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MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS
FISHERIES DIVISION
JOB PROGRESS REPORT

STATE: Montana PROJECT NO. 3491
PROJECT TITLE: Statewide Fisheries Investigations
STUDY TITLE: Survey and Inventory of Warmwater Lakes
JOB TITLE: Creel Census - Lake Frances & Tiber Reservoir
PERIOD COVERED: May 27, 1995, through September 3, 1995

ABSTRACT

Interviews of 450 parties of anglers on Lake Frances and 500 parties on Tiber Reservoir were conducted during weekend creel census surveys throughout the summer of 1995. Boat anglers averaged approximately 5.2 hours per completed trip at Tiber Reservoir and 4.6 hours at Lake Frances. Most anglers originated from within a 75 mile radius of the lakes. Walleye were the main target species with catch rates of 0.13 and 0.44 fish per hour, at Lake Frances and Tiber Reservoir, respectively. Catch rates for northern pike were 0.21 fish per hour at Lake Frances and 0.06 fish per hour at Tiber Reservoir. Anglers at Lake Frances kept 84 percent of the walleye and 43 percent of the northern pike they caught. At Tiber Reservoir, anglers kept 49 percent of walleye and 26 percent of northern pike caught. June and July produced the highest catch rates for walleye at Tiber, while at Lake Frances, walleye catch rates were best in June. At Lake Frances, August produced the highest catch rates for both northern pike and yellow perch. The majority of the walleye harvested at Tiber Reservoir were four years old while those at Lake Frances were five and six years old. The results of this census are compared to studies conducted on Lake Frances in 1989, 1993 and 1994 and on Tiber Reservoir in 1991, 1993 and 1994.

OBJECTIVES AND DEGREE OF ATTAINMENT

This project will monitor angler use, satisfaction, and success on Tiber Reservoir and Lake Frances by directly interviewing anglers on weekends throughout the summer. It will also provide data to monitor changes in species, size, and age composition and exploitation rate of fish harvested by anglers. Data will be compared to results from similar weekend creel surveys conducted in 1993 and 1994, detailed creel surveys conducted in 1989 and 1991, and statewide mail survey results to monitor changes. The project will provide current, accurate information on angler satisfaction and success.

Progress was made on the objectives listed above and data are included in this report.

Table 6. Composition of harvested walleye by length and age, Tiber Reservoir and Lake Frances.

TIBER RESERVOIR				
	1991	1993	1994	1995
Average age	4.7	4.5	4.9	4.3
Composition by length:				
8 - 11.9"	0%	4%	13%	5%
12 - 13.9"	9	21	37	50
14 - 15.9"	42	42	23	24
16 - 17.9"	40	21	14	12
18 - 19.9"	7	9	10	7
20" +	2	3	3	1
Composition by age:				
2 years	1%	3%	3%	0%
3	20	19	16	28
4	26	40	37	42
5	30	18	18	16
6	17	11	8	8
7	3	6	7	2
8	1	2	5	3
9	2		5	1
10			0	
11			1	
LAKE FRANCES				
	1989	1993	1994	1995
Average age	3.6	4.9	5.8	6.2
Composition by length:				
8 - 11.9"	15%	3%	2%	1%
12 - 13.9"	44	21	13	14
14 - 15.9"	16	51	35	22
16 - 17.9"	7	15	32	29
18 - 19.9"	10	5	12	23
20" +	7	5	6	11
Composition by age:				
2 years	12%	1%	0%	1%
3	40	12	6	12
4	21	43	25	13
5	27 *	21	27	20
6		6	14	16
7		10	5	8
8		4	10	8
9		0	6	12
10		1	3	3
11		0	0	4
12		0	3	3
13		1	1	

*1989 Lake Frances - Composition for age five includes five and older fish.

Table 7. Average length by age group of harvested walleye from Tiber Reservoir and Lake Frances.

Lake	Census year	Age group											
		2	3	4	5	6	7	8	9	10	11	12	13
Tiber Reservoir	1991	-	13.9	15.1	16.1	17.3	18.5	19.9	19.5	24.0			
	1993	11.3	13.2	14.9	16.3	17.8	17.7	19.8	19.0	20.5	22.2		
	1994	10.0	12.1	13.3	14.8	16.6	17.2	17.7	18.5	20.4	27.1		
	1995	-	12.8	13.9	15.2	16.1	16.3	20.4	19.9	21.7			
Lake Frances	1989*	11.1	12.7	14.0									
	1993	10.1	12.7	14.3	15.3	16.6	18.5	18.8	22.5	22.5	25.0	21.0	24.4
	1994	11.0	12.6	13.9	15.4	16.6	17.2	17.8	19.4	20.2	20.0	20.9	23.3
	1995	11.5	12.9	14.4	15.8	17.2	17.9	18.9	19.1	20.9	20.8	22.5	

* 1989 at Lake Frances - data not presented beyond age four because data lumped for age five and older fish.

ACKNOWLEDGEMENTS

Wendy Widhalm conducted the creel census on Lake Frances while Alvin Smith carried out the Tiber Reservoir survey. Others assisting in the surveys, mounting spines, and analyzing data on spines include Steve Leathe, George Liknes, Paul Hamlin and Kelly Smith.

LITERATURE CITED

- Hill, W. J.. 1995. Creel census- Lake Frances & Tiber Reservoir, May - September 1994. Montana Department of Fish, Wildlife and Parks. Project 3491. Helena, MT.
- Hill, W. J., G. A. Liknes, A. Tews, and P. D. Hamlin. 1996. Northcentral Montana warm and coolwater ecosystems. Montana Department of Fish, Wildlife and Parks. Job Progress Report F-78-R-2.

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PRINCIPAL FISH SPECIES INVOLVED: Walleye, northern pike, yellow perch.

CODE NUMBERS OF WATERS REFERRED TO IN REPORT:

14-7440 Lake Frances
14-9240 Tiber Reservoir