

MRBP- Coordination Meeting /Asian Carp Field Sampling Workshop

April 16-18, 2019 Lake Barkley State Park Resort, Cadiz KY

Call to Order 8:00am- Greg Conover

Tim Campbell (2nd Co-chair MRBP)

April 16 - MRBP Coordination Meeting attendance

Duane Chapman

Kevin Irons

Eric Fischer

Dennis Riecke

Eugene Braig

Jessica Morris

Luci Cook-Hildreth

Mark Cornish

Allison Zach

Curtis Tackett

David Roddy

Peter Sorensen

Jimmy Barnett

Chris Steffen

Tim Campbell

Angie Rodgers

Jessica Howell

Greg Hitzroth

Matt O'Hara

Doug Keller

Jason Goeckler

Ron Brooks

Jeff Gunderson

Bill Bolen

Emily Pherigo

Nick Frohnouer

Laura Martin-Torrijos

Remote participant:

Welcome and Introductions

Invasive Alien Crayfish Species -Crayfish Plaque – Laura Martin Torrijos

- Invasive species and emerging infectious diseases introduced as two factors impacting biodiversity that have a synergistic effect
- Crayfish plague – *Aphanomyces astaci* – “fungus” water mold is an emerging infectious disease with swimming zoospore which contribute to the movement and spread.
- Europe has 5 native species of crayfish (in comparison to N. America’s 382 native species, 3 species of N. American crayfish species most commonly found exported include *Procambarus clarkii*, *Pacifastacus leniusculus*, and *Faxonius limosus*.)
- Native N. American crayfish have developed immune system protections against water mold but European species are naïve to newly introduced disease.
- Efforts to map crayfish pathogens in N. America have implications to the potential impacts and effects of other Crayfish introductions and translocations within the United States.

Boater survey presentation and discussion- Tim Campbell – Wisconsin SeaGrant

- It is difficult to evaluate an AIS program in relation to other similar programs when they are not evaluated in similar ways, we should strive to have similar social science methodology during evaluation of programs.
- We invest heavily in outreach but don’t evaluate if it has worked or whether the money was spent effectively.
- Boater surveys are not the same as watercraft inspection boater surveys and the distinction needs to be made in evaluation.
- Drawbacks to how many boater surveys have been performed in the past include the fact that they do not reflect a representative sample of entire boating group, and tend to reflect a subsample of boaters who frequent the sites where previous surveys and boater survey and check points occur.
- These surveys are useful in evaluating a specific effort or program goal but is data standardized and repeatable enough for more than a high level analysis.
- Surveys need to include common survey objectives with collection of data in a similar way including random samples of a larger population including mail surveys using the Dillman method.
- The use of a stratified random sample for watercraft inspection surveys with random survey days and semi random locations allows evaluator to draw conclusions about AIS efforts and knowledge across a more representative boater group.
- Alternative survey designs exist like random survey of registered boaters through a mailing survey or development and implementation of new online boater surveys.
- Use consistent evaluation methods, hire or consult an applied social scientist/ survey specialist, and work with extension and/or Sea Grant programs.

Live Bait Pathway Analysis (Project update) – Jeff Gunderson

- Report to examine the risk of introducing nonindigenous animals and plants in live bait
- Status of the Live Bait industry and its regulations in the Mississippi River basin
- Goals of the project included describing the industry and summarizing the state and federal laws across the basin

