

MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS  
FISHERIES DIVISION

JOB PROGRESS REPORT

STATE: Montana PROJECT: Statewide Fisheries Investigations

PROJECT NO: F-46-R-7 STUDY TITLE: Survey and Inventory of  
Warmwater Lakes Investigations

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

PROJECT PERIOD: July 1, 1993 through June 30, 1994

REPORT PERIOD: April 1, 1993 through March 31, 1994

ABSTRACT

Small fishing reservoirs in 7 counties were sampled to obtain fisheries information in 1993. A total of 27 reservoirs were sampled. Ten of these had never been planted or had not be planted in recent years. They were visited only to determine fisheries potential. Seven of these reservoirs were determined to have sufficient potential that a fish plant was warranted. Of the remaining 17 reservoirs three were found to be devoid of fish, probably from winterkill. Fourteen reservoirs had fishable populations of target fish species.

## 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 populations sampled. Results are summarized in Table 2 of the RESULTS AND DISCUSSION section.
2. To add 40 new reservoirs to the number of ponds supplying public fishing. Four new ponds were added to the public fishing booklet 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 1994.

## PROCEDURES

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

## RESULTS AND DISCUSSION

### Survey of New Ponds

Ten new ponds were surveyed to determine suitability for producing fish (Table 1). Ponds not planted were considered too shallow to dependably winter fish. Of the remainder, the more shallow ponds were planted with rainbow trout and the deeper with largemouth or smallmouth bass. Shallower ponds are more likely to winterkill and fingerling trout reach catchable size much more quickly than bass.

### Survey of Previously Planted Reservoirs

#### Carter County

Fish at both Craft ponds died during winter of 1992-93 (Table 2). These ponds were known to be low in 1992. They were not replanted at the landowners request. Fish were first planted at Gardner #2 Reservoir in 1991. Perch have reached desirable size, but bass growth has been only fair. Trout were planted at LaBree Reservoir in 1993 for the first time in many years. Growth has been good.

#### Fallon County

Black bullheads and yellow perch are still maintaining good size at Baker Lake (Table 2). Bullhead numbers are quite high, possibly forecasting a decrease in bullhead size. Fish winterkill seems to have decreased in recent years following use of the herbicide "Sonor" beginning in 1987. This may be allowing bullhead numbers

to build.

The average size of yellow perch at South Sandstone Reservoir remains quite small, but large walleye and northern pike are present. Largemouth bass, smallmouth bass and crappie are not abundant.

#### Garfield County

Only young-of-year size perch were found at Chamberlain Reservoir #2 (Table 2). The lack of larger perch in either gill nets or seine hauls is unexplained. Rainbow trout at Chamberlain Reservoir #3 failed to overwinter for unknown reasons. Winterkill that was expected at Harbaugh Reservoir did not materialize. Smith Cattle Reservoir #3 winterkilled and was replanted in 1993.

#### Prairie County

Largemouth bass were first planted in Singleton Reservoir in 1992. These fish survived the first winter and grew well, averaging over 200 mm total length by summer 1993. Bass at Silvertip Reservoir appear abundant, with some fish reaching large size.

#### Richland County

Gartside Reservoir was rebuilt in 1990 and fish replanted in 1991. Largemouth bass have reached a size acceptable to anglers, but perch are still small. A few large crappie are present. Northern pike and walleye fingerlings were planted in June 1993.

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Date: September 1, 1994

#### Water referred to:

|                      |         |
|----------------------|---------|
| Baker Lake           | 21-1778 |
| South Sandstone Res. | 21-8775 |
| Gartside Reservoir   | 21-3250 |

#### Keywords

|                  |               |
|------------------|---------------|
| small reservoirs | Yellow perch  |
| largemouth bass  | crappie       |
| smallmouth bass  | northern pike |
| rainbow trout    |               |

Table 1. Results of new pond surveys in 1993.

