

Freshwater Fisheries Monthly Report – October 2023

Freshwater Fisheries - Stock Assessment

Deep Creek Lake Bass Tournament - Attended the Marlon Woolery Memorial Tournament at Deep Creek Lake to collect catch data. Despite the inclement weather, anglers were able to bring limits to the scales with the winning weight coming in at 19.79 pounds and the lunker weighing 7.57 pounds.

Creel Survey - Continuing to collect and enter Deep Creek Lake creel data from angler interviews. The creel survey concludes at the end of October and formal data analyses will begin at that time.

Piney Reservoir - Aged crappie and yellow perch that were collected in Frostburg Reservoir (Piney). Five fish from each twenty-five-millimeter size class were collected and their otoliths were removed to obtain length at age data.

Antietam Creek - Barge electrofishing surveys were conducted at several stations on Antietam Creek in Washington County. Sites upstream from Hagerstown showed good numbers of brown trout, with several fish greater than 16 inches in total length. Both brown and rainbow trout in Antietam Creek are the result of annual put-and-grow stockings. Downstream from Hagerstown, smallmouth bass comprised the majority of the gamefish species collected. Multiple age-classes of smallmouth bass were collected with good numbers of fish in the 8-12 inch size range.



Brown trout (left) and smallmouth bass (right) from Antietam Creek

Upper Potomac River - The annual fall gamefish electrofishing survey has started on the upper Potomac River. Low river conditions have limited safe access to many of the monitoring stations. Initial results showed good numbers of juvenile and 8-11 inch sized smallmouth bass in the lower sections of the river. Invasive flathead catfish are also being collected during the surveys. Otoliths are being removed for an aging study and filets are being processed for contaminant analysis. Hopefully, the region will receive some rain soon to improve flow conditions.

Trout Surveys - Central Region staff wrapped up trout sampling during the summer index period. Over 35 sites were sampled including 10 long-term brook trout reference

sites in the region. Genetic material for brook trout DNA testing was collected at two of these sites.



13-inch brook trout collected in Baltimore County

Impoundment Surveys -

Initiated sampling multiple large impoundments in the Central Region. Loch Raven Reservoir and Little Seneca Lake are the two impoundments being sampled, and each of these reservoirs require at least two nights of work to complete. The focus of these surveys are the black bass and Northern snakehead populations. These reservoirs are the only two large impoundments in the state with established Northern snakehead populations.

Sampling of Eastern Shore impoundments for black bass have started and those surveys should be wrapping up early next month. Some nice fish have predictably been found sitting on structures. Fish are feeding heavily as water temperatures drop. Wye Mills has some outstanding bass available to anglers.



A five-pound largemouth bass sampled in Wye Mills Lake

Nesbitt Run - Sampled Nesbitt Run, a tributary to Basin Run in Cecil County to assess its wild brown trout population. Young-of-year (YOY) brown trout were quite abundant.

Freshwater Fisheries - Habitat and Water Quality

Environmental Review - Provided aquatic resource information for the following environmental review projects:

- Reviewed the Savage River State Forest FY25 annual work plan.
- For a new beach to be constructed at Rocky Gap State Park. Comments included BMPs for sediment and erosion control to minimize disturbance during excavation and soil stabilization in disturbed areas.
- An application submitted by Garrett County Department of Public Works for a culvert replacement project to take place on Corona Bayard Road. Comments were given for time-of-year restrictions, equipment and material storage areas, minimal disturbance, BMPs for sediment and erosion control and stabilizing soil at the completion of the project.
- Bridge rehabilitation project on MD Route 42. Information was being sought for an angler access component to be incorporated into the project. Given the location of the bridge and its location over the Youghiogheny River, it was determined that access to the river from the project location is not ideal. This section of the Youghiogheny has great access from the nearby Kendall Trail and Water Street.
- An application submitted by Villages of Wisp HOA for a stormwater pipe replacement project on a property bordering Deep Creek Lake. Comments were given for time-of-year restrictions, equipment and material storage areas, minimal disturbance, BMPs for sediment and erosion control, precautionary measures while casting concrete, stabilizing soil at the completion of the project, and

monitoring being conducted by Deep Creek Lake Natural Resource Management Area personnel throughout the project.

- A stone revetment to be constructed on the shoreline of Deep Creek Lake. Comments were provided for time of year restrictions, minimal disturbance during construction, and onsite material usage.
- On two Project Open Space Properties. Properties were located in Washington County and Allegany County.
- Performed a site visit to the Savage River Lodge in response to the property becoming available for Project Open Space purchase.

Temperature Loggers - Pulled temperature loggers from the Youghiogheny River and coldwater stream sampling locations for data analysis for the critical monitoring period of June 1, 2023 through August 31, 2023.

