SDAFS RESERVOIR COMMITTEE

Meeting Minutes

2024 Spring Meeting

February 1, 2024 – 9:00 am to 2:00 pm

Chattanooga, Tennessee

Attendees:

Sean Kinney, Louisiana Department of Wildlife and Fisheries (*Chair*; Rep) – In-person
Jeremy Risley, Arkansas Game and Fish Commission (*Secretary-Treasurer*; Rep) – In-person
Jeremy Shiflet, Kentucky Department of Fish & Wildlife Resources (*Scholarship Chair; Webmaster*; Rep) – In-person
John Odenkirk, Virginia Department of Wildlife Resources (Rep) – In-person
Aaron Gray, Georgia Department of Natural Resources (Rep) – In-person
Casey Joubert, North Carolina Wildlife Resources Commission (Rep) – In-person
John Hammonds, Tennessee Wildlife Resources Agency (Rep) – In-person
Amy Chastain, South Carolina Department of Natural Resources (Rep) – In-person
Shane Bush, Missouri Department of Conservation (Rep) – In-person
Cliff Sager, Oklahoma Department of Wildlife Conservation (Rep) – In-person
Sarah Menendez, Florida Fish and Wildlife Conservation Commission (Rep) – In-person
Michael Homer, Texas Parks and Wildlife Department (Rep) – In-person
Jack Fisk, Kentucky Department of Fish & Wildlife Resources – In-person
Daniel Geren, Tennessee Valley Authority – In-person
Gene Gilliland, B.A.S.S. – In-person
Dan Shoup, Oklahoma State University – In-person
Patrick O'Rouke, Georgia Power – In-person
Alan Beach, Tennessee Wildlife Resources Agency – In-person
Steve Owens, Virginia Department of Wildlife Resources – In-person
Andrew Althoff, Tennessee Tech University – In-person
Tom Miles, Tennessee Tech University – In-person
Eric Naas, Arkansas Game and Fish Commission – In-person
Corey Oakley, North Carolina Wildlife Resources Commission – In-person
Jon West, Oklahoma Department of Wildlife Conservation – In-person
David Bogner, Oklahoma Department of Wildlife Conservation – In-person
Keith Henderson, Alabama Department of Wildlife and Freshwater Fisheries – In-person
Matthew Marshall, Alabama Department of Wildlife and Freshwater Fisheries – In-person
Kyle Mosel, USGS Upper Midwest Environmental Sciences Center – In-person
Brad Fink, Virginia Department of Wildlife Resources – In-person
Alexandria Lacy, Tennessee Tech University – In-person
Dave Dreves, Kentucky Department of Fish & Wildlife Resources – In-person
Jason Russell, Kentucky Department of Fish & Wildlife Resources – In-person
Jeff Ross, Kentucky Department of Fish & Wildlife Resources – In-person
Lawrence Dorsey, North Carolina Wildlife Resources Commission – Virtual
Seth Mycko, North Carolina Wildlife Resources Commission – Virtual

Introduction – Sean Kinney

Reservoir Committee (RC) chair Sean Kinney called the meeting to order at 9:02 am and welcomed the attendees while Jeremy Risley passed out the agenda (see page 15), sign-in sheet (see page 16), and financial report.

Financial Report – Jeremy Risley

Secretary-Treasurer Jeremy Risley briefly updated the group on the current RC finances (see Page 17). **The beginning balance in January 2023 was $15,143.34.** Account deposits included a $1,000 donation from the Bass Fishing Hall of Fame and a $10,000 grant from the Tennessee Valley Authority for microplastic research. We want to thank both groups for their donations to the Committee. Account withdrawals included providing a $1,000 Jenkins scholarship to Andrew Gable at the 2023 spring meeting. In addition, there was a $209.91 deduction due to account fees and a $2,574.37 increase due to changes in mutual fund value. **As a result, the RC's account balance at the end of December 2023 was $27,507.80. With the TVA grant earmarked, the remaining balance was $17,507.80.** John Odenkirk motioned to approve the financial report, which Mike Homer seconded. All the Committee members approved the 2023 financial report with no objections.

2024 Jenkins Scholarship – Jeremy Shiflet

The 2024 Robert M. Jenkins Memorial Reservoir Research Scholarship winner was Joshua Stafford from Mississippi State University. Joshua's research title: A Tale of Two Dams: Evaluating Efficacy of Modified Barrier Operations on Silver Carp Movements. **Joshua's research statement:** Silver Carp (Hypophthalmichthys molitrix) is an invasive planktivorous fish that has spread throughout the Mississippi River basin and jeopardizes native species and recreational fisheries. Existing infrastructure such as dams and water-control structures on impounded waterbodies can limit invasive fish passage, and therefore, potentially restrict the spread of invasive carps, including Silver Carp. My goal is to examine environmental variables coinciding with Silver Carp movements through water-control structures that regulate water levels in a recreationally important oxbow lake (Eagle Lake, LA, MS) from adjacent waterbodies. Using active and passive acoustic tracking receivers, I monitored seasonal movements of 93 Silver Carp through two water-control structures separating four waterbodies: Yazoo River, Steele Bayou, Muddy Bayou, and Eagle Lake. I am developing a model to examine whether Silver Carp passages through these structures coincided with rising water levels and temperatures, and whether movement rates varied by sex and fish length. This research could inform how fisheries and water managers might adapt operations of water-control structures to limit movements by Silver Carp into recreationally important waterbodies such as reservoirs, pool-regulated oxbows, and other impounded waterbodies. I would like to present this research at the Invasive Carp in Southeastern Waters symposium at SDAFS as I believe it is pertinent information on how we can better slow the spread of invasive carps. **Note:** Josh also won the Warmwater Streams Committee's Jimmie Pigg Memorial Scholarship for his research as well.

Sean Kinney (left; SDAFS RC Chairman) presented Joshua Stafford (middle) with a $500 scholarship check for the 2024 Robert M. Jenkins Memorial Reservoir Research Scholarship.

Jenkins Scholarship – Nationwide Opening/Endowment/Funding Discussion – Sean Kinney and Jeremy Shiflet

The Committee has been working for several years to set up an endowment for the Jenkins Scholarship; however, we have not gotten any traction on donations. Sean reached out to the KVD Foundation, while Gene contacted AFTCO. Sean mentioned there was a potential to do a raffle with a professional angler to fund the entire endowment. There are some legal issues related to states that do not allow raffles. That said, there is a potential for the Committee to partner with a willing professional angler to raffle off their boat. The angler will need to receive reimbursement for the cost of the boat. Anything over that amount would go towards the scholarship. Sean believes the Committee would need to sell approximately 1,500 tickets to make this work. He was thinking tickets might cost $100. Mike H. questioned how the Committee would handle states that did not allow raffles. Mike also mentioned that the Reservoir Fish Habitat Partnership is considering doing the same thing. Gene then provided some information from Doug Nygren with Reservoir Fish Habitat Partnership. They ran into some legal issues. They are trying to work with Gary Klein, who wants to raffle his boat in Texas. The Partnership must raise enough revenue from the raffle to cover the cost of the boat as the Partnership would be responsible for covering that cost. Randy Howell, a professional angler, has been doing this for several years in Alabama. That said, Gary and Steven Bardin are still working with Partnership to make this effort work and overcome the legal challenges. Gene mentioned that some states only allow raffles from religious organizations. Gene noted that if

the Committee can overcome these hurdles, plenty of anglers would be willing to work with the Committee if presented correctly. Sean asked Gene how much the current base boat price is for anglers. Gene replied that it is around $75,000 and going up every year. The Committee decided to let the Reservoir Habitat Partnership work out all the legal issues first; thus, **no action was taken on this issue.**

