

## Freshwater Fisheries Monthly Report – April 2022

### Freshwater Fisheries - Stock Assessment

**Deep Creek Walleye Tagging** - Prior to the opening of the walleye season, a total of 450 legal size ( $\geq 15$  inches) walleye collected by electrofishing were marked with a dart tag to determine the percentage of legal size fish that are harvested. In the first 10 days of the season, anglers reported catching 15 tagged walleye. Information from this project will help biologists determine if management actions could improve the number of large walleye in Deep Creek Lake. More information can be found [here](#).



*Deep Creek Walleye Sampling*

**Deep Creek Walleye** - Initiated a postcard survey of walleye anglers to understand their motivations, preferences, and satisfaction with the current fishery. In addition, otoliths were removed from harvested walleye to obtain length at age and growth data. Staff also obtained size distribution data from walleye caught during the annual Garrett Bassers walleye tournament.

These data, in conjunction with the tagging study, will be used to guide the management of the walleye fishery in Deep Creek Lake.

**Savage River Reservoir Walleye** - Conducted a spring walleye survey on Savage River Reservoir to assess both age/growth as well as the contribution of stocked fish to the fishery. Walleye fingerlings are stocked annually into the reservoir. The fingerlings are marked with oxytetracycline (OTC), an animal drug that stains bone. A subset of fish are sacrificed to extract the otolith, a small bone in the head that assists with balance and hearing. Examining the otolith under a microscope, biologists can estimate the age of the fish and whether it was stocked or produced naturally.

**Smallmouth Bass Brood Collection** - Tournament bass anglers assisted Freshwater Fisheries staff with the collection of adult smallmouth bass from the upper Potomac River. Multiple boats were able to catch 60 adult smallmouth bass that were transported to the Joseph Manning Hatchery and placed into three prepared ponds for spawning. Juvenile smallmouth bass produced by the hatchery will be stocked back into the upper Potomac River to supplement natural reproduction. Staff would like to thank all of the tournament anglers who participated. All of the smallmouth bass were in excellent physical condition with several fish weighing more than 5 pounds.



*Smallmouth bass tournament on the upper Potomac River*

**Brown Trout** - Central Region staff qualitatively checked for brown trout fry in the Gunpowder Tailwater. A successful brown trout hatch was observed by multiple biologists.

**Triadelphia Reservoir** - Fish population surveys in Triadelphia Reservoir (Montgomery and Howard Counties) are typically conducted using electrofishing gear in the fall. This works well for most gamefish found in the lake (largemouth bass, smallmouth bass, northern pike, tiger muskie, etc.) but does not provide an adequate picture of white and yellow perch populations. Numerous hoop nets were deployed to see if this is a better way to capture and analyze the perch population in the lake. Mesh size is a critical factor when working with smaller fish since this will determine whether several dozen or several hundred fish will be captured in the hoop. The



hoop net survey in Triadelphia is an on-going project and will take several more trips to adequately assess this method of collection.



*Removing perch from hoop nets.*

**Eastern Region Impoundments** - Impoundment surveys were conducted in Urieville Lake and Galestown Pond using electrofishing gear. Both impoundments are currently supporting good largemouth bass and panfish populations. Urieville Lake contains an abundance of large bluegill and redear sunfish. Chain pickerel and black crappie were also collected from both impoundments.



