

Lake Information: 199 Acres; Bluegrass FWA
Located: Daylight, IN; Warrick County
GPS Coordinates; N38.11638; W-87.45872
Ownership: State of Indiana. North end privately owned (812)789-2724, www.in.gov/dnr/fishwild/3099.htm
Fees: None
Amenities: Two boat ramps and one mile of maintained shoreline access.
Outboard Motor Restriction: Idle only
Special Regulations: 18-inch minimum size limit and two fish daily bag limit for Largemouth Bass

Best Fishing: Crappie and Largemouth Bass
Stockings: 975 Muskellunge stocked annually since 2006
DNR Contact Information:
Fish Management District 6
2310 E. State Road 364
Winslow, IN 47598
(812) 789-2724; D6fish@dnr.in.gov
Author: Rebecca Munter, District 6 Fisheries Biologist
Report Approved By: Daniel P. Carnahan, South Region Fisheries Supervisor
Date Approved: October 2, 2018

Methods

Fish sampling was conducted on February 27 to March 10, 2017. Fish collection effort consisted of 12 overnight Michigan trap net lifts. White Crappie and Black Crappie were measured to the nearest 0.1 in TL and weighed to the nearest 0.01 lb. Scales were taken from a subsample for age and growth estimation. Fisheries Analysis and Modeling Simulations (FAMS) program was used to calculate proportional stock density (PSD), relative weight (W_r), and growth indices to assess the population.

Summary

- A total of 200 Black Crappie was sampled that ranged in length from 6.6 to 10.8 in and the catch rate was 16.7/lift.
- A total of 15 White Crappie was sampled that ranged in length from 7.1 to 13.3 in and the catch rate was 1.3/lift.
- No Muskellunge were sampled during this survey.
- Black Crappie size structure improved slightly as 14% were 9.0 in or longer, compared to 9% during 2015 (Table 1). The PSD (78) also improved from 11 during 2015. The PSD-10 was 4.

- Black Crappie growth was similar to the district average at all ages (Figure 1). The frequency of Black Crappie dropped off after age 5 (8.5 in; Figure 2).
- Forage is not a limiting factor for Black Crappie growth as the relative weight (W_r) was 86.
- The estimated total annual mortality rate was 59% for Black Crappie.
- Crappie were the most targeted and harvested species during the 2016 creel survey. The average length of a harvested crappie during the 2016 creel was 9.3 in (Munter 2017).
- Although there were few fish 9 inches or larger sampled in our survey, anglers were harvesting fish that averaged 9.3 inches in the 2016 creel survey.
- The Crappie population of Bluegrass Pit has shifted over time from one dominated by White Crappie to one dominated by Black Crappie. A follow-up survey is recommended in 2019 to continue to document this trend.
- Muskellunge were targeted during 2015 and 2017 surveys, but no fish were captured. An estimated total of 23 were caught by anglers during the 2016 creel survey, which was more than ever reported.



- A Muskellunge survey with a minimum of 18 overnight lifts is recommended in 2019 to determine whether the stocking program should continue at Bluegrass Pit due to the low sample sizes from targeted surveys and low angler catch in the 2016 creel survey.

Literature Cited

Munter, R.A. 2017. Blue Grass and Loon Pit Angler Creel Survey. Indiana Department of Natural Resources. Indianapolis. 12 pp.

Table 1. Black and White Crappie size distribution by number and percent, Blue Grass Pit, 2017.

Species	Size Class (in)	Number	Percent
Black Crappie	5.0-7.9	57	28.5
	8.0-9.9	137	68.5
	10.0-11.9	6	3.0
	12+	0	0
White Crappie	5.0-7.9	2	13.3
	8.0-9.9	3	20.0
	10.0-11.9	6	40.0
	12+	4	26.7

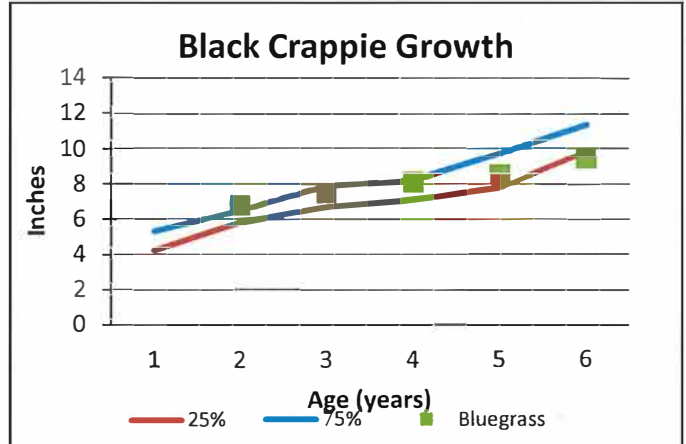


Figure 1. Black Crappie mean length at age compared to the district's 25th and 75th percentiles.

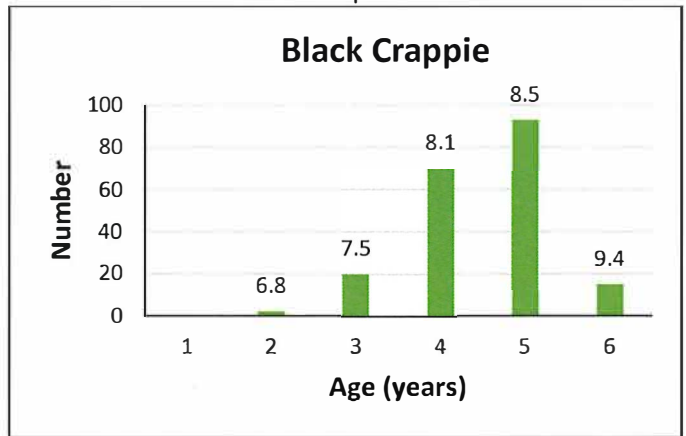


Figure 2. Black Crappie age frequency with mean length, Blue Grass Pit, 2017.

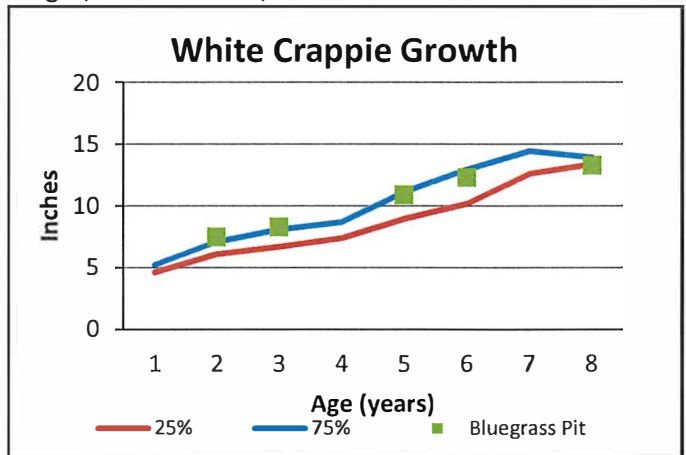


Figure 3. White Crappie mean length at age compared to the district's 25th and 75th percentiles.