Muddy Creek Liming Project- Worked in conjunction with Garrett County Roads Department, and Trout Unlimited to deliver ten tons of high calcium lime to Muddy Creek where it will be placed in the creek late winter. The purpose of the liming project is to buffer the stream pH during spring melt/runoff events in order to prevent fish kills from acidification.

Sediment Core Collection - Assisted University of Maryland researchers in the collection of sediment cores on Deep Creek Lake. The cores are being examined for mercury content as part of a larger effort to understand mercury cycling in Deep Creek Lake.

North Branch Potomac River - Collected water quality measurements and visual assessments of the North Branch of the Potomac River tailwater near Barnum, WV. The purpose was to determine whether didymo was adequately flushed from the area during fall whitewater releases and if the remaining decaying didymo was impacting dissolved oxygen. Although some didymo remained in a few backwater/slackwater areas following the white water releases, oxygen levels were found to be near saturation.

Freshwater Fisheries - Stocking and Population Management

Bluegill - A total of 10,000 juvenile bluegill were stocked into multiple small ponds in Frederick and Washington counties. They include Culler Lake, Gambrill Pond, Brunswick Community Pond, Burkittsville Community Pond, Brownsville Pond, Boonsboro Pond, and Sharpsburg Pond. The juvenile bluegill were between 0.5 - 1 inches in size. They should reach a catchable size in the next 1-2 years.

Brown Trout - Central Region and Eastern Region staff collected brown trout adults and YOY from three tributaries to the Gunpowder River. These 51 fish were transferred to the Eastern Region and were stocked into Gramies Run in Cecil County. Water quality in Gramies Run appears to be suitable enough to support a wild brown trout population. Staff will continue to monitor this population to assess if these 51 fish can successfully colonize the stream and establish a viable fishery.

Fall Trout Stocking - Central Region staff assisted hatchery staff with completing the fall trout stocking. Twelve waterbodies were stocked throughout the Central Region. The fall stocking culminated in the stocking and grand opening of the Americans with Disabilities Act (ADA) fishing platform at Morgan Run in Carroll County. Construction of the fishing platform was completed in the summer of 2023. Improvements include a new parking lot, safer ADA access to the fishing platform, and habitat enhancements in the stream to improve fishing from the platform.

Completed fall trout stocking in Southern Region with some large rainbow trout from Albert Powell Hatchery. Some of the ponds stocked were covered with duckweed and Azolla just weeks earlier but were cleared just in time for the stocking.

Eastern Regional Freshwater Fisheries staff assisted Unicorn Hatchery with the fall stocking of put and take trout at Fair Hill NRMA.

Largemouth Bass - Stocked juvenile largemouth bass raised at Unicorn Hatchery into Marshyhope creek.

Freshwater Fisheries - Outreach

Customer Service - provided customer service information for multiple inquiries regarding:

- Fishing license information
- Fishing Deep Creek and Broadford lakes
- Trout fishing the North Branch Potomac River
- Deep Creek Lake boat launch information
- Fall trout stocking information
- Fee Fishing Permit information
- Pond Stocking Permit review
- Becoming an Outdoors-Woman Program

Master Naturalist Program– Provided an Aquatic Ecosystems/Freshwater Fishes training for the Maryland Master Naturalist Program hosted at Deep Creek Lake, Garrett County. The aquatic presentation covers different aquatic ecosystems in Maryland, the threats to the stream ecosystems (i.e. invasive species, land use, stormwater runoff) and the importance of the riparian buffers for protection of the resource. A PowerPoint presentation on the Fishes of Maryland with focus on fish found in their region was also provided. Participants were able to do hands-on fish identification (with preserved fish samples) and learn to use a key to identify fish family/species.

Snakehead Trap Project - Southern Region Office hosted several high school students and their teacher to assist with a project designed by the students. The project was a fish trap intended to capture invasive Northern snakehead from Maryland waters. The students set up their project in one of the small ponds on site in order to test the efficiency of the trap. Unfortunately, the experiment did not work as expected but knowing why it did not succeed is just as important when learning how to ultimately construct a viable prototype that does work.

Demonstration - Provided a boat electrofishing demonstration on Lake Habeeb for the Maryland House of Delegates, Environment and Transportation Committee. Explanations of the equipment components, fish collection process, and standardized sampling were provided prior to the demonstration. Committee members were then shown fish species collected from Lake Habeeb and discussed fishery management at the lake.

Freshwater Fisheries - Angler Access

Conducted routine checks and maintenance at the McCooles, Black Oak, Evitts Creek, and other Fishery Management Areas across the state.

Placed regulation signs in special management areas throughout Garrett County to help inform anglers of fishing regulations for specific management areas.

Had a pre-construction meeting with Engineering and Construction and the awarded company for the road rehabilitation project to take place at the McCooles and Gary Yoder Boat Launch areas. Final details for the project were discussed and construction is predicted to start in late November.

