

SURVEY REPORT

OKLAHOMA FISHERIES MANAGEMENT PROGRAM



FISH MANAGEMENT SURVEY AND RECOMMENDATIONS

FOR

COON CREEK LAKE #2

1999

Performance Report

State: Oklahoma

Project No. F 44-14

Project Title: Oklahoma Fisheries Management Program

Study Title: Surveys and Recommendations - Coon Creek Lake #2

Period Covered: 1 January 1999 - 31 December 1999

COON CREEK LAKE #2

ABSTRACT

Lake Coon Creek was sampled by spring electrofishing in 1999 to determine fish population trends. Largemouth bass abundance was high and increased compared to the previous sample years. Abundance of bluegill increased greatly compared with past samples. Gizzard shad did not appear in the 1999 sample.

Recommendations were made to refurbish existing brush fish attractors in 2001, stock 1,360 growout channel catfish in 2000, conduct spring electrofishing survey in 2001 to evaluate the condition of the bass fishery and forage base. Implement a 13 to 16 inch slot length limit on black bass due to the high number of bass < 12 inches and very low number of bass > 12 inches.

INTRODUCTION

Coon Creek Lake #2 is located 5 miles North of Wilburton on Oklahoma State Highway 2 in Latimer County (Figure 1). The lake was constructed during 1966 and 1967 on Coon Creek and impounds approximately 34 acres. The lake was constructed for the purpose of flood control and recreation by the Soil Conservation Service. Standardized fishery surveys were conducted in 1983, 1985, 1990 and 1999. Recent fish stockings are shown in Table 1. Dense emergent vegetation, consisting of mostly water willow, may impede efficiency of bass predation. However, as recommended, grass carp were stocked during 1986 and a noticeable reduction in the amount of vegetation is apparent.

RESULTS

Largemouth Bass

1. Largemouth bass abundance from 1999 spring electrofishing ($C/f = 260$) was well above the minimum acceptable value for a quality fishery ($C/f \geq 40$). The total bass C/f was more than double the 1985 and 1990 sample (Table 2).
2. In 1999 spring electrofishing, the abundance of bass < 299 mm was satisfactory (Table 2). The abundance of bass in all size groups ≥ 300 mm was below acceptable values (Table 2).

3. Body condition values (W_r) were satisfactory for bass < 200 mm and generally unacceptable for bass > 200 mm (Table 2).
4. The high abundance of bass < 200 mm with very few being > 300 mm indicates an over crowded and stunted bass population. This lake would probably benefit if a 13 to 16 inch slot length limit was initiated.

Bluegill

1. Bluegill abundance from 1999 spring electrofishing ($C/f = 592$) was greatly above the minimum acceptable value for a quality forage supply ($C/f \geq 45$). The total bluegill C/f increased over the past sample (Table 3).
2. In 1999 spring electrofishing, the abundance of bluegill in all size groups was satisfactory (Table 3).
3. Body condition values (W_r) were satisfactory for bluegill between 75-149 mm and below acceptable values for bluegill > 150 mm.
4. The bluegill population maintains a good forage base and the number of quality size bluegill remains high.

RECOMMENDATIONS

Fish Attractor Structures

1. All existing structures should be refurbished in 2001.

Fish Stockings

1. Stock 1,360 growout channel catfish in 2000.

Fish Surveys

1. Spring electrofishing should be conducted in 2001 to evaluate the condition of the bass fishery and forage base.

Fishing Regulations

1. A 13 to 16 inch slot length limit on black bass needs to be implemented due to the high number of bass < 12 inches and inadequate number of bass > 12 inches.

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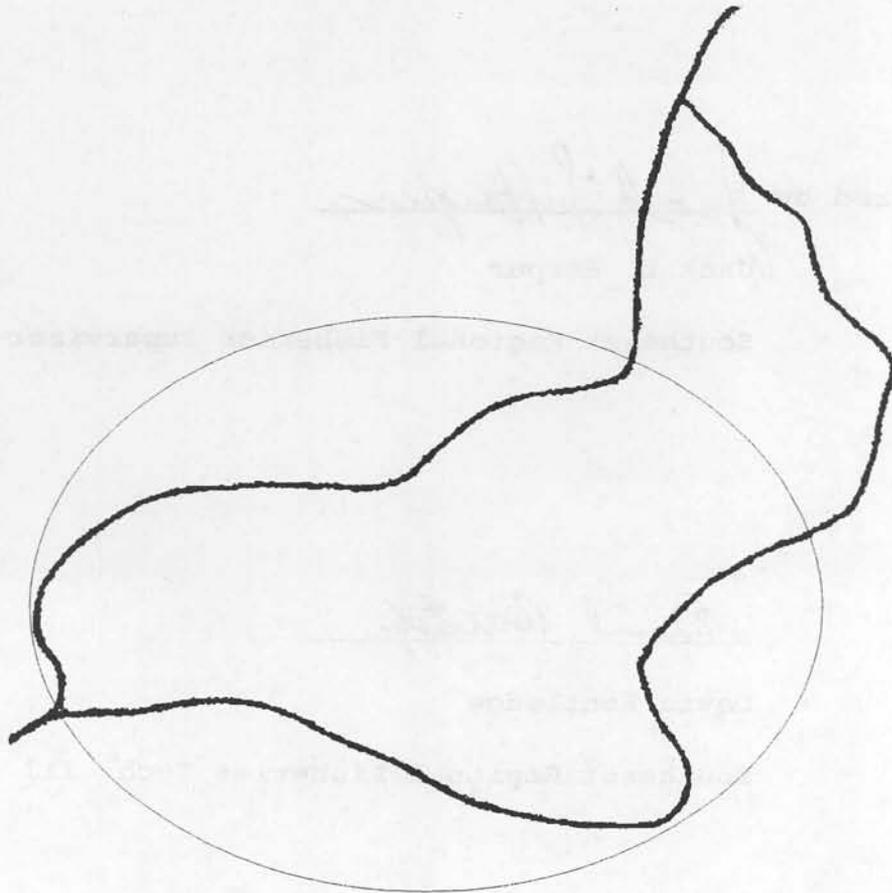
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Figure 1: Coon Creek Lake



