

# Twin Lakes Number Two Reservoir (Upper Twin Lake)

## Westmoreland County

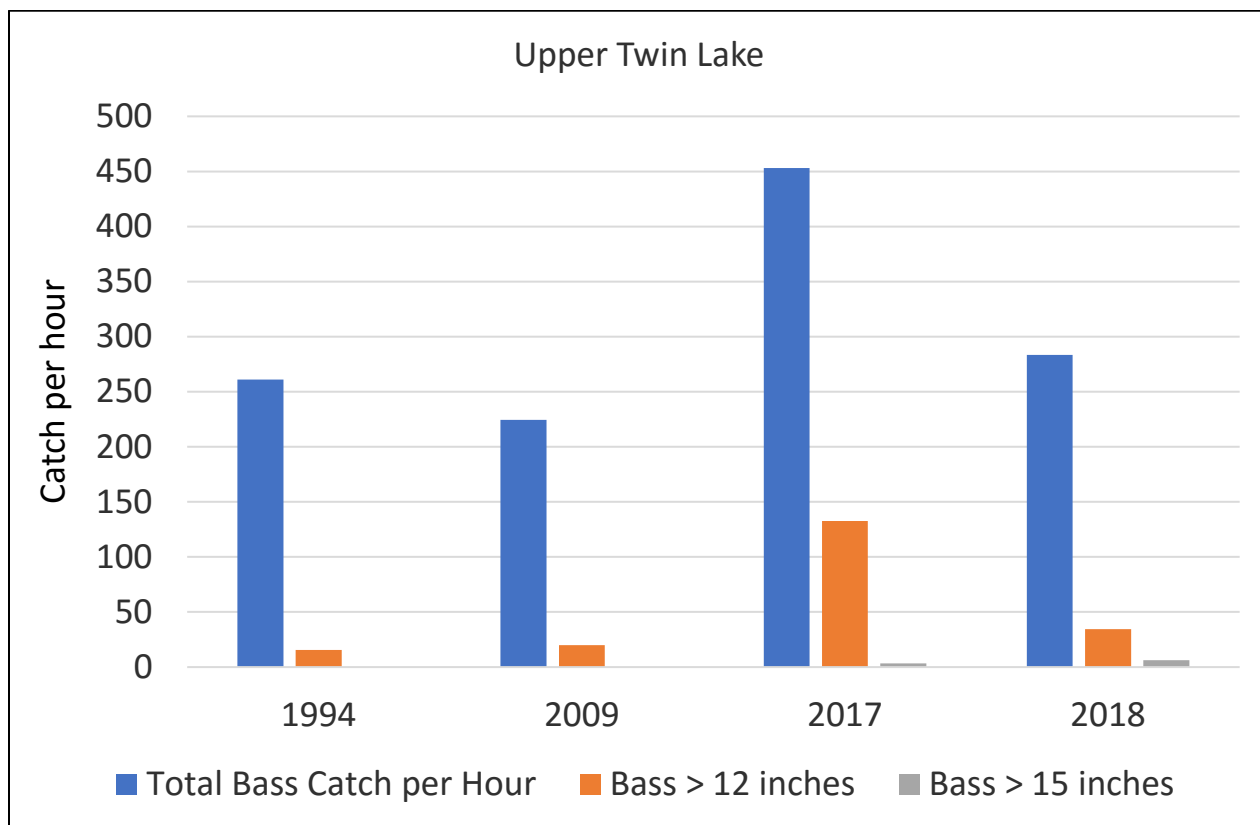
### May 2018 Electrofishing, Trap Net, and Hoop Net Survey

Upper Twin Lake is a 20-acre impoundment located in Westmoreland County near the city of Greensburg. Upper Twin Lake and Lower Twin Lake combine to form [Twin Lakes Park](#), a popular and heavily used recreational area that is part of the Westmoreland County Parks system. Upper Twin Lake is a clear, productive lake with a maximum depth of approximately 30 ft. The lake is managed for bass under [Big Bass regulations](#) and for crappie with [Panfish Enhancement](#) regulations. The lake is also an Approved Trout Water Open to Year-Round Fishing and is stocked with catchable Rainbow Trout in the spring and fall.

Fisheries Management personnel of the Pennsylvania Fish and Boat Commission (PFBC) surveyed Upper Twin Lake in early May. The two primary purposes of the survey were to 1) evaluate the Largemouth Bass population through night electrofishing to determine if changes to the bass regulations were warranted at this impoundment, and 2) evaluate the success of yearling vs fingerling stocking of Channel Catfish through night electrofishing, trap netting, and hoop netting. The PFBC has been stocking fingerling Channel Catfish in Upper Twin Lake for many years with little success in creating a fishery. Beginning in 2014 the PFBC began stocking equal numbers of yearling (8-10") and fingerling catfish (2-3") in the lake. To identify the size and year each lot of fish was stocked, each catfish lot received a unique fin clip. For example, all yearling fish stocked in 2014 received an adipose fin clip. This would allow biologists to determine which size of catfish were surviving better.

