

Struble Lake

Chester County

2020 Trap Net Survey

The [Pennsylvania Fish and Boat Commission's \(PFBC\)](#) Area 6 biologists set trap nets in [Struble Lake](#) from June 24-26 to evaluate the Channel Catfish population for age and growth analysis. Struble Lake is a 386-acre impoundment located in Honey Brook Township, Chester County and is owned and managed by the PFBC. The surface water release dam was completed in 1972 by the Chester County Water Resources Authority for the purpose of flood control and recreation. An unnamed tributary to the East Branch Brandywine Creek was impounded to create the lake with a maximum depth of approximately 19 feet and an average depth of 3 feet. The state-owned property access can be found at 301 Morgantown Road.



Aerial photograph of Struble Lake, Chester County.

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Eleven trap nets were set at ten different sites throughout the lake to ensure most available habitats were sampled (Figure 1). The nets were set at water depths ranging from 2 to 10 feet and allowed to fish overnight (approximately 21 hours) before being tended. This equates to 253 hours of sampling effort. All fish captured were counted, measured, and released alive.

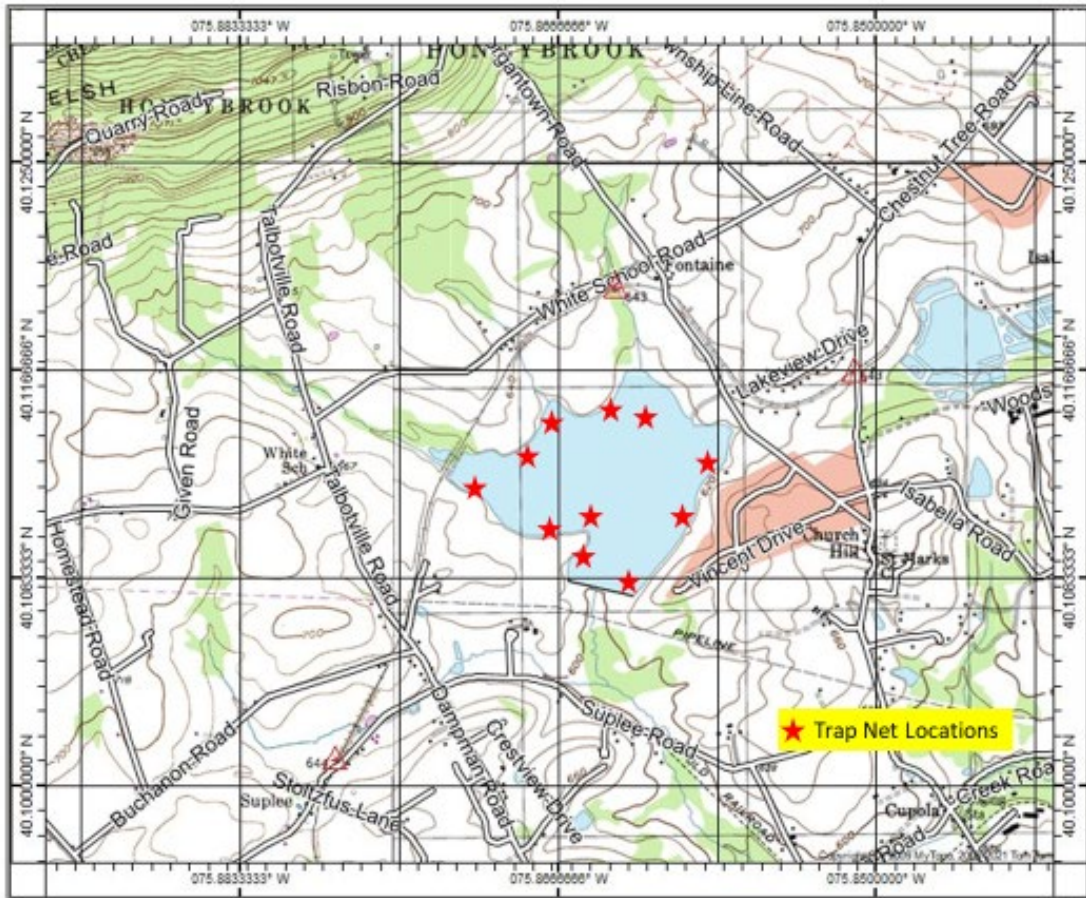


Figure 1. Approximate locations of trap nets set in Struble Lake, June 24-26, 2020.

A total of nineteen Channel Catfish ranging from 19 to 30 inches long were captured during the 3-day trap net survey. Most Channel Catfish were captured on the northern and western shores of the lake. This population is maintained by a yearly stocking of hatchery-produced fingerling Channel Catfish due to lack of natural reproductive success. Unfortunately, a single Flathead Catfish was also captured during this survey. This species is invasive, and it is unknown what impact it may have on the fish community at Struble Lake. Future surveys may shed more light

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on the effects of Flathead Catfish introduction. Hopefully, spawning for this species will be as unsuccessful as it has been for Channel Catfish. Anglers are urged to harvest any Flathead Catfish that they catch at Struble Lake.

