shipping costs or shipping it to the next user
 - Shipping costs will be a few hundred dollars
 - User responsible for covering repair costs if needed
 - MRBP budgets for maintenance, repairs and shipping

Discussion:

Stump: What is the process to get Whac-A-Mussel repaired?

Conover: Will need to uncrate the game and contact the manufacturer. The manufacturer has said they believe their engineers can diagnose the problem over the phone. It is possible that it can be fixed without shipping it to the manufacturer. It is mostly a matter of creating time to work on this.

Bogenschutz: People do use it if you have it at an event.

Conover: Several states that have used Whac-A-Mussel in the past regularly reserved the game prior to COVID.

MICRA Priorities (Greg Conover)

- Background info on MICRA
 - Developed a strategic plan in 1990-1991
 - Comprehensive and specific management actions
 - In the absence of federal funding, MICRA had not been implementing collaborative management projects
 - ❖ The partnership has shifted to primarily coordination and communication
 - The MICRA Executive Board reviewed the strategic plan around 2010 and decided to develop a 5-year priorities document to focus on what the partnership could realistically accomplish
 - The 2014-2018 priorities document was The MICRA first priorities document
 - MICRA tracks and reports on progress at the end of the 5-year period
 - MICRA Executive Board has requested the MRBP and AIS Committee to:
 - Review and address the current (2019-2023) AIS priorities
 - Provide input for the 2024-2028 priorities document
- Review of MICRA's 2019-2023 Priorities Document
 - 2 Goals
 - Internal communication: Coordinate basin-wide management of interjurisdictional fishery resources and aquatic habitats among the responsible management entities

- External communication: Increase awareness, support, and funding for basin-wide management of interjurisdictional fishery resources and aquatic habitats
- 5 Objectives addressing
 - Interjurisdictional fisheries management
 - Aquatic Habitat
 - Aquatic Invasive Species
 - Communication
 - Funding
- Objective 3: Coordinate prevention and control measures for AIS to ensure sustainable aquatic ecosystems within the basin
 1. Host the Mississippi River Basin Panel of Aquatic Nuisance Species for coordination of basin-wide efforts to prevent introductions of AIS and manage introduced AIS populations
 2. Prevent, manage, and control AIS in the Mississippi River Basin by supporting the Aquatic Invasive Species Committee
 3. Promote strengthening of Injurious Wildlife provisions of the Lacey Act
 4. Aquatic Invasive Species Committee will identify needs and provide recommendations to the Executive Board for promoting streamlining of the Lacey Act Injurious Wildlife Listing process and for establishing a federal screening process to evaluate risk of non-native prior to importation
 - ❖ Executive Board would like both MRBP and AIS Committee to address this as possible
 - ❖ MICRA has promoted changes during Congressional office visits
 - ❖ Supportive of AFWA's efforts toward changing/strengthening Lacey Act
 5. Promote development of consistent basin-wide regulatory approaches for the management of AIS.
 - ❖ Executive Board will facilitate meetings and discussions with the diploid grass carp states, as needed, to establish regulatory consistency for grass carp as recommended in the February 2015 MICRA Grass Carp Report
 - The MRBP Prevention and Control Committee has been addressing this. The committee can inform identify needs for the AIS Committee to address or assist with.
 6. MICRA Aquatic Invasive Species Committee will review and make recommendations for revising the MICRA AIS Action Plan so that it remains a relevant outreach tool
 - ❖ MICRA developed an AIS Action Plan in 2010
 - The Action Plan is outdated and needs to be updated/revised

