



Invasive Catfish Workgroup Summer 2022

July 27, 2022
1:00 - 3:00pm

Meeting Minutes

Attendance:

Adrienne Kotula	Gina Hunt	Mike Hutt
Alexa Galvan	Ingrid Braun	Mike O'Brien
Allison Colden	Jason Kahn	Noah Bressman
Beth Brewster	Jenn Malpass	Sara Widman
Capt. John Rawlings	John Page Williams	Sean Rafferty
Cathy Liu	Johnny Moore	Steve Minkinen
Chris Moore	Kate Blackwell	Stone Slade
Christine Densmore	Kirby Rootes-Murdy	Troy Tuckey
Danny Ryan	Marty Gary	Vaskar Nepal
Deke Tompkins	Mary Fabrizio	Yan Jiao
Gary Lengerhuis	Matthew Woodstock	Zach Crum

I. Subcommittee Updates

The subcommittee chair(s) or an appointed member will provide an overview of their team's progress toward specific actions/goals relevant to their management approach. Each subcommittee will have 10 minutes to provide their overview and then 10 minutes for questions, feedback, and discussion.

1) Outreach and Marketing - Introducing Beth Brewster!

- Beth is the Food Service Director for Caroline County Public Schools and is working on a farm-to-school program to bring blue catfish into school cafeterias. Beth received a small grant to do a scope of marketing for blue catfish and is interested in doing more to get this protein source into schools, food banks, etc. Beth also worked on developing a website with Maryland Dept. of Agriculture, Maryland Dept. of Natural Resources, University of Maryland Extension, and other partners to share information about catfish facts, fishing, and recipes. The website can be found at <https://www.chesapeakebluecatfish.org/>.
- Marty Gary (PRFC) asked where the catfish for this program were being caught. The program is not yet at that stage; they are still going through the regulation process. However, they are planning for the Marshyhope region.
- Gary Lengerhuis (rec angler) asked what sizes will be targeted. The program currently has a limit of individuals up to 30 lbs, but they are interested in incentivizing the removal of bigger fish.
- Gary L. also asked if anyone has considered using blue catfish for fertilizer. Carcasses and other inedible parts of the blue catfish will be used for compost and hopefully also fertilizer. They still need to run tests to determine the nutrient levels and potential contaminant levels.
- Noah Bressman (Salisbury U) noted that if anyone needs fish for tests or studies, they can provide individuals from the Salisbury University fishing tournament taking place Saturday, July 30.

2) Science and Research Synthesis - Yan Jiao (VT), Vaskar Nepal (VIMS)

- The SRS Subcommittee met twice and continued to compile and discuss data gaps and potential data sources that would be useful for invasive catfish research.
- Ethan Simpson (VMRC) joined the SRS meeting to discuss the catfish sampling that he does for VMRC. The VMRC catfish sampling could provide insight into biological questions and catch composition (e.g., age, length, weight information by tributary). It would be interesting to have this information not only across VA tributaries, but also throughout Maryland.
- The SRS group is also discussing strategies for coordinating catfish sampling between VMRC and VDWR.
- The SRS is interested in a socio-economic catfish project that is being conducted by PIs at VIMS.
 - Action: Mandy will reach out to Andrew Scheld and Shelby White about participating in future ICW meetings to share their work with the group.
- Dave Secor (UMCES) is interested in collaborating with ICW members on a potential proposal to examine blue catfish effects on sturgeon in VA and MD. A funding source has not yet been identified.
 - Christine Densmore and Dave Kazyak from USGS may be good partners for this work.
- VDWR has side-scan sonar technology that could potentially be used to estimate blue catfish abundance in the future. This needs to be discussed further.
- Mandy Bromilow (NCBO) put out a call for GIT funding project ideas from the group. The Chesapeake Bay Trust in partnership with the Bay Program offers small grants (\$50-80K) each year for projects that help achieve outcomes stated in the Chesapeake Bay Watershed Agreement. Outcomes that could potentially align with invasive catfish issues include Blue Crab, Forage, Fish Habitat, Toxic Contaminants, and Local Leadership. More information about the outcomes can be found at the Bay Program website (<https://www.chesapeakebay.net/>).
 - Example project idea: A study that examines and quantifies blue catfish predation impacts on blue crabs or key forage species in the Potomac River.
 - Action: Please contact Mandy if you have ideas for potential GIT funding projects.