Jeremy S. explained that the Committee continues to struggle with receiving qualified applicants for the scholarship, which has been the trend for the past five years. He has been distributing the scholarship announcement through various outlets, including our listserv, and has streamlined the application process; however, the Committee receives few applicants yearly, with the scholarship amount being $500 or $1,000. The discussion led to whether the Committee should take the scholarship nationwide if the applicant's research were relevant to reservoirs. With the need for sponsors and funding, Jeremy S. recommended pausing the scholarship for now. He said we are only getting a couple of applicants a year. Sean mentioned that the Warmwater Streams Committee received eight applicants this year. Sean noted that we don't have sufficient new scholarship funds. He mentioned that the last Committee workshop in Oklahoma City did not generate any measurable funds. He is reluctant to have another one unless a topic needs to be covered in a workshop. Sean mentioned that no revenue comes from book sales, and donations are drying up. He said the solution is the endowment, which will need approximately $40,000 to cover multiple scholarships through interest (4%) alone. Sean reiterated that the Committee members should forward the scholarship announcement to others. Dan said we must keep giving the announcement to Universities and the SDAFS listserv. Sean mentioned that the announcement could be posted on the AFS listserv once the Committee gets funding and goes nationwide. Gene was concerned about pausing the scholarship for a long time because people would start forgetting about it, and it would eventually disappear. He wants to keep it going, even at a reduced level. He believes he can get funding from the Bass Fishing Hall of Fame to help through a few years. Jeremy R. mentioned that the Committee could cover one $500 scholarship through the interest it currently makes through our money market account. Sean mentioned that if the Bass Fishing Hall of Fame donated money, the Committee could go nationwide and cover the travel expenses. Gene believes he will have a commitment from the Bass Fishing Hall of Fame for $1,000 for next year's scholarship. Jeremy S. said if the Committee opened the scholarship nationwide, it could open doors to new sponsors, new Divisions/Universities, and new applicants. Jeremy S. asked where else the Committee should advertise. Gene mentioned that if the Committee goes nationwide with the scholarship, he could advertise through BASS, and Steven Bardin could advertise through MLF. Gene mentioned that the amount of scholarship money awarded might be the driver. He said the Bass Fishing Hall of Fame is giving out five $5,000 scholarships, and they receive between 40 and 50 applicants per working on anything related to bass research nationwide. **Action Item: Sean asked for a show of hand for those who wanted to continue providing the scholarship and go nationwide with it. Most of the Committee favored it, with no one opposing it. No other action items were presented during this discussion.**

Website/Social Media – Jeremy Shiflet

Website chair Jeremy S. reported to the RC that not much has changed over the last year. He has posted the minutes from the 2023 spring and summer meetings. Sean mentioned that if Committee members want to help with the scholarship and website or want something posted on the website, they should contact Jeremy S. **No actions were taken on this issue.**

Microplastic Research Update – Sean Kinney

Sean said the virtual microplastic research scoping meeting had 111 people from 27 states to discuss expanding the microplastic research from Toledo Bend in Louisiana. The original research project was completed, but the student does not plan on completing her thesis. Sean said while it is unfortunate that the student will not be finishing the project, the research showed that the procedures and methods worked. That said, a steering committee has been formed. They want to expand the project to other states. Several states have indicated they wish to participate. They are looking to acquire a multistate grant with 100% funding. Each state will get a sampling protocol and kit. The states will be asked to provide the staffing to collect and submit the samples. The next conference call will likely go over the methods and research questions for the project. Gene asked what research questions the group would try to answer from the multistate grant. Sean replied that the group is looking to determine whether microplastics in waterbodies are correlated to the concentration in fish and whether there are any correlations to artificial fish habitat structures. Sean went on to say they have a draft of the proposal. They want to look into residency time, inflows, and rainfall. They need enough lakes for multiple treatments (no habitat, artificial or natural fish habitat, and a combination of the two). Sean mentioned that most of the artificial habitat structures being constructed by states use the same materials as cities use for water and septic pipes, so there will be some issues with identifying causation. Casey asked if there would be seasonal collections. Sean mentioned that season was not a factor. He did hope that bass, crappie, shad, catfish, and sunfish would be collected. He said staffing would be minimal. Sean talked about the TVA grant of $10,000 for this research. Thus, at least one reservoir within Tennessee Valley will be sampled for this project. He also mentioned that Louisiana is committed to the project and has had a widespread interest in the project from other states. Sean mentioned that he had sent the recording of the first virtual scoping meeting to the Committee members. **No actions were taken on this issue.**

SDAFS ExCom Update – Mark Rogers

Mark updated the Committee about the SDAFS ExCom. He was there to see if the Committee had any needs from the division level. Mark said there is a need for insight on diversity incentives at the division level. He asked if there was anything that the Committee needed. Sean mentioned there is a need for outreach about scholarships. Mark said that it was a prestigious award in SDAFS. In closing, Mark mentioned the upcoming Black Bass Symposium during the 2025 national AFS meeting in San Antonio, TX (see page 18). **No action items were presented during this discussion.**

Request for Funding – Sean Kinney

Sean mentioned he received a request for funding for the nationwide crappie management book. They are asking for funding to cover printing costs. Sean said he previously received two votes supporting funding and one against it. Gene mentioned that this funding would go to a good cause, and the Committee has historically funded projects like this as a goodwill gesture. **Gene motioned to provide $1,000 in funding for this crappie book. Jeremy S. seconded the motion. All were in favor, and none were opposed. Note: The Committee completed this motion on February 19, 2024, by submitting a $1,000 check to Wisconsin DNR's Greg Sass. No other actions were taken on this issue.**

Forward-facing Sonar

Gene mentioned there is no hotter topic today within the fishing world. At the American Sportfishing Association's fall meeting, the fishing industry expressed concerns about this technology. They encouraged working with state agencies to determine if there are any population-level impacts from forward-facing sonar. A few states have looked into who is using forward-facing sonar, such as Kansas, Arkansas, Texas, Iowa, Florida, and Oklahoma. Gene mentioned the industry is concerned with the negativity surrounding this technology but will not stop advancing it. BASS has formed a committee to look into limitations with forward-facing sonar aspects but will not ban it. Gene asked that if any state plans to look into forward-facing sonar, please let him know who intends to conduct that research so they can keep up with what is occurring. They are looking for biological perspectives. Patrick asked who was using forward-facing sonar for research. Shane mentioned they are using it for habitat evaluation and fish use. Patrick said they are considering using it for fish utilization in flooded timber and comparing it to hydroacoustics. Shane mentioned they are concerned about larger Paddlefish harvested from anglers using forward-facing sonar. Dan reminded the Committee that this issue could easily be handled using the information we were taught in our fish management classes. Sean mentioned a public perspective/user group issue between those with forward-facing sonar and those without. Gene mentioned that size structures might change in harvest-oriented fisheries but not overall numbers. He said the industry wants to encourage the states to look into bag and length limits to ensure they are adequate based on the catch and harvest rates. Mike and Gene mentioned that the use of forward-facing sonar is getting very high. Dan said it points to the need to collect creel data from states. Jeremy R. mentioned that Arkansas has asked whether anglers have forward-facing sonar during their creels since 2021. Tom mentioned there is a difference between experience and expertise among anglers with and without forward-facing sonar. **No actions were taken on this issue.**

Fishing Regulations for LMB/FB – Jeremy Risley

Jeremy R. asked how other states handle regulations between Florida and Largemouth Bass now that they have been formally recognized as different species. Are states grouping these species, separating them, or even recognizing they differ for regulation purposes? Most states stated they would not be separating them. Jeremy R. stated that Arkansas plans to recognize the difference in the definition of black bass but would not be making different regulations.

Jeremy R. asked if any state intends to recognize different state records for the two. Gene mentioned that IGA plans to separate Florida and Largemouth Bass and Alabama and Spotted Bass records. The Spotted Bass record will now be recognized as the world record for Alabama Bass. IGA will require genetic certification before a record is recognized for certain species and locations caught. Gene was unsure about hybrids except for the Meanmouth (Spotted X Smallmouth Bass hybrid). Gene mentioned that Alabama Bass has the potential to muddy many of these records. **No actions were taken on this issue.**

State and Member Reports –

Contact the State Representatives for more detailed information on the topics provided. Additional information from states submitted before this meeting can be found in Appendix A (Page 19).

Virginia – John Odenkirk

- They are still working on the F1 bass stocking evaluation
    - Smith Mountain Lake was the first lake from angler donations over eight years.
    - Four other lakes stocked over six years with three stocking rates
    - Most bass are integrates
    - The goal is to establish a larger maximum size and tournament weights, not change genetics.
    - Looking at 20% stocking contributions stocked into the best habitat.
    - The results are looking promising.
    - They are seeing a higher growth rate for F1, and they have to be IDed through genetic testing. Testing costs approximately $60,000 annually for about F1 and Alabama Bass testing through Auburn University.
    - Samples are collected from electrofishing and tournaments.
    - The group said F1 fingerlings cost about $0.52 per fish.
- They are also still dealing with harmful algae blooms. They are not finding much that is working.
- Northern Snakeheads have not been the problem as predicted. There is an angling community targeting them.

