Freshwater Fisheries Monthly Report – June 2019

Stock Assessment

North Branch Potomac River Zero Creel Limit Trout Fishing Area - The North Branch Potomac River zero creel limit trout fishing area was surveyed from Westernport downstream to Pinto. The river supports a high-quality trout fishery that is maintained by put and grow stocking of juvenile rainbow trout and brown trout. A large portion of the rainbow trout and brown trout were in the quality to trophy size range (12 – 20 inches). The highest density of trout was in the five mile stretch between Westernport and McCoole; however, even at the downstream portion of the management area between Black Oak and Pinto – good numbers of trout were collected at preferred habitat locations.

Trophy brown trout from the North Branch Potomac River Zero Creel Trout Fishing Area, June 2019.

North Branch Potomac River Catch and Return Bass Fishing Area - The North Branch Potomac River catch and return bass fishing area was surveyed from Keyser to Cumberland with rather disappointing results. Abundance and size distribution continue to decline in the last 10 years of sampling. Most of the smallmouth bass were in the six to eight inch size class and no quality (≥ 12 inches) were collected in the entire management area. Staff will be attending the Mid-Atlantic Smallmouth Bass Health Assessment Meeting later this summer to learn more about the decline in smallmouth bass in the region and potential means to improve the fishery.

Deep Creek Lake Bass Tournament - Length, weight, and catch rate data were collected from 72 largemouth bass and smallmouth bass captured in an open tournament held on Deep Creek Lake on June 23. Seventeen teams participated with a catch rate of 4.24 fish per team (five fish limit). A large portion of the fish were greater than 15 inches. The largest largemouth bass measured 22.2 inches and weighed 5.3 pounds. The largest smallmouth bass measured 17.5 inches and weighed 2.2 pounds.

Deep Creek Lake tournament angler posing with his lunker largemouth bass, June 23,2019

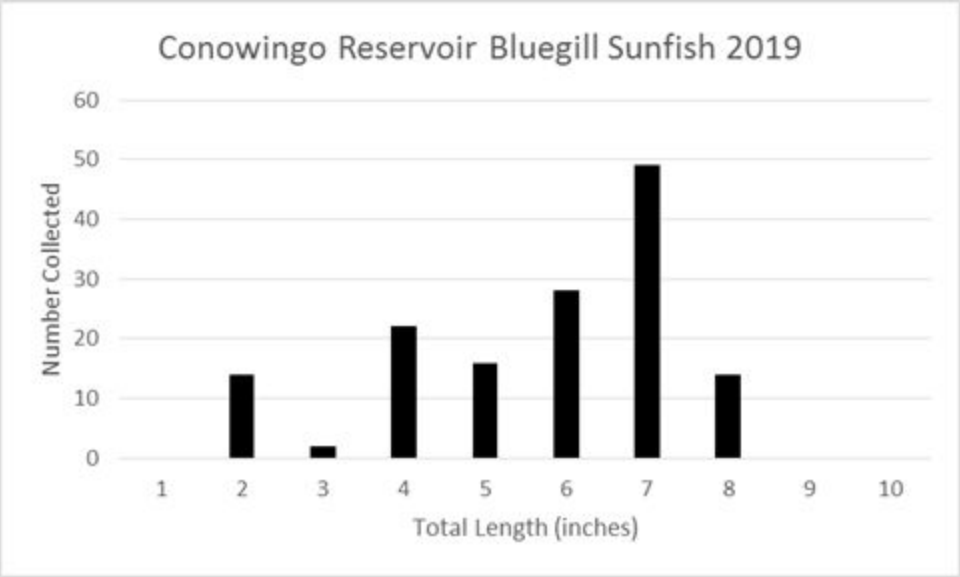
Qualitative Electrofishing - Conducted qualitative electrofishing surveys to determine if brook trout populations are present in Rock Run, Overshot Branch, an unnamed tributary to Overshot Branch and an unnamed tributary to Falling Branch (Harford County); two sites in South Branch Gunpowder River, one site in South Branch and two sites in an unnamed tributary to South Branch Gunpowder River (Carroll County); two sites in an unnamed tributary to Gunpowder Falls tailwater and one site in an unnamed tributary to Little Falls (Baltimore County). Brook trout were found at one site in the unnamed tributary to South Branch Gunpowder River, both sites in the unnamed tributary to Gunpowder Falls tailwater and the unnamed tributary to Little Falls. Brown trout were found in the unnamed tributary to Falling Branch, both sites in the unnamed tributary to Gunpowder Falls tailwater and the unnamed tributary to Little Falls.

