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*Annual Report*



**OREGON STATE GAME COMMISSION**  
**FISHERY DIVISION**



# **1966 ANNUAL REPORT**

## **FISHERY DIVISION**

**Editors:**

**C.J. Campbell & F.E. Locke**



**OREGON STATE GAME COMMISSION**

**1634 S. W. Alder Street  
P. O. Box 3503  
Portland, Oregon 97208**

**P. W. Schneider  
Director**



## INTRODUCTION

Both anadromous and resident species of game fish were taken in good numbers by anglers in 1966. With few exceptions, the magnitude of most runs of anadromous species was above average. The summer and winter races of steelhead counted at Winchester Dam on the North Umpqua River exceeded all previous counts. The summer-run on the Rogue, however, was the second lowest on record.

Marked hatchery steelhead exceeded wild fish on the Sandy River winter fishery for the first time since the hatchery evaluation study was begun in the winter of 1959-60.

The summer steelhead sampling program on the lower Deschutes River was expanded to include 20 miles of stream along the Webb access road, making a total of 27.5 miles of stream in the sampling project.

Chemically treated areas of the John Day River appeared to be preferred by spawning steelhead. The number of steelhead redds in the rehabilitated portion of the John Day drainage increased 286 percent above the 7-year average, while in other sections the rate of increase was only 63 percent.

Ninety-seven percent of the steelhead caught in the Siletz River were marked hatchery returns. The return of marked fish indicates that planting location has a significant influence on the migration patterns of returning fish.

Over 10,000 winter steelhead anglers were interviewed in the winter of 1965-66. The average catch rate was just under 15 hours per fish.

A survey of spring chinook salmon in a 47-mile section of the upper Rogue River revealed that 25 percent of the redds were above the Lost Creek damsite.

Based on the recovery in traps, an estimated 12,000 to 17,000 coho smolts migrated out of Valsetz Lake into the Siletz River.

Anglers experienced good offshore salmon angling in the summer of 1966. The average catch rate for all coast ports was just over one fish per angler trip.

Diamond Lake continued to yield many rainbow trout. The catch in 1966 was calculated to be in excess of 300,000 trout.

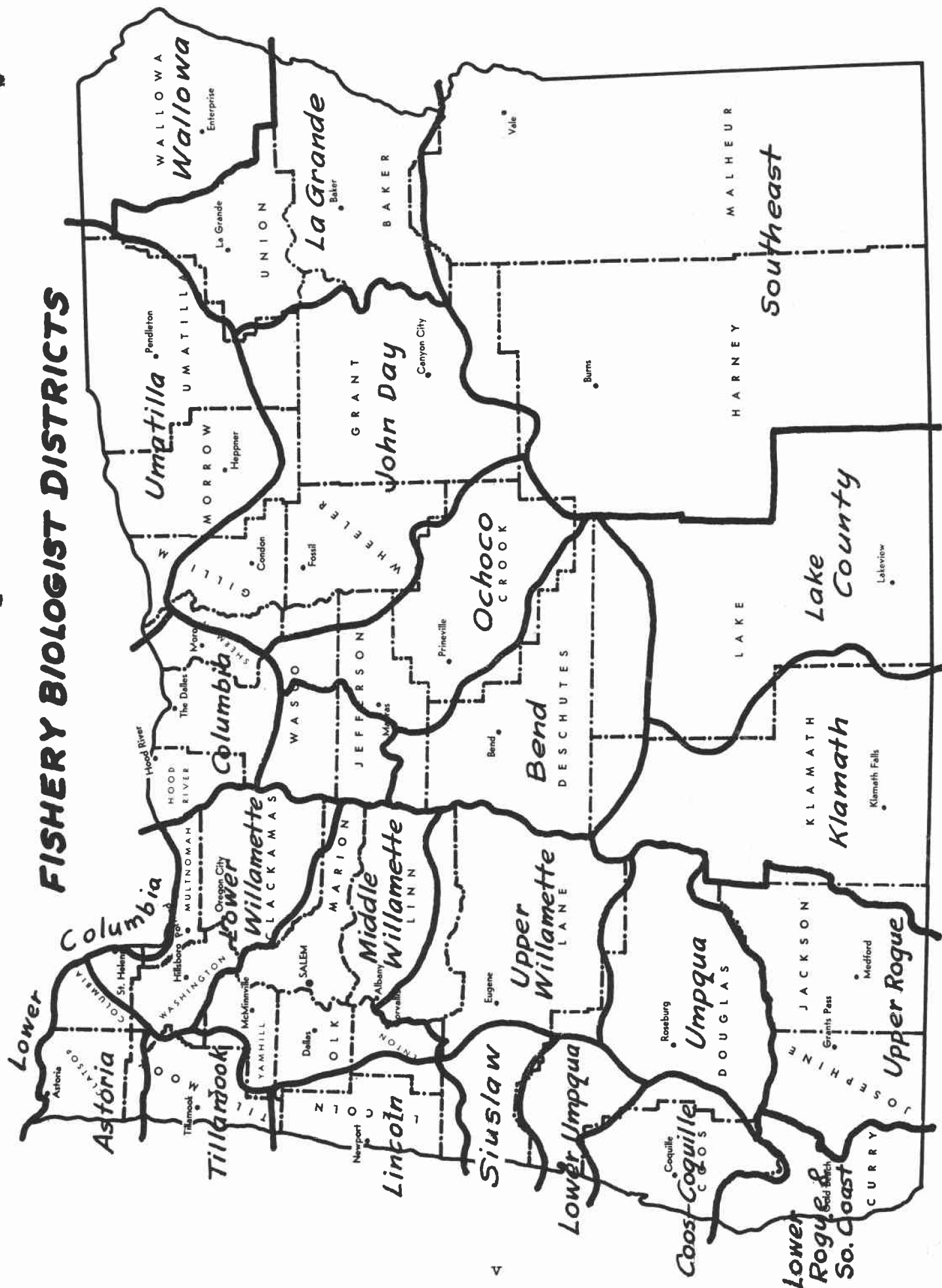
The Oregon Game Commission cooperated with the California Department of Fish and Game in obtaining a sample of the fish population of Goose Lake. The sampling was done in connection with setting minimum water quality standards for interstate waters.

There were thirteen rehabilitation projects completed at an estimated total cost of \$60,000. The projects included lakes, reservoirs, and streams with both resident trout and anadromous species represented.

# TABLE OF CONTENTS

|                                                   | <u>Page</u> |
|---------------------------------------------------|-------------|
| Astoria District. . . . .                         | 62          |
| Bend District . . . . .                           | 42          |
| Columbia District . . . . .                       | 35          |
| Coos-Coquille District. . . . .                   | 68          |
| John Day District . . . . .                       | 58          |
| Klamath District. . . . .                         | 53          |
| La Grande District. . . . .                       | 16          |
| Lake County District. . . . .                     | 33          |
| Lincoln District. . . . .                         | 65          |
| Lower Columbia District . . . . .                 | 40          |
| Lower Willamette District . . . . .               | 11          |
| Middle Willamette District. . . . .               | 9           |
| Ochoco District . . . . .                         | 55          |
| Rogue and South Coast District. . . . .           | 5           |
| Siuslaw District. . . . .                         | 69          |
| Southeast District. . . . .                       | 26          |
| Tillamook District. . . . .                       | 63          |
| Umatilla District . . . . .                       | 72          |
| Umpqua District . . . . .                         | 1           |
| Upper Willamette District . . . . .               | 8           |
| Wallowa District. . . . .                         | 21          |
|                                                   |             |
| Contributing Personnel. . . . .                   | 134         |
| Federal Aid Expenditures. . . . .                 | 131         |
| Fish Distribution . . . . .                       | 125         |
| Fish Propagation. . . . .                         | 112         |
| Fishery Resource Expenditures . . . . .           | 132         |
| Habitat Improvement . . . . .                     | 108         |
| Hatcheries. . . . .                               | 133         |
| Oregon Salmon and Steelhead Sport Catch . . . . . | 121         |
| Scale Analysis. . . . .                           | 111         |
| Table Index . . . . .                             | 135         |
| Warm-Water Game Fish. . . . .                     | 74          |

# FISHERY BIOLOGIST DISTRICTS



# FISH ABBREVIATIONS

AS Atlantic salmon  
 B bullhead catfish  
 BB black bass, or bass  
 BC black crappie  
 Bg bluegill sunfish  
 BlB black bullhead  
 BlC blue catfish  
 Br brown trout  
 BrB brown bullhead  
 BSu bridgelip sucker  
 BT brook trout  
 C crappie  
 CC channel catfish  
 Ch chinook salmon  
 ChF chinook salmon (fall)  
 ChJ chinook salmon (jack)  
 ChS chinook salmon (spring)  
 Clm chiselmouth  
 Co coho salmon  
 CoJ coho salmon (jack)  
 Cot cottid  
 Cp carp  
 CRC Columbia River chub  
 CS chum salmon  
 CSu coarsescale sucker  
 Ct cutthroat trout  
 D dace  
 DV Dolly Varden trout  
 F flounder  
 FC flathead catfish  
 Gf goldfish  
 Gr greenling  
 GS green sunfish  
 GSg green sturgeon  
 GT golden trout

K kokanee  
 Lam lamprey  
 LB largemouth bass  
 Lc lingcod  
 LT lake trout  
 Mt madtom  
 Mu mullet  
 P perch  
 Pk pumpkinseed sunfish  
 PS pink salmon  
 R rockfish  
 Rb rainbow trout  
 RbF rainbow trout (fall)  
 RbS rainbow trout (spring)  
 Ro roach  
 RsS redside shiner  
 SB smallmouth bass  
 SCt blackspotted cutthroat  
 Sg sturgeon  
 Sh shad  
 Skb stickleback  
 Sq squawfish  
 SS sockeye salmon  
 St steelhead  
 StB striped bass  
 StS steelhead (summer)  
 StW steelhead (winter)  
 Su sucker  
 Tc tomcod  
 WC white crappie  
 Wf whitefish  
 Wm warmouth bass  
 WSg white sturgeon  
 YB yellow bullhead  
 YP yellow perch

## UMPQUA DISTRICT

Jerry A. Bauer and Ronald L. McDivitt

### FISH INVENTORY

#### ANADROMOUS

Salmon, steelhead, and trout counts at the Winchester ladder on the North Umpqua River for the period 1957 through 1966 are presented in Table 1. The spring chinook run in 1966 was below that recorded in the past three years but was well above the ten-year average. In 1966, both summer and winter runs of steelhead surpassed all previous counts.

Based on an examination of 3,081 spring chinook at Winchester Dam, an estimated 8.3 percent were marked. The percentage of marked fish recorded by brood year is shown in Table 2.

Of the 2,753 summer steelhead examined at Winchester, 49.2 percent were marked. Hatchery-reared stock contributed 87.0 percent; Medco summer stock, 9.5 percent; and hatchery-reared winter stock, 3.5 percent.

At Winchester, 65.3 percent of the cutthroat examined were marked. The March release gave a thirty to one return over the May release.

Resting hole counts of spring chinook on the South Fork of the Umpqua were the highest recorded in 17 years. Resting hole counts of spring chinook in the South Umpqua are presented in Table 3.

Coho spawning ground counts for the lower Umpqua River tributaries decreased for the second consecutive year; however, extended periods of high water delayed the counts well past the peak. The number of redds indicated a much larger number of coho was present during the peak of spawning. Spawning ground counts of lower Umpqua River tributaries and Tenmile and Eel Lake tributaries are included in Table 54.

Fall chinook spawning runs in the lower Umpqua system were also down from those recorded in 1965. In the lower Umpqua and Smith River tributaries, the average fish per mile dropped from 13.6 in 1965 to 2.9 in 1966. The chinook spawning ground counts for the lower Umpqua District are presented in Table 55.

The catch rate for winter steelhead anglers in the Umpqua system in the 1965-66 season was 18.9 hours per fish.

Spring chinook fishing was generally poor in the Umpqua system. The average catch rate for 440 anglers interviewed was 65.1 hours per fish.

The offshore salmon fishery out of Winchester Bay in 1966 was estimated to have taken 55,695 salmon, which is the second highest catch reported from this port. The catch rate for the season was 1.05 salmon per angler. Additional catch data are included in Table 56.

Table 1

Winchester Dam Fish Counts,  
1957 through 1966

| Species                  | Number of Fish Counted, by Year |       |       |       |       |                 |        |                 |                 |               |
|--------------------------|---------------------------------|-------|-------|-------|-------|-----------------|--------|-----------------|-----------------|---------------|
|                          | 1957                            | 1958  | 1959  | 1960  | 1961  | 1962            | 1963   | 1964            | 1965            | 1966          |
| <u>Spring Chinook</u>    |                                 |       |       |       |       |                 |        |                 |                 |               |
| Adults                   | 4,285                           | 3,856 | 3,460 | 3,594 | 4,711 | 5,626           | 9,222  | 5,792           | 8,631           | 5,967         |
| Jacks                    | 943                             | 542   | 327   | 456   | 542   | 924             | 1,798  | 3,011           | 3,099           | 1,302         |
| TOTALS                   | 5,228                           | 4,398 | 3,787 | 4,050 | 5,253 | 6,550 <u>/1</u> | 11,020 | 8,803           | 11,730          | 7,269         |
| <u>Fall Chinook</u>      |                                 |       |       |       |       |                 |        |                 |                 |               |
| Adults                   | 14                              | 61    | 108   | 70    | 72    | 99              | 121    | 279             | 85              | 268           |
| Jacks                    | 1                               | 0     | 3     | 1     | 18    | 5               | 64     | 93              | 97              | 36            |
| TOTALS                   | 15                              | 61    | 111   | 71    | 90    | 104             | 185    | 372             | 182             | 304           |
| <u>Coho Salmon</u>       |                                 |       |       |       |       |                 |        |                 |                 |               |
| Adults                   | 952                             | 492   | 768   | 215   | 389   | 419             | 569    | 841             | 1,979           | 649           |
| Jacks                    | 111                             | 81    | 50    | 131   | 142   | 129             | 658    | 325             | 283             | 268           |
| TOTALS                   | 1,063                           | 573   | 818   | 346   | 531   | 548             | 1,227  | 1,166 <u>/2</u> | 2,262 <u>/3</u> | 917 <u>/4</u> |
| <u>Summer Steelhead</u>  | 2,228                           | 2,041 | 2,049 | 2,732 | 3,141 | 3,072 <u>/1</u> | 4,827  | 2,900           | 5,428           | 6,185         |
| <u>Winter Steelhead</u>  | 8,923                           | 6,350 | 6,372 | 6,138 | 5,192 | 7,734 <u>/1</u> | 5,847  | 7,726           | 9,472           | 9,935         |
| <u>Coastal Cutthroat</u> | 87                              | 108   | 48    | 106   | 306   | 308             | 142    | 420             | 796             | 2,364         |

/1 Affected by loss of grate.

/2 In addition, 720 adults stocked in tributaries above dam.

/3 In addition, 600 adults stocked in tributaries above dam.

/4 In addition, 500 adults stocked in tributaries above dam.

Table 2

Origin of Marked Chinook, by Brood Year,  
Examined at Winchester Dam, 1966

| Brood<br>Year | Percent of<br>Marked Chinook | Source                      |
|---------------|------------------------------|-----------------------------|
| 1960          | 1.7                          | Umpqua hatchery             |
| 1961          | 34.6                         | Umpqua hatchery             |
| 1962          | 3.5                          | Umpqua hatchery             |
| 1963          | 19.8                         | Umpqua hatchery             |
| 1963          | 4.7                          | Whistlers Bend rearing pond |
| 1964          | 20.6                         | Umpqua March plant          |
| 1964          | 13.6                         | Umpqua December plant       |
|               | 1.5                          | Rogue River marks           |

Table 3

South Umpqua Spring Chinook Inventory,  
1957 through 1966

| Year           | Number of Fish Observed |             |               | Total Count |
|----------------|-------------------------|-------------|---------------|-------------|
|                | Above Falls             | Below Falls | Jackson Creek |             |
| 1957           | 113                     | 45          | 42            | 200         |
| 1958           | 43                      | 26          | 25            | 94          |
| 1959           | 93                      | 20          | 7             | 120         |
| 1960           | 57                      | 0           | <u>/1</u>     | 57          |
| 1961 <u>/2</u> | 108                     | 39          | <u>/1</u>     | 147         |
| 1962           | 135                     | 59          | 6             | 200         |
| 1963           | 175                     | 131         | 62            | 368         |
| 1964           | 90                      | 46          | 39            | 175         |
| 1965           | 161                     | 57          | 24            | 242         |
| 1966           | 424                     | 162         | 57            | 643         |

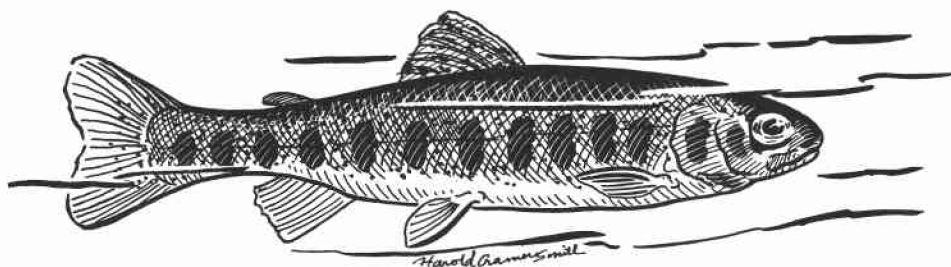
/1 Time and water conditions did not allow counts to be made.

/2 Scuba was used for the first time to make counts.

The lower Umpqua estuarine fishery for salmon and cutthroat was found to produce fish at an average rate of 12.1 hours per fish.

## TROUT

A summary of Diamond Lake creel census data shows that approximately 317,599 trout were taken in 133,676 angler trips. The average weight of the trout caught was 0.8 of a pound. About 75 percent of the trout were between 10 and 14 inches in length. Trout were taken at an average rate of 0.53 fish per hour. Over 253,000 pounds of trout were harvested by anglers in 1966 in the 3,000-acre body of water. The production of fish food organisms was calculated to be 93.6 pounds per acre, which is an increase over the 62.0 pounds per acre recorded in 1965. About one-third of the anglers interviewed were from California.





# ROGUE AND SOUTH COAST DISTRICTS

William I. Haight and Arvo G. Riikula

## FISH INVENTORY

### ANADROMOUS

Counts of anadromous species over Gold Ray Dam on the upper Rogue River are shown in Table 4. The summer steelhead run of 900 fish was the second lowest on record.

Table 4

Counts of Anadromous Fish Runs over Gold Ray Dam,  
1942 through 1966

| Year | Spring Chinook |                  | Coho   |                  | Steelhead     |               |
|------|----------------|------------------|--------|------------------|---------------|---------------|
|      | Number         | Percent<br>Jacks | Number | Percent<br>Jacks | Summer<br>Run | Winter<br>Run |
| 1942 | 43,429         | 15.6             | 4,608  | 4.7              | 5,725         |               |
| 1943 | 38,052         | 11.0             | 3,290  | 6.1              | 5,768         | 16,534        |
| 1944 | 31,940         | 13.1             | 3,230  | 10.4             | 5,282         | 13,855        |
| 1945 | 33,718         | 17.8             | 1,907  | 4.4              | 4,804         | 14,196        |
| 1946 | 30,065         | 16.5             | 3,840  | 5.5              | 3,266         | 11,185        |
| 1947 | 34,740         | 9.5              | 5,340  | 3.1              | 3,431         | 10,754        |
| 1948 | 27,742         | 10.8             | 1,764  | 4.8              | 1,995         | 8,707         |
| 1949 | 20,028         | 10.5             | 9,440  | 4.3              | 2,761         | 8,073         |
| 1950 | 16,767         | 18.8             | 2,007  | 11.8             | 3,570         | 9,667         |
| 1951 | 21,111         | 25.0             | 2,738  | 8.4              | 2,630         | 6,608         |
| 1952 | 18,488         | 23.0             | 320    | 2.2              | 3,954         | 11,550        |
| 1953 | 33,558         | 13.8             | 1,453  | 9.2              | 3,266         | 11,143        |
| 1954 | 25,785         | 21.6             | 2,138  | 10.8             | 2,352         | 7,599         |
| 1955 | 16,550         | 17.7             | 480    | 9.6              | 1,123         | 5,251         |
| 1956 | 29,952         | 13.7             | 421    | 5.4              | 2,358         | 9,370         |
| 1957 | 18,770         | 16.9             | 1,075  | 7.2              | 1,316         | 5,045         |
| 1958 | 15,716         | 13.1             | 732    | 11.5             | 1,099         | 3,888         |
| 1959 | 14,707         | 19.9             | 371    | 4.8              | 905           | 4,755         |
| 1960 | 26,217         | 23.8             | 1,851  | 5.1              | 1,323         | 7,535         |
| 1961 | 33,035         | 17.8             | 232    | 0.8              | 1,391         | 9,604         |
| 1962 | 32,651         | 17.0             | 457    | 0.0              | 2,702         | 11,005        |
| 1963 | 41,527         | 17.5             | 3,835  | 8.3              | 1,336         | 9,801         |
| 1964 | 38,437         | 16.2             | 168    | 0.0              | 555           | 6,629         |
| 1965 | 49,488         | 17.0             | 482    | 2.5              | 1,637         | 7,571         |
| 1966 | 32,588         | 10.7             | 178    | 0.0              | 900           | 12,980        |

The spring chinook count was good but considerably under the number counted in 1965, the record year.

Spawning ground counts for fall chinook on four South Coast streams were above average, while on six streams the counts were below average. Spawning ground counts for South Coast streams are presented in Table 55.

A survey of the upper Rogue River spring chinook spawning ground was conducted by helicopter. The redd count in a 47-mile section of the Rogue was 4,846, of which 25 percent were above the Lost Creek damsite.

Creel records of 519 spring chinook salmon anglers in the upper Rogue show that the average catch rate was about 48 hours per salmon. An estimated 12,900 anglers on the lower Rogue caught 1,960 spring chinook salmon. The catch rate was 0.24 fish per angler-day.

The offshore salmon fishery data are presented in Table 56.

The winter steelhead anglers in general made good catches on the Rogue and South Coast waters. The average catch rate was just over 11 hours per fish. Catch data are presented in Table 57.

Based on a statistical sampling program, the lower Rogue summer steelhead fishery data were calculated to include 20,540 anglers, 41,935 total hours of effort, 8,405 steelhead, 1,159 chinook, and 17 cutthroat. The average catch rate of summer steelhead was 0.41 fish per angler, or 5 hours per fish.

#### TROUT

Trout creel data on the Upper and Lower Rogue Districts are presented in Table 58.

Information relative to fish population as determined by gill net is shown in Table 5.

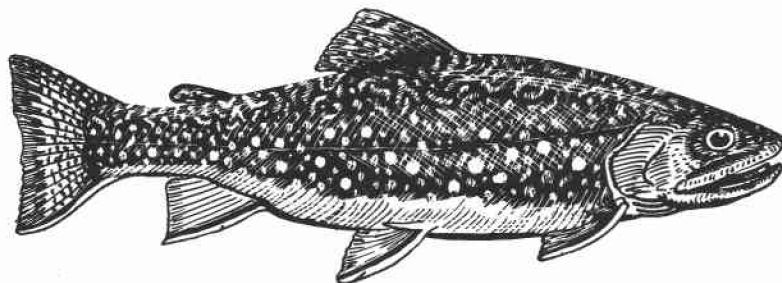


Table 5

Composition and Length Frequency of Fish Populations of Rogue District Lakes, 1966

| Lake                | Date  | Number<br>Nets<br>Set | Species                            | Number<br>in<br>Sample         | Percent<br>of<br>Total                   | Number of Fish by One-Inch Size Groups |     |   |    |    |     |    |    |    |    |    |    |    |    |    |    |    |  |   |
|---------------------|-------|-----------------------|------------------------------------|--------------------------------|------------------------------------------|----------------------------------------|-----|---|----|----|-----|----|----|----|----|----|----|----|----|----|----|----|--|---|
|                     |       |                       |                                    |                                |                                          | 4                                      | 5   | 6 | 7  | 8  | 9   | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |  |   |
| Agate Reservoir     | 11/15 | 2                     | Rb<br>BrB                          | 43<br>24                       | 64.2<br>35.8                             | 1                                      |     | 2 | 20 | 1  |     | 6  | 13 | 19 | 5  |    |    |    |    |    |    |    |  |   |
| Emigrant Reservoir  | 11/11 | 4                     | Rb<br>BC<br>Bg<br>BrB<br>BSu<br>Ro | 43<br>92<br>1<br>2<br>13<br>11 | 26.6<br>56.8<br>0.6<br>1.2<br>8.0<br>6.8 | 3                                      | 12  | 6 | 30 | 30 | 11  |    |    | 2  | 2  | 2  |    |    |    |    |    |    |  |   |
| Fish Lake           | 7/15  | 4                     | Rb<br>BT<br>Ro                     | 4<br>123<br>631                | 0.5<br>16.2<br>83.3                      |                                        |     |   |    |    |     |    |    |    |    |    |    |    |    |    |    |    |  |   |
| Howard Prairie Res. | 11/3  | 4                     | Rb<br>BrB                          | 192<br>142                     | 57.5<br>42.5                             | 1                                      | 1   | 3 | 5  | 25 | 107 | 20 | 1  | 7  | 16 | 6  |    |    |    |    |    |    |  |   |
| Hyatt Lake          | 11/4  | 4                     | Rb<br>BrB<br>Bg<br>LB<br>Pk<br>Ro  | 3<br>121<br>13<br>6<br>6<br>94 | 1.2<br>49.8<br>5.5<br>2.4<br>2.4<br>38.7 |                                        |     |   |    |    |     |    |    |    |    |    |    |    |    |    |    |    |  | 1 |
| Lower Squaw Lake    | 11/1  | 3                     | Ct<br>BC<br>BrB<br>Bg              | 9<br>16<br>21<br>1             | 19.2<br>34.0<br>44.7<br>2.1              |                                        | 1   | 1 | 10 | 2  | 6   | 1  |    |    |    |    |    |    |    |    |    |    |  |   |
| Selmac Lake         | 4/12  | 3                     | LB<br>Bg<br>BrB<br>BSu<br>Ro       | 3<br>33<br>12<br>1<br>15       | 4.7<br>51.6<br>18.8<br>1.5<br>23.4       | 14                                     | 6   | 9 | 4  | 1  | 1   | 1  |    |    |    |    |    |    |    |    |    |    |  | 1 |
| Upper Squaw Lake    | 11/1  | 2                     | Ct<br>Rb<br>BrB                    | 49<br>1<br>17                  | 73.1<br>1.5<br>25.4                      |                                        |     | 6 | 12 | 14 | 10  | 3  | 3  | 1  |    |    |    |    |    |    |    |    |  |   |
| Willow Creek Res.   | 9/9   | 4                     | Rb<br>Ct<br>K                      | 250<br>7<br>30                 | 87.1<br>2.4<br>10.5                      | 57                                     | 167 | 4 | 2  | 3  | 9   | 5  | 1  | 1  |    |    |    |    |    |    |    |    |  | 1 |

## UPPER WILLAMETTE DISTRICT

Ralph L. Swan

### FISH INVENTORY

#### ANADROMOUS

Spring chinook entered the McKenzie River in early May with substantial numbers being present by the end of the month.

Leaburg and Walterville powerhouse tailraces were dewatered twice in efforts to move a concentration of chinook upstream. An emergency angling closure was made when salmon became concentrated in the Walterville diversion canal. Many chinook spawned below Leaburg Dam for the second successive year. Use of the area below the dam is thought to be the result of poor fish passage over the dam.

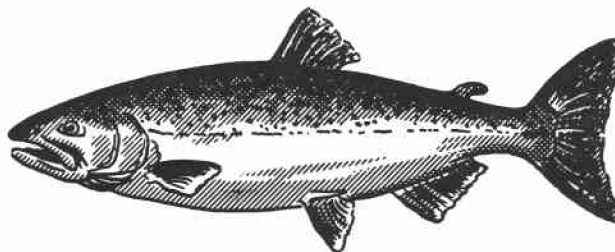
A rapid drawdown of Fall Creek Reservoir late in the summer resulted in the loss of about 1,000 salmonids including adult and yearling chinook, steelhead smolts, and rainbow trout. The loss was believed to be due to the poor quality of water released from the reservoir.

Water flows below Cougar Dam were adjusted by the Corps of Engineers in order to encourage adult chinook to enter the traps. The number of chinook trapped below Cougar was greater than was recorded in 1965 but still well below the number desired.

#### TROUT

Creel data for Upper Willamette District waters are presented in Table 58.

Only one spawning run of kokanee appeared in Waldo Lake as compared with two runs in 1965. The fish matured in late October and early November.



# MIDDLE WILLAMETTE DISTRICT

J. J. Wetherbee

## FISH INVENTORY

### ANADROMOUS

Results of steelhead spawning ground surveys on three east side tributaries of the Willamette River are shown in Table 6.

Table 6

Summary of Steelhead Spawning Survey by Stream System,  
Middle Willamette District, 1966

| Stream System       | Miles<br>Surveyed | Number<br>Steelhead | Number<br>Redds | Redds<br>per Mile |
|---------------------|-------------------|---------------------|-----------------|-------------------|
| North Santiam River | 26.8              | 84                  | 373             | 13.9              |
| South Santiam River | 85.3              | 130                 | 746             | 8.7               |
| Pudding River       | 11.0              | 4                   | 107             | 9.7               |
| TOTALS              | 123.1             | 218                 | 1,226           |                   |
| AVERAGE             |                   |                     |                 | 10.0              |

### TROUT

Opening day success on Detroit Reservoir was one of the best in 14 years following impoundment. Anglers caught an average of 4.2 fish per person and 0.9 fish per hour. Total estimates for opening day were 7,000 anglers and 28,000 fish. About 70 percent of the trout caught on opening day were from a fingerling plant made in 1965. The average catch rate for the season at Detroit Reservoir was 0.71 fish per hour and just under 3 fish per angler.

