Freshwater Fisheries Monthly Report – June 2025

Stock Assessment

Deep Creek Lake - Conducted annual fishery assessments on Deep Creek Lake. Sixteen sites were sampled and length and weight for individual fish were collected to monitor the gamefish/panfish populations.

Due to incessant rain, a number of the scheduled fishery monitoring efforts that needed to be surveyed within an index period, had to be canceled for 2025. Many of the waterbodies have relatively narrow windows for sampling and the weather was simply uncooperative.

Hunting Creek Lake - Night boat electrofishing surveys were conducted on Hunting Creek Lake in Cunningham Falls State Park in Frederick County. Catch rates for largemouth bass were very high. Largemouth bass greater than 12 inches in size accounted for 65 percent of the sample. Sunfish (bluegill, redear sunfish) densities also looked good. Anglers looking to target large sunfish should try fishing this lake. Just over 40 percent of the sunfish collected were greater than eight inches in length.



12 inch redear sunfish from Hunting Creek Lake

Brook Trout Surveys - Brook trout monitoring work has started in Frederick County with surveys on Clifford Branch. Trout densities looked good with both adults and juveniles collected in the mainstem and tributary sections of the creek. Juvenile numbers were much better than expected considering the low flow conditions experienced last fall. Additional trout surveys will be conducted in the Catoctin region through the summer.

Trout Surveys - Central Region staff have begun their summer index period sampling of brook and brown trout streams in the region. Seventeen stream surveys have been completed so far.

Central Region staff assisted Eastern Region staff with a black bass survey on Conowingo Reservoir.

Triadelphia Reservoir - An electrofishing survey was conducted at Triadelphia Reservoir. However, water clarity greater than two meters reduced catchability. The survey will likely be completed in the fall at night to obtain more representative catch rates.

Habitat and Water Quality

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

- Multiple applications for culvert replacements to take place in Garrett County, Maryland. Comments were provided for time of year restriction, minimal disturbance, material storage, equipment access, curing concrete monitoring, pump around procedures, and site restoration at the completion of the project.
- An application for modifications to take place at a gas dock owned by Silver Tree Marine on Deep Creek Lake. Given the dock alterations would be taking place after the docks were pulled, comments were provided to have a fuel catchment system in place in the event of a spill.
- An application for the installation of a solar farm to be installed in Accident, Garrett County, Maryland. Comments were provided for soil disturbance and compaction, erosion control measures, storm water management, and alternative site plans to avoid all wetland and wetland buffer disturbance.

Western Region I staff recorded side scan sonar recording for stations sampled on Deep Creek Lake. This information is used to determine habitat type, quantity, quality, and in conjunction with fish occupancy data, can determine preferred habitat types.

Staff visited the real time temperature probe on the North Branch of the Potomac River to investigate why it has not been transmitting data since the flooding in mid-May. The site was inaccessible due to high water but the data logger appeared to be working from a distance. The cable to the temperature probe was missing, and will likely need replaced as soon as possible to inform anglers of water temperatures. Anglers use the real time temperature data to make fishing decisions during hot weather and water managers use the temperature data to regulate flows to benefit the coldwater fishery.

Staff met with Garrett County Roads to discuss emergency repairs along the upper Savage River. Extreme flooding during mid-May caused the river to overflow its bank, causing extensive damage to infrastructure and properties. County efforts to channelize the river prior to repairing the road were investigated and determined to be beyond the scope of emergency repairs. The Freshwater Fisheries and Hatcheries Division is working with the Garrett County Roads Department, the Maryland Department of Environment, and Trout Unlimited to develop an approach for infrastructure repair and protection that also improves stream habitat and floodplain connection.



Savage River post-flood stream work.

Central Region staff supported Patapsco Valley Trout Unlimited and students from The Community College of Baltimore County with a stream monitoring project in the upper Big Pipe Creek watershed. Staff assisted with the installation of multiple conductivity and temperature loggers along with six staff gauges in the watershed to measure storm flows. Staff also demonstrated the use of electrofishing and collection of benthic macroinvertebrates for the students involved in the project.