3) Tributary-Specific Management - Alexa Galvan (VMRC)

- The TSM subcommittee has continued to work on the catfish creel survey. The survey is intended to be used by any group around the Bay that is interested in learning more about public attitudes toward blue catfish fishing, regulations, and ecological/economic impacts. The survey questions can be tailored to the specific interests of the group.
 - Action: Please send creel survey feedback to Mandy or Margi Whitmore (VDWR) in the next two weeks.
- The TSM is interested in hearing from ICW members about the next steps for the subcommittee.
 - Mary Fabrizio (VIMS) suggested that the TSM focus on analysis of survey responses and reporting the results out to the ICW. The ICW can then discuss how the results can be used to inform management plans.
 - The TSM does not currently have specific plans for the survey roll-out.
 - Mandy B. suggested that the group work out outreach with jurisdictions, universities, NGOs, and other partners to get the survey out. The results could be used to identify areas that should focus on prevention vs. control vs. eradication, and areas that are important for commercial and recreational anglers.
- Gary L. asked which and how many tributaries are considered “overrun” with invasive catfish. An indicator of invasion status based on density/abundance could be incorporated in

the catfish map that is currently being developed.

II. Blue Catfish in the Nanticoke River

Zach Crum, Noah Bressman (Salisbury University)

Zach will present his Master's thesis project examining blue catfish diet in the Nanticoke River. This is a comprehensive and collaborative project with MD DNR, DE DNREC, and USGS that will also tie in other aspects of blue catfish life history such as health and Reproduction.

- The Nanticoke River is an interjurisdictional tributary with a younger blue catfish population. The region has high nutrient loading from agriculture, but is an important area for blue crabs, striped bass, perch, Alosa, and spawning sturgeon.
- Zach is conducting monthly electrofishing with MDNR and DNREC, and supplementing these samples with trotlines and trawls in winter and high salinity areas, to analyze stomach contents and stable isotopes.
- The most common species found in blue catfish stomachs included white perch, blueback herring, alewife, and gizzard shad. Less frequent species found in blue catfish stomachs included blue crab, striped bass, hogchoker, and vegetation. A wood duck was found in the stomach of a 47-lb blue catfish.
 - Blue crabs may be less frequent in this study because they are unable to effectively sample higher salinity areas. The farthest reach of the study is Vienna, MD.
 - Mike Hutt (VDACS) noted that blue catfish predation on blue crabs in the Potomac and Rappahannock rivers is high, with up to 30-40 crabs in a single stomach.
- Zach is also collaborating with USGS on health and disease research, and reproductive endocrinology. Future projects at Salisbury University may include fecundity and age and growth studies.
- Outreach is a large component of Zach's work and includes angler interactions at fishing tournaments and "ask a scientist" events on Facebook.
- Gary L. has noticed there are a lot of blue catfish in the area in April and May, and by June they are gone. This could be related to spawning runs.
- Danny Ryan (DOEE) asked if stomach analyses will be broken down by fish size to better understand the ontogenetic shift to a more piscivorous diet. This is still being looked at, but the literature suggests around 400-500mm. The shift occurs around 500mm in the Potomac River.
 - Mary F. noted that ontogenetic diet shifts are less of a sudden switch and more of a gradual incorporation of more fish into the diet as blue catfish grow, and would recommend analyzing the data with as many size categories as possible.
- Christine D. asked members to let her know if large lesions are seen in blue catfish. USGS is still trying to identify the cause.