Creel data for Detroit Reservoir covering the period 1954 through 1966 are presented in Table 7.

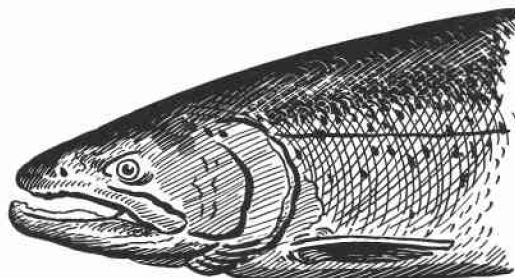
Catch data for the Middle Willamette District waters are shown in Table 58.

Table 7

Comparison of Catch, Detroit Reservoir,  
1954 through 1966

| Year | Anglers<br>Checked | Total<br>Fish | Fish<br>per Angler | Fish<br>per Hour | Estimated<br>Anglers | Estimated<br>Catch |
|------|--------------------|---------------|--------------------|------------------|----------------------|--------------------|
| 1954 | 3,559              | 9,868         | 2.77               | 0.54             | 49,062               | 131,796            |
| 1955 | 4,022              | 5,689         | 1.41               | 0.39             | 61,738               | 87,050             |
| 1956 | 2,446              | 3,381         | 1.38               | 0.39             | 64,787               | 89,406             |
| 1957 | 2,029              | 4,254         | 2.10               | 0.44             | 91,660               | 147,332            |
| 1958 | 1,452              | 2,546         | 1.75               | 0.42             | 97,950               | 171,412            |
| 1959 | 2,514              | 6,157         | 2.45               | 0.69             | 108,753              | 259,847            |
| 1960 | 2,808              | 3,817         | 1.36               | 0.39             | 134,331              | 227,639            |
| 1961 | 1,332              | 2,269         | 1.70               | 0.51             | 137,186              | 246,881            |
| 1962 | 1,413              | 2,512         | 1.78               | 0.56             | <u>/1</u>            | <u>/1</u>          |
| 1963 | 2,437              | 4,807         | 1.97               | 0.54             | 141,717              | 310,500            |
| 1964 | 3,188              | 6,965         | 2.18               | 0.55             | 134,303              | 293,549            |
| 1965 | 1,461              | 3,870         | 2.64               | 0.72             | <u>/1</u>            | <u>/1</u>          |
| 1966 | 751                | 2,211         | 2.94               | 0.71             | <u>/1</u>            | <u>/1</u>          |

/1 Total estimates were not made.



# LOWER WILLAMETTE DISTRICT

Wendell H. Stout

## FISH INVENTORY

### ANADROMOUS

Counts of adult salmon and steelhead at North Fork Dam on the Clackamas River are shown in Table 8. The run of spring chinook was the lowest on record, while the number of coho exceeded all previous counts at North Fork. The steelhead run was slightly below average. Downstream migrant counts are shown in Table 9. Salmon smolt escapement exceeded the average in both chinook and coho, however, the native runs were augmented by the release of large numbers of hatchery smolts of both species. The steelhead smolt migration was less than one-half the average for the past seven years. Both upstream and downstream counts are made by the Portland General Electric Company.

Table 8

Upstream Migrant Fish Counts,  
North Fork Dam, Clackamas River,  
1958 through 1966

| Year <sup>/1</sup> | Number by Species |       |           |
|--------------------|-------------------|-------|-----------|
|                    | Chinook           | Coho  | Steelhead |
| 1958               | 460               | 614   | 1,636     |
| 1959               | 578               | 555   | 525       |
| 1960               | 288               | 1,331 | 1,149     |
| 1961               | 367               | 2,174 | 2,204     |
| 1962               | 637               | 2,189 | 4,255     |
| 1963               | 611               | 3,116 | 2,332     |
| 1964               | 581               | 1,874 | 1,887     |
| 1965               | 509               | 2,457 | 1,533     |
| 1966               | 271               | 3,862 | 1,290     |
| AVERAGES           | 478               | 2,019 | 1,868     |

<sup>/1</sup> Runs are listed in the year they terminate.

Catch data for the winter steelhead fishery on the Sandy River are shown in Table 10. Although hatchery steelhead have entered the catch in the Sandy River since the winter of 1956-57, it was not until 1965-66 that marked steelhead exceeded the number of wild fish. The upstream migration of steelhead over Marmot Dam on the Sandy River for the period 1953 through 1966 is shown in Table 11. There were more wild than hatchery fish observed at the Marmot trap. The discrepancy between the wild and hatchery fish in the catch and Marmot trap can be attributed to the fact that many hatchery smolts were released below the Marmot ladder.

Table 9

Downstream Migrant Fish Counts,  
North Fork Dam, Clackamas River,  
1958 through 1966

| Migratory Season <sup>/1</sup> | Number by Species |         |           |         |
|--------------------------------|-------------------|---------|-----------|---------|
|                                | Chinook           | Coho    | Steelhead | Sockeye |
| 1958-59                        | 4,439             | 15,377  | 37,687    |         |
| 1959-60                        | 18,227            | 22,532  | 38,885    |         |
| 1960-61                        | 18,821            | 44,130  | 17,674    |         |
| 1961-62                        | 9,478             | 54,696  | 28,355    | 179     |
| 1962-63                        | 3,630             | 113,407 | 35,820    | 790     |
| 1963-64                        | 17,545            | 151,239 | 39,981    | 317     |
| 1964-65                        | 5,934             | 46,790  | 13,996    | 2,735   |
| 1965-66                        | 170,223           | 75,967  | 11,040    | 51      |
| AVERAGES                       | 31,037            | 65,517  | 27,930    | 814     |

/1 Counts are made for a cyclic year starting in October.

Only 63 spring chinook adults passed over the Marmot ladder in 1966. The coho run was just over 1,000 fish. The Willamette River spring chinook catch was estimated to be 12,839 fish. Catch data for the period 1946 through 1966 are presented in Tables 12 and 13.

Resting hole counts of spring chinook in the Molalla River for the period 1961 through 1966 are shown in Table 14.

#### TROUT

Creel data for the lower Willamette River are shown in Table 58.

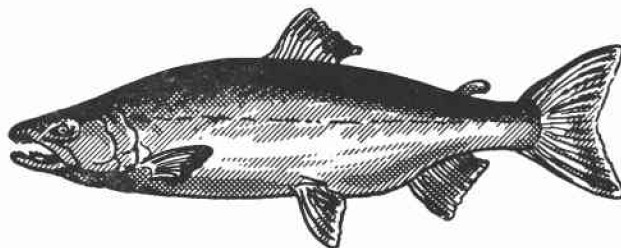




Table 10

Sandy River Steelhead Sport Fishery,  
1954 through 1966

| Angling<br>Season | Total<br>Anglers | Hatchery Fish |         | Wild Fish |         | Total<br>Catch | Fish<br>per Angler | Hours<br>per Fish |
|-------------------|------------------|---------------|---------|-----------|---------|----------------|--------------------|-------------------|
|                   |                  | Number        | Percent | Number    | Percent |                |                    |                   |
| 1954-55           | 16,000           | 1             |         | 958       |         | 958            | 0.06               |                   |
| 1955-56           | 10,413           | 1             |         | 1,157     |         | 1,157          | 0.11               | 39.5              |
| 1956-57           | 17,027           | 231           | 24      | 741       | 76      | 972            | 0.06               | 51.0              |
| 1957-58           | 24,485           | 312           | 17      | 1,581     | 83      | 1,893          | 0.08               | 36.8              |
| 1958-59           | 27,934           | 93            | 7       | 1,213     | 93      | 1,306          | 0.05               | 62.0              |
| 1959-60           | 30,079           | 247           | 12      | 1,827     | 88      | 2,074          | 0.07               | 55.1              |
| 1960-61           | 32,391           | 182           | 13      | 1,312     | 87      | 1,494          | 0.05               | 88.9              |
| 1961-62           | 20,354           | 15            | 1       | 1,056     | 99      | 1,071          | 0.05               | 72.2              |
| 1962-63           | 25,074           | 195           | 15      | 1,107     | 85      | 1,302          | 0.05               | 73.2              |
| 1963-64           | 23,421           | 1,756         | 46      | 2,062     | 54      | 3,818          | 0.16               | 35.0              |
| 1964-65           | 19,516           | 2,204         | 45      | 2,694     | 55      | 4,898          | 0.25               | 18.4              |
| 1965-66           | 18,074           | 2,582         | 55      | 2,155     | 45      | 4,737          | 0.26               | 15.6              |

1 None expected.

Table 11

Steelhead Migration at Marmot Dam, Sandy River,  
1953 through 1966

| Migratory<br>Season | Hatchery Fish |         | Wild Fish |         | Total<br>Steelhead |
|---------------------|---------------|---------|-----------|---------|--------------------|
|                     | Number        | Percent | Number    | Percent |                    |
| 1953-54             | <u>/1</u>     |         | 2,200     | 100     | 2,200              |
| 1954-55             | <u>/1</u>     |         | 1,581     | 100     | 1,581              |
| 1955-56             | <u>/1</u>     |         | 2,240     | 100     | 2,240              |
| 1956-57             | 79            | 4       | 1,975     | 96      | 2,054              |
| 1957-58             | 249           | 8       | 2,917     | 92      | 3,166              |
| 1958-59             | 69            | 3       | 2,290     | 97      | 2,359              |
| 1959-60             | 34            | 2       | 1,578     | 98      | 1,612              |
| 1960-61             | 375           | 12      | 2,749     | 88      | 3,124              |
| 1961-62             | 175           | 4       | 3,871     | 96      | 4,046              |
| 1962-63 <u>/2</u>   | 901           | 27      | 2,425     | 73      | 3,326              |
| 1963-64             | 1,641         | 42      | 2,252     | 58      | 3,893              |
| 1964-65             | 2,074         | 38      | 3,457     | 62      | 5,531              |
| 1965-66             | 1,330         | 37      | 2,260     | 63      | 3,590              |

/1 None expected.

/2 First year for return of adult steelhead originating from Gnat Creek Hatchery.

Table 12

A Comparison of Willamette River  
Spring Chinook Sport Fishery Data,  
1946 through 1966

| Year     | Angling Intensity<br>in Man-Days | Average Boat Catch<br>per Man-Day | Angling Effort<br>per Salmon<br>in Man-Days | Average<br>Weight<br>(Pounds) |
|----------|----------------------------------|-----------------------------------|---------------------------------------------|-------------------------------|
| 1946     | 61,900                           | 0.20                              | 5.0                                         | 17.0                          |
| 1947     | 91,900                           | 0.12                              | 8.3                                         | 16.3                          |
| 1948     | 83,600                           | 0.10                              | 10.0                                        | 17.7                          |
| 1949     | 85,500                           | 0.11                              | 9.4                                         | 18.2                          |
| 1950     | 73,400                           | 0.12                              | 8.3                                         | 16.6                          |
| 1951     | 92,600                           | 0.14                              | 7.0                                         | 17.2                          |
| 1952     | 91,100                           | 0.13                              | 7.7                                         | 16.8                          |
| 1953     | 102,800                          | 0.16                              | 6.3                                         | 18.6                          |
| 1954     | 104,100                          | 0.11                              | 9.2                                         | 18.6                          |
| 1955     | 77,700                           | 0.12                              | 8.6                                         | 15.9                          |
| 1956     | 84,100                           | 0.19                              | 5.3                                         | 18.4                          |
| 1957     | 95,500                           | 0.12                              | 8.3                                         | 16.1                          |
| 1958     | 137,900                          | 0.11                              | 8.9                                         | 18.2                          |
| 1959     | 134,100                          | 0.14                              | 7.2                                         | 19.1                          |
| 1960     | 92,300                           | 0.09                              | 11.6                                        | 16.4                          |
| 1961     | 75,100                           | 0.09                              | 11.7                                        | 15.6                          |
| 1962     | 74,000                           | 0.12                              | 8.1                                         | 16.8                          |
| 1963     | 84,800                           | 0.16                              | 6.2                                         | 19.0                          |
| 1964     | 118,700                          | 0.16                              | 6.4                                         | 19.4                          |
| 1965     | 74,000                           | 0.12                              | 8.5                                         | 17.5                          |
| 1966     | 85,700                           | 0.14                              | 6.7                                         | 16.1                          |
| AVERAGES | 91,500                           | 0.13                              | 8.0                                         | 17.4                          |

Table 13

Calculated Willamette River Spring Chinook Salmon Runs,  
1946 through 1966

| Year     | Lower Willamette<br>Sport Fishery<br>Harvest | Willamette<br>Falls<br>Escapement | Clackamas<br>River <u>/1</u><br>Escapement | Calculated<br>Total<br>Run | Sport Catch<br>as Percent<br>of Run |
|----------|----------------------------------------------|-----------------------------------|--------------------------------------------|----------------------------|-------------------------------------|
| 1946     | 12,600                                       | 53,000                            | 3,000                                      | 68,600                     | 18                                  |
| 1947     | 12,000                                       | 45,000                            | 2,000                                      | 59,000                     | 20                                  |
| 1948     | 8,300                                        | 30,000                            | 1,800                                      | 40,100                     | 21                                  |
| 1949     | 9,100                                        | 27,000                            | 1,750                                      | 37,900                     | 24                                  |
| 1950     | 8,800                                        | 14,500                            | 1,500                                      | 24,800                     | 35                                  |
| 1951     | 13,300                                       | 34,300                            | 2,000                                      | 49,600                     | 27                                  |
| 1952     | 12,500                                       | 52,200                            | 2,800                                      | 67,500                     | 19                                  |
| 1953     | 16,400                                       | 76,400                            | 4,000                                      | 96,800                     | 17                                  |
| 1954     | 11,500                                       | 31,100                            | 1,800                                      | 44,400                     | 26                                  |
| 1955     | 9,000                                        | 22,000                            | 1,500                                      | 32,500                     | 28                                  |
| 1956     | 16,000                                       | 58,600                            | 3,000                                      | 77,600                     | 21                                  |
| 1957     | 11,500                                       | 39,300                            | 2,000                                      | 52,800                     | 22                                  |
| 1958     | 15,500                                       | 45,200                            | 2,100                                      | 62,800                     | 25                                  |
| 1959     | 18,500                                       | 31,900                            | 3,000                                      | 53,400                     | 35                                  |
| 1960     | 8,000                                        | 14,400                            | 1,800                                      | 24,200                     | 33                                  |
| 1961     | 6,400                                        | 18,900                            | 2,200                                      | 27,500                     | 23                                  |
| 1962     | 9,100                                        | 26,100                            | 3,000                                      | 38,200                     | 24                                  |
| 1963     | 13,600                                       | 30,500                            | 4,000                                      | 48,100                     | 28                                  |
| 1964     | 18,600                                       | 36,300                            | 3,500                                      | 58,400                     | 32                                  |
| 1965     | 9,000                                        | 29,100                            | 3,000                                      | 41,100                     | 22                                  |
| 1966     | 12,800                                       | 28,200                            | 3,000                                      | 44,000                     | 29                                  |
| AVERAGES | 12,000                                       | 35,400                            | 2,500                                      | 50,000                     | 24                                  |

/1 Based on observations of resting holes, sport fishery, etc.

Table 14

Spring Chinook Salmon Resting Hole Counts,  
Molalla River,  
1961 through 1966

| Year | Number of Fish |
|------|----------------|
| 1961 | 238            |
| 1962 | 245            |
| 1963 | 274            |
| 1964 | 173            |
| 1965 | 95             |
| 1966 | 214            |

## LA GRANDE DISTRICT

Robert C. Sayre

### FISH INVENTORY

#### ANADROMOUS

Steelhead spawning ground counts were made on 36 separate streams. A total of 226.6 miles of streams surveyed revealed 1,471 redds, or approximately 6.5 redds per mile.

Results of spring chinook spawning ground counts for 1966 are compared with previous counts for the years 1960 through 1965 in Table 15.

Creel data for steelhead streams in the La Grande District are shown in Table 16.

Results of fish population sampling with gill nets and trap nets in district lakes and reservoirs are shown in Table 17.

Creel data obtained by a statistical sampling program for Morgan Lake show that an estimated 15,868 anglers caught 44,519 trout in the 1966 season. The average catch per unit of effort was 1.1 fish per hour.

Golden trout have reproduced successfully in the East Fork of West Eagle Creek.

Creel data for resident species in the La Grande District are included in Table 58.

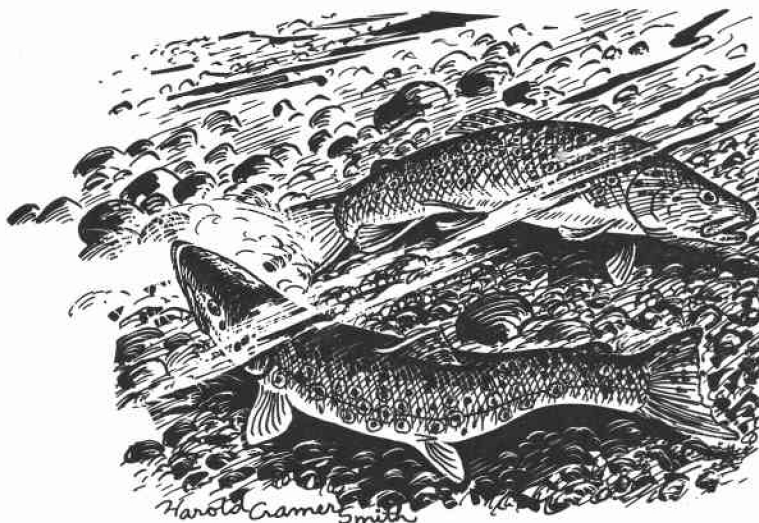


Table 15

Spring Chinook Spawning Ground Counts Completed  
on Streams of the La Grande District, 1966,  
With Comparisons for Six Years of Previous Redd Counts

| Stream                       | Date           | Miles<br>Checked | Spring Chinook Salmon, 1966 |      |       | Previous Total Redds |      |      |      |      |      |      |     |
|------------------------------|----------------|------------------|-----------------------------|------|-------|----------------------|------|------|------|------|------|------|-----|
|                              |                |                  | Live                        | Dead | Jacks | Total Redds          | 1960 | 1961 | 1962 | 1963 | 1964 | 1965 |     |
| Catherine Creek              | 8/24 to<br>9/7 | 12.0             | 140                         | 10   | 4     | 154                  | 115  |      |      |      |      | 43   | 101 |
| Catherine Creek <u>/1</u>    |                | 9.0              |                             |      |       | 57                   | 15   | 182  | 20   | 66   | 18   | 3    | 47  |
| Grande Ronde River           | 9/6-23         | 7.5              | 88                          | 19   | 8     | 115                  | 143  | 73   | 122  | 179  | 20   | 172  | 128 |
| Upper Minam River            | 8/24-25        | 13.0             | 29                          | 7    | 3     | 39                   | 77   |      |      |      |      | 68   | 78  |
| Lower Minam River <u>/1</u>  |                | 7.5              |                             |      |       | 237                  | 69   | 72   | 37   | 118  | 63   | 108  | 75  |
| Lookingglass Creek <u>/1</u> |                | 5.5              |                             |      |       | 217                  | 210  | 75   | 82   | 83   | 55   | 141  | 101 |
| TOTALS                       |                | 54.5             |                             |      |       | 819                  | 629  | 402  | 261  | 446  | 156  | 535  | 530 |

/1 Spawning surveys by Oregon Fish Commission personnel.

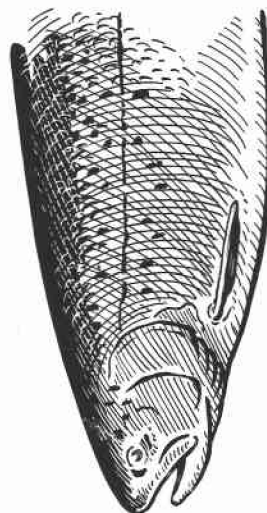


Table 16

Summary of Anadromous Creel Census on Four Streams  
of the La Grande District, 1966

| Stream                                    | Anglers<br>Censused | Total<br>Hours | Catch               |                   | Fish<br>per Angler  | Hours per Fish       |                      |
|-------------------------------------------|---------------------|----------------|---------------------|-------------------|---------------------|----------------------|----------------------|
|                                           |                     |                | Summer<br>Steelhead | Spring<br>Chinook |                     | 1966                 | 1965                 |
| Catherine Creek                           | 88                  | 340            |                     | 44                | 0.5                 | 7.7                  | 13.6                 |
| Grande Ronde River,<br>Section 3 <u>1</u> | 17                  | 27             | 9                   |                   | 0.5                 | 3.0                  | 8.6                  |
| Pine Creek                                | 10                  | 15             | 1                   |                   | 0.1                 | 15.0                 | 11.4                 |
| Snake River,<br>Section 2 <u>2</u>        | 191                 | 705            | 50                  |                   | 0.3<br>0.7 <u>3</u> | 14.1<br>5.3 <u>3</u> | 22.2<br>5.8 <u>3</u> |
| Snake River,<br>Oxbow Bend                | 69                  | 171            | 11                  |                   | 0.2<br>0.6 <u>3</u> | 15.5<br>4.2 <u>3</u> |                      |

1 Grande Ronde River Section 3 from Rhinehart upstream.2 Snake River Section 2 from Hells Canyon Dam to Pine Creek.3 True catch rate with three other species of resident fish in creels.

Table 17

Composition and Length Frequency of Catch by Gill Nets, Represented in One-Inch Size Groups,  
Fork Length Measurements, in Some La Grande District Waters, 1966

| Water              | Date     | Number<br>of<br>Nets | Species                                        | Number<br>Fish<br>Taken                 | Percent<br>of<br>Total                                  | Number of Fish by One-Inch Size Groups |                |           |              |             |               |         |    |    |    |    |    |              |  |  |  |
|--------------------|----------|----------------------|------------------------------------------------|-----------------------------------------|---------------------------------------------------------|----------------------------------------|----------------|-----------|--------------|-------------|---------------|---------|----|----|----|----|----|--------------|--|--|--|
|                    |          |                      |                                                |                                         |                                                         | 4                                      | 5              | 6         | 7            | 8           | 9             | 10      | 11 | 12 | 13 | 14 | 15 | 16 &<br>Over |  |  |  |
| Morgan Lake        | 4/14/66  | 2                    | Rb<br>BT                                       | 58<br>4                                 | 93.6<br>6.4                                             |                                        |                | 1         | 8            | 25          |               |         |    | 1  | 6  | 10 | 4  | 3            |  |  |  |
|                    | 11/30/66 | 2                    | Rb<br>BT                                       | 61<br>283                               | 17.7<br>82.3                                            |                                        |                | 4         | 44<br>170    |             | 4             | 3       | 6  |    | 2  |    |    |              |  |  |  |
| Unity Reservoir    | 7/13/66  | 2                    | Rb<br>Ro<br>Su                                 | 146<br>205<br>19                        | 39.5<br>55.4<br>5.1                                     |                                        | 5<br>80        | 20<br>4   | 52           | 7<br>1<br>8 |               | 23<br>4 | 29 | 4  | 6  |    |    |              |  |  |  |
|                    | 7/13/66  | <u>1</u>             | Rb<br>Ro<br>Su<br>RsS<br>D                     | 16<br>1,248<br>156<br>41<br>17          | 1.1<br>84.4<br>10.6<br>2.8<br>1.1                       | 703<br>11<br>41<br>17                  | 1<br>400<br>50 | 100<br>50 | 2<br>45<br>5 |             | 9<br>20<br>10 | 3<br>10 | 1  |    |    |    |    |              |  |  |  |
|                    |          |                      | Rb                                             | 16                                      | 1.1                                                     |                                        |                |           |              |             |               |         |    |    |    |    |    |              |  |  |  |
|                    |          |                      | Ro                                             | 1,248                                   | 84.4                                                    |                                        |                |           |              |             |               |         |    |    |    |    |    |              |  |  |  |
|                    |          |                      | Su                                             | 156                                     | 10.6                                                    |                                        |                |           |              |             |               |         |    |    |    |    |    |              |  |  |  |
| Brownlee Reservoir | 12/2/66  | 2                    | Rb<br>Wf<br>CC<br>BC<br>LB<br>Su<br>Clim<br>Cp | 1<br>2<br>2<br>10<br>1<br>21<br>13<br>2 | 1.9<br>3.8<br>3.8<br>19.3<br>1.9<br>40.5<br>25.0<br>3.8 |                                        |                |           |              |             | 1             |         |    | 1  |    |    | 1  |              |  |  |  |
|                    |          |                      | Wf                                             | 2                                       | 3.8                                                     |                                        |                |           |              |             | 1             |         | 1  |    |    |    |    |              |  |  |  |
|                    |          |                      | CC                                             | 2                                       | 3.8                                                     |                                        |                |           |              |             |               |         |    |    |    |    |    |              |  |  |  |
|                    |          |                      | BC                                             | 10                                      | 19.3                                                    | 7                                      |                | 1         |              |             |               | 2       |    |    |    |    |    |              |  |  |  |
|                    |          |                      | LB                                             | 1                                       | 1.9                                                     |                                        |                |           |              |             |               |         |    |    |    |    |    |              |  |  |  |
|                    |          |                      | Su                                             | 21                                      | 40.5                                                    |                                        | 1              | 3         |              |             |               | 3       | 1  | 1  | 1  | 4  |    | 6            |  |  |  |
|                    |          |                      | Clim                                           | 13                                      | 25.0                                                    |                                        |                | 4         | 5            |             | 2             | 4       |    |    |    |    |    |              |  |  |  |
|                    |          | Cp                   | 2                                              | 3.8                                     |                                                         |                                        |                |           |              |             |               |         |    |    | 1  |    | 1  |              |  |  |  |

Table 17 (continued)

| Water             | Date    | Number<br>of<br>Nets | Species            | Number<br>Fish<br>Taken | Percent<br>of<br>Total | Number of Fish by One-Inch Size Groups |    |    |        |    |        |    |        |    |    |    | 16 &<br>Over |
|-------------------|---------|----------------------|--------------------|-------------------------|------------------------|----------------------------------------|----|----|--------|----|--------|----|--------|----|----|----|--------------|
|                   |         |                      |                    |                         |                        | 4                                      | 5  | 6  | 7      | 8  | 9      | 10 | 11     | 12 | 13 | 14 |              |
| Eagle Lake        | 8/5/66  | 2                    | BT<br>LT<br>Splake | 15<br>3<br>1            | 78.9<br>15.8<br>5.3    |                                        |    | 6  | 2<br>1 | 3  | 1<br>1 |    | 1<br>1 | 2  |    |    | 1            |
| Echo Lake         | 8/17/66 | 2                    | BT                 | 46                      | 100.0                  |                                        | 18 | 14 | 3      | 6  | 4      | 1  |        |    |    |    |              |
| Lookingglass Lake | 8/2/66  | 2                    | BT                 | 24                      | 100.0                  |                                        | 1  | 9  | 4      |    | 7      | 1  |        |    |    |    | 2            |
| Lower Pine Lake   | 8/10/66 | 1                    | BT                 | 20                      | 100.0                  |                                        |    | 4  | 5      | 9  | 2      |    |        |    |    |    |              |
| Pine Lake         | 8/10/66 | 1                    | BT                 | 22                      | 100.0                  |                                        | 1  | 7  | 1      | 3  | 9      |    |        |    |    |    |              |
| Tombstone Lake    | 8/18/66 | 2                    | BT                 | 10                      | 100.0                  |                                        | 2  | 5  | 2      | 1  |        |    |        |    |    |    |              |
| Traverse Lake     | 8/16/66 | 2                    | BT                 | 39                      | 100.0                  |                                        | 1  | 9  | 12     | 14 | 2      |    |        | 1  |    |    |              |
| Twin Lake         | 7/15/66 | 2                    | Rb                 | 42                      | 100.0                  |                                        |    | 1  | 7      | 16 | 7      | 3  | 4      | 3  |    |    | 1            |

1 Trap net.



## WALLOWA DISTRICT

Kenneth L. Witty

### FISH INVENTORY

#### ANADROMOUS

Creel data for steelhead anglers in the Wallowa District are shown in Table 18.

Steelhead spawning ground counts indicate a good escapement in 1966. Spawning ground data for steelhead in district streams are shown in Table 19 with counts for the period 1960 through 1966.

Chinook spawning ground counts for 1966 are shown in Table 20 along with totals for the years 1959 through 1965.

#### TROUT

Creel data on the trout and warm-water game fish fisheries are included in Table 58.

Results of population sampling with gill nets are shown in Table 21.

Total catch estimates for Wallowa Lake for the years 1956 through 1966 are presented in Table 22.



