

Freshwater Fisheries Report – May 2023

Freshwater Fisheries - Stock Assessment

Piney (Frostburg) Reservoir - West Region I staff conducted a stock assessment of the gamefish/panfish fisheries in Piney Reservoir (Frostburg Reservoir). Earlier this year, saugeye (walleye-sauger hybrid) were stocked into the reservoir to provide additional angling opportunities as well as help to improve the size structure of the abundant panfish species. Bluegill, pumpkinseed, black/white crappie, and largemouth bass were the most abundant fish species collected, although two very nice hybrid striped bass and one trophy tiger muskellunge were also caught. Formal data analyses will be completed during the upcoming months, but preliminary investigations into the panfish size structure shows that bluegill/pumpkinseed and yellow perch fisheries are dominated by smaller individuals, whereas the crappie fishery is dominated by larger individuals with numerous fish in the 9-12” range. A summary report will be posted to the West Region I website.



Hybrid striped bass and trophy tiger muskie collected during Piney Reservoir survey.



Deep Creek Lake - West Region I staff conducted a stock assessment of the gamefish/panfish fisheries in Deep Creek Lake over two nights during mid-May. Due to equipment malfunctions, only 13 of the 20 assigned stations were sampled, however a robust sample was collected that is representative of the overall fishery. Formal data analyses will be conducted during the upcoming months and a summary report will be posted to the West Region I website.

Lake Roland - Conducted an electrofishing survey on Lake Roland. This is the first time this lake has been sampled by the Freshwater Fisheries Program. The survey focused on largemouth bass and panfish populations in the lake.

Largemouth bass collected during the spring Deep Creek Lake fishery survey.

Wheatley Lake - Completed a largemouth bass population estimate at Wheatley Lake in Charles County. Unique fin clips were used to mark fish over three surveys and initial results indicate low catch-per-unit-effort values for stock and quality size largemouth.

A sunfish survey was also completed on Wheatley Lake. Bluegill and redear sunfish are the most common sunfish in the lake, but Wheatley also produces beautiful warmouth as well. These small sunfish rarely reach over 8 inches, but their coloration and shape definitely separate them from more commonly occurring sunfish.

New Germany Lake - West Region I and Central Region staff conducted a mark-recapture population estimate of largemouth bass at New Germany Lake, a small impoundment within New Germany State Park in Garrett County. During the initial effort, 18 bass were measured, weighed and marked with a small fin clip. Staff then resampled the lake a week later and collected an additional 12 bass, two of which were previously marked. This data will allow staff to estimate the largemouth bass population size and assess the size structure of the fishery.



Lightweight electrofishing boat used to sample small impoundments. Largemouth bass collected during New Germany Lake survey.

West Region I staff continues to collect and enter Deep Creek Lake creel data from angler interviews. Thus far, data from nearly 100 interviews has been entered from the fourteen shifts spent on the lake.

Freshwater Fisheries - Habitat and Water Quality

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

- A proposed development project in Hagerstown that would occur near an unnamed tributary to Antietam Creek. The project may develop 28 acres of land that includes mature forest. Fishing and Boating Services reached out to project planners to describe the importance of the coldwater fisheries resources in Antietam Creek and to request best management practices to minimize impacts to the resources. Recommendation included minimization of sediment mobilization and stormwater management practices that avoid surface pooling. Additional comments will be provided when plans are available.
- Lake access improvements planned for Rocky Gap State Park. The project will construct new boat ramps and floating docks for additional access to Lake