- A complimentary action plan for native species was initiated, turned into an Aquatic Habitat Action Plan- nearly finished
- 7. Support efforts to prevent the exchange of AIS between the Great Lakes and Mississippi River basin.
 - ❖ MICRA participates on the Chicago Area Waterway Stakeholder Group to prevent the exchange of AIS between the Great Lakes and the Mississippi River Basin
 - This group will no longer meet because all priorities are moving forward with the exception of addressing two-way transfer. Risks to the Mississippi River Basin are not being addressed
 - ❖ MRBP and AIS Committee could both help with addressing this priority and putting attention to the issue of two-way transfer between the basins.
- 8. Coordinate efforts to prevent introductions, stop the continued spread, and control established populations of Asian carp in the basin
 - ❖ Several priorities addressing invasive carp, including 'promoting consistent outreach materials and messages throughout the basin' which the MRBP can assist with, potentially through the Education and Outreach Committee

Discussion:

Hoff: Provided several thoughts regarding the current priorities document and gaps as we think about informing the next priorities document.

Native species and habitat action plan is needed to complement the AIS Action Plan

One thing missing in the priorities is MICRA helping to restore or mitigate effects of AIS on native species and habitat

Ex. Higgins Eye Pearly Mussel has been impacted by Zebra mussels in the Mississippi River

It would be good to develop a grass carp population model by relevant ecosystem construct (e.g., basin, sub-basin, or river reach).

Standardized methods for collecting data will enable this

The MICRA paddlefish database could be expanded to include standardized data for additional species

Provided the following draft language that MICRA or the MRBP could use to recommend for strengthening the Lacey Act

"The Administration works with Congress to enact legislation that improves the protection of US biosecurity from invasive species, pathogens and parasites"
Broader than just improving the Lacey Act

Chapmen: What is the extent of issues that MICRA is concerned with? Does it stop at the first non-navigable dam?

Conover: MICRA scope is the basin interjurisdictional rivers, but they are mainly focused on the larger interjurisdictional rivers. There is not as much funding or work in the mainstem large rivers as there is in the tributaries and watershed.

Conover: When identifying needs and priorities, it is also important to consider which group within MICRA should address each. For example, in addition to the MRBP and MICRA AIS Committee, the MICRA Executive Board can address needs and priorities; MICRA sends a delegation of fish chiefs to DC every year to meet with Federal agencies, NGOs, and Congressional office; and MICRA recently revised an Invasive Carp Advisory Committee for basinwide coordination of invasive carp management and control actions. It is also important to include recommendations of how MICRA can best address AIS needs and priorities.

Bogenschutz: When MICRA has done their Hill visits, have they brought up the Lacey Act

Conover: Yes, the Lacey Act was a talking point for them for a number of years, but not the last couple years. They have mostly supported what AFWA, or other groups have brought forward as recommendations for strengthening the Lacey Act.

Stump: What I heard yesterday is that perhaps the best thing the states can do is to reference the federal list of injurious wildlife in their state regulations. The MRBP might want to recommend or encourage member agencies to prohibit each species that is on the federal injurious wildlife list. It might be necessary to use climate matching tools to determine which parts of the basin should prohibit federally listed injurious wildlife species rather than a blanket approach for the entire basin.

Braig: This could be an alternative use for a most troublesome or highest priority list. If a state blacklists a species, they could use the Lacey Act to back up that decision.

Hitzroth: Sea Grant hosts a website called www.takeaim.org. It's a national database with information on prohibited species in each state. The information is current through 2019 but they are working to update. We already have the information; it is just a matter of pulling out the date and updating the lists. Have white/blacklist already for most states.

Braig: Augmenting those state lists is beneficial to encourage more coordination and blacklists are useful to invoke the Lacey Act

Stump: Is there a role for the MRBP

Conover: Didn't the Prevention and Control Committee pull together a list of all Federally listed injurious wildlife species and the states were requested to provide their regulations for each species.

McGovern: USFWS about to develop horizon scan for the Upper Mississippi River to develop a species watch list

Bogenschutz: AFWA has discussed developing some sort of regional list

Hoff: There are 200+ federally listed injurious species under the Lacey Act

Don't need management efforts for climate sensitive species outside climate range.