Table 18

Steelhead Creel Census from Four Streams in Wallowa County in 1966  
With a Comparison of Hours per Fish for 1965

| River                      | Period Covered        | Type<br>Angler | Total<br>Fish | Total<br>Anglers | Hours<br>Fished | Fish<br>per<br>Angler | Hours<br>per Fish |      |
|----------------------------|-----------------------|----------------|---------------|------------------|-----------------|-----------------------|-------------------|------|
|                            |                       |                |               |                  |                 |                       | 1966              | 1965 |
| Grande Ronde,<br>Section 1 | January 1 to April 1  | Bank           | 6             | 31               | 115.0           | 0.2                   | 19.2              | 21.4 |
|                            | June 1 to December 31 | Bank           | 50            | 163              | 589.5           | 0.3                   | 11.8              | 13.1 |
| Immaha                     | January 1 to April 1  | Bank           | 14            | 61               | 307.0           | 0.2                   | 21.9              | 15.0 |
| Snake,<br>Section 1        | January 1 to April 1  | Bank           | 12            | 35               | 143.0           | 0.3                   | 11.9              | 38.0 |
| Wallowa                    | January 1 to April 1  | Bank           | 0             | 24               | 35.5            | 0.0                   |                   | 14.2 |

22

Table 19

Spawning Ground Counts for Steelhead in Wallowa County,  
1960 through 1966

| Year | Streams<br>in Sample | Miles<br>Checked |     | Steelhead |      | Redds<br>per Mile |  |
|------|----------------------|------------------|-----|-----------|------|-------------------|--|
|      |                      |                  |     |           |      |                   |  |
| 1960 | 4                    | 21               | 46  | 29        | 1.38 |                   |  |
| 1961 | 8                    | 15               | 11  | 106       | 7.07 |                   |  |
| 1962 | 10                   | 44               | 108 | 143       | 3.25 |                   |  |
| 1963 | 6                    | 12               | 58  | 84        | 7.00 |                   |  |
| 1964 | 6                    | 46               | 7   | 197       | 4.28 |                   |  |
| 1965 | 33                   | 128              | 110 | 582       | 4.55 |                   |  |
| 1966 | 26                   | 123              | 226 | 1,214     | 9.87 |                   |  |

Table 20

Annual Spawning Ground Counts of Spring Chinook Within an Index Unit  
on Some Wallowa County Streams, 1959 through 1966

| Stream          | Year                   |                        |                        |                        |                        |                        |                        |                        |
|-----------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
|                 | 1959                   | 1960                   | 1961                   | 1962                   | 1963                   | 1964                   | 1965                   | 1966                   |
| Imnaha River    | 204 <u>/1</u><br>(115) | 560 <u>/1</u><br>(323) | 282 <u>/1</u><br>(221) | 383 <u>/1</u><br>(248) | 175 <u>/1</u><br>(133) | 461 <u>/1</u><br>(260) | 264 <u>/1</u><br>(189) | 460 <u>/1</u><br>(223) |
| Lostine River   | 153 <u>/1</u><br>(103) | 97 <u>/1</u><br>(95)   | 43 <u>/1</u><br>(44)   | 78 <u>/1</u><br>(53)   | 143 <u>/1</u><br>(97)  | 224 <u>/2</u><br>(335) | 85 <u>/2</u><br>(102)  | 295 <u>/2</u><br>(187) |
| Wallowa River   |                        |                        |                        |                        | 10<br>(41)             | 25<br>(35)             | 20<br>(32)             | 16<br>(14)             |
| Big Sheep Creek |                        |                        |                        |                        |                        | 43<br>(40)             | 19<br>(26)             | 83<br>(61)             |
| Lick Creek      |                        |                        |                        |                        |                        | 12<br>(14)             | 4<br>(25)              | 52<br>(47)             |
| Bear Creek      |                        |                        |                        |                        |                        | 17<br>(24)             | 12<br>(15)             | 8<br>(12)              |
| Wenaha River    |                        |                        |                        |                        | 32<br>(186)            | 98<br>(167)            | 26<br>(79)             | 335<br>(278)           |
| Hurricane Creek |                        |                        |                        |                        | 8<br>(33)              | 41<br>(28)             | 8<br>(17)              | 0<br>(1)               |
| Spring Creek    |                        |                        |                        |                        |                        | 11<br>(20)             | 3<br>(6)               | 10<br>(6)              |

NOTE: Redd counts are shown in parentheses.

/1 Counts by Fish Commission of Oregon.

/2 Counts by Oregon Game Commission and Fish Commission of Oregon.

Table 21

Composition and Length Frequency of Catch by Gill Nets, Represented in One-Inch Size Groups,  
Fork Length Measurements, in Some Wallowa County Lakes, 1966

| Number of Sets |      |         |              |                  | Number of Species |    | Number Taken |    | Percent of Total |    | Number of Fish by One-Inch Size Groups |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |
|----------------|------|---------|--------------|------------------|-------------------|----|--------------|----|------------------|----|----------------------------------------|----|----|----|----|----|----|----|----|----|----|--|--|--|--|--|--|--|--|
| Lake           | Sets | Species | Number Taken | Percent of Total | 4                 | 5  | 6            | 7  | 8                | 9  | 10                                     | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |  |  |  |  |  |  |  |  |
| Aneroid        | 2    | BT      | 55           | 98.2             |                   | 2  | 8            | 18 | 22               | 5  |                                        |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |
|                |      | Rb      | 1            | 1.8              |                   |    | 1            |    |                  |    |                                        |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |
| Billy Jones    | 2    | Rb      | 15           | 100.0            | 1                 | 3  | 1            | 3  | 4                | 1  | 2                                      |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |
| Bonny          | 2    |         | 0            |                  |                   |    |              |    |                  |    |                                        |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |
| Dollar         | 1    |         | 0            |                  |                   |    |              |    |                  |    |                                        |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |
| Echo           | 2    | BT      | 24           | 100.0            |                   | 5  | 12           | 6  | 1                |    |                                        |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |
| Jewett         | 1    |         | 0            |                  |                   |    |              |    |                  |    |                                        |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |
| Kinney         | 2    | Rb      | 66           | 98.5             | 32                | 32 |              |    |                  | 1  | 1                                      |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |
|                |      | BrB     | 1            | 1.5              |                   | 1  |              |    |                  |    |                                        |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |
| Legore         | 1    | BT      | 2            | 100.0            |                   |    | 2            |    |                  |    |                                        |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |
| Rogers         | 1    | BT      | 9            | 100.0            |                   |    | 4            |    | 3                | 2  |                                        |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |
| Wallowa        | 6    | K       | 402          | 85.7             |                   |    |              |    | 4                | 51 | 325                                    | 22 |    | 1  |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |
|                |      | Rb      | 25           | 5.3              |                   |    | 8            | 1  | 1                | 3  | 4                                      | 6  |    |    |    |    |    | 1  | 2  | 1  | 3  |  |  |  |  |  |  |  |  |
|                |      | LT      | 7            | 1.5              |                   |    |              |    |                  |    |                                        |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |
|                |      | DV      | 2            | 0.4              |                   |    |              |    |                  |    |                                        |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |
|                |      | Wf      | 7            | 1.5              |                   |    |              | 1  | 4                | 2  |                                        |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |
|                |      | CSu     | 3            | 0.6              |                   |    |              |    |                  |    |                                        |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |
|                |      | BSu     | 20           | 4.3              | 5                 | 10 | 2            | 1  | 1                | 1  |                                        |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |
|                |      | Cot     | 3            | 0.6              | 3                 |    |              |    |                  |    |                                        |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |

Table 22

A Comparison of Total Catch Estimates,  
Wallowa Lake, 1956 through 1966

| Year | Total<br>Catch | Catch by Species |         |            |              |           |
|------|----------------|------------------|---------|------------|--------------|-----------|
|      |                | Rainbow          | Kokanee | Lake Trout | Dolly Varden | Whitefish |
| 1956 | 46,020         | 32,356           | 13,190  | 0          | 474          |           |
| 1958 | 42,862         | 32,263           | 9,843   | 756        | 0            |           |
| 1959 | 30,295         | 25,770           | 3,821   | 504        | 200          |           |
| 1961 | 16,501         | 15,282           | 934     | 285        | 0            |           |
| 1963 | 11,800         | 10,795           | 303     | 654        | 48           |           |
| 1965 | 24,546         | 19,030           | 5,190   | 241        | 0            | 85        |
| 1966 | 41,127         | 27,797           | 13,223  | 45         | 46           | 16        |



## SOUTHEAST DISTRICT

Larry E. Bisbee

### FISH INVENTORY

#### TROUT

A light snowpack in the winter of 1965-66 was followed by extremely dry spring and summer seasons which resulted in low stream flows and heavy irrigation demands. As a result, many irrigation reservoirs were either down to dead storage or were very low by midsummer.

During the year, Game Commission and State Police personnel interviewed 7,786 anglers in the Southeast District. The average catch rate was 1.12 fish per hour, and the anglers had taken an average of 5.1 fish when interviewed. Creel data for the district are presented in Table 58. Lakes and reservoirs provided more recreation in the form of angling than did streams.

Data on fish populations of lakes and streams obtained with gill nets and trap nets are shown in Table 23. Stream population samples obtained by rotenone and electrofishing are presented in Table 24.

Malheur River produced trout at 1.63 fish per hour to the angler. It has been possible to maintain a fishery with plants of fingerling trout following chemical treatment in 1963.

Much data were obtained on minimum stream flows and stream temperatures by Southeast District personnel in the summer of 1966.



Table 23

Composition and Length Frequency of Catch by Gill Net and Trap Net  
Represented in One-Inch Size Groups, Southeast District, 1966

| Water                     | Date  | Number<br>Trap Gill<br>Nets Set | Species | Number<br>Fish<br>Taken | Percent<br>of<br>Total | Average<br>Size<br>(Inches) | Number of Fish by One-Inch Size Groups (Fork Length) |     |     |    |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
|---------------------------|-------|---------------------------------|---------|-------------------------|------------------------|-----------------------------|------------------------------------------------------|-----|-----|----|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------------|
|                           |       |                                 |         |                         |                        |                             | 1                                                    | 2   | 3   | 4  | 5 | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 &<br>Over |
| Antelope<br>Reservoir     | 11/5  | 2                               | CSu     | 60                      | 45.5                   | 10.7                        |                                                      |     |     |    |   | 16 |    |    |    | 5  | 13 | 4  | 2  | 4  | 9  | 7  |    |    |    |              |
|                           |       |                                 | Rb      | 28                      | 21.2                   | 13.6                        |                                                      |     |     |    |   |    | 4  | 2  | 2  | 1  | 1  | 1  | 2  |    | 5  | 3  | 2  | 4  | 1  |              |
|                           |       |                                 | BSu     | 22                      | 16.7                   | 9.1                         |                                                      |     |     |    |   | 2  | 3  | 4  | 1  | 6  | 6  |    |    |    |    |    |    |    |    |              |
|                           |       |                                 | RSu     | 13                      | 9.8                    | 4.5                         |                                                      |     | 7   | 6  |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
|                           |       |                                 | BlB     | 7                       | 5.3                    | 9.2                         |                                                      |     |     |    |   | 1  | 2  |    | 1  | 2  | 1  |    |    |    |    |    |    |    |    |              |
|                           |       |                                 | Clm     | 2                       | 1.5                    | 6.0                         |                                                      |     |     |    |   | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
| Beulah<br>Reservoir       | 10/7  | 1                               | Rb      | 86                      | 51.2                   | 10.9                        |                                                      |     |     |    |   |    | 1  | 2  | 14 | 31 | 21 | 11 | 5  | 1  |    |    |    |    |    |              |
|                           |       |                                 | CSu     | 43                      | 25.6                   | 10.5                        |                                                      |     |     |    |   | 9  | 1  | 4  | 1  | 3  | 1  | 9  | 13 | 1  |    |    |    |    |    |              |
|                           |       |                                 | RSu     | 20                      | 11.9                   | 4.1                         |                                                      |     | 19  | 1  |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
|                           |       |                                 | Sq      | 14                      | 8.3                    | 7.9                         |                                                      |     |     |    |   | 7  |    |    | 2  | 5  |    |    |    |    |    |    |    |    |    |              |
|                           |       |                                 | Wf      | 4                       | 2.4                    | 7.7                         |                                                      |     |     |    |   | 3  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |              |
|                           |       |                                 | BSu     | 1                       | 0.6                    | 8.0                         |                                                      |     |     |    |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
|                           |       |                                 | CSu     | 52                      | 5.3                    | 8.5                         |                                                      |     |     |    | 6 | 7  | 11 | 10 | 1  |    | 4  | 8  | 5  |    |    |    |    |    |    |              |
|                           |       |                                 | RSu     | 861                     | 87.9                   | 2.6                         | 413                                                  | 196 | 239 | 13 |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
| Bully Creek<br>Reservoir  | 11/4  | 2                               | Rb      | 42                      | 4.3                    | 11.0                        |                                                      |     |     |    |   | 1  | 3  | 1  | 3  | 1  | 15 | 12 | 8  | 1  | 1  | 2  | 1  |    |    |              |
|                           |       |                                 | BSu     | 13                      | 1.3                    | 8.2                         |                                                      |     |     |    | 1 | 3  | 1  | 3  | 1  | 1  | 1  | 2  | 1  |    |    |    |    |    |    |              |
|                           |       |                                 | Sq      | 9                       | 0.9                    | 4.1                         |                                                      |     |     |    | 3 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
|                           |       |                                 | Cot     | 2                       | 0.2                    | 2.0                         |                                                      |     |     |    |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
|                           |       |                                 | Clm     | 1                       | 0.1                    | 7.0                         |                                                      |     |     |    |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
|                           |       |                                 | BSu     | 89                      | 53.0                   | 8.7                         |                                                      |     |     |    |   | 2  | 20 | 31 | 9  | 8  | 13 | 6  |    |    |    |    |    |    |    |              |
|                           |       |                                 | Rb      | 45                      | 26.8                   | 11.0                        |                                                      |     |     |    |   | 6  | 18 | 10 | 6  | 12 | 16 | 9  |    |    |    |    |    |    |    |              |
|                           |       |                                 | YP      | 34                      | 20.2                   | 7.6                         |                                                      |     |     |    |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
| Burns Pond                | 10/6  | 1                               | BSu     | 54                      | 58.1                   | 8.8                         |                                                      |     |     |    |   | 1  | 8  | 25 | 6  | 4  | 5  | 4  | 1  |    |    |    |    |    |    |              |
|                           |       |                                 | Rb      | 21                      | 22.6                   | 11.8                        |                                                      |     |     |    |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
|                           |       |                                 | YP      | 14                      | 15.0                   | 6.9                         |                                                      |     |     |    |   | 4  | 6  | 2  | 1  | 2  | 7  | 9  | 2  |    |    |    |    |    |    |              |
|                           |       |                                 | Cp      | 4                       | 4.3                    | 4.4                         |                                                      |     |     |    |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
|                           |       |                                 | Rb      | 8                       | 100.0                  | 12.9                        |                                                      |     |     |    |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
| Chickahominy<br>Reservoir | 10/5  | 1                               | Rb      | 43                      | 100.0                  | 11.7                        |                                                      |     |     |    |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
|                           |       |                                 | Rb      | 65                      | 68.4                   | 11.4                        |                                                      |     |     |    |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
|                           |       |                                 | RSu     | 30                      | 31.6                   | 3.7                         |                                                      |     |     |    |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
| Clemens Res.              | 10/26 | 1                               | Rb      | 196                     | 100.0                  | 8.2                         |                                                      |     |     |    |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
|                           |       |                                 | Rb      | 196                     | 100.0                  | 8.2                         |                                                      |     |     |    |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |

Table 23 (continued)

| Water                      | Date | Number |          | Species                                   | Number<br>Fish<br>Taken            | Percent<br>of<br>Total                           | Average<br>Size<br>(Inches)                       | Number of Fish by One-Inch Size Groups (Fork Length) |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |           |  |  |   |
|----------------------------|------|--------|----------|-------------------------------------------|------------------------------------|--------------------------------------------------|---------------------------------------------------|------------------------------------------------------|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----------|--|--|---|
|                            |      | Trap   | Gill Net |                                           |                                    |                                                  |                                                   | 1                                                    | 2   | 3   | 4   | 5   | 6   | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 & Over |  |  |   |
| Granite Creek Reservoir    | 6/9  | 2      |          | LB<br>EC<br>BSu                           | 6<br>1<br>41                       | 12.5<br>2.1<br>85.4                              | 10.2<br>10.2<br>10.8                              |                                                      |     |     |     |     |     |    |    |    | 1  | 5  |    |    |    |    |    |    |    |    |           |  |  |   |
|                            |      | 1      |          | BSu                                       | 30                                 | 100.0                                            | 10.4                                              |                                                      |     |     |     |     |     |    |    |    | 2  | 1  | 1  | 9  | 12 | 5  |    |    |    |    |           |  |  |   |
| Krumbo Reservoir           | 6/17 | 2      |          | Ro<br>Rb                                  | 285<br>45                          | 86.4<br>13.6                                     | 5.5<br>10.3                                       |                                                      |     |     | 13  | 164 | 73  | 31 | 4  |    |    |    |    |    |    |    |    |    |    |    |           |  |  |   |
|                            |      | 1      |          | Ro<br>Rb<br>RaS                           | 1,370<br>29<br>8                   | 97.3<br>2.1<br>0.6                               | 3.7<br>11.0<br>3.3                                | 137                                                  | 137 | 322 | 329 | 320 | 104 | 19 | 2  |    |    |    |    |    |    |    |    |    |    |    |           |  |  | 1 |
| Littlefield Reservoir      | 9/17 | 1      | 1        | Rb                                        | 26                                 | 100.0                                            | 6.4                                               |                                                      |     |     |     | 6   | 19  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |           |  |  |   |
| Malheur Res.               | 11/3 | 3      |          | Rb<br>BSu                                 | 107<br>3                           | 97.3<br>2.7                                      | 9.0<br>7.7                                        |                                                      |     |     |     |     | 15  | 9  | 33 | 20 | 15 | 9  | 5  | 1  |    |    |    |    |    |    |           |  |  |   |
|                            |      | 1      |          | Rb<br>BSu                                 | 153<br>4                           | 97.5<br>2.5                                      | 8.8<br>6.5                                        |                                                      |     |     |     | 3   | 19  | 13 | 51 | 37 | 22 | 5  | 3  |    |    |    |    |    |    |    |           |  |  |   |
| Malheur River, Middle Fork | 9/20 | 3      |          | CSu<br>SB<br>CLM<br>Sq<br>BSu<br>YP<br>Rb | 31<br>10<br>10<br>6<br>3<br>2<br>1 | 49.2<br>15.9<br>15.9<br>9.5<br>4.8<br>3.1<br>1.6 | 13.5<br>8.3<br>8.3<br>10.5<br>10.7<br>7.4<br>11.6 |                                                      |     |     |     |     | 5   | 1  | 1  | 1  | 1  | 1  | 1  |    |    |    |    |    |    |    |           |  |  |   |
| Moon Reservoir             | 8/15 | 1      |          | LB<br>BSu<br>Ro                           | 50<br>3<br>39                      | 54.3<br>3.3<br>42.4                              | 7.0<br>10.0<br>6.3                                |                                                      |     |     |     | 1   | 25  | 22 | 2  |    |    | 1  | 1  | 1  |    |    |    |    |    |    |           |  |  |   |
|                            |      | 1      |          | LB<br>RaS<br>Ro<br>BSu                    | 2<br>65<br>15,014<br>139           | 0.01<br>0.43<br>98.65<br>0.91                    | 6.9<br>2.8<br>2.0<br>7.2                          |                                                      |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |           |  |  |   |

<sup>1</sup>/<sub>1</sub> Two-hour set.<sup>1</sup>/<sub>2</sub> Sixty-one pounds.



Table 23 (continued)

| Water                       | Date           | Number<br>Nets Set<br>Trap Gill | Species | Number<br>Fish<br>Taken | Percent<br>of<br>Total | Average<br>Size<br>(Inches) | Number of Fish by One-Inch Size Groups (Fork Length) |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|-----------------------------|----------------|---------------------------------|---------|-------------------------|------------------------|-----------------------------|------------------------------------------------------|---|---|----|-----|----|---|---|----|----|----|----|----|----|----|----|----|----|----|--------------|--|--|
|                             |                |                                 |         |                         |                        |                             | 1                                                    | 2 | 3 | 4  | 5   | 6  | 7 | 8 | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 &<br>Over |  |  |
| Owyhee<br>Reservoir         | 9/26 -<br>9/29 | 11                              | BC      | 292                     | 56.6                   |                             |                                                      |   | 9 | 65 | 146 | 72 |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 | Sq      | 89                      | 17.2                   |                             |                                                      |   |   |    |     |    | 1 | 8 | 42 | 27 | 3  | 1  | 2  | 1  | 1  | 1  | 2  |    |    |              |  |  |
|                             |                |                                 | Cp      | 33                      | 6.4                    |                             |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 | BSu     | 43                      | 8.3                    |                             |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 | YP      | 24                      | 4.7                    |                             |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 | Clm     | 20                      | 3.9                    |                             |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 | CSu     | 11                      | 2.1                    |                             |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 | BLB     | 4                       | 0.8                    |                             |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 |         |                         |                        |                             |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 |         |                         |                        |                             |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
| Owyhee River                | 9/23 -<br>9/24 | 2                               | BC      | 989                     | 67.9                   |                             |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 | Cp      | 284                     | 19.5                   |                             |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 | BLB     | 87                      | 6.0                    |                             |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 | CSu     | 33                      | 2.3                    |                             |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 | BSu     | 30                      | 2.1                    |                             |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 | Sq      | 17                      | 1.2                    |                             |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 | Clm     | 5                       | 0.3                    |                             |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 | YP      | 5                       | 0.3                    |                             |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 | Mt      | 5                       | 0.3                    |                             |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 | LB      | 1                       | 0.1                    |                             |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 |         |                         |                        |                             |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 |         |                         |                        |                             |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 |         |                         |                        |                             |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 |         |                         |                        |                             |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 |         |                         |                        |                             |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
| Upper Brownlee<br>Reservoir | 7/12 -<br>7/13 | 7                               | CC      | 295                     | 65.0                   |                             |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 | CSu     | 65                      | 14.3                   | 13.1                        |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 | BSu     | 37                      | 8.2                    | 7.6                         |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 | Cp      | 25                      | 5.5                    | 13.0                        |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 | Clm     | 14                      | 3.1                    | 7.5                         |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 | Sq      | 11                      | 2.4                    | 7.5                         |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 | BC      | 2                       | 0.4                    | 5.2                         |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 | FC      | 1                       | 0.2                    | 10.8                        |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 | Wf      | 3                       | 0.7                    | 9.3                         |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 | SB      | 1                       | 0.2                    | 13.1                        |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 |         |                         |                        |                             |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 |         |                         |                        |                             |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 |         |                         |                        |                             |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |
|                             |                |                                 |         |                         |                        |                             |                                                      |   |   |    |     |    |   |   |    |    |    |    |    |    |    |    |    |    |    |              |  |  |

△ Speckled dace.

Table 23 (continued)

| Water                                      | Date | Number<br>Nets Set<br>Trap Gill | Species                       | Number<br>Fish<br>Taken | Percent<br>of<br>Total | Average<br>Size<br>(Inches) | Number of Fish by One-Inch Size Groups (Fork Length) |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  | 20 &<br>Over |  |  |
|--------------------------------------------|------|---------------------------------|-------------------------------|-------------------------|------------------------|-----------------------------|------------------------------------------------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|--|--------------|--|--|
|                                            |      |                                 |                               |                         |                        |                             | 1                                                    | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |  |              |  |  |
| Upper Brownlee<br>Reservoir<br>(continued) |      |                                 | Clm                           | 3                       | 0.7                    | 2.0                         | 1                                                    | 1 |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | Sq                            | 3                       | 0.7                    | 6.3                         |                                                      |   |   |   |   |   |   | 2 |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | BC                            | 5                       | 1.1                    | 2.8                         | 3                                                    |   |   | 1 | 1 |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | PC                            | 3                       | 0.7                    | 11.4                        |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | SB                            | 1                       | 0.2                    | 1.1                         | 1                                                    |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | Mt                            | 1                       | 0.2                    | 3.0                         |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | Pk                            | 1                       | 0.2                    | 4.0                         |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | Bg                            | 1                       | 0.2                    | 7.5                         |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | BIB                           | 1                       | 0.2                    | 9.5                         |                                                      |   |   |   |   |   |   |   |   |    | 1  |    |    |    |    |    |    |    |    |  |              |  |  |
| Upper Cow Lake                             | 11/5 | 2                               | Rb                            | 35                      | 38.0                   | 9.4                         |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | RaS                           | 34                      | 37.0                   | 3.2                         |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | CSu                           | 15                      | 16.3                   | 13.5                        |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | Sq                            | 4                       | 4.3                    | 8.8                         |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | BSu                           | 3                       | 3.3                    | 7.7                         |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | Ct                            | 1                       | 1.1                    | 11.7                        |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 |                               |                         |                        |                             |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 |                               |                         |                        |                             |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 |                               |                         |                        |                             |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 |                               |                         |                        |                             |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 |                               |                         |                        |                             |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 |                               |                         |                        |                             |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
| Warm Springs<br>Reservoir                  |      |                                 | RaS                           | 95                      | 61.7                   | 3.9                         |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | Rb                            | 22                      | 14.3                   | 8.6                         |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | CSu                           | 20                      | 13.0                   | 13.7                        |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | BSu                           | 7                       | 4.6                    | 8.4                         |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | Ct                            | 3                       | 1.9                    | 12.0                        |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | Sq                            | 3                       | 1.9                    | 8.7                         |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | D <sup>1</sup> / <sub>2</sub> | 4                       | 2.6                    | 2.3                         |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 |                               |                         |                        |                             |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 |                               |                         |                        |                             |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 |                               |                         |                        |                             |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 |                               |                         |                        |                             |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 |                               |                         |                        |                             |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | Sq                            | 39                      | 30.7                   | 10.3                        |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | YP                            | 67                      | 52.7                   | 7.2                         |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | CSu                           | 17                      | 13.4                   | 7.9                         |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | BrB                           | 1                       | 0.8                    | 10.8                        |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | CC                            | 1                       | 0.8                    | 22.0                        |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | RaS                           | 1                       | 0.8                    | 5.0                         |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | Rb                            | 1                       | 0.8                    | 11.6                        |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 |                               |                         |                        |                             |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 |                               |                         |                        |                             |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 |                               |                         |                        |                             |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 |                               |                         |                        |                             |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 |                               | RaS                     | 29                     | 47.5                        | 2.0                                                  |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | Clm                           | 4                       | 6.6                    | 6.2                         |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | BSu                           | 5                       | 8.2                    | 8.4                         |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | Bg                            | 11                      | 18.1                   | 2.9                         |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | LB                            | 3                       | 4.9                    | 1.8                         |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | SB                            | 7                       | 11.5                   | 2.8                         |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | YP                            | 1                       | 1.6                    | 1.8                         |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 | CSu                           | 1                       | 1.6                    | 10.0                        |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 |                               |                         |                        |                             |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 |                               |                         |                        |                             |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |
|                                            |      |                                 |                               |                         |                        |                             |                                                      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |  |              |  |  |

<sup>1</sup> Two-hour set.<sup>2</sup> Sixty-ond pounds.<sup>3</sup> Speckled dace.

Table 24

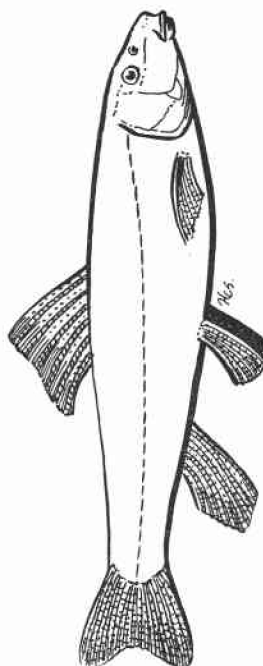
Summary of Fish Population Samples Taken by Means Other Than Nets  
in Waters of the Southeast District, 1966

| Water                       | Date | Method   | Number<br>of<br>Samples | Species |       |     |       |    |    |
|-----------------------------|------|----------|-------------------------|---------|-------|-----|-------|----|----|
|                             |      |          |                         | Rb      | BSu   | RsS | D     | 1  | Wf |
| <u>Malheur River,</u>       |      |          |                         |         |       |     |       |    |    |
| <u>Middle Fork drainage</u> |      |          |                         |         |       |     |       |    |    |
| Alder Creek                 | 8/19 | Rotenone | 4                       | 7       |       |     |       |    |    |
| Cat Creek                   | 8/11 | Rotenone | 5                       | 23      |       |     |       |    |    |
| Cottonwood Creek            | 8/10 | Rotenone | 6                       | 669     | 1,245 | 4   | 2,076 |    |    |
|                             | 8/18 | Shocker  | 3                       | 800     | 1     |     | 175   |    |    |
| Cougar Creek                | 8/19 | Rotenone | 6                       | 138     |       |     | 18    |    |    |
| <u>Malheur River,</u>       |      |          |                         |         |       |     |       |    |    |
| <u>North Fork drainage</u>  |      |          |                         |         |       |     |       |    |    |
| Buttermilk Creek            | 9/3  | Shocker  | 1                       | 41      |       |     |       |    |    |
| Crane Creek                 | 8/26 | Shocker  | 3                       | 24      |       |     |       | 10 | 13 |
|                             | 8/31 | Rotenone | 1                       | 37      |       |     |       |    | 9  |
|                             | 9/2  | Shocker  | 2                       | 54      |       |     |       |    |    |
| Little Crane Creek          | 9/1  | Rotenone | 1                       | 4       |       |     |       |    |    |
|                             | 9/3  | Shocker  | 3                       | 16      |       |     |       |    | 3  |
| Wet Creek                   | 8/26 | Rotenone | 1                       | 12      |       |     |       |    |    |
| <u>Bully Creek drainage</u> |      |          |                         |         |       |     |       |    |    |
| Bully Creek                 | 6/20 | Shocker  | 3                       | 14      | 21    | 17  | 600   |    |    |
|                             | 7/19 | Shocker  | 8                       | 51      | 32    |     | 1,575 |    |    |

Table 24 (continued)

| Water                                      | Date | Method  | Number<br>of<br>Samples | Species |     |     |   |     |    |
|--------------------------------------------|------|---------|-------------------------|---------|-----|-----|---|-----|----|
|                                            |      |         |                         | Rb      | BSu | RsS | D | /1  | DV |
| <u>Bully Creek drainage</u><br>(continued) |      |         |                         |         |     |     |   |     |    |
| Bully Creek, North Fork                    | 7/22 | Shocker | 1                       |         | 8   |     |   | 115 |    |
| Cottonwood Creek No. 1                     | 6/20 | Shocker | 1                       | 9       |     |     |   |     |    |
| Cottonwood Creek No. 2                     | 6/21 | Shocker | 3                       | 12      | 1   |     |   | 550 |    |
| <u>Silvies River</u>                       | 8/26 | Shocker | 1                       | 267     |     |     |   | 187 | 46 |

/1 Speckled dace.



