

Freshwater Fisheries Monthly Report – March 2022

Freshwater Fisheries - Stock Assessment

Deep Creek Lake - Initiated a walleye tagging study on Deep Creek Lake to better assess angler harvest preferences and rates. This is part of an ongoing effort to better understand all aspects of the fishery, including population abundance, size distribution, growth rates, mortality rates and angler catch and harvest. If anglers catch a tagged walleye during the open season (April 16 through February 28), they are asked to report the catch information by calling the Western Region I office. Informational signage has been posted at numerous local bait/tackle and fishing retail stores as well as popular angler access points around Deep Creek Lake. At the completion of the study, ten anglers who reported tags will be randomly chosen to receive a prepaid Visa gift card.



Deep Creek Lake Walleye Tagging Project

Upper Potomac River - Freshwater Fisheries staff are completing an upper Potomac River muskellunge population estimate. Adult muskellunge have been collected using boat electrofishing and tagged with yellow plastic dart tags to help determine abundance in the Williamsport section of the river. Fin ray sections were also collected for age and growth estimates. Potomac River anglers are asked to report any tagged fish that they catch. This population estimate will add to the ongoing radio tracking work and provide the necessary data to manage the fishery.



Muskellunge tagging on the upper Potomac River

Blue Catfish Study - Eastern Region staff completed another round of boat electrofishing on the Nanticoke River and Marshyhope Creek to provide blue catfish for an ongoing study at Salisbury University. A master's degree candidate is completing the study on invasive blue catfish growth rates and diet. The results of the study will shed light on the impacts the species may be having on the ecosystem and help guide future management decisions. Two large northern snakeheads were also collected and euthanized.



Freshwater staff with two large blue catfish from Marshyhope Creek

Triadelphia Reservoir - Worked with Washington Suburban Sanitary Commission staff to assess yellow perch and walleye populations in Triadelphia Reservoir (Howard and Montgomery counties). Fyke nets were set in areas that historically held the species and new areas to determine spawning aggregations. Sampling will continue into April 2022. Thus far, northern pike are the most abundant species captured by the fyke nets. A few yellow perch were also collected.

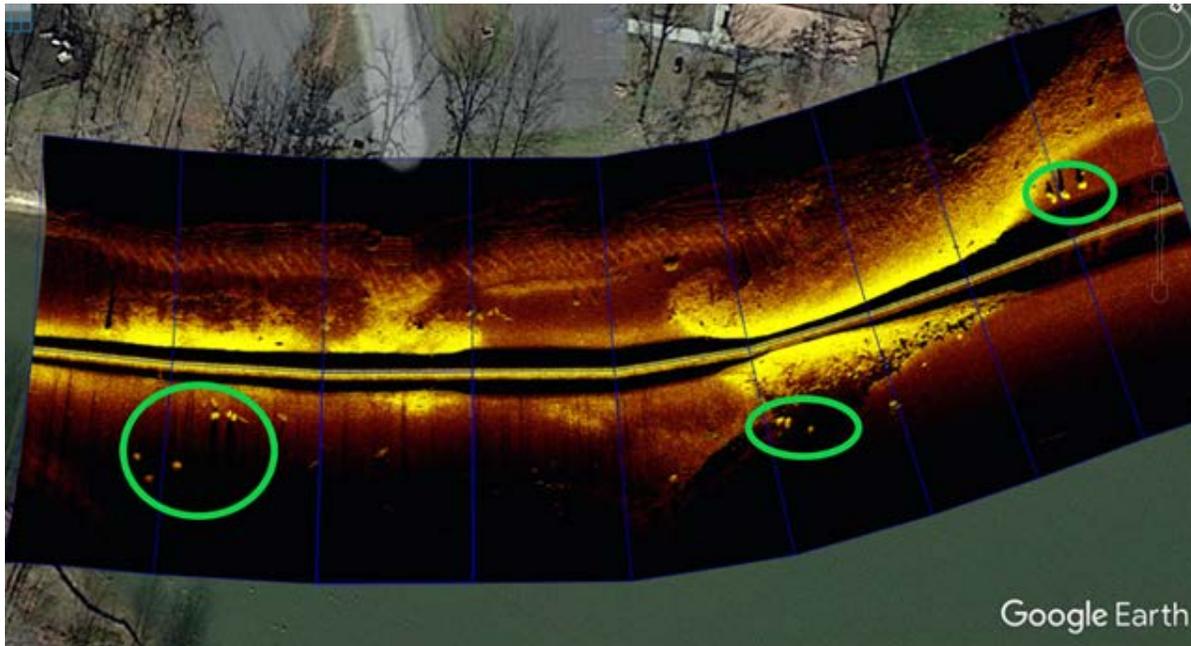
Freshwater Fisheries - Habitat and Water Quality