Ex. Walking Catfish is a tropical and subtropical species

In contrast, some species have a climate match for all or most of the continental U.S like the Stone Morocco. It's important to put effort where risk it the greatest. It may not be worthwhile for every state to invest effort into prohibiting every Federally list species under the Lacey Act. Climate is a big consideration for the Mississippi River Basin.

Stump: MRBP should identify higher risk species and let states know. It would be a lot of work, but the benefits would be great. Perhaps this is something the Prevention and Control Committee or the Education and Outreach committee could begin to look at.

Erickson: USGS has done horizon scanning for all the species in trade. Results are currently being finalized. They also have tools for screening species with climate matching, as many as 10,000 species in three days.

Bogenschutz: Iowa took the approach that anything that is federally listed is also listed in Iowa. This prevents needing to update state regulations every time a new species is added to the federal list. It may be an option for other states.

Braig: Keep in mind that one of the priorities is interbasin connections. We are about out of time if this is a topic that people would like to discuss. Hydrological separation is one potential solution to provide protections in both directions. But it also comes with problems that often need to be mitigated like preventing the migration of endangered things such as reptiles.

Conover: The MICRA priorities are topics for the committees to add to their agendas, including the Executive Committee. We can revisit these topics at future committee or panel coordination meetings. Are there any thoughts about things that we haven't discussed to this point? MICRA will begin working on their next 5-year priorities document next year, so this topic is likely to come up at the next MRBP meeting.

Occupancy Models for ANS

Introduction to Occupancy Models- Dr. Christopher Rota (West Virginia University)-

Remote ([presentation slides](#))

- Why Occupancy Models?
 - Designed to estimate presence or absence when a species is subject to imperfect detection
- When are Occupancy Models Appropriate?
 - When estimates of abundance are not appropriate
 - When lacking population data
 - When only interested about presence not abundance
 - When surveys are subject to imperfect detection
- How do they work?
 - Require repeated observation at each site
 - Assume species is there at each observation
 - Need to determine detection probability

- Ex. Sampled a site 3 times caught fish 2 out of 3 times=detection probability of 66%
- Assumptions
 - ❖ Sites are closed to changes in occupancy between sampling events
 - ❖ Violations of closure can bias estimates
- Sampling
 - ❖ Select sites where you wish to estimate the probability of presence
 - ❖ At each site conduct multiple detection/non-detection surveys over a period of time with assumed closure
 - ❖ Collect information of events that might skew detection probability (ex. Weather, flow, water levels, etc.)
 - ❖ Example of sampling
 - Temporal replicants at same location
 - Replicants must be close in time to ensure closure
 - Space for time
 - Each group of surveys is a single “site” and must be influenced by the same processes
 - Treat different locations as three replicants
 - Removal sampling
 - Only sample until species is first detected
 - Have maximum replicants to perform model
 - Sampling based on detectability
 - Sample a site with lower detection probability of more frequently
- Analysis of occupancy data
 - Implemented in unmarked in R
 - Lots of resources available for analysis
 - Implemented in many modern statistical ecology texts

Using Occupancy Models for eDNA-Dr. Richard Erickson (USGS)-Remote

- USGS supports Fish and Wildlife Service
 - Methods development
 - Sampling protocols
 - Results analysis
- Why Occupancy models?
 - Collect eDNA samples
 - Is eDNA at the site?
 - Is eDNA in the sample?
 - Was eDNA detected in the lab?
- Guidance tables available from USGS
 - How many eDNA samples needed?
 - Where to sample for eDNA?

