

# Freshwater Fisheries Monthly Report – December 2019

## Stock Assessment

**Conowingo Reservoir** - Eastern Region and Management staff organized and attended a meeting with staff from the Pennsylvania Fish and Boat Commission to discuss future opportunities for cooperative fisheries management of Conowingo Reservoir. Conowingo Reservoir is a 9,000+ acre impoundment of the Susquehanna River split in half between the two states. Maryland nontidal regulations and licensing covers its entirety through a reciprocal agreement between Maryland and Pennsylvania. Largemouth and smallmouth bass are the most popular species targeted by anglers and were the main topic of discussion. Conowingo Reservoir also contains excellent populations of panfish and walleye.

## Habitat and Water Quality

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

- Comments to the Forest Service regarding three trail grant proposals on the Potomac-Garrett State Forest. These include the Potomac-Garrett State Forest Trail Maintenance Project that will focus on 80+ miles of existing trail maintenance by Forest Service staff. The work includes brushing, cutting of downed trees, mowing, pothole patching, signage and trash pickups. The second proposal is the Snaggy Mountain Snowmobile Trail Rehabilitation Project on Garrett State Forest. It requires mechanized equipment to move larger volumes of soil to establish trail grade reversals to better manage stormwater runoff. The third project is the Garrett State Forest 5.5 Mile Trail Rehabilitation Project that will make improvements to the trail tread and the replacement or critical maintenance of seven trail bridges. We recommended that any exposed soils during these work projects should be mulched and revegetated with an approved seed mixture to prevent any sediment runoff into adjoining waterways. There were no new trails proposed with these projects.
- Washington County Public Schools for athletic field improvements within the 100-year floodplain in the headwaters of Grove Creek. Grove Creek is part of the Little Antietam Creek watershed, designated Use III-P (coldwater). Incorporating stormwater management facilities using infiltration to the greatest extent practicable was recommended.
- An improperly installed bridge stabilization project in a Use III-P stream. The recommendation was made to fix the situation to allow fish passage and improve connectivity in the watershed.
- A failing culvert crossing over Wolf Den Run and replacement with a bridge structure. Freshwater Fisheries supports this project as the current condition impacts fish passage and connectivity within stream.
- Garrett County Board of Commissioners to conduct eight sediment borings using an eight inch hollow stem auger in Arrowhead Cove (Deep Creek Lake). The sediment will be analyzed for physical and chemical properties to guide future engineering design of an approximately 15,000 cubic yard dredging project. Freshwater Fisheries recommended no inlake work be conducted during the Use I restriction period (March 1 through June 15) of any year to protect fish spawning activities and, if possible,

conducting borings in the fall when the lake level is at winter pool and several of the boring locations can be done on exposed lake bed.

- Columbia Gas of Maryland Inc. to replace gas lines in Barton (Allegany County) within the Georges Creek watershed. Horizontal directional drilling will be used to cross underneath stream channels to avoid channel and riparian impacts.
- An emergency project to construct a sewer valve and vault upstream of the town of Oakland's existing sewer pump station. Installation will be in the 100-year floodplain of Little Youghiogheny River. Disturbed areas in the riparian corridor were recommended to be revegetated with native forest species to provide habitat and moderate potential temperature impacts.
- Installation of several culverts in the headwaters of an unnamed tributary to Middle Creek (Frederick County). Strict sediment and erosion control measures were recommended to protect water quality as well as measures to ensure passage of aquatic life.

**Western Region Land Stewardship Committee** - Provided supportive comments for a potential land acquisition of:

- Two parcels totaling approximately 72 acres that would be an addition to the Wolf Dent Run State Park. These parcels are in the upper North Branch Potomac River watershed, and located near Short Run and Wolf Den Run. Both streams support native brook trout. The Freshwater Fisheries Program fully supports acquisition of both properties, as it will provide for long-term water quality protection in the Upper North Branch Potomac River watershed.

**South Branch Bear Creek Fish Passage Project** - Continued discussions with U.S. Fish and Wildlife Service personnel regarding removal of a collapsed culvert bridge on South Branch Bear Creek. The current condition has formed a stream blockage that prevents fish passage. During high flows, major bank scour has occurred due to the blockage. The culverts and debris causing the blockage will be removed and replaced with a single span bridge in 2020.



*Collapsed culvert on the South Branch Bear Creek and downstream bank scour caused by the blockage during high flow events.*

**Deep Creek Temperature Enhancement Releases** - Attended a stakeholder meeting to discuss modifications of temperature enhancement conditions to improve trout habitat in the Youghiogheny River catch-and-return trout fishing area. These conditions are set forth in the Deep Creek Hydrostation Water Appropriations Permit. The recommended modifications include continuing temperature enhancement releases until September 15. The past permit's end date was August 31; however, we have documented temperature exceedances into September in recent years. On average, these additional releases could decrease lake levels by 0.3 inches. Another modification was to increase the trigger flow for the temperature enhancement protocol from 150 cubic feet per second to 180 cubic feet per second measured in the river at Oakland. Temperature exceedances do occur occasionally above 150 cubic feet per second, but very rarely above 180 cubic feet per second. Data analysis showed a lake level decrease would be between 0.3 and 0.6 inches in years when needed. However, water inputs to the lake would likely be above normal when these releases would occur. Also, an earlier release time for some of the predicted temperature enhancements would improve compliance, and does not require additional water from the lake. All predicted decreases in lake levels due to temperature enhancement releases assume no water inputs to the lake during the releases.



