

## Freshwater Fisheries Monthly Report – August 2019

### Stock Assessment

**Savage River Trophy Trout Fishing Areas** - Conducted annual electrofishing survey of the Savage River tailwater trout fishery with assistance from the department's Wildlife and Heritage Service, Hatchery Program, and the Forest Service. Native brook trout, wild brown trout, and a few rainbow trout inhabit the river. Two trophy trout fishing areas are in place: the upper half of the river is fly-fishing only, while the lower half to the river is open to spinning or fly-fishing gear using single hook artificial lures or flies. Regulations include a two trout per day creel limit: 18 inch minimum size on brown trout, 12-inch minimum size on brook trout, and no size restriction on rainbow trout. These regulations provide for many quality-sized trout available for anglers to enjoy. The survey showed average adult combined species trout density of 827 trout per mile in the fly only section and 924 trout per mile in the artificial/fly section of the river. Reproduction for both brook and brown trout was considered "moderate" with an average of 704 combined species young of year (YOY) per mile.



*Sarah Adams, Department of Natural Resources/Anne Arundel County Professional Career Intern, with a beautiful wild brown trout from the Savage River trophy trout area.*

**Trout Stream Assessments** - Assisted the Maryland Biological Stream Survey crew with trout surveys in Hoyes Run and its tributary Fork Run. Hoyes Run continues to support naturally

reproducing populations of brook trout, brown trout, and rainbow trout. Fork Run supports a native brook trout population. Blacknose dace, longnose dace and mottled sculpin were also collected in the streams.

**Potomac River Smallmouth Bass** - The annual upper Potomac River smallmouth bass juvenile seining survey was completed with 12 locations sampled from Seneca upstream to Spring Gap. The overall seining score for the river was 0.63 juvenile smallmouth bass per seine haul. This is below the long-term median score of 0.95 fish/seine haul. Smallmouth bass juvenile recruitment varied greatly between locations. Some upstream areas had good numbers of juveniles while several downstream sites had no smallmouth bass juveniles present. With recent high flow conditions, aquatic vegetation was almost completely absent in much of the river. For 2019, it appears that smallmouth bass were able to successfully spawn in some sections of the river, but overall recruitment was below average.

### **Qualitative Electrofishing Surveys**

- Conducted two 1,300+ second qualitative electrofishing surveys in the Patuxent River catch-and-return area. One site was above Howard Chapel Road and the second site was below Annapolis Rock Road (Route 94) upstream to the road bridge. Two stocked brown trout adults and two wild brown trout adults were collected at the Howard Chapel site. Three stocked brown trout adults, seven wild brown trout adults and seven brown trout YOY were collected at the Annapolis Rock Road (Rt. 94) site providing some summer trout fishing recreation.
- Conducted nine 1,200+ second and one 430 second qualitative electrofishing surveys totaling 12,474 seconds (3.47 hours) of electrofishing time in an unnamed tributary to First Mine Branch (Baltimore County). Brook and brown trout adults and YOY were collected in all sites. The overall catch-per-unit-effort (CPUE) was 49 brook trout adults/hour, 109 brook trout YOY/hour, 17 brown trout adults/hour and 83 brown trout YOY/hour. Brook trout became the more dominant species as the survey continued into the headwaters. The upper headwater section of the tributary could not be surveyed due to property restrictions. The tributary contains an excellent population of brook trout from YOY to eleven inch adults.
- Conducted a qualitative electrofishing survey near the headwaters of Muddy Creek on a property adjacent to the Pennsylvania state line (Baltimore County). The stream was 25.8°C (78.4°F) at the time of the survey. No trout were found as a result of warm stream temperatures as well as poor instream habitat. Just 0.54 miles downstream, brook trout have been observed and are known to exist downstream to the confluence with the Gunpowder River on the property of River Valley Ranch in Carroll County. Brook trout are present as a result of cold tributary influences and wetland seeps which cool the Muddy Branch below the headwaters.

### **Multiple Pass Electrofishing Surveys**

- Conducted multiple pass electrofishing surveys in Sawmill Branch and an unnamed tributary to Sawmill Branch (Baltimore County), an unnamed tributary to South Branch

Gunpowder Falls, an unnamed tributary to Big Pipe Creek and the left fork of East Branch Patapsco River (Carroll County). Adult and YOY brook trout were found in Sawmill Branch and its tributary, the unnamed tributary to South Branch Gunpowder River as well as the unnamed tributary to Big Pipe Creek. Electrofishing surveys throughout the central region have shown 2019 to be a good year for brook trout recruitment. The left fork of East Branch Patapsco River site was located just downstream of the failed Cascade Lake dam property along Snydersburg Road. Two adult brown trout were found in the 100 meter survey site.

## **Habitat and Water Quality**

**Environmental Review** - Provided aquatic resource information for a timber sale review along the Youghiogheny River and culvert replacements on the upper portion of the south prong of Lostland Run within the Potomac State Forest.