- When to sample for eDNA? Best time of year?
- What does a positive eDNA sample mean? What should we do?
 - Don't know yet
 - What does a single detection mean?
- Lessons learned from eDNA
 - Scientifically
 - Math stats are hard
 - Data is expensive
 - ❖ A given budget can determine surveying methods
 - Management
 - ❖ What to do with a single detection? Is it a single fish or part of a huge invasion?
 - ❖ Think about the uses of the data being collected before the survey
 - ❖ Make sure your modeling efforts match your needs and your study design
- Other ways USGS can help
 - Perform both 2 and 3 level models
 - With Custom occupancy models
 - Advance computing requests, USGS has supercomputers that many agencies don't
 - Study design analysis (best bang for your buck)
 - Context for detections with conventional occupancy modeling (What's one detection mean for managers?)
- USGS ongoing work
 - Where and when to sample for eDNA?
 - Trends through time
 - Multiple species modeling
 - Surrogate species in context

Use of Occupancy Models for Monitoring AIS-Dr. Michael Weber (Iowa State University)-remote ([presentation slides](#))

- Occupancy models background
 - Used for cryptic, low abundance, and difficult to sample species
 - Very adaptable
 - Types of occupancy models
 - Single species
 - Single season
 - Occupancy and detection
 - Robust designs
 - ❖ Occupancy and detection
 - ❖ Immigration and emigration
- 3 applications for Occupancy models
 1. Invasive carp larva
 - How many samples

- ❖ Freshwater drum-6 samples to get detection probability of 90%
- ❖ Bighead carp-14 samples to get detection probability of 90%
- ❖ Shad and percids 7 samples to get detection probability of 90%
- Timing
 - ❖ Determine best time to sample for targeted species
 - ❖ River discharge more important for bighead carp than native species
- 2. Adult grass carp
 - How river discharge and temperature effect grass carp detection
 - Colonization increases with increasing discharge
 - No effect of water temperature
 - Grass carp notoriously hard to sample
- 3. Common carp recruitment
 - Detection probability changes depending on the time of year
 - Higher water=better occupancy success
 - Carp more difficult to detect later in the year
 - Occupancy model decreases as adult occupancy increases
- Occupancy models can give you trends

Discussion:

Hoff:

Occupancy models would be very useful for early detections and with the use of eDNA

Disappointed with the knowledge of when/what habitat types do carp species spawn because worldwide fisheries have historically been over exploited by overfishing on the spawning grounds. Needed for control of invasive carp

Abundance is very important for control and management options

Can you feasibly get abundance in all locations and surveys?

An ounce of Prevention, Addressing the potential expansion of Prussian Carp-Patrick Kočovský (USGS)-remote ([presentation slides](#))

- Prussian carp background
 - Native to central Europe, transported around the world since the 1700's
 - Considered one of the most damaging invasive species worldwide
 - Very similar to goldfish and crucian carp
 - Potentially delaying earlier detections
 - High fecundity, long lived
 - Gynogenetic reproduction
 - Eggs don't need to be fertilized only activated
 - Can activate eggs with other species sperm
 - No research done on what species sperm is able to activate eggs
 - Not uncommon to have Prussian carp populations >75% female

- Can tolerate low oxygen levels and broad temperature range
- Broad diet (detritus, vegetation, plankton, inverts)
- High habitat match for most of the U.S and Canada
- First reported in Alberta in 2014
- First detection in 2006 in West Lake
- By 2014 detected in 18 waterbodies and 3 watersheds
- First potential record from 2000
- Ontario and Quebec list Prussian Carp on high priority lists
- From 2000 to 2014 known invasion range expanded 1,800-20,000 km²
- Collected in Saskatchewan River in 2008
- Listed in 2016 by USFWS as injurious
- Effects of Prussian Carp invasion
 - Invertebrate community less diverse and dominated by caenids and chironomids
 - Loss of native sticklebacks and fathead minnows
 - Ecosystem-level shift
- Potential Invasion Pathways of Prussian Carp
 - 67 Potential connection pathways from currently Prussian Carp inhabited waters to Missouri River Basin
 - Only 2 moderate or high risk
 - Moderate risk at headwaters of Frenchman River/Swift Current creek
 - High risk pathway at St. Mary's Canal at headwaters of Saskatchewan and Milk Rivers
 - ❖ Several native species known to make the trip through an irrigation pipe from Saskatchewan River into the Missouri River
- Potential dispersal pathway
 - Red River and Minnesota river
 - Connected during high water
 - Connects in high water in 1943, 1993, and 1997
 - 4-day event in 2010, single day events in 2009, 2014 and 2019
 - Frequency of high flows are increasing
- Next steps for Prussian Carp assessment/control
 - Assess alternative for Red/Minnesota Pathway
 - Physical barriers?
 - Electric barriers?
 - Identifying other pathways
 - Promote research toward the control of Prussian Carp
 - Prussian Carp management efforts would not affect funding for invasive carp control from USGS
 - Consider updating Prussian Carp risk assessment