## LAKE COUNTY DISTRICT

Henry E. Mastin

### FISH INVENTORY

#### TROUT

The average catch per unit of effort for Lake County waters was 0.95 fish per hour, which is only slightly below the average (0.97) for the previous 12-year period.

Creel data on district streams, lakes, and reservoirs are included in Table 58.

Results of gill-net and trap-net sets in district lakes and reservoirs are shown in Table 25.

The Oregon Game Commission cooperated with the California Department of Fish and Game in determining the fish population of Goose Lake prior to setting water quality standards for the Goose Lake Basin. The Tui chub was the most abundant species obtained in gill-net sets.

The fish population of Ana and Thompson Valley Reservoirs continued to be dominated by undesirable species.



Table 25

Composition and Length Frequency of Catch by Gill Net and Trap Net  
Represented in One-Inch Size Groups, Lake County District, 1966

| Water         | Date  | Number<br>Nets Set<br>Trap Gill | Species  | Number<br>Fish<br>Taken | Percent<br>of<br>Total | Average<br>Size<br>(Inches) | Number of Fish by One-Inch Size Groups (Fork Length) |   |   |    |   |   |   |    |    |    |    |    |    |    |    |    |    |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |
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|               |       |                                 |          |                         |                        |                             | 3                                                    | 4 | 5 | 6  | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 &<br>Over |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |
| Ana Reservoir | 10/27 | 3                               | Rb<br>Ro | 26<br>38                | 40.6<br>59.4           | 6.80<br>5.60                |                                                      | 8 | 2 | 17 | 5 | 1 | 1 |    |    |    |    |    |    |    |    |    |    |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | </ |

/1 From 3 to 5 inches.

## COLUMBIA DISTRICT

Allan B. Lichens

### FISH INVENTORY

#### ANADROMOUS

Spawning ground surveys of adult coho transplants were made in East and Middle Forks of Hood River. The results of the survey, shown in Table 26, were minimal because of turbid water at the time some counts were made.

Table 26  
Transplanted Coho Spawning Counts,  
1966

| Stream                 | Date       | Redds | Fish | Carcasses |
|------------------------|------------|-------|------|-----------|
| Clear Creek            | October 18 | 16    | 61   |           |
|                        | November 2 | 79    | 71   |           |
| Neal Creek             |            | 18    | 10   | 12        |
| East Fork Hood River   |            | 6     | 6    |           |
| Middle Fork Hood River |            | 3     |      | 2         |
| Rodgers Creek          |            | 27    | 12   | 2         |
| Tony Creek             |            | 5     | 2    |           |
| Ice Fountain Spring    |            | 2     | 1    |           |

A creel census study of the steelhead fishery on Hood River was completed for the tenth consecutive year.

Steelhead creel data for the period 1957 through 1966 are shown in Table 27.

The steelhead creel sampling program on the lower Deschutes River was expanded to include 20 miles of stream along the new Webb access road, making a total of 27.5 miles of the lower river in the study section. Results of the new sampling program indicate that 5,474 anglers fished the area for a total of 25,874 hours to catch 1,272 summer steelhead. Creel data for the previous sampling area in the lower Deschutes River for the years 1956 through 1965 are shown in Table 28.

Steelhead redd counts in the Deschutes River for 1963 through 1966 are shown in Table 29.

A total of 69 redds and 29 adult steelhead was observed in the lower 8 miles of Bakeoven Creek.

Table 30 shows results of steelhead spawning ground surveys on Buckhollow Creek for the period 1961 through 1966.

Table 27

Hood River Steelhead Creel Census by Year,  
1957 through 1966

| Year <sup>/1</sup> | Anglers<br>Checked | Hours<br>Fished | Fish<br>Caught | Fish<br>per Angler | Hours<br>per Fish |
|--------------------|--------------------|-----------------|----------------|--------------------|-------------------|
| 1957               | 165                | 669             | 41             | 0.24               | 16.3              |
| 1958               | 120                | 123             | 22             | 0.18               | 5.5               |
| 1959               | 367                | 666             | 45             | 0.12               | 14.8              |
| 1960               | 187                | 379             | 10             | 0.05               | 37.9              |
| 1961               | 169                | 334             | 27             | 0.16               | 12.4              |
| 1962               | 705                | 1,352           | 73             | 0.10               | 18.5              |
| 1963               | 783                | 1,095           | 45             | 0.06               | 22.4              |
| 1964               | 777                | 1,167           | 76             | 0.10               | 15.4              |
| 1965 <sup>/2</sup> | 238                | 524             | 40             | 0.14               | 13.1              |
| 1966 <sup>/2</sup> | 299                | 633             | 52             | 0.17               | 12.2              |

<sup>/1</sup> Year covers period from October 16 of previous year to October 15 of year listed.

<sup>/2</sup> Only completed anglers were interviewed during period of one-fish bag limit.

Table 28

Summer Steelhead Sport Catch, Lower Deschutes River,  
1956 through 1965

| Year | Number<br>Anglers<br>Checked | Fish<br>Caught | Hours<br>Fished | Fish<br>per<br>Angler | Hours<br>per<br>Fish | Fish<br>per<br>Hour | Estimated<br>Anglers |
|------|------------------------------|----------------|-----------------|-----------------------|----------------------|---------------------|----------------------|
| 1956 | 633                          | 207            | 2,289           | 0.3                   | 11.1                 | 0.09                | 1,965                |
| 1957 | 888                          | 480            | 3,789           | 0.5                   | 7.9                  | 0.13                | 2,268                |
| 1958 | 1,168                        | 281            | 5,405           | 0.2                   | 19.2                 | 0.05                | 3,030                |
| 1959 | 1,464                        | 808            | 8,698           | 0.6                   | 10.8                 | 0.09                | 4,662                |
| 1960 | 1,218                        | 218            | 4,438           | 0.2                   | 20.4                 | 0.05                | 3,590                |
| 1961 | 1,186                        | 300            | 6,111           | 0.3                   | 20.4                 | 0.05                | 2,893                |
| 1962 | 1,498                        | 382            | 6,008           | 0.3                   | 15.7                 | 0.06                | 3,884                |
| 1963 | 757                          | 225            | 3,375           | 0.3                   | 15.0                 | 0.07                | 2,057                |
| 1964 | 1,844                        | 400            | 7,640           | 0.2                   | 19.1                 | 0.05                | 4,653                |
| 1965 | 1,201                        | 411            | 4,686           | 0.3                   | 11.4                 | 0.09                | 3,318                |



Table 29

Steelhead Redd Counts, Deschutes River,  
1963 through 1966

| Year | Observed Redds |
|------|----------------|
| 1963 | 469            |
| 1964 | 84             |
| 1965 | 244            |
| 1966 | 308            |

Table 30

Steelhead Redds Observed in a Three-Mile Section  
of Buckhollow Creek, 1961 through 1966

| Year | Observed Redds |
|------|----------------|
| 1961 | 38             |
| 1962 | 9              |
| 1963 | 10             |
| 1964 | 0 <u>/1</u>    |
| 1965 | 44             |
| 1966 | 24             |

/1 Complete barrier below area counted.

Chinook spawning ground counts are presented in Table 31.

TROUT

Creel data for trout waters in the district are included in Table 58.

Catch statistics for Lost Lake in the Hood River system for the period 1957 through 1966 are shown in Table 32.

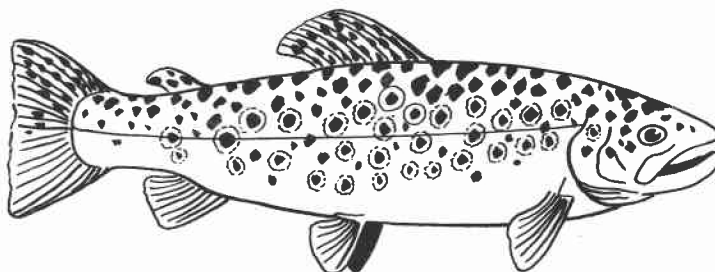


Table 31

Summary of Chinook Salmon Spawning Counts, Lower Deschutes River,  
October 21 to November 1, 1966

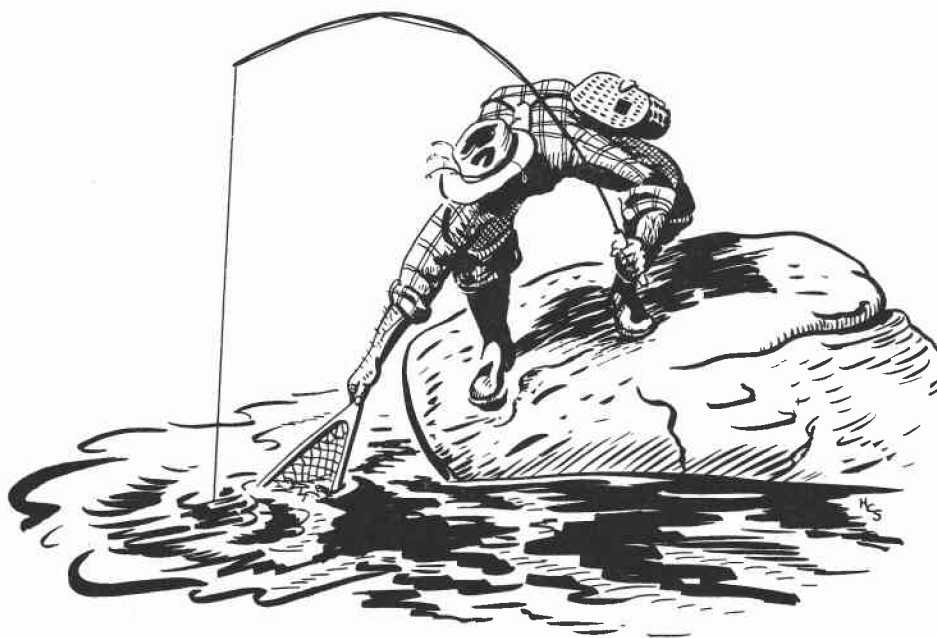
| Station<br>Number | River<br>Mile | October 21 <sup>/1</sup> |      | October 24 <sup>/1</sup> |               | November 1 <sup>/2</sup> | Estimated<br>Total |
|-------------------|---------------|--------------------------|------|--------------------------|---------------|--------------------------|--------------------|
|                   |               | Redds                    | Fish | Redds                    | Fish          | Redds                    |                    |
| 500               | 99.9          | 20                       | 10+  | 0                        | 0             | 15                       | 25                 |
| 501               | 99.8          | 12                       | 2    | 0                        | 0             | 0                        | 12                 |
| 502               | 99.6          | 0                        | 0    | 0                        | 0             | 3                        | 3                  |
| 503A              | 99.2          | 0                        | 0    | 0                        | 0             | 1                        | 1                  |
| 504               | 98.9          | 55                       | 68+  | 0                        | 0             | 13                       | 60                 |
| 507A              | 98.5          | 7                        | 4    | 0                        | 0             | 5                        | 9                  |
| 508A              | 98.1          | 9                        | 15   | 0                        | 0             | 3                        | 10                 |
| 509               | 97.3          | 1                        | 0    | 0                        | 0             | 5                        | 5                  |
| -                 | 96.0          | 0                        | 0    | 0                        | 0             | 2                        | 2                  |
| 10A               | 94.1          | 5                        | 6    | 0                        | 0             | 3                        | 6                  |
| -                 | 93.8          | 3                        | 1    | 0                        | 0             | 0                        | 3                  |
| 11A               | 92.7          | 2                        | 0    | 0                        | 0             | 1                        | 3                  |
| 18A               | 89.0          | 7                        | 4    | 0                        | 0             | 5                        | 9                  |
| 29A               | 85.3          | 11                       | 13   | 0                        | 0             | 30                       | 30                 |
| 29B               | 85.2          | 1                        | 0    | 0                        | 0             | 2                        | 2                  |
| 36                | 82.5          | 5                        | 5    | 0                        | 0             | 1                        | 5                  |
| 37A               | 82.0          | 0                        | 0    | 0                        | 0             | 10                       | 10                 |
| 38B               | 81.5          | 2                        | 1    | 0                        | 0             | 0                        | 2                  |
| 42                | 80.7          | 0                        | 0    | 0                        | 0             | 8                        | 8                  |
| 43A               | 80.3          | 8                        | 3    | 0                        | 0             | 15                       | 15                 |
| 43B               | 80.2          | 0                        | 0    | 0                        | 0             | 5                        | 5                  |
| 55                | 70.8          | 0                        | 0    | 0                        | 0             | 3                        | 3                  |
| 56                | 70.3          | 0                        | 0    | 9                        | 8             | 13                       | 13                 |
| 57A               | 65.9          | 0                        | 0    | 2                        | 1             | 0                        | 2                  |
| 58A               | 69.2          | 0                        | 0    | 1                        | 3             | 0                        | 1                  |
| 58B               | 69.1          | 0                        | 0    | 1                        | 0             | 0                        | 1                  |
| 60                | 68.5          | 0                        | 0    | 0                        | 0             | 2                        | 2                  |
| 60B               | 67.7          | 0                        | 0    | 4                        | 9             | 0                        | 4                  |
| 61A               | 65.8          | 0                        | 0    | 12                       | <sup>/3</sup> | 0                        | 12                 |
| 69 or 70          | 64.0          | 0                        | 0    | 1                        | 0             | 0                        | 1                  |
| 73                | 61.5          | 0                        | 0    | 4                        | 2             | 0                        | 4                  |
| 77                | 59.3          | 0                        | 0    | 1                        | 1             | 0                        | 1                  |
| 78A               | 58.6          | 0                        | 0    | 12                       | 12+           | 14                       | 14                 |
| 80                | 57.7          | 0                        | 0    | 7                        | 0             | 0                        | 7                  |
| 83                | 57.0          | 0                        | 0    | 0                        | 0             | 0                        | 0                  |
| -                 | 56.0          | 0                        | 0    | 3                        | 0             | 0                        | 3                  |
| 89                | 52.5          | 0                        | 0    | 27                       | 12+           | 15                       | 33                 |
| 102A              | 33.2          | 0                        | 0    | 0                        | 0             | 12                       | 12                 |
| 102B              | 33.1          | 0                        | 0    | 0                        | 0             | 20                       | 20                 |
| 102C              | 32.8          | 0                        | 0    | 0                        | 0             | 16                       | 16                 |
| 102D              | 32.7          | 0                        | 0    | 0                        | 0             | 15                       | 15                 |
| 102E              | 32.0          | 0                        | 0    | 0                        | 0             | 9                        | 9                  |
| 104               | 31.2          | 0                        | 0    | 0                        | 0             | 15                       | 15                 |
| 105B              | 28.8          | 0                        | 0    | 0                        | 0             | 10                       | 10                 |
| -                 | 22.1          | 0                        | 0    | 0                        | 0             | 3                        | 3                  |
| 115C              | 17.2          | 0                        | 0    | 0                        | 0             | 15                       | 15                 |
| 120A              | 10.9          | 0                        | 0    | 0                        | 0             | 16                       | 16                 |
| 122               | 10.5          | 0                        | 0    | 0                        | 0             | 12                       | 12                 |
| 123               | 10.4          | 0                        | 0    | 0                        | 0             | 2                        | 2                  |
| 123               | 10.2          | 0                        | 0    | 0                        | 0             | 9                        | 9                  |
| TOTALS            |               | 148                      | 132+ | 84                       | 48            | 328                      | 480                |

<sup>/1</sup> Drift Boat.<sup>/2</sup> Cessna 182.<sup>/3</sup> Many.

Table 32

Catch Statistics at Lost Lake,  
1957 through 1966

| Year | Anglers<br>Checked | Fish<br>Checked | Hours<br>Fished | Fish<br>per Angler | Fish<br>per Hour |
|------|--------------------|-----------------|-----------------|--------------------|------------------|
| 1957 | 23                 | 34              | 75              | 1.48               | 0.45             |
| 1958 | 155                | 337             | 522             | 2.17               | 0.65             |
| 1959 | 237                | 489             | 990             | 2.06               | 0.49             |
| 1960 | 215                | 447             | 924             | 2.08               | 0.48             |
| 1961 | 477                | 1,269           | 1,604           | 2.66               | 0.79             |
| 1962 | 150                | 229             | 473             | 1.53               | 0.48             |
| 1963 | 364                | 837             | 1,267           | 2.30               | 0.66             |
| 1964 | 422                | 401             | 1,387           | 0.95               | 0.29             |
| 1965 | 218                | 391             | 623             | 1.79               | 0.63             |
| 1966 | 414                | 1,048           | 1,396           | 2.53               | 0.75             |



## LOWER COLUMBIA DISTRICT

William E. Hosford

### FISH INVENTORY

#### ANADROMOUS

In 1966 there were 15,476 anglers interviewed on the lower Columbia River. These anglers fished 65,828 hours and caught 3,017 fish, of which 9 percent were nongame species. The calculated catch for 1966, based on creel data and random aerial and boat counts, is shown in Table 33. There was an estimated increase of 20,000 angler-days over 1965. The increase in angling pressure was in the spring and summer fishery. There was actually a decline in the number of anglers fishing in the fall.

A record obtained by interviewing 344 anglers fishing shad shows that the average catch rate was 0.38 fish per hour. The stomach contents of 45 shad failed to reveal the presence of salmonids.

Creel data for anglers fishing sturgeon show the catch rate for legal fish of 580 anglers interviewed was 29.8 hours per sturgeon. Anglers released about nine out of ten sturgeon caught because the fish had not reached a minimum length limit of 36 inches.

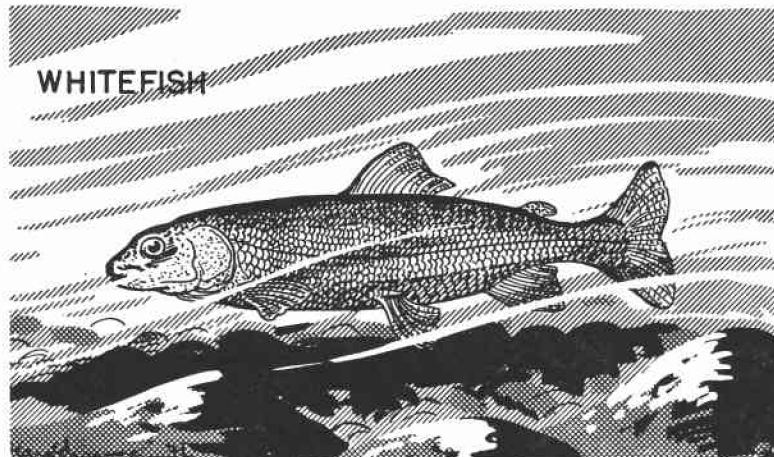


Table 33

Calculated Angler Catch, Lower Columbia River, 1966

| Season                       | Number of Fish by Species |       |       |       |    |    |            | Total Fish | Total Anglers | Total Hours |
|------------------------------|---------------------------|-------|-------|-------|----|----|------------|------------|---------------|-------------|
|                              | Ch                        | Co    | St    | Ct    | Sh | Sg | Warm-Water |            |               |             |
| <u>Winter</u>                |                           |       |       |       |    |    |            |            |               |             |
| Creel Census Sample          | 4                         | 1     | 25    | 8     |    |    |            | 41         | 401           | 1,324       |
| Calculated Total             | 93                        | 23    | 583   | 187   |    |    | 3          | 956        | 9,358         | 30,889      |
| <u>Spring</u>                |                           |       |       |       |    |    |            |            |               |             |
| Creel Census Sample          | 486                       |       | 60    | 17    |    |    |            | 563        | 4,926         | 21,906      |
| Calculated Total             | 9,278                     |       | 1,145 | 325   |    |    |            | 10,748     | 94,040        | 418,195     |
| <u>Summer</u>                |                           |       |       |       |    |    |            |            |               |             |
| Creel Census Sample          | 62                        |       | 497   | 115   |    |    | 8          | 1,136      | 4,414         | 18,253      |
| Calculated Total             | 637                       |       | 5,104 | 1,181 |    |    | 82         | 11,668     | 45,364        | 187,580     |
| <u>Fall</u>                  |                           |       |       |       |    |    |            |            |               |             |
| Creel Census Sample          | 262                       | 422   | 179   | 259   |    |    | 15         | 1,216      | 4,811         | 21,631      |
| Calculated Total             | 2,325                     | 3,744 | 1,588 | 2,298 |    |    | 133        | 10,789     | 42,692        | 97,253      |
| <u>TOTAL YEARLY CATCH /1</u> |                           |       |       |       |    |    |            |            |               |             |
| Creel Census Sample          | 814                       | 423   | 761   | 399   |    |    | 23         | 3,017      | 15,476        | 65,828      |
| Calculated Total             | 12,333                    | 3,767 | 8,420 | 3,991 |    |    | 285        | 35,459     | 191,454       | 814,254     |

/1 Figures include additional data not plotted by season.

/2 Shad were taken during the summer season only.

/3 Figure includes sturgeon taken throughout the year.

## BEND DISTRICT

James D. Griggs

### FISH INVENTORY

#### ANADROMOUS

Spawning ground counts on Squaw Creek revealed the following population: steelhead, 9; steelhead redds, 34. In the Metolius River there were 18 spring chinook and 19 redds observed in the spawning ground survey. Both the steelhead and salmon redd counts were below the average for the previous four years.

#### TROUT

The composition and length frequency of fish populations obtained by netting are shown in Table 34.

Creel data for the district are included in Table 58.

#### Deschutes River and Tributaries - Brown Trout Project

The brown trout program was continued through 1966. On September 13 and 16, Section 4 of the Deschutes River received 80,114 brown trout ranging between 76 and 81 fish per pound.

Inventory work in the river and in the irrigation canals for 1966 is presented in Table 35.

During the fall of 1966, gill nets were used as seines in pools in the upper Deschutes River. A total of 149 kokanee, 57 brown trout, 57 whitefish, and 33 rainbow were captured. Of the 57 brown trout taken, 7 were marked LV and were from the upper plant of 1965. These fish ranged from 8.2 to 11.0 inches fork length when recovered November 18.

Table 36 presents redd counts on several streams during 1965 and 1966.

#### East and Paulina Lakes

A statistical creel sampling program at East and Paulina Lakes during the year revealed the following information: at Paulina Lake, 9,689 parties made up of 24,432 anglers fished 86,839 hours and caught 49,091 rainbow; at East Lake, 14,776 parties made up of 38,617 anglers fished 135,356 hours and caught 74,949 rainbow, 10,918 brook trout, and 171 brown trout.

Table 37 reflects the 1966 East and Paulina catch statistics and those for 1958 and 1959, the last dates of a statistical program at the lakes.

Tables 38 and 39 show the estimated catch by year and mark. Less than 3 percent of the catch in East Lake and 5 percent of the catch in Paulina Lake were of the 1966 year group.

Table 34

Composition and Length Frequency of Catch by Gill Nets, Represented in One-Inch Size Groups  
Fork Length Measurements, in Some Central Oregon Lakes, 1966

| Water                       | Date  | Number<br>of<br>Sets | Species | Number<br>Fish<br>Taken | Fish<br>per Net | Percentage<br>of Total | Number of Fish by One-Inch Size Groups |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |   | 20 &<br>Over |  |
|-----------------------------|-------|----------------------|---------|-------------------------|-----------------|------------------------|----------------------------------------|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|---|--------------|--|
|                             |       |                      |         |                         |                 |                        | 3                                      | 4 | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |  |  |   |              |  |
| Big Cultus Lake             | 10/20 | 7                    | LT      | 31                      | 4.4             | 24.2                   |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |   |              |  |
|                             |       |                      | Rb      | 24                      | 3.4             | 18.8                   |                                        |   | 1  | 8  | 1  | 3  | 5  | 4  |    |    |    |    |    |    |    |    |    |  |  |   |              |  |
|                             |       |                      | K       | 25                      | 3.6             | 19.5                   |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |   |              |  |
|                             |       |                      | Wf      | 38                      | 5.4             | 29.7                   |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |   |              |  |
|                             |       |                      | BT      | 10                      | 1.4             | 7.8                    |                                        |   | 2  | 2  | 3  | 3  |    | 2  |    |    |    |    |    |    |    |    |    |  |  |   |              |  |
| Big Lava Lake               | 5/17  | 1                    | BT      | 15                      |                 | 83.3                   |                                        |   |    |    |    | 1  |    | 2  | 9  | 3  |    |    |    |    |    |    |    |  |  |   |              |  |
|                             |       |                      | Ro      | 3                       | 2               | 16.7                   |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |   |              |  |
|                             | 5/18  | 2                    | BT      | 90                      | 45.0            | 93.7                   |                                        |   | 2  |    | 4  | 17 | 41 | 23 | 3  |    |    |    |    |    |    |    |    |  |  |   |              |  |
|                             |       |                      | Rb      | 2                       | 1.0             | 2.1                    |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |   |              |  |
|                             |       |                      | Ro      | 4                       | 2.0             | 4.2                    |                                        |   | 3  |    | 1  |    |    |    |    |    |    |    |    |    |    |    |    |  |  |   |              |  |
| Big Blow Lake               | 6/16  | 1                    | BT      | 47                      |                 | 74.6                   |                                        |   |    |    |    |    |    | 4  | 34 | 9  |    |    |    |    |    |    |    |  |  |   |              |  |
|                             |       |                      | Rb      | 9                       | 2               | 14.3                   |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |   |              |  |
|                             |       |                      | Ro      | 7                       | 1               | 11.1                   |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |   |              |  |
| Big Crane Lake              | 9/9   | 1                    | BT      | 51                      |                 | 61.4                   |                                        |   | 1  | 1  |    | 1  | 14 | 30 | 4  |    |    |    |    |    |    |    |    |  |  |   |              |  |
|                             |       |                      | Rb      | 1                       |                 | 1.2                    |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |   |              |  |
|                             |       |                      | Ro      | 31                      |                 | 37.4                   |                                        |   | 13 | 12 | 6  |    |    |    |    |    |    |    |    |    |    |    |    |  |  |   |              |  |
| Big Blow Lake               | 8/31  | 1                    | BT      | 2                       | 2.0             | 100.0                  |                                        |   |    |    |    |    |    |    | 2  |    |    |    |    |    |    |    |    |  |  |   |              |  |
|                             |       |                      |         |                         |                 |                        |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |   |              |  |
| Big Charlton Lake           | 9/29  | 2                    | BT      | 37                      | 18.5            | 100.0                  |                                        |   | 1  | 1  | 2  | 6  | 2  | 4  | 9  | 11 | 1  |    |    |    |    |    |    |  |  |   |              |  |
|                             |       |                      |         |                         |                 |                        |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |   |              |  |
| Big Crane Prairie Reservoir | 6/16  | 8                    | Rb      | 94                      | 11.8            | 4.0                    |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |   | 5            |  |
|                             |       |                      | BT      | 86                      | 10.8            | 3.7                    |                                        |   | 5  | 6  | 6  | 12 | 11 | 23 | 4  | 3  | 4  | 7  | 2  | 4  | 1  | 1  |    |  |  |   |              |  |
|                             |       |                      | K       | 58                      | 7.3             | 2.5                    |                                        | 4 | 10 | 9  | 19 | 13 | 13 | 8  | 3  | 3  | 2  | 1  | 1  |    |    |    |    |  |  |   |              |  |
|                             |       |                      | Wf      | 146                     | 18.3            | 6.3                    |                                        |   | 10 | 4  | 15 | 22 | 3  |    |    |    |    |    |    |    |    |    |    |  |  |   |              |  |
|                             |       |                      | Ro      | 1,940                   | 242.5           | 83.5                   |                                        |   | 4  | 1  | 1  | 1  | 10 | 42 | 42 | 39 | 5  | 1  |    |    |    |    |    |  |  |   |              |  |
| Big Dark Lake               | 6/28  | 1                    | Rb      | 1                       | 1.0             | 100.0                  |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  | 1 |              |  |
|                             |       |                      |         |                         |                 |                        |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |   |              |  |

1/ Trap net.

2/ Roach were 2 to 3 inches in length.

3/ All at 2 inches each.

4/ Not measured.

