

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

STATE: Montana PROJECT TITLE: Statewide Fisheries Investigations
PROJECT NO: F-46-R-4 STUDY TITLE: Survey and Inventory of
Warmwater Lakes
JOB NO: IV-D JOB TITLE: Southeast Montana Warm-
water Lakes Investigations
PROJECT PERIOD: July 1, 1990 through June 30, 1991
REPORT PERIOD: April 1, 1990 through March 31, 1991

ABSTRACT

Small fishing reservoirs in 11 southeastern counties were sampled for physical and biological information in 1990. A total of 47 reservoirs were sampled. Of these, seven were found to be fishless, largely due to low water levels and resultant winterkill. Requests to plant five new reservoirs were received; two of these were planted.

OBJECTIVES AND DEGREE OF ATTAINMENT

1. To maintain fishing for suitable species in the 84 small reservoirs presently under management and new reservoirs added. This objective was met, as evidenced by fish population sampled. Results are shown in Table 2 of the RESULTS AND DISCUSSION section.
2. To add 40 new reservoirs to the number of ponds supplying public fishing. Ten new ponds were added to the public fishing list during the report period.
3. To keep the angling public informed of pond fishing opportunities. Two thousand five hundred copies of an updated booklet for public distribution were printed in March, 1991. This booklet lists and describes fishing opportunities in the ponds presently under management. Each pond is located on a map. (State funded)

PROCEDURES

Pond depths were determined by sounding with a calibrated rope and a weight. Fish populations were sampled with 125 feet long sinking experimental gill nets, 1/4 mesh bag seines 100 feet long and boat mounted electrofishing gear operated at night.

RESULTS AND DISCUSSION

Survey of New Ponds

Requests were received to plant five new ponds (Table 1). Three of these were considered suitable. The Cullivan pond plant request was withdrawn by the landowner after survey of the pond.

Survey of Previously Planted Reservoirs

Carter County

Four ponds were surveyed in Carter County, but only two had fish populations (Table 2). Yellow perch had failed to survive over winter at the Edwin Rath pond. This pond was only seven feet deep. No further management is planned. A largemouth bass plant in 1989 at Pat LaBree Reservoir had failed, despite the reservoir being 15 feet deep.

Custer County

Four reservoirs were surveyed in Custer County (Table 2). Largemouth bass at Dean Reservoir and Fort Keogh pond grew slowly from the 1989 plant. No sign of the 1989 largemouth bass plant was found at Fleming Reservoir. Size of crappie at Spotted Eagle Pond remains much improved over earlier years.

Big Horn County

Spear-O Reservoir rainbow trout are growing at a modest rate despite the presence of large numbers of white suckers. Bluegill at Indian Creek Reservoir are remaining small despite the introduction of northern pike.

Dawson County

Hollecker pond now has some larger largemouth bass and northern pike (Table 2), but river fish from the ditch system still persist. Weillgosh Reservoir largemouth bass and crappie have reached sizes favored by anglers. Northern pike at Lindsay Reservoir have done well.

Fallon County

New hope now exists for Baker Lake. A new pipeline has been built to irrigate the golf course from the sewage lagoon rather than Baker Lake. This lake has a partial winter-kill history. The ending of irrigation water removal should help. Northern pike are reaching good size and winterkill has kept both yellow perch and black bullhead numbers low enough so that larger individuals are present. Largemouth bass plants appear to have failed completely.

Fingerling walleye plants at South Sandstone Reservoir are maintaining large numbers of walleye up to 1750 grams. Trap netting was done largely to obtain yellow perch for transplanting. This species seems to be reaching a larger size than in the 1980's.

Both the Pinnow trout ponds and largemouth bass ponds were visited. No fish sampling was done because neither pond was over three feet deep.

Garfield County

Five reservoirs were sampled in 1990. The Brooks #1 reservoir is not listed in Table 2, because sampling failed to produce any evidence of largemouth bass survival. Rainbow trout, in good numbers, are reaching sizes up to 1620 grams at the Brooks trout pond.