- Sent management agencies a survey, evaluated state sport fishing regulations, contacted people within the aquatic bait industry, and interviewed individuals within each jurisdiction to vet state information.
- Research included surveying 149 people in 28 states over the course of 325 calls.
- 42 species (28 fish, 12 invertebrates, 2 other vertebrates) including fish, leaches, crayfish, salamanders, frogs, and nymphs.
- 5 states primarily exporting to the other states within the basin, AR< SD< MN<WI<ND
- Bait fish are typically graded into sizes – graded in 1/64 increments which is important in the practice of grading out invasive/ non target species.
- Live bait hauling trucks are variable in size and configuration with upto 44 compartments with 11-125 lbs of fish per compartment with load capacities ranging from 4,400-5,500lbs/truck.
- MN,ND,SD, WI – bait is largely raised in small winter kill ponds, leased ponds to control access, these ponds are referred to as farm raised production, these states also have a wild harvest. AR – has more dedicated farm raised aquaculture ponds with more complete control over water supply, and property.
- Arkansas also has a certified bait program the dates back to 2007, providing 3rd party verification of farm level disease inspections including biosecurity planning and inspections for AIS.
- Surveyed for information regarding the production of aquatic bait within the Mississippi river basin
 - 16 states indicated that they collect wild harvest information, but only ND MN and MO sent info.
 - 5 states collect info but do not compile that information
 - 8 states collect farm production information
- There is an indication that baitfish are also sold as feeder fish
- Industry representatives surveyed thought that the USDA Aquaculture Census was very inaccurate in quantifying the industry- example given was the 2013 census – 12,891 acres of baitfish production in AR while the AR growers estimate their acreage at 20,000+ in production.
- Risks of spreading AIS and pathogens via the live bait pathway
 - Asian tapeworm – fairly common in AR farms, as well as found in 53% of MN bait shops tested
 - Golden shiner virus- low mortality due to virus but found in golden shiners, Fathead minnows, and white suckers
 - Fathead minnow nidovirus – 8% in the surveyed lots
 - VHSV- Viral hemorrhagic septicemia- AR tests for VHS, several baitfish species are susceptible, all states where VHSV is present or adjacent have regulations in place.
 - Golden shiner ovarian parasite- causes sterility, unknown potential impacts to wild fish.
 - Western mosquitofish- considered invasive – USFWS rapid screening assessment indicated no climate barrier to establishment, Low occurrence in baitfish lots

- Non-native crayfish- White river crayfish and red swamp crayfish are considered invasive outside of native range, transplant outside of native range through pathway is considered an issue.
- Most common contaminant or non target species in bait are crayfish and tadpoles

10:15am BREAK :

Collaborative AIS Efforts in the Missouri River Basin - Emily Pherigo, USFWS Columbia, MO

- 1/6th of US, including 10 states with the Missouri River covering 2,341 miles with 6 large main stream dams.
- Collaborative efforts within the basin include the 100th meridian initiative – preventing zebra mussel and quagga mussel spread and the Missouri River Asian Carp Technical Committee.
- Missouri River Basin AC technical committee
 - Formed under Missouri River Natural Res. committee (part of MICRA) formed in 2017 with delegates including ANS coordinators and state fisheries biologists from basin.
 - 2018 completed the MRB Asian Carp control strategy framework which was a step-down of the National plan for the MO river basin
 - The Action Plan goals included 1)defining invasive carp populations in MRB spatially and demographically 2)Apply relevant management actions in the right areas 3) Communication
- Prioritizing tributaries of the Missouri River to inform current distribution and population dynamics for eventual management -2018 surveillance -2019 expecting another good Asian Carp spawn due to flooding and increased prioritization of tributaries for AC sampling efforts.
- Generating interest in investment in the Missouri River basin
 - MICRA delegation going to Washington DC to discuss Asian Carp funding opportunities – Larry Pugh, Ron Brooks, and Greg Conover
 - “War on Carp” and similar coalitions are forming and gaining support and making direct contact with Senator’s offices.
 - MICRA has reached out to partner with sportfishing industry to publicize the issue and raise awareness. The value of sportfishing in reservoirs and the threat of AC on the economic value of these resources is a driver for future efforts.
 - We all need to use the same message to avoid conflicts- MICRA message.

Updates- Greg Conover MICRA/ MRBP

- MICRA visits in December to Washington DC, talking with reps about full funding for state ANS management plans (\$100,000 a minimum per state)
- Discussed National Asian Carp Management Plan and the need for basin funding for all basins to implement this plan
- Great Lakes , Mississippi River Basin connection (GLMRIS) – want USACE to move forward with scoping phase , feasibility study for 2 way ANS transfer

- Support on-going research, deterrence and other work within the basin.
- Planning next trip end of April into May
- Asian Carp funding- project proposals from Missouri River Basin developed, reviewed and recommended for funding. Under development of project plans for funded projects. Upper Mississippi river and Ohio River project proposals are moving forward.
- MRBP panel update-
- FY2017 funding still available, moving funding into the Buddhist liver release project
- FY2018 funding- current funding , we will need to spend these funds by May 31st, 2019, end of period- discussed if we were on track to spend
- FY2019 funding cycle June 1st- May 31st- Discussion topic around the USFWS inquire into getting back to calendar year cycle- we will do a 6 month cycle - \$35,000 to spend in 6 months June 1- December 31, 2019
- FY 2020 would return to 12 month cycle