- Habeeb. The lake is designated as a Use Class III water body by Maryland Department of the Environment, with a time of year closure from October 1 through April 30. A closure waiver was previously requested to complete project activities at a lower lake level during cooler months. The request was supported by Fishing and Boating Services to minimize conflicts with the fisheries resources in the lake. Comments and recommendations included requests for stringent sediment and erosion control methods and best management practices for working with wet concrete near surface waters.
- A new wastewater treatment plant at New Germany State Park. The facility will improve the treatment of wastewater from the park, and discharge to Poplar Lick Run. Poplar Lick Run has excellent water quality and supports a robust brook trout population. Initial review of the plans did not reveal any major concerns for fisheries resources. However, a site visit was requested because of the importance of the downstream brook trout population. Recommendations will be submitted after the site visit.
 - A joint permit application for a solar farm in the drainage of Three Forks Run and possibly Wolfden Run. The permit suggested that approximately 450 acres of forest would be cleared for the solar farm. Three Forks Run has issues with water quality resulting from acid mine drainage, while Wolfden Run supports a stable brook trout population. A request for more detailed plans was submitted to gain a better understanding for where the project area would be located. Initial comments included recommendations to reduce tree clearing, minimize the infrastructure associated with the solar farm, and limit the project area to the Three Forks Run watershed.
 - Attended a meeting at Maryland Department of the Environment (MDE) to discuss a proposed stormwater management facility in the Upper Gunpowder Watershed.
 - A West Region I biologist attended a Land Reclamation Committee meeting in order to review reclaimed strip mines up for a bond release approval.
 - An application was reviewed and commented on for the replacement of the Allen Fike Bridge located in Friendsville Maryland. Comments were provided for sediment and erosion control, minimal disturbance, and containment of construction debris.
 - Comments were provided for an application for the construction of a garage near Snowy Creek in Crellin Maryland. Comments were provided for strict sediment and erosion control measures.
 - Comments were provided for a culvert replacement project in Gortner (Garrett County). Comments were provided for sediment and erosion control, minimal disturbance, and soil stabilization.
 - An application submitted by Columbia Gas of Maryland was reviewed for a gas line installation project that would cross Wolfden Run. Wolfden Run supports a wild population of native brook trout that are considered a species of greatest conservation need in the state of Maryland. Comments were made for time of year restrictions, work planning for minimal stream disturbance, preferred working conditions, material storage areas, depth of new line installation, and restoring instream and riparian habitat upon completion.

- Staff reviewed the application for the installation of a temporary bridge for a timber harvest located in LaVale, Allegany County. Comments were provided for stream protection, proper installation, properly installing and monitoring sediment catchment devices, and clean up after bridge removal.
- Western I Regional staff provided comments on two proposed Project Open Space property acquisitions in Garrett and Washington Counties. The Freshwater Fisheries and Hatcheries Division reviews potential property acquisitions by the department and makes recommendations that protect aquatic resources and/or improve angler access.
- Met with Washington Suburban Sanitation Commission to discuss water releases at Brighton Dam that may have an impact on the downstream catch-and-release trout fishery.
- Maryland Transit Administration plans to remove two old, dilapidated railroad bridges in Caroline County which traverse Tuckahoe Creek and the Choptank River. Both are constructed from creosote-treated wood, which is highly toxic. Comments were provided to the department's Environmental Review Program on plans to remove and replace a railroad bridge which spans the Susquehanna River and several smaller tributaries. Eastern staff also provided comments to Environmental Review staff on several smaller State Highway Administration projects and a proposed sand and gravel mine.
- Attended an interagency environmental review field visit to assess beaver dam analogs that were implemented in the Little Gunpowder River.

Mapping Tools - Staff have been working on updating all of the mapping tools used for environmental review. The mapping tools are up to date with all sampling data through 2022.

Temperature Loggers - Temperature loggers will record continuous water temperature at 20 minute intervals from June 1 through August 31.

- West Region II deployed temperature loggers in multiple coldwater streams in Frederick and Washington counties. Additional trout surveys will be conducted at these same stream sections later this summer.
- Central Region deployed over 30 water temperature loggers in trout streams in the region. Staff coordinated with multiple Trout Unlimited groups to get all of these temperature loggers deployed.
- Eastern Region deployed 13 temperature loggers. Most were deployed in streams in Cecil County which is undergoing significant commercial development. Several of the streams are classified as Use III (coldwater) streams and contain wild populations of trout. Fish surveys of those streams are planned for later this summer.
- West Region 1 staff calibrated and placed HOBO temperature loggers at 20 locations in Garrett County to monitor water temperatures throughout the summer monitoring period.

West Region I staff visited a site along Poplar Lick, a productive and popular brook trout stream, where a cement-mixer truck loaded with concrete rolled off of a small bridge and came to rest upside-down in Poplar Lick. Miraculously, no concrete was spilled and only

a small amount of fluids leaked from the vehicle, which were contained by several rows of absorbent mats. A large crane was brought in to remove the truck from the creek. No impacts to macroinvertebrates or fish species have been observed.



Freshwater Fisheries - Stocking and Population Management

Trout - Sections of Antietam Creek in Washington County were stocked with 3,000 brown trout juveniles and 10,000 rainbow trout juveniles as part of the put-and-grow program. Poor habitat conditions limit natural spawning in Antietam Creek. Stocking hatchery produced juvenile trout helps maintain this productive trout fishery.