Childers reservoir has been experiencing unexplained trout die-offs. Only fish originating from the 1990 plant were present. Both Smith Cattle ponds overwintered fish, although growth of the largemouth bass plant was poor.

Powder River County

Largemouth bass were absent from both Williams Reservoir, probably because of winterkill from low water. Williams Reservoir #2 was sufficiently deep to replant largemouth bass in 1990. All of the fish species present in Williams Reservoir #2 (Table 2) arrived by illegal introduction.

Prairie County

Largemouth and smallmouth bass planted at Silvertip Reservoir in 1989 overwintered and grew moderately well. Clark Reservoir overwintered rainbow trout, but growth is not up to potential because of the continued presence of green sunfish. This reservoir was treated with rotenone in 1988, but the sunfish kill was only partial. This reservoir should be treated with rotenone when the water level is low enough to minimize the cost.

Richland County

LaBonte and Cayko reservoirs were replanted with largemouth bass in 1989 following winterkill. Bass at both reservoirs overwintered and grew quite well. Walleye numbers appear to have increased greatly at the large Upper Lone Tree Reservoir, in response to fingerling walleye planting. Trout overwintered at Wicks Reservoir and grew reasonably well. Large perch are still present at the Buxbaum perch pond, but have now been illegally planted in the Buxbaum trout pond.

Rosebud County

Twelve reservoirs were sampled in Rosebud County in 1990 (Table 2). Five of these were planted with largemouth bass in 1989. Growth of bass was good at Lee #2, poor at Lee #3, and fair at the other 3 reservoirs. Trout reservoirs all wintered fish with the exception of Hook Reservoir #3, which was only seven feet deep in the summer 1990. Zemple reservoir continues to grow large trout, with some weighing over two kilograms.

Castle Rock reservoir continues to have good numbers of larger bluegill, but walleye numbers are still low.

Treasure County

The two Kicker Reservoirs were planted with largemouth bass in 1989. Bass overwintered at both ponds and growth was fair.

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Water referred to:

Baker Lake	21-1778
Castle Rock Lake	21-2527
South Sandstone Reservoir	21-8775

Keywords

small reservoirs	bluegill
largemouth bass	black bullhead
smallmouth bass	northern pike
rainbow trout	walleye
yellow perch	

Table 1. Results of new pond surveys in 1990.

Pond Name	County	<u>Location</u> T. R. S.	Max. Depth (Ft)	Fish	
				Species Present	Mgmt. Plan
McRae, Jack Res. #1	Garfield	19N,41E,35	13	None	Plant Trout
McRae, Jack Res. #2	Garfield	19N,41E,22	16	None	Plant LM Bass
Dinstel, Bruce Res.1	Carter	8S,55E,31	8	Unknown	Don't Plant
Dinstel, Bruce Res.2	Carter	8S,55E,32	6	Unknown	Don't Plant
Cullinan, John	Dawson	16N,57E,17	10	None	Plant Trout

Table 2. Results of sampling previously planted reservoirs in 1990.