Southern Region staff met with Charles County Roads and Maryland Department of Environment (MDE) staff to discuss the plan of action to remove rock material that was causing a "fish strainer" effect in front of the drain pipe recently installed that had trapped a large number of gizzard shad in April. Staff agreed with the plan of action.

Staff participated in the Pooled Monitoring Forum: Restoration Research to Make Science and Regulatory Connections. This forum shares the latest science and research regarding stream restoration with practitioners and regulators. The department uses science to make management decisions so that aquatic habitats are protected and enhanced.

Stocking and Population Management

Western Region I staff assisted Bear Creek Hatchery staff with hauling advanced fingerling rainbow trout from Bowden State Fish Hatchery located in West Virginia to the North Branch of the Potomac River.

Staff assisted hatchery staff to stock channel catfish for the Battie Mixon fishing rodeo.

Staff met with the Upper Potomac River River Commission to discuss the future of coldwater production at the Westernport Wastewater Treatment Facility.

Fee Fishing Lake Permits - Currently have five approved facilities. Here is the full listing: <u>Fee Fishing Lakes</u>

Fish Supplier Permits - Currently have 12 approved suppliers. Here is the full listing: <u>Approved Fish Suppliers (PDF format)</u>.

Pond Stocking Permits: 26 approved (May 28 - June 24)

Outreach

Customer Service - Provided customer service information for inquiries regarding:

- Trout fishing in Garrett County
- Stream flows for Garrett County
- Fishing Deep Creek Lake
- Fishing license information
- Flood information
- Fishing the Youghiogheny River
- Nontidal license and trout stamp fee increase
- Status of Antietam Creek and Beaver Creek trout populations

Southern Region staff assisted with Snakes on the Dundee, the DNR sponsored snakehead tournament held at Middle River, Maryland.

Southern Region biologists attended the 2-day Paralyzed Veterans of America Bass FishingTournament held at Smallwood State Park and provided the fish trailer with a tank of oxygenated water for recovery of the fish after being weighed in. It is not a typical tournament because the weigh in occurs in the parking area away from the water's edge and necessitates the DNR trailer. The fish were released after recuperating in the tank, back to Mattawoman Creek.

Presented a Master Naturalist Class at the Nanjemoy Environmental Center and delved into multiple fish topics including electrofishing theory.

Provided the Mobile First Catch Fish Trailer for the "Fish with NRP" event at Seneca Creek State Park. Approximately 25 youth tried fishing for the first time and we had several happy kids catching their very first fish.



First time anglers with their first catch!

Fish Health

Assisted the Invasive Species Program and U.S. Geological Survey with collecting blue catfish over two days on the Patuxent River. During this cooperative project, tissue and blood samples were taken, otoliths (inner ear bones used to estimate age) were removed, and the length and weights of each fish were recorded. The samples, taken from five widely separated areas along the river, were to be tested for PFOS chemicals in addition to the other usual analysis by the federal agency.

Invasive Fishes Program

Invasive Fishes Program staff have finished removing invasive fish from the fish lifts at Conowingo Dam. Fish lifts operations ended June 8 with only the East Fish Lift operating this year. A total of 124 Northern snakehead, 22 flathead catfish and 8 blue catfish were removed during the 2025 fish lift operation season.

Invasive Fishes Program staff have been working diligently in support of invasive fishes tournaments and derbies across the state. Through June 2025, grants and prizes have been distributed to three Maryland tournaments promoting the harvest of blue catfish and other invasive fishes. In addition, the Invasive Fish Program staff co-hosted two invasive derbies in June. Reel Invasion - Anacostia, held on June 1. This event was hosted with D.C. Department of Energy and Environment at Anacostia Park. This was the first collaboration between the agencies and prizes were provided for the heaviest blue catfish and northern snakeheads, in addition to numerous door prizes. No flathead catfish were weighed in. Winning weights were a 7.4 pound northern snakehead and a 5.7 pound blue catfish. On June 14, USFWS Maryland Fish and Wildlife Conservation Office, Maryland Park Service, and Maryland Fishing and Boating Services hosted 'Snakes on the Dundee IV', the fourth iteration of the invasive fish derby. The event featured fish prints, fishing demos, filet demos, an electrofisher to show the public, t-shirts for sale, and more. The heaviest snakehead weighed nine pounds. In total, over 500 people participated in events supported or hosted by the department, removing nearly 400 invasive fishes from

Maryland waters. Tournaments were supported through federal funds allocated through the United States Department of Agriculture's Animal & Plant Health Inspection Service.