Multiple Pass Electrofishing - Conducted multiple pass electrofishing surveys in an unnamed tributary to Michael's Run (flows into Pennsylvania), an unnamed tributary to Falling Branch in Rocks State Park (Harford County), Alesia Road tributary to Gunpowder River and Muddy Creek, a tributary to Gunpowder River (Carroll County). Multiple year classes of brown trout including an excellent hatch of young-of-the-year (YOY) were found in the unnamed tributary to Michael's Run. Brown trout adults and YOY and one brook trout YOY were found in the unnamed tributary to Falling Branch. Two brook trout adults and an excellent hatch of YOY brook trout were found in the Alesia Road tributary. Multiple year classes of adult brook trout but only one brook trout YOY were found in the Muddy Creek site.

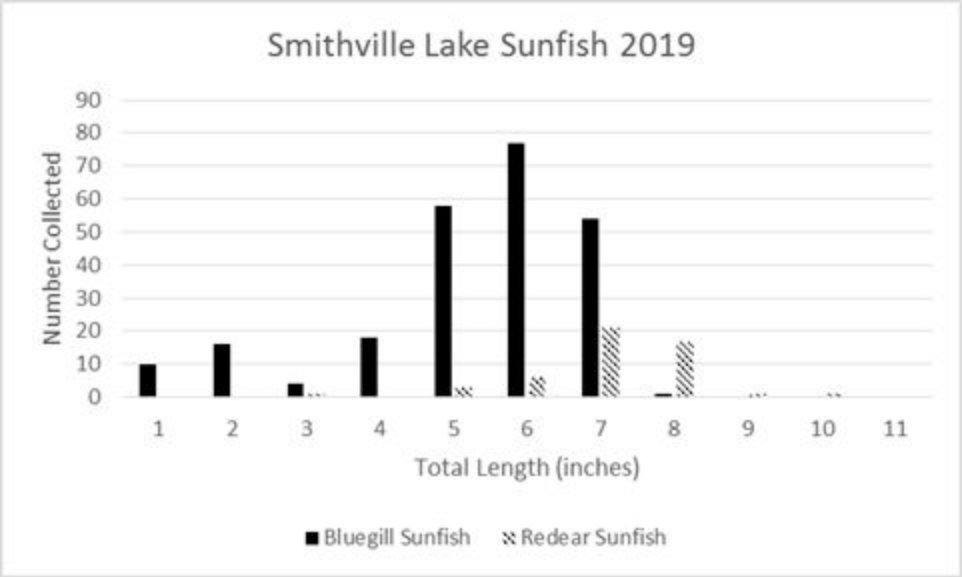
Fishery crew conducting electrofishing survey at Conowingo Reservoir

Conowingo Reservoir - Completed electrofishing surveys of Conowingo Reservoir and Smithville Lake. A special emphasis was placed on sampling sunfish and crappie species during these surveys; however data were collected on all fish species that are actively targeted by anglers.

It is well known that Conowingo Reservoir supports excellent smallmouth bass and largemouth bass populations and the 2019 survey data certainly proved it. Excellent numbers of bass in all size ranges were encountered. However, most are unaware that Conowingo Reservoir also supports good numbers of quality sized bluegill and lesser numbers of large white crappie. These species are not frequently targeted by anglers fishing Conowingo. Anglers wishing to target these species, or wanting to try something new should give panfishing in Conowingo Reservoir a try.



Length frequency of bluegill collected at Conowingo Reservoir



Length frequency of sunfish collected at Smithville Lake

Smithville Lake - While much smaller in size, a similar survey was conducted in Smithville Lake and yielded similar results. The survey data suggests that Smithville Lake would be an excellent choice for anglers wishing to target panfish. Quality sized redear and bluegill sunfish were commonly collected in the survey. Some of the redear sunfish were quite large. Black crappie were also frequently collected in the 6-10 inch range.

