

Freshwater Fisheries Monthly Report – November 2024

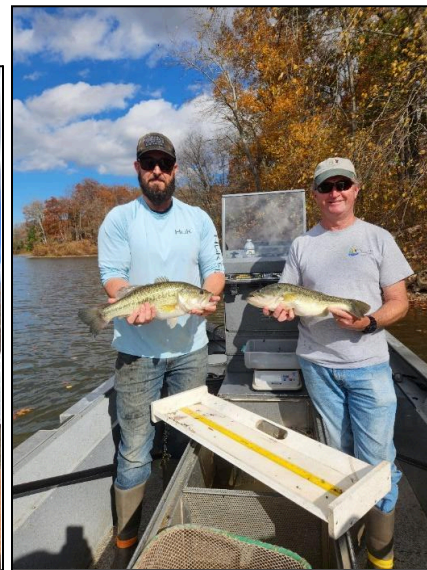
Freshwater Fisheries - Stock Assessment

Deep Creek Lake - Western Region I staff worked to collect and process otoliths from 23 crappie in Deep Creek Lake for age/growth determination. Recent creel survey and monitoring data demonstrate that Deep Creek has a very high-quality crappie fishery, albeit relatively small in population size. Staff are using population and life history information to determine if alternative management strategies may benefit this fishery. Preliminary results suggest that the crappie are growing very quickly and reaching a large maximum size. Additional otoliths will be collected during 2025, targeting fish in the 1-2 year age group to fill in data gaps.



Deep Creek Lake crappie

Lake Needwood - Central Region staff conducted a mark and recapture black bass survey on Lake Needwood in Montgomery County. The initial survey was conducted on November 1 and the recapture survey was conducted on November 7. Based on the amount of recaptured fish, it was determined that Lake Needwood has a stock size (8 inch and larger) largemouth bass population of 1,007 fish. Multiple largemouth bass over five pounds were collected during the survey and the largest fish encountered by staff was 21.5 inches long weighing 6 pounds.



Top and Bottom - Largemouth bass collected at Lake Needwood

Eastern Region Impoundment Surveys - Eastern Region staff completed several electrofishing surveys to assess largemouth bass populations in public impoundments. The impoundments surveyed included Johnson's Pond, Smithville Lake, and Tuckahoe Lake. Statistical analyses of

the surveys will be completed this winter, but all three impoundments appear to have robust bass populations. Johnson's Pond continues to support one of the densest bass populations in the state. Maryland Department of the Environment staff also participated in the Johnson's Pond survey and retained several largemouth bass and Chesapeake channa (also known as northern snakehead) for fish consumption advisory testing. The number of Chesapeake Channa appears to be steadily increasing in Johnson's Pond since first detected in 2020. A total of 19 were collected and removed during this survey. Several were collected from Tuckahoe Lake as well; however none were encountered in Smithville Lake. Large chain pickerel were encountered in all three impoundments as well.



Photos from recent sampling of Tuckahoe Lake, Smithville Lake, and Johnson's Pond

Freshwater Fisheries - Habitat and Water Quality

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

- Proposed stream restoration projects in several unnamed tributaries to Basin Run (Cecil County). Basin Run supports a wild brown trout population. A site visit was conducted with project planners to determine if the proposed approaches are appropriate in a watershed that supports coldwater fisheries resources. The approaches would attempt to minimize riparian vegetation clearing and canopy cover loss while raising incised stream segments to reconnect the stream with the floodplain. Participants in the meeting toured five different stream reaches and identified several segments where the proposed work may benefit the system.

Participants also agreed that an inline pond in one of the reaches should be removed and the removal of a second inline pond should be investigated.

- A commercial timber operation involving seven culverts to be installed for temporary crossings. Comments were provided for minimal disturbance, proper sediment catchment devices, site restoration, and time of year restrictions for two culverts.
- A sewer line project to be completed in the City of Frostburg. Comments were provided for time of year restrictions, minimal disturbance within the floodplain, material storage areas, and site restoration at the completion of the project.
- Staff reviewed three applications for stone revetments located at Deep Creek Lake.
- An underground drain system on Antietam Creek. Comments were made to prevent sediment and erosion entering Antietam Creek and to protect and replant trees within the affected riparian zone.

Attended a pre-proposal meeting at a potential stream restoration site in the Basin Run watershed. Basin Run is a Tier II (high quality), Use III (coldwater) stream with significant wild trout resources. Comments provided to the applicant stressed the importance of protection of existing resources in the watershed.