Electrofishing Urieville Lake



Panfish from Galestown Lake



*Nice largemouth from Urieville Lake*

## **Freshwater Fisheries - Habitat and Water Quality**

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

- A stream realignment and sealing project to take place on Woodland Creek and Staub Run in Frostburg Maryland. The intent is to relocate and restore the existing stream channel with a sealing component to prevent water loss from the channel to underlying deep mines. Comments were provided to minimize impacts that could pose a threat to aquatic resources along with a recommendation of extensive plantings of native trees and shrubs to provide stability to newly constructed stream banks and facilitate riparian corridor restoration.
- Proposed dredging project to take place in Arrowhead Cove on Deep Creek Lake. Comments were focused on fish habitat, coldwater storage, and lake water levels. The project is proposed for the fall/winter of 2022-23. Using side scanning sonar technology, staff mapped the existing habitat in Arrowhead Cove. This information will be used to ensure that adequate fish habitat remains after the project is completed.
- An application submitted by Rocky Gap State Park for a boat ramp improvement – fishing access project to be completed on Lake Habeeb. Time of year restrictions were recommended along with strict sediment and erosion control measures to protect aquatic resources.
- A warehouse facility in Washington County that will add approximately 38 hectares of impervious surface along Antietam Creek. Regional and statewide staff submitted comments that outlined concerns for potential impacts to the thermal regime of Antietam Creek. Recommendations were made to protect existing riparian vegetation and to initiate riparian tree planting outside the limit of disturbance before breaking ground. Comments were also submitted to maximize sediment and erosion controls and manage stormwater to avoid thermal impacts to Antietam Creek.
- Water withdrawal permit conditions proposed for a water intake on Tommy Wright Branch upstream of Smithville Lake Fishery Management Area. Staff reviewed the conditions and recommended additional conditions to protect water levels in Smithville Lake and aquatic resources downstream of the dam.
- Processed two scientific collection permits.

**Land Reclamation** - Attended a Land Reclamation Committee meeting for a site visit to review the reclamation plan for a proposed mine. It was determined a second site visit is required as the site inspection identified water that was previously not known to be in the proposed mining area.

**Piney (Frostburg) Reservoir** -Placed Christmas trees in Piney Reservoir as part of a fish habitat enhancement project. Staff were contacted by Lowes in LaVale, MD and given the opportunity to use unsold Christmas trees as fish habitat. Staff hauled 83 trees to Piney Reservoir and placed them in areas to provide shallow water cover for young-of-year fish and in deep areas for offshore cover. Additional trees were also provided by the City of Frostburg that will be sunk in the coming weeks.



*Installing Christmas tree habitat*

**Deep Creek Lake** - Investigated a reported oily sheen/fuel smell on the water in McHenry Cove on Deep Creek Lake. While on site, staff were unable to locate a sheen that was described nor were they able to smell anything. Staff also asked employees at a marina in the area and County Government employees working in the area and were unable to find any information that would relate to the call. Maryland Department of the Environment emergency spill response was notified of the report.

**Lake Mapping** – Western Region I staff, along with the Field Operations Manager, held a meeting to test a new lake mapping program called Sonar TRX. Demonstrations on how the program works were shared along with discussions about setting up a system for statewide use and data sharing. This software will be extremely valuable for the mapping of littoral zone habitats in impoundments across Maryland.

**Temperature Loggers** - Calibrated 47 HOBO water temperature loggers. Some of these loggers were distributed to local Trout Unlimited chapters for deployment in Central Region trout streams. Some loggers were also provided to Baltimore County Department for Environmental



Protection and Sustainability for deployment in coldwater streams. The remaining temperature loggers will be deployed by Central Region staff in the month of May.

**Lake Habeeb** - Additional fish habitat improvements were made to Lake Habeeb (Rocky Gap State Park) this month. Grant funding from the State Lakes Protection and Restoration Fund was used to purchase and deploy 92 concrete reef balls. Locations for deployment were selected based on popular areas for bank and boat fishing. Side scanning sonar was used to document the location of the habitat structures and coordinates were noted. Staff intend to develop a basic bathymetric map of the lake and will share the approximate location of the structures. The project used “mini-bay” reef balls that are approximately two times the size of a normal bushel basket and weigh approximately 300 pounds each. The structures were maneuvered and loaded using heavy equipment operated by Rocky Gap State Park staff. The structures were deployed using a buoy-tending boat captained by Hydrographic Operations staff within Fishing and Boating Services. Many thanks to the staff of Rocky Gap State Park and Hydrographic Operations for their cooperation and assistance with the project. It could not have been completed without their help.



*Unloading reef balls*



*Loading reef balls onto the deployment boat; deploying reef balls*

**Cosca Lake** - Discussed projects to improve the fishery at Cosca Lake (Prince George's County) with managers with the Maryland National Capital Park and Planning Commission. Cosca Lake has had several severe water draw downs over the last decade that has negatively impacted the fishery and interrupted trout stocking efforts. Freshwater Fisheries was assured that no more changes to water levels is planned for the near future and staff with Maryland National Capital Parks and Planning Commission would like to help increase fishing success at Cosca Lake. Along with leaving shoreline wood debris in place, Fishing and Boating Services and managers at Cosca Lake are planning to deploy reef balls. Cosca Lake has a fairly even bottom profile and woody debris has been removed in the past. Reef balls will provide good refuge and protection for the various fish species already present in the lake. Trout stocking can also resume in the fall.