Habitat and Water Quality

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

- Attended a field review at the Mettiki Coal Mine regarding the stormwater management discharge permit with Maryland Department of Environment (MDE) Mining Program staff as well as Mettiki Mine staff. Recommendations were made to include stream temperature monitoring downstream of the stormwater management ponds to see if improvement to the stormwater management plan is warranted.
- Development of a recreational pond on agricultural land
- Repairs to Interstate 68 stormwater conveyance system to reduce erosion
- Comments supporting MDE Land and Materials Administration Abandoned Mine Land Division project to replace a mine seal damaged by a roof collapse.
- Reported to MDE a cleared and graded area of Potomac River shoreline with no sediment or erosion control measures in place.
- A sediment and erosion control violation on agricultural land in the Beaver Creek watershed impacting water quality in the special trout management area and the Beaver Creek/Jackson fish management area.
- Permit for black fly suppression on the upper Potomac River near Harpers Ferry. *Bacillus thuringiensis subsp. israelensis* (Bti) will be applied using helicopters. Bti is a naturally occurring soil bacterium that has been demonstrated to be non-toxic to

humans, mammals, birds, fish and most invertebrates. Bti is species-specific, affecting mosquitoes and black flies.

- Dominion Transmission Inc. to replace an approximate 615 foot section of gas pipeline to meet pressure test requirements. The project may (depending on pressure test results) temporarily impact up to 88 linear feet of perennial tributaries to Middle Creek. Data indicate that these streams contain only blacknose dace. Sediment and erosion control measures will protect instream habitat.
- A stream/wetland restoration project in the headwaters of a coldwater tributary to Plum Tree Creek in the Loch Raven watershed. The project includes developing shallow wetlands and planting over three acres of trees. Water quality improvements are anticipated, but wetlands will need to be designed to reduce standing water that could increase stream temperatures.
- Frederick County Division of Utilities and Solid Waste Management to construct a low pressure sanitary sewer and grinder pump system to address failing septic systems in a small residential area. The project will improve water quality by reducing nutrient enrichment in the lower reaches of Fishing Creek and the Monocacy River. Horizontal directional drilling will be used to install the utility limiting disturbance of the stream channel and associated wetlands.
- Two shoreline revetment projects to reduce shoreline erosion on Deep Creek Lake. Comments were made to protect existing lake rock and wood habitat.
- Bridge replacement and abutment work on the mainstem of Falling Branch in the Deer Creek watershed.

Hoyes Run Embrace A Stream Project - Phase Two is underway as construction of piping and concrete watering troughs away from the stream are being conducted. Stream crossing design on the unnamed tributary has been completed, and construction is planned for July. Design for the spring house was completed and lumber purchased, with construction to begin this summer. Planted native red spruce trees in the riparian zone. Evaluated native wildflower plantings from last year - the plants have done exceptionally well and the riparian zone is now fully vegetated. Freshwater Regional Manager met with landowners and Trout Unlimited members to plan a public open house to showcase this project later this summer.

George's Creek Watershed Association - Attended monthly meeting of the George's Creek Watershed Association. The members discussed potential water quality restoration projects, public outreach events, and fundraising events.

Youghiogheny River Temperature Enhancement - Temperature recorders were deployed at thirteen sites in the Youghiogheny River from Swallow Falls to Sang Run to monitor coldwater releases from the Deep Creek Lake Hydroelectric Station. Through a cooperative agreement with the Brookfield Power Company, MDE and Department of Natural Resources, the coldwater releases are made during the critical summer-time period. This partnership has resulted in a high quality catch and release trout fishery in the Youghiogheny River between Hoyes and Sang Run.

Lands Reclamation Committee - Freshwater Fisheries Regional Manager participated in the June field reviews of two mining sites in Garrett County. Site one was OPA-18-26 which is an amendment to an existing strip mine to include an additional 60 acres to the existing 121 acres of surface mine. The reclamation plan is the Conservation Lands Alternative which will include two tree species in the reclamation seed mix, or planting of one species of tree seedlings along with tree seeds. The second site reviewed was the Casselman Deep Mine DM-09-113 where an amendment proposes an addition of 35 acres to be used as a refuse/rock fill from the deep mine workings. The refuse pile will be sealed and capped with a clay liner, a leachate collection system will be developed, and the area will be revegetated in grasses. The refuse site is expected to be alkaline in nature given current analysis of the material.