Name	Type of Sample	Species	No. Caught	Mean Length(mm)	Mean Weight(gm)	Length Range (mm)	Length Range (gm)
Carter County							
Talcott Res.	3 seine hauls	YP	90	109	--	93-168	--
		YP(YOY)	183	-	--	-	--
Hanley, Pat Res.	1 seine haul	RBT	1	228	140	-	--
Custer County							
Dean S. Res.	1 seine haul	LMB	1	111	--	-	--
Fleming Res.	2 seine hauls	RBT	2	278	255	253-304	160-350
		BG	3	35	-	30-40	--
		LMB	1	130	-	-	--
Ft. Keogh Pond	1 seine haul	BCr	1	243	250	-	--
Spotted Eagle	4 seine hauls	WCr	42	139	-	125-193	--
		BG	4	113	50	-	--
		YP	2	127	-	127-128	--
		WSu	1	357	520	-	--
Big Horn County							
Spear-O Res.	1 seine haul	RBT	10	239	163	140-327	30-360
		WSW	28	231	159	132-315	30-350
		FHM	50 (Appox.)				
		Lndace	1				
Indian Cr. Res.	2 seine hauls	BG	87	116	24	74-140	5-45
		BG(YOY)	11	50	-	30-67	-
		LMB	1	144	-	-	-
		LMB(YOY)	4	46	-	36-50	-
	2 gill nets	BG	9	111	28	95-135	15-50
		NP	1	633	1610	-	-
		WSu	3	378	593	339-434	440-890
Dawson County							
Hollecker Pond	1 hr. Electro-fishing.	LMB	2	286	340	257-315	230-450

Table 2 Continued.

Wielgosh Res. 1 seine haul	2 seine hauls	NP	1	621	1450	-	-
		YP	1	131	20	-	-
		BM Buff	1	533	2590	-	-
		WCr	8	141	26	133-146	20-35
		LMB(YOY)	40	57	-	50-663	-
		CCat	1	148	20	-	-
		WCr	20	137	21	127-146	-
		BCr	1	120	15	-	-
		CCat	1	438	810	-	-
		BBH	1	188	80	-	-
Lindsay Res. 2 seine hauls	2 gill nets	RCSu	7	316	419	238-380	150-720
		LMB	4	338	690	328-345	600-860
		LMB(YOY)	2	40	-	40-41	-
		BCr	1	279	400	-	-
		NP	2	556	930	545-566	860-1000
		YP	5	107	-	97-117	-
		YP(YOY)	23	74	-	64-87	-
		BBH	13	139	44	97-204	10-120
		NP	9	630	1540	430-750	380-2570
		YP	2	214	95	207-222	80-110
Baker Lake 2 seine hauls	2 gill nets	BBH	2	143	45	110-176	20-70
		YBH	2	187	85	180-195	70-100
		Carp	17	291	308	168-312	210-380
		<u>Fallon County</u>					
		NP	3	431	430	381-490	270-620
		NP	6	498	998	405-732	420-3100
		YP	8	230	164	191-267	70-260
		BBH	130	271	360	246-302	270-500
		WE	11	509	-	193-665	-
		YP	1728	125	-	76-299	-
South Sandstone Res. 4 trap nets	4 trap nets	NP	2				
		GS	1				
		BBH	102				
		BCr	2				
		WE	2				
4 trap nets	4 trap nets						

Table 2 Continued
South Sandstone Res.

Fallon County

(8-22-90)

4 seine hauls	YP	550							
	LMB	6	79	74- 86	-	-	-		
	BCr	13	161	113-224	68	15-160			
	GS	6	102	30	76-138	15- 50			
	WE	1	550	1500	-	-	-		
	YP	83	106	87-136	-	-	-		
	YP(YOY)	10	63	60-66	-	-	-		
	BBH	5	186	178-194	76	60- 90			
	BCr	4	112	107-115	12	10- 15			
	Stklbck	1							
3 gill nets	WE	35	470	173-566	1030	50-1750			
	YP	5	167	122-250	74	20-200			
	BCr	2	117	115-120	-	-			
	BBH	6	185	178-193	82	50- 100			
	NP	1	518	-	920	-			

Garfield County

Brooks Res. #3	2 gill nets	RBT	29	419	1103	365-488	850-1620		
Childers Res. #2	2 gill nets	RBT	35	228	164	205-252	100-240		
Smith Cattle #1	1 gill net	RBT	40	264	200	177-308	80-285		
Smith Cattle #3	1 seine haul	LMB	5	121	97-142	36	20- 50		
		FHmn	1						

Powder River County

Williams Res. #2	2 seine hauls	FHmn	150						
		Goldfish	6						
	1 gill net	GSNF	1	125					

Table 2 Continued

Prairie County

Silvertip Res.

