

SURVEY REPORT

OKLAHOMA DEPARTMENT OF WILDLIFE CONSERVATION



FISH MANAGEMENT SURVEY AND RECOMMENDATIONS

FOR

Ozzie Cobb LAKE

2025

SURVEY REPORT

State: Oklahoma

Project Title: Ozzie Cobb Lake Fish Management Survey Report

Period Covered: 2025

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Date Prepared: January 2026

ABSTRACT

INTRODUCTION

Lake Ozzie Cobb impounds Rock Creek, 9.7 km NE of Rattan in Pushmataha County, Oklahoma. Ozzie Cobb covers 46.7 surface hectares and was constructed in 1958 by the Oklahoma Department of Wildlife Conservation (ODWC). Ozzie Cobb Lake has a mean depth of 2.2 m and a maximum depth of 6.7 m, a shoreline development ratio of 1.9, and a secchi disc visibility of around 60 cm in the main pool in August. Fish habitat consists primarily of aquatic vegetation, rip rap along dam, the old creek channel and artificial fish habitat structures. Major fisheries include black bass, crappie, channel catfish and bluegill sunfish.

RESULTS

In effort to evaluate the new Largemouth Bass regulation and to try and increase the trophy Largemouth Bass potential of Lake Ozzie Cobb, Southeast region fisheries staff started a selective harvest experiment in 2022. In 2022 staff used operculum punches to mark largemouth bass and conduct a mark recapture study to estimate the largemouth bass population size before selective harvest began. Staff marked 158 fish representing approximately 16.6% of the population which was estimated at 1,280 Bass using Schnabel method. From 2022 to 2025 staff used boat electrofishing to remove bass from Lake Ozzie Cobb. All bass collected under 355mm were harvested and 2 out of 3 bass between 33mm and 457 mm were harvested. All bass over 457mm were released. In 2025 staff once again conducted a mark recapture study as a midpoint update. 2025 population estimates using the same procedures as 2022 estimated a population size of 1034 Largemouth Bass, a reduction of 19%. Between 2022 and 2025 staff removed 355 largemouth Bass totaling 151.63 Kg (table 1). Bass removal has decreased overtime despite similar effort between years. Interestingly, weight of fish removed has decreased as well but increased in 2025. This is the first sign of positive impact in the study as weight removed increased despite decreasing fish number, indicating that bass size is increasing. Despite these positive signs there is no significant difference in Catch Per Unit Effort, PSD, or Relative weight between pre or post-removal. When comparing these matrices, it the only noticeable effect is a decrease in the variability of these metrics between years (Figure 2). This study will continue through 2029 and conclude with a final mark recapture study. Otoliths were pulled in all samples and will allow for evaluation of age and growth related metrics as well as back calculated length at ages to look at progress of this study

over time. At this stage it is too early to tell if the Oklahoma state-wide regulation will have the intended impacts of reducing biomass and increase growth rates and ultimately number of larger more trophy sized Largemouth Bass. Current removal numbers are representative of high angler harvest, not typically associated with Bass fishing but may offer hope for trophy bass management if angler behaviors change.

Table 1: Total fish, angler limits, and weight removed from Lake Ozzie Cobb by year.

Removal	2022	2023	2024	2025	Total
Fish	148	88	73	46	355
Limits	24.6	14.66	12.16	7.6	59.17
Weight (Kg)	63.08	35.19	24.83	28.53	151.63

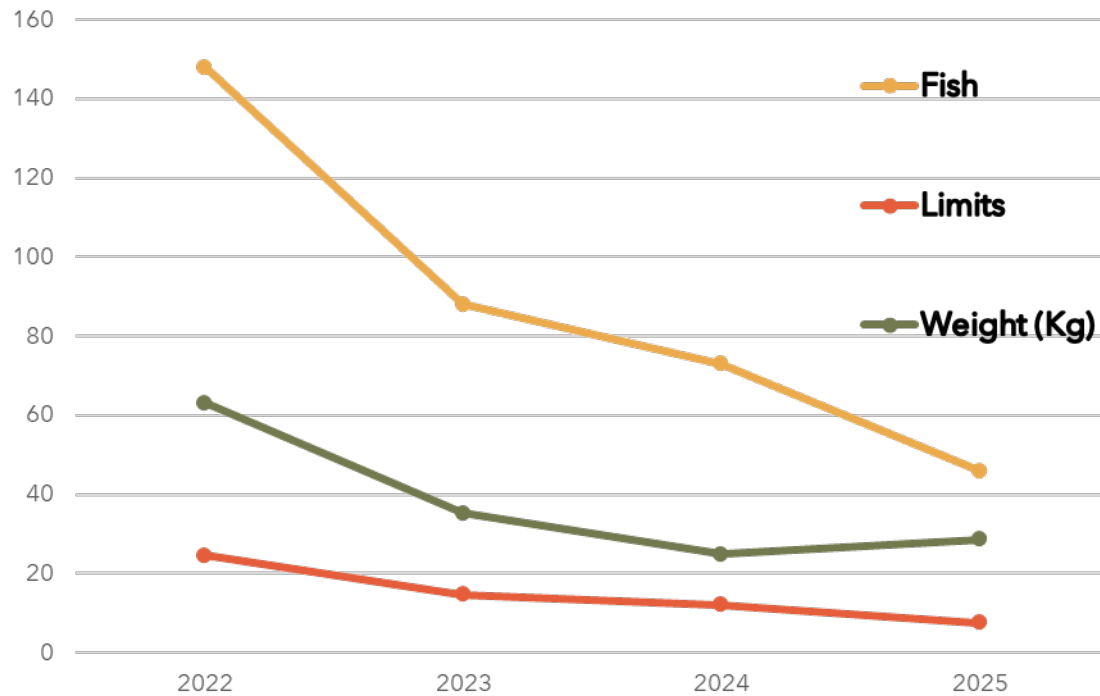


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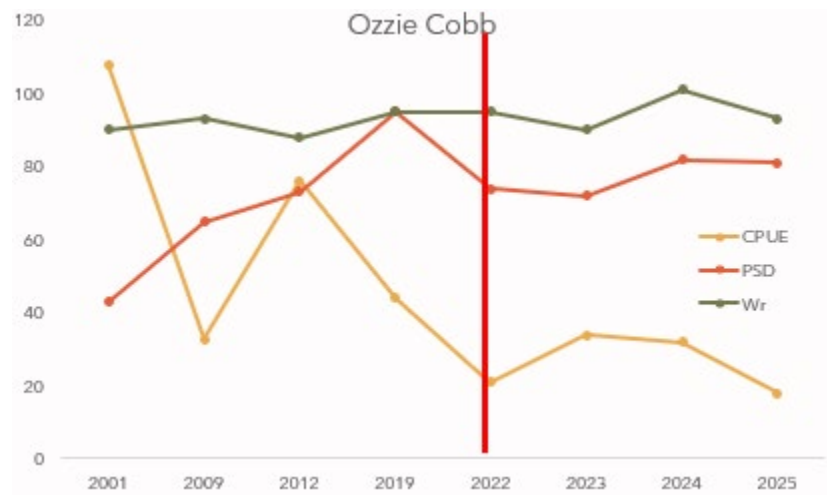


Figure 2: CPUE, PSD, and Wr by year, pre and post removal.