Water Temperature Monitoring - Deployed water TempPro loggers into an unnamed tributary to Deer Creek at Route 24, unnamed tributaries to Falling Branch (2), Rock Hollow Branch, Overshot Branch, an unnamed tributary to Overshot Branch, Rock Run, unnamed tributary to Rock Run, unnamed tributary to Michael's Run (Harford County), Sawmill Branch, First Mine Branch, unnamed tributary to First Mine Branch, unnamed tributary to Gunpowder Falls tailwater, Gunpowder Falls tailwater in the Blue Mount station (Baltimore County), unnamed tributary to South Branch Gunpowder River, East Branch Patapsco River (Carroll County) and Little Seneca Creek at Hoyles Mill Road (Montgomery County) to record stream temperatures during the June 1 through September 30 index period.

Stocking and Population Management

Largemouth Bass - Approximately 42,000 juvenile largemouth bass, produced at Joseph Manning Hatchery (Charles County) from Potomac River broodstock were stocked into tributaries of the Potomac River (Prince George's and Charles counties). The hatchery affords young fish an opportunity to grow in a predator-free, food-rich environment prior to release into the wild. The fish should recruit to the fishery in the next couple of years.

The North Branch Potomac River zero creel limit trout fishing area was stocked with 10,000 (51/pound) Kamloops strain rainbow trout from Albert Powell Hatchery on June 4.

The Youghiogheny River catch and return trout fishing area was float stocked with 1,400 (2/pound) brown trout from the Cushwa Hatchery on June 7.

Biologists float stock brown trout in the
Youghiogheny River catch and return trout fishing area

Fingerling tiger muskie were stocked in Piney Reservoir (520) and Broadford Lake (425) on June 5. These fish averaged about three inches and were raised at Manning Hatchery. These fish will provide panfish control and an exciting fishery component in these two lakes.

Fingerling tiger muskie in Piney Reservoir that will someday
provide the catch of a lifetime for a lucky angler!

Outreach

Customer Service - Provided customer service information regarding: North Branch Potomac River trout fishing opportunities; angler access inquiry to the upper catch and return trout fishing area downstream of Jennings Randolph Lake; river flow conditions due to electrical generation

releases in the Youghiogheny River catch and return trout fishing area; angler access for bank fishing along the Youghiogheny Lake; technical fishery/water quality improvement advice to private pond owner; Jennings Randolph Lake fishing opportunities; brown trout identification for an angler; status of the Potomac River smallmouth bass population; muskie fishing opportunities on the Potomac River and tiger muskie fishing opportunities and status in Little Seneca Lake.

Deep Creek Promotional Video - Western Region I Manager appeared on the Deep Creek Foundation's promotional video highlighting the success of the Cherry Creek limestone doser on water quality improvements and aquatic life in Deep Creek Lake's major tributary stream. This stream is impacted by acid mine drainage, and acid treatment projects conducted by MDE Abandoned Mine Lands Division has improved water quality to a point where fish and aquatic macroinvertebrates have re-colonized this once fishless stream.

Master Naturalist - Facilitated a class for the Master Naturalist Program at the Nanjemoy Creek Environmental Education Center. The class consisted of a Freshwater Fisheries Management overview and regional fish identification along with a streamside electrofishing demonstration and invasive fish necropsy. The Nanjemoy Creek Environmental Center promotes various public events which includes various aspects of fish and wildlife conservation.

Aquatic Lesson - Provided a biology lesson to a group of young home school students during a multiple-pass electrofishing survey in the Alesia tributary to Gunpowder River. Basic trout biology and water quality as well as fish identification was provided to the group and their interested parents and grandparents.