ANSTF/ Panel Principles meeting update – Tim Campbell

- ANSTF has been redoing the Strategic plan- focusing on 6 goals
 - Prevention, Research-(prioritize research needs), Control and Restoration, Early detection and Rapid Response, Outreach, and Coordination.
- Panel Principles meeting-
 - Topics of discussion eDNA , Boater surveys, Clearinghouses for information like Stop Aquatic Hitchhikers (SAH) and for the growing number of risk assessments

BREAK for Lunch

Committee Reports from Committee chairs 3:30pm

Outreach and Education Committee Report- Luci Cook-Hildreth

- Discussed proposal brought before the committee from Mike Hoff- for ecostar labeling/ template design. Proposal included QR code, proof of concept 3 page summery describing this consumer driven concept. Luci to send out an E-mail regarding this item to get comments from panel membership for potential funding in 2020.
- Boater surveys –develop a working group to come up with a template and hash out details and coordinate with Tim Campbell and Allison Zack on this item. Asking for 3,000 pre-boater survey in FY19 funds.
- Website- addition of a list of funded projects to the site
- Attorney general workshop w/ Midwest Invasive species conference on Bait in 2016- workshop was successful but there were no deliverables- need to pull together notes and work with Jeff Gunderson to provide his Bait pathway project report to AG workshop participants.

- Update- Ceremonial release project is continuing – no cost extension into the end of August.

Prevention and Control Committee- Jimmy Barnett

- 10 items on workplan : 5 of which are complete
- Discussed w/ Jeff Gunderson on the content of his live bait pathway report. The committee would like to create a brief summary of the report including basic content of the report after the MRBP meeting.
- Overall bait pathway report delivered soon
- Working on the remaining projects
- Sent out spreadsheet list; Injurious species questionnaire to all the states. Sent twice, will send again.
- Boater survey item- Work on Universal boater survey app (discussion on problems associated). Design of boater surveys having standardized information.
- Desire to have groundwork for design of app to be done in next 6 months
- Live bait pathway- want a risk assessment of pathogens associated with live bait transport, protocols for pathogen transport.
- Have Kevin Irons make contact with having a pathogen expert come talk at next meeting.\

Research and Risk Assessment Committee- Duane Chapman

- Snakehead symposium-previous meeting- Papers done and most have been through review- chapters complete and AFS write up maybe finished within the year
- Current meeting we are hosting workshop on Asian Carp sampling methods- presentations and demonstrations planned the next 2 days
- eDNA- project under discussion as a priority interest for our next MRBP meeting
- Research recommendation to the ANSTF that funding agencies require data from funded projects be made public and accessible within two years.
- USGS development/create a database for Asian Carp work – data warehouse
- Research review of eDNA from a management perspective – Peter Sorenson and Chris Steffan to work on this item potential \$10,000 for travel and meeting to be done before next meeting. Coordinate with Western regional panel that has a similar project.
- Compile a summary of Asian Carp capture techniques for all life stages- perhaps a USFWS publication/ graphics/ meeting potential \$10,000-capture more of the upcoming workshop details
- Deterrence/ Barriers- 2011 was last review of these, committee wanted to explore an updated summery document on effectiveness of deterrents/barriers- effects on native fish, combines effect, etc.
- List of research needs: water chemistry for otolith micro chemistry evaluations on fish, isotope background data from rivers throughout the region, patterns of movement through locks and dams, interaction between native predators and Asian carp – evaluate native predator efficacy on AC.

Recap of work plan and funding requests

- \$35,000 for the next 6 months June-December 2019
 - Discussion of funding requests
 - \$15,000 ecostar label project
 - \$3,000 Boater survey –framework
 - \$10,000 eDNA – managers guide
 - \$10,000 capture techniques of Asian Carp (5,000-10,000)
 - Funding for collection/analysis of water samples for microchemistry analysis of water samples.
 - Potential funding recommendation from P & C committee for app development

ANSTF recommendation recap

- **1)** USGS pull together sampling database on Asian carp, including collection data, etc.
- **2)** Recommend that ANSTF review their guidance for developing and updating State ANS plans
- **3)** Recognition of USFWS funding on all outreach and education materials purchased w/ federal funding

Next meeting Planning

- January-February 2020 in Texas-