

Region 7

Montana Department of Fish, Wildlife and Parks
Fisheries Division

Job Progress Report

STATE: Montana PROJECT: Statewide Fisheries Investigations

PROJECT NO. F-78-R-5 STUDY TITLE: Survey and Inventory of
Warmwater Lakes

JOB NO: IV-D JOB TITLE: Southeast Montana Warmwater Lakes
Investigations

PROJECT PERIOD: July 1, 1998 through June 30, 1999

REPORT PERIOD: April 1, 1998 through March 31, 1999

ABSTRACT

Small fishing reservoirs in 7 counties were sampled to obtain fisheries information in 1997. A total of 24 reservoirs were sampled. Five of these had never been planted or had not been planted in recent years. They were visited to determine fisheries potential. One of these was determined to have sufficient potential that a fish plant was warranted. Of the remaining reservoirs only two were found to be devoid of fish, probably from lack of water or winterkill. Seventeen reservoirs had fishable populations of target fish species.

PROCEDURES

Pond depths were determined by sounding with a calibrated, weighted rope. Fish populations were sampled with 125 feet long sinking experimental gill nets, a 1/4 inch bag seine of 100 feet length or hook and line.

RESULTS AND DISCUSSION
Survey of New Ponds

Five new ponds were surveyed to determine suitability for producing fish (Table 1). The Ringstveidt Reservoir (Terry Todd-owner) was planted with largemouth bass in 1989 but they did not survive a

series of draught years. It was decided to plant rainbow trout in this reservoir to see how they survive for a few years. None of the other reservoirs had sufficient water to warrant stocking.

Survey of Previously Planted Reservoirs

Carter County

Yearling rainbow trout and largemouth bass were found to be present in Four Deer Reservoir (Table 2). First planted in 1997, this reservoir will be managed as a bass pond. Trout were planted one time to provide fishing while bass are getting established. Growth for either species is not what might be expected, likely because of to large of an initial plant.

Fallon County

Large walleye and northern pike are present in South Sandstone Reservoir (Table 2). Yellow perch and black bullheads are abundant but bass and crappie are not abundant. In Baker Lake, black bullheads are the most abundant fish and weigh up to $\frac{3}{4}$ pound. Yellow perch are more abundant than in past years but Northern pike are scarce.

Garfield County

Rainbow trout were not sampled in Beecher Trout Reservoir, however one gill net was left in place for only two hours. Water level at Harbaugh Bass Reservoir was low and only one largemouth bass was caught by hook and line.

Powder River County

Lacy Williams Reservoirs #1 and #2 were replanted with largemouth bass in 1997 after having winter killed. Sampling in 1998 demonstrated over winter survival and good growth at both reservoirs. Hook and line sampling at Janssen Reservoir produced one rainbow trout and the landowner indicated that fishermen are having success. Surgeon Reservoir was dry and will not be planted in future years.

Prairie County

Abundant yearling largemouth bass were found in Singleton Reservoir after having been planted in 1997.

Richland County

Sampling at Gartside Reservoir found seven fish species present (Table 2). The number of northern pike per gill net was up after being down in 1997. Blue gill numbers appear to be increasing while numbers of crappie were lower. Yellow perch reproduction was good in 1998. Smallmouth bass and walleye are not showing up as adults. Largemouth bass, smallmouth bass, black crappie and yellow perch are present in Daryle Buxbaum Reservoir.

Rosebud County

Walleye averaging nearly 1.7 pounds were the most abundant fish in gill net catches at Castle Rock Reservoir (Table 2). Smallmouth bass and northern pike are also doing well. Gill net catch rates for blue gill are somewhat improved over 1997, while walleye numbers are at all time high (Table 3).