Table 34 (continued)

| Water      | Date | Number<br>of<br>Sets | Species | Number<br>Fish<br>Taken | Fish<br>per Net | Percentage<br>of Total | Number of Fish by One-Inch Size Groups |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |  |  |  |
|------------|------|----------------------|---------|-------------------------|-----------------|------------------------|----------------------------------------|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------------|--|--|--|--|--|
|            |      |                      |         |                         |                 |                        | 3                                      | 4 | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 &<br>Over |  |  |  |  |  |
| Davis Lake | 5/3  | 2                    | Co      | 22                      | 11.0            | 40.7                   |                                        |   | 2  | 8  | 1  | 2  |    |    |    | 1  | 6  | 2  |    |    |    |    |    |              |  |  |  |  |  |
|            |      |                      | Rb      | 12                      | 6.0             | 22.2                   |                                        |   | 4  | 3  | 2  | 1  | 1  |    |    |    |    |    |    |    |    |    |    |              |  |  |  |  |  |
|            |      |                      | Wf      | 20                      | 10.0            | 37.1                   |                                        |   |    | 7  | 13 |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |  |  |  |
|            | 6/22 | 2                    | Rb      | 22                      | 11.0            | 31.0                   |                                        |   | 1  | 2  |    | 1  | 2  | 1  | 7  |    |    | 1  | 3  | 4  |    |    |    |              |  |  |  |  |  |
|            |      |                      | Co      | 43                      | 21.5            | 60.6                   |                                        |   | 3  | 17 | 12 | 2  | 1  | 1  |    |    |    |    | 6  | 1  |    |    |    |              |  |  |  |  |  |
|            |      |                      | Wf      | 6                       | 3.0             | 8.4                    |                                        |   |    |    |    | 2  | 1  |    |    |    |    |    | 3  |    |    |    |    |              |  |  |  |  |  |
|            | 8/10 | 2                    | BT      | 2                       | 1.0             | 8.0                    |                                        |   |    |    |    |    |    |    |    |    |    | 1  | 1  |    |    |    |    |              |  |  |  |  |  |
|            |      |                      | Rb      | 12                      | 6.0             | 48.0                   |                                        |   | 1  | 1  |    |    | 3  |    | 1  | 1  | 2  |    |    | 1  | 1  |    |    |              |  |  |  |  |  |
|            |      |                      | Co      | 2                       | 1.0             | 8.0                    |                                        |   |    |    |    | 2  |    |    |    |    |    |    |    |    |    |    |    |              |  |  |  |  |  |
|            | 9/23 | 3                    | Wf      | 6                       | 3.0             | 24.0                   |                                        |   |    |    |    | 2  | 1  |    | 1  | 1  |    |    |    |    |    |    |    |              |  |  |  |  |  |
| Ro         |      |                      | 3       | 1.5                     | 12.0            |                        | 1                                      | 2 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |  |  |  |
| Rb         |      |                      | 30      | 10.0                    | 27.8            |                        |                                        | 5 | 18 | 3  | 1  |    |    |    |    |    |    | 2  |    |    |    |    |    |              |  |  |  |  |  |
| Deer Lake  | 7/18 | 2                    | BT      | 49                      | 24.5            | 100.0                  |                                        |   |    |    | 2  | 6  | 16 | 12 | 4  | 3  | 5  | 1  |    |    |    |    |    |              |  |  |  |  |  |
|            |      |                      |         |                         |                 |                        |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |  |  |  |
|            |      |                      |         |                         |                 |                        |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |  |  |  |
|            | 8/31 | 1                    | BT      | 48                      | 48.0            | 100.0                  |                                        |   |    |    | 5  | 4  | 2  | 8  | 4  | 15 | 6  | 4  |    |    |    |    |    |              |  |  |  |  |  |
|            |      |                      |         |                         |                 |                        |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |  |  |  |
|            |      |                      |         |                         |                 |                        |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |  |  |  |
|            | 5/20 | 2                    | Rb      | 72                      | 36.0            | 26.2                   |                                        |   |    |    | 1  | 7  | 21 | 11 | 7  | 3  | 8  | 4  | 3  | 5  | 1  | 1  |    |              |  |  |  |  |  |
|            |      |                      | BT      | 54                      | 27.0            | 19.6                   |                                        |   |    |    |    |    |    | 2  | 6  | 14 | 14 | 6  | 5  | 3  | 2  | 2  |    |              |  |  |  |  |  |
|            |      |                      | Br      | 2                       | 1.0             | 0.7                    |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |  |  |  |
|            | 9/16 | 2                    | Ro      | 147                     | 73.5            | 53.5                   |                                        |   | 2  | 15 | 43 | 60 | 21 | 3  | 3  |    |    |    |    |    |    |    |    |              |  |  |  |  |  |
|            |      |                      |         |                         |                 |                        |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |  |  |  |
|            |      |                      |         |                         |                 |                        |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |  |  |  |
| Elk Lake   | 5/18 | 2                    | BT      | 53                      | 26.5            | 45.7                   |                                        |   |    |    | 1  | 1  | 5  | 4  | 4  | 2  | 10 | 14 | 9  | 1  | 2  |    |    |              |  |  |  |  |  |
|            |      |                      | Rb      | 40                      | 20.0            | 34.5                   |                                        |   | 1  | 29 | 8  | 2  |    |    |    |    |    |    |    |    |    |    |    |              |  |  |  |  |  |
|            |      |                      | Ro      | 23                      | 11.5            | 19.8                   |                                        |   | 2  | 10 | 6  | 3  | 1  | 1  |    |    |    |    |    |    |    |    |    |              |  |  |  |  |  |
|            | 6/15 | 4                    | BT      | 29                      | 14.5            | 67.4                   |                                        |   |    |    | 1  | 1  | 4  | 12 | 4  | 6  | 1  |    |    |    |    |    |    |              |  |  |  |  |  |
|            |      |                      | Rb      | 12                      | 6.0             | 27.9                   |                                        |   | 1  | 3  |    |    | 2  | 2  | 2  | 1  |    |    |    |    |    |    |    |              |  |  |  |  |  |
|            |      |                      | K       | 2                       | 1.0             | 4.7                    |                                        |   |    |    |    |    | 1  | 1  |    |    |    |    |    |    |    |    |    |              |  |  |  |  |  |
|            |      |                      | Rb      | 31                      | 7.8             | 25.6                   |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |  |  |  |
|            |      |                      | BT      | 49                      | 12.3            | 40.5                   |                                        |   | 3  | 8  | 9  | 5  | 2  | 3  | 1  |    |    |    |    |    |    |    |    |              |  |  |  |  |  |
|            |      |                      | K       | 40                      | 10.0            | 33.1                   |                                        |   | 2  | 2  | 3  | 11 | 9  | 13 | 5  | 3  |    |    |    |    |    |    |    |              |  |  |  |  |  |
|            |      |                      | AS      | 1                       | 0.3             | 0.8                    |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |  |  |  |
|            |      |                      |         |                         |                 |                        |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |  |  |  |



Table 34 (continued)

| Water                   | Date | Number<br>of<br>Sets | Species       | Number<br>Fish<br>Taken | Fish<br>per Net | Percentage<br>of Total | Number of Fish by One-Inch Size Groups |   |   |               |    |   |   |    |    |    |    |    |    |    |    |    |    |  |  |  | 20 &<br>Over |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|                         |      |                      |               |                         |                 |                        | 3                                      | 4 | 5 | 6             | 7  | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Elk Lake<br>(continued) | 8/2  | 5                    | BT<br>K<br>AS | 7<br>92<br>7            |                 | 6.6<br>86.8<br>6.6     |                                        |   | 2 | 1<br>18<br>49 | 23 |   |   | 1  | 2  | 1  |    |    |    |    |    |    |    |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

5 Vertical monofilament.

Table 34 (continued)

[illegible]

- 1 Trap net.
- 2 Roach were 2 to 3 inches in length.
- 3 All at 2 inches each.
- 4 Not measured.
- 5 Vertical monofilament.

Table 35

Composition and Length Frequency of Fish Populations Obtained by Nets and Chemicals  
Represented in One-Inch Size Groups, Fork Length Measurements,  
Deschutes River Brown Trout Project, 1966

| Location                         | Date | Number<br>of<br>Sets | Species | Number<br>Fish<br>Taken | Fish<br>per Net | Percentage<br>of Total | Number of Fish by One-Inch Size Groups |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |  |   |
|----------------------------------|------|----------------------|---------|-------------------------|-----------------|------------------------|----------------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------------|--|--|--|---|
|                                  |      |                      |         |                         |                 |                        | 3                                      | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 &<br>Over |  |  |  |   |
| Brooks Pond                      | 6/10 | 2                    | Br      | 1                       | 0.5             | 3.1                    |                                        |    |    |    |    |    |    | 1  |    |    |    |    |    |    |    |    |    |              |  |  |  |   |
|                                  |      |                      | Rb      | 1                       | 0.5             | 3.1                    |                                        |    |    |    |    |    | 1  |    |    |    |    |    |    |    |    |    |    |              |  |  |  |   |
|                                  |      |                      | BrB     | 2                       | 1.0             | 6.3                    |                                        |    |    | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |  |   |
|                                  |      |                      | Wf      | 16                      | 8.0             | 50.0                   |                                        |    |    |    | 1  | 11 | 3  | 1  |    |    |    |    |    |    |    |    |    |              |  |  |  |   |
|                                  |      |                      | Ro      | 12                      | 6.0             | 37.5                   |                                        | 1  | 3  | 8  |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |  |   |
|                                  | 8/11 | 1                    | Rb      | 1                       | 1.0             | 12.5                   |                                        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |  |   |
|                                  |      |                      | K       | 4                       | 4.0             | 50.0                   |                                        |    | 1  |    |    | 1  | 1  |    | 1  |    |    |    |    |    |    |    |    |              |  |  |  |   |
|                                  |      |                      | BrB     | 1                       | 1.0             | 12.5                   |                                        |    |    |    |    | 1  |    |    |    |    |    |    |    |    |    |    |    |              |  |  |  |   |
|                                  |      |                      | Wf      | 1                       | 1.0             | 12.5                   |                                        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |  |   |
|                                  |      |                      | Ro      | 1                       | 1.0             | 12.5                   |                                        | 1  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |  |   |
| Central Oregon<br>Canal <u>1</u> | 11/3 | <u>2</u>             | Br      | 5                       |                 | 11.9                   |                                        |    | 1  | 1  |    |    |    | 1  | 1  | 1  |    |    |    |    |    |    |    |              |  |  |  |   |
|                                  |      |                      | K       | 36                      |                 | 85.7                   |                                        | 4  | 13 | 4  | 6  | 7  | 1  | 1  |    |    |    |    |    |    |    |    |    |              |  |  |  |   |
|                                  |      |                      | Wf      | 1                       |                 | 2.4                    |                                        |    |    |    |    |    |    |    |    |    | 1  |    |    |    |    |    |    |              |  |  |  |   |
| <u>2</u>                         | 11/4 | <u>2</u>             | K       | 179                     |                 | 99.4                   |                                        | 15 | 49 | 23 | 16 | 51 | 19 | 5  | 1  |    |    |    |    |    |    |    |    |              |  |  |  |   |
|                                  |      |                      | Wf      | 1                       |                 | 0.6                    |                                        |    |    |    |    | 1  |    |    |    |    |    |    |    |    |    |    |    |              |  |  |  |   |
| <u>4</u>                         | 11/4 | <u>2</u>             | Rb      | 10                      |                 | 6.8                    |                                        | 5  | 2  | 3  |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |  |   |
|                                  |      |                      | Br      | 58                      |                 | 39.4                   |                                        | 7  | 12 | 26 | 9  | 1  |    |    | 2  | 1  |    |    |    |    |    |    |    |              |  |  |  |   |
|                                  |      |                      | K       | 26                      |                 | 17.7                   |                                        | 1  | 2  | 1  | 10 | 11 | 1  |    |    |    |    |    |    |    |    |    |    |              |  |  |  |   |
|                                  |      |                      | Wf      | 53                      |                 | 36.1                   |                                        |    |    | 3  | 33 | 11 | 1  | 1  | 3  | 1  |    |    |    |    |    |    |    |              |  |  |  |   |
| <u>5</u>                         | 11/4 | <u>2</u>             | Rb      | 2                       |                 | 6.1                    |                                        |    | 1  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |  |   |
|                                  |      |                      | Br      | 22                      |                 | 66.6                   |                                        | 1  | 4  | 11 | 4  | 1  |    |    | 1  |    |    |    |    |    |    |    |    |              |  |  |  |   |
|                                  |      |                      | K       | 5                       |                 | 15.2                   |                                        |    | 3  |    | 1  | 1  |    |    |    |    |    |    |    |    |    |    |    |              |  |  |  |   |
|                                  |      |                      | BrB     | 1                       |                 | 3.0                    |                                        |    |    |    |    |    |    | 1  |    |    |    |    |    |    |    |    |    |              |  |  |  |   |
|                                  |      |                      | Wf      | 3                       |                 | 9.1                    |                                        |    |    |    | 2  | 1  |    |    |    |    |    |    |    |    |    |    |    |              |  |  |  |   |
| Crescent Slough                  | 8/30 | 1                    | Br      | 1                       | 1.0             | 100.0                  |                                        |    |    |    | 1  |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |  |   |
| Dead Slough                      | 7/19 | 2                    | Rb      | 4                       | 2.0             | 4.8                    |                                        |    |    |    |    |    |    |    | 1  | 2  | 1  |    |    |    |    |    |    |              |  |  |  | 1 |
|                                  |      |                      | Br      | 7                       | 3.5             | 8.3                    |                                        |    |    | 1  |    | 1  |    | 4  | 1  |    |    |    |    |    |    |    |    |              |  |  |  |   |
|                                  |      |                      | BT      | 2                       | 1.0             | 2.4                    |                                        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |  |   |
|                                  |      |                      | K       | 2                       | 1.0             | 2.4                    |                                        |    |    |    |    |    |    | 1  | 1  |    |    |    |    |    |    |    |    |              |  |  |  |   |
|                                  |      |                      | Wf      | 14                      | 7.0             | 16.6                   |                                        |    |    |    |    |    | 1  | 1  | 4  | 5  | 2  | 1  |    |    |    |    |    |              |  |  |  |   |
|                                  |      |                      | BrB     | 9                       | 4.5             | 10.7                   |                                        |    |    |    |    |    | 2  | 5  | 2  |    |    |    |    |    |    |    |    |              |  |  |  |   |
|                                  |      |                      | Ro      | 46                      | 23.0            | 54.8                   |                                        | 1  | 28 | 9  | 5  | 3  |    |    |    |    |    |    |    |    |    |    |    |              |  |  |  |   |

Table 35 (continued)

[illegible]

Table 35 (continued)

| Location                      | Date  | Number<br>of<br>Sets | Species | Number<br>Fish<br>Taken | Fish<br>per Net | Percentage<br>of Total | Number of Fish by One-Inch Size Groups |    |    |    |    |   |   |    |    |    |    |    |    |    |    |    |    |              |  |
|-------------------------------|-------|----------------------|---------|-------------------------|-----------------|------------------------|----------------------------------------|----|----|----|----|---|---|----|----|----|----|----|----|----|----|----|----|--------------|--|
|                               |       |                      |         |                         |                 |                        | 3                                      | 4  | 5  | 6  | 7  | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 &<br>Over |  |
| North Unit<br>Canal <u>11</u> | 10/13 | <u>2</u>             | Rb      | 1                       |                 | 3.1                    |                                        |    | 1  |    |    |   |   |    |    |    |    |    |    |    |    |    |    |              |  |
|                               |       |                      | Br      | 28                      |                 | 87.5                   | 3                                      | 11 | 9  | 1  | 1  | 2 |   |    |    |    |    |    |    |    |    |    |    |              |  |
|                               |       |                      | Wf      | 3                       |                 | 9.3                    |                                        |    |    |    |    |   |   |    |    |    |    |    |    |    |    |    |    |              |  |
| Slough Camp Slough            | 5/19  | 2                    | BrB     | 5                       | 2.5             | 11.6                   |                                        |    |    |    |    |   |   |    |    |    |    |    |    |    |    |    |    |              |  |
|                               |       |                      | Ro      | 35                      | 17.5            | 81.4                   |                                        | 1  | 2  | 6  | 21 | 5 |   | 1  | 2  |    |    |    |    |    |    |    |    |              |  |
|                               |       |                      | Wf      | 3                       | 1.5             | 7.0                    |                                        |    |    |    |    |   |   |    |    |    |    |    |    |    |    |    |    |              |  |
|                               | 7/25  | 2                    | BrB     | 2                       | 1.0             | 5.1                    |                                        |    |    |    |    |   |   |    |    |    |    |    |    |    |    |    |    |              |  |
|                               |       |                      | Ro      | 37                      | 18.5            | 94.9                   |                                        | 2  | 13 | 10 | 6  | 4 | 2 |    |    |    |    |    |    |    |    |    |    |              |  |

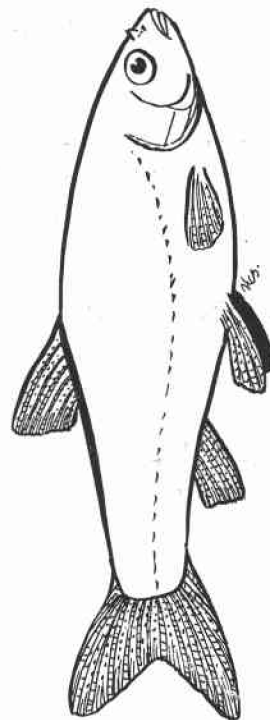
1 Pool 100' by 20' by 4'.2 Rotenone.3 Pool 65' by 20' by 1.5'.4 Pool 50' by 10' by 1'.5 Pool 40' by 15' by 1'.6 Pool within 1/4 mile of Wickiup Dam.7 Seine.8 At mouth of Dead Slough.9 Dead Slough10 Pool 12' by 7' by 0.5'. Many people had already worked fish from canal pools.11 Pool 40' by 15' by 4'.

Table 36

## Brown Trout Spawning Ground Surveys, 1965-66

| Area                                                 | River Mile<br>(Approximately) | Miles<br>Surveyed | Redds Counted |             |
|------------------------------------------------------|-------------------------------|-------------------|---------------|-------------|
|                                                      |                               |                   | 1965          | 1966        |
| <u>Deschutes River</u>                               |                               |                   |               |             |
| Browns Mt. crossing to<br>1/4 mile below (Section 4) | 238.0 to 237.7                | 0.30              | 28            | 27          |
| Wickiup Dam to Pringle Falls<br>(Section 4)          | 226.8 to 217.1                | 9.70              | 20            | 23          |
| Pringle Falls to Slough Camp<br>(Sections 4 and 3)   | 217.1 to 180.4                | 36.70             | 3             |             |
| <u>Little Deschutes River</u>                        |                               |                   |               |             |
| Gilchrist Mill Road to<br>1 mile below               | 61.5 to 60.5                  | 1.00              | 12            | 1 <u>/1</u> |
| <u>Spring River</u>                                  |                               |                   |               |             |
| Head of river to 1/4 mile below                      |                               | 0.25              | 5             | 11          |
| <u>Browns Creek</u>                                  |                               |                   |               |             |
| Road crossing to 1/4 mile below                      |                               | 0.25              | 14            | 14          |
| <u>Link Creek</u>                                    |                               |                   |               |             |
| Blue Lake to Suttle Lake                             |                               | 0.50              | 11            | 6           |
| <u>Lake Creek</u>                                    |                               |                   |               |             |
| Suttle Lake to 1/4 mile below                        |                               | 0.25              |               | 0           |

/1 Repair of fish ladder at Gilchrist millpond dam now allows upstream passage of fish.

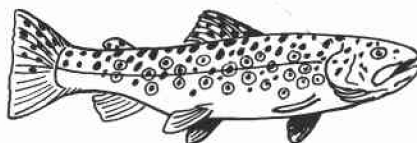


Table 37

## Summary of East and Paulina Lake Catch Statistics

| Lake    | Year    | Angler Trips | Total Trout Caught | Hours Angling per Fish | Fish per Angler |
|---------|---------|--------------|--------------------|------------------------|-----------------|
| East    | 1958    | 34,200       | 112,100            | 1.5                    | 3.3             |
|         | 1959    | 26,200       | 65,700             | 2.1                    | 2.5             |
|         | 1966 /1 | 38,600       | 86,000             | 1.4                    | 2.6             |
| Paulina | 1958    | 21,300       | 87,500             | 1.1                    | 4.1             |
|         | 1959    | 23,500       | 69,400             | 1.5                    | 3.0             |
|         | 1966 /1 | 24,400       | 49,000             | 1.6                    | 2.3             |

/1 New statistical program.

Table 38

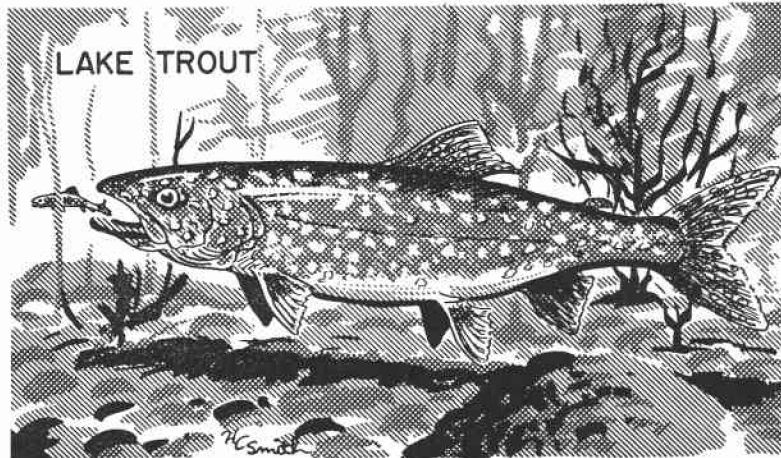
Percent of Fish from Each Plant Harvested  
at East Lake, 1966

| Stock         | Year Released | Size at Stocking<br>(Number per Pound) | Percent<br>of Plant<br>Harvested |
|---------------|---------------|----------------------------------------|----------------------------------|
| Oak Springs   | 1964          | 42                                     | 6.50                             |
| Wizard Falls  | 1964          | 106                                    | 7.10                             |
| Roaring River | 1964          | 111                                    | <u>8.30</u>                      |
|               |               |                                        | 21.90                            |
| Oak Springs   | 1965          | 46 and 36                              | 12.50                            |
| Wizard Falls  | 1965          | 160                                    | 14.60                            |
| Roaring River | 1965          | 54                                     | <u>17.40</u>                     |
|               |               |                                        | 44.50                            |
| Oak Springs   | 1966          | 53                                     | 1.70                             |
| Wizard Falls  | 1966          | 109                                    | 0.04                             |
| Roaring River | 1966          | 90                                     | <u>1.10</u>                      |
|               |               |                                        | 2.84                             |

Table 39

Percent of Fish from Each Plant Harvested  
at Paulina Lake, 1966

| Stock         | Year Released | Size at Stocking<br>(Number per Pound) | Percent<br>of Plant<br>Harvested |
|---------------|---------------|----------------------------------------|----------------------------------|
| Oak Springs   | 1964          | 28                                     | 6.20                             |
| Wizard Falls  | 1964          | 103                                    | 2.00                             |
| Roaring River | 1964          | 111                                    | <u>0.80</u>                      |
|               |               |                                        | 9.00                             |
| Oak Springs   | 1965          | 46                                     | 12.50                            |
| Wizard Falls  | 1965          | 113 and 120                            | 7.60                             |
| Roaring River | 1965          | 54                                     | <u>13.50</u>                     |
|               |               |                                        | 33.60                            |
| Oak Springs   | 1966          | 59                                     | 3.40                             |
| Wizard Falls  | 1966          | 106 and 121                            | 0.08                             |
| Roaring River | 1966          | 90                                     | <u>1.50</u>                      |
|               |               |                                        | 4.98                             |





## KLAMATH DISTRICT

Arthur H. Gerlach

### FISH INVENTORY

#### TROUT

Catch data for Klamath District waters are included in Table 58.

Results of population studies in lakes and reservoirs made with gill nets are presented in Table 40.

Most lakes and reservoirs in the district produced fair to good trout fishing. Although the Klamath Lake catch rate was only 0.2 fish per hour, over 60 percent of the trout caught were 16 inches or over in length. No marked rainbow trout were observed in the sport fishery in 1966.

The growth of brook trout and coho in Fourmile Lake was again disappointing. Coho planted as fingerling in 1965 had an average length of 6.1 inches -- an increase of about 2.2 inches. The average length of brook trout in the creel was only 7.3 inches. The small size of brook trout and kokanee discouraged many anglers from fishing the lake in the latter part of the season.

Kokanee provided a good fishery at Lake of the Woods until about mid-July. Apparently the schools of kokanee then moved to deep water and were difficult to catch. Two spawning populations appeared in Lake of the Woods. The first run of mature fish occurred in September and the second in November.

Some loss of rainbow and kokanee occurred in Miller Lake in the fall or winter of 1965-66, as both species were found on the lake bottom after the spring ice breakup. The mortality was attributed to residual toxaphene remaining from the 1958 treatment. The mortality was thought to be minimal, since anglers enjoyed fair fishing during the summer.

Angling pressure on kokanee in Odell Lake declined about 40 percent from that recorded in the 1965 season. This decline in the angling pressure was thought to be due to a decrease in the size of kokanee. The average length in 1965 was 10.1 inches, and only 8.3 inches in 1966. Additional information on the Odell Lake sport fishery will be released as a Research Division report.

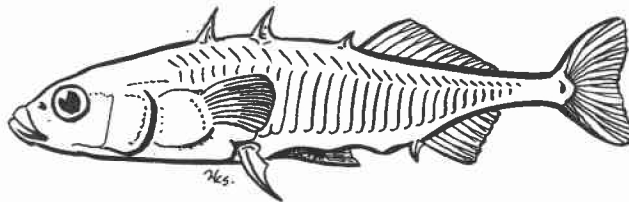


Table 40

Composition and Length Frequency of Catch by Gill Nets, Represented in One-Inch Size Groups,  
Fork Length Measurements, Klamath District, 1966

| Water             | Date  | Number<br>of<br>Sets | Species                   | Number<br>Fish<br>Taken | Fish<br>per<br>Net                | Percentage<br>of Total            | Average<br>Size<br>(Inches)        | Number of Fish by One-Inch Size Groups |   |   |    |   |    |   |    |    |    |    |    |    |    |    |    |    |              |  |   |   |
|-------------------|-------|----------------------|---------------------------|-------------------------|-----------------------------------|-----------------------------------|------------------------------------|----------------------------------------|---|---|----|---|----|---|----|----|----|----|----|----|----|----|----|----|--------------|--|---|---|
|                   |       |                      |                           |                         |                                   |                                   |                                    | 3                                      | 4 | 5 | 6  | 7 | 8  | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 &<br>Over |  |   |   |
| Crescent Lake     | 6/9   | 1 <u>1</u>           | K<br>LT<br>Ro             | 16<br>2<br>5            | 5.3<br>0.7<br>1.7                 | 69.6<br>8.7<br>21.7               | 10.1<br><u>6.8</u><br><u>6.8</u>   |                                        |   |   |    |   | 2  | 6 | 1  |    | 1  | 6  |    |    |    |    |    |    |              |  |   | 2 |
|                   | 8/22  | 4                    | K<br>LT<br>Rb<br>Wf<br>Ro | 97<br>1<br>1<br>9<br>97 | 24.3<br>0.3<br>0.3<br>2.3<br>24.3 | 47.3<br>0.5<br>0.5<br>4.4<br>47.3 | 12.7<br>21.0<br>19.5<br>9.8<br>5.6 |                                        |   |   |    |   |    |   | 32 | 1  | 2  | 32 | 30 |    |    |    |    |    |              |  | 1 |   |
|                   |       |                      |                           |                         |                                   |                                   |                                    |                                        |   |   |    |   |    |   |    |    |    | 1  |    | 2  |    |    |    |    |              |  |   |   |
| Fourmile Lake     | 8/3   | 1 <u>1</u>           | BT<br>Co<br>K             | 32<br>31<br>3           | 32.0<br>31.0<br>3.0               | 48.5<br>47.0<br>4.5               | 7.8<br>4.5<br>5.1                  |                                        | 1 | 2 | 9  | 1 | 10 | 9 |    |    |    |    |    |    |    |    |    |    |              |  |   |   |
|                   | 10/18 | 4                    | BT<br>Co<br>K             | 79<br>2<br>8            | 19.8<br>0.5<br>2.0                | 88.8<br>2.2<br>9.0                | 7.1<br>5.7<br>6.8                  |                                        |   | 7 | 45 | 8 | 11 | 6 | 1  |    |    |    |    |    |    |    |    |    |              |  |   | 1 |
|                   |       |                      |                           |                         |                                   |                                   |                                    |                                        |   |   |    |   |    |   |    |    |    |    |    |    |    |    |    |    |              |  |   |   |
| Lake of the Woods | 5/19  | 1 <u>1</u>           | K                         | 12                      | 4.0                               | 100.0                             | 7.8                                |                                        | 1 | 1 |    |   |    |   |    |    |    |    |    |    |    |    |    |    |              |  |   |   |
|                   | 8/11  | 1 <u>1</u>           | K<br>BrB                  | 23<br>14                | 7.7<br>4.7                        | 62.2<br>37.8                      | 7.6<br>4.2                         |                                        |   |   | 9  | 7 | 2  | 5 |    |    |    |    |    |    |    |    |    |    |              |  |   |   |
|                   | 10/11 | 2                    | BT<br>K<br>Rb<br>BrB      | 17<br>59<br>5<br>2      | 8.5<br>29.5<br>2.5<br>1.0         | 20.5<br>71.1<br>6.0<br>2.4        | 11.5<br>9.9<br>7.1<br>10.4         |                                        |   |   |    |   |    | 1 | 5  | 4  | 5  | 2  |    |    |    |    |    |    |              |  |   |   |
| Miller Lake       | 5/17  | 4                    | Rb                        | 8                       | 2.0                               | 100.0                             | 8.6                                |                                        |   |   |    | 1 | 6  | 1 |    |    |    |    |    |    |    |    |    |    |              |  |   |   |
|                   | 6/22  | 2                    | Rb                        | 4                       | 2.0                               | 100.0                             | 10.1                               |                                        |   |   |    |   |    | 1 | 3  |    |    |    |    |    |    |    |    |    |              |  |   |   |
|                   | 10/5  | 4                    | K<br>Rb                   | 8<br>118                | 2.0<br>29.5                       | 6.3<br>93.7                       | 9.3<br>7.1                         |                                        |   |   |    |   |    | 1 | 7  |    |    | 3  | 6  | 2  |    |    |    |    |              |  |   |   |
| Odell Lake        | 8/26  | 4                    | K<br>Wf<br>Ro             | 15<br>57<br>254         | 3.8<br>14.3<br>63.5               | 4.6<br>17.5<br>77.9               | 9.6<br>8.9<br>5.6                  |                                        |   |   |    |   |    | 2 | 11 | 1  | 1  |    |    |    |    |    |    |    |              |  |   |   |
|                   |       |                      |                           |                         |                                   |                                   |                                    |                                        |   |   |    |   |    |   |    |    |    |    |    |    |    |    |    |    |              |  |   |   |
| Summit Lake       | 7/5   | 4                    | BT<br>LT                  | 35<br>5                 | 8.8<br>1.3                        | 87.5<br>12.5                      | 7.3<br>19.7                        |                                        |   |   |    |   |    |   |    |    |    |    |    |    |    |    |    |    |              |  |   | 2 |

<sup>1</sup>/<sub>1</sub> Vertical series of three monofilament nets.

<sup>1</sup>/<sub>2</sub> Not measured; released from net.