The department accepted applications for a new blue catfish low frequency electrofishing chase boat pilot program from 6/3/25-6/17/25. This pilot program will allow participants to act as chase boats during the department's blue catfish electrofishing sampling this summer on various rivers. Participants will receive a daily stipend as well as all fish collected as a result of sampling that day. Forty nine applications were received and staff are currently reviewing applications with hopes to reach out to selected individuals in the next seven days. The project is supported by federal funds allocated through the United States Department of Agriculture's Animal & Plant Health Inspection Service.

The Invasive Fishes Program, with United States Fish and Wildlife Service Maryland Fish and Wildlife Conservation Office, tagged northern snakehead in Gunpowder River as part of a program to estimate movement and harvest rates for the fish. Anglers who catch and harvest a yellow or blue tagged fish and report it will receive \$10 or \$200 for their participation. This work is used to estimate the removals needed to limit population growth for the invasive fish.

Invasive Fishes Program staff assisted United States Geological Survey Eastern Ecological Science Center (EESC) researchers with a contaminant study in blue catfish on the Patuxent River. Fish tissues not commonly used for human consumption (i.e., carcasses) were sampled for PFAS/PFOS, microplastics, and other contaminants. Additional whole fish were collected to support work to determine nutrient profiles of all parts of the carcass. This is a continuation of collaborative research between the department and USGS EESC to determine if carcasses can be marketed as food for zoo animals or for fertilizer.

The department began a project in support of a graduate student at Salisbury University in a portion of the tidal, freshwater Choptank River. The project aims to determine if targeted removals of large blue catfish can alter and depress size structure of populations.

Coldwater Program

Coldwater fisheries surveys were initiated for the 2025 summer survey index period. Most of the early summer samples use qualitative, single pass electrofishing methods to document the presence or absence of coldwater fish species (i.e., trout). Over 13 of these surveys were conducted throughout the state. Several quantitative surveys were also completed to estimate population size for brook trout resources. Adipose fin clips were collected in some cases for use in genomic analysis. Genomic analysis is the process of examining and interpreting an organism's complete set of DNA to understand the biological significance of the identified features and variations, and understand evolutionary relationships.



Coldwater fish surveys conducted to detect trout species in Frederick and Washington County streams.

Staff conducted surveys in one of three streams that were selected for brook trout reintroduction projects. Following extensive surveys to identify candidate streams with sufficient habitat and water quality but lacking trout species, approximately 100 brook trout were translocated to the stream in September 2024. The 2025 surveys captured both adult and young-of-year brook trout. The adults were individuals that had been translocated last year, but the documentation of young-of-year trout suggests that adults successfully spawned following translocation in 2024. Data collection will continue to monitor the population and document successful population establishment. The other translocation streams will be surveyed later in the summer.



A translocated adult brook trout (left) and a young-of-year brook trout (right) collected from a stream following a translocation project initiated in September, 2024. The young-of-year brook trout suggests successful reproduction following the translocation effort.

Attended the STAC workshop entitled: Blueprint for Building Partnerships and Recommendations for Scaling Brook Trout Restoration in Stronghold and Persistent Patches. The workshop was facilitated by the Chesapeake Bay Program and provided a forum to discuss the new brook trout outcomes for the Chesapeake Bay Watershed Agreement and opportunities for stakeholder collaboration. A focus of the workshop was to develop communication between state and local governments and non-governmental organizations to strategically plan projects to minimize impacts to brook trout populations and maximize benefits where possible.

