

Freshwater Fisheries Monthly Report – January 2021

Stock Assessment

Deep Creek Lake - Began planning for spring sampling efforts for northern pike in Deep Creek Lake. All equipment and materials will be gathered and tested for sampling that is to take place in late March. Staff will adhere to all COVID-19 protocols to ensure staff safety during field operations.

Trout Survey Data - Analyzed the 2020 trout survey data and compiled results into tables and graphs for the 2020/2021 federal aid reports.

Habitat and Water Quality

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

- Maryland Department of the Environment Abandoned Mine Lands Division regarding target alkalinity levels in a stream being treated to reduce the acid load. Since most streams in Garrett County supporting fish populations tend to have alkalinity levels that are considered low, a target level for treated streams was suggested to have a minimum of 20 ppm total alkalinity.
- Maryland Park Service regarding New Germany Lake fisheries management surveys.
- Provided comments for multiple applications submitted for the construction of stone revetments along the shoreline of Deep Creek Lake.
- An application submitted under Maryland Department of the Environment Abandoned Mine Lands Division for the restoration of an unnamed tributary to Georges Creek located in Barton, Maryland. This tributary is impacted by acid mine drainage and is subjected to continuous flooding due to sludge build up. The project aims to clean the stream channel and reconstruct the bank and floodplain area. Comments were provided for time of year closure restrictions, minimal impacts with equipment, and mitigation at the completion of the project.
- An application submitted by a gas company for the installation of a utility line under Braddock Run located in Lavale, Maryland. The method of horizontal directional drilling will be used to place the line under the streambed. Comments were provided for time of year restriction, maintaining riparian habitat, and recommendations on mitigation after the project is complete.
- A restoration project on Beaver Creek in Washington County to reduce sediment and nutrients through floodplain connection and improve instream habitat and surface water infiltration. Due to the local geology, surface flow frequently ceases during dry conditions in this reach of Beaver Creek.
- Greenbrier Lake Dam maintenance repairs to protect water quality/habitat in Little Beaver Creek downstream of the project.
- On the Magnetic Levitation Train (MAGLEV) Joint Project Application in Baltimore/Anne Arundel/Prince George's counties.
- A bridge project in Montgomery County.
- A stormwater pond retrofit in Montgomery County.

- A mitigation site in Baltimore County.
- A dam gate repair on Lake Roland in Baltimore County.
- A trail reroute project in Susquehanna State Park in Harford County. Information provided to internal review staff.
- Maryland pond temperatures. Information provided to Environmental Review staff.
- On a bridge replacement on a tributary to the North East River. The current design consists of several culverts which are undersized and create a blockage to fish passage. The new design is an open-span bridge with stream restoration/stabilization work above and below which will allow for better passage of fish. The targeted fish species are alewife and blueback herring.

Stream Restoration - Attended a mitigation site visit in the Long Green Creek watershed and a stream restoration site visit in the Little Gunpowder watershed in Baltimore County.

Participated in multiple conference calls on a variety of stream restoration topics including Carroll Branch stream restoration in Baltimore County and a Bay, Land, and Tributary team talk on beaver-based restoration.

Land Stewardship Committee – Provided comments on the following proposed land acquisitions.

- Support for a potential state acquisition of 190 acres bordering the Mount Nebo Wildlife Management Area. The parcel contains the headwater area of Miller's Run. Historically the stream supported a wild brown trout population. However, a recent survey showed the fish community consisted of mottled sculpin, creek chub, and blacknose dace. The Freshwater Fisheries Program fully supports this acquisition as it will provide for long term water quality and aquatic habitat protection in the Youghiogheny River watershed.
- A potential land acquisition along the Gunpowder River in Baltimore County. Comments were provided to Land Acquisition and Planning staff.