Night electrofishing for bass was performed in both May 2017 and May 2018. Table 1 below shows the total catch of bass from night electrofishing. We captured over 300 bass in 2017 with a catch rate of over 450 fish/hr, which is one of the highest catch rates in the state (Figure 1). Total catch and catch rates declined in 2018, but still approached 300 fish/hr. Although the numbers of bass over 12 inches has increased, very few fish over the legal size of 15 inches are present at this impoundment. Less than 1% of the bass captured in 2017 and only 2% in 2018 were over 15 inches.

<b>Length (inches)</b>	<b>1994</b>	<b>2009</b>	<b>2017</b>	<b>2018</b>
3	1	0	0	0
4	13	6	5	0
5	19	9	13	1
6	7	0	50	0
7	1	1	22	5
8	15	13	7	40
9	31	30	15	37
10	50	49	41	22
11	14	41	62	34
12	6	13	66	23
13	2	1	14	14
14	1	0	5	4
15	0	0	1	3
16	0	0	1	0
17	0	0	0	1
<b>Total</b>	<b>160</b>	<b>163</b>	<b>302</b>	<b>184</b>



**Figure 1. Catch rates of Largemouth Bass from night electrofishing at Upper Twin Lake.**

Upper Twin Lake and Lower Twin Lake are both managed under the same regulations to ensure consistency at these heavily used impoundments. Both lakes are managed under Big Bass Regulations and after the previous surveys in 2009 and 2010 at Upper and Lower Twin Lakes, respectively, both had extremely dense bass populations consisting of mainly small, stunted fish in the 8-11 inch size range. Since that time, we have seen an improvement in the size structure at Lower Twin Lake (see 2018 biologist report). Therefore, recommending a change in regulation is not warranted for either lake at this time. We will continue to monitor the bass populations at each lake via night electrofishing in the future.

Sampling for Channel Catfish provided more encouraging results. In our previous survey in 2009, we captured a total of two Channel Catfish. In contrast we captured 129 Channel Catfish in 2018, with fish ranging from 7 – 27 inches. Furthermore, of the 129 fish captured, 87 were determined to have been fin clipped and all 87 were stocked as yearlings. Many of the yearlings from the 2014 and 2015 stockings were in the 16 – 20 inch size range and some of the 2014 fish had grown up to 27 inches. The reason for the overwhelming success of the yearlings comes down to size. The dense population of small to medium sized Largemouth Bass can easily eat 2 – 3 inch fingerlings but only the largest fish can eat 8 – 10 inch yearlings.

Of the remaining 42 fish, some were likely stocked as fingerlings prior to the study being initiated. However, many were similar in size to the 2017 yearlings that we encountered indicating that some natural reproduction may be occurring. We witnessed many catfish congregating around structures known as catfish spawning boxes during our survey. Although one may assume that catfish fry from natural reproduction in the lake would be an easy target for predatory fish such as Largemouth Bass, the sheer number of fry produced coupled with the behavioral characteristic that fry are guarded by the parental male catfish and protected from predators, may allow for better survival of these naturally reproduced fry than our stocked fingerlings. We will return to the lake in 2019 for round two of sampling for our catfish study and will gather additional information related to catfish age and origin in Upper Twin Lake.

Other fish species captured during the trap net portion of our survey at Upper Twin Lake included panfish such as Black Crappie, White Crappie, Bluegill, Pumpkinseed, and Yellow Perch (Table 2). Overall catch of panfish

was lower than the previous survey in 2009, but fair numbers of quality sized fish are available. Very few stocked trout were captured during the survey as water temperatures were nearing 70°F and trout were likely congregating in the cooler, deeper water near the dam where our nets are ineffective.

**Table 1. Fish species captured from trap netting at Upper Twin Lake during May 2018.**

<b>Fish Species</b>	<b>Number Collected</b>	<b>Size (inches)</b>	<b>Range</b>	<b>Additional Comments</b>
Black Crappie	10	4-9 in		30% over 9 in
White crappie	25	8-16 in		92% over 9 in
Yellow perch	37	6-10 in		49% over 9 in
Bluegill	47	2-8 in		15% over 7 in
Pumpkinseed	10	3-7 in		40% over 7 in
Green sunfish	2	4 in		
Channel catfish*	129	7-27 in		
Largemouth Bass	2	10 in		
Brown bullhead	4	7-13 in		
Brown Trout	1	Not measured		
Rainbow trout	1	Not measured		

\*Channel Catfish numbers are from trap nets, hoop nets, and night electrofishing



**Close-up of a Channel Catfish yearling stocked in 2015 with a left pelvic fin clip.**



*Sixteen inch white crappie captured during trap netting at Upper Twin Lake.*

*Mike Depew  
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