Tennessee – John Hammonds

- They have been stocking Florida Bass into Kentucky Lake spurred by angler requests.
- They continue to monitor for Invasive Carp in Kentucky Lake.
    - Little natural reproduction in Tennessee
    - eDNA testing is also occurring
    - Tag about 300 adults per year to track movements. They do move through the locks quite often and into Reelfoot Lake.
- Completing their Bass Pro Shop habitat grant using rock barge at 30 sites.
- Alabama Bass are becoming a big issue
    - Working on regulations

    - Potentially looking at developing a statewide black bass regulation that doesn't separate species except for Largemouth Bass because they are less likely to hybridize with Alabama Bass.
- Florida Bass stockings effort in Lake Chickamauga on the downhill slide. They are looking into potentially stocking F1 bass instead, but it will be a huge task.
- No Invasive Carp have been found in the Tennessee River yet.
- They are starting to stock Muskie into Parksville Lake, a small mountain lake.
- This is the third year of stocking F1 bass into Boone Lake, and they have been seeing good results, just as Virginia has. They hope to see these fish in tournaments in the upcoming years. They collected 6 of 50 fish that were F1 testing.
- They are tagging Muskie in one of their reservoirs to look at natural reproduction and determine if stockings need to continue.
- They hosted the Reservoir Fish Habitat Partnership meeting in the fall.
- They are trying to sample trout in Boone Lake to look at changing the regulations for that fishery. They are looking for ideas for sampling trout in a lake, so please contact John.

Kentucky – Jeremy Shiflet

- Two crews are working on Invasive Carp on Kentucky/Barkley Lake and Ohio River. They are sampling and tracking a lot of fish.
    - Setting up a lot of commercial harvest of these fish. Sixty million pounds were removed in the last decade.
        - Lots of fish are being used as Lobster bait.
    - No reproduction found
    - Large movements – 100s of km
- Lots of habitat work
    - Using both natural and artificial structures
        - Gas pipes, etc.
    - Reef balls
        - They have molds
        - Using as shoreline stabilization and fish habitat.
- Asking about forward-facing sonar during creel surveys
- Getting pressures to stock F1 or Florida Bass from anglers. They currently have no plans to do so at this time.
- No Alabama Bass have been found yet.
- They are doing a lot of black bass genetic work to get baseline data. They tested all the major reservoirs last year. They did find introgression in many of their lakes.

North Carolina – Casey Joubert

- They are stocking Striped and Hybrid Striped Bass in some of their reservoirs.
    - They are working on a management plan for those reservoirs.
    - They completed an angler survey asking 25,000 anglers about their efforts for Striped and Hybrid Striped Bass in reservoirs.

    - They hope to finalize the plan next year.
- They completed a statewide genetic effort for black bass a few years ago.
- They are stocking F1 fingerlings in Lake Norman, Gaston, and Jordan. They are stocked at the same rate, but the reservoirs have different productivity levels.
    - Electrofishing and tournaments will be used to collect genetic samples.
    - They are receiving angler donations to help with F1 stockings.
- They are working on a statewide black bass management plan.
- They are doing a lot of vegetation work.
    - They are expanding their greenhouses.
- They are also adding natural and artificial habitat structures to reservoirs in the state.
- They have a podcast called "Two Bald Biologists."

Missouri – Shane Bush

- They are working on low-frequency electrofishing for Flathead Catfish.
    - Trying to develop a standard sampling protocol
- They are evaluating a Blue Catfish 26 – 34 inch slot-limit regulation established in 2014 on Truman Lake and Lake of Ozarks.
- They are evaluating the Spotted Bass length limit on Table Rock Lake.
    - Currently, 15-inch minimum length limit
    - Sent 60 Spotted Bass samples for genetic testing; no Alabama Bass genetics were found.
- A close-to-pure Florida Bass was caught on Lake of Ozarks during an MLF tournament.
    - More genetic sampling will occur on the larger reservoirs
    - No F1 stockings are occurring, nor are there plans to do so.
- Close to completing the Bass Pro Shop habitat grant on Table Rock and Bull Shoals Lake. To date, they have replenished 760 existing natural fish habitat sites.
    - They have used forward-facing and down-imaging to evaluate existing habitat site conditions and fish use.
        - They found it takes 8 – 10 years before maintenance is needed for Cedar and hardwood trees.
- They have concerns about the harvest of large Paddlefish by anglers using forward-facing sonar.
    - They will conduct a creel survey of Paddlefish anglers to examine this issue.
- They plan to evaluate changing the strain of Brown Trout stocked into Lake Taneycomo to look at movements.
- They also plan to look at tagging Grass Carp in this same open-ended system to see whether they stay in the reservoir. The reservoir is about 115 years old and silted in, allowing the vegetation to take over.

South Carolina – Amy Chastain

- They are wrapping up their efforts to collect statewide bass genetic samples.
    - In house testing
- They are doing a post-stocking survival study on Brown Trout in Lake Jocassee.

- They are doing a Black Crappie telemetry study on Lake Keowee to evaluate crappie usage in some of the habitats they installed.
- They have a creel survey on Lake Thurmond/Clarks Hill Reservoir to survey anglers after the hydrilla removal project.
- They continue to work on a large, multi-year habitat project on Lake Hartwell.
    - 15 sites - Installed over 3,000 structures using different types of habitats
- They are about to start a habitat project on Lake Greenwood using Mossbacks donated by MLF.
- They are seeking funding for a large-scale habitat project on Lake Murray.
- They continue their trap net study on Black Crappie and forage fish abundance study on Lake Murray.
    - Looking at fixed versus stratified random sites on the Black Crappie sampling.

Georgia – Aaron Gray

- They continue growing aquatic plants.
    - Six aquatic species
    - 16 waterbodies around the state
- They continue to work on the Reservoir Fish Habitat Partnership project on Lake Thurmond/Clarks Hill Reservoir, where they work with local groups to plant aquatic vegetation.
- They have also been refreshing seven of their 14 natural fish habitat sites on Lake Thurmond/Clarks Hill Reservoir.
    - Two-year rotation
- They continue to monitor for Alabama Bass
- They are doing a Largemouth and Alabama Bass otolith microchemistry study on Lake Russell.

Arkansas – Jeremy Risley

- They are completing their statewide Smallmouth Bass genetics study in 2025.
- They are wrapping up their second year of four years working with the USACE-Lewisville to establish aquatic vegetation in moderately fluctuating reservoirs.
    - Looking at three reservoirs using Arkansas floating cubes
- They are finalizing a Striped Bass exploitation study on Beaver Lake, Norfork Lake, and Lake Ouachita and a Walleye otolith microchemistry study on Beaver, Bull Shoals, and Norfork Lakes to look at stocking contribution versus natural reproduction.
- They are about to begin a Largemouth Bass telemetry study on Millwood Lake, using similar methods to the TPWD study on Toledo Bend Reservoir and Lake Fork.
- They are developing an angler recognition program like Florida's Trophy Catch (2024-2025) and a trophy bass "donation" program like Texas's ShareLunker Program (2025-2026).
- They are about to complete their effort to replenish natural fish habitat on Beaver, Bull Shoals, and Norfork Lakes for their Bass Pro Shop habitat grant.

- They are in the final stages of draining Lake Conway, the state's largest-owned lake at 9,000 acres, for complete renovation.
- They developed a Tournament Committee comprising tournament directors from across the state to help deal with tournament-related issues and create a tournament portal to house all of their Arkansas tournament data, which will be a catch-all for tournaments in the state.

Texas – Mike Homer

- They surveyed 144 reservoirs, 37 small impoundments and 116 larger reservoirs.
- For their Bass Pro Shop grant, they completed a large habitat project on Ralph Hall, a new impoundment not yet open to the public.
    - Building jetties and staging habitat using reef balls and gravel pits.
- Their conservation license plate funds have supported 12 habitat projects across the state.
    - $43,000 of funding
- They have a habitat and angler access program, a relatively new program supported by a portion of fishing license dollars and sand/gravel royalties.
    - $500,000 every other year
    - 2023 – 24 projects statewide (16 on reservoirs)
    - They have a page for this program on their website
- They are conducting several research projects:
    - Evaluating the movement of artificial fish habitat
    - Forward-facing sonar work
    - Bass telemetry study at Lake Fork
- They have ramped up their efforts toward stocking Lone Star Bass.
    - Offspring from legacy bass submitted to Sharelunker Program
- They are ramping up production of Hybrid Striped Bass to meet the demands for those stockings in the state.
- Their hatchery system aims to increase Redear Sunfish production to stock smaller impoundments.
- They had a contentious issue with a reservoir in one of their state parks.
    - Fairfield State Park
    - A 100 million dollar investment by a private individual caused a loss of the reservoir and the state park.
- The Texas Freshwater Fisheries Center and State Fish Hatchery is undergoing a 4 million dollar renovation.
    - Revamping their native vegetation nursery.
- They are expanding their statewide vegetation nurseries to four that operate around the state and three other nurseries coordinated through partnerships.
- They are conducting a microplastic research study to examine individual plastics used for artificial structure and their breakdown rates.