Jennings Randolph Lake Fish Habitat Enhancement Project - United States Army Corps of Engineers, West Virginia Department of Natural Resources, and Maryland Department of Natural Resources staff participated in a virtual meeting to discuss future fisheries management plans for Jennings Randolph Lake. Currently all are collaborating with a fish habitat enhancement project using recycled Christmas trees. The trees will be placed and anchored in areas of the lake bottom lacking good physical structure. Planned trout stocking for the upcoming spring season and channel catfish stocking in 2021 (by WV Fisheries) were also discussed, along with other potential fish habitat enhancement projects including artificial yellow perch spawning structures, channel catfish nesting boxes, and large woody debris shoreline structures.

Lake Waterford - Anne Arundel County Parks and Recreation is revisiting the water chemistry issues at Lake Waterford in the Magothy River watershed. The department previously stocked adult trout to support a put-and-take fishery in Lake Waterford but discontinued the program in 2010 due to several fish kills. The culprit was low oxygen levels and an increase in dense algae blooms. Lake Waterford received renovations in 1993, which made improvements in the dam and some shoreline stabilization in the 'basin' where most anglers congregated. Sediment was already building up behind the dam and spilling into the basin but funding to dredge the material was unavailable at the time. In 2011, an independent contractor was hired to assess the oxygen issue in Lake Waterford and make recommendations. Ultimately, dredging the organic matter

and other sediments from the basin and dam was the most practical solution to the problem. Aerators were added to improve conditions in the short term. Unfortunately, the primary solution was not feasible at the time. Bayland Inc. is revisiting this issue and has been consulting with the department regarding aquatic resources and restoration. High on the list of objectives is providing a quality angling experience.

Stocking and Population Management

Trout - The Youghiogheny River catch-and-return trout fishing area was stocked with approximately 13,000 rainbow trout fingerlings (40 per pound) from the Mettiki Hatchery on January 12, 2021.

Assisted Unicorn Hatchery personnel with stocking rainbow/golden trout into Central Region streams and lakes for preseason angling.

Southern Region (Calvert, Charles, and Prince George's counties) was stocked with approximately 7,500 rainbow trout as part of the pre-season put-and-take trout fishery. Fish were raised at Manning Hatchery (Charles County) and stocked into local lakes and ponds. Anglers eagerly anticipate the stocking of these trout as a respite from the doldrums of winter.

Stocking Permits – One stocking permit was issued in January.

Outreach

Customer Service - Provided customer service information for inquiries regarding:

- Tackle restrictions in the upper and lower North Branch Potomac River catch-and-return trout fishing area.
- Tips for fishing Deep Creek Lake.
- Current conditions for open water fishing on local lakes.
- Multiple calls from anglers seeking information on ice fishing regulations and conditions.
- Information on the possibilities of launching a boat or kayak from Deep Creek Lake State Park.
- Reports of anglers 1) harvesting over their daily creel limit and keeping undersized walleye on Deep Creek Lake; and 2) harvesting oversized walleye from the non-tidal Potomac River (20 inch maximum size January 1 through April 15). Information was transferred to Natural Resource Police.
- Fall stocking on the Casselman River.
- Obtaining a permit to ride a snowmobile and ATV on Deep Creek Lake for ice fishing. Angler was referred to Deep Creek Lake State Park staff.
- Fishing the trophy trout area on the Lower Savage River during the spring.
- Fishing tournaments held on Lake Habeeb.
- Trout stocking and the stocking schedule.
- Potomac River conditions and access for muskie fishing.
- Tag information to an angler that reported catching a tagged muskie in the Potomac River.
- Technical information for controlling nuisance vegetation in a small private pond.

Gunpowder River - Provided a virtual presentation to the Maryland Chapter of Trout Unlimited on the Gunpowder tailwater trout fishery. Approximately 90 attendees participated in the meeting.

Jabez Branch - Participated in a conference call regarding Trout Unlimited's concerns about Jabez Branch stream restoration and brook trout declines in the watershed.

Brook Trout - Served as a project reviewer for the Eastern Brook Trout Joint Venture. Fifteen brook trout habitat restoration projects were evaluated and scored in order to determine grant funding.