Students learning about trout biology and stream ecology

Invasive Species

Blue Catfish Tracking - Secured equipment for a multiyear tracking study on blue catfish in the tidal Patuxent River. The study will help identify overwintering sites in the Patuxent River which could aid commercial watermen in locating fish for exploitation and reduction of the species. The study will also help identify spawning habitat and locations in the spring. Typical spawning habitat for blue catfish is scarce in the Patuxent, yet the population has grown dramatically over the last 10 years. The new tracking equipment has dual tracking capabilities which should allow tagged fish to be found in both fresh and saline waters since one tag can be used with both sonar and acoustic receivers.

Little Seneca Lake - Conducted a daytime electrofishing survey at five random sites on Little Seneca Lake in Boyds (Montgomery County) on June 12 to collect data on panfish species in the lake. Very few adult panfish of any species were collected during the survey and no spawning beds were observed at any site other than small green sunfish that were actively spawning. An excellent hatch of yellow perch was observed at all five sites in the lake and very good numbers of YOY and juvenile black crappie were also observed. Unfortunately, reports of northern snakehead observations and angling success were reported from the lake in 2018. These observations were confirmed as 11 northern snakeheads from 8.7 inches to 32.3 inches and 11.5 pounds were collected from all five sites throughout the lake. The stomachs were dissected to analyze what was being eaten. Dissection determined that the stomachs were empty. However, a six inch sunfish, five inch yellow perch, and a two inch banded killifish were regurgitated during collection. Little Seneca Lake is a 505 acre impoundment that becomes heavily vegetated during the summer months and will unfortunately be ideal for snakehead survival. Only time will tell how the northern snakehead will affect the outstanding largemouth bass fishery and panfish in the lake. The lake also provides a coldwater tailwater, Little Seneca Creek that supports a limited trout fishery below the reservoir. Little Seneca Creek eventually flows into Great Seneca Creek and ultimately the upper Potomac River. Careless and illegal stocking of these fish could ultimately affect multiple fisheries in multiple watersheds.

Northern snakehead collected from Little Seneca Lake

Angler Access

Staff continued to mow, cut downed trees, remove trash, conduct road maintenance, boat ramp maintenance, and install fishing regulation informational signs at the North Branch Potomac River and Evitts Creek Ponds fishery management areas (FMAs), as well as other FMAs statewide.

Brook Trout Program

Hosted the multi-day sixth East Coast Trout Management and Culture workshop at Frostburg State University. Over 100 people, from 27 states and three countries, attended the meeting. Presentation topics included angling regulations, aquaculture, creel surveys, genetics, habitat restoration and many others. In addition, staff hosted the annual meeting of the Trout Committee of the Southern Division of the American Fisheries Society (SDAFS Trout Committee Meeting) and a meeting of the Steering Committee of the Eastern Brook Trout Joint Venture (Eastern Brook Trout Joint Venture Meeting). The introductory welcome for the meeting was delivered by John Neely, the chair of Maryland's Sport Fish Advisory Commission, and set the perfect tone for a great meeting.

Maryland Sport Fisheries Advisory Commission Chair John Neely delivering the welcome speech at the East Coast IV Trout Management and Culture Workshop.

Initiated seasonal field work activities that included deploying water temperature loggers in streams, brook trout population monitoring by electrofishing surveys, water quality monitoring and sampling as part of restoration projects. This work will continue through September.

Met with representatives from the Garrett County Roads Department to discuss a potential fish passage project for a culvert on Bear Pen Run in Garrett County. This project would ensure connectivity between Bear Pen Run and the mainstem Savage River during summer periods when the lower portion of the stream can become dewatered and prevent brook trout movement.

Continued discussions with Trout Unlimited Homewater Initiative staff on several proposed projects in the Upper Savage River brook trout stronghold. These efforts in the Upper Savage follow recommendations in our Brook Trout Fisheries Management Plan and the Eastern Brook Trout Joint Venture to protect the “best of the best” fisheries for conservation and angling value.

Tidal Bass Program

Biologists worked with staff at the Fishing League Worldwide (FLW) College National Championship held at Smallwood State Park (Charles County). Teams of college anglers from around the nation competed on the tidal Potomac River for the largest total weight of fish. The winning team, representing Murray State University, caught 15 fish totaling 51.1875 pounds over the three day event. Biologists assisted the tournament staff on the release boat to maximize fish survival and reduce handling stress.