**Lake Waterford** - Staff are working with engineers involved in the dredging and renovation of Lake Waterford in upper Anne Arundel County. Lake Waterford used to be a very popular trout stocking site. Stocking of trout ceased in the mid 2010s due to several fish kills in Lake Waterford. Poor oxygen levels and persistent algae problems made the lake uninhabitable for trout. The department has been actively involved in talks with county planners and consultants on how to improve the water quality for fish. Currently, the plan is to dredge the lake and construct an undulating substrate, providing an irregular contour and profile. Work is also planned to increase flow in the 'basin' that is most used by anglers. Engineers are also hoping to provide extra fishing access to the lake where overgrown vegetation has limited angler access. Finally, installing small reef balls in several clusters is planned as well.

## **Freshwater Fisheries - Stocking and Population Management**

### **Brown Trout Juvenile**

- Stocked 8,400 juvenile brown trout in the mainstem Antietam Creek in Washington County. Fish measuring 3-4 inches were stocked from the Pennsylvania line downstream to Devils Backbone. These trout will grow to a catchable size in the next few years. Juvenile stocking helps maintain the productive trout fishery on Antietam Creek.
- North Branch Potomac River zero creel limit fishing area was provided a maintenance stocking of 8,750 Crawford strain brown trout juvenile.

### **Put-and-Take Trout Stocking**

- Assisted Bear Creek Hatchery staff with stocking efforts to spread trout throughout the regions managed trout fisheries at the following locations: Bear Creek, Wills Creek, Piney Reservoir, Georges Creek, Dan's Mountain Pond, Youghiogheny River, and the North Branch Potomac River in Westernport, North Branch Potomac River Delayed Harvest Area.
- Assisted hatchery personnel with trout stocking in the Central Region. Stocked pre-season trout in 26 different areas. Nearly 30,000 trout were stocked into Central Region waterbodies. Assisted Trout Unlimited with Patapsco and Patuxent River float stocking efforts in Howard and Carroll Counties.
- Coordinated with local Trout Unlimited chapters to float stock trout in the Middle Patuxent and South Branch Patapsco Rivers.
- Coordinated with Patapsco Valley State Park Maryland Conservation Corps crew to float stock the South Branch Patapsco River Delayed Harvest Area and Morgan Run.



*Maryland Conservation Corps ready for stocking fish.*

**Brood Collection** - Southern Region staff collected brood fish for propagation at the Joseph Manning Fish Hatchery in Charles County. Largemouth bass were collected from the Potomac River for the tidal bass program and a few striped bass were collected from the Patuxent River to meet hatchery needs. In the past, some really large females (over 50 lbs) were commonly seen during brood fish collection on the Patuxent but, recently, these large ‘cows’ have been missing during brood collection. This year, however, some really nice sized striped bass females were captured during collection but were immediately released.





*Very nice 55-pound Patuxent River striped bass*

A total of 37 stocking permits were submitted for April, this total includes permits from the Southern States Fish Wagon from multiple trips to Maryland.

### **Freshwater Fisheries - Outreach**

**Customer Service** - Provided customer service information for inquiries regarding:

- Walleye fishing on Deep Creek Lake.
- Gathered information from callers reporting tagged walleye from Deep Creek Lake.
- Provided trout fishing information.
- Gave caller information on where to obtain a fishing license.
- Staff fielded calls from 15 angling constituents inquiring about numerous fishing related topics.
- Provided angler with all the ways to obtain trout stocking information (Twitter, Facebook, email distribution, 800 phone line and website).

### **Envirothon**

- Provided training for the Garrett County Envirothon. Training was held at the Hickory Environmental Education Center where students learned about various environmental topics from outdoor professionals.
- Prepared and administered the Aquatics Test for the Frederick County Envirothon. The winning team, Brunswick High School, will compete in the Maryland Envirothon competition in June for a chance to represent Maryland at the National Envirothon held in July.

**Beaver Creek Restoration** - Freshwater Fisheries staff gave an overview of the Beaver Creek stream restoration project in Washington County to a class from the U.S. Fish and Wildlife Service National Conservation Training Center. Class participants were taking part in a Rosgen Level I training by Dave Rosgen. Staff provided information on the stream restoration work that had been conducted and the positive response shown to the trout fishery and biological community from improvements to stream habitat conditions.