Discussion:

Chapman: What is the temperature tolerance of Prussian Carp and what is the general overall invasiveness of this species?

Kočovský: Temperature tolerance is very broad, and the invasiveness of this species is just as bad as the other 4 species of invasive carps.

Chapman: The areas we are seeing goldfish causing problems are in the cooler water areas of the country, don't know if that would be the case with Prussian carp.

Kočovský: I think that is reflected in the heat map where the front range of the Rocky Mountains and around the Great Lakes are very high habitat and climate match.

McGovern: Prussian carp management would not affect the invasive carp funding from the federal government

Conover: Are there any actions or needs that the MRBP can do as a panel to help in the next steps?

Kočovský: These are just ideas as of right now, not necessarily actions that need to be done at this time. Get the people who know these invasive corridors and get them together to talk about risks and solutions.

Present control efforts might not work for Prussian Carp control. What can we do to knock down Prussian carp?

Hoff: We could update the risk assessments for the Prussian Carp, but would there be meaningful results from a risk assessment update? Some additive pathway risks would be a benefit from a update. We should be worried about the interconnectedness for other invasive species as well. Should be having these conversations at the international level as well.

Committee Meetings

Outreach and Education Committee-Greg Hitzroth (IL/IN Sea Grant)

(Presentation Slides)

- **Hitzroth recommended the committee meet quarterly**
- Proposed projects
 - Community based social marketing workshop for ANS managers
 - \$10,000 estimate
 - 2-day training
 - High priority for committee
 - MRBP Logo update- estimated \$500
 - WHAC-A-Mussel evaluation
 - \$6,000 estimate
 - [Habitattitude™ | Protect Our Environment From Invasive Species](#)
 - Do we need to hire a social scientist?
 - WHAC-A-MUSSEL advertisements to encourage use
 - Photo Shelter
 - Inquiries into the redundancy/need

- Outreach and Education committee needs from members?
 - **Update MRBP information factsheet for ANSTF Webpage**
- What do we do well? (Discussion among entire panel)
- USFWS- Use Stop Aquatic Hitchhikers and Habitattude resources well
 - [Home - Stop Aquatic Hitchhikers](#)
 - Promote programs
 - Partnering with outside groups
 - Funding
 - Volunteers
 - Outreach to anglers and boaters
 - Organisms-In-Trade coordinators
 - Getting ahead on the invasion pathways
- What can we do better?
 - Incorporate outreach materials better
 - Develop outreach instances
 - More training and materials to create more content
 - Create AIS knowledge surveys
 - Habitattitude and Stop Aquatic Hitchhikers materials and promotion
 - Better evaluation of programs and outreach
 - Non-native species list
 - New website content
 - Aquarium fish compatibility fact sheet
 - Relaying MRBP project outcomes to stakeholders and the public
 - Ex. Microchemistry database
 - Formal outreach strategy for states
 - More consistency outside of grant funded projects
 - More MRBP in-reach to promote leaders
- What are we not doing that we should be doing?
 - Sharing resources within MRBP
 - Organisms-In-Trade
 - Waterfowl outreach resources
 - Sharing MRBP resources to member states
 - Create dialogue between MRBP members
 - Create a formal outreach strategy
 - Trainings
 - Strategies for different audiences
 - In-reach for MRBP to develop leadership and help with MRBP roles and what MRBP does.