Louisiana – Sean Kinney

- Their agency is going through a recent reorganization
    - Fisheries and Aquatic Weed Control are now split.
    - They plan to hire a fourth biologist per district.
- They are looking at the movement of Invasive Carp through the intercostal waterway.
- Their Monroe Fish Hatchery will now handle all their Largemouth Bass production.
- They are trying to develop a selective strain of Largemouth Bass.
    - Voodoo Bass
    - Selectively breeding for larger fish
- They are using fin clips for Florida Bass genetics through LSU
    - They get fish from tournaments, cease stocking reservoirs, and intense sampling
- They are starting to produce Gulf-strain Striped Bass again.
- They are currently working on their statewide Black Bass management plan and are about to hire a Black Bass Coordinator.
- They are doing some forward-facing sonar work and collecting data from creel surveys.
- They have a tournament database and housing that data on their website.
- They concentrated some of their project on bank fishing access.
    - Bank and pier fishing
    - Improve habitat around these areas.
- They are purchasing two marine electrofishing systems.

Florida – Sarah Menendez

- In 2017, they changed their statewide black bass limit as part of their statewide black bass management plan.
    - Five fish limit with only one fish over 16 inches
- They are working on the Florida Bass Incentive
    - Helping with the trophy bass symposium at this meeting.
- They are doing a lot of feed trials to find the ideal forage to grow trophy bass.
- They have habitat management plans on their five largest systems.
    - Stakeholder-driven plans formed with stakeholder committees.
- They have completed a statewide evaluation of the crappie regulations.
    - Used sampling, creel, exploitation data, etc.
    - No changes and maintain 25 fish limit
- They are battling invasive plant management and nutrient reduction issues
    - Issues with hydrilla and harmful algae blooms
- They are dealing with exotic fish moving north in the state.

Oklahoma – Cliff Sager

- One of the incentives they started last year was the habitat donation program.
    - Shelbyville cube artificial habitat
    - Pressure to stock F1 bass
    - Take those good intentions/money and redirect them toward fish habitat
    - Goal - $10,000, mostly $5 donations

- They are in the early stages of developing studies that use forward-facing sonar to evaluate their habitat efforts.
- They have started baseline creel surveys around the state and will ask about forward-facing sonar during those surveys.
- They overhauled their statewide black bass regulations in September 2022 and mirrored Florida's regulations for bass.
    - They provide a tournament exemption.
    - Tournament reporting has gone up since it is now mandatory.

Open Discussion

Size structure of crappie in smaller reservoirs – Casey Joubert

One of their biologists is seeing better size structures in small reservoirs (less than 10,000 acres) where they see both Black and White Crappie. They were wondering if others had seen the same thing. Shane mentioned they have a reservoir where White Crappie grow well, but the Black Crappie do not. They changed their regulations to allow 30 fish a day, but only 15 may be over 9 inches. Dan mentioned that White Crappie do better in turbid water, whereas Black Crappie tend to do better in clearer water. There was some discussion on this item. If anyone has any information, please get in touch with Casey.

Lyngbya Control in Reservoirs – Casey Joubert

If anyone has succeeded in controlling Lyngbya in reservoirs, please contact Casey. Mike Homer said they had used water IQ units. Mike suggested getting ahold of Steven Bardin for more information.

Grants – Gene Gilliland

Gene mentioned there are several grant opportunities.

- BASS Nation/AFTCO Grant
    - Non-federal grant
    - Up to $5,000
    - Fish habitat, fish care, etc.
    - See Bassmaster.com
- Bass Fishing Hall of Fame
    - $5,000 grant

Gene also mentioned several scholarship opportunities

- Bass Fishing Hall of Fame
    - For future field biologists
- Noreen Clough Memorial Scholarship for Females in Fisheries

Boat Discussion – Gene Gilliland

Gene received a text from Steven that said the raffle could be held in a state and purchased outside the state; however, the more significant issue is the raffle must be called a

“sweepstakes.” This means they don’t have to make donations to enter to win. There is also a lot of legalese associated with sweepstakes. It might have to be hosted by AFS.

Mike Homer motioned to adjourn the meeting and, seconded by John Odenkirk.

The RC meeting was concluded at 12:50 pm.

Minutes recorded and submitted by Jeremy Risley (*Secretary-Treasurer*).

2024 SDAFS Reservoir Technical Committee Meeting

February 1, 2024 from 9:00 – 15:00 Eastern time in meeting room 3

Zoom Link for those attending remotely

Meeting ID: 937 4709 3680 Passcode: 506917

1. Introduction – Sean Kinney
2. Financial report – Jeremy Risley
3. Jenkins Scholarship award – Jeremy Shiflet
4. Presentation by 2024 scholarship winner
5. Discussion on nationwide opening/ Endowment/Funding
6. Website – Jeremy Shiflet
7. Update on micro plastic research/plans/grant
8. SDAFS EXCOM
9. Request/s for funding
10. Forward Facing Sonar
11. Fishing Regulations for FLMB/LMB
12. State Updates
13. Open Discussion
    a. Size structures of crappie in smaller reservoirs with both species present vs one
    b. Lyngbya control in reservoirs
14. Adjourn

Name	Affiliation	Email	In-person/Virtual
Sean Kinney	Louisiana Department of Wildlife and Fisheries	skinney@wlf.la.gov	In-person
Jeremy Risley	Arkansas Game and Fish Commission	jeremy.risley@agfc.ar.gov	In-person
John Odenkirk	Virginia Department of Wildlife Resources	john.odenkirk@dwr.virginia.gov	In-person
John Hammonds	Tennessee Wildlife Resources Agency	john.hammonds@tn.gov	In-person
Gene Gilliland	B.A.S.S	ggilliland@bassmaster.com	In-person
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Daniel Geren	Tennessee Valley Authority	dlgeren1@tva.gov	In-person
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Dan Shoup	Oklahoma State University	daniel.shoup@okstate.edu	In-person
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Sara Menendez	Florida Fish and Wildlife Conservation Commission	sara.menendez@myfwc.com	In-person
Casey Joubert	North Carolina Wildlife Resources Commission	casey.joubert@ncwildlife.org	In-person
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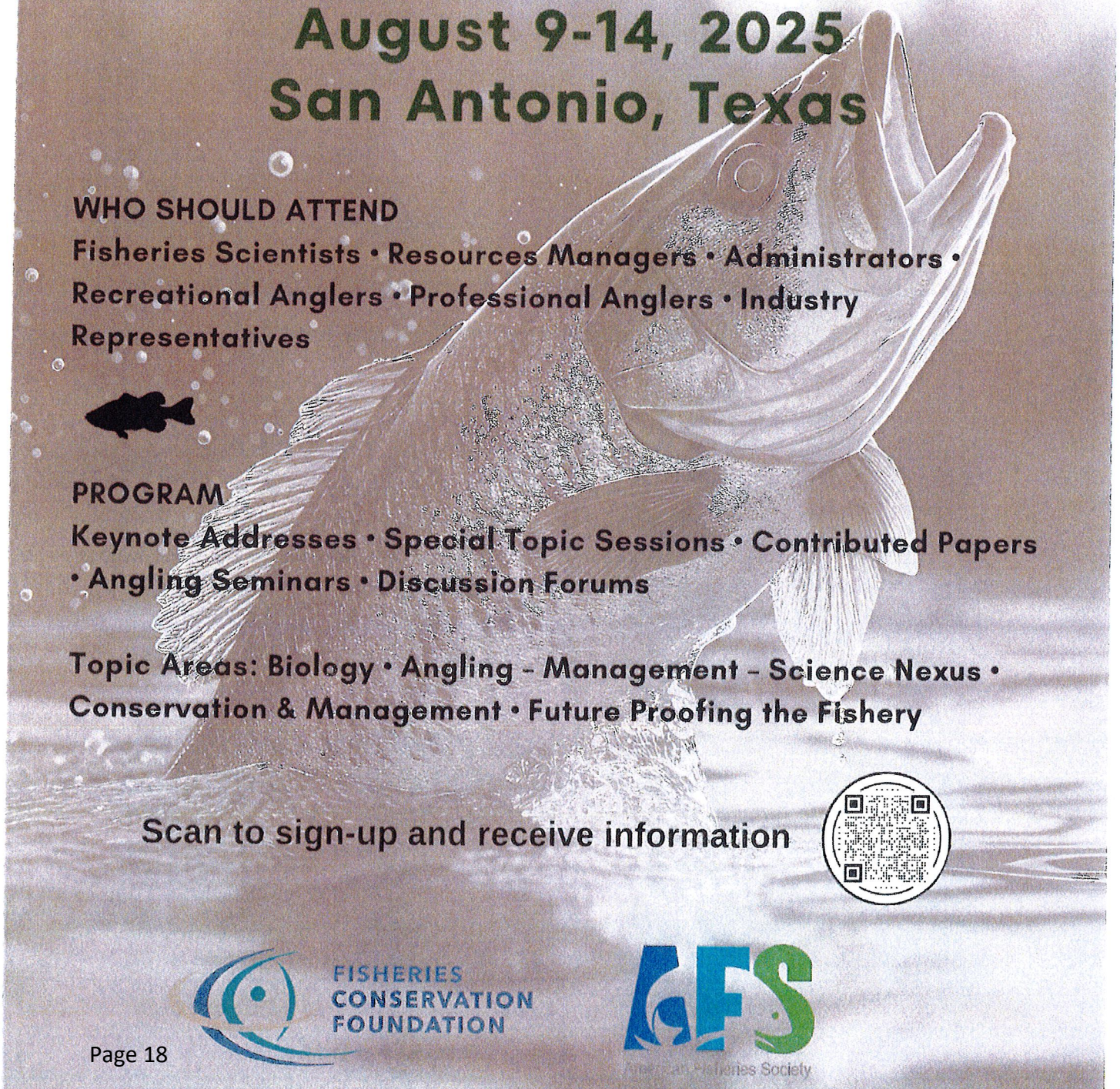
Jason Russell	Kentucky Department of Fish & Wildlife Resources	jason.russell.ky.gov	In-person
Jeff Ross	Kentucky Department of Fish & Wildlife Resources	jeff.ross@ky.gov	In-person
Lawrence Dorsey	North Carolina Wildlife Resources Commission	lawrance.dorsey@ncwildlife.org	Virtual
Seth Mycko	North Carolina Wildlife Resources Commission	seth.mycko@ncwildlife.org	Virtual

