

Glade Dam Lake Butler County

Fall 2018 – Spring 2019 Lake Survey



Nice White Crappies

Glade Dam Lake (aka Glade Wildlife Lake) is located on State Game Lands 95 in east central Butler County. Glade Dam Lake is managed by the Pennsylvania Game Commission primarily for waterfowl. A large portion of the reservoir is closed to public access as a waterfowl propagation area for a large part of the year. A small part of the upstream end of the reservoir is open to fishing year-round and the entire lake is open to ice fishing. At the request of the SGL 95 Land Manager, we conducted fisheries surveys to determine the status of Glade Dam Lake's warmwater fisheries. Fisheries Management Area 1 conducted two night electrofishing surveys (May 15, 2018 and September 18, 2019) and one trap net survey (April 15 – 19, 2019) on Glade Dam Lake to fulfill that request.

Historically, the PFBC hasn't performed many fisheries management activities at Glade Dam Lake due to the restricted angler access. The lake was stocked with Channel Catfish fingerlings six times between 1976 and 1996 and received one stocking of Largemouth Bass fingerlings in 1976. The lake was surveyed one time previously by Area 1 in 1989.

Night Electrofishing

Night electrofishing for Largemouth Bass on May 15, 2018 produced a low catch rate for bass. We conducted 5 runs totaling 1.5 hours of effort. Total catch was only 10 Largemouth Bass.

While several large individual bass were captured, the population was poor in both quantity and quality. It appears that Largemouth Bass are experiencing recruitment problems. We stocked 500 fingerling bass in 2018 to augment the Largemouth Bass population with the hope of improving the stock density of the bass to the point that natural reproduction can improve and sustain a quality fishery. We have requested 250 more fingerlings for stocking in 2019.

Our second night electrofishing survey in 2019 produced similar results. We performed 3 runs totaling one hour of effort and captured a total of 12 Largemouth Bass, however, it also revealed what we suspected was the underlying cause for the low density of Largemouth Bass. We captured no young of the year bass in either 2018 or 2019, suggesting that the successful natural reproduction is rare in Glade Dam Lake. Analysis of scales from the Bass we collected showed that at least 25% of the 2019 sample could be attributed to fingerlings stocked in 2018.

We will continue to stock Largemouth Bass fingerlings for 3 more years (5 years in total). We will also monitor the lake annually with night electrofishing to determine the contribution of stocked fish to the Largemouth Bass population. We are also investigating other methods to improve natural reproduction and or survival of young bass within Glade Dam Lake.



Two of the few bass we captured in 2018.

Trap Netting

The results of our trap netting are presented in Table 1. Glade Dam Lake contains an excellent Channel Catfish population. It appears that Channel Catfish have taken over the niche of top predator usually held by Largemouth Bass. The life history of Channel Catfish makes them less affected by necessary waterfowl management drawdowns performed annually. Anglers targeting Channel Catfish will likely encounter moderate sized Brown Bullhead and Yellow Bullhead, as well.

Table 1. Number captured and size ranges for fish captured in trapnets in Glade Dam Lake, 2019.

Species	Number caught	Size Range (Inches)
Black Crappies	1,083	3 - 11
White Crappies	466	4 - 15
Bluegills	93	4 - 7
Channel Catfish	290	4 - 26
Common Carp	152	N/A
White Suckers	69	9 - 17
Golden Shiners	35	N/A
Pumpkinseeds	13	5 - 7
Yellow Perch	45	6 - 8
Brown Bullheads	113	9 - 13
Yellow Bullheads	8	8 - 10



A quality size Channel Catfish

The other attractive component of the Glade Dam Lake fishery are the crappies. Black Crappie are very abundant, however, 95% of them are 7 to 8 inches in length (Figure 1). Conversely, White Crappie are less abundant but provide more quality size fish with 39% of our catch equal to or greater than 9 inches in length (Figure 1). Bluegills, Pumpkinseeds and Yellow Perch populations were less abundant and exhibited poor size structure (Table 1).

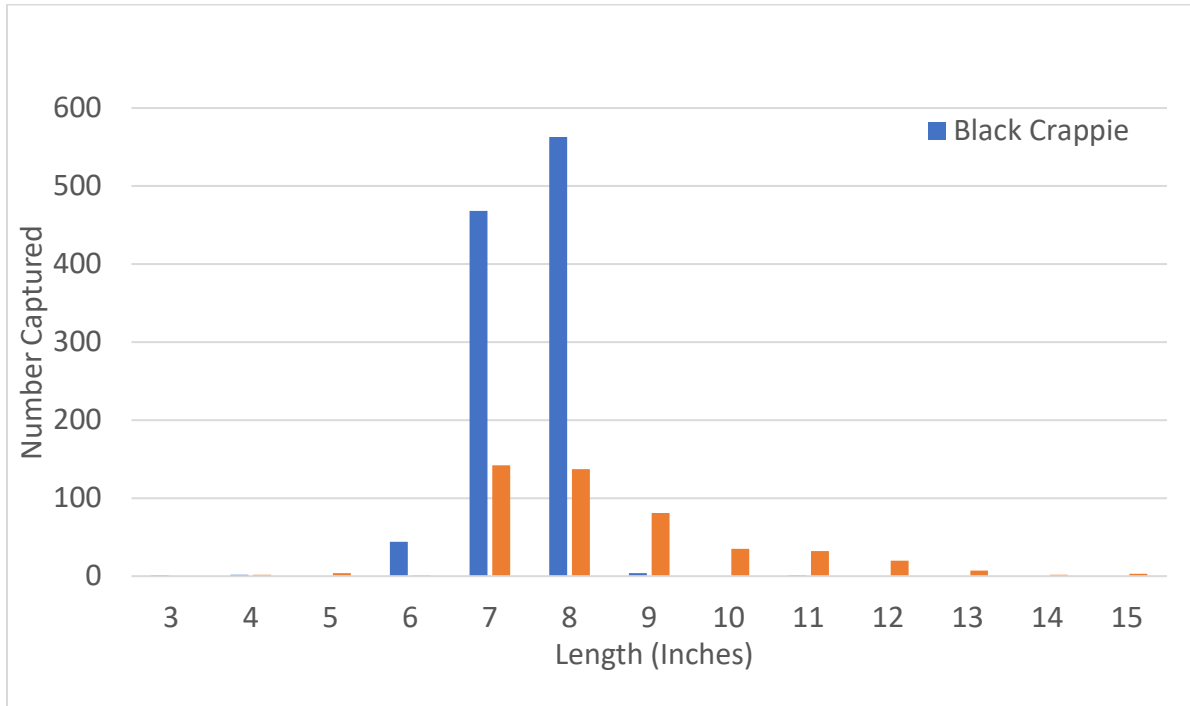


Figure 1. Length frequency distributions of Black and White Crappies captured in Glade Dam Lake, April 15 - 19, 2019.

Currently, it appears that the primary forage base in Glade Dam Lake is provided by Golden Shiners, juvenile White Suckers and juvenile panfish. To increase the diversity and density of the forage base, we stocked Glade Dam Lake with 450 adult Spottail Shiners in April 2019. It is hoped that these adults will spawn immediately and establish a self-sustaining population in Glade Dam Lake. We also stocked 500 adult Bluntnose Minnows in 2019 for the same purpose. We will assess the success of these stockings during our annual Largemouth Bass surveys.