# Performance Report

State: Oklahoma

Project Title: Fisheries Management Survey

Southwest Region Fisheries Management

## Fort Cobb


### Abstract

Fort Cobb was surveyed in 2025 via low frequency electrofishing for Blue and Flathead Catfish. This survey was conducted to help determine population structure and dynamics, evaluate the fishery for needs, and possible management goal adjustments. It had been more than 10 years since a previous catfish surveys were conducted at Ft. Cobb but supplemental gill netting and spring electrofishing surveys have been conducted for baseline data and furthered the need for current catfish electrofishing data.

Fort Cobb Lake has long been a quality Saugeye, Hybrid Striped Bass, and Catfish fishery to many anglers southwest Oklahoma, with the current state record saugeye being caught here. Other survey methods for sportfish have been conducted routinely due to a priority fisheries needs which has supplied supplemental catfish data for the lake. Having gill netting this lake in 2024 we have a relatively small data set but the plan forward is to routinely sample to access stock base needs. Although sampling methods are conducted on the lake on a rotational basis it has provided some idea to the fishery as a whole.


### Introduction

Fort Cobb Lake is one of the larger impoundments (4100 acres) located in southwest Oklahoma and is owned by the Bureau of Reclamation (USBOR) for water storage and recreational use. This highly used recreational lake is managed for Saugeye, Hybrid Striped Bass, Largemouth Bass, and Catfish. This reservoir consists of agricultural runoff areas and supports a balance amount of nutrients which supports a balanced fishery in turn. This highly sought after destination is encompassed by Ft. Cobb wildlife management area and Ft. Cobb state park, which is a high use waterfowl hunting area and utilized by anglers.

Management issues that seem to be present is the lack of usable habitat to an aging reservoir. In past years Fort Cobb was subjected to an aquatic vegetation planting regime with the goal to provide usable native habitat to fish present; this project was marginal in providing usable habitat. Conversely, deep water habitat such as cedar trees used for thermal cover and predation avoidance is lacking within the lake, although there are cedar trees in shallow areas which are being utilized by Bass and baitfish species.

## Results

Our low frequency electrofishing samples were conducted in September of 2025 when water temperatures were $76^0$F which fall with bounds of catfish electrofishing standard sampling protocols (SSP). Being a larger lake, we needed ample sample sites to incorporate all available habitats and within SSP methodology, samples consisted of 15 sites with each timed site being a 5 minute units of effort that included flats, shallow, drops, timber, channel lines and near structures consistent of 8-14 feet deep. In the duration of the 75 minutes of sampling we collected a total of 69 Blue Catfish and 1 Flathead Catfish.

Electrofishing samples are measured in catch per unit effort (CPUE) and were fairly low based off abundance (Figure 1). When measuring fish body condition (body mass/length) relative weight (Wr) is the metric that is used to describe how fit the population is, the relative weight for Blue Catfish at Ft. Cobb were on average 85.74 (Table 1) which is average and acceptable level to population present. The length frequency of Blue Cats (Figure 2) was normally distributed with what we typically find by the use of low frequency electrofishing with overall size structure showing good growth of larger fish when paired with relative weight body condition. Age and growth data was not collected from this sample set but all other data was analyzed in the shiney application.

Based on the 2025 electrofishing survey, the abundance of blue catfish is relatively stable with lack of sampling for Flatheads not being able to pass conclusions. The quality of fish showed a fair abundance of larger blue cats over 20” and good distribution of among all size classes. The body condition of the fish was marginal but showed good relative weights compared to other SWR lakes. These metrics show a good population structure and not a typical stockpiling of smaller individuals and limited growth rates. The forage base of gizzard shad for Ft. Cobb has remained higher than normal compared to other regional lakes and other survey methods we have seen a fair number of silversides and small cyprinids for all predatory sportfish.

Since we have sampled, a follow up sampling plan for every 5 years needs to be implemented with substitutional sample methods (electrofishing, gill netting) since it’s a priority and trophy fishery. In 2023 we started electrofishing and collecting routine data and noting habitat needs at Ft. Cobb. There is also a lack of deep water habitat for sportfish. This lake has the potential to remain a sought after fishery in southwest Oklahoma with the continuation of stocking regimes and improvement on habitats available. The best management plan should utilize the forage present, provide more habitats, and sample routinely for stocking recommendations in order to create a quality fishery.