Branding- Doug Jensen (Minnesota Sea Grant)-remote ([presentation slides](#))

- Science of branding
 - What is branding?
 - Focuses directly on audience
 - Provides identity that engages audience

- Reinforces beliefs
 - Targets customers and potential customers
 - Psychological constructs
 - Builds feelings and awareness toward brand association
- Marketing vs Branding
 - Marketing: tactical action over the short term
 - Branding: Strategic action over the long term
 - Strong brands allow for acquisitions
- Brand equity
 - Value attached
- Branding Foundations- “The 10 C’s”
 1. Competency
 2. Credibility
 3. Clarity
 4. Compelling nature
 5. Consistency
 6. Constancy
 7. Confidence
 8. Connectedness
 9. Commitment
 10. Currency
- Brand baggage?
 - Does brand lack visibility?
 - Is brand widely used?
 - Does brand lack leadership?
 - Does competition recognize brand?
- Non-Profit should convey ideas of
 - Integrity
 - Democracy
 - Ethics
 - Affinity
- MRBP brand content reflection
 - Who is MRBP?
 - What does MRBP do?
 - Why does what MRBP do matter?
 - How is MRBP different or unique?
- Successful AIS Campaigns
 - Stop Aquatic Hitchhikers
 - ❖ National social media marketing-based campaign
 - ❖ 1,400 partners joined (businesses, agencies, academia, non-profits)
 - ❖ Since 2006 campaign partners generated 2 billion impressions
 - ❖ From 45% moderately aware to 96% moderately aware after exposure

- Next steps for MRBP rebranding?
 - Have a meeting to decide what MRBP's goals are and what message do we want to convey to the public
 - Michael Huff- We can mine already established goals and summaries from MICRA and MRBP and update them as needed for a re-brand

Discussion:

Hoff: We can mine already established goals and summaries from MICRA and MRBP and update them as needed for a re-brand.

Prevention and Control Committee-Mindy Barnett (Iowa DNR)

- **M. Barnett recommended the committee meet quarterly**
- 4 Topics from pre-meeting
 1. MRBP website review/ rework
 - Panel members only section on website
 - ❖ Information hard to access on google drive
 - ❖ On-boarding processes
 - ❖ In-reach to support leadership roles
 - ❖ Promoting committee leads and Executive committee
 - ❖ **Review committee webpage on MRBP website**
 - ❖ Include PCC statement and purpose
 - **Add links to other regional panels and partner resources**
 - Add clarification of what the panel can and cannot do under law
 - Include a why section on webpage
 - Summary of what MRBP does and why
 - Panel funds to hire a website designer
 - ❖ Major redesign
 - ❖ Think about the audience (MRBP members vs the public)
 - ❖ Need to keep projects and reports public facing
 - Should committee work plan meeting minutes be included on website?
 2. ANS highest priority list
 - How to prioritize the states' highest priority
 - ❖ By region?
 - ❖ By basin?
 - ❖ Query states for top ten highest priority (10 fish? 10 plants? 10 inverts?)
 - Wait to see if natural breaks in the data
 - Needs to be updated every 2-3 years
 - Questionnaire for states for already there or a future threat?
 - 1) Species is present and a problem
 - 2) Species is present and a problem but not in the Mississippi river basin
 - 3) Species is not yet present, but a threat if became established

- Have states note why they listed a particular species in their top ten.
- How many to include on a state's list?
- Correct phrasing to convey what/how many species to include
- Review old ANS highest priority list as a starting point
 - ❖ Will bias responses
 - ❖ If provided, responses will just go off the old lists
- A list of every possible ANS sent out and respondents rank top 5? 10? #?
- State ANS management plans could be used as a starting point to create lists
- Send questionnaire to state and federal agencies
- What would the purpose of this list be?
 - ❖ How would results be used?
- ANS pathway priorities as a future project?