Freshwater Fisheries – Fish Health

Collected several Northern snakeheads from Patuxent River for a contaminant study. A total of 20 fish, five from four different length groups, were needed for the study. All of the fish collected were from the area between Jug Bay and just above the Route 4 bridge.

Southern region was contacted by an angler who saw several rainbow trout struggling at the surface of Melwood Pond. A visit to the pond showed that dissolved oxygen was below normal levels for this time of year. There has not been a die off of aquatic vegetation since early September and rainfall totals are way below normal. Although a half dozen or so fish were near the surface and moving slowly, biologists did not observe a widespread fish kill.

Freshwater Fisheries - Invasive Species

Gave a presentation to raise awareness regarding invasive fishes, specifically Northern snakehead and blue catfish, during a Master Naturalist class hosted at Blackwater National Wildlife Refuge.

Began revising the state's Aquatic Nuisance Species plan to include new potential threats to Maryland waters (Alabama bass, freshwater drum, two-horned water chestnut) and reprioritize actions; once revisions are approved by the [National Aquatic Nuisance Species Task Force](#), the state will become competitive for funds that address these threats.

Water samples for invasive species eDNA analysis were collected at multiple sites on the upper Potomac River from Whites Ferry upstream to Paw Paw, WV. The project goal is to try this new technique to determine if potential invasive species can be detected within

different sections of the river. Sample filters will be analyzed to look for the presence of DNA from Alabama bass, blue catfish, flathead catfish, and Northern snakehead.

Responded to a tagged blue catfish reported from the tidal Potomac River and the fish had been at large for 10 years, 2 months, 28 days. The growth was about 7.5 inches since tagged. A certificate and letter of thanks was prepared and sent to the individual.

Freshwater Fisheries - Coldwater Program

Organized and convened the October meeting of the Coldwater Fisheries Advisory Committee (CFAC). The Interstate Commission for the Potomac River Basin presented the results of a telemetry project that tracked rainbow trout in the North Branch Potomac River. Other agenda items included a summary of the department's coldwater fisheries management activities in 2023, an update on the Beaver Creek fish kill, and descriptions of proposed regulations changes that will affect coldwater resources. The next committee meeting is scheduled for January 2024.

Met with Maryland Department of the Environment (MDE) staff to provide the results of 2023 survey activities in the North Branch Potomac River. The identification of coldwater obligate benthic macroinvertebrates in samples collected from the catch-and-return, all tackle management area was presented with a recommendation to redesignate the river to Use Class III, nontidal coldwater from the Savage River to McCooles. The department will continue to collect biological and temperature data in the North Branch Potomac River and work with MDE to improve thermal protection for the resource.

Reviewed all 2023 coldwater datasheets and prepared the data for entry in the coldwater database. The data sheets were reviewed to ensure that they were complete and accurate. After review, the data were pulled from the datasheets and formatted for entry in the database.

Completed data entry for Maryland catchments in the Eastern Brook Trout Joint Venture data visualization and decision support tool. The data will improve region-wide analysis of brook trout resources and prioritization of habitat and population enhancement projects. Data entry has been an on-going collaborative effort with the Joint Venture. This collaboration will continue with application of the information and future updates.

Provided a presentation about the Coldwater Fisheries Program to the Maryland House of Delegates, Environment and Transportation Committee. The committee was informed about Maryland's coldwater fisheries resources, their importance to the state, and challenges for management. Brook trout and other fish that occupy coldwater streams were captured for the demonstration and were returned to the source stream unharmed.

Freshwater Fisheries - Tidal Bass Program

Hosted the [Black Bass Advisory Committee](#) meeting where the committee discussed illegal harvest, enforcement, and the department's new Black Bass Conservation Fund.

Stocked 1,055 largemouth bass (4 - 10 inches) to various locations in Dundee Creek at Gunpowder State Park; fish had been hatched at the department's Manning Hatchery (Cedarville State Forest) then raised to juveniles on a feed of minnows and shrimp at Wheelabrator Technologies, Inc.

The Central Region completed their Tidal Bass Survey during the month of October. Staff sampled sites in Bush River, Gunpowder River, Middle River, and North East River. After 10 straight years of sampling, a benchmark on the largemouth bass population in the tidal Gunpowder River was established.



Red drum collected from the tidal Gunpowder River.

Perfect weather conditions allowed Eastern Region staff to complete the annual electrofishing survey of tidal black bass much more quickly this year. High salinities also forced a significant number of planned sites to be removed from this year's survey, due to the inability to properly sample them with electrofishing gear. The results of the survey will be reviewed in the upcoming months, but juvenile and smaller largemouth were abundant in many of the sites in the upper Chesapeake Bay.



Dead calm conditions at Havre de Grace boat launch during tidal bass survey

Began Tidal Bass fall survey in the Southern Region and found some areas to have higher salinity than expected, especially in the Mattawoman Creek area where the readings were unusually high. Smaller individuals dominated the catch in several of the sites.