Attended a substantial completion meeting with Department of General Services, DNR Engineering and Construction, project engineers and the project contractor to discuss the potential punchout list for the Smithville spillway project as that project nears completion.

Staff attended a meeting to discuss hydroelectric operations and SAV control through lake level manipulations on Deep Creek Lake.

Temperature Loggers - Deployed temperature loggers in the North Branch Potomac River tailwater fishery. Temperature data will be collected during the critical period of June 1 through August 31.

Submerged Aquatic Vegetation (SAV) - Collected data on SAV distribution in Deep Creek Lake using an automated mapping feature on a Hummingbird sonar. After reviewing the data, staff determined that the technique was not sufficient to accurately quantify the coverage of SAV beds. Sidescan sonar images provided a much clearer depiction of SAV presence and distribution.

Freshwater Fisheries - Stocking and Population Management

Trout - Staff assisted members of Potomac Valley Fly Fishers with stocking adult rainbow trout that they helped raise in Frederick County. Club members helped grow hatchery fish at their Montevue facility in Frederick through the summer. These fish were then transported and stocked in Catoctin Creek at the Catoctin Creek Park and Nature Center. Close to 300 rainbow trout were stocked into the stream which is currently under a delayed-harvest closure (Oct 1 – May 31).

Hybrid Sunfish - Stocked hybrid sunfish in Easton for the annual Waterfowl Festival fishing rodeo.

Pond Stocking Permits - Six received, four approved, one awaiting approval, one withdrawn. Annual renewal reminders for fish suppliers and Fee Fishing Lake permit holders will be sent in early December.

Freshwater Fisheries - Outreach

Customer Service - Provided customer service information for inquiries regarding:

- Obtaining a Maryland fishing license
- Ice fishing Deep Creek Lake
- Deep Creek Lake hydro station release schedules
- Commercial availability of gizzard shad for catfish bait
- Fall Savage River trout stocking
- Corrective stocking at Tuckers Pond in Prince Georges County
- Potential to increase wild rainbow trout populations in Maryland

Adaptive Fishing Program – Provided the Mobile Fish Trailer for the Friends of Patapsco Valley State Park Adaptive Fishing Program for individuals with mobility challenges. The event was held at Lost Lake within the park and provided ample areas for wheelchair accessibility. The 18 anglers were divided into a morning or afternoon fishing session which allowed more “hands-on” experience with volunteers. Although the lake was stocked with trout, only a few were caught, but a fun day was had by all.

Master Naturalist Program– Provided an Aquatic Ecosystems/Freshwater Fish 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 (e.g. invasive species, land use, stormwater runoff) and the importance of the riparian buffers for protection of the resource. A power point 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.

Youghiogheny River - West Region 1 staff developed a narrative about fishing Deep Creek Lake and the Youghiogheny River tailwater trout fisheries. The information will be printed on informative kiosks along the lake.

Frederick County Trout - Western Region II staff provided a presentation on Frederick County trout resources to members of the Big Hunting Creek Working Group. The group is composed of representatives from multiple Trout Unlimited chapters, Catoctin National Park, Cunningham Falls State Park, and the US Geological Survey Leetown Science Center. Trends in trout populations from the department’s long-term monitoring stations were reviewed in detail. Future conservation and monitoring efforts for Big Hunting Creek were also discussed.

Bryn Mawr School - Tidal Bass staff were invited to the Bryn Mawr School in Baltimore to talk to elementary and middle school students about the tidal rivers of the Chesapeake Bay. Topics were mostly broad but covered species of fish, invasive fishes, and the department’s role in fish management and conservation.



Freshwater Fisheries - Angler Access

West Region I staff continues to perform routine checks and maintenance at the McCoole, Black Oak, and Evitts Creek Fisheries Management Areas.

West Region I staff provided a letter of support for an angler access project for Broadford Lake in Garrett County, Maryland.

Freshwater Fisheries – Fish Health

Mercury Testing - Collected northern pike in Deep Creek Lake to assist with mercury testing/analysis of a top predator in the lake. Given the value of large northern pike to anglers, small tissue plugs were removed from the fish, rather than sacrificing them.

Freshwater Fisheries - Invasive Fishes Program

Invasive Fishes Program staff attended the Maryland Water Monitoring Conference and presented a poster on the age and growth of blue catfish populations in the Patuxent River (2019-2020, n=507) and Potomac River (2011-2012, n=242). Fish from both populations were robust, with the Potomac River at a higher relative weight on average. Survivorship estimates were similar to those from other rivers of the Chesapeake Bay. These values will be used to advance blue catfish management in the Chesapeake Bay.