Research and Risk Assessment Committee-Chris Steffen (KDWPT)

- **Need a new committee chair**
 - Need a chair before any further committee meetings can move forward
 - Any voting member or alternate of the panel is eligible
 - Chair makes a difference on where the science is directed
 - Chapman can help with the transfer of responsibilities to the new chair
- Invasive carp genetics project
 - Looking at genetic differences of silver carp throughout the basin
 - 13 of 26 samples received by lab
 - 24 of 26 locations covered
 - Samples should be sent into the lab by September 30th
- Black Carp project
 - **Make sure black carp contacts are up to date**
 - \$100 bounty on black carp still available in many Mississippi River basin states
 - Most knowledge on black carp coming from the black carp angler bounty program
- ANS Highest priority list could be mined for future research priorities
- Boater surveys
 - Access sites like a creel survey
 - Develop a packet of questions states could pull from for their own needs
 - Hire outreach expert?
 - Figure out what you need the survey to do
 - States capacity to collect data
- Need to get project information and results out to intended audience and the public
- Future project ideas
 - Asiatic clam and transportation of crayfish due to fish stocking
 - Where are crayfish coming from?
 - Fish stocking
 - Biological supply companies
 - Invasive crayfish collaboration does research on pathways

❖ <https://invasivecrayfish.org/>

2023 Work Plan Development

- Funding can also go towards outreach products not just projects
- Boater survey
 - Hire social scientist to help guide survey but not perform all aspects
 - Panel needs a clear purpose for the survey to take to the contractor
 - Standardized list of questions states can pick from
 - Standardized list might not meet individual state's needs
 - Need to determine how states will use the data
 - WRP and ANSTF boaters survey cost \$80,000
 - Results will be out soon
 - Surveys focused on outreach efficiency
 - Invasive Crayfish Collaborative Member survey cost \$20,000
 - Survey focused on the research and outreach needs of members
 - [ICC-Member-Needs-Assessment-Full-Final-Report.pdf](#)
(invasivecrayfish.org)
 - Community based social outreach training
 - \$10,000 for 2-day training workshop
- Logo update
 - Should discuss with the Panel Principals
 - Consistency needed between panel logos
 - Any interest from other pane to update their logos?
- ANS most troublesome list
 - Just rank and score all states' lists to develop most troublesome list
 - Need to figure out what the list will be used for
 - Original list was used by researchers to support funding projects
 - Need to re-rank every 5-years to stay current
 - **Prevention and Control committee will decide path forward on ANS most troublesome list**

Recommendations to take to the ANSTF

- Change "MRBP on ANS" to "MRBP on AIS"
 - Would be consistent with the Executive Order 13112
 - Each panel can decide what they want their name to be
 - Does this need to be discussed with Susan Pasko
 - **Bogenschutz-motion to "change name from "MRBP on ANS" to "MRBP on AIS" pending concurrence from ANSTF."**
 - **Hoff (member-at-large) seconds the motion**
 - **Bogenschutz amended the motion to "change name from "MRBP on ANS" to "MRBP on AIS" pending discussion with ANSTF executive secretary Susan Pasko."**
 - **Braig-Seconds the motion**
 - **21 voting members present**

- ❖ 20 yay
- ❖ 0 nay
- ❖ 1 no vote

- **Motion passes**
- “The administration works with congress to enact legislation that improves protection of the U.S biosecurity from invasive species, pathogens and parasites.”
 - Executive Committee will work with Hoff to craft language in the form of a recommendation to ANSTF
 - Is this motion included in the Lacey Act updates or will this be a separate motion?

Next MRBP Coordinator Meeting

- Mid-June-2023
- Possible location Colorado

MICRA AIS Committee meeting

- 8-10 am September 15, 2022