Catch per Unit Effort

Total CPUE

| Species | Mean (fish/hr) | # of Samples | RSE | SE | L 95% CI | U 95% CI | N RSE = 12.5 (25% range) | N RSE = 20 (40% range) |
|---|---|---|---|---|---|---|---|---|
| Blue Catfish | 55.20 | 15 | 18.23 | 10.06 | 35.48 | 74.92 | 32 | 12 |
| Flathead Catfish | 0.80 | 15 | 100.00 | 0.80 | -0.77 | 2.37 | 960 | 375 |

CPUE by PSD Size Category

| Species | Size Category | Mean (fish/hr) | RSE | SE | L 95% CI | U 95% CI | N RSE = 12.5 (25% range) | N RSE = 20 (40% range) |
|---|---|---|---|---|---|---|---|---|
| Blue Catfish | < Stock | 0.00 | | | | | | |
| Blue Catfish | S-Q | 14.40 | 31.71 | 4.57 | 5.45 | 23.35 | 97 | 38 |
| Blue Catfish | Q-P | 39.20 | 17.02 | 6.67 | 26.12 | 52.28 | 28 | 11 |
| Blue Catfish | P-M | 0.80 | 100.00 | 0.80 | -0.77 | 2.37 | 960 | 375 |
| Blue Catfish | M-T | 0.80 | 100.00 | 0.80 | -0.77 | 2.37 | 960 | 375 |
| Blue Catfish | Trophy+ | 0.00 | | | | | | |
| Flathead Catfish | < Stock | 0.00 | | | | | | |
| Flathead Catfish | S-Q | 0.00 | | | | | | |
| Flathead Catfish | Q-P | 0.80 | 100.00 | 0.80 | -0.77 | 2.37 | 960 | 375 |
| Flathead Catfish | P-M | 0.00 | | | | | | |
| Flathead Catfish | M-T | 0.00 | | | | | | |
| Flathead Catfish | Trophy+ | 0.00 | | | | | | |

**Figure 1:** Catch per unit effort and size categories for Blue and Flathead Catfish Ft. Cobb 2025 electrofishing samples.

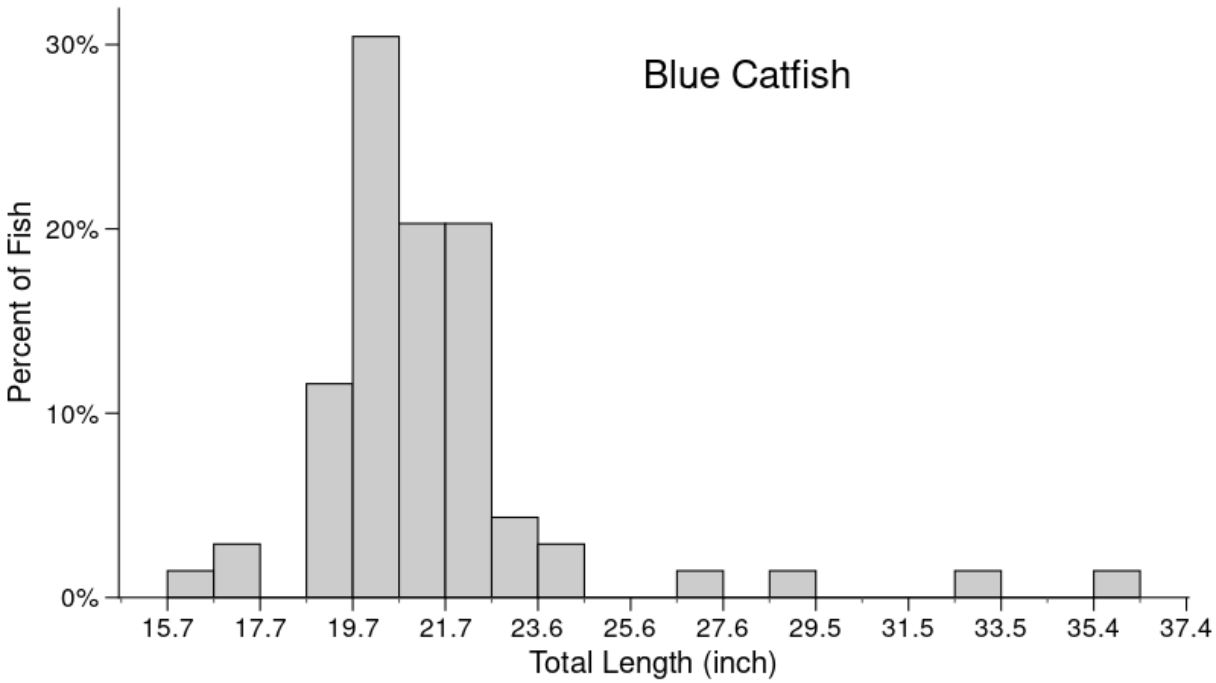


**Figure 2.** Length frequency and size structure of Blue Catfish at Fort Cobb Lake 2025

Relative Weight (Wr)

| Size Category | Mean Wr | Count | CV | SE | L 95% CI | U 95% CI |
|---|---|---|---|---|---|---|
| Overall | 85.74 | 69 | 7.90 | 0.82 | 84.14 | 87.34 |
| stock | 88.67 | 18 | 7.16 | 1.50 | 85.74 | 91.60 |
| quality | 84.29 | 49 | 7.57 | 0.91 | 82.51 | 86.08 |
| preferred | 100.33 | 1 | NA | NA | NA | NA |
| memorable | 89.27 | 1 | NA | NA | NA | NA |

**Table 1.** Relative weight table for Blue Catfish at Ft. Cobb Lake 2025.