Although Channel Catfish was the target species of this survey, numerous panfish species were also observed (Table 1). Bluegills were abundant and displayed a good population size structure (Figure 2). An impressive 62 percent of Bluegills captured were 7 inches or greater, making this Bluegill population one of the best in southeast Pennsylvania.

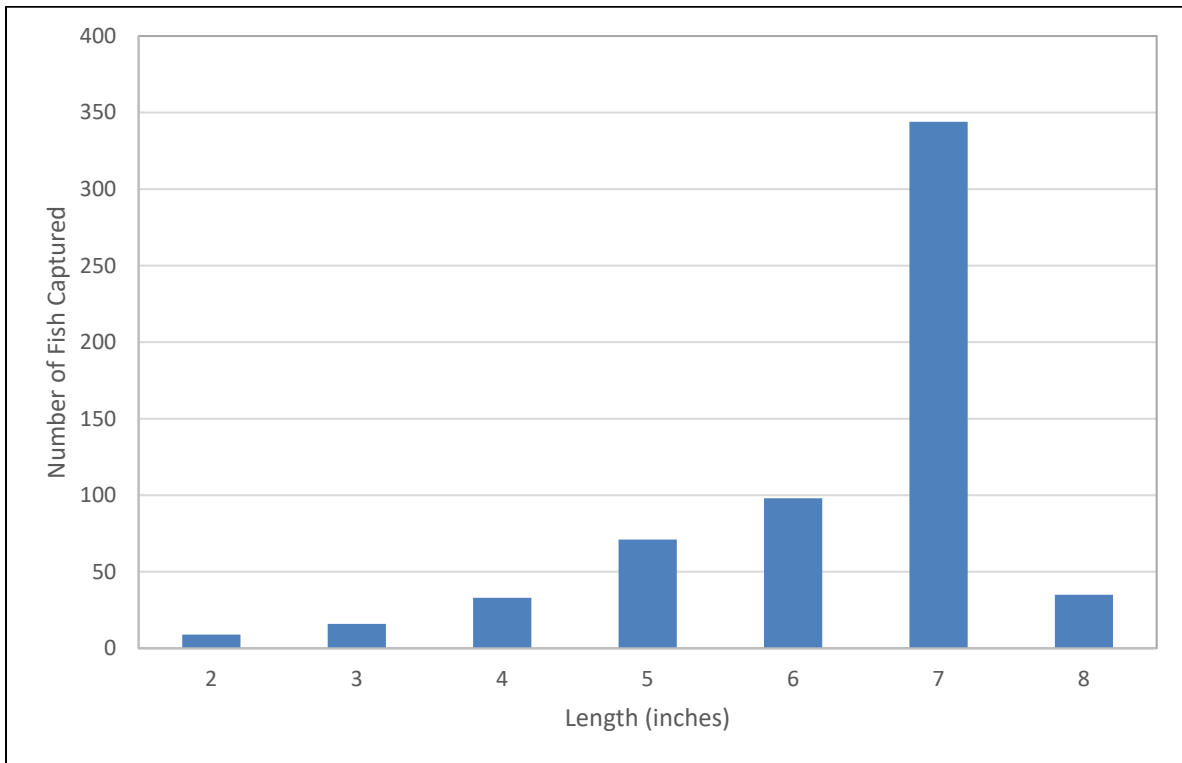


Figure 2. Length frequency distribution of Bluegills collected in Struble Lake between June 24-26, 2020.

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Table 1. Summary of fish species captured in trap nets in Struble Lake during June 24-26, 2020.

Fish Species	Number Captured	Size Range (inches)
Black Crappie	915	4 – 12
Bluegill	605	2 – 8
Brown Bullhead	5	11 – 15
Channel Catfish	19	19 – 30
Flathead Catfish	1	22
Largemouth Bass	3	7 – 20
Pumpkinseed	11	3 – 7
Walleye	4	21 – 25
White Crappie	622	4 – 10
Yellow Perch	1	8

Black Crappies were the most abundant species captured during the trap net survey and ranged from 4 to 12 inches long. Greater than twenty-three percent of the Black Crappies captured were 9 inches long, but few exceeded this length (Figure 3).

White Crappies were the second most abundant species captured during the trap net survey and ranged from 4 to 10 inches long. Only 9 percent of White Crappies captured exceeded 9 inches. It appears White Crappies are now well established in Struble Lake. White Crappies were first stocked in 1996 and 1998 as adults. However, no White Crappies were collected during the 2004 survey. Fingerling White Crappies were stocked in 2010 and 2012 in another attempt to establish a population. The capture of juvenile White Crappies in 2015 indicated that one or both stockings were successful at establishing a naturally reproducing population.

