

Fisheries Research Summary

Division of Inland Fisheries

N.C. Wildlife Resources Commission



Assessment of the Crappie Population in Lake James

Located in Burke and McDowell counties, Lake James is the uppermost reservoir in the Catawba River chain of Duke Power Company lakes, and it is characterized by distinct differences in water quality between the two river basins — Catawba and Linville rivers — that form the reservoir. Crappies in Lake James are relatively confined to the upper, nutrient-rich Catawba River arm of the reservoir. Therefore, fishermen and fishery biologists focus their efforts to catch crappies in this lake region.

In 2003, biologists with the N.C. Wildlife Resources Commission began a three-year effort to determine the catch rate, age, growth rate and body condition of crappies in Lake James. To obtain this information, Commission personnel collected crappies by using trap nets during late fall in the Catawba River arm of the reservoir.

Biologists collected crappies up to age 9 during the survey, but the majority (57 percent) of the fish collected were age 2. Crappies ranged in size from 3.5 to 13.4 inches, with an average size of 9.6 inches (Figure 1), and growth of crappies in Lake James is best described as high until age 3 and average afterward. In addition, condition values indicated that crappies were in moderate condition.

In conclusion, the crappie population in Lake James appears to be composed of relatively young and fast growing fish, in good condition. The Commission will continue to monitor crappies in Lake James to ensure that proper management recommendations are put forth to sustain the health and balance of this fishery.



Black Crappie



Duane Raver/USFWS

White Crappie



Duane Raver/USFWS

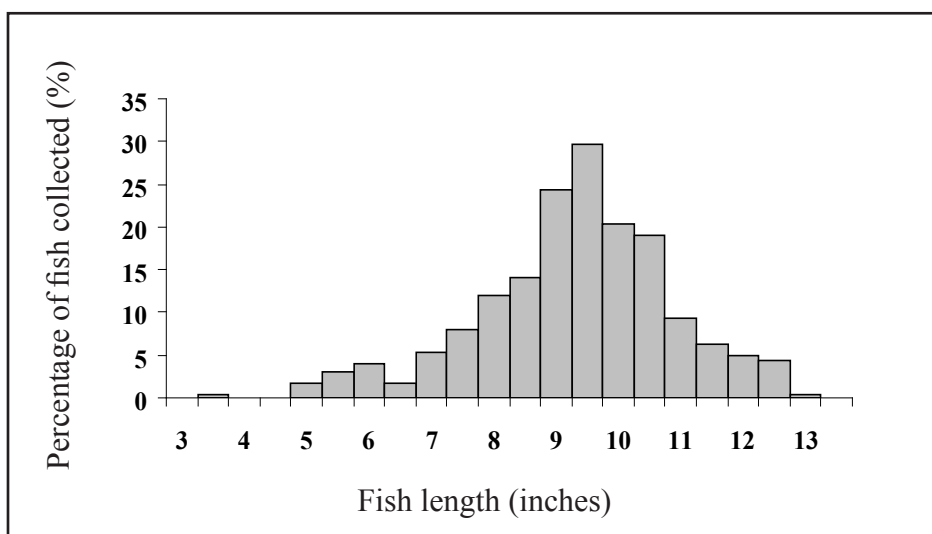


Figure 1. Length-frequency distribution of all crappies collected during the 2003–2005 sampling seasons on Lake James in North Carolina. Fish are grouped by 0.5-in size class intervals.