**Lands Reclamation Committee** - Participated in Phase II bond release field evaluations for thirteen strip mines totaling 265 acres in Garrett and Allegany Counties. Committee members walked these strip mine reclamation sites to ensure re-vegetation standards were met prior to the bond being released to the operator. Votes on the bond releases will take place during the September monthly meeting.



*A reclaimed strip mine in Allegany County that used the Forestry Restoration Approach to mine land reclamation.*

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

- A 99 acre parcel within the upper Town Creek watershed adjoining Green Ridge State Forest. Public ownership of this property will ensure long-term water quality protection in the upper Potomac River watershed.
- A 39 acre parcel along the Youghiogheny River. This property shares a common boundary along the west side of Mount Nebo Wildlife Management Area. The property also adjoins the Youghiogheny River, which has been designated as a Wild and Scenic River. Acquiring this property will provide potential opportunities for public access to the river and ensure continued protection of riparian habitat and reduce threats to water quality from development pressures in the area. The Freshwater Fisheries Program supports this potential acquisition as it will provide for increased public recreational fishing and boating access to the Youghiogheny River.
- A 56 acre property that would become part of the Wolfden State Park. This property does not contain any blue line streams; however the property is within the north prong of Lostland Run watershed. The north prong of Lostland Run supports a wild brook trout population. The Freshwater Fisheries Program supports this acquisition. The Maryland Department of Natural Resources 2006 Brook Trout Fishery Management Plan identifies increasing public ownership of lands within watersheds supporting brook trout as one of the major goals. This will provide for long-term watershed and water quality protection in the Lostland Run watershed.

**Environmental Quality Incentives Program Local Work Group** - Participated in the Garrett Local Work Group hosted by the Garrett Soil Conservation District (GSCD) and U.S. Department of Agriculture Natural Resources Conservation Service (NRCS). The group discussed the availability of conservation funding to improve local water quality, enhance soil health, support wildlife habitat and protect agricultural viability. A total of \$100,000 in Environmental Quality Incentives Program (EQIP) funds will be allocated to applicants in Garrett County for the 2020 fiscal year. The group discussed the guidelines for use of the funding and typical conservation practices. We were given an opportunity to make comments regarding possible options for the monetary allocation. We prepared a list of practices to establish conservation priorities to be voted on by the Garrett Soil Conservation Board of Supervisors at a later date. The projects that would provide for better brook trout habitat protection and enhancement were given the highest priority rating.

**Triadelphia Reservoir** - Attended a meeting at Triadelphia Reservoir dam concerning the power company currently producing electricity with turbines in the dam. The company needs to meet Federal Energy Regulatory Commission (FERC) standards of releasing water to the Patuxent River tailwater with at least 5 mg/L of dissolved oxygen and a maximum temperature of 74°F (23.3°C) to be permitted to continue to generate electricity at the dam. These standards are not currently being met. The Potomac/Patuxent Chapter of Trout Unlimited (PPTU) invited Dr. Boualem Hadjerioua, who is the lead Water Power Technology and Senior Research

Engineer at the Renewable Energy Systems Environmental Science Division, Oak Ridge National Lab, Tennessee, to tour the power plant turbines within the dam as well as the pool side of the dam and tailwater immediately below the dam. Dr. Hadjerioua will be funded by the power company and PPTU to consult on the best ways to increase the dissolved oxygen released from the turbines and dam to meet FERC regulations. The meeting was also attended by staff from The Department of Natural Resources Power Plant Research Program and Environmental Review Program and the Washington Suburban Sanitary Commission (WSSC) who owns and manages the reservoir and dam for public water use.

## **Fish Health**

**Largemouth Bass** - Largemouth bass YOY were collected from Piney Reservoir, Deep Creek Lake, and Savage Reservoir as part of University of Maryland Center for Environmental Science's study on long-term mercury accumulation in fish.

**Smallmouth Bass** - Attended the Mid-Atlantic Smallmouth Bass Health Assessment meeting in Harpers Ferry, West Virginia. Representatives from Maryland, Pennsylvania, Virginia and West Virginia gave presentations and updates on the health and condition of each state's smallmouth bass population. Researchers from the United States Geological Survey (USGS) have been working collectively with all of these states to look at potential impacts that land-use and water chemistry may be having on smallmouth bass populations.

## **Stocking and Population Management**

**Trout Stocking** - The Youghiogheny River catch-and-return trout fishing area was float stocked with 6,700 brown trout fingerlings (33/pound – source Cushwa Hatchery).

The North Branch Potomac River zero creel limit for all trout species fishing area was float stocked with 6,000 rainbow trout fingerlings (11/pound, Kamloops strain, source - Albert Powell Hatchery).

## **Outreach**

**Customer Service** - Responded to customer service inquiries with information regarding: private pond technical advice; Youghiogheny River catch-and-return trout fishing; Office of Surface Mining regarding the Chub Run acid mine drainage remediation project; North Branch Potomac River float fishing opportunities; cutthroat trout fishing opportunities in the North Branch Potomac River; Deep Creek Lake Property Owners Association regarding Fishing and Boating Services' fish population monitoring accomplishments; and snapping turtle regulations.