Rainbow trout were planted in Grebe #1 Reservoir in 1997 after the reservoir was rebuilt. Sampling in 1998 showed that trout survived the first winter, but some summer kill was occurring. Dave Potts Reservoir was planted with 2000 largemouth bass fingerlings in 1997 and sampling in 1998 found bass from 8 to 10 inches in length. Newell Philbrick Reservoir was planted with blue gill in 1996 and largemouth bass in 1997. Sampling in 1998 found bluegill from 3 to 6 inches and bass to 9 inches. Largemouth bass were present in Lee #2 Reservoir, Lee #3 Reservoir and Lee Pit.

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Water referred to:

Baker Lake	21-1778
South Sandstone Res.	21-8775
Gartside Reservoir	21-3250
Castle Rock Lake	21-2527

Keywords

Small reservoirs	yellow perch
largemouth bass	crappie
smallmouth bass	northern pike
rainbow trout	

Table 1. Results of new pond surveys in 1998.

Pond Name	County	<u>Location</u>		Max Depth (ft)	Fish Species Present	Management Plan
		T. R. S.	Lat/Long			
Ringstveidt Res.	Rosebud	12N, 40E, 5	N46 49.517 W106 43.054	13	None	Plant RBT
Todd # 3	Rosebud	12N, 40E, 5	N46 49.120 W106 42.686	3	None	None
Todd # 4	Rosebud	12N, 40E, 33	N46 45.135	5	None	None
Todd # 5	Rosebud	12N, 40E, 16	N46 47.093 W106 41.668	7	None	None
Rath	Carter	4N, 58E, 5		6	None	None

Table 2. Results of sampling previously planted reservoirs, 1998.

Pond Name	Type of Sample	Species	No. Caught	No. Measured	Mean Length (mm)	Mean Weight (gm)	Length Range (mm)	Weight Range (gm)	
Carter County									
Four Deer Res.	Hook & Line	RBT	12	12	196	—	183-225	—	
		LMB	14	14	132	—	126-140	—	
Fallon County									
Baker Lake	3 seine hauls	NP	1	1	352	230	—	—	
		YPYOY	468	20	63	—	51-71	—	
		YP	5	—	—	—	—	—	
		BBH	101	—	—	—	—	—	
	3 gill nets	NP	4	4	569	1345	367-713	300-2390	
		YP	65	20	208	206	188-285	80-310	
		BBH	521	23	193	117	124-283	40-240	
	South Sandstone Reservoir	3 seine hauls	NP	7	7	333	234	153-450	10-510
			WE	1	1	231	90	—	—
			LMBYOY	1	1	44	—	—	—
			YPYOY	240	20	64	—	59-94	—
			YP	300	20	150	51	97-221	10-120
			CRYOY	220	20	43	—	30-53	—
			BCR	4	4	111	19	102-118	15-20
			BBHYOY	40	20	39	—	30-47	—
3 gill nets	WE	9	9	482	1317	245-720	110-3680		
	NP	17	17	575	1501	302-805	150-3270		
	YP	85	24	175	73	134-215	30-110		
	BBH	104	25	259	340	221-323	190-590		
Garfield County									
Beecher Trout Res.	1 gill net	No fish							
Harbaugh Bass Res.	hook & line	LMB	1	1	252	200	—	—	
Powder River County									
Williams, Lacy #1	1 gill net	LMB	28	28	254	250	230-275	180-320	
Williams, Lacy #2	1 gill net	LMB	24	24	240	203	190-290	80-400	
Janssen Res.	hook & line	RBT	1	1	392	630			
Surgeon Res.	dry	No fish							
Prairie County									
Singleton, Doug Res.	hook & line	LMB	23	23	216	170	184-250	100-280	

Table 2. Results of sampling previously planted reservoirs, 1998.