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

- A Trout Unlimited project to take place on Sand Spring Run in Frostburg MD. The project design is to replace a failing culvert with a bottomless arch culvert and incorporate a stream habitat enhancement component that will benefit the wild brook trout population. Comments for time of year restrictions, and strict sediment and erosion control measures were provided.
- A Columbia Gas of Maryland application was received for a gas line replacement project in Gilmore MD. Comments for strict sediment and erosion control measures along with minimal disturbance in the floodplain were provided to protect aquatic resources.
- Reviewed two applications submitted by St. Mortiz Properties LLC to reconstruct two boat launches on Deep Creek Lake. Comments were provided to protect lake bottom substrate and safeguards during concrete work. Water contact with curing concrete can result in an elevated pH that can negatively impact aquatic resources if it exceeds the regulatory limit of 8.5.
- A revetment to be constructed on the shoreline of Deep Creek Lake. Time of year restrictions were applied to protect lake resources along with comments to protect existing vegetation, protecting lake bottom substrate, and to provide favorable working conditions that would cause minimal disturbance to work locations.
- A bridge replacement and stream restoration project proposed for Bens Run in Baltimore County. Comments were submitted to request sediment and erosion control best management practices, protections for aquatic organism passage, and minimal disturbance to the riparian buffer. Requests for improved parking and access to the Patapsco River were also submitted. Staff agreed to participate in a site visit to discuss the project.
- The 90 percent design plans for a stream restoration project in an unnamed tributary to Severn Run. The stream is highly degraded due to stormwater runoff from impervious surfaces in the headwaters. Staff did not support or oppose the restoration design due to the limited options available in the work area. Comments were submitted to request minimal sediment transport during project activities and post-project water quality monitoring.
- Southern Region staff attended a meeting with engineers from Anne Arundel County to discuss plans for habitat improvement at Lake Waterford (Anne Arundel County) after an upcoming dredging project. Plans include an irregular bottom contour with deep pools and aggregations of artificial reef balls. The work should improve the lake enough to make it, once again, a popular fishery and improve angler access.
- Processed six scientific collection permits.

- Provided comments on three Internal Review projects in Patapsco Valley State Park.
- Western Region I provided comments on three Project Open Space properties in Allegany and Garrett Counties.
- A two million square foot warehouse development project in the Antietam watershed (Washington County).

Fish Habitat - Christmas trees were placed in Broadford Lake as part of a fish habitat enhancement project. The Garrett County Landfill saved discarded Christmas trees and stored them until staff could haul them to the lake and place them in areas to provide shallow water cover for young-of-year fish and in deep areas for offshore cover. The image overlay below was produced using a new software program for habitat mapping called Sonar TRX and shows freshly sunk trees circled in green. The image is gathered by using a recorded side scan transect from a Garmin sonar unit and then loaded into the Sonar TRX program where it is manipulated for image quality and georeferenced. The georeferenced image can then be exported and placed on a Google Earth map. This technology will be used in the future to map littoral zone habitats in freshwater impoundments across Maryland.



Muddy Creek - Finished spraying ten tons of high calcium limestone sand into Muddy Creek to increase stream pH where it is impaired by acid deposition from snowmelt and rain events. This project is completed yearly to provide better water quality within Muddy Creek to prevent fish kills that occurred before the project was initiated.

