

Freshwater Fisheries Monthly Report – October 2019

Stock Assessment

Evitts Creek - Students from Allegany College's Forestry Program, Garrett College's Natural Resource and Wildlife Technology Program, and Eastern West Virginia College's Natural Resource Program assisted in a qualitative fish and benthic macroinvertebrate survey in Evitts Creek in Allegany County. The students collected a diverse assemblage of native fish species and documented a diverse benthic macroinvertebrate community. Based on their findings the students found the stream to be non-impaired.



Garrett College student with a large hellgrammite collected in Evitts Creek.

Youghiogheny River Trout Population Survey - The Youghiogheny River catch-and-return trout fishing area was surveyed at the Hoyes and Sang Run stations. The Hoyes station contained a density of 1,030 trout per mile and the Sang Run station sample was insufficient for an estimate. The Hoyes station contained the largest trout, with a 20 inch brown trout collected in the sample. Thanks to Garrett College Fisheries Management Class students, Wildlife Service and Brook Trout Program staff that participated to get the survey completed.



Garrett College students with trophy brown trout from the Youghiogheny River catch-and-return trout fishing area.

Potomac River - The annual fall electrofishing survey was started in early October. Stations from Edwards Ferry upstream to Paw Paw, WV were sampled to check the status of adult populations of several gamefish species (smallmouth bass, walleye and muskellunge). Unfortunately, catch rates for adult smallmouth bass have been below average in some sections of the river. Low juvenile recruitment over the past several years has resulted in a drop in adult numbers. Electrofishing sampling will continue into early November.



22 inch smallmouth bass collected in the Shepherdstown section of the upper Potomac River.

Habitat and Water Quality

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

- A time of year instream construction waiver request for the Rt. 36 Bridge over Jennings Run in Allegany County. The State Highway Administration was currently in the stream with an existing water diversion, and requested one additional week to complete the project. While it would have been best to have the project completed by October 1, the best course of action was to recommend granting the waiver while stream flows were extremely low thereby minimizing instream sediment mobilization.
- Replacement of a crushed culvert that conveys drainage from Interstate 68 to a tributary of Terrapin Run in Allegany County. Stringent sediment and erosion control methods, and other best management practices typically used for the protection of stream resources were recommended.
- Smithsburg wastewater treatment plant (WWTP) (10-DP-1029/MD-002-4319) upgrade. The WWTP discharges into Grove Creek, a tributary to Little Antietam Creek. Both streams are designated as Use III-P coldwater habitat. Adhering to the Use III-P temperature requirements is extremely important in maintaining these populations. Temperature monitoring will determine ambient stream temperatures and if further efforts to reduce effluent temperatures are necessary.
- Maryland Department of Transportation (MDOT), State Highway Administration for emergency culvert replacement and road repairs at MD 50 and Cherry Creek near Oakland in Garrett County. Repairs were completed July, 2019. The repaired culvert is immediately downstream of two in-line ponds so fish passage is less important at this site due to existing conditions. The fishery resources in the above area should be adequately protected by the instream work restrictions, stringent sediment and erosion control methods, and other best management practices typically used for the protection of stream resources.
- MDOT, State Highway Administration to expand the Park and Ride parking lot at Elmer Derr and Mount Zion Roads. Runoff from the proposed facility flows to a designated coldwater watershed. Stormwater management practices that feature infiltration, vegetation and subsurface treatment of runoff to reduce stream temperatures reaching Ballenger Creek were recommended.
- MDOT, State Highway Administration to replace MD 17 bridge #1001900 over Middletown Creek, a tributary to Catoctin Creek south of Middletown in Frederick County. It was recommended that: (1) no instream construction should be done in Use I streams during the period March 1 through June 15 to protect spawning warmwater fish species; (2) instream riprap should not result in the blockage of passage for aquatic life; and (3) road/bridge runoff be directed and possibly treated and not directly enter the waterway.
- Maintenance and repair of an existing 261 foot revetment on Deep Creek Lake to prevent shoreline erosion. Rock piles every 50 feet of constructed wall were

recommended as well as maintaining existing rock and woody material on the lake bottom outside of the immediate footprint of the wall to preserve shoreline fish habitat.