| Pond<br>Name       | County    | Location |     |    | Max.<br>Depth<br>(Ft.) | Fish<br>Species<br>Present | Management<br>Plan |
|--------------------|-----------|----------|-----|----|------------------------|----------------------------|--------------------|
|                    |           | T        | R   | S  |                        |                            |                    |
| Ayers, Courtney #1 | Prairie   | 10N      | 55E | 18 | 15                     | None                       | Plant LMB          |
| Ayers, Courtney #2 | Prairie   | 10N      | 55E | 17 | 12                     | None                       | Plant RBT          |
| Byrne, Jamie       | Carter    | 1S       | 61E | 36 | 10                     | None                       | Don't<br>plant     |
| Boggs, Jeff        | Rosebud   | 6N       | 44E | 27 | 14                     | None                       | Plant LMB          |
| Crocker, Denzil    | Rosebud   | 7N       | 44E | 30 | 8                      | None                       | Don't<br>plant     |
| Janssen, John      | Powder R. | 1S       | 51E | 30 | 12                     | None                       | Plant RBT          |
| Lee, Al (Pit #1)   | Rosebud   | 7N       | 40E | 14 | 16                     | None                       | Plant SMB          |
| Lee, Don #1        | Prairie   | 10N      | 51E | 26 | 11                     | None                       | Don't<br>plant     |
| Lee, Don #2        | Prairie   | 10N      | 52E | 31 | 14                     | None                       | Plant LMB          |
| Lee, Don #3        | Prairie   | 10N      | 52E | 33 | 11                     | None                       | Plant RB.          |

Table 2. Results of sampling previously planted reservoirs, 1993.

| Pond Name       | Type of Sample | Species           | No. Caught | Mean Length (mm) | Mean Weight (gm) | Length Range (mm) | Weight Range (gm) |
|-----------------|----------------|-------------------|------------|------------------|------------------|-------------------|-------------------|
| CARTER COUNTY   |                |                   |            |                  |                  |                   |                   |
| Craft #1        | 2 gill nets    | No fish collected |            |                  |                  |                   |                   |
| Craft #2        | 2 gill nets    | No fish collected |            |                  |                  |                   |                   |
| Gardner #2      | 1 seine haul   | Crappie (YOY)     | 3          | 36               | -                | 30-40             | -                 |
|                 |                | YP(YOY)           | 4          | 60               | -                | 48-71             | -                 |
|                 | 2 gill nets    | YP                | 154        | 210              | 143              | 155-282           | 60-320            |
|                 |                | LMB               | 2          | 242              | 225              | 238-245           | 220-230           |
|                 |                | SMB               | 1          | 216              | 120              | -                 | -                 |
| Pat LaBree      | 2 seine hauls  | RBT               | 2          | 188              | 105              | 185-191           | 100-110           |
|                 | 2 gill nets    | RBT               | 11         | 224              | 156              | 190-245           | 90-190            |
| FALLON COUNTY   |                |                   |            |                  |                  |                   |                   |
| Baker Lake      | 5 seine hauls  | BBH               | 428        | 186              | 117              | 123-310           | 25-470            |
|                 | 2 gill nets    | BBH               | 333        | 207              | 177              | 145-320           | 60-620            |
|                 |                | YP                | 22         | 254              | 272              | 147-345           | 30-530            |
|                 |                | NP                | 6          | 394              | 377              | 334-452           | 260-580           |
| South Sandstone | 4 seine hauls  | YP                | 177        | 129              | 24               | 101-169           | 10-45             |
|                 |                | WE                | 2          | 234              | 103              | 226-241           | 95-110            |
|                 |                | LMB               | 1          | 210              | 130              | -                 | -                 |
|                 |                | SMB               | 1          | 191              | 110              | -                 | -                 |
|                 |                | BCr               | 1          | 163              | 50               | -                 | -                 |
|                 |                | WE                | 1          | 515              | 1520             | -                 | -                 |
|                 |                | NP                | 3          | 673              | 2080             | 612-738           | 1420-2650         |
|                 |                | YP(Small)         | 190        | 145              | -                | 117-165           | -                 |
|                 |                | YP(large)         | 2          | 248              | 225              | 240-256           | 200-250           |
|                 | BBH            | 5                 | 226        | 188              | 215-231          | 160-120           |                   |