Yellow Perch - Worked with the Magothy River Citizen Association to enhance yellow perch access to spawning habitat in the Magothy River (Anne Arundel County). Yellow perch traditionally spawned at the base of Lake Waterford but have had poor success in recent years, due in large part to low water flow and poor water quality (e.g. sedimentation). Anne Arundel County is working to mitigate sedimentation. Recently, Freshwater Fisheries and Hatcheries

Division staff met with county officials to investigate beaver dams blocking the river. The dams were removed, and shortly after, yellow perch egg chains were observed upstream.

Jabez Branch - Analyzed temperature and electrofishing data to complete the Jabez Branch Federal Aid Report.

Freshwater Fisheries - Stocking and Population Management

Trout - The Youghiogheny River catch-and-release trout fishing area received a maintenance stocking of 2,000 rainbow trout courtesy of Bear Creek Hatchery.

Spring Put-and-Take Trout – Staff remained busy during March with the stocking of streams and impoundments across the state in preparation of opening day on March 26.

- Western Region assisted Bear Creek Hatchery staff with stocking efforts to spread hatchery-raised trout throughout the region's trout streams.
- Southern Region stocked over 9,000 rainbow trout in Calvert, Charles, Prince George's, Anne Arundel Counties. The trout serve as the first harbingers of spring for many anglers and the put-and-take fishery is popular within the region.
- Central Region assisted hatchery personnel with pre-season trout stocking in 17 different areas. Nearly 40,000 trout were stocked into Central Region water bodies during the month of March. Trout Unlimited volunteers assisted with Patuxent River float stocking efforts in Howard and Carroll Counties
- Coordinated with Patapsco Valley State Park MCC crew to float stock the South Branch Patapsco River Delayed Harvest Area and Morgan Run.
- Eastern Region stocked trout throughout the upper, mid and lower shore.

Stocking Permits - A total of 14 stocking permits were issued during March.

Freshwater Fisheries - Outreach

Customer Service - Provided customer service information for inquiries regarding:

- Directed inquiry to proper persons in regards to building a bridge on private property.
- Provided callers with information on fishing the Lower Savage River.
- Gave caller information on how and where to obtain a fishing license.
- Provided information on when the state park boat ramp will be open and when docks will be put in.
- Provided information to callers and fielded many complaints on the status of the Deep Creek Lake State Park boat launch docks. With the warm weather arriving, anglers would like to get out on the lake but not all can without a dock to tie their boat(s).
- Provided information to a landowner about their private pond management.
- Fielded calls from over 25 angling constituents.

State Record Muskellunge - staff verified the new Muskellunge State Record. Kyle Mullenix of Hagerstown caught the 33-pound, 49-inch long record muskie on March 2 along the banks of the upper Potomac River in Washington County.

Deep Creek Walleye -Staff was invited to virtually present information about the walleye tagging study on Deep Creek Lake as part of the “Brunch and Learn” series offered by the



Kyle Mullenix and his 49-inch, 33-pound state record muskie. Photo courtesy of Kyle Mullenix.

University of Maryland Extension Office and sponsored by the Deep Creek Lake Watershed Foundation. The event was well attended with a number of great questions at the end of the presentation.

High School Intern - Central Region Staff has been supervising an intern from Carroll County Public Schools. This intern has been assisting with trout stocking the last two months.

Freshwater Fisheries - Angler Access

Regulation Signage - Fishing regulation signs were posted in different management areas to inform anglers of applicable fishing regulations and closures.. New signs were posted at Deep Creek Lake access points and local businesses to inform anglers of the walleye tagging study taking place on Deep Creek Lake and increase participation.

Evitts Creek Ponds - Western Region I staff did an excellent job of refurbishing abused picnic tables at the Evitts Creek Ponds Fishery Management Area. The tables were securely fastened to the ground in the hopes of preventing future vandalism.



Met with Jennings Randolph Lake Army Corps of Engineers staff to post areas on the North Branch Potomac River below the dam that are off limits to access and fishing. The federal property has restricted access for security and safety concerns and also serves as a fish propagation area.

Freshwater Fisheries - Invasive Species

Submitted a pre-proposal for over \$100,000 to support invasive species initiatives including media campaigns, continued eDNA monitoring, and expansion of a successful launch stewardship program across the state; if successful, funding will be available beginning July 2023.