SSP SAMPLING SITES: 1999

Spring Electrofishing -



Table 1. Species, number and size of fish stocked in Coon Creek Lake #2 from 1983-1999.

| DATE | SPECIES | NUMBER | SIZE |
|------|-----------------|--------|-------------|
| 1986 | Channel Catfish | 1,188 | Fingerlings |
| 1986 | Grass Carp | 57 | Adults |
| 1987 | Channel Catfish | 700 | Fingerlings |
| 1988 | Channel Catfish | 2,225 | Fingerlings |
| 1989 | Channel Catfish | 680 | Fingerlings |
| 1990 | Channel Catfish | 680 | Growouts |
| 1991 | Channel Catfish | 1,360 | Growouts |
| 1992 | Channel Catfish | 1,360 | Growouts |
| 1993 | Channel Catfish | 1,360 | Growouts |
| 1994 | Channel Catfish | 1,360 | Growouts |
| 1995 | Channel Catfish | 1,360 | Growouts |
| 1996 | Channel Catfish | 1,360 | Growouts |
| 1997 | Channel Catfish | 1,360 | Growouts |
| 1998 | Channel Catfish | 1,360 | Growouts |
| 1999 | Channel Catfish | 1,440 | Growouts |

Table 2. Total number (No.), catch rates (C/f), and relative weights (W_r) by size groups of largemouth bass collected by spring electrofishing from Coon Creek Lake #2. Numbers in parentheses represent acceptable C/f values for a quality fishery. Acceptable W_r values are ≥ 90 .

| Year | Total | | <200 mm | | 200-299 mm | | ≥ 300 mm | | ≥ 356 mm | |
|------|-------|-----|---------|-------|------------|-------|---------------|-------|---------------|-------|
| | No. | C/f | C/f | W_r | C/f | W_r | C/f | W_r | C/f | W_r |
| 1985 | 109 | 109 | 38.0 | 93 | 59.0 | 84 | 12.0 | 83 | 2.0 | 84 |
| 1990 | 125 | 100 | 33.6 | 92 | 54.4 | 81 | 12.0 | 81 | 4.8 | 83 |
| 1999 | 130 | 260 | 118.0 | 95 | 136.0 | 79 | 6.0 | 86 | 4.0 | 86 |

Table 3. Total number (No.), catch rates (C/f), and relative weights (W_r) by size groups of bluegill collected by spring electrofishing from Coon Creek Lake #2. Numbers in parentheses represent acceptable C/f values for a quality fishery. Acceptable W_r values are ≥ 90 .

| Year | Total (≥ 45) | | <75 mm (≥ 10) | | 75-149 mm (20-100) | | ≥ 150 mm ¹ (≥ 15) | |
|------|------------------------|-------|-------------------------|-------|-----------------------|-------|---|-------|
| | No. | C/f | C/f | W_r | C/f | W_r | C/f | W_r |
| 1985 | 201 | 201.0 | 9.0 | - | 143.0 | 86 | 49.0 | 84 |
| 1990 | 140 | 112.0 | 2.4 | - | 79.2 | 98 | 30.4 | 86 |
| 1999 | 148 | 592.0 | 28.0 | - | 216.0 | 95 | 348.0 | 83 |

Table 1. Total number (N) and relative frequency (RF) of species collected by species of *Staphylinidae* and *Curculionidae* in the study area. The number of species is given in parentheses. The relative frequency is given in percent.

| Year | Species | Number (N) | Relative Frequency (RF) |
|------|----------------------|------------|-------------------------|
| 1988 | <i>Staphylinidae</i> | 101 | 20.0 |
| | <i>Curculionidae</i> | 400 | 80.0 |
| 1989 | <i>Staphylinidae</i> | 140 | 28.0 |
| | <i>Curculionidae</i> | 360 | 72.0 |
| 1990 | <i>Staphylinidae</i> | 140 | 28.0 |
| | <i>Curculionidae</i> | 360 | 72.0 |