## OCHOCO DISTRICT

Richard G. Herrig

### FISH INVENTORY

#### ANADROMOUS

In 1966 a total of 369 adult chinook and 55 jack salmon were counted through November at Pelton Dam. Adult coho and jack counts were 260 and 169, respectively. There were only 349 steelhead recorded through the 11-month period. The downstream escapement of anadromous species through the Pelton-Round Butte complex has been steadily declining.

A counting weir on Warm Springs River, operated by the Warm Springs personnel, trapped and released 1,053 adult chinook and 116 coho from April 23 to December 3, 1966.

#### TROUT

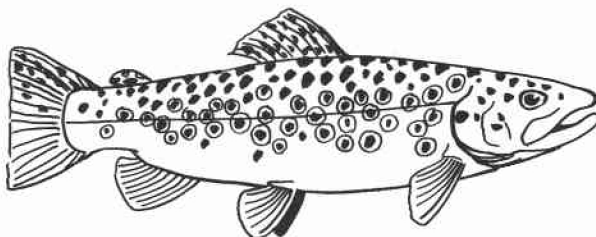
Creel data for the Ochoco District are included in Table 58.

Composition and length frequency of catch by gill nets for district waters are shown in Table 41.

Antelope Flat was the only reservoir sampled that did not show the presence of undesirable species. The single overnight gill net caught 65 rainbow trout from 8 to 14 inches in length.

Eighty-eight percent of the fish caught in gill nets at Pelton were rough fish. A detailed Dingell-Johnson report will be published on Crooked River and lower Deschutes River impoundments, showing fish populations, creel data, and marked fish recovered.

Crooked River below Prineville produced excellent trout fishing in 1966. Rainbow trout, planted as 3-inch fingerling in 1965, were approximately 15 inches long by the end of the 1966 season.



Composition and Length Frequency of Catch by Gill Nets, Represented in One-Inch Size Groups, Fork Length Measurements, Ochoco District, 1966

/1 Sixteen not measured.

Table 41 (continued)

| Reservoir   | Date     | Number<br>of<br>Sets | Species      | Number<br>Fish<br>Taken | Fish<br>per Net | Percentage<br>of Total | Number of Fish by One-Inch Size Groups |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|-------------|----------|----------------------|--------------|-------------------------|-----------------|------------------------|----------------------------------------|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------------|--|--|---|
|             |          |                      |              |                         |                 |                        | 3                                      | 4 | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 &<br>Over |  |  |   |
| Prineville  | 4/5/66   | 5                    | Rb           | 103                     | 20.6            | 56.0                   |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             |          |                      | LB           | 1                       | 0.2             | 0.5                    |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             |          |                      | BrB          | 4                       | 0.8             | 2.2                    |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             |          |                      | Su           | 57                      | 11.4            | 31.0                   |                                        |   | 1  | 1  | 7  | 21 | 13 | 8  | 1  | 4  | 1  |    |    |    |    |    |    |              |  |  |   |
|             |          |                      | Sq           | 17                      | 3.4             | 9.2                    |                                        |   |    |    | 1  | 2  | 6  | 5  | 1  | 1  |    |    |    |    |    |    |    |              |  |  |   |
|             | 8/3/66   | 5                    | Cla          | 2                       | 0.4             | 1.1                    |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             |          |                      | Rb           | 16                      | 3.2             | 17.2                   |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             |          |                      | SB           | 14                      | 2.8             | 15.1                   |                                        |   | 10 | 1  | 1  | 1  | 1  |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             |          |                      | LB           | 3                       | 0.6             | 3.2                    |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             |          |                      | BrB          | 30                      | 6.0             | 32.2                   |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
| Round Butte | 12/28/66 | 5                    | Su           | 25                      | 5.0             | 26.9                   |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             |          |                      | Sq           | 2                       | 0.4             | 2.2                    |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             |          |                      | Cla          | 2                       | 0.4             | 2.2                    |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             |          |                      | Rb           | 98                      | 19.6            | 96.1                   |                                        |   | 3  | 9  | 2  | 3  | 24 | 29 | 2  | 15 | 9  | 1  | 1  |    |    |    |    |              |  |  |   |
|             |          |                      | SB           | 1                       | 0.2             | 1.0                    |                                        |   |    | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             | 3/2/66   | 5                    | Su           | 3                       | 0.6             | 2.9                    |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             |          |                      | Rb           | 88                      | 17.6            | 52.4                   |                                        |   |    |    |    | 4  | 12 | 14 | 20 | 29 | 7  | 1  | 1  |    |    |    |    |              |  |  |   |
|             |          |                      | Co           | 30                      | 6.0             | 17.8                   |                                        |   |    |    |    |    | 1  | 8  | 17 | 4  |    |    |    |    |    |    |    |              |  |  |   |
|             |          |                      | DV           | 7                       | 1.4             | 4.2                    |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  | 3 |
|             |          |                      | Wf           | 4                       | 0.8             | 2.4                    |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
| Prineville  | 8/10/66  | 5                    | Su           | 39                      | 7.8             | 23.2                   |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             |          |                      | Rb           | 14                      | 2.8             | 2.0                    |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             |          |                      | Wf           | 1                       | 0.2             | 0.1                    |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             |          |                      | Br           | 1                       | 0.2             | 0.1                    |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             |          |                      | Su           | 453                     | 90.1            | 64.4                   |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             | 12/16/66 | 5                    | Sq           | 51                      | 10.0            | 7.3                    |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             |          |                      | Cla          | 167                     | 33.4            | 23.8                   |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             |          |                      | Ro           | 3                       | 0.6             | 0.4                    |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             |          |                      | Gf           | 2                       | 0.4             | 0.3                    |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             |          |                      | Unidentified | 11                      | 2.2             | 1.6                    |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
| Round Butte | 12/16/66 | 5                    | Rb           | 74                      | 14.8            | 29.3                   |                                        |   | 2  | 1  |    |    | 2  | 3  | 7  | 23 | 30 | 6  |    |    |    |    |    |              |  |  |   |
|             |          |                      | StS          | 1                       | 0.2             | 0.4                    |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             |          |                      | Co           | 12                      | 2.4             | 4.8                    |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             |          |                      | Ch           | 3                       | 0.6             | 1.2                    |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             |          |                      | DV           | 8                       | 1.6             | 3.2                    |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             | 3/2/66   | 5                    | Br           | 1                       | 0.2             | 0.4                    |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             |          |                      | K            | 1                       | 0.2             | 0.4                    |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             |          |                      | Wf           | 3                       | 0.6             | 1.2                    |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             |          |                      | Su           | 94                      | 18.8            | 37.3                   |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             |          |                      | Sq           | 4                       | 0.8             | 1.6                    |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             |          |                      | Cla          | 45                      | 9.0             | 17.8                   |                                        |   | 4  | 10 | 19 | 10 | 2  |    |    |    |    |    |    |    |    |    |    |              |  |  |   |
|             |          |                      | Unidentified | 6                       | 1.2             | 2.4                    |                                        |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |  |  |   |

$\frac{1}{1}$  Sixteen not measured.  
 $\frac{2}{2}$  Not measured.  
 $\frac{3}{3}$  Unidentified rough fish.

## JOHN DAY DISTRICT

James A. Hewkin

### FISH INVENTORY

#### ANADROMOUS

##### Steelhead

Spawning ground counts conducted along 69 miles of stream in the John Day District revealed 141 steelhead, 1,103 redds, and an average of 15.9 redds per mile. The 1966 inventory shows an increase of approximately 112 percent above the 7-year average in the district. However, a much heavier spawning increase was noted in tributaries which drain into the portion of the John Day chemically treated in 1962.

The rehabilitated portion of the drainage, when evaluated separately from the remainder of the river system inventoried, displays an increase in redds per mile of 286 percent above the 7-year average. Nonrehabilitated sectors showed a 63 percent increase. Table 42 gives an 8-year summary of redds per mile by stream.

##### Creel Census, Steelhead

The 1965-66 angling season was one of the best on record for the John Day River. Interviews were obtained from 495 anglers who had caught 153 steelhead in 1,505 hours of effort for a success ratio of 9.3 hours per fish. Table 43 provides a summation of steelhead catch statistics on the John Day since 1956.

The unusual abundance of steelhead in the main John Day River throughout the rehabilitated section attracted many anglers. Most of the angling pressure was formerly exerted upon the North Fork John Day River in the Kimberly area.

##### Spring Chinook Salmon

A heavy run of spring chinook salmon entered the John Day River in 1966 and was one of the best runs on record.

An attempt at complete spawning ground coverage gave a total count of 1,508 spring chinook salmon, 50 jacks, and 1,169 redds in 95 miles of utilized stream. Spawning ground data for several streams are presented in Table 44.

Results of spring chinook spawning ground counts in the John Day system for the period 1958 through 1966 are shown in Table 45.

#### TROUT

Creel data for trout waters in the John Day District are included in Table 58.

Table 42

An Eight-Year Summary of Steelhead Spawning Ground Inventory  
on Streams in the John Day District,  
1959 through 1966

| Stream                        | Average Number of Redds per Mile by Year |      |      |      |      |      |      |      |
|-------------------------------|------------------------------------------|------|------|------|------|------|------|------|
|                               | 1959                                     | 1960 | 1961 | 1962 | 1963 | 1964 | 1965 | 1966 |
| Bear Creek                    | 9.0                                      | 3.3  | 3.0  | 4.0  | 2.3  | 3.0  | 4.8  | 11.7 |
| Beaver Creek                  |                                          |      |      |      |      | 4.0  |      | 18.5 |
| Beech Creek <u>/1</u>         |                                          |      |      |      |      |      |      | 24.4 |
| Bridge Creek                  |                                          |      |      |      |      |      | 9.6  | 8.4  |
| Cable Creek                   |                                          |      |      |      | 2.3  | 6.4  | 4.7  | 11.5 |
| Camas Creek                   |                                          |      |      |      | 7.0  | 6.0  | 4.0  | 12.0 |
| Camp Creek                    |                                          |      |      |      |      |      |      | 21.6 |
| Canyon Creek                  | 4.0                                      | 2.2  | 6.3  | 4.0  | 10.2 | 12.7 | 5.3  | 13.6 |
| Cottonwood Creek              | 3.0                                      | 5.0  | 6.5  | 4.0  | 8.5  | 1.5  | 8.5  | 7.5  |
| East Fork Beech Cr. <u>/1</u> |                                          |      |      | 3.3  |      |      |      | 31.1 |
| Fields Creek <u>/1</u>        | 11.6                                     | 2.8  | 2.4  | 2.0  | 8.4  | 5.6  | 2.4  | 28.4 |
| Indian Creek                  |                                          |      |      |      |      |      | 7.0  | 15.0 |
| Kahler Creek                  |                                          |      |      |      |      |      | 10.5 | 10.5 |
| Lone Rock Creek               |                                          |      |      |      |      | 2.6  | 0.7  | 2.6  |
| McClellan Creek <u>/1</u>     |                                          |      |      | 6.0  |      |      |      | 39.6 |
| Murderers Creek               |                                          | 19.3 | 4.9  | 21.4 | 2.2  | 10.8 | 16.8 | 24.8 |
| Owing Creek                   |                                          |      |      |      |      |      | 2.4  | 6.6  |
| Parrish Creek                 | 10.5                                     | 4.0  | 15.5 | 6.5  | 7.0  | 7.5  | 2.5  | 16.5 |
| Rancheria Creek               |                                          |      |      |      |      |      |      | 10.7 |
| Reynolds Creek                |                                          |      | 9.6  | 6.7  | 9.8  | 10.0 | 5.8  | 5.2  |
| Riley Creek <u>/1</u>         | 9.0                                      | 16.0 | 7.0  | 8.0  | 17.0 | 10.0 | 4.0  | 24.0 |
| Tex Creek                     |                                          | 21.6 | 17.2 | 3.2  | 2.0  | 2.0  | 37.5 | 22.4 |
| Vance Creek                   |                                          |      |      |      |      |      | 11.0 | 12.0 |
| AVERAGES                      | 7.4                                      | 8.8  | 6.8  | 6.6  | 7.1  | 7.7  | 7.6  | 15.9 |

/1 Denotes tributary that discharges into rehabilitated section of John Day River (chemically treated in 1962).

Table 43

Steelhead Catch Statistics, John Day River,  
1956 through 1966

| Year | Number<br>Anglers | Hours<br>Fished | Number<br>Fish | Hours<br>per Fish | Fish<br>per Angler |
|------|-------------------|-----------------|----------------|-------------------|--------------------|
| 1956 | 309               | 831             | 95             | 8.75              | 0.31               |
| 1958 | 197               | 457             | 72             | 6.35              | 0.37               |
| 1959 | 373               | 1,499           | 78             | 19.22             | 0.21               |
| 1960 | 270               | 993             | 99             | 10.03             | 0.37               |
| 1961 | 200               | 654             | 29             | 22.55             | 0.15               |
| 1962 | 193               | 639             | 35             | 18.26             | 0.18               |
| 1963 | 263               | 991             | 42             | 23.60             | 0.16               |
| 1964 | 430               | 1,386           | 53             | 26.15             | 0.12               |
| 1965 | 278               | 946             | 79             | 11.97             | 0.28               |
| 1966 | 495               | 1,505           | 153            | 9.84              | 0.31               |

Table 44

Spring Chinook Salmon Spawning Survey,  
John Day District, 1966

| Water                      | Date  | Miles<br>of Stream<br>Surveyed | Number Counted |       |       | Redds<br>per<br>Mile |
|----------------------------|-------|--------------------------------|----------------|-------|-------|----------------------|
|                            |       |                                | Salmon         | Jacks | Redds |                      |
| Bull Run Creek             | 9/9   | 3.00                           | 4              | 0     | 1     | 0.3                  |
| Clear Creek                | 9/9   | 4.00                           | 348            | 15    | 174   | 43.5                 |
| Congo Gulch                | 9/9   | 0.50                           | 20             | 0     | 9     | 18.0                 |
| Granite Creek              | 9/8   | 9.00                           | 438            | 11    | 279   | 31.0                 |
| John Day River             | 9/7   | 15.25                          | 116            | 0     | 140   | 9.2                  |
| Middle Fork John Day River | 9/12  | 20.00                          | 117            | 3     | 129   | 6.5                  |
| North Fork John Day River  | 9/8-9 | 42.50                          | 465            | 21    | 437   | 10.3                 |
| TOTALS                     |       | 94.25                          | 1,508          | 50    | 1,169 |                      |
| AVERAGE                    |       |                                |                |       |       | 12.4                 |



Table 45

Chinook Salmon Spawning Inventory on Four Streams  
in the John Day District,  
1958 through 1966

| Year | John Day River |                   |                      | Granite Creek |                   |                      | Clear Creek |                   |                      | Middle Fork<br>John Day River |                   |                      |
|------|----------------|-------------------|----------------------|---------------|-------------------|----------------------|-------------|-------------------|----------------------|-------------------------------|-------------------|----------------------|
|      | Salmon         | Number<br>Counted | Redds<br>per<br>Mile | Salmon        | Number<br>Counted | Redds<br>per<br>Mile | Salmon      | Number<br>Counted | Redds<br>per<br>Mile | Salmon                        | Number<br>Counted | Redds<br>per<br>Mile |
|      |                |                   |                      |               |                   |                      |             |                   |                      |                               |                   |                      |
|      |                |                   |                      |               |                   |                      |             |                   |                      |                               |                   |                      |
| 1958 | 4              | 2                 | 0.50                 | 16            | 6                 | 2.00                 | 4           | 10                | 3.30                 | 3                             | 0                 | 0.00                 |
| 1959 | 0              | 1                 | 0.33                 | 14            | 27                | 6.00                 | 26          | 13                | 4.30                 | 0                             | 0                 | 0.00                 |
| 1960 | 1              | 3                 | 0.75                 | 24            | 45                | 10.00                | 47          | 49                | 16.30                | 16                            | 29                | 3.20                 |
| 1961 | 16             | 12                | 3.00                 | 44            | 24                | 5.30                 | 14          | 23                | 7.70                 | 7                             | 8                 | 1.10                 |
| 1962 | 81             | 110               | 12.22                | 410           | 199               | 44.20                | 447         | 198               | 49.50                | 24                            | 23                | 2.90                 |
| 1963 | 4              | 11                | 0.92                 | 144           | 132               | 26.40                | 264         | 117               | 29.30                | 1                             | 7                 | 0.40                 |
| 1964 | 9              | 13                | 1.44                 | 268           | 174               | 34.80                | 327         | 199               | 49.70                | 41                            | 36                | 3.60                 |
| 1965 | 24             | 58                | 5.80                 | 99            | 122               | 24.40                | 44          | 67                | 16.70                | 27                            | 37                | 3.70                 |
| 1966 | 116            | 140               | 9.20                 | 438           | 279               | 31.00                | 348         | 174               | 43.50                | 117                           | 129               | 6.50                 |

## ASTORIA DISTRICT

Warren M. Knispel

### FISH INVENTORY

#### ANADROMOUS

The 1965-66 steelhead season was the first year that adult steelhead returned from major plants of hatchery-reared smolts. Catch data show that marked hatchery fish constituted 30 percent of the Necanicum fish, 8 percent of the Nehalem, and 10 percent of the North Fork Nehalem. In the Nehalem River, marked steelhead were generally from 4.5 to 7.5 pounds. Catch data on North Coast streams are presented in Table 57.

Fall chinook spawning ground counts on the Nehalem River are shown in Table 55.

Results of coho spawning ground counts are presented in Table 54.

#### TROUT

The trout fishery in the Astoria District in general was supported by legal hatchery trout releases in lakes and streams. Creel census records for district lakes are shown in Table 58.

The Columbia River offshore salmon fishery was calculated through a joint program with the Washington Department of Fisheries. Catch data are presented in Table 56.



# TILLAMOOK DISTRICT

W. H. Christianson

## FISH INVENTORY

### ANADROMOUS

The offshore sport salmon catch at Garibaldi and Cape Kiwanda was not estimated in 1966; however, periodic creel records were taken in order to determine the catch per hour and percentage of chinook salmon taken by the sport fishery. The catch rate for dory anglers at Cape Kiwanda was 6.5 hours per salmon. Catch records show that 11.7 percent of the salmon caught were chinook. At Garibaldi, anglers fished an average of 12.8 hours per salmon in the 1966 season. Seventy-two percent of the catch was chinook. Coast Guard files show that 2,053 sport boats crossed the bar from mid-June until mid-September.

Spring chinook resting pool counts for the years 1962, 1964, 1965, and 1966 are shown in Table 46.

Table 46

Spring Chinook Resting Pool Trend Counts  
for Tillamook District,  
1962 through 1966

| Stream                   | Year           | Number<br>Pools<br>Sampled | Number Fish Counted by Species |                     |           |
|--------------------------|----------------|----------------------------|--------------------------------|---------------------|-----------|
|                          |                |                            | Chinook                        | Summer<br>Steelhead | Cutthroat |
| Trask River <u>/1</u>    | 1962 <u>/2</u> | 20                         | 426                            |                     |           |
|                          | 1964           | 9                          | 164                            | 0                   | 55        |
|                          | 1965           | 15                         | 132                            | 0                   | 37        |
|                          | 1966           | 12                         | 40                             | 17                  | 44        |
| Wilson River             | 1962 <u>/2</u> | 17                         | 152                            |                     |           |
|                          | 1964           | 4                          | 110                            | 1                   | 19        |
|                          | 1965           | 10                         | 11                             | 1                   | 120       |
|                          | 1966           | 8                          | 21                             | 6                   | 126       |
| Nestucca River <u>/3</u> | 1964           | 9                          | 59                             | 4                   | 9         |
|                          | 1965           | 12                         | 62                             | 7                   | 73        |
|                          | 1966           | 8                          | 39                             | 16                  | 3         |

/1 Fish Commission of Oregon hatchery hole not included in counts.

/2 Counts conducted by Fish Commission of Oregon biologists.

/3 Counts started in 1964.

Fall chinook spawning ground counts are shown in Table 55. Table 54 shows coho salmon spawning ground counts.

The program designed to establish a summer steelhead fishery on the Nestucca River appeared to be successful in 1966. Fish with one-summer and two-summer ocean growths appeared in the run. A record of 152 anglers fishing summer steelhead shows a catch of 90 fish.

Winter steelhead anglers enjoyed a good catch rate for 1966 in Tillamook District streams. Catch data on the winter steelhead fishery is shown in Table 57. An average catch rate for Tillamook District streams, exclusive of the Wilson River, was 19 hours per fish -- the highest catch rate recorded in 17 years.

### TROUT

The trout fishery in district lakes was supported largely with legal hatchery trout. The average catch rate for streams was 0.75 fish per hour.



## LINCOLN DISTRICT

Rollie F. Rousseau

### FISH INVENTORY

#### ANADROMOUS

Winter steelhead angling on the Alsea, Siletz, and Salmon Rivers in the 1965-66 season was unusually good. Returns of hatchery steelhead enhanced native runs in all three streams. Catch data are shown in Table 57. A special report on the Alsea River winter steelhead fishery will be made by the Research Division.

The summer steelhead catch in the Siletz River in 1966 was excellent. The best catches were made in June, July, and October. Ninety-seven percent of the summer-run fish examined in the sport catch were marked hatchery returns. The catch of upper river and lower river released fish indicates the planting site has a significant influence on migration patterns of returning fish. The underwater survey of Siletz summer steelhead in resting holes for the period 1960 through 1966 is shown in Table 47. Of 867 fish examined in 1966, 806 (93 percent) were identified as marked hatchery returns.

Table 47

Standard Underwater Survey of Siletz River Summer Steelhead,  
1960 through 1966

| Year | Number Summer Steelhead<br>Observed |          |       | Percent<br>Hatchery<br>Steelhead | Chinook |
|------|-------------------------------------|----------|-------|----------------------------------|---------|
|      | Wild                                | Hatchery | Total |                                  |         |
| 1960 | 297                                 | 146      | 443   | 33                               | 24      |
| 1961 | 103                                 | 412      | 515   | 80                               | /1      |
| 1962 | 148                                 | 136      | 284   | 48                               | 52      |
| 1963 | 199                                 | 274      | 473   | 58                               | 76      |
| 1964 | 71                                  | 193      | 264   | 73                               | 23      |
| 1965 | 99                                  | 420      | 519   | 81                               | 14      |
| 1966 | 61                                  | 806      | 867   | 93                               | 4       |

/1 Not recorded.

The offshore salmon fishery at Yaquina and Depoe Bays was good in 1966. Catch records for the two ports are shown in Table 56.

Spawning ground counts of coho for Lincoln District streams are shown in Table 54.

A downstream migrant trap operated in the outlet of Valsetz Lake during May and June collected 5,262 juvenile coho, 11 steelhead, 3 cutthroat, 553 largemouth fingerling, and 12 yellow bullhead catfish. Based on the number of marked coho captured from a release made above the trap, an estimated 12,000 to 17,000

juvenile coho migrated out of Valsetz Lake in the spring of 1966. The coho smolts were 5.3 inches in length and were slightly larger than wild migrants in adjacent streams.

#### Tidewater Sea-Run Cutthroat Trout and Salmon Fishery

An estimate of the tidewater fishery for the Alsea and Siletz Rivers is obtained from moorage records and boat counts. The accuracy of the estimates is dependent upon the number and quality of records supplied by moorage operators and the number of boat counts available. Estimates of the total boat trips and fish catch are offered as trends rather than precise figures.

#### Siletz Tidewater

The Siletz River tidewater fishery was estimated at 9,085 boat-days with a catch of 899 cutthroat, 613 chinook, 1,565 coho, and 1,457 jack salmon for 1966.

The estimated coho and jack salmon catch is up from 1965, but chinook and cutthroat catches dropped. The cutthroat catch is the lowest ever recorded since the start of record collection in 1957.

Table 48 presents a comparison of the total catch and angler intensity for Siletz tidewater from 1957 through 1966.

Table 48

Annual Estimated Intensity and Catch,  
Siletz River Tidewater Fishery,  
1957 through 1966

| Year | Boat-Days | Cutthroat | Chinook | Coho  | Number of Jacks |       |       |
|------|-----------|-----------|---------|-------|-----------------|-------|-------|
|      |           |           |         |       | Chinook         | Coho  | Total |
| 1957 | 5,002     | 1,391     | 364     | 1,570 | 330             | 509   | 839   |
| 1958 | 10,656    | 4,334     | 723     | 504   | 469             | 400   | 869   |
| 1959 | 14,564    | 3,875     | 2,069   | 2,955 | 541             | 479   | 1,020 |
| 1960 | 9,040     | 6,223     | 603     | 556   | 870             | 803   | 1,673 |
| 1961 | 10,430    | 2,856     | 980     | 852   | 931             | 1,397 | 2,328 |
| 1962 | 10,561    | 4,851     | 666     | 1,025 | 1,436           | 1,983 | 3,419 |
| 1963 | 5,930     | 1,234     | 447     | 1,093 | 253             | 148   | 401   |
| 1964 | 8,071     | 1,493     | 608     | 1,969 | 753             | 1,227 | 1,980 |
| 1965 | 10,307    | 4,247     | 797     | 1,306 |                 |       | 1,256 |
| 1966 | 9,085     | 899       | 613     | 1,565 |                 |       | 1,457 |

### Alsea Tidewater

The 1966 Alsea tidewater estimates indicate that 8,309 boat-days produced 2,699 cutthroat, 144 chinook, 2,928 coho, and 2,025 jack salmon.

Table 49 presents a comparison of angler intensity and total harvest for 1957 through 1966.

Table 49

Annual Estimated Intensity and Catch,  
Alsea River Tidewater Fishery,  
1957 through 1966

| Year | Boat-Days | Cutthroat | Chinook | Coho  | Number of Jacks |       |       |
|------|-----------|-----------|---------|-------|-----------------|-------|-------|
|      |           |           |         |       | Chinook         | Coho  | Total |
| 1957 | 5,675     | 3,008     | 244     | 1,294 | 511             | 516   | 1,027 |
| 1958 | 9,685     | 7,774     | 475     | 1,814 | 843             | 2,167 | 3,010 |
| 1959 | 7,659     | 3,772     | 303     | 2,570 | 198             | 791   | 989   |
| 1960 | 8,694     | 7,287     | 188     | 568   | 1,020           | 2,903 | 3,923 |
| 1961 | 9,047     | 3,921     | 341     | 2,651 | 346             | 2,123 | 2,469 |
| 1962 | 11,290    | 9,582     | 348     | 1,654 | 1,190           | 4,218 | 5,408 |
| 1963 | 10,068    | 3,845     | 872     | 3,599 | 1,118           | 3,541 | 4,659 |
| 1964 | 9,312     | 7,443     | 914     | 3,054 | 853             | 923   | 1,776 |
| 1965 | 10,378    | 5,360     | 477     | 3,289 | 516             | 1,828 | 2,344 |
| 1966 | 8,309     | 2,699     | 148     | 2,928 | 182             | 1,843 | 2,025 |

### TROUT

Creel data on district trout waters are presented in Table 58. Catch data on the Alsea River cutthroat fishery will be released in a special report by the Research Division.

Six gill nets set in Devils Lake in April caught 8 rainbow from 8 to 10 inches, 2 brown bullhead catfish, 1 black crappie, and 89 yellow perch. The perch were all between 8 and 14 inches in length. The percentage of warm-water game fish, as determined by gill-net catch data at Devils Lake, has increased from 14 percent in 1960 to 92 percent in 1966.

## COOS-COQUILLE DISTRICT

Edward H. Schwartz

### FISH INVENTORY

#### ANADROMOUS

Fall chinook spawning ground counts in the Coos and Coquille Rivers were both above the previous 8-year average. Spawning ground data for the Coos-Coquille District are shown in Table 55.

Coho spawning ground counts in the Coos and Coquille systems were slightly below the 8-year average. The counts on both streams were below those recorded in 1965.

Coos Bay offshore salmon catch data are presented in Table 56. Although the number of salmon in the catch was less than that taken in 1965, it was the third largest number of salmon taken since 1957.

The Coquille River fall salmon fishery was about average in comparison with the 10-year average for fish per angler. Salmon were taken at a rate of 0.29 fish per angler; the 10-year average being 0.31 fish per angler.

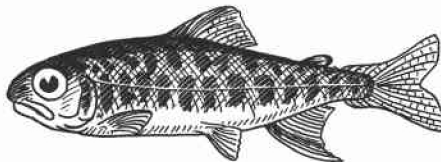
The average catch rates for anglers fishing steelhead on the Coos and Coquille Rivers were above average. The average catch rate for both systems is shown in Table 57.

The Coos River shad fishery catch rate was about one-half of the 10-year average. Catch data for 209 anglers show that anglers caught 1.23 fish per man-day at a rate of 0.38 fish per hour.

Striped bass were taken at a rate of 0.53 fish per angler and at a rate of 0.12 fish per hour, which is slightly above the 12-year average. Most of the striped bass fishing at Coos Bay is done at night.

#### TROUT

Creel data on trout are shown in Table 58. Most of the trout taken in lakes were from legal hatchery releases.





## SIUSLAW DISTRICT

William O. Saltzman and James M. Hutchison

### FISH INVENTORY

#### ANADROMOUS

Catch data on the Siletz Bay offshore salmon fishery are shown in Table 56.

The catch rate of 0.9 salmon per angler-day is comparable to the average rate for the previous 5-year period. Poor bar conditions were known to have discouraged anglers until late in the season.

The calculated estuary fishery for Siuslaw Bay is shown in Table 50. Thirty-two percent of the cutthroat observed in the fishery bore hatchery marks. The winter steelhead fishery catch data are included in Table 57. Effort and catch totals on the Siuslaw River were approximately double those recorded in the previous season.

Table 50

Summary of Statistics of the Siuslaw Estuary Fishery, 1966

| Boat-Days | Total<br>Anglers | Calculated Total Catch |         |       |                           | Fish<br>per<br>Angler |
|-----------|------------------|------------------------|---------|-------|---------------------------|-----------------------|
|           |                  | Cutthroat              | Chinook | Coho  | Coho and Chinook<br>Jacks |                       |
| 7,969     | 16,629           | 5,698                  | 83      | 1,004 | 582                       | 0.46                  |

Spawning ground counts for coho for district waters are included in Table 54.