**Havre de Grace Waterfront Festival** – Set up and manned a freshwater fishes display at the first annual Waterfront Festival, held at Concord Point Park (Harford County). Staff discussed Maryland's freshwater fishes and invasive species with visitors, as well as fish identification, places to fish in Harford County, and angling tips. The display was well attended for the two day event and popular amongst visitors.



**Becoming an Outdoors Woman (BOW) Workshop** – Assisted with coordination of the annual BOW Workshop at the 4-H Environmental Center in Swanton, MD. This workshop teaches introductory fishing, hunting and shooting and other outdoor activities in a supportive and non-threatening environment. The three day workshop allows 100 participants to choose from more than 40 different classes, such as camping skills, firearm safety, fly fishing, kayaking, muzzleloader skills, nature photography and outdoor cooking. Participants were able to sample northern snakehead and blue catfish during the annual game feed evening program. Thanks to Southern Region staff for collecting the fish for the program.



## Angler Access

### Fishery Management Areas:

- Continued to mow, remove downed trees and trash, conduct road and boat ramp maintenance, and post fishing regulation informational signs at the North Branch Potomac River and Evitts Creek Ponds fishery management areas.
- Built and installed a new informational signboard at Unicorn Lake fishery management area. The signboard is populated with fishing regulations and educational material for anglers and other visitors. Staff also replaced several boards on the boat launch dock at Unicorn Lake to ensure the dock remains safe for use.

## **Invasive Species**

**Susquehanna River Flathead Catfish Study** - Conducted annual flathead catfish investigations in Conowingo Reservoir and Susquehanna River. This project is a continuation of the Pennsylvania Fish and Boat Commission's flathead catfish study into Maryland's reaches of the Susquehanna River. The goal is to gather life history information and determine relative abundance of this invasive species to help determine their current and future impacts to the ecosystem. Four sets of baited hoop nets tied in series were deployed in both the reservoir and the river for three days. Catch-per-unit-effort averaged about one flathead catfish per net, which is similar to previous years. The flatheads varied in size, with the largest individual measuring over 46 inches in length and weighing 48 pounds. Several individuals were collected between 30-40 pounds. All flatheads were removed from the system and had the otoliths removed for future age determination. Other species collected in the nets included white crappie, quillback, channel catfish, blue catfish, carp, bluegill and white perch. Thanks to Freshwater Fisheries Program staff from West II, Statewide operations, and Southern Region who assisted on the project, and to the shad and herring program who lent us the perfect boat to complete our work.



**Blue Catfish** - Staff hosted a meeting with watermen, fish wholesale processors, Maryland Department of Agriculture and University of Maryland Agriculture Extension Services to discuss ways of expanding sales of Chesapeake Bay blue catfish.

## **Brook Trout Program**

Work this month was totally focused on completing annual brook trout population monitoring work in the Upper Savage River special management area (Garrett County). Staff have been in the field every day that weather has permitted, and the rains have relented this month. This is the 14<sup>th</sup> consecutive year of sampling in this system and results so far suggest this year will have the highest recruitment we have ever seen. Numerous large adults (8+ inches) have also

been collected so far, and the Upper Savage River continues to support a tremendous native brook trout fishery for both numbers and size.

Staff met with statewide, regional and administrative staff to further develop and refine a statewide plan of action for focusing and addressing our brook trout conservation needs.

Work began on installation of large woody debris structures to be placed into Big Run Creek (Garrett County) in areas of the stream where habitat is lacking. This will restore and protect a more natural stream channel in the lower reaches along the campground sites. This project was initially developed through information gathered as part of a state wildlife grant project, and the in-stream construction portion is finally underway. This work will strengthen the brook trout population, repair and protect eroded streambanks, and provide additional quality angling areas that can be targeted.

## **Tidal Bass Program**

Attended the annual Tidal Black Bass Caucus at the Tawes State Office Building to discuss the upcoming tidal bass survey schedule, staffing for the surveys and other pertinent issues related to the Tidal Black Bass Program.

Completed the field component of research into the impacts of different gears on submerged grass beds at Greenway Flats (Potomac River). Results will be presented at the Black Bass Advisory Subcommittee meeting in October.

Staff hosted Boating Services on a trip to Smoots Bay where they investigated a speed limit concern raised by Captain Steve Chaconas.

Completed a public portal for people to download data collected by the department's tidal bass survey, as well as other data maintained in the Freshwater Fisheries Program's centralized database.

Finalized plans to purchase largemouth bass for stocking into eastern shore rivers.

Two anglers were sent rewards for reporting tagged largemouth bass from the Potomac River. The bass were tagged several years ago as part of a project to estimate catch-and-release mortality, and fish are still being reported.

Staff attended the Costa Fishing League Worldwide Series Northern Open event held at Smallwood State Park on the tidal, freshwater Potomac River (Charles County). Staff assisted with the release boat, where fish were held prior to their return to the river. Over 250 anglers participated in the three-day event. Local angler and tournament pro Marvin Reese of Randallstown took top honors, with 14 fish and a three day total weight of 38.94 pounds. Among co-anglers, Jim Short of Ocean Pines won the event with 29.56 pounds in total weight.