Angler Access

Youghiogheny River - A 43-acre property along the Youghiogheny River between Oakland and Swallow Falls has been approved for acquisition by the Board of Public Works. The parcel borders about 1,000 feet of the river within the recreational put-and-take trout fishing area. The property borders existing state land and will provide for increased recreational fishing opportunities.

North Branch Potomac River Creel Survey - Freshwater Fisheries staff continued planning for an angler survey on the North Branch Potomac River from the upper catch-and-return trout fishing area downstream to the zero creel limit trout fishing area at the Gary A. Yoder Fishery Management Area at Black Oak. Staff measured the distance and time it takes to drive and stop at the six angler access locations on the North Branch Potomac River creel survey route from Bloomington to Black Oak. The survey results will help guide future management decisions.

Notchcliff Road Parking - Coordinated with the Baltimore County Police Department to change parking restrictions along Notchcliff Road in Glen Arm, MD. These parking restrictions would have prevented stocking of put-and-take trout in the Lower Gunpowder River. This area is one of Central Region's most popular put-and-take fishing locations.

Invasive Species

Conowingo Dam - Continued to participate in planning of fish passage efforts at Conowingo Dam for 2021 and beyond. The environmental consultant who operates the lift has agreed to remove invasive fish species rather than release them back into the Susquehanna River. Freshwater Fisheries is taking the lead on trying to find beneficial uses for the fish. One seafood processor has tentatively agreed to process catfish and donate the meat to the FISH (Feeding Individuals to Support Health) Project in Baltimore. Fish passage at Conowingo Dam will begin in April of 2021.

Accompanied Eastern Region staff to inspect a refrigeration unit that will be taken to Conowingo Dam. This refrigeration unit will store invasive species removed from the fish lift at the dam.

Tagged Blue Catfish - Biologists continued monitoring the movements of a number of blue catfish tagged with acoustic and radio transmitters in the tidal, freshwater Patuxent River (Anne Arundel, Charles, Calvert counties). The work is part of a collaborative project with the department, United States Geological Survey Leetown Science Center (West Virginia), Atlantic States Marine Fisheries Commission, and other partners. Since November 2020, the majority of the 38 tagged fish have been located at least weekly via passive and active tracking. Though preliminary, the majority of fish seem to have remained within several miles of their initial tagging location. Fish will be monitored into February 2021, and again during spring 2021 when an additional 40 fish will be tagged and tracked. The project aims to determine overwintering and spawning habitats used by invasive blue catfish.



Tracking tagged Blue Catfish

Solar Panel Tracking System - Completed the installation of 50W solar panel systems at ten radio receiver stations in the upper, tidal freshwater Patuxent River (Anne Arundel, Charles counties) that passively monitor the presence of 38 tagged, blue catfish. The solar panel systems maintain an adequate charge for the batteries that power radio receiver stations and significantly reduce maintenance associated with the radio receiver stations. Prior to installation, batteries at each station were replaced weekly to ensure uninterrupted data collection.



Solar panel stations used to track Blue Catfish

Finalized a Memorandum of Understanding between Fishing and Boating Services and Resources Assessment Service to address actions in the State's Aquatic Nuisance Species Plan.

Brook Trout Program

Participated in a planning committee conference call for the upcoming Wild Trout meeting to be held in West Yellowstone. Due to uncertainty with COVID-19 and travel restrictions, the meeting was postponed until September 2022 to maximize in-person attendance.

Participated in multiple conference calls and virtual meetings to discuss study design, details, and data collection/analysis for a proposed creel survey on the North Branch of the Potomac River tailwater trout fishery.

Developed printed media to share with anglers who participate in the proposed creel survey on the North Branch of the Potomac River.

Tidal Bass Program

The Black Bass Advisory Committee met to discuss ideas related to restoring targeted bass fisheries and status updates for on-going work.

Developed photo digital database of largemouth bass as a first step toward determining if photos of largemouth bass can be used to distinguish among individuals using artificial intelligence.