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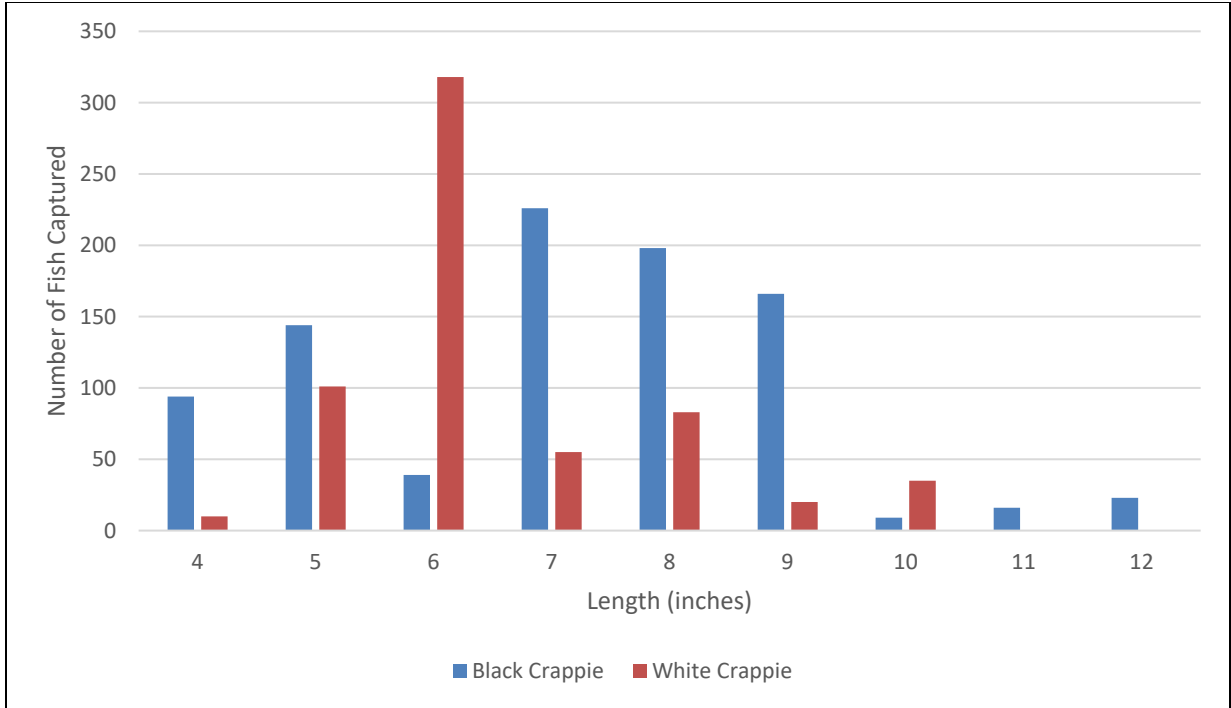


Figure 3. Length frequency distribution of crappie species collected in Struble Lake between June 24-26, 2020.

Based on our catch of Walleyes and Yellow Perch, it may seem that these populations are not doing well in Struble Lake. However, these species prefer cooler water temperatures and are not as susceptible to capture in trap nets set during warmer months. It is believed Walleyes are sustained through hatchery stocking because only adult fish have been captured in recent surveys. Walleye fingerling stockings will continue as natural reproduction is not sufficient to maintain a fishable population. Yellow Perch persist through natural reproduction, but a lack of optimal spawning habitat and warm seasonal water temperatures limit the abundance and growth of Yellow Perch.

Struble Lake is managed as a multiple use fishery with a variety of gamefish species for anglers to pursue. Six other fish species were captured or observed during the trap-net survey, including Largemouth Bass, White Sucker, Golden Shiner, Common Carp, Brown Bullhead, and Spotfin Shiner (see Table 1 for total catch and size ranges). Largemouth Bass are not readily captured

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in trap nets; yet one impressive 20-inch fish was recorded. A 2015 boat electrofishing survey documented a low-density Largemouth Bass population having good size structure with trophy fish up to 22 inches. A targeted Largemouth Bass survey may be conducted in the next few years to evaluate the status of the population.

Kayaking is a popular activity with anglers and outdoor enthusiasts. However, anglers are boaters should obtain a launch permit or register their kayaks for use on public waterways. One public boat launch with associated parking is located on the northeastern end of the lake.

If you plan on fishing at Struble Lake, be advised only electric motors are permitted and all fish size and creel limits are managed according to Commonwealth Inland Waters regulations.

John Buzzar, Fisheries Biologist

Mike Porta, Area Fisheries Manager

Area 6 - Southeastern Pennsylvania