Completed work with providing a methodology for risk assessment of non-native species in the state and current risk assessments include those for Alabama Bass, Asian Swamp Eel, and New Zealand Mud Snail; the methodology used by the department's Invasive Species Matrix Team is available for review on the department's Aquatic Invasive Species Management [website](#).

Worked on outreach describing research conducted on blue catfish in Patuxent River; outreach has been posted [online](#) for public consumption.

Completed work and issued a press release with additional promotion of a small grants initiative aimed at small communities interested in harvesting or removing aquatic invasive species; the grant proposal period is currently open with a deadline of April 15. More information can be found [here](#).

Preparations for the 2022 season at the Conowingo Dam Fish Lifts were completed in early March. Both the east and west lifts are now operational and are removing invasive species from the Susquehanna River while collecting American shad for release into upstream areas. Freshwater Fisheries staff once again is assisting with the transport of the invasive fish to JJ McDonnell, a seafood processor who will be donating the filets to the Maryland Food Bank and the United Way.

Attended the 2nd Annual “Do It For Roper” Patuxent River Catfish Tournament. Staff discussed invasive blue catfish in the Patuxent River and highlighted recent work on the species by the

department. A portion of the proceeds benefited Calvert Hospice, an organization that provides care in Prince Frederick and the surrounding area.

Responded to two tag returns of blue catfish tagged in the tidal Patuxent River (Charles County). Fish were tagged as part of a mark-recapture study to estimate population size during August 2021. Each fish's known tagging history was shared with anglers; both fish moved roughly 15 miles downstream from their initial tagging location.

Freshwater Fisheries – Coldwater Fisheries Program

Completed field work for a study that will determine if brook trout presence can be detected using eDNA sampling techniques. Staff collected brook trout for the study, marked sample collection locations, and assisted University of Maryland Center for Environmental Science with water sample collection. This work is supported by a State Wildlife Grant.

Participated in the quarterly meeting for the Eastern Brook Trout Joint Venture Steering Committee. Agenda items included discussions about brook trout habitat projects that will be funded in the next fiscal year, potential funding sources for seasonal hires and for lentic habitat research, and updates on the infrastructure bill. The agenda for the 2022 annual meeting was also discussed.

Provided a presentation at the Chesapeake Bay STAC day two workshop titled “Rising Watershed and Bay Water Temperatures—Ecological Implications and Management Responses”. The presentation highlighted Maryland’s Brook Trout Conservation efforts. It was well received and discussed as a template for other bay states to follow.

Freshwater Fisheries - Tidal Bass Program

Attended the BassMaster Classic's Conservation Director meeting in Greenville, South Carolina; summarized action items will be presented to the Black Bass Advisory Committee during their April meeting.

Completed the Black Bass Annual Review and annual tournament director's report that summarizes their 2021 results; the report is currently available online and has been sent to over 100 directors in the state; the Black Bass Annual Review is undergoing final edits before being distributed to over 220,000 black bass anglers who purchased licenses through the department's Compass licensing system. The report can be viewed on the department's bass tournament [webpage](#).

Created postcards that will be used during an interjurisdictional creel survey conducted between April and June; the purpose of the cards and the creel survey are to document reporting rate of largemouth bass that had been tagged and released to the Potomac River. The department along with agencies of Virginia and the District of Columbia will use this information to better monitor the fishery in shared waters of the tidal Potomac River.

Freshwater Fisheries - Other

Annual service and repairs of regional electrofishing boats for the Freshwater Fisheries and Hatcheries Division has concluded. Routine maintenance ensures the safety and reliability of these complex machines. All work was completed by Eastern Regional staff.

Central Region Freshwater Fisheries welcomed Branson Williams as our new biologist. Branson transferred from Southern Region and will be filling the position left vacant by Todd Heerd's retirement. After a 15 minute orientation, Branson was happily carrying countless buckets of put-and-take trout, Central Region style.

Eastern Region staff completed chainsaw safety course S-212. This hands-on course will allow staff to safely remove and cut up trees during maintenance operations on Fisheries Management Areas.



Freshwater Staff felling a dead tree at Elk Neck State Park while an S-212 instructor watches