**Youth Fishing Event** - Provided assistance to Gambrill State Park Youth Fishing Rodeo. Over 35 participants were instructed on the fishing basics (rod/reel set-up, tackle selection) along with knot tying, fish ID, habitat and casting. The pond was stocked with trout prior to the event.



*Participants enjoying the day at Gambrill State Park Fishing Rodeo.*

## **Freshwater Fisheries - Angler Access**

**Land Acquisition** - Provided input/comments in support of land acquisition bordering the North Branch of the Potomac River adjacent to the existing McCoolle Fishery Management Area.

## **Freshwater Fisheries - Invasive Species**

**Conowingo Reservoir Fish Lift** - The 2022 lift season at Conowingo Reservoir is underway, however very few invasive species have been collected thus far. Cooler temperature and higher flows are likely delaying the catch. Staff are ready to respond when the catch rates increase.

**Blue Catfish** - While collecting brood striped bass in the Patuxent River, staff collected 44 blue catfish and dissected them later to see what they were eating. This was deemed important since blue catfish are now often found with, or around, striped bass during their springtime run up river. Some mussels, a hogchoker and an unidentifiable catfish were found in their stomachs. Most blue catfish examined had white perch in their stomachs. These findings are similar to results from previous blue catfish diet studies. White perch appear to be a primary food source for blue catfish in the Patuxent River.

## **Freshwater Fisheries - Coldwater Program**

Attended the Eastern Brook Trout Joint Venture annual meeting at the National Conservation Training Center in Shepherdstown, West Virginia. Participated in state and regional updates for brook trout conservation efforts and discussed upcoming project ideas and goals. Provided an update on Maryland's brook trout conservation efforts.

Held the second meeting of the Coldwater Fisheries Advisory Committee. Staff provided an overview of the Coldwater Fisheries Program role and responsibilities to committee members. Additional discussion topics included Maryland Department of the Environment's 2019 Triennial Review and winter weather road treatments in Garrett County. The next committee meeting will be held in July.

Communicated with Maryland Department of the Environment to make recommendations for the Triennial Review process. The agencies continue to work together to update and improve protections for coldwater resources throughout the state.

Staff met with MDE Wetlands and Waterways to discuss permitting logistics and concerns related to instream Large Woody Debris projects to restore and enhance brook trout habitat.

Staff met with MDE Abandoned mines staff to discuss upcoming funding sources for acid mine drainage treatment. MDE will be getting \$4.7 million in funding over the next 15 years. Freshwater Fisheries and MDE will be creating an MOU to prioritize and direct AMD funding to improve brook trout and other coldwater habitat.

## **Freshwater Fisheries - Tidal Bass Program**

Initiated a creel survey on the tidal Potomac River to estimate angler effort and catch rates as well as tag reporting rates for largemouth bass. In 2021, largemouth bass were tagged and released from multiple locations in the tidal Potomac River. The tagging project is a cooperative effort between Maryland Department of Natural Resources, Washington D.C. Department of Energy and Environment, and the Virginia Department of Wildlife Resources that aims to



estimate the population of largemouth bass in the tidal Potomac River. Information from the creel survey will help fine-tune those estimates, and the survey will extend through June.

### **Freshwater Fisheries - Other**

Staff continues to prepare and perform maintenance on equipment for fieldwork. Future sampling efforts will be focused on:

- Smallmouth bass collection from the North Branch Potomac River for disease testing
- Youghiogheny River Mark/Recapture trout population estimate
- Deep Creek Lake fish population surveys
- Savage River Reservoir fish population surveys
- Lake Habeeb fish population surveys
- North Branch Potomac River trout population study assisting Interstate Commission on the Potomac River Basin on a trout movement study through radio telemetry
- North Branch of the Potomac River PIT tagging study to determine age and growth of the trout fishery

Central Region staff have been assisting Stevenson University students with a conservation project in Carroll County. Tiger trout eggs were transplanted into the gravel in the fall. No tiger trout fry were observed during the last field visit.



*Transplanting tiger trout eggs*

Southern Region biologists provided technical assistance to counterparts in West Virginia who are working to increase channel catfish in some of their reservoirs. Focus is on spawning habitat and construction of artificial nests to help promote natural reproduction in the lake.