III. Member Updates and Discussion

- Appropriations Bill Feedback - Adrienne Kotula (CBC)
 - MD Congressman Harris has proposed new language in the House Appropriations Bill that will allow catfish processors to apply for a waiver to circumvent the USDA inspection requirement.
 - The Chesapeake Bay Commission is interested in getting feedback from ICW members on the bill language to determine if changes will need to be made in the Senate Bill. The CBC wants to ensure that this bill will help the catfish industry overcome the processing barrier.
 - Adrienne K. noted that if the inspection process is moved back to the FDA,

processors will still have to meet certain requirements, but they would be less rigorous than the current USDA inspection process. There are also questions about the life of the waiver (e.g., annual, permanent, 5 years)

- Mike H. suggested that this should be a permanent move back to the FDA. The inspection process holds up production and can be extra costly, which has resulted in less participation in the industry, particularly smaller operations.
- Marty noted that the bill is specific to the Chesapeake Bay area and hopes that defining the area won't be an issue considering that some catfish from the James are processed at Nixon's in NC. This is a larger, national issue and hopefully this becomes a national solution.
 - a) Alexa G. and Mike H. agreed that this change would benefit other areas as well. VMRC gets requests for blue catfish from processors in the south when conditions prevent the acquisition of farmed catfish.
- Beth B. agreed that this bill would help with the processing bottleneck and asked if there is any state legislation on blue catfish (e.g., subsidizing watermen). This is of interest, but there hasn't been anything specific at the state level.
- **Action: Please send feedback on the House Bill language changes to Adrienne K. (akotula@chesbay.us) as soon as possible.**
- PEARL Project Proposal - Matthew Woodstock (MSU - PEARL)
 - Matthew W., Tom Ihde, and Scott Knoche are interested in developing a spatially-explicit ecosystem model to analyze harvest strategies in individual Bay tributaries. The model would forecast tributary populations and quantify ecological impacts on other species in the system. Harvest scenarios would be provided to fisheries managers to inform management plans.
 - Mandy B. asked if the recreational angler perspective was being considered in the model development. Angling for blue catfish is big in some tributaries and may play an important role in the economic model.
 - Alexa G. noted that she can provide commercial harvest data from VMRC. The biggest concern about building the fishery is marketability and getting more people into the fishery.
 - Gary L. suggested that more people need to start eating blue catfish to increase the market, and noted that recreational angling for blue catfish has increased in MD.
- DC flathead catfish study - Danny Ryan (DOEE)
 - DOEE has been conducting acoustic telemetry and diet analyses of flathead catfish in DC. Final results should be available in the next year or so.
 - Preliminary results indicate that flatheads are eating a lot of white perch, but will essentially eat what's most abundant and available. Juvenile alosids haven't shown up in stomachs in summer and fall, but adult herring have been found in spring.
 - Movement patterns of flathead catfish seem to be based on high-flow events.
 - Gary L. asked much hickory and American shad are being eaten in the spring. Spring predation on shad appears to be minimal as they tend to reach a size refuge.
- Blue catfish crab predation - Mary Fabrizio (VIMS)
 - VIMS conducted a blue catfish diet study in the lower James River over a period of two years.
 - The probability of blue catfish eating blue crab varied by location (upriver vs. downriver), time, and catfish size (3 bins). An estimated 2.3 million juvenile blue crabs (< 90mm) are consumed by blue catfish per year in that stretch of the James River.
 - Intermediate fish (300-500mm) are most abundant and consuming more crabs overall. Small fish didn't eat as many crabs, and large fish (> 500mm) eat crabs, but

- not as many are present in the river.
- Mary F. noted that blue catfish can be found in areas up to 24 ppt, and are regularly found in areas up to 20 ppt. These are the areas where predation on blue crabs will be most significant.
- ICW presentation at ASMFC - Mandy Bromilow (ERT/NCBO)
 - Mandy B., Christine D., and Mary Groves (MDNR) will be presenting the ICW and some blue catfish research at the ASMFC meeting on Thursday, August 4.
- General Updates:
 - Mike H. noted that processors are still having trouble getting and keeping fish cutters, which has been an ongoing concern since COVID. Some days processors can't buy catfish because they don't have cutters to process fish.
 - Noah B. shared information about Salisbury University's catfishing tournament taking place at Cherry Beach Park on Saturday, July 30. Noah can retain specimens for anyone interested.
 - Gary L. asked if anyone had heard about the shipping of live catfish to OH. It's illegal to transport live catfish within MD and VA. VMRC has been getting calls asking if live transport out of state is legal. There is uncertainty about the extent to which this live transport is taking place.