SDAFS Reservoir Committee Edward Jones Mutual Fund Account Balance ending December 2023							
Prepared on 01/30/2024 by Jeremy Risley - Sec/Treasurer							
Date	**Beginning Balance**	**Deposits**	**Withdrawals**	**Fees**	**Change in Value**	**Ending Balance**	**Comment**
Jan-23	**$15,143.34**	$1,300.00	-$300.00	-$17.38	$857.24	$16,983.20	Bass Fishing Hall of Fame Donation to Scholarship ($1,000), $300 transferred between accounts
Feb-23	$16,983.20		-$1,000.00	-$17.60	-$416.21	$15,549.39	One $1,000 scholarships (Andrew Gable)
Mar-23	$15,549.39			-$15.90	$459.69	$15,993.18	
Apr-23	$15,993.18			-$17.36	$121.62	$16,097.44	
May-23	$16,097.44			-$17.19	-$1.24	$16,079.01	
Jun-23	$16,079.01			-$17.83	$481.27	$16,542.45	
Jul-23	$16,542.45			-$17.59	$240.41	$16,765.27	
Aug-23	$16,765.27			-$18.47	-$467.21	$16,279.59	
Sep-23	$16,279.59			-$18.20	-$338.86	$15,922.53	
Oct-23	$15,922.53	$10,000.00		-$17.45	-$491.52	$25,413.56	TVA Grant for Micro Plastics Research (Earmarked for research grant only)
Nov-23	$25,413.56			-$17.42	$1,179.74	$26,575.88	
Dec-23	$26,575.88			-$17.52	$949.44	**$27,507.80**	
Jan - December 2023	**$15,143.34**	**$11,300.00**	**-$1,300.00**	**-$209.91**	**$2,574.37**	**$27,507.80**	**2023 Assets deposited to acct / 2023 Assets withdrawn from acct**
						$12,364.46	**81.65% increase**
						$17,507.80	**Account balance without TVA Grant**
						$2,364.46	**15.61% increase**
Jan-24	$27,507.80			-$19.09	$64.31	$27,553.02	

ANNOUNCING

BLACK BASS 2025 SYMPOSIUM

August 9-14, 2025
San Antonio, Texas



WHO SHOULD ATTEND

Fisheries Scientists • Resources Managers • Administrators • Recreational Anglers • Professional Anglers • Industry Representatives

PROGRAM

Keynote Addresses • Special Topic Sessions • Contributed Papers • Angling Seminars • Discussion Forums

Topic Areas: Biology • Angling – Management – Science Nexus • Conservation & Management • Future Proofing the Fishery

Scan to sign-up and receive information

FISHERIES CONSERVATION FOUNDATION

AFS American Fisheries Society

Appendix A – Additional Reports Submitted by States Before the Meeting

Missouri

Project Name: Flathead Catfish Population Assessments in Several of Missouri's Large Reservoirs and Small Impoundments

Contact Information:

Name: Zach Ford (Missouri Department of Conservation)
Co-PI: Dr. Leah Berkman (Missouri Department of Conservation)
Email: Zach.Ford@mdc.mo.gov
Phone: 660-885-8179 x4936

Objectives:

1.) Sample Flathead Catfish populations in a suite of large reservoirs (ranging from 2,400 to 55,600 acres) and small impoundments (<200 acres) to determine population demographics (e.g., mean total length, proportional size distributions, age structure, total annual mortality, etc.).
2.) Examine the population genetic structure including genetic effective population size (N_e), level of inbreeding, population mixing/isolation, and predict the effects of low, medium, and high exploitation on N_e and reproductive variance of Flathead Catfish in each waterbody.
3.) Conduct modeling simulations of each Flathead Catfish population to assess existing regulations and explore the potential to improve or sustain each fishery.
4.) Develop long-term standard sampling protocols for managers to examine population trends.

Current Status: Low-frequency electrofishing (15 Hz/30% duty cycle pulsed DC) was conducted again in 2022 (Year 2) in large reservoirs (Table 1) and small impoundments (Table 2) using standardized electrofishing outputs recommended by Thomas and Morris (2020). Processing and aging of >2000 total pectoral spines and genetic analysis from sampled Flathead Catfish continued in 2022.

Population genetic analysis focused on developing and testing microsatellite primer pairs, testing primers for reliable amplification in a multiplex framework, extracting DNA from fin clip samples of *P. olivaris* individuals collected in 2021-2022, genotyping *P. olivaris* individuals using the identified markers, and analyzing the preliminary data for effective population size & population genetic structure. The accuracy and precision of N_e estimates has also been conducted to determine remaining tissue samples needed for further analysis.

Additional project sampling will be conducted in 2023 to obtain additional population data and fill sample size quotas for age-growth and genetic analysis.

Table 1. Catch statistics for Flathead Catfish in each **reservoir** collected with boat electrofishing in 2021 and 2022. Ranges are shown in parentheses. Effort is the time (h) electrofishing output power was on. CPUE is number of fish/hour. Proportional-size distributions (PSD) of Flathead Catfish collected in each waterbody were calculated using Flathead Catfish length categories described by Anderson and Neumann (1996) as follows: stock (14 in or 350 mm), quality (20 in or 510 mm), preferred (28 in or 710 mm), memorable (34 in or 860 mm), and trophy (40 in or 1020 mm).