The 1966 count of adult coho per mile was similar to the past 3- to 6-year average counts.

#### TROUT

Creel data for the district trout waters are shown in Table 58.

Results of fish population studies with gill nets are shown in Table 51.

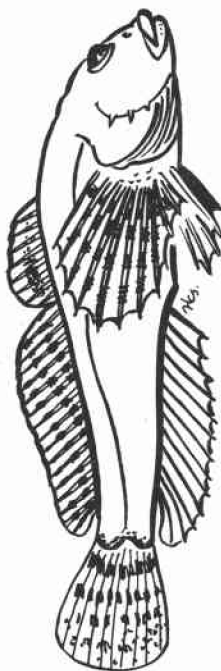
Table 51

Summary of Gill-Net Collections, Siuslaw District, 1966

| Lake       | Number<br>of<br>Sets | Species | Number<br>Fish<br>Taken | Percentage<br>of Total | Average<br>Size<br>(Inches) | Number of Fish by One-Inch Size Groups |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 20 &<br>Over |
|------------|----------------------|---------|-------------------------|------------------------|-----------------------------|----------------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------------|
|            |                      |         |                         |                        |                             | 4                                      | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |              |
| Clear      | 10                   | Cot     | 1                       | 1.1                    | 5.0                         |                                        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
|            |                      | LB      | 12                      | 13.3                   | 8.5                         | 1                                      | 3  |    | 3  | 1  | 1  | 1  | 1  |    |    |    |    |    |    |    |              |
|            |                      | Sq      | 30                      | 33.3                   | 12.8                        |                                        |    |    |    | 1  | 2  | 1  | 8  | 3  | 1  | 12 | 2  |    |    |    |              |
|            |                      | YP      | 47                      | 52.3                   | 9.6                         | 1                                      |    |    |    | 1  | 32 | 13 |    |    |    |    |    |    |    |    |              |
| Cleawox    | 8                    | BC      | 6                       | 18.8                   | 5.6                         | 4                                      |    |    | 1  | 1  |    |    |    |    |    |    |    |    |    |    |              |
|            |                      | LB      | 1                       | 3.1                    | 10.8                        |                                        |    |    |    |    |    | 1  |    |    |    |    |    |    |    |    |              |
|            |                      | Rb      | 5                       | 15.6                   | 10.2                        |                                        |    |    |    |    | 1  | 4  |    |    |    |    |    |    |    |    |              |
|            |                      | YP      | 20                      | 62.5                   | 7.2                         |                                        | 6  | 6  | 4  | 1  | 1  |    | 2  |    |    |    |    |    |    |    |              |
| Mercer     | 3                    | K       | 14                      | 70.0                   | 10.6                        |                                        |    |    |    |    | 3  | 6  | 5  |    |    | 1  |    |    |    |    |              |
|            |                      | WC      | 1                       | 5.0                    | 13.5                        |                                        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
|            |                      | YP      | 5                       | 25.0                   | 7.9                         |                                        |    |    | 3  | 2  |    |    |    |    |    |    |    |    |    |    |              |
| Siltcoos   | 10                   | BC      | 82                      | 16.8                   | 7.5                         | 2                                      | 11 | 7  | 42 | 9  | 5  | 3  | 2  | 1  |    |    |    |    |    |    |              |
|            |                      | Bg      | 58                      | 11.9                   | 5.3                         | 23                                     | 10 | 20 | 5  |    |    |    |    |    |    |    |    |    |    |    |              |
|            |                      | BrB     | 232                     | 47.4                   | 10.2                        |                                        |    | 1  | 20 | 42 | 45 | 41 | 41 | 30 | 11 | 1  |    |    |    |    |              |
|            |                      | Co      | 2                       | 0.4                    | 7.2                         |                                        |    | 1  |    | 1  |    |    |    |    |    |    |    |    |    |    |              |
|            |                      | CSu     | 1                       | 0.2                    | 11.1                        |                                        |    |    |    |    |    | 1  |    |    |    |    |    |    |    |    |              |
|            |                      | Ct      | 3                       | 0.6                    | 12.1                        |                                        |    |    |    |    |    | 1  |    | 1  | 1  |    |    |    |    |    |              |
|            |                      | Rb      | 2                       | 0.4                    | 11.5                        |                                        |    |    |    |    |    | 1  |    | 1  |    |    |    |    |    |    |              |
|            |                      | YP      | 109                     | 22.3                   | 6.1                         | 4                                      | 48 | 38 | 18 | 1  |    |    |    |    |    |    |    |    |    |    |              |
|            |                      |         |                         |                        |                             |                                        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
|            |                      |         |                         |                        |                             |                                        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
| Tabkenitch | 10                   | Bg      | 255                     | 85.7                   | 5.3                         | 104                                    | 75 | 66 | 9  | 1  | 1  | 9  | 3  | 3  |    |    |    |    |    |    |              |
|            |                      | BrB     | 16                      | 5.4                    | 10.9                        |                                        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
|            |                      | Ct      | 1                       | 0.3                    | 10.0                        |                                        |    |    |    |    |    |    | 1  |    |    |    |    |    |    |    |              |
|            |                      | LB      | 6                       | 2.0                    | 10.2                        |                                        | 2  |    | 1  | 1  | 1  |    |    |    |    | 1  |    |    |    |    | 1            |
|            |                      | WC      | 12                      | 4.0                    | 8.4                         |                                        |    | 2  | 2  | 4  | 3  |    |    |    | 1  |    |    |    |    |    |              |
|            |                      | Wm      | 1                       | 0.3                    | 5.4                         |                                        | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
|            |                      | YP      | 7                       | 2.3                    | 7.8                         |                                        |    | 1  | 3  | 3  |    |    |    |    |    |    |    |    |    |    |              |
| Triangle   | 8                    | Bg      | 17                      | 11.0                   | 5.4                         | 5                                      | 6  | 6  |    |    |    |    |    |    |    |    |    |    |    |    |              |
|            |                      | BrB     | 80                      | 51.6                   | 8.4                         |                                        |    | 2  | 28 | 26 | 19 | 5  |    |    |    |    |    |    |    |    |              |
|            |                      | Ct      | 28                      | 18.1                   | 9.1                         |                                        |    | 1  | 3  | 3  | 18 | 3  |    |    |    |    |    |    |    |    |              |
|            |                      | CSu     | 19                      | 12.3                   | 13.3                        |                                        |    |    |    |    | 1  | 3  | 3  | 2  | 2  | 2  | 2  | 4  |    |    |              |
|            |                      | Pk      | 2                       | 1.2                    | 4.6                         | 2                                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
|            |                      | Sq      | 3                       | 1.9                    | 12.8                        |                                        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
|            |                      | YP      | 6                       | 3.9                    | 6.1                         |                                        |    | 1  | 1  | 4  |    |    | 1  |    | 2  |    |    |    |    |    |              |
|            |                      |         |                         |                        |                             |                                        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |              |

Table 51 (continued)

| Lake    | Number<br>of<br>Sets | Species | Number<br>Fish<br>Taken | Percentage<br>of Total | Average<br>Size<br>(Inches) | Number of Fish by One-Inch Size Groups |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |              |
|---------|----------------------|---------|-------------------------|------------------------|-----------------------------|----------------------------------------|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|--------------|
|         |                      |         |                         |                        |                             | 4                                      | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 &<br>Over |
| Washink | 10                   | BC      | 1                       | 0.9                    | 9.5                         |                                        |   |   |   | 1 |    |    |    |    |    |    |    |    |    |    |    |              |
|         |                      | Co      | 1                       | 0.9                    | 8.8                         |                                        |   |   |   | 1 |    |    |    |    |    |    |    |    |    |    |    |              |
|         |                      | Cot     | 1                       | 0.9                    | 5.8                         |                                        |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |              |
|         |                      | CSu     | 10                      | 9.4                    | 17.3                        |                                        | 1 |   |   |   |    |    |    |    |    |    |    |    |    |    |    |              |
|         |                      | Ct      | 8                       | 7.6                    | 11.1                        |                                        |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |              |
|         |                      | X       | 49                      | 46.3                   | 10.3                        |                                        |   |   |   | 1 | 2  | 2  | 7  |    |    |    |    |    |    |    |    |              |
|         |                      | Rb      | 11                      | 10.4                   | 10.7                        |                                        |   |   |   | 2 | 12 | 28 | 4  |    |    |    |    |    |    |    |    |              |
|         |                      | Sq      | 14                      | 13.2                   | 14.7                        |                                        |   |   |   |   | 2  | 5  | 1  | 2  | 1  | 2  |    |    |    |    |    |              |
|         |                      | YP      | 11                      | 10.4                   | 10.6                        |                                        |   |   |   | 1 | 1  | 5  | 3  | 1  |    |    |    |    |    |    |    |              |
|         |                      |         |                         |                        |                             |                                        |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |              |



# UMATILLA DISTRICT

David N. Heckerorth

## FISH INVENTORY

### ANADROMOUS

Creel data for the winter steelhead and salmon fishery of the Columbia River in the Umatilla District for the years 1961-62 through 1965-66 are shown in Table 52.

Table 52

A Five-Year Comparison of Salmon and Steelhead Angling Success  
on the Columbia River in the Umatilla District,  
Winter Season, November 1 to May 31

| Method      | Year    | Number<br>Anglers | Number<br>Hours | Catch |    |       | Fish<br>per<br>Angler | Hours<br>per<br>Fish |
|-------------|---------|-------------------|-----------------|-------|----|-------|-----------------------|----------------------|
|             |         |                   |                 | St    | Ch | Total |                       |                      |
| <u>Boat</u> | 1961-62 | 157               | 772             | 52    | 0  | 52    | 0.33                  | 14.8                 |
|             | 1962-63 | 186               | 811             | 81    | 0  | 81    | 0.44                  | 10.0                 |
|             | 1963-64 | 517               | 2,152           | 103   | 28 | 131   | 0.25                  | 16.4                 |
|             | 1964-65 | 34                | 136             | 21    | 1  | 22    | 0.65                  | 6.2                  |
|             | 1965-66 | 345               | 1,374           | 155   | 0  | 155   | 0.45                  | 8.9                  |
| AVERAGES    |         | 248               | 1,049           | 82    | 6  | 88    | 0.35                  | 11.9                 |
| <u>Bank</u> | 1961-62 | 188               | 673             | 20    | 0  | 20    | 0.11                  | 33.7                 |
|             | 1962-63 | 435               | 1,644           | 30    | 0  | 30    | 0.07                  | 54.8                 |
|             | 1963-64 | 305               | 1,145           | 8     | 3  | 11    | 0.04                  | 104.1                |
|             | 1964-65 | 609               | 2,460           | 20    | 2  | 22    | 0.04                  | 111.8                |
|             | 1965-66 | 998               | 3,732           | 37    | 24 | 61    | 0.06                  | 61.2                 |
| AVERAGES    |         | 507               | 1,931           | 23    | 6  | 29    | 0.06                  | 66.6                 |

The Umatilla River and Walla Walla River steelhead creel data for the period 1959-60 through 1965-66 are shown in Table 53.

A steelhead spawning ground survey conducted on streams in several watersheds produced an average of 5.33 steelhead and 6.7 redds per mile. Although the average number of steelhead and redds per mile was greater than that obtained in previous years, at least part of the increase was due to the excellent water conditions prevailing at the time surveys were conducted in 1966.

An electronic fish counter was installed in the Threemile Dam on the Umatilla River in the period. A total of 111 adult steelhead was counted in the period November 1 through December 4.

Table 53

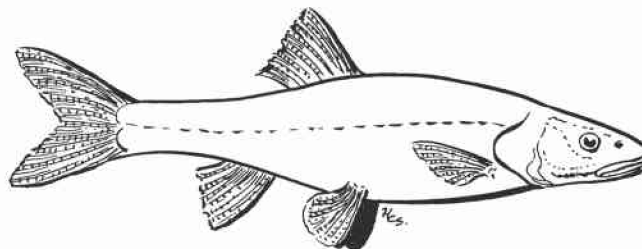
A Seven-Year Comparison of Steelhead Angling Success  
on the Umatilla and Walla Walla Rivers,  
1959 through 1966

| River              | Year    | Number<br>Anglers | Number<br>Hours | Steelhead<br>Catch | Fish<br>per<br>Angler | Hours<br>per<br>Fish |
|--------------------|---------|-------------------|-----------------|--------------------|-----------------------|----------------------|
| <u>Umatilla</u>    | 1959-60 | 266               | 800             | 70                 | 0.26                  | 11.4                 |
|                    | 1960-61 | 211               | 512             | 49                 | 0.23                  | 10.4                 |
|                    | 1961-62 | 199               | 616             | 21                 | 0.11                  | 29.3                 |
|                    | 1962-63 | 226               | 863             | 31                 | 0.14                  | 27.8                 |
|                    | 1963-64 | 154               | 392             | 41                 | 0.27                  | 9.6                  |
|                    | 1964-65 | 56                | 171             | 10                 | 0.18                  | 17.1                 |
|                    | 1965-66 | 91                | 216             | 12                 | 0.13                  | 18.0                 |
| AVERAGES           |         | 172               | 510             | 33                 | 0.19                  | 15.5                 |
| <u>Walla Walla</u> | 1959-60 | 51                | 104             | 2                  | 0.04                  | 52.0                 |
|                    | 1960-61 | 68                | 235             | 16                 | 0.24                  | 14.7                 |
|                    | 1961-62 | 12                | 40              | 0                  | 0.00                  |                      |
|                    | 1962-63 | 42                | 114             | 8                  | 0.19                  | 14.3                 |
|                    | 1963-64 | 39                | 59              | 3                  | 0.08                  | 19.7                 |
|                    | 1964-65 | 13                | 59              | 4                  | 0.31                  | 14.8                 |
|                    | 1965-66 | 18                | 40              | 2                  | 0.11                  | 20.0                 |
| AVERAGES           |         | 35                | 93              | 5                  | 0.14                  | 18.6                 |

TROUT

Creel data for the Umatilla District are included in Table 58.

Electrofishing in the Umatilla River revealed that between 75 and 80 miles of river supported large populations of undesirable species and very few trout or salmon. Chemical treatment of the lower Umatilla River seems feasible in view of the results of electrofishing.



## WARM-WATER GAME FISH

Ralph A. Grenfell

Although largemouth bass deposited eggs in redds, no fry were recovered. The inability of largemouth to spawn successfully may have been due to a severe drop in the water temperature or loss of eggs from insect predation.

Bluegill and black crappie spawned successfully. Smallmouth bass received from the U. S. Fish and Wildlife Service were too young to spawn.

A shipment of about 57,000 largemouth bass fry, received from the U. S. Fish and Wildlife Service, was separated into equal lots and planted in four ponds. By the first of January, the largemouth were approximately 2.5 inches long but there was only a 35 percent survival. A number of ponds were drawn down and the weight of fish calculated. The yield for these one-acre ponds ranged from 19 to 314 pounds per surface acre.

Liberations of fish reared at St. Paul are included in the general section on fish distribution.

Anglers reported catching channel catfish in the Willamette River and a few tributaries. These fish ranged from 15 to 21 inches in length. It is assumed that they were from a release of fingerling made in 1962 and 1963.

Channel catfish reproduction was verified by the recovery of advanced fry in one of the downstream traps at Oregon City falls. The first small channel catfish trapped at the falls was on September 27, 1966.

The application of urea nitrogen and superphosphate was continued at Black Lake. Miller Lake was used as a control. The average annual growth increment for a 6-year period in white crappie for Black Lake was 2.0 inches, while in Miller Lake it was about 1.5 inches. A similar experiment on North and South Willow for a 3-year period produced no appreciable difference in the annual growth increment for white crappie in fertilized and unfertilized areas.

Some creel data on warm-water game fish are presented in Table 58.

Car counts and creel data were used to calculate angler use and catch for Lost River and Klamath Strait. There were approximately 4,378 angler-days at Lost River and 3,100 angler-days at Klamath Strait. The catch was 8,756 in Lost River and 2,790 fish in Klamath Strait.

Anglers in the Umatilla District caught warm-water game species at a rate of 1.3 fish per hour. Eighty-seven percent of the catch was white crappie.

About 14 percent of the fish caught in Prineville Reservoir were warm-water game fish. Smallmouth bass were present from Prineville Reservoir and Crooked River up to the mouth of the North Fork.

Creel data for 2,039 anglers show that the average catch rate for warm-water species on Sauvie Island was 0.75 fish per hour.

Of the 25,033 anglers estimated to have visited Owyhee Reservoir in 1966, slightly over half were nonresident. Approximately 95 percent of the catch was black crappie and 3 percent largemouth bass. Other species caught were black bullhead, rainbow trout, and yellow perch. Over 90 percent of the black crappie were between 7 and 10 inches in length. The average length for crappie caught by boat anglers was 9.3 inches fork length, and for bank anglers 7.7 inches fork length.



Table 54

Statewide Coho Spawning Ground Counts, 1966 <sup>/1</sup>

| Stream                       | Miles<br>of Stream<br>Counted | Coho Salmon<br>Counted |       |                  | Total<br>Salmon<br>per Mile |
|------------------------------|-------------------------------|------------------------|-------|------------------|-----------------------------|
|                              |                               | Adults                 | Jacks | Total            |                             |
| Alder Creek (Nestucca River) | 1.25                          | 73                     | 10    | 94 <sup>/2</sup> |                             |
| Coos River system            | 8.05                          | 256                    | 27    | 283              | 35.2                        |
| Coquille River system        | 12.00                         | 306                    | 34    | 340              | 28.3                        |
| Edwards Creek (Trask River)  | 1.00                          | 8                      | 1     | 18 <sup>/3</sup> |                             |
| Eel Lake tributaries         | 1.75                          | 189                    | 40    | 229              | 130.9                       |
| Lower Umpqua River tribs.    | 25.00                         | 282                    | 23    | 305              | 12.2                        |
| Necanicum River              | 4.25                          | 100                    | 9     | 109              | 25.6                        |
| Nehalem River                | 13.80                         | 219                    | 26    | 245              | 17.8                        |
| Rock Creek (Devils Lake)     | 0.70                          | 13                     |       | 13               | 18.6                        |
| Siletz River system          | 5.75                          | 273                    | 12    | 285              | 49.6                        |
| Siltcoos Lake                | 4.00                          | 604                    | 53    | 657              | 164.3                       |
| Siuslaw River system         | 13.25                         | 132                    | 27    | 159              | 12.0                        |
| Tahkenitch Lake              | 1.50                          | 363                    | 78    | 441              | 294.0                       |
| Tenmile Lake tributaries     | 16.70                         | 1,825                  | 1,127 | 2,952            | 176.8                       |
| Yachats River system         | 1.75                          | 25                     | 3     | 28               | 16.0                        |

<sup>/1</sup> Joint program with Fish Commission of Oregon<sup>/2</sup> Includes 11 unclassified salmon.<sup>/3</sup> Includes 9 unclassified salmon.



Table 55

Statewide Fall Chinook Salmon Spawning Ground Counts, 1966 <sup>/1</sup>

| Stream                     | Miles<br>of Stream<br>Surveyed | Chinook Salmon<br>Counted |       |                   | Fish<br>per Mile |
|----------------------------|--------------------------------|---------------------------|-------|-------------------|------------------|
|                            |                                | Adults                    | Jacks | Total             |                  |
| Alder Creek (Nestucca)     | 1.25                           | 5                         | 0     | 13 <sup>/2</sup>  | 10.4             |
| Applegate River (Rogue)    | 1.50                           | 235                       | 37    | 272               | 181.3            |
| Bays Creek (Nestucca)      | 1.00                           | 18                        | 0     | 18                | 18.0             |
| Chetco River system        | 2.00                           | 147                       | 24    | 171               | 85.5             |
| Coos River and tributaries | 8.00                           | 15                        | 1     | 16                | 2.0              |
| Coquille River and tribs.  | 6.05                           | 205                       | 43    | 248               | 41.0             |
| Edwards Creek (Trask)      | 1.00                           | 129                       | 2     | 154 <sup>/3</sup> | 154.0            |
| Elk River system           | 1.00                           | 154                       | 16    | 170               | 170.0            |
| Lower Umpqua River tribs.  | 7.25                           | 12                        | 9     | 21                | 2.9              |
| Nehalem River              | 5.00                           | 175                       | 19    | 194               | 38.8             |
| Pistol River               | 0.50                           | 82                        | 6     | 88                | 176.0            |
| Rogue River system         | 2.50                           | 96                        | 15    | 111               | 44.4             |
| Sixes River system         | 2.00                           | 137                       | 21    | 158               | 79.0             |
| Winchuck River             | 1.00                           | 8                         | 0     | 8                 | 8.0              |

<sup>/1</sup> Joint program with Fish Commission of Oregon.<sup>/2</sup> Includes 8 unclassified fish.<sup>/3</sup> Includes 23 unclassified fish.

Table 56

## Offshore Salmon Calculated Catch, 1966

| Port                             | Total<br>Angler<br>Trips | Number Salmon Taken |         |         | Salmon<br>per<br>Angler |
|----------------------------------|--------------------------|---------------------|---------|---------|-------------------------|
|                                  |                          | Chinook             | Coho    | Total   |                         |
| Astoria<br>(includes Washington) | 163,900                  | 71,400              | 187,800 | 259,200 | 1.58                    |
| Brookings                        | 9,331                    | 754                 | 2,951   | 3,705   | 0.40                    |
| Coos Bay                         | 31,559                   | 1,126               | 21,805  | 22,931  | 0.73                    |
| Depoe Bay                        | 41,708                   | 1,262               | 32,410  | 33,672  | 0.81                    |
| Gold Beach                       | 16,554                   | 2,762               | 1,973   | 4,735   | 0.29                    |
| Siletz Bay                       | 10,245                   | 1,155               | 7,152   | 8,307   | 0.81                    |
| Winchester Bay                   | 52,985                   | 6,441               | 49,254  | 55,695  | 1.05                    |
| Yaquina Bay                      | 55,246                   | 2,384               | 23,075  | 25,459  | 0.46                    |

Table 57

## Winter Steelhead Catch Data, 1966

| Stream                        | Number<br>Anglers | Hours<br>Fished | Total<br>Steelhead | Hours<br>per Fish |
|-------------------------------|-------------------|-----------------|--------------------|-------------------|
| Applegate River               | 290               | 570             | 31                 | 18.4              |
| Big Creek                     | 160               | 297             | 76                 | 3.9               |
| Big Elk Creek                 | 71                | 232             | 2                  | 116.0             |
| Chetco River                  | 76                | 179             | 10                 | 17.9              |
| Coos River system             | 281               | 1,039           | 66                 | 15.7              |
| Coquille River system         | 260               | 964             | 51                 | 18.9              |
| Deschutes River, Lower        | 784               | 2,940           | 176                | 16.7              |
| Deschutes River, Maupin area  | 53                | 235             | 5                  | 47.0              |
| Deschutes River, Webbs Road   | 804               | 2,341           | 81                 | 28.9              |
| Drift Creek (Siletz)          | 42                | 110             | 8                  | 13.8              |
| Elk River                     | 46                | 93              | 6                  | 15.5              |
| Floras Creek                  | 16                | 29              | 5                  | 5.8               |
| Gnat Creek                    | 26                | 32              | 7                  | 4.6               |
| Grande Ronde River, Section 3 | 17                | 27              | 9                  | 3.0               |
| Hood River                    | 299               | 633             | 52                 | 12.2              |
| Hunter Creek                  | 87                | 160             | 14                 | 11.4              |
| Illinois River                | 92                | 320             | 23                 | 13.9              |
| Klaskanine River              | 12                | 15              | 2                  | 7.5               |
| Lewis and Clark River         | 17                | 35              | 1                  | 35.0              |
| Necanicum River               | 210               | 774             | 87                 | 8.9               |
| Nehalem River                 | 537               | 2,036           | 185                | 11.0              |
| Nestucca River (bank)         | 512               | 1,742           | 54                 | 32.3              |
| North Fork Nehalem River      | 63                | 237             | 20                 | 11.9              |
| Pine Creek                    | 10                | 15              | 1                  | 15.0              |
| Rogue River, Lower            | 417               | 1,716           | 139                | 12.3              |
| Rogue River, Middle           | 509               | 1,818           | 191                | 9.5               |
| Salmon River                  | 285               | 725             | 42                 | 17.3              |
| Salmonberry River             | 43                | 133             | 2                  | 66.5              |
| Siletz River                  | 1,102             | 4,029           | 352 <sup>/1</sup>  | 11.4              |
| Siuslaw River                 | 1,904             | 5,260           | 263                | 20.0              |
| Sixes River                   | 124               | 329             | 51                 | 6.5               |
| Snake River, Oxbow Bend       | 69                | 171             | 11                 | 15.5              |
| Snake River, Section 2        | 191               | 705             | 50                 | 14.1              |
| Trask River (bank)            | 721               | 1,902           | 136                | 14.0              |
| Winchuck River                | 24                | 46              | 5                  | 9.2               |
| Yachats River                 | 7                 | 15              | 1                  | 15.0              |
| TOTALS                        | 10,161            | 31,904          | 2,215              |                   |
| AVERAGE                       |                   |                 |                    | 14.4              |

<sup>/1</sup> Includes some summer-run fish.

Table 58

State-Wide Creel Census Summary for Streams, Lakes, and Reservoirs, 1966

| Water             | Watershed | Species        | Number of Fish (by Two-Inch Size Groups) |          |         |         |       |         |       |           |  |  | Total Fish         | Total Anglers | Total Hours Fished | Fish per Angler | Fish per Hour |
|-------------------|-----------|----------------|------------------------------------------|----------|---------|---------|-------|---------|-------|-----------|--|--|--------------------|---------------|--------------------|-----------------|---------------|
|                   |           |                | 6-8                                      | 8-10     | 10-12   | 12-14   | 14-16 | 16-18   | 18-20 | 20 & Over |  |  |                    |               |                    |                 |               |
| STREAMS           |           |                |                                          |          |         |         |       |         |       |           |  |  |                    |               |                    |                 |               |
| Abiqua Creek      | 2         | Rb<br>Ct       | 11                                       | 183<br>1 | 6       |         |       |         |       |           |  |  | 200<br>1<br>201    | 144           | 308                | 1.4             | 0.65          |
| Agency Creek      | 2         | Rb<br>Ct       | 1<br>62                                  | 9        | 2       |         |       |         |       |           |  |  | 1<br>73<br>74      | 35            | 105                | 2.1             | 0.70          |
| Ana River         | 13        | Rb             | 7                                        | 32       | 19      | 1       | 1     |         |       | 1         |  |  | 61                 | 14            | 65                 | 4.4             | 0.94          |
| Beech Creek       | 6         | Rb             | 51                                       | 8        | 3       |         |       |         |       |           |  |  | 62                 | 11            | 32                 | 5.6             | 1.94          |
| Big Fall Creek    | 2         | Rb<br>Chs      | 5<br>1                                   | 25       | 50      | 10      | 1     |         |       |           |  |  | 91<br>1<br>92      | 75            | 225                | 1.2             | 0.41          |
| Big Indian Creek  | 12        | Rb             | 1                                        | 12       | 14      | 8       | 7     | 1       |       |           |  |  | 43                 | 14            | 32                 | 3.1             | 1.34          |
| Big Sheep Creek   | 8         | Rb<br>Dv<br>Wf | 41<br>2                                  | 3<br>2   | 1<br>1  |         |       |         |       | 1         |  |  | 45<br>5<br>1<br>51 | 13            | 44                 | 3.9             | 1.16          |
| Blitzen River     | 12        | Rb<br>Wf       | 75                                       | 124      | 241     | 138     | 28    | 15<br>1 | 2     | 3         |  |  | 626<br>1<br>627    | 199           | 422                | 3.2             | 1.49          |
| Blue River        | 2         | Rb<br>Ct       | 2<br>1                                   | 5<br>2   | 2<br>2  |         |       |         |       |           |  |  | 9<br>5<br>14       | 34            | 50                 | 0.4             | 0.28          |
| Breitenbush River | 2         | Rb             | 9                                        | 122      | 58      | 1       |       |         |       |           |  |  | 190                | 67            | 183                | 2.8             | 1.04          |
| Brice Creek       | 2         | Rb<br>Ct       | 13<br>52                                 | 78<br>14 | 82<br>1 | 16<br>1 |       |         |       |           |  |  | 189<br>68<br>257   | 73            | 319                | 3.5             | 0.81          |