Table 2. Results of sampling previously planted reservoirs, 1993.

| Pond Name                  | Type of Sample | Species  | No. Caught        | Mean Length (mm) | Mean Weight (gm) | Length Range (mm) | Weight Range (gm) |
|----------------------------|----------------|----------|-------------------|------------------|------------------|-------------------|-------------------|
| Rush Hall                  | 2 gill nets    | RBT      | 2                 | 185              | 75               | 171-198           | 50-100            |
| <u>GARFIELD COUNTY</u>     |                |          |                   |                  |                  |                   |                   |
| Chamberlain #2             | 1 gill net     | YP       | No fish collected |                  |                  |                   |                   |
|                            | 2 seine hauls  | YP       | 50                | 38               | -                | 34-42             | -                 |
| Chamberlain #3             | 1 seine haul   | RBT      | 2                 | 163              | 55               | 143-182           | 40-70             |
|                            | 2 gill nets    |          | No fish collected |                  |                  |                   |                   |
| Jarden #1                  | 1 seine haul   | LMB      | 9                 | 65               | -                | 59-73             |                   |
| Jarden #2                  | 1 seine haul   | RBT      | 2                 | 193              | 85               | 170-216           | 60-110            |
|                            | 1 gill net     | RBT      | 35                | 199              | 99               | 148-236           | 50-150            |
| Harbaugh                   | 1 seine haul   | LMB(YOY) | 4                 | 60               | -                | 52-70             | -                 |
|                            |                | LMB      | 5                 | 220              | 184              | 167-256           | 60-280            |
| Smith Cattle #3            | 1 seine haul   |          | No fish collected |                  |                  |                   |                   |
|                            | 2 gill nets    |          | No fish collected |                  |                  |                   |                   |
| <u>POWDER RIVER COUNTY</u> |                |          |                   |                  |                  |                   |                   |
| Yonkee                     | 1 gill net     |          | No fish collected |                  |                  |                   |                   |
| <u>PRAIRIE COUNTY</u>      |                |          |                   |                  |                  |                   |                   |
| Doug Singleton             | 2 gill nets    | LMB      | 23                | 206              | 141              | 180-240           | 80-230            |
| Silvertip                  | 2 gill nets    | LMB      | 53                | 215              | 201              | 128-341           | 30-790            |
|                            |                | SMB      | 1                 | 379              | 1030             | -                 | -                 |
|                            |                | WCR      | 1                 | 165              | 70               | -                 | -                 |

Table 2. Results of sampling previously planted reservoirs, 1993.

| Pond Name              | Type of Sample | Species | No. Caught | Mean Length (mm) | Mean Weight (gm) | Length Range (mm) | Weight Range (gm) |
|------------------------|----------------|---------|------------|------------------|------------------|-------------------|-------------------|
| <u>RICHLAND COUNTY</u> |                |         |            |                  |                  |                   |                   |
| Gartside               | 4 seine hauls  | YP(YOY) | 1          | 30               | -                | -                 | -                 |
|                        |                | YP      | 78         | 153              | 44               | 135-168           | 25-60             |
|                        |                | SMB     | 19         | 149              | 40               | 131-165           | 30-60             |
|                        |                | LMB     | 7          | 193              | 131              | 115-309           | 20-540            |
|                        |                | BCR     | 4          | 116              | 20               | 108-125           | 15-30             |
|                        | 2 gill nets    | GS      | 4          | 107              | 23               | 95-113            | 15-25             |
|                        |                | YP      | 166        | 155              | 50               | 141-186           | 40-80             |
|                        |                | LMB     | 7          | 297              | 430              | 276-330           | 330-570           |
|                        |                | BCR     | 7          | 159              | 103              | 121-325           | 20-530            |
|                        |                | WCR     | 1          | 137              | 30               | -                 | -                 |
|                        |                | WSu     | 35         | 349              | 509              | 325-373           | 370-660           |