Saugeye - Piney Reservoir was stocked with 20,000 saugeye fingerlings. The stocking of saugeye is new to Maryland and if the project is successful, it will create the first saugeye fishery in Maryland.

Freshwater Fisheries - Fish Health

Flier - Biologists verified the presence of flier in Zekiah Swamp Run within Cedarville State Forest using a backpack electrofisher. Three flier were found within the area checked. An attempt was made to check the St. Mary's River drainage as well but high flows prevented access.

Fish Kill - Documented a fish kill in Chicamuxen Creek after a report of seining activity that may have caused the incident. Over 1,070 dead fish were counted including 82 adult largemouth bass.



Biologist inspect the Chicamuxen Creek Fish Kill

Broadford Lake - West Region I staff collected black crappie, bluegill, and pumpkinseed from Broadford Lake in Garrett County for fish health screening. Fish collected will be tested for Largemouth Bass Virus and other pathogens so that a risk assessment can be conducted to ensure a removal/introduction study between Greenbrier Lake and Broadford Lake does not pose an undue risk of pathogen introduction when moving fish from one waterbody to another. The goal of the project is to achieve a more desirable size distribution for largemouth bass in both impoundments.

Freshwater Fisheries - Outreach

Master Naturalist Program– Provided an Aquatic Ecosystems/Freshwater Fishes of Maryland virtual presentation for the Maryland Master Naturalist Program hosted by Patuxent River Park in Prince George’s 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 riparian buffers for protection of the resource. A powerpoint presentation on the Fishes of Maryland, with focus on fish found in the region, was also provided. A separate field day provided the participants to key fish and learn fish anatomy.

Welcome to Boating and Fishing - Provided the Mobile First Catch Fish Trailer at a 2-day “Welcome to Boating and Fishing Workshop”. This Recruitment-Retention-Reactivation (R3) workshop was a Recreational Boating and Fishing Foundation (RBFF) grant funded event geared toward teaching women basic boating and fishing skills. The department collaborated with the Annapolis School of Seamanship, Boat US Foundation, and Marine Trades Association of Maryland to provide boat trailering, boating safety, fish training, and the opportunity to fish from

shoreline or a charter boat. Multiple seminars were given throughout the weekend workshop.



Smallmouth Bass Talk - Gave a presentation to the Antietam Creek Fly Anglers group on the upper Potomac River smallmouth bass stocking project. Club members asked good questions and were interested in details of the project.

Tagged Blue Catfish - Responded to a person who caught tagged blue catfish. A certificate of appreciation was sent to the angler along with a letter with details of when and where the catfish was originally tagged by the department.

Staff provided customer service information for multiple inquiries regarding:

- Trout stocking in Maryland
- Reporting walleye tags for fish caught on Deep Creek Lake
- Increased flows to the North Branch of the Potomac River from Mt. Storm in West Virginia
- Sores/lesions on trout caught from the North Branch of the Potomac River downstream of Westernport.
- Staff verified the new state record fallfish caught by a young angler from the North Branch of the Potomac River.
- Smallmouth bass fishing in Maryland waters.

Freshwater Fisheries - Invasive Species

Assisted with the Welcome to Boating and Fishing Event aimed at Recruitment-Retention-Reactivation of anglers by presenting information on how to fish for invasive fishes at Sandy Point State Park.

Assisted with a Chesapeake and Coastal Services' outreach event for high school students at Cherry Beach Park by presenting information on how to fish for invasive fish and where these fishes can be found.

Made multiple trips to Conowingo Dam to collect northern snakehead and flathead catfish removed from the fish lift. All invasive species removed from the fish lifts were transferred to JJ McDonnell for processing then donated to local food banks. In the last month, 616 northern snakehead and 69 flathead catfish have been euthanized and donated.

Worked with Greenway Outdoors to produce content for a pilot show about invasive fishes that will be featured on the History Channel.

Collected invasive blue catfish from the Nanticoke River for an ongoing contaminant study with MDE. This study is addressing a major hurdle to blue catfish consumption- which is showing the public that they are safe to eat. Fish were also collected for an ongoing fecundity study being conducted by Salisbury University. A reporter from the Bay Journal documented the work as part of a continuing story on blue catfish and their impacts to the Bay ecosystem.