Organized a project site tour with department leadership and Trout Unlimited to Wolfden Run and Savage River in Garrett County. The goal of the tour was to discuss opportunities to support projects with co-benefits that improve flood resiliency for local infrastructure and address aquatic resource management concerns like fish passage. The site tour visited a location on Wolfden Run where deteriorating culverts were replaced with fish passage friendly bridges that also improved the flood resiliency of local roads. The second half of the tour visited the Savage River to observe the damage caused by flooding events in May and to emphasize the need for improved flood resiliency throughout the state.

Met with representatives from Garrett County and Maryland Department of the Environment to discuss the Savage River Road emergency reconstruction work following the Savage River flood event in May. Fishing and Boating Services expressed concerns about the excessive channeling of the Savage River and requested modifications to the embankments to re-connect the stream to the floodplain. The county agreed to meet this request and will communicate with Fishing and Boating Services, MDE, and stakeholders to minimize impacts to the Savage River while restoring Savage River Road.

Provided field demonstrations for Northern Garrett High School students at Cherry Creek and Pawn Run (Garrett County). Students observed electrofishing and seining techniques and were introduced to fish species from Deep Creek Lake and its tributary streams. They also had the opportunity to compare an aquatic community in a stream impacted by legacy mining (Cherry Creek) to a less impacted aquatic community (Pawn Run).



Fishing and Boating Services provides a seining demonstration for students from Northern Garrett High School.

Tidal Bass Program

Southern Region biologists attended the 2-day Paralyzed Veterans of America Bass Fishing Tournament held at Smallwood State Park and provided the fish trailer with a tank of oxygenated water for recovery of the fish after being weighed. It is not a typical tournament because the weighing stage occurs in the parking area away from the water's edge, which necessitates a departmental tank and trailer. The fish were released after recuperating in the tank to Mattawoman Creek.

Southern region biologists assisted with a small fish kill and algae bloom investigation along the western shore of the Chesapeake Bay near Scientists Cliffs. Regional biologists met with MDE to take samples, count and identify deceased fish, and measure dissolved oxygen (DO). The DO levels were around 200% or 14mg/L and lab analysis revealed a concentration of *Levanderina fissa* at 2,646 cells/ml, well above the 1,000 cell/ml threshold to be considered an algal bloom.



Investigation of algal bloom related fish kill.

Fish Passage Program

The Cypress Branch Dam Removal is officially wrapped up. The final step of planting trees and finalizing the railroad crossing leading back to the site is complete, see attached



picture of the site. Crews hired by American Rivers are conducting surveys and sediment sampling at Daniel's Dam to collect data for the Feasibility Study. A website has been established to explain what is going on and seek input from the public. We expect there will be a lot of opinions on what happens with the dam since this is a high traffic area. The website can be found HERE and is also linked on the department's Fish Passage Program webpage and Patapsco River Valley Park's webpage. American eels are using the eel ladder at Daniel's

Dam despite some torn substrate inside the ladder. Plans are in place to fix that soon.

Freshwater Fisheries - Other

Regional staff and summer interns attended 2 days of the Maryland Biological Stream Survey's training at Bowie State University on stream fish sampling methodology and freshwater fish, mussel, and crayfish identification.

Signage has been procured and will be posted at a small number of public fishing access sites for a pilot QR-code creel survey in the southern region of Maryland. The survey has been translated into Spanish and will launch as soon as the signs are posted. Data collected will help biologists estimate stock size and relative abundance of sportfish in less-frequently sampled impoundments and river reaches, help to compare biologists' assessments with real angler data, establish a baseline to which trends can be elucidated, and provide data to compare fishing sites among each other. Data will be shared on webpages to help anglers find preferred fish species and choose where to target them.

Southern regional biologists have been assisting Maryland Parks Service with fish identification of prey items brought into the osprey nest at Smallwood State Park. The nest cam is linked to the park's webpages and social media. The video feed is receiving lots of submitted screenshots by citizens of prey coming into the nest, which has included mainly non-native fishes (goldfish, snakehead, blue catfish, common carp). The parents bring about 3-6 fish back to the nest per day, so there have been a lot of fish to identify. Other species fed to the young birds have included gizzard shad, hickory shad, striped bass, river herring, chain pickerel, yellow perch, brown bullhead, black crappie, menhaden, channel catfish, and bluegill.