1 seine haul
1 gill net

FHmn	Several								
LMB	94	181	96	134-163	30-250				
SMB	16	144	42	134-163	30- 80				
RBT	10	152	52	112-300	10-250				
GSF	19	59	-	-	-				
FHmn	30								

Clark Res. 2 seine haul

Richland CountyUpper Lone Tree Res.
4 seine hauls

3 gill nets

LMB	1	280	300	-	-				
LMB(YOY)	10	42	-	34- 47	-				
BG	42	95	38	76-185	5-120				
BG (YOY)	46	46	-	35- 57	-				
WSu	4	48	-	40- 54	-				
WE	18	355	443	212-510	70-1370				
LMB	2	134	40	131-138	-				
BG	4	132	60	96-175	10- 120				
BBH	5	252	274	220-297	170- 480				
WSu	104	386	804	325-472	450-1470				
LMB	1	177	100	-	-				

Cayko Res. 2 seine hauls

Labonte Res. 1 seine haul

2 gill nets

Wicks, Casper Res.

1 gill net

Buxbaum Perch Res.

1 gill net

Buxbaum Trout Res.

1 seine haul

BKSTBCK	few hundred								
FHmn	few hundred								
BKSTBCK	few hundred								
LMB	6	177	91	158-200	70- 140				
RBT	11	318	545	185-390	400- 710				
YP	5	297	330	232-329	130- 485				
WSu	1	335	430	-	-				
YP	6	168	52	156-177	40- 70				
YP(YOY)	120	59	-	51- 65	-				
BKSTBCK	50								
FHM	100								

Table 2 Continued
Buxbaum Trout Res.

61 gill net	RBT	7	349	494	300-434	330- 860
	YP	17	176	69	156-195	40- 100

Castle Rock Res.

1.5 hrs. electrofishing

Rosebud County

5 seine hauls	LMB	7	205	250	100-311	10- 500
	NP	7	313	214	182-437	10- 500
	BG	108	132	58	80-185	10- 160
	BG(YOY)	52	41	-	30- 77	-
	LMB	11	140	40	116-213	40
3 gill nets	LMB(YOY)	3	45	-	40- 51	
	BCr	1	203	110		
	NP	10	494	973	274- 747	120-3140
	BG	41	164	101	91- 215	10- 250
	BCr	1	312	410	-	-
Big Timber #1 Res.	WE	1	321	260	-	-
	LMB	2	264	260	-	-
	RBT	37	254	232	156- 395	40-590
	RBT	1	161	40	-	-
	FHmn	200				
Hook Res. #1 1 seine haul	RBT	1	161	40	-	-
	FHmn	200				
	RBT	1	161	40	-	-
	RBT	4	252	158	228-276	140- 190
	FHmn	several hundred				
Killen Trout Res.	FHchub	2	243	125	222-265	90- 160
	RBT	2				
	RBT	1	101	-	-	-
	Fgmn	3	274	233	247-317	170- 320
	RBT	2	292	654	205-487	70-2050
Potts Dave Res.	RBT	85	188	108	164-225	70- 180
	LMB	15	122	26	97-146	10- 40
	LMB	20	82	-	65- 97	-
	Crapple	24	61	-	40- 97	-
	BG	24				

Table 2 Continued

Lambing Camp Res.	2 gill nets	LMB	6	161	57	148-175	40- 70
Mysee Res.	2 gill nets	LMB	39	153	53	130-182	35- 80
Ringstveidt Res.	2 gill nets	LMB	15	156	65	142-174	50- 80
McDaniels Res.	1 seine haul	LMB	14	161	54	142-175	40- 704
			<u>Treasure County</u>				
Kicker Res. #1	1 seine haul	LMB	22	152	49	123-175	20- 70
Kicker Res. #2	1 seine haul	LMB	4	158	70	154-165	70- 70