Pond Name	Type of Sample	Species	No. Caught	No. Measured	Mean Length (mm)	Mean Weight (gm)	Length Range (mm)	Weight Range (gm)	
Richland County									
Gartside Res.	3 seine hauls	LMBYOY	38	28	50	—	36-66	—	
		LMB	11	11	158	68	125-282	20-295	
		YPYOY	80	22	67	—	57-75	—	
		YP	13	13	128	34	103-221	10-150	
		BCR	1	1	240	180	—	—	
		BGYOY	17	17	33	—	30-37	—	
		BG	93	24	77	—	58-106	—	
		SMBYOY	16	16	68	—	59-79	—	
	GS	5	5	69	—	61-91	—		
	2 gill nets	NP	6	6	437	475	415-471	420-610	
		LMB	1	1	285	350	—	—	
		BCR	6	6	180	90	162-209	75-120	
		YP	30	20	228	187	142-292	30-390	
	Buxbaum, Darryle	2 gill nets	LMB	46	20	229	211	190-262	95-300
			SMB	2	2	177	78	172-181	70-85
			BCR	8	8	183	113	121-197	20-150
YP			33	20	196	114	184-214	90-160	
Rosebud County									
Grebe # 1 Res.	hook & line	RBT	22	22	378	605	304-422	300-880	
Potts, Dave Res.	1 seine haul	LMB	1	1	216	180	—	—	
	2 gill nets	LMB	7	7	226	187	175-251	100-250	
Philbrick, Newell Res.	1 seine haul	BGYOY	17	17	67	—	35-89	—	
		BG	60	20	115	40	91-164	10-120	
		LMB	2	2	167	70	—	—	
	2 gill nets	LMB	3	3	214	137	190-231	90-160	
		BG	7	7	121	43	96-161	15-100	
Lee, A.G. #2 Res.	1 seine haul	No fish							
	2 gill nets	LMB	29	16	207	154	191-240	120-250	
Lee, A.G. #3 Res.	1 seine haul	No fish							
	2 gill nets	LMB	30	18	216	195	187-247	120-280	
Lee, A.G. Pit	1 seine haul	LMB	2	2	129	40	110-147	30-50	
	2 gill nets	No fish							

Table 2. Results of sampling previously planted reservoirs, 1998.

Pond Name	Type of Sample	Species	No. Caught	No. Measured	Mean Length (mm)	Mean Weight (gm)	Length Range (mm)	Weight Range (gm)
<u>Rosebud County</u>								
Castle Rock Res.	3 seine hauls	BGYOY	115	35	34	—	24-42	—
		BG	290	27	74	9	62-104	5-25
		CRYOY	49	29	49	—	38-55	—
		BCR	21	21	121	28	96-150	10-55
		LMBYOY	18	18	78	—	62-86	—
		NP	3	3	341	230	310-374	140-290
	3 gill nets	WE	52	52	425	755	286-650	200-2710
		SMB	6	6	303	507	235-350	210-810
		NP	13	13	485	768	380-765	360-2810
		BG	4	4	158	108	130-219	50-250
		BCR	4	2	193	143	126-260	25-260
		WSU	1	1	440	445	—	—

Table 3. Mean total length and catch rate (average number per gill net) of blue gill, walleye and northern pike at Castle Rock Lake.

Year	<u>Bluegill</u>		<u>Walleye</u>		<u>Northern Pike</u>	
	Catch Rate	Mean Length (mm)	Catch Rate	Mean Length (mm)	Catch Rate	Mean Length (mm)
1983	3.0	126	0.3	517	7.0	364
1984	10.5	124	0.5	250	12.8	450
1987	33.3	154	0.2	258	4.2	478
1988	17.2	154	0.7	430	7.8	483
1989	10.0	156	0.0		6.7	445
1990	13.7	164	0.3	321	3.3	494
1991	21.8	170	3.0	409	4.0	422
1992	3.7	162	3.7	408	3.7	476
1994	4.8	176	7.8	408	1.5	466
1995	6.3	165	8.0	415	2.3	495
1996	3.3	172	10.0	334	1.0	506
1997	0.3	182	11.5	396	1.8	491
1998	1.3	158	17.3	425	4.3	485