Participated in multiple bowfishing trips for northern snakeheads in Mattawoman Creek, Nanjemoy Creek, and the Gunpowder River. Turbid water conditions at Nanjemoy Creek really hindered sight-fishing so no northern snakehead were landed, however two blue catfish will not be contributing to the fish population in Nanjemoy Creek in the future.

Freshwater Fisheries - Coldwater Program

Temperature logger deployment continued in streams throughout the state. The loggers will provide managers with a better understanding of the thermal regime of the streams. In addition, qualitative fish surveys were conducted in tributaries to the Susquehanna River. Several undocumented brown trout populations were observed, though successful reproduction was not confirmed. Qualitative survey efforts will continue through the summer index period.

Attended a site visit to the Little Gunpowder Falls Restoration Project. The restoration project used Beaver Dam Analogs (BDAs) in the mainstem of Little Gunpowder Falls as a restoration strategy. BDAs are artificial beaver dams made of woody debris that impound water to simulate natural beaver dams. The intended outcome is to slow stream flow through the restoration area, reduce erosive forces, allow sediments and nutrients to settle in the newly created pools, and reconnect the stream to the floodplain. However, the close proximity of BDA structures and extensive pooling of water at the restoration

site raised concerns about the use of this method in coldwater resources. Fishing and Boating Services is continuing to investigate this method and will develop recommendations for use in Maryland waters.



A meeting was held with staff from the City of Hagerstown to discuss the future of the currently drained Edgemont Reservoir. The reservoir dam acts as a barrier that isolates brook trout populations in the headwaters of Little Antietam Creek. Furthermore, restoration of the reservoir could have thermal consequences for downstream coldwater fisheries resources. The future of the reservoir is an on-going challenge for the city, which will have to repair the dam at a considerable expense or find another public water supply. While no immediate outcome was determined, Fishing and Boating Services will continue to work with the city and provide recommendations that protect the coldwater resources in Little Antietam Creek. Alternative projects that address the isolated headwater trout populations will be investigated.

Benthic macroinvertebrate samples were processed and collected individuals were identified to the lowest possible taxon and counted. Coldwater obligate taxa were documented when present. The data will be used to determine the potential for streams to support coldwater fisheries resources and to support re-designation to Use Class III, coldwater streams for improved thermal protection. Sample processing and identification will be on-going through the early summer.

Began to update Maryland's coldwater resource occupancy data in the [Eastern Brook Trout Joint Venture coldwater resource occupancy map](#). The map is an important range wide tool that aids in planning and allocating resources for brook trout monitoring, restoration, and conservation. Updates will be made for each of Maryland's watersheds and will be on-going until the process is complete.

Freshwater Fisheries - Tidal Bass Program

Attended multiple weekend bass tournaments in May.

Hosted Black Bass Advisory Committee members for a tour of the Joseph Manning Hatchery in Cedarville State Forest. Committee members learned how bass are propagated at the hatchery and existing capacity limits.

Responded to a massive fish kill on Chicamuxen Creek where over 80 largemouth bass died during a commercial fishing operation; staff are developing options to prevent this from happening again.

Coordinating with Maryland Public Television to showcase the Potomac River largemouth bass fishery for an upcoming segment.

Freshwater Fisheries - Other

Freshwater Fisheries staff attended a weeklong electrofishing training at National Conservation Training Center in Shepherdstown, WV. A Central Region boat was trailered there and is being used for the class that is hosted by US Fish and Wildlife Service. The class will help with standardizing sampling across regions and maximize the efficiency of the electrofishing equipment.

Central Region staff got their old jon boat that is stored at Liberty Reservoir running. This boat will be used for eDNA sampling on Central Region impoundments.

Southern Region biologists assisted the Freshwater Mussel Hatchery Manager with collecting 63 white perch to be used as host fish for freshwater mussels.

West Region I staff continues to perform routine checks and maintenance at the McCooles, Black Oak and Evitts Creek FMAs. Staff recently conducted road maintenance at the McCooles and Black Oak FMAs.

West Region I staff conducted backpack electrofishing immediately downstream of New Germany Lake to collect and transport stocked rainbow trout, largemouth bass, and bluegill/pumpkinseed that had swam over the spillway. All fish were returned to the reservoir.

Staff met with regional Natural Resources Police officers as a new effort to meet regularly to discuss current and future natural resource issues and topics. Representatives from Fishing and Boating Services were in attendance.