

Freshwater Fisheries Monthly Report – February 2023

Freshwater Fisheries - Stock Assessment

Brook Trout – Western Region staff met with Coldwater staff to discuss a proposed brook trout monitoring program. The purpose is to monitor brook trout populations throughout Maryland and in a variety of habitats in order to assess the overall status of brook trout in Maryland.

Freshwater Fisheries - Habitat and Water Quality

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

- Sixty five Chesapeake Bay Trust Fund projects for Fiscal Year (FY) 2024
- Scored seven habitat project proposals for the Eastern Brook Trout Joint Venture for FY24
- The annual invasive aquatic vegetation management plan for lakes that are owned and managed by the department. This effort is discussed annually through the internal review process to develop the plans for invasive aquatic vegetation removal and limit impacts to desirable resources. Fishing and Boating Services reviews the plans to ensure that chemical treatments do not adversely impact fish populations or result in excessive habitat loss. While there are few concerns about the 2023 prescriptions, a report of past treatment outcomes has been requested to assist with the review.
- A bridge project to take place on Bear Pen Run. The purpose of the project is to restore aquatic organism passage by replacing an undersized and failing crossing with a new bridge. Comments were provided regarding time-of-year restrictions, sediment/erosion control, safeguards while casting concrete, and vegetative restoration at the completion of the project.
- A project to renovate a recent property acquisition by the Town of Funkstown. The project will remove an existing trailer park and develop a public park to include a pavilion, picnic areas, bathrooms, parking, and a soft launch to Antietam Creek.
- Columbia Gas to install a utility gas line in Funkstown. The gas line will cross Antietam Creek using directional drilling below the stream to minimize land and stream substrate disturbance.
- Stabilization and remediation recommendations were provided to the Maryland Department of Environment regarding a compliance issue impacting a brook trout resource in Frederick County.
- An application to construct a large warehouse complex in the Antietam Creek watershed, Washington County. Recommendations for appropriate stormwater management and forest retention were provided to minimize impacts from sediment and elevated water temperatures to Antietam Creek. Antietam Creek provides a popular put-and-grow trout fishery and water trail.
- A cattle housing structure on an unnamed tributary to Catocin Creek in Frederick County. Catocin Creek is a Use Class IV stream that is stocked with hatchery-raised trout for recreational fishing upstream and downstream of this proposed project.

- A time of year waiver request for the Chesapeake and Ohio Canal National Park to complete work in the canal prism near Great Falls. The canal is routinely drawn down during the winter months to conduct maintenance and repairs. As a result, no impacts to fishery resources are anticipated if the work continues.
- A permit to conduct emergency work to address several sinkholes that developed in and near Antietam Creek. The sinkholes were diverting water from the creek to a nearby quarry. Maryland Department of Environment geologists provided technical guidance to complete the repairs.
- On four Program Open Space properties - three in Frederick County and one in Allegany County.

Aquatic Habitat Mapping - Worked through the process of habitat mapping from uploaded sonar recordings. Processing was conducted using ReefMaster 2.0 software, and data analysis with measurements conducted via Google Earth. Staff are evaluating variations in mapped habitat due to differences in individual interpretations of the data. Habitat data will be used to understand the physical habitat and how it relates to fish populations in Maryland's impoundments.

Muddy Creek Liming - Took advantage of a break in the weather to spray high calcium limestone sand into Muddy Creek in order to increase stream pH where it is impaired by acid deposition from snowmelt and rain events. The ultimate goal of this project is to provide better water quality within the stream to prevent fish kills that occurred before the project was initiated.

Broadford Lake - Gathered materials for a habitat enhancement project to take place at Broadford Lake. Trees have been gathered from the Garrett County landfill and staged at the lake along with cement blocks that were provided by Fairfax Materials Inc. Trees will be placed in the lake in the coming weeks. Recent habitat mapping using side scanning sonar was used to determine where habitat enhancement will be most beneficial.

Staff participated in a blotchy bass seminar to learn more about hyper-melanistic lesions in black bass.

Staff attended a meeting with representatives from Montgomery County Department of Environmental Protection, Maryland Department of the Environment, and KCI Technologies to discuss watershed assessments in Montgomery County.

Staff continue to participate in the I-95/Belvidere Road exit planning process. The site and surrounding area is rich with natural resources including high quality coldwater streams and RTE species. Several time of year waivers were submitted for review this month. Each waiver was considered based on the resources located in the area and the potential impacts of the work being proposed.

Southern Region staff took basic water quality measurements after receiving complaints that fewer and fewer perch have been seen in the Allens Fresh area. Particularly in those areas where catfish have been staging.

Freshwater Fisheries - Stocking and Population Management

Trout - Stocked over 10,000 rainbow and golden trout from Albert Powell Hatchery into lakes, ponds, and streams of Baltimore, Carroll, Harford, Howard, and Montgomery counties. The spring put-and-take trout fishery is one of the most popular in Maryland's most populous region. Eight separate locations were stocked in the Central Region in February. The Southern Region also completed early season trout stocking.

Walleye- The annual walleye brood fish collection has started on the upper Potomac River. With above average temperatures, the walleye surveys have started earlier than normal. Good numbers of age-1 walleye have been collected indicating successful recruitment from last year. Anglers are reminded that from January 1 through April 15 all walleye >20 inches must be released on the Potomac River from the District of Columbia state line upstream to Cumberland. This regulation is in place to protect larger spawning female fish. So far eight females and 17 males have been transported to the Joseph Manning Hatchery. They will be spawned at that location and then returned to the river. The resulting walleye juvenile will be stocked out at multiple locations in the state.

Saugeye - Hatchery staff are working with the West Virginia Department of Natural Resources to collect male sauger and Western Region II staff will collect female walleye in order to culture the hybrid, saugeye. These saugeye will be used to provide angling opportunities and panfish control in Piney Reservoir, Garrett County.