Reservoir	Surface Acres	Year	Sample Runs[1] (N)	Fish Collected[2] (N)	Total Effort (hrs)	Total CPUE	$CPUE_{<14"}$	$CPUE_{\geq 28"}$	Mean TL (in)	PSD_Q	PSD_P	PSD_M	PSD_T
Pomme De Terre[3]	7,820	2021	5	49	1.69	29.0	17.2	2.4	14.2 (3.3 – 39.9)	45	20	5	0
		2022	11	56	2.44	23.0	9.4	2.5	16.7 (6.3 – 32.2)	49	18	0	0
Smithville	7,190	2021	27	427	6.75	63.3	26.7	12.9	19.0 (3.3 – 46.3)	73	35	17	5
		2022	11	209	2.43	86.2	31.3	17.3	18.6 (3.6 – 46)	56	32	10	4
Stockton	24,700	2021	38	109	8.50	12.8	2.1	1.8	19.9 (6.8 – 46.8)	45	17	8	1
		2022	37	77	8.02	9.6	3.1	1.4	18.8 (6.9 – 44.7)	44	21	15	2
Table Rock	43,100	2021	10	100	3.09	32.3	4.2	1.6	19.6 (9 – 38.8)	53	6	2	0
		2022	28	89	4.41	20.2	8.4	0	15.3 (5.3 – 25.2)	39	0	0	0
Truman	55,600	2021	59	421	13.89	30.3	11.4	3.9	18.2 (4.1 – 51.3)	57	21	11	3
		2022	47	272	13.04	20.9	6.3	1.8	18.1 (6.4 – 43.5)	51	12	3	1

[1]Number of individual sampling runs conducted with electrofishing power on for a discrete amount of time (~3-15 minutes) across a range of sample dates and sites distributed throughout each reservoir.
[2]Excludes recaptured fish with previous fin clip or extracted pectoral spine.
[3]Pilot sampling conducted in 2021 to explore habitats and examine electrofishing success for future sampling efforts.

Table 2. Catch statistics for Flathead Catfish in each **small impoundment** collected with boat electrofishing in 2021 and 2022 where fish were marked with fin clips. Ranges are shown in parentheses. Effort is the time (h) electrofishing output power was on. CPUE is number of fish/hou Proportional-size distributions (PSD) of Flathead Catfish collected in each waterbody were calculated using Flathead Catfish length categories described by Anderson and Neumann (1996) as follows: stock (14 in or 350 mm), quality (20 in or 510 mm), preferred (28 in or 710 mm), memorable (34 in or 860 mm), and trophy (40 in or 1020 mm).

Small Impoundment	Surface Acres	Year	Total Fish Collected (N)[1]	Total Effort (hrs)	Total CPUE	$CPUE_{<14"}$	$CPUE_{\geq 28"}$	Mean TL (in)	PSD_Q	PSD_P	PSD_M	PSD_T
Bilby Ranch	110	2021	307	1.70	180.6	96.5	20.0	16.4 (4.2 – 41.3)	66	24	11	4
		2022	103	0.82	124.9	80.8	7.3	13.9 (3.8 – 38.5)	56	17	8	0
Cameron #3 (Eagle Lake)	96	2021	120	1.67	72.1	11.4	39.0	28.4 (7.2 – 47.2)	91	64	42	21
		2022	38	0.92	41.5	7.6	16.4	25.8 (6.8 – 44.4)	81	48	39	13
Che-Ru Lake	160	2021	94	1.81	52.0	26.0	3.9	15.8 (7.5 – 40.5)	34	15	11	2
		2022	44	1.16	38.1	24.2	0.9	14.0 (4.4 – 41)	44	6	6	6
Higginsville City Lake[2]	150	2021	86	3.04	28.3	2.6	9.5	24.7 (7.8 – 43.8)	77	37	17	5
		2022[3]	54	2.84	19.0	1.8	7.4	26.3 (7.0 – 44.6)	90	43	22	6
Limpp Lake[3]	29	2021	15	0.76	19.9	0	4.0	24.4 (18.8 – 30.2)	87	20	0	0
		2022	NA									
Little Compton Lake[3]	40	2021	22	1.25	17.7	3.2	4.8	23.9 (10.3 – 35.8)	100	33	6	0
		2022	NA									
Willow Brook	100	2021	130	1.78	72.9	9.5	21.9	23.7 (8.2 – 38.8)	86	35	8	0
		2022	46	0.91	50.5	3.3	24.1	27.0 (12.0 – 38.8)	88	51	19	0

[1]Sampling in 2021 included two-day mark-recapture trips for population estimates, whereas 2022 sampling was a one-day sample and excludes recaptures.
[2]Sampling in 2022 included two-day sampling events to obtain additional tissue samples for intensive genetic analysis.
[3]Priority 2 lake in the project and was not sampled in 2022 due to very low catch in 2021.

Project Name: Post-regulation evaluation of a protected slot-length limit for Blue Catfish at Harry S Truman Reservoir and Lake of the Ozarks

Contact Information:

Name: Zach Ford (Missouri Department of Conservation)
Email: Zach.Ford@mdc.mo.gov
Phone: 660-885-8179 x4936

Objectives:

1) Evaluate changes in length distributions and age structure of Blue Catfish populations that have occurred since the regulation change in 2014.
2) Characterize current angler satisfaction and support for the regulations.

Current Status: The Department implemented a regulation change for Blue Catfish *Ictalurus furcatus* at Truman Reservoir (55,600 acres) and Lake of the Ozarks (54,000 acres) effective March 1, 2014: a protected slot-length limit of 26 – 34 inches total length (TL) and a daily limit of 10 with no more than 2 Blue Catfish (of the 10-daily limit) longer than 34 inches.

The management objectives of this regulation change were to:

1) Protect medium-sized and increase the number of larger Blue Catfish
2) Increase harvest of smaller Blue Catfish below the protected slot to improve growth rates across the population
3) Retain the level of participation by catfish anglers
4) Maintain good relations with all stakeholders while continuing to promote local catfish-based economy
5) Provide a sustainable, quality, Blue Catfish fishery for present and future generations to enjoy

For this evaluation, three consecutive years of post-reg sampling will be conducted using methods identical to three years of baseline sampling (prior to the reg change) at randomly selected sites (from a pool of known angling sites) throughout each reservoir during late summer into fall (August to November). Anchored jug lines baited with Gizzard Shad will be deployed at sites throughout both reservoirs in desired habitats (e.g., river channel bends and flats close to timber, etc.) to maximize catch rates of larger Blue Catfish during each sampling period. This method is commonly used by catfish anglers and is effective at both reservoirs to catch Blue Catfish during the fall. Sampling commenced in August-November 2022 with data entry/analysis and pectoral spine processing underway.

Project Name: Lake of the Ozarks fish barrier net replacement

Contact Information:

Samantha Clary
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Lake of the Ozarks is privately owned by Ameren Missouri. The original barrier net was installed in early 2009, had an expected lifespan of 10 years, and was placed just upstream of the turbine intakes from the bottom of the lake to the surface to prevent fish from being impinged or entrained. Since it's placement, monitoring to check for holes and major damage has occurred four times a year with repairs happening once per year. Additionally, fish monitoring below the dam during migratory periods helps ensure the net is still working. We have now about 12 years of data from this and the net has shown to reduce fish mortality associated with the dam. Net replacement took place this year in September, with the old net staying in place until the new one was completed.

Project Name: Spotted Bass regulations on Table Rock Lake and Alabama Bass genetic testing

Contact Information:

Shane Bush
Fisheries Biologist, Missouri Department of Conservation
417-334-3324 ext. 2024
Shane.Bush@mdc.mo.gov

Spotted Bass are managed with a 12” mll in most reservoirs in Missouri except Table Rock Lake where they are managed with a 15” mll. Age and growth information was collected from approximately 500 Spotted Bass in Table Rock Lake in cooperation with Missouri State University in 2022 and 2023 to inform a potential regulation change. Ages ranged from 1 to 14 years old and lengths from 3”-16”. While some Spotted Bass do reach 15” in specific parts of the lake (main lake, clearer sections), many do not reach the 15” mll by the end of their life. Modeling suggests that given the low harvest rates at Table Rock Lake, both a 12” and 15” mll would protect the fishery, but the 12” mll would provide more opportunity for anglers to harvest legal Spotted Bass.

A total of 60 Spotted Bass from Table Rock Lake and 23 Spotted Bass and 32 Largemouth Bass samples from Truman Lake were sent to Nathan Whelan at Auburn for genetic testing to determine the presence of Alabama Bass genes. Results were expected to be back December 2023.

Project Name: Fish habitat improvements in Table Rock Lake and Bull Shoals Lake

Contact Information:

Shane Bush
Fisheries Biologist, Missouri Department of Conservation
417-334-3324 ext. 2024
Shane.Bush@mdc.mo.gov

In 2007, the Missouri Department of Conservation (MDC), in cooperation with Bass Pro Shops, the National Fish and Wildlife Foundation, Arkansas Game and Fish Commission, the United States Army Corps of Engineers, Table Rock Lake Water Quality Inc. and many other partners began the National Fish Habitat Initiative (NFHI) project to sustain and improve the degrading physical habitat within Table Rock Lake. The project began in October 2007 and continued through December 2013 with funding totaling four million dollars. During this timeframe, a total of 2,024 fish habitat structures were installed in Table Rock Lake. In addition to Table Rock Lake, from 2016-2018, 193 brush piles were installed in Bull Shoals Lake and Norfork Lake utilizing NFHI funding.