- Use III coldwater instream construction time of year waiver request to replace a culvert conveying Beaverdam Run, a wild brown trout resource. If emergency conditions can not be demonstrated, it is recommended that work begin after April 30, 2020.
- MDOT, State Highway Administration for emergency shoulder repairs on MD 219 south of Oakland. The repairs had small temporary wetland impacts and no stream impacts.
- Repair of an eroding outlet structure on a private pond in the Ballenger Creek watershed in Braddock Heights, Frederick County. The emergency spillway and existing outlet channel will be stabilized with rip rap and a six inch siphon drain will be added to reduce outflow temperature. The work is not expected to impact downstream fishery resources.
- Maryland Department of the Environment, Mining Program to repair subsidence and voids under Farm Hill Road and construct a wet mine seal at the mine entrance to drain water accumulation in the mine workings. The department supports this project that will reduce the likelihood of a "blowout" that would release a large volume of poor quality water and accelerate erosion. Water from the abandoned mine flows into the lower reaches of Koontz Run west of Lonaconing. Koontz Run is a Use III stream that supports a strong population of native brook trout as well as coldwater obligate macroinvertebrates.
- Construction of a 101 foot stone revetment adjoining Skippers Point Road on Deep Creek Lake to reduce shoreline erosion. It was recommended that no rock material outside of the wall footprint be used for construction and that no rock or woody material should be removed from the lake bottom; no intake work should be conducted during the Use I restriction period of March 1 through June 15 of any year to protect spawning activities of resident fish.

Western Region Land Stewardship Committee - Provided supportive comments for potential land acquisitions for:

- A 42.7 acre parcel along the Youghiogheny River. This property is undeveloped and has over 1000 feet of river frontage. It is forested with black cherry and various oaks. This property would adjoin existing department lands and be available to the public for all legal uses. The Freshwater Fisheries Program supports acquisition of this property as it will provide additional public angler access along the river as well as provide long term water quality protection in the Youghiogheny River watershed.
- A 10 acre parcel along the Youghiogheny River. The Freshwater Fisheries Program considers this potential acquisition as a top priority in order to provide increased public access and recreational fishing opportunities in the Youghiogheny River catch and return trout fishing area. Also, public ownership of this parcel will provide for long term water quality protection as well as protect the natural views within the Youghiogheny River Wild and Scenic Corridor.
- A 2.5 acre parcel bordering New Germany State within the Poplar Lick watershed. The Freshwater Fisheries Program fully supports acquisition of this property. One of the goals of the department's Brook Trout Fishery Management Plan is to increase public

ownership of lands within watersheds supporting brook trout populations in order to provide for long term water quality and habitat protection.

State Lake Protection and Restoration Fund - Attended open house at Garrett College to solicit public input regarding the development of a work plan for the second phase of the [State Lakes Protection and Restoration Fund](#). The fund is providing one million dollars annually for three years to protect and restore state-owned lakes.

State Forest Annual Work Plans - Western Region I staff participated in the multi department field reviews for the Savage River, Green Ridge and Potomac/Garrett state forests FY21 annual work plans. All streams within the proposed timber management areas have at least a 50 foot no cut buffer in the riparian zone for water quality and fish habitat protection.

North Fork Crabtree Creek Restoration Project - Five neighboring chapters of Trout Unlimited (TU) joined forces to help restore important riparian habitat within western Maryland's Savage River watershed. Members of the Nemascolin, Youghiogheny, P. Pendleton Kennedy, Frostburg State and West Virginia University Five Rivers student chapters of TU united to plant 155 large potted trees along the North Fork of Crabtree Creek. TU members were also joined by Fishing and Boating Services staff and students from the Natural Resources and Wildlife Technology Program at Garrett College to get the job done. The day long tree planting event is one component of an effort led jointly by the Nemascolin Chapter of TU and TU's Western Maryland Initiative to restore critical spawning habitat within the headwaters of Crabtree Creek. With funding and material support from TU's Embrace A Stream Grant Program, Fishing and Boating Services, Chesapeake & Atlantic Coastal Bays Trust Fund, and a donation from The National Capital Chapter of TU, the project is assisting two conservation minded landowners in improving agricultural practices along approximately 2,000 feet of streambank. The restoration work on Crabtree Creek complements ongoing efforts by TU's Western Maryland Initiative and a broad coalition of local, state and federal conservation partners to improve habitat conditions for brook trout in Maryland's westernmost counties (submitted by Seth Moessinger of Trout Unlimited).



