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SURVEY REPORT

OKLAHOMA FISHERIES MANAGEMENT PROGRAM



FISH MANAGEMENT SURVEYS AND RECOMMENDATIONS

FOR

WINTERSMITH PARK LAKE

2003

Performance Report

State: Oklahoma

Project No. F 44-D-18

Project Title: Oklahoma Fisheries Management Program

Study Title: Surveys and Recommendations - Wintersmith Park Lake

Period Covered: 1 January 2003 - 31 December 2003

WINTERSMITH PARK LAKE

ABSTRACT

Wintersmith Park Lake was sampled by fall gill netting in 2003 to determine fish population status. Crappie were abundant, and their population size structure was good. Abundance of channel catfish was very low. Gizzard shad were abundant, and a good proportion of their population was of a size to be available to predator fish.

It is recommended that 520 (40/acre) channel catfish fingerlings (7 inch) be stocked in 2004 to supplement population abundance. Periodic surveys should be conducted to monitor fish population trends.

INTRODUCTION

Wintersmith Park Lake is located in the City Of Ada in Pontotoc County, Oklahoma. This 13 acre lake is City owned and was impounded in 1906. This Lake is fertile due to runoff from neighboring residential areas. It was dredged out in 1984 and 1985 because of heavy siltation. A secchi disc visibility of around 15 cm was present in October; turbidity is primarily from plankton. Aquatic vegetation is present around some limited areas of the shoreline.

A prior survey conducted in 1988 indicated abundant populations of largemouth bass, crappie and sunfish. However, channel catfish abundance was low. No fish stockings have been made in the lake since 1993 (Table 1).

Wintersmith Park Lake was sampled in 2003 by fall, gill netting to evaluate the fish population status.

RESULTS

Crappie

1. Crappie abundance from 2003 gill netting ($C/f=0.91$) was above the minimum acceptable value (≥ 0.20) for a quality fishery (Table 2).
2. The abundance of crappie for all size classes was satisfactory; those < 200 mm in length were especially

abundant (Table 2). The largest crappie collected weighed 0.5 kg (1.1 lbs.).

3. Body condition values (W_r) were unsatisfactory for all size classes (Table 2).
4. Crappie were abundant, and adequate numbers of quality and trophy size classes were collected for a quality fishery to be present.

Channel catfish

1. Channel catfish abundance from 2003 gill netting ($C/f=0.02$) was well below the minimum acceptable value ($C/f \geq 0.20$) for a quality fishery (Table 3). Only one channel catfish was collected in 2003 sampling.
2. The channel catfish collected weighed 0.4 kg (0.9 lbs.).
3. Channel catfish abundance was also low in prior surveys. It is likely that channel catfish recruitment is very low in this lake.

Gizzard shad

1. Gizzard shad abundance from 2003 gill netting ($C/f=3.12$) was well above the minimum acceptable value ($C/f \geq 0.20$) for a quality forage supply (Table 4).
2. The catch rate of gizzard shad <150 mm in length ($C/f=0.88$) indicated a good proportion of their population was small enough to be available to most predator fish.

2. The catch rate of gizzard shad <150 mm in length ($C/f=0.88$) indicated a good proportion of their population was small enough to be available to most predator fish.

RECOMMENDATIONS

Fish Stockings

1. It is recommended that 520 (40/acre) channel catfish fingerlings (7 inch) be stocked in 2004 to supplement population abundance.

Fish Surveys

1. Periodic fish population surveys should be conducted to monitor population trends and success of channel catfish stockings.

Prepared by

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Fish Supervisor

Table 1. Species, number and size of fish stocked in Wintersmith Park Lake, 1985 - 1993.

DATE	SPECIES	NUMBER	SIZE
1985	Largemouth bass	1,500	fingerlings
	Channel catfish	318	fingerlings
1986	Channel catfish	300	fingerlings
1987	Channel catfish	300	fingerlings
1988	Blue catfish	35	adults
	Channel catfish	500	fingerlings
1989	Channel catfish	106	adults
1990	Channel catfish	300	fingerlings
1991	Channel catfish	464	fingerlings
1993	Channel catfish	1,300	fingerlings

Table 2. Total number (No.), catch rates (C/f), and relative weights (W_r) size groups of **crappie** collected by gill netting from Wintersmith Park Lake. Numbers in parentheses represent acceptable C/f values for a quality fish. Acceptable W_r values are ≥ 90 .

Year	Total ($\geq .20$)		<200 mm (.05-.30)		≥ 200 mm ($\geq .08$)		≥ 250 mm ($\geq .04$)	
	No.	C/f	C/f	W_r	C/f	W_r	C/f	W_r
2003	38	0.91	0.77	89	0.14	83	0.05	81

Table 3. Total number (No.), catch rates (C/f), and relative weights (W_r) size groups of **channel catfish** collected by gill netting from Wintersmith Lake. Numbers in parentheses represent acceptable C/f values for a quality fishery. Acceptable W_r values are ≥ 90 .

Year	Total ($\geq .20$)		<300 mm ($\geq .10$)		≥ 300 mm ($\geq .10$)		≥ 400 mm ($\geq .05$)	
	No.	C/f	C/f	W_r	C/f	W_r	C/f	W_r
2003	1	0.02	0.00	--	0.02	103	0.00	--

Table 4. Total number (No.), catch rates (C/f), and relative weights (W_r) by size groups of **gizzard shad** collected by spring electrofishing, gill netting, and seining from Wintersmith Park Lake. Numbers in parentheses represent acceptable C/f values for a quality fishery. Acceptable W_r values are ≥ 90 .

Year	Spring Electrofishing				Fall Gillnetting				Seining	
	No.	C/f	C/f	W_r	No.	C/f	C/f	W_r	No.	C/f
2003					131	3.12	0.88	--		