In 2022, MDC received a grant from Bass Pro Shops to replenish 645 brushpiles on Table Rock Lake and 35 brushpiles on Bull Shoals Lake to ensure they remain viable as fish attractors for anglers as well as serve as nursery habitats for sportfish recruitment in aging reservoirs where littoral habitat is degrading. This project began in November 2022 and will continue through February 2024. As of January 2024, 678 brushpiles have been installed or rebuilt in Table Rock Lake and 52 brushpiles have been installed or rebuilt in Bull Shoals Lake. The GPS locations of these brushpiles can be found on the MDC website at: https://mdc.mo.gov/fishing/where-fish.

Project Name: Evaluation of Fish Habitat Structures in Table Rock and Bull Shoals Reservoirs

Contact Information:

Shane Bush
Fisheries Biologist, Missouri Department of Conservation
417-334-3324 ext. 2024
Shane.Bush@mdc.mo.gov

In 2021, MDC began evaluating the longevity of brushpiles installed in Table Rock Lake and Bull Shoals Lake. To date, 575 brushpiles have been evaluated in Table Rock Lake and 225 brushpiles have been evaluated in Bull Shoals Lake. Structures were given a ranking of 1-4 based on the amount of deterioration and this ranking system will be used to determine at what age a structure needs to be rebuilt. Preliminary results indicate that both cedar and hardwood structures should be replaced at least every 8-10 years. Based on the number of structures in each lake, approximately 5% of habitat structures should be rebuilt each year.

Fish use evaluation of habitat structures using Garmin Livescope began in 2022 to further evaluate fish use of structures based on their condition. A total of 243 structures from one to 14 years old were evaluated in Table Rock Lake and 517 structures were evaluated in Bull Shoals Lake. Condition 1 and 2 structures held fish about 30% more often and attract twice as many fish as condition 4 structures. Seasonal use data for Bull Shoals Lake is still being analyzed.

Project Name: Understanding population demographics and angling impacts for Missouri's paddlefish fisheries

Contact Information:

Thomas Boersig
Scientist, Missouri Department of Conservation
573-815-7900 ext. 2963
Thomas.Boersig@mdc.mo.gov

Objectives:

1) Implement a creel survey of recreational paddlefish anglers on Missouri's reservoirs, to understand angler habits including party size, frequency and duration of trips, number of legal-size and sublegal fish captured, and other pertinent demographic information.
2) Parameterize probabilistic population models for Missouri's reservoir paddlefish fisheries.
3) Identify origin, and contribution to angler catch, of wild and hatchery paddlefish in Missouri reservoirs.
4) Assess the contaminant load of paddlefish in reservoir paddlefish fisheries.

Project duration and schedule:

Project is expected to start in 2025. We anticipate this project will require three years to collect the necessary data. We expect a two-year duration for the paddlefish tagging and creel program, with an additional year of data analysis and technical writing. The Missouri Paddlefish Management Plan is also scheduled to be updated during this timeframe.

Project Name: Evaluating Crawford Strain Brown Trout Stocking Efforts and Initial Feasibility of Grass Carp to Manage Aquatic Vegetation in Lake Taneycomo

Contact Information:

Shane Bush
Fisheries Biologist, Missouri Department of Conservation
417-334-3324 ext. 2024
Shane.Bush@mdc.mo.gov

Project Objectives:

The proposed project seeks to understand the post-stocking dynamics of Crawford strain Brown Trout and triploid Grass Carp as they relate to two primary objectives:
Objective 1. Evaluate movement, survival, and emigration rates of Crawford strain Brown Trout and Grass Carp in Lake Taneycomo.
Objective 2. Evaluate Brown Trout and Grass Carp acoustic tag retention to ensure feasibility of Objective 1.

Project description and schedule:

This project is expected to begin in spring 2024 and continue through spring 2027. This project will estimate movement, survival, and emigration for Crawford strain Brown Trout during four seasons (~3 month periods) and following high water release periods in three consecutive years (FY25-FY27). The primary metrics that will be estimated from this data include annual survival, annual growth (annual electrofishing and fish ladder data), movement patterns by season, changes in movement related to high flows, and the rate of emigration out of Lake Taneycomo.

Analysis of Grass Carp telemetry data will be similar to Crawford strain Brown Trout analysis but will help address slightly different questions. The primary metrics for this portion of the project are annual survival, emigration out of Lake Taneycomo, and percent time within the aquatic vegetated areas. Survival and emigration of Grass Carp will be estimated as described above for the Crawford strain Brown Trout. Percent time within the vegetated areas will be estimated from the stationary receiver array by calculating the percent of tagged Grass Carp located between the receivers that define the upper and lower borders of the vegetated areas of Lake Taneycomo.

Fish tagged for objective 2 of the project will be monitored for tag loss every three months for a minimum of 24 months. Tag retention will be defined for 3, 6, 9, 12, 15, 18, 21, and 24 months post tagging. The proportion of tags lost over total Brown Trout or Grass Carp tagged for each of the three methods will be used to define the retention rates of each technique. If applicable, the tag loss estimated for this portion of the project will be used to adjust survival estimates from the telemetry portion of the project by subtracting the tag loss from overall mortality.

North Carolina

North Carolina Reservoir Committee Update 2023 (For 2024 SDAFS Meeting)

Striped Bass and Hybrid Striped Bass Stocking and Management Plan

Stocking of Striped Bass and hybrid Striped Bass continues in 11 and 7 reservoirs, respectively, throughout the state. Approximately 700,000 fingerling Striped Bass and 400,00 hybrid Striped Bass are stocked annually. Currently, a Morone Management Plan is being completed to better manage these fisheries. A social science survey was employed to gain insight on angler satisfaction with these fisheries. Additionally, a telemetry study examining hybrid Striped Bass movement at Lake Norman is being finalized and will allow for a better understanding of fish movement within the reservoir.

Black Bass

Albama Bass are still expanding across the state and hybridization is occurring. In Lake James, Alabama Bass were first documented to 2016 and hybridization is occurring with Smallmouth Bass. Efforts are being made to rear genetically pure Smallmouth Bass to stock back into Lake James, but these efforts have been hindered by disease, mortality, pond space, and low progeny numbers. Lake James, and other waterbodies across the state, will continue to be monitored to track impacts from Alabama Bass. Signage has been produced and installed at boat ramps asking anglers to not stock Alabama Bass and harvest Alabama Bass if they are present in those waters. Currently, a Black Bass Management Plan is being developed. The statewide Black Bass genetics survey has been completed. F1 Largemouth Bass are being stocked in Jordan Lake, Lake Gaston, and Lake Norman to see if an increase in overall Largemouth Bass abundance and/or trophy Largemouth Bass abundance, can be produced.

Vegetation

Native, aquatic vegetation continues to be planted in reservoirs across the state. The NCWRC nursery is being expanded with the addition of a 30 ft x 100 ft greenhouse that will allow for additional productivity and research opportunities that should be completed by Summer 2024. Lyngbya and hydrilla expanded in several reservoirs during 2023 and work continues to monitor and attempt to reduce biomass in these locations.

Fisheries Surveys

Surveys on black bass, crappie, catfish, moronid basses, Walleye, and other additional species are completed in North Carolina reservoirs. Of particular interest, the Walleye population in Lake James is showing improvement following annual stockings since 2019. Information on specific surveys are available by contacting District Fisheries Biologists.

Tennesse

SDAFS Reservoir Committee – TWRA Reservoir Fisheries Update

Region 1 (Michael Clark)

- Continue to stock (approximately 150,000/year) and monitor Florida Largemouth Bass on Kentucky Reservoir. Next round of fin clips for monitoring FLMB allele frequency is 2024.
- Maintain, enhance, and upgrade habitat on Kentucky, Barkley, and Pickwick Reservoirs by using both Mossback and crew designed artificial structures.
- Invasive Carp Crew continues to monitor carp populations in Kentucky, Pickwick, Barkley, Cheatham, and Old Hickory Reservoirs; and Reelfoot Lake.
- Invasive Carp Crew continues to partner with USGS and USFWS in a joint tagging project where tagged carp are monitored by receivers placed throughout the Tennessee and Cumberland River systems, Mississippi and Ohio Rivers, and Reelfoot Lake. Approximately 300 carp tagged annually.
- Invasive Carp Crew continues a movement project on Invasive Carp on Reelfoot Lake. Three receivers are set in the ditches that connect the lower basin to the rest of the lake, a receiver is set above and below the spillway, and a receiver is placed downstream of the spillway halfway between Reelfoot Lake and Obion River confluence. Fifty tags are placed in fish annually with receiver downloads happening two or three times a year. The most alarming discovery thus far is seeing fish enter and leave Reelfoot Lake via the spillway during high water events when the spillway water almost equalizes with the lake level. (We assumed it happened before the tagging but to see it happen sends a stronger message.)
- Continue spring and summer larval collections to determine spawning success of invasive carp species on Kentucky and Barkley Reservoirs using Invasive Carp Crew and two summer interns.
- Yearly standard sampling in spring and fall to determine sport fish size structure and densities on Kentucky, Pickwick, and Barkley Reservoirs; and Reelfoot Lake.