*Coldwater releases from the Deep Creek Hydrostation provide for trout management within the Youghiogheny River catch-and-return trout fishing area.*

**Fish Habitat** - Staff from Freshwater Fisheries Program, Cunningham Falls State Park, and the Maryland Conservation Corps worked to build several new artificial fish habitat structures for Cunningham Falls Lake. The structures are made out of scrap wooden pallets, PVC pipe, and tubing. They will be sunk in sections of the lake to provide additional cover for sunfish and

largemouth bass. Once positioned, GPS coordinates will be taken of the structures and added to a bathymetric map under development for the lake.



*Maryland Conservation Crew members assembling fish habitat structures*

## **Outreach**

Provided information in response to customer service inquiries for:

- Status of trout populations in Western Region special regulation trout fishing areas
- “Black liquor” seeping into the North Branch Potomac River at Luke (referred to Maryland Department of Environment)
- Fishing conditions in the Youghiogheny River delayed-harvest trout fishing area
- Technical advice for a private property owner of Sawpit Run in Allegany County
- Ice fishing on Deep Creek Lake (still a bit early for ice fishing season)
- Current status of the Potomac River smallmouth bass fishery
- Potomac River muskie fishing

Provided a presentation to the Monocacy and Catoctin Watershed Alliance on coldwater resources in Frederick County. The presentation provided background information on coldwater aquatic organisms (trout, coldwater benthic taxa) and their current distribution in the county. Management and conservation efforts to protect these unique environments were highlighted.

Met with leaders of Outdoors Afro to discuss partnership with Maryland Becoming an Outdoors-Woman Program. This partnership will allow us to move into diverse areas to draw new participants and provide various workshops that will benefit both organizations.

## **Angler Access**

Conducted fishing informational sign maintenance at angler access areas throughout the Western Region.

Performed routine maintenance and winterization of all sampling gear, electrofishing equipment, vehicles, boats, and outboards. Also conducted the annual extreme cleaning of Mt. Nebo Work Center maintenance shop.



## **Invasive Species**

**Blue Catfish** - Collected invasive blue catfish from the upper tidal Patuxent River for stomach content analyses. Fish were caught using both boat electrofishing and baited hoop net arrays. Stomach contents included juvenile American eel, gizzard shad, and white perch among other items. Contents that could not be identified were preserved for DNA analysis in cooperation with the United States Geological Survey's Leetown Science Center. This work is part of a larger, cooperative project aimed at determining diet and movements of blue catfish in the tidal Patuxent River.

Biologists traveled to Leetown Science Center facility in West Virginia and discussed intricacies of radio telemetry monitoring stations. They also received various gear on-loan. The equipment will be used to track movements of blue catfish on the tidal Patuxent River in spring 2020.

**Invasive Impacts** - Presented data on impacts of northern snakeheads to fish communities in Blackwater River and the invasion of blue catfish in the Chesapeake Bay watershed at the Maryland Water Monitoring Council's annual conference.

## **Brook Trout Program**

Initiated analysis of statewide brook trout data as part of the ranking process for developing a statewide brook trout conservation plan. Brook trout patches were identified and ranked with five criteria developed from the conservation plan and assigned a level score based on how many criteria were met. Work was also initiated on identifying statewide data needs that the analysis revealed. This work will continue through winter.

Worked on the brook trout field sampling schedule for 2020, which will include sampling efforts for two State Wildlife Grants (water flow and eDNA), population monitoring, and filling in genetics and/or population data needs identified from the brook trout conservation plan.

Completed annual review and update of the [Brook Trout Fisheries Management Plan](#) and provided the final report to Fishing and Boating Services' fisheries management plan group.

Participated in the quarterly Eastern Brook Trout Joint Venture steering committee meeting. Attended the 25<sup>th</sup> annual Maryland Water Monitoring Council conference in Linthicum, where staff gave a presentation on the development of our new brook trout conservation plan.

## **Tidal Bass Program**

Completed entry of monitoring data into the fisheries database used by Freshwater Fisheries Program for long-term storage of information. Quality assurance and quality control checks were performed on the data. Data were exported from the database and are currently being configured for data analysis in January.

Completed aging of approximately 150 largemouth bass that died during bass tournaments; fish were also processed for diet contents and those data were entered into spreadsheets managed by the Tidal Bass Program.