Staff removed creel boxes from Dundee Creel Marina, Elk Neck State Park, Lapidum, Little Seneca Lake, and Loch Raven Reservoir boat ramps for the season. The boxes are a cooperative study with U.S. Fish and Wildlife Service and the information provides helpful insight for Chesapeake channa management, including gauging a level of public engagement and harvest. Participants of the survey were placed in a raffle for fishing gear, and were awarded fillet knives for their participation.

Staff are in the process of creating new invasive fish content to engage young anglers and will be used at department outreach events.

Spoke with multiple reporters for media stories pertaining to invasive blue catfish and the work the department is leading to manage and control the species in Maryland. Staff was also interviewed by several undergraduate students relating to invasive fishes and their ecological effects, and discussed novel techniques and the use of advanced technology to capture invasive fishes with middle school students.

Staff published *Changes in fish communities before and after establishment of northern snakehead in an estuarine marsh of the Chesapeake Bay watershed* as an open access (free) article in Journal of Fish and Wildlife Management. The peer-reviewed paper is available as an Online Early contribution, but will be typeset and available on the Invasive Fishes Program website soon. Access the Online Early article: <https://meridian.allenpress.com/jfwm/publish-ahead-of-print>

Freshwater Fisheries - Coldwater Fisheries Program

Staff worked with the National Park Service and Maryland Forest Service to identify projects that may improve water quality in Hunting Creek. Elevated water temperatures have created stressful conditions for coldwater resources in the stream. Several private ponds and exposed stream segments in the headwaters are likely sources of heating. Fishing and Boating Services and Maryland Forest Service will reach out to several property owners in the headwaters to gauge interest in riparian planting projects. These projects will improve the buffer and eventually provide shade through canopy cover.

Staff attended the Chesapeake Bay Program Brook Trout Work Group meeting. Topics of discussion included the Work Group's 2025 – 2035 Management Strategy, the analysis of brook trout occupancy using Eastern Brook Trout Joint Ventures range-wide occupancy map, an analysis of Maryland's brook trout data conducted by the United States Geological Survey, and partner updates from state representatives.

Staff attended the Trout Unlimited Mid-Atlantic Council November meeting to present and discuss Maryland Department of the Environment's proposed existing use determination for North Branch Potomac River downstream of the confluence with the Savage River. The presentation described the proposed changes to water quality protection, the data supporting the changes, and the importance of public comment. Participants in the discussion considered the potential improvements to thermal protection for the river while questioning whether or not they could be more extensive.

Staff attended the Maryland Water Monitoring Council Annual Conference. Staff presented the results of a small pond retrofit project that used pond standpipe modifications that draw and release cooler bottom water to reduce the impacts of the pond on coldwater streams. The long-term goal of this effort is to develop a low cost standpipe modification that could be used by interested pond owners to mitigate the thermal influence of their pond.

Freshwater Fisheries - Tidal Bass Program

The Black Bass Advisory Committee held an *ad hoc* meeting on November 12. The focus of the meeting was the discussion of tournament fish care requirements from June 1 to September 30, when hot weather typically increases fish mortality. The Tidal Bass Program sought feedback on four potential requirements aimed at reducing mortality during these months: increasing the weight penalty for a dead fish, reducing the amount of weigh-in bags allowed, moving the weigh-in time to 1 p.m., and requiring tournament directors to provide ice for live wells. The advisory committee recommended an increased penalty for dead fish from 0.25 pounds to 0.5 pounds to motivate better fish care by anglers throughout the day. Additionally, the committee recommended that tournaments without aerated water troughs be limited to three weigh-in bags and tournaments with aerated water troughs be limited to five weigh-in bags per trough. This aims to reduce the amount of time fish are kept in weigh-in bags without exposure to supplemental water that is cooler and better oxygenated.

Tournament permitting was put on hold for 2025 until we received recommendations from the committee. Permitting for 2025 has now resumed and there are currently 57 permitted tournaments for next year. Noteworthy tournaments for next year include Major League Fishing's Phoenix Series coming to Smallwood State Park in May and September, Major League Fishing's Bass Pro Tour a four day catch-photo-release tournament at Smallwood State Park in June, and Bassmaster Elite Series a three-day tournament in the Upper Bay in July. Staff will attend these and other tournaments in 2025 to support activities, answer questions, promote the fishery, and help in protecting the resource.

Central Region staff completed the entry of the region's Tidal Bass data into the GIFS database.