Volunteer force at the North Fork of Crabtree Creek riparian restoration site.

Vegetation Removal - In preparation for fall trout stocking, biologists manually removed aquatic vegetation from Hughesville Pond, a fish management/recreation area in Charles County. The pond is eutrophic and habitually has issues with excessive aquatic vegetation. It was covered with *Azolla sp.* that hinders fishing and needed to be removed. Hughesville Pond is one of the most popular trout fishing destinations in Southern Maryland.

Advised Maryland-National Capital Park and Planning Commission (MNCPPC) staff on manual duckweed removal at Melwood Pond (Prince George's County), a MNCPPC property that is a popular destination for put-and-take trout anglers. Staff loaned out floating booms, nets, rakes and other equipment to MNCPPC staff to remove the vegetation.

Watershed Presentation - Western Region II Manager gave a presentation to the Antietam-Conococheague Watershed Alliance on trout populations and coldwater resources in Washington County. The watershed group has been actively collecting temperature, benthic macroinvertebrate, and water quality data in the Antietam and Beaver Creek watersheds. Efforts are underway to identify new restoration project areas in those areas of Washington County.

Stocking and Population Management

Trout - The North Branch Potomac River zero creel limit for all trout species fishing area was stocked with 2,500 brown trout juveniles (19/pound) from the Cushwa hatchery.

The Casselman River delayed harvest trout fishing area was stocked with 500 rainbow trout with the volunteer assistance by students enrolled in Garrett College's Natural Resource and Wildlife Technology program.



Garrett College students stock rainbow trout in Casselman River.

Fall trout stocking was completed in Eastern Region. Rising Sun Pond, Big Elk Creek,

Howards Pond and Tuckahoe Creek all received fish. Fall trout fishing has become a very popular activity for Eastern Shore anglers.

Smallmouth Bass - To supplement 2019 natural recruitment in sections of the upper Potomac River, Freshwater Fisheries purchased 2,000 juvenile smallmouth bass produced by an out-of-state commercial hatchery. These young smallmouth bass measured four to five inches in length and had been tested and passed all required fish health screenings. Staff transported the fish back to Maryland stocked them at points along the river from Brunswick upstream to Dam 4. These sections of river have experienced low smallmouth bass recruitment due to high spring flows for the past several years. The goal of supplemental stocking is to improve the overall smallmouth bass population as these fish grow to adult size over the next two to three years. Efforts will continue in 2020 to produce juvenile smallmouth bass from state hatcheries.



Advanced fingerling smallmouth bass stocked in the nontidal Potomac River.

Sunfish - Herrington Manor Lake was stocked with a combination of 30,000 bluegill and redear sunfish juveniles on October 2.

Several small impoundments in Frederick County were stocked with juvenile bluegill produced from the state warmwater hatchery. A total of 20,000 redear sunfish and bluegill combination were divided and stocked into Culler Lake, Lake Whittier, Gambrill Pond and Woodsboro Pond. These sunfish will grow to catchable size in the next two to three years. Cunningham Lake was stocked with 20,000 golden shiners to provide additional forage for the largemouth bass population.

Hybrid Striped Bass - Anglers continue to report catches of large hybrid striped bass from Broadford Lake. This unique fishery is made possible with the cooperative partnership between the department's Hatchery Program and the Meadow Mountain Youth Center.



A chunky 24 inch hybrid striper from Broadford Lake in Garrett County.

Outreach

Customer Service - Provided information in response to the following inquiries: Fall trout stocking statewide; concerns of brook trout fishing during drought conditions; pond stocking recommendations; and fishing conditions in the Youghiogheny River catch and return trout fishing area.

Fisheries Management Activities - Provided a presentation on fiscal year 2019 fisheries management activities to the North Branch Potomac River Advisory Committee. The presentation included results of the Savage River trophy trout fishing area trout population surveys, the North Branch Potomac River zero creel limit trout population surveys, the North Branch Potomac River catch-and-return black bass surveys and the trout stocking record in the North Branch Potomac River downstream of Jennings Randolph Lake during fiscal year 2019.