Stocking Permits – There were 16 approved permits and four pending for February.

Freshwater Fisheries - Outreach

Customer Service - Provided customer service information for inquiries regarding:

- Fielded over 30 calls from put-and-take anglers and stocking volunteers.
- Reviewed and provided comments on eight scientific collection permits.
- Reporting walleye tags for fish caught on Deep Creek Lake.
- Boat ramp information on Deep Creek Lake .
- Ice fishing Deep Creek Lake.
- Walleye and smallmouth bass fishing on the nontidal Potomac River.

Presented "State of the Gunpowder Tailwater Trout Fishery" talk to Potomac Patuxent Chapter Trout Unlimited members at their February meeting.

Freshwater Fisheries helped staff the booth at the Great American Outdoor show in Harrisburg, Pennsylvania. This has always been a great event to interact with anglers.

Freshwater Fisheries - Angler Access

Fishery Management Areas - Performed routine checks and maintenance at the McCooles, Black Oak, and Evitts Creek fishery management areas (FMA). Staff recently removed a fallen tree at the Black Oak FMA. Road maintenance will take place at the McCooles FMA in the coming weeks to repair potholes and resurface part of the roadway at the access area.

Placed regulation signs in special management areas throughout Maryland to help inform anglers of fishing regulations.

A review of the angler access map was completed for Garrett and Allegany counties to ensure up-to-date information is provided to anglers wanting to get afield.

Made a site visit to a completed bridge project on Maryland Route 39 outside of Oakland to inspect a new angler access area that will provide access to the Youghiogheny River. The project design included a new parking area and grass trail to the river that the department agreed to maintain.

Freshwater Fisheries - Invasive Species

Alabama Bass - Updated departmental [outreach on Alabama bass](#), an invasive species that has not been reported in Maryland but has been introduced to other southeastern states including Virginia.

Blue Catfish - The extensive blue catfish otolith library that we have been working on is nearing completion. There should be enough data to provide a good length/weight chart for at least the mid-Bay rivers.

Bowfishing - Took steps toward hiring bowfishing charter boat captains who will participate in a joint study by the department and U.S. Fish and Wildlife Service to learn whether bowfishing is successful at reducing population size of northern snakehead and blue catfish.

Invasive Species Position - Interviewed candidates for the Natural Resources Technician position based out of the Patuxent office. The chosen candidate will assist with data collection and transport of invasive northern snakehead, blue catfish, and flathead catfish collected at the Conowingo Dam fish lift in the spring. The project is a cooperative effort to reduce the abundance of invasive fishes and feed Marylanders in need. The candidate will also assist with the stocking of trout as part of the spring put-and-take fishery in Central Maryland and additional regional work.

Freshwater Fisheries - Coldwater Program

Met with staff from the U.S. Fish and Wildlife Service Northeast Fishery Center to discuss the results of recent brook trout genetic sample collection. Tissue samples were collected from brook trout populations in 22 streams and 23 survey sites. Effective population sizes (N_e) were relatively low in most samples and most populations did not appear to be related to other surveyed populations. Analysis will continue and the results will be compared to past genetic data. This information will be used to make informed management decisions about population management and may provide guidance for brook trout translocation efforts.

A statewide brook trout monitoring network was developed and discussed with Fishing and Boating Services staff. The network will consist of approximately 49 survey stations

that will be sampled annually for fish population data, temperature data, and habitat data. This information will be used to perform a statewide analysis of the resource and will support informed management actions, project planning and prioritization, and the development of deliverables and outreach tools. Revisions to the network will be made based on guidance from staff and will maximize the use of staff resources and the value of the results.

Development of a new statewide coldwater fisheries management plan was initiated with the drafting of a management philosophy and guiding principles. These ideas will establish the foundation for the plan and determine how Maryland's coldwater fisheries resources will be managed. The management philosophy and guiding principles will be discussed and revised internally before review by the Coldwater Fisheries Advisory Commission.

Staff have been working on bringing the coldwater database up to date, as well as writing R code to improve the querying process to produce data tables needed for analysis and federal aid reporting. The hope is that staff will be able to seamlessly decipher nearly 40 years of data with the click of a button.

Attended a joint meeting of the Antietam Conococheague Watershed Alliance and Beaver Creek Watershed Association to discuss 2022 survey results and plan 2023 survey efforts. The department has partnered with these citizen science organizations since 2018 to expand water quality data collection efforts in Washington County. Staff presented the results of benthic samples collected in 2022 and relayed the importance of temperature data collection for the management of existing trout resources and the discovery of new coldwater resources.

Freshwater Fisheries - Tidal Bass Program

Attended the Southern Division of American Fisheries Society meeting to both learn more about issues facing warm water bass fisheries and present data for two departmental initiatives aimed at largemouth bass population monitoring and northern snakehead harvest.

Participated in a planning meeting with Virginia Department of Wildlife Resources and District Department of Energy regarding a multi-collaborative project to monitor largemouth bass populations on Potomac River, a new round of tagging largemouth bass for this effort will begin in 2024.

Participated in a legislative hearing for a bill that would create an opportunity for anglers to donate money to conservation of black bass in Maryland.

Freshwater Fisheries - Other

Eastern Region and Unicorn Hatchery staff have been busy constructing steel anchors (photos below) for future statewide use. The design, adapted from those being used by the Pennsylvania Fish and Boat Commission, can be used in both soft and hard bottoms. The design allows for gear to be pulled tight when setting which is required when using

hoop or fyke nets. The design also allows the anchor to be pulled “backwards” so the anchors can always be easily freed. They are constructed of steel, which must be cut, bent, and welded into shape.