Region 2 (Ted Alfermann)

Region 2 fisheries received a grant from Bass Pro Shops to conduct fish habitat improvements to Old Hickory Reservoir near Nashville, TN. Staff created 31 new habitat sites using various artificial structures and rock boulders. 20 artificial sites and 11 rock sites were created. Barge had a mishap and overturned during the project.

Region 3 (Mike Jolley)

- We continue to monitor Alabama bass advancement in overall territory and within inhabited reservoirs. For example, recent targeted smallmouth bass surveys at Watts Bar Reservoir show increased hybridization of Alabama/Smallmouth bass. Also the Alabama bass have extended their range within this reservoir, taking over preferred SMB habitat. We also learned that positive ID of SMB (visual vs. genetic ID) were actually hybrids when confirmed ID was made by genetic tests, although they appeared to be pure SMB. There was a high margin of error in visual ID of SMB which is true in other studies as well. New regulations will need to take this into account since the public, LE, and fisheries biologists have a hard time positively IDing SMB where hybridization with Alabama bass occurs. Alabama bass first were confirmed in Watts Bar Reservoir in 2014 by TWRA. These fish were presumed to have been illegally stocked by the public. TWRA is continually striving to educate the public about the devastation to native black bass populations caused by the invasive Alabama bass. This is being done through social media, boat ramp signage, meetings, and articles.
- The walleye stocking program in Region 3 reservoirs has grown in popularity and realized success. This walleye stocking project was initiated in 2011 on Watts Bar Reservoir and has since been implemented downstream to Chickamauga and Nickajack reservoirs. Walleye fingerlings are requested to be stocked into these reservoirs annually based on this success.
- The Florida largemouth bass stocking project, that was initiated on Chickamauga Reservoir in the year 2000, continues to be evaluated. This is done through black bass electrofishing surveys as well as genetic testing to ID the fastest growing, heaviest fish. So far, the F1 hybrids exhibit the greatest growth potential with early backcrosses being next, which have better growth rates than our pre-stocked population of black bass at Chickamauga. More testing will dictate next steps in stocking strategies (i.e. stock FI's or continue stocking FLMB).
- In 2015, Watts Bar and Nickajack reservoirs were initially stocked with FLMB fingerlings as part of a new project there. We should be entering the timeframe currently where products of these stockings, particularly F1's (Northern vs Florida), should be showing up in tournament catches, electrofishing surveys, and creel interviews. Our evaluations of the FLMB stocking project at Chickamauga lends us this information and foresight.
- ANS surveillance, conducted in the spring to fall months on all major tailwaters on the TN River in Region 3, have shown no existence of Invasive carp, specifically silver carp. This surveillance is performed by 2 electrofishing boats shocking in tandem in the tailwater areas every two weeks.
- We are putting in lots of habitat work in multiple reservoirs. There are several different products we are building and deploying. Some examples are 5-gallon buckets with wooden stakes concreted withing, 5-gallon buckets with small PVC pipe concreted within, Shelbyville cubes, Mossback structures, etc. We have had volunteer days with

high school fishing clubs to erect structures as well. These habitat sites can be found on TWRA's website.

- Annual creel surveys were conducted this year on Watts Bar and Dale Hollow reservoirs. In addition to regular creel questions we also conduct angler attitude surveys. This year we implemented questions in efforts to gather information regarding the use and success of forward-facing sonar.
- Fall trapnetting surveys to evaluate crappie spawning success looked favorable for Chickamauga this year while Watts Bar continues to struggle annually with crappie spawning success for definitive reasons which are unknown.
- In 2017, a musky stocking project was implemented on Parksville Reservoir; there has been great success realized by anglers from the stockings there. Most musky stocked were around 10-13" long.
- Recently, we evaluated the yellow perch populations at Parksville Reservoir and Ocoee #3 Reservoir. The population dynamics between these two systems closely mirrored each other in size distribution, abundance, and growth rates.
- The Region 3 reservoir crew manages 15 acres of warmwater hatchery space (Hiwassee and Sugar Creek facilities). This year we raised black crappie, walleye, Florida LMB, bluegill, and redear sunfish for distribution into reservoirs. Striped bass, raised in other state hatcheries, were also stocked into determined reservoirs in Region 3.

Region 4 (John Hammonds)

- F1 Stocking and evaluations accomplished on Boone Reservoir – 6 out of 50 were F1 fish – increase in angler catch was due to natural reproduction from drawdown recovery
- Evaluating Musky stocking in Melton Hill Reservoir – tagged approx.. 1,000 Musky with PIT tags
- Reef Ball program still in full swing
- Hosted the RFHP meeting in November 2023
- Walleye genetics study wrapping up for Douglas Walleye stocking assessment
- Changed the trout regulations in Boone Reservoir, due to lots of larger fish showing up in creel and angler concerns – 7 trout creel with 16-22" PLR. Only one trout over 22"
- Anyone know how to assess trout populations in a reservoir? Tn Tech did a comprehensive field study with electrofishing to gill nets and wasn't successful at capturing a good representative of the population

Virginia

VDWR F1 LMB Supplemental Stocking Update/Highlights for SDAFS Reservoir Committee 2024

This is, by far, the most significant reservoir fisheries management project in VA. Other items of potential interest include saugeye stockings (which have been hugely successful, much better than pure Walleye), continued wrangling with cyanobacteria and harmful algal blooms (HABs), and habitat work which recently has been largely restricted to native SAV plantings in southern VA reservoirs. Northern Snakeheads are also present in several VA reservoirs, the largest of which is Lake Anna (9600 ac) where they were first documented in 2017 and appeared in standardized annual shoreline EF surveys in 2019. Their abundance, while at a record level in Lake Anna in 2023 (6.4/hr.) was still only a fraction of that of LMB (115.2/hr.). Based on population trends in other systems, it is predicted snakehead abundance will peak in another few years with no impact to the LMB (or any other) population.

We are currently waiting for genetic results from new lab at Auburn for all data collected in 2023. Thus, this update is based on data collected through 2022.

Study outline (briefly): 5 reservoirs in VA stocked with genetically marked F1 LMB from American Sportfish. Each lake to receive minimum of six stocked (treatment) years composed of three different stocking densities (light, medium, and heavy). So, each lake (at minimum) has (or will have) two years of each density. These rates were calculated from individually based long-term metrics from each lake for abundance of wild YOY collected annually via spring boat EF. Lakes range in size from a few hundred to tens of thousands of acres. Thus, some are not stocked "lake-wide", but portions are "treated", while smaller lakes received nearly lake-wide stockings. The goal was not to necessarily shift genetic composition *or* increase overall abundance (most VA lakes do not have native black bass and already have "mutts" of FL alleles from 30 to 70%) but to increase the number of large bass (e.g., > 5 lbs.) in the creel.

Smith Mtn. Lake (SML) was the 1st lake in the study which was initiated by angler dollars (contributions) and "stocking demands". SML, an outlier, stocked 9 years (2015-2023). Other lakes stocked six years with final stocking slated for 2025. This is a 10-15 year study.

SML is closest to a "finished product". Stocked rates actually amounted to 1-3.7 fish/ac. The first 3 years (1/ac) were angler dollars, all others (and other lakes) DWR budget. Stocked fish did not appear to change wild fish growth. YC contribution ranged from 0 to 16.4%. 4 % of age-3 fish were F1 (2 cohorts), while 11% of age-5 fish were F1 (1 cohort) in one recent year. Overall addition of F1s was 5.2% (2015-2020). Stocked fish grew faster, but wild fish growth was not reduced. "Large" fish (>4 lbs.) added 10% at age-5 and 11% at age-6 in recent sample. Tournament average weight for "big bass" increased from 6 lbs. in 2015 to 7.5 lbs. in 2023. Once rare in SML, fish over 9 lbs. are increasingly seen. Still very early, but data look promising.