Staff attended the Youghiogheny Chapter of Trout Unlimited monthly meeting to discuss temperature enhancement release conditions for the Deep Creek Lake hydrostation's pending

water appropriation permit. The temperature enhancement releases allow for the Youghiogheny River to remain cold enough during the critical summer period for trout survival. We proposed to extend the temperature enhancement releases to September 15 as we have documented temperatures greater than 77 degrees Fahrenheit during early September in recent years.

Master Naturalist - Provided an Aquatic Ecosystems/Freshwater Fishes class for the Maryland Master Naturalist Program in Frederick County. The class was instructed on the different aquatic ecosystems in Maryland, threats to the stream ecosystems and the importance of riparian buffers for protection of the resource. A presentation on the fishes of Maryland with focus on fish found in their region was also provided. Participants were able to practice keying fish samples from most of the 23 families of freshwater fishes found in Maryland.

Biologists discussed fisheries science with high school students in the North Point National Oceanic and Atmospheric Administration Ocean Guardians Program and demonstrated how to conduct a seine survey. Staff sampled a section of shoreline at Chapel Point State Park (Nanjemoy Creek; Charles County) and provided a “primer” on fish identification. Students measured and identified fish, and several donned waders to do their own seine haul.

Angler Access

Continued to mow, remove trees, remove trash, conduct road and boat ramp maintenance, and replace fishing regulation informational signs at the North Branch Potomac River and Evitts Creek Ponds fishery management areas.

Brook Trout Program

Attended the North Branch Potomac River (NBPR) advisory commission meeting and shared information on hardware updates for the real time temperature probes collecting hourly water temperature data on the lower Savage River and North Branch of the Potomac.

Continued work on the draft statewide brook trout management strategic plan following the completion of our first comprehensive population status update from the five year statewide monitoring effort (2014-2018) completed in 2018. A public meeting for stakeholders and anglers that included statewide Trout Unlimited chapter representatives and varied non-governmental organizations was held at the Mt. Aetna Retreat Center near Hagerstown. Staff also presented the draft plan to the Maryland Sport Fisheries Advisory Commission at their quarterly meeting in Annapolis. Overall, participants were supportive about the plan and provided comments that will be incorporated. Next steps include revising and finalizing the rating criteria, performing the analysis of statewide brook trout populations and assigning a level, and then finalizing. Development of this plan follows the strategies described in our statewide [Brook Trout Fishery Management Plan](#).

Initiated data analysis for the 2019 brook trout population sampling work which was completed in September. Staff continued brook trout data entry into the database for the 2019 sampling season.

Staff participated as a member of the multi-state Brook Trout Action Team for the Chesapeake Bay Agreement to develop the next upcoming two year work plan. Also participated on the quarterly Eastern Brook Trout Joint Venture steering committee meeting.

Worked on getting an eDNA research proposal grant agreement completed. The project is being funded through the State Wildlife Grant program and will be in partnership with University of Maryland Center for Environmental Studies Appalachian Laboratory researchers. The focus will be on the feasibility and utility of using eDNA techniques to determine/monitor brook trout presence and/or absence in Maryland streams. The project will be funded for two years and work will be initiated in November 2019.

Tidal Bass Program

Completed the annual fall electrofishing survey of the tidal Potomac River largemouth bass population. Staff sampled 54 sites from Oxon Creek to Chicamuxen Creek (Charles County). Although data have yet to be analyzed, numerous bass from young-of-the-year to adults were captured with more fish collected in Mattawoman Creek than other locations. Fish were returned to the river after being measured (length and weight).

Tidal black bass sampling was completed on Marshyhope Creek, Pocomoke River and North East River. The North East River produced excellent numbers of adult and young largemouth bass. The fishing should be excellent. The Marshyhope Creek survey collected smaller numbers of largemouth bass. To enhance the fishery, Marshyhope Creek was stocked with advanced juvenile bass this month. The Pocomoke River survey yielded moderate numbers of adult and young bass, similar to what has been seen in previous surveys. Several northern snakeheads were collected from each river system. Although they have been collected before in the North East River, northern snakeheads had not been previously encountered during the Marshyhope or Pocomoke surveys. It appears their numbers are increasing in all three river systems. Thanks to the volunteers who assisted Eastern Regional staff with the 2019 fall surveys.