Table 58 (continued)

| Water                          | Watershed | Species                          | Number of Fish (by Two-Inch Size Groups) |                |         |       |       |       |                    |           | Total Fish                             | Total Anglers | Total Hours Fished | Fish per Angler | Fish per Hour |  |
|--------------------------------|-----------|----------------------------------|------------------------------------------|----------------|---------|-------|-------|-------|--------------------|-----------|----------------------------------------|---------------|--------------------|-----------------|---------------|--|
|                                |           |                                  | 6-8                                      | 8-10           | 10-12   | 12-14 | 14-16 | 16-18 | 18-20              | 20 & Over |                                        |               |                    |                 |               |  |
| STREAMS (continued)            |           |                                  |                                          |                |         |       |       |       |                    |           |                                        |               |                    |                 |               |  |
| Burnt River                    | 9         | Rb                               | 9                                        | 26             | 7       |       |       |       |                    |           | 42                                     | 28            | 62                 | 1.5             | 0.68          |  |
| Calapooia River                | 2         | Rb<br>Ct<br>St                   | 17<br>3                                  | 26<br>2        | 1<br>1  |       |       |       |                    | 8         | 44<br>6<br>8<br>58                     | 143           | 326                | 0.4             | 0.18          |  |
| Canas Creek                    | 13        | Rb                               | 38                                       | 24             | 2       |       |       |       |                    |           | 64                                     | 21            | 52                 | 3.0             | 1.23          |  |
| Canyon Creek                   | 6         | Rb                               | 20                                       | 20             | 1       | 1     |       |       |                    |           | 42                                     | 10            | 15                 | 4.2             | 2.80          |  |
| Cave Creek                     | 8         | Rb                               | 5                                        | 8              | 8       | 8     | 3     |       |                    |           | 32                                     | 16            | 32                 | 2.0             | 1.00          |  |
| Chewaucan River                | 13        | Rb<br>B                          | 9<br>5                                   | 443            | 23      | 7     |       |       |                    |           | 482<br>5<br>487                        | 88            | 303                | 5.5             | 1.61          |  |
| Clackamas River                | 3         | Rb<br>Ct<br>St<br>Ch<br>Wf<br>Co | 87<br>1<br>64                            | 142<br>1<br>28 | 333     | 4     |       |       | 2<br>46<br>1<br>73 |           | 566<br>7<br>138<br>74<br>1<br>8<br>794 | 1,195         | 2,795              | 0.7             | 0.28          |  |
| Clackamas River,<br>North Fork | 3         | Rb                               |                                          | 89             | 3       |       |       |       |                    |           | 92                                     | 32            | 91                 | 2.9             | 1.01          |  |
| Collawash River                | 3         | Rb                               | 1                                        | 12             |         |       |       |       |                    |           | 13                                     | 12            | 44                 | 1.1             | 0.30          |  |
| Cook Creek                     | 1         | Ct                               |                                          | 138            | 7       |       |       |       |                    |           | 145                                    | 24            | 59                 | 6.0             | 2.46          |  |
| Cottonwood Creek               | 13        | Rb<br>BT                         | 36<br>1                                  | 6<br>4         | 11<br>1 | 3     | 14    | 6     |                    |           | 76<br>6<br>82                          | 22            | 80                 | 3.7             | 1.03          |  |
| Cottonwood Creek No. 1         | 10        | Rb                               | 48                                       | 37             | 6       |       |       |       |                    |           | 91                                     | 11            | 31                 | 8.3             | 2.94          |  |

Table 58 (continued)

| Water                           | Watershed | Species                                     | Number of Fish (by Two-Inch Size Groups) |                                 |                           |                    |       |       |       |           |                                         |                 | Total Fish Anglers | Total Hours Fished | Fish per Angler | Fish per Hour |
|---------------------------------|-----------|---------------------------------------------|------------------------------------------|---------------------------------|---------------------------|--------------------|-------|-------|-------|-----------|-----------------------------------------|-----------------|--------------------|--------------------|-----------------|---------------|
|                                 |           |                                             | 6-8                                      | 8-10                            | 10-12                     | 12-14              | 14-16 | 16-18 | 18-20 | 20 & Over |                                         |                 |                    |                    |                 |               |
| STREAMS (continued)             |           |                                             |                                          |                                 |                           |                    |       |       |       |           |                                         |                 |                    |                    |                 |               |
| Crabtree Creek                  | 2         | Rb<br>Ct                                    | 9<br>5                                   | 59                              | 43                        | 3                  |       |       |       |           |                                         | 114<br>5<br>119 | 91                 | 180                | 1.3             | 0.66          |
| Crooked River (lower)           | 5         | Rb                                          | 3                                        | 45                              | 111                       | 115                | 41    | 22    | 8     | 4         | 349                                     |                 | 248                | 820                | 1.4             | 0.43          |
| Crooked River (upper)           | 5         | Rb                                          | 7                                        | 4                               |                           | 2                  |       | 1     | 1     |           | 16                                      |                 | 22                 | 41                 | 0.7             | 0.39          |
| Crow Creek                      | 8         | Rb                                          | 83                                       | 1                               |                           |                    |       |       |       |           | 84                                      |                 | 17                 | 29                 | 4.9             | 2.90          |
| Dairy Creek                     | 13        | Rb<br>BT                                    | 31<br>50                                 | 46<br>14                        | 1                         | 5                  |       |       |       |           | 83<br>64<br>147                         |                 | 36                 | 97                 | 4.1             | 1.52          |
| Deep Creek                      | 13        | Rb                                          | 23                                       | 92                              | 26                        |                    | 1     |       |       |           | 142                                     |                 | 42                 | 110                | 3.4             | 1.29          |
| Deschutes River<br>(Maupin)     | 5         | Rb<br>BT<br>St<br>Ch<br>Wf                  | 277<br>1<br>2                            | 2,154<br>1<br>1                 | 1,026                     | 179                | 26    | 7     | 1     | 3         | 3,673<br>1<br>3<br>2<br>2               |                 | 1,959              | 6,525              | 1.9             | 0.56          |
| Deschutes River<br>(Webbs Road) | 5         | Rb<br>Ch<br>Wf                              | 14                                       | 35<br>1                         | 37                        | 17                 | 12    | 2     |       |           | 117<br>1<br>2                           |                 | 194                | 663                | 0.6             | 0.18          |
| Deschutes River<br>(Section 2)  | 5         | Rb<br>StS<br>Rb-Sts<br>Co<br>Ch<br>DW<br>Wf | 30<br>56<br>4<br>8<br>18                 | 356<br>182<br>35<br>1<br>2<br>1 | 314<br>48<br>38<br>8<br>4 | 56<br>1<br>14<br>3 | 7     | 3     | 1     | 1         | 768<br>287<br>92<br>19<br>19<br>3<br>12 |                 | 643                | 2,038              | 1.9             | 0.59          |
| Deschutes River<br>(Section 3)  | 5         | Rb<br>Br<br>Wf                              | 26<br>5                                  | 161<br>9<br>1                   | 155<br>15<br>1            | 11<br>8<br>1       | 6     |       |       |           | 359<br>44<br>406                        |                 | 199                | 790                | 2.0             | 0.51          |

1 Not checked for marks.

Table 58 (continued)

| Water                          | Watershed | Species | Number of Fish (by Two-Inch Size Groups) |      |       |       |       |       |       |           | Total Fish | Total Anglers | Total Hours Fished | Fish per Angler | Fish per Hour |
|--------------------------------|-----------|---------|------------------------------------------|------|-------|-------|-------|-------|-------|-----------|------------|---------------|--------------------|-----------------|---------------|
|                                |           |         | 6-8                                      | 8-10 | 10-12 | 12-14 | 14-16 | 16-18 | 18-20 | 20 & Over |            |               |                    |                 |               |
| STREAMS (continued)            |           |         |                                          |      |       |       |       |       |       |           |            |               |                    |                 |               |
| Deschutes River<br>(Section 4) | 5         | Rb      | 21                                       | 129  | 65    | 4     |       |       |       |           | 219        |               |                    |                 |               |
|                                |           | Br      | 13                                       | 7    | 4     | 3     |       |       |       |           | 27         |               |                    |                 |               |
|                                |           | K       |                                          |      |       | 1     |       |       |       |           | 1          |               |                    |                 |               |
|                                |           | Wf      | 1                                        |      | 16    | 3     |       |       |       |           | 20         | 181           | 457                | 1.5             | 0.58          |
|                                |           |         |                                          |      |       |       |       |       |       |           | 267        |               |                    |                 |               |
| East Dairy Creek               | 2         | Rb      | 6                                        | 8    | 5     |       |       |       |       |           | 19         |               |                    |                 |               |
|                                |           | Ct      | 3                                        | 5    | 2     |       |       |       |       |           | 10         | 26            | 85                 | 1.1             | 0.34          |
|                                |           |         |                                          |      |       |       |       |       |       |           | 29         |               |                    |                 |               |
| Elk River                      | 15        | Ch      |                                          |      |       |       |       |       |       |           | 86         | 211           | 637                | 0.4             |               |
| Emigrant Creek                 | 12        | Rb      | 63                                       | 67   | 125   | 78    | 8     |       |       |           | 341        | 85            | 257                | 4.0             | 1.33          |
| Fall River                     | 5         | Rb      |                                          | 58   |       |       | 2     |       |       |           | 60         |               |                    |                 |               |
|                                |           | BT      | 1                                        |      |       |       |       |       |       | 1         |            |               |                    |                 |               |
|                                |           | Br      |                                          |      |       | 1     | 2     |       |       | 3         | 19         | 45            | 3.4                | 1.42            |               |
|                                |           |         |                                          |      |       |       |       |       |       |           | 64         |               |                    |                 |               |
| Fifteenmile Creek              | 5         | Rb      | 33                                       | 59   | 3     | 1     |       |       |       |           | 96         | 21            | 53                 | 4.6             | 1.81          |
| Fish Creek                     | 3         | Rb      | 1                                        | 19   | 20    |       |       |       |       |           | 40         | 12            | 45                 | 3.3             | 0.89          |
| Gate Creek                     | 2         | Rb      |                                          | 16   | 20    | 1     |       |       |       |           | 37         |               |                    |                 |               |
|                                |           | Ct      | 4                                        |      |       |       |       |       |       | 4         | 47         | 97            | 0.9                | 0.42            |               |
|                                |           |         |                                          |      |       |       |       |       |       |           | 41         |               |                    |                 |               |
| Hills Creek                    | 2         | Rb      |                                          | 16   | 23    | 1     |       |       |       |           | 40         |               |                    |                 |               |
|                                |           | Ct      | 1                                        |      |       |       |       |       |       | 1         | 39         | 107           | 1.1                | 0.38            |               |
|                                |           |         |                                          |      |       |       |       |       |       |           | 41         |               |                    |                 |               |
| Honey Creek                    | 13        | Rb      | 28                                       | 53   | 19    | 5     | 2     | 1     |       | 1         | 109        | 32            | 127                | 3.4             | 0.86          |
| Hood River                     | 4         | Rb      | 9                                        | 9    |       |       |       |       |       |           | 18         | 34            | 85                 | 0.5             | 0.21          |
| Hood River, East Fork          | 4         | Rb      | 84                                       | 242  | 56    |       |       |       |       |           | 382        |               |                    |                 |               |
|                                |           |         | 2                                        |      |       |       |       |       |       | 2         | 235        | 465           | 1.6                | 0.83            |               |
|                                |           | Ct      |                                          |      |       |       |       |       |       |           |            |               |                    |                 |               |

Table 58 (continued)

| Water                             | Watershed | Species | Number of Fish (by Two-Inch Size Groups) |      |       |       |       |       |       |           |  |                 | Total Fish      | Total Anglers | Total Hours Fished | Fish per Angler | Fish per Hour |
|-----------------------------------|-----------|---------|------------------------------------------|------|-------|-------|-------|-------|-------|-----------|--|-----------------|-----------------|---------------|--------------------|-----------------|---------------|
|                                   |           |         | 6-8                                      | 8-10 | 10-12 | 12-14 | 14-16 | 16-18 | 18-20 | 20 & Over |  |                 |                 |               |                    |                 |               |
| STREAMS (continued)               |           |         |                                          |      |       |       |       |       |       |           |  |                 |                 |               |                    |                 |               |
| Imnaha River                      | 8         | Rb      | 83                                       | 249  | 113   | 3     |       |       |       |           |  |                 | 448             |               |                    |                 |               |
|                                   |           | DV      | 8                                        | 9    | 3     | 1     |       |       |       |           |  |                 | 21              |               |                    |                 |               |
|                                   |           | Wf      |                                          |      | 1     | 2     |       |       |       |           |  |                 | <u>3</u><br>472 | 177           | 568                | 2.7             | 0.83          |
| John Day River, South Fork        | 6         | Rb      | 38                                       | 26   | 1     |       |       |       |       |           |  | 65              | 13              | 26            | 5.0                | 2.50            |               |
| Johnson Creek                     | 3         | Rb      | 30                                       | 4    |       |       |       |       |       |           |  |                 | 34              |               |                    |                 |               |
|                                   |           | Ct      |                                          |      |       |       |       | 1     |       |           |  | 1               |                 |               |                    |                 |               |
|                                   |           | St      |                                          |      |       |       |       | 7     |       |           |  | <u>7</u><br>42  | 66              | 169           | 0.6                | 0.25            |               |
| Klamath River                     | 14        | Rb      | 29                                       | 44   | 41    | 30    | 19    | 2     | 2     |           |  | 167             | 124             | 422           | 1.3                | 0.40            |               |
| Klamath Straits                   | 14        | PS      | 2                                        |      |       |       |       |       |       |           |  |                 | 2               |               |                    |                 |               |
|                                   |           | LB      | 1                                        |      |       | 2     |       |       |       |           |  | 3               |                 |               |                    |                 |               |
|                                   |           | YP      | 3                                        |      | 1     |       |       |       |       |           |  | 4               |                 |               |                    |                 |               |
|                                   |           | BrB     | 4                                        | 14   | 12    | 12    | 12    |       |       |           |  | <u>54</u><br>63 | 68              | 112           | 0.9                | 0.56            |               |
| Laying Creek                      | 2         | Rb      | 1                                        | 12   | 9     |       |       |       |       |           |  | 22              |                 |               |                    |                 |               |
|                                   |           | Ct      | 2                                        | 1    |       |       |       |       |       |           |  | <u>3</u><br>25  | 18              | 46            | 1.4                | 0.54            |               |
| Little Deschutes River<br>(North) | 5         | Rb      | 7                                        | 2    |       |       |       |       |       |           |  | 9               |                 |               |                    |                 |               |
|                                   |           | BT      | 1                                        |      |       |       |       |       |       |           |  | 1               |                 |               |                    |                 |               |
|                                   |           | Br      | 21                                       | 5    | 4     | 1     | 3     | 1     |       |           |  | 35              |                 |               |                    |                 |               |
|                                   |           | BrB     | 4                                        | 10   |       |       |       |       |       |           |  | <u>14</u><br>59 | 60              | 150           | 1.0                | 0.39            |               |
| Little Malheur River              | 10        | Rb      | 19                                       | 44   | 110   |       |       |       |       |           |  | 173             | 29              | 54            | 6.0                | 3.20            |               |
| Little North Santiam River        | 2         | Rb      | 67                                       | 172  | 39    |       |       |       |       |           |  | 278             |                 |               |                    |                 |               |
|                                   |           | Ct      |                                          | 2    |       |       |       |       |       |           |  | 2               |                 |               |                    |                 |               |
|                                   |           | Wf      |                                          |      |       |       |       |       |       |           |  | 1               |                 |               |                    |                 |               |
|                                   |           | St      |                                          |      |       |       |       |       | 1     |           |  | <u>1</u><br>282 | 140             | 348           | 2.0                | 0.81            |               |

Table 58 (continued)

| Water                      | Watershed | Species | Number of Fish (by Two-Inch Size Groups) |      |       |       |       |       |       |           | Total Fish Anglers | Total Hours Fished | Fish per Angler | Fish per Hour |
|----------------------------|-----------|---------|------------------------------------------|------|-------|-------|-------|-------|-------|-----------|--------------------|--------------------|-----------------|---------------|
|                            |           |         | 6-8                                      | 8-10 | 10-12 | 12-14 | 14-16 | 16-18 | 18-20 | 20 & Over |                    |                    |                 |               |
| STREAMS (continued)        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |
| Long Tom River             | 2         | Ct      | 2                                        | 19   | 31    | 16    | 1     |       |       |           |                    |                    |                 |               |
|                            |           | WC      | 279                                      | 120  | 13    | 4     |       |       |       |           |                    |                    |                 |               |
|                            |           | LB      | 2                                        | 5    | 4     | 2     |       |       |       |           |                    |                    |                 |               |
|                            |           | Bg      | 17                                       |      | 1     |       |       |       |       |           |                    |                    |                 |               |
|                            |           | BrB     | 3                                        |      | 2     |       |       |       |       |           |                    |                    |                 |               |
|                            |           | Cp      |                                          |      | 1     |       |       |       |       |           |                    |                    |                 |               |
|                            |           |         |                                          |      |       |       |       |       |       |           | 161                | 204                | 3.2             | 2.56          |
| Lost River                 | 14        | Rb      |                                          |      |       | 1     |       |       |       |           |                    |                    |                 |               |
|                            |           | LB      | 4                                        |      |       | 1     |       |       |       |           |                    |                    |                 |               |
|                            |           | WC      | 20                                       | 17   | 1     |       |       |       |       |           |                    |                    |                 |               |
|                            |           | Bg      | 6                                        |      |       |       |       |       |       |           |                    |                    |                 |               |
|                            |           | Yp      | 11                                       | 4    |       |       |       |       |       |           |                    |                    |                 |               |
|                            |           |         |                                          |      |       |       |       |       |       |           | 32                 | 70                 | 2.0             | 0.93          |
| Lostine River              | 8         | Rb      | 44                                       | 183  | 157   |       |       |       |       |           |                    |                    |                 |               |
|                            |           | DV      | 5                                        |      | 1     |       | 1     |       |       |           |                    |                    |                 |               |
|                            |           | BT      | 1                                        |      | 1     |       |       |       |       |           |                    |                    |                 |               |
|                            |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |
|                            |           |         |                                          |      |       |       |       |       |       |           | 142                | 371                | 2.8             | 1.06          |
| Luckiamute River           | 2         | Rb      | 77                                       | 129  | 2     |       |       |       |       |           |                    |                    |                 |               |
|                            |           | Ct      |                                          | 15   | 8     | 3     |       |       |       |           |                    |                    |                 |               |
|                            |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |
|                            |           |         |                                          |      |       |       |       |       |       |           | 134                | 219                | 1.7             | 1.07          |
|                            |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |
| Malheur River              | 10        | CC      |                                          | 7    | 14    | 5     |       |       | 1     |           |                    |                    |                 |               |
|                            |           | SLB     | 1                                        |      |       |       |       |       |       |           |                    |                    |                 |               |
|                            |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |
|                            |           |         |                                          |      |       |       |       |       |       |           | 34                 | 48                 | 0.8             | 0.58          |
|                            |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |
| Malheur River, Section A   | 10        | Rb      | 340                                      | 689  | 479   | 136   | 9     | 3     |       |           |                    |                    |                 |               |
|                            |           | YP      | 4                                        |      |       |       |       |       |       |           |                    |                    |                 |               |
|                            |           | BLB     | 1                                        |      |       |       |       |       |       |           |                    |                    |                 |               |
|                            |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |
|                            |           |         |                                          |      |       |       |       |       |       |           | 482                | 1,020              | 3.4             | 1.63          |
| Malheur River, Middle Fork | 10        | Rb      | 34                                       | 47   | 39    | 3     |       |       |       |           |                    |                    |                 |               |
|                            |           | Wf      |                                          |      | 14    |       |       |       |       |           |                    |                    |                 |               |
|                            |           | YP      | 6                                        |      |       |       |       |       |       |           |                    |                    |                 |               |
|                            |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |
|                            |           |         |                                          |      |       |       |       |       |       |           | 27                 | 67                 | 5.3             | 2.13          |
| Malheur River, North Fork  | 10        | Rb      | 62                                       | 51   | 177   | 131   | 2     |       |       |           |                    |                    |                 |               |
|                            |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |
|                            |           |         |                                          |      |       |       |       |       |       |           | 89                 | 243                | 4.8             | 1.74          |
|                            |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |
|                            |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |
| Malheur River, South Fork  | 10        | Rb      | 73                                       | 151  | 172   | 159   | 38    | 5     |       |           |                    |                    |                 |               |
|                            |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |
|                            |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |
|                            |           |         |                                          |      |       |       |       |       |       |           | 85                 | 280                | 7.0             | 2.14          |
|                            |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |



Table 58 (continued)

| Water                         | Watershed | Species              | Number of Fish (by Two-Inch Size Groups) |          |          |         |       |       |       |              |  |  | Total<br>Fish         | Total<br>Anglers | Total<br>Hours<br>Fished | Fish<br>per<br>Angler | Fish<br>per<br>Hour |
|-------------------------------|-----------|----------------------|------------------------------------------|----------|----------|---------|-------|-------|-------|--------------|--|--|-----------------------|------------------|--------------------------|-----------------------|---------------------|
|                               |           |                      | 6-8                                      | 8-10     | 10-12    | 12-14   | 14-16 | 16-18 | 18-20 | 20 &<br>Over |  |  |                       |                  |                          |                       |                     |
| STREAMS (continued)           |           |                      |                                          |          |          |         |       |       |       |              |  |  |                       |                  |                          |                       |                     |
| Marion Creek                  | 2         | Rb<br>Ct<br>BT       | 15<br>4                                  | 21       | 10       |         |       |       |       |              |  |  | 31<br>15<br>4<br>50   | 39               | 98                       | 1.3                   | 0.51                |
| Marys River                   | 2         | Rb<br>Ct             | 4<br>1                                   | 10<br>1  | 1        |         |       |       |       |              |  |  | 14<br>3<br>17         | 14               | 18                       | 1.2                   | 0.94                |
| McCoy Creek                   | 12        | Rb                   | 77                                       | 97       | 80       | 11      |       |       |       |              |  |  | 265                   | 31               | 125                      | 8.5                   | 2.12                |
| McDermitt Creek               | 11        | Rb                   | 28                                       | 22       | 1        |         |       |       |       |              |  |  | 51                    | 10               | 40                       | 5.1                   | 1.28                |
| McKenzie River                | 2         | Rb<br>Ct<br>DV<br>Ch | 43<br>6                                  | 460<br>7 | 408<br>2 | 48<br>2 |       | 1     |       |              |  |  | 959<br>17<br>1<br>978 | 458              | 1,409                    | 2.1                   | 0.69                |
| McKenzie River,<br>South Fork | 2         | Rb<br>Ct<br>DV       | 17<br>42                                 | 71<br>1  | 90       | 9       |       |       |       | 1            |  |  | 187<br>43<br>1<br>231 | 179              | 707                      | 1.3                   | 0.33                |
| Metolius River                | 5         | Rb<br>DV<br>Wf       |                                          | 55<br>2  | 16<br>2  | 12<br>1 | 2     | 2     |       |              |  |  | 85<br>2<br>5<br>92    | 61               | 206                      | 1.5                   | 0.45                |
| Mill Creek (Willamette)       | 2         | Rb                   |                                          | 20       |          |         |       |       |       |              |  |  | 20                    | 30               | 90                       | 0.7                   | 0.22                |
| Mill Creek<br>(South Yamhill) | 2         | Rb<br>Ct             | 196                                      | 29<br>1  | 4        |         |       |       |       |              |  |  | 229<br>1<br>230       | 60               | 230                      | 3.8                   | 1.00                |
| Mohawk River                  | 2         | Rb<br>Ct             | 6                                        | 124      | 27<br>4  |         |       |       |       |              |  |  | 157<br>4<br>161       | 48               | 167                      | 3.4                   | 0.96                |
| Molalla River                 | 2         | Rb                   |                                          | 8        | 14       |         |       |       |       |              |  |  | 22                    | 11               | 55                       | 2.0                   | 0.40                |

Table 58 (continued)

| Water                     | Watershed | Species        | Number of Fish (by Two-Inch Size Groups) |          |       |       |       |       |       | Total Fish                           | Total Anglers | Total Hours Fished | Fish per Angler | Fish per Hour |
|---------------------------|-----------|----------------|------------------------------------------|----------|-------|-------|-------|-------|-------|--------------------------------------|---------------|--------------------|-----------------|---------------|
|                           |           |                | 6-8                                      | 8-10     | 10-12 | 12-14 | 14-16 | 16-18 | 18-20 |                                      |               |                    |                 |               |
| STREAMS (continued)       |           |                |                                          |          |       |       |       |       |       |                                      |               |                    |                 |               |
| Mosby Creek               | 2         | Rb             | 2                                        | 15       | 7     |       |       |       |       | 24                                   | 17            | 37                 | 1.4             | 0.65          |
| Multnomah Channel         | 3         | Ch<br>B        |                                          | 10       |       |       |       |       | 6     | $\frac{6}{10}$<br>$\frac{10}{16}$    | 238           | 764                | 0.1             | 0.02          |
| Neal Creek                | 4         | Rb<br>Ct       | 37<br>5                                  | 11       | 2     |       |       |       |       | 50<br>$\frac{5}{55}$                 | 23            | 52                 | 2.4             | 1.06          |
| Necanicum River           | 1         | Ct             |                                          | 341      | 3     |       |       |       |       | 344                                  | 104           | 204                | 3.3             | 1.69          |
| Nehalem River             | 1         | Ct             |                                          | 570      | 45    | 12    | 1     |       |       | 628                                  | 164           | 425                | 3.8             | 1.48          |
| Nehalem River, North Fork | 1         | Ct             |                                          | 137      |       |       |       |       |       | 137                                  | 46            | 124                | 3.0             | 1.10          |
| North Pine Creek          | 10        | Rb<br>ChS      | 29                                       | 8        | 1     |       |       | 2     |       | $\frac{38}{2}$<br>$\frac{2}{40}$     | 14            | 26                 | 2.9             | 1.54          |
| North Santiam River       | 2         | Rb<br>Ct<br>Ch | 5<br>12                                  | 121      | 190   | 28    |       |       |       | $\frac{344}{12}$<br>$\frac{2}{358}$  | 108           | 268                | 3.3             | 1.34          |
| North Yamhill River       | 2         | Rb<br>Ct       | 281<br>1                                 | 84<br>23 | 1     |       |       |       |       | $\frac{366}{24}$<br>$\frac{24}{390}$ | 100           | 375                | 3.9             | 1.04          |
| Owyhee River              | 11        | Rb<br>BLB      |                                          | 2        | 94    | 60    | 1     | 1     |       | $\frac{158}{4}$<br>$\frac{4}{162}$   | 52            | 102                | 3.1             | 1.59          |
| Pine Creek                | 10        | Rb             | 54                                       | 12       |       |       |       |       |       | 66                                   | 12            | 59                 | 5.5             | 1.12          |
| Quartzville Creek         | 2         | Rb             | 4                                        | 49       | 47    |       |       |       |       | 100                                  | 80            | 165                | 1.3             | 0.61          |

Table 58 (continued)

| Water                          | Watershed | Species                    | Number of Fish (by Two-Inch Size Groups) |               |          |       |       |       |       |           | Total Fish | Total Anglers | Total Hours Fished              | Fish per Angler | Fish per Hour |     |      |
|--------------------------------|-----------|----------------------------|------------------------------------------|---------------|----------|-------|-------|-------|-------|-----------|------------|---------------|---------------------------------|-----------------|---------------|-----|------|
|                                |           |                            | 6-8                                      | 8-10          | 10-12    | 12-14 | 14-16 | 16-18 | 18-20 | 20 & Over |            |               |                                 |                 |               |     |      |
| STREAMS (continued)            |           |                            |                                          |               |          |       |       |       |       |           |            |               |                                 |                 |               |     |      |
| Roaring River Creek            | 2         | Rb<br>Ct                   | 19<br>6                                  | 33            | 1        |       | 1     |       |       |           |            |               | 54<br>6<br>60                   | 37              | 54            | 1.6 | 1.11 |
| Row River                      | 2         | Rb<br>Ct<br>Co<br>Wf<br>Bg | 22<br>16<br>5<br>3                       | 122<br>5      | 137<br>1 | 21    |       |       |       |           |            |               | 302<br>21<br>5<br>1<br>3<br>332 | 218             | 574           | 1.5 | 0.58 |
| Salmon Creek                   | 2         | Rb<br>Ct                   | 2                                        | 26            | 28       |       |       |       |       |           |            |               | 54<br>2<br>56                   | 43              | 137           | 1.3 | 0.41 |
| Salt Creek                     | 2         | Rb                         | 15                                       | 14            |          |       |       |       |       |           |            |               | 29                              | 18              | 33            | 1.6 | 0.88 |
| Scappoose Bay                  | 3         | LB<br>WC<br>Bg<br>B        | 8<br>37<br>4<br>6                        | 6<br>17<br>13 |          |       |       |       |       |           |            |               | 14<br>54<br>4<br>19<br>91       | 27              | 133           | 3.4 | 0.68 |
| Scappoose Creek,<br>North Fork | 3         | Rb<br>Ct<br>St             | 11<br>6                                  | 42<br>2       | 7        |       | 1     |       |       |           |            |               | 60<br>9<br>1<br>70              | 56              | 163           | 1.3 | 0.43 |
| Severnile Creek                | 14        | Rb                         | 2                                        | 1             |          |       |       |       |       |           |            |               | 3                               | 15              | 23            | 0.2 | 0.13 |
| Sharps Creek                   | 2         | Rb<br>Ct                   | 6<br>4                                   | 24            | 29<br>1  | 10    |       |       |       |           |            |               | 69<br>5<br>74                   | 71              | 224           | 1.0 | 0.33 |
| Silver Creek                   | 12        | Rb                         | 33                                       | 82            | 103      | 39    | 6     |       |       |           |            |               | 263                             | 55              | 185           | 4.8 | 1.42 |
| Sixes River                    | 15        | Ch                         |                                          |               |          |       |       |       |       |           |            |               | 5                               | 53              | 156           | 0.1 |      |

Table 58 (continued)

| Water                                   | Watershed | Species | Number of Fish (by Two-Inch Size Groups) |      |       |       |       |       |       |           | Total Fish Anglers | Total Hours Fished | Fish per Angler | Fish per Hour |      |
|-----------------------------------------|-----------|---------|------------------------------------------|------|-------|-------|-------|-------|-------|-----------|--------------------|--------------------|-----------------|---------------|------|
|                                         |           |         | 6-8                                      | 8-10 | 10-12 | 12-14 | 14-16 | 16-18 | 18-20 | 20 & Over |                    |                    |                 |               |      |
| STREAMS (continued)                     |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
| Smith River                             | 16        | Rb      |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           | Ct      |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    | 42              |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    | 139             |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    | 181             | 166           |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    | 421             | 1.1           |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    | 0.43            |               |      |
| Snake River (Hells Canyon to Oxbow Dam) | 8         | Rb      | 24                                       | 69   | 76    | 15    | 3     | 9     |       |           | 196                |                    |                 |               |      |
|                                         |           | St      |                                          |      |       |       |       | 11    |       |           | 11                 |                    |                 |               |      |
|                                         |           | DV      |                                          | 1    |       |       |       |       |       |           | 1                  |                    |                 |               |      |
|                                         |           | Ch      | 1                                        |      |       |       |       |       |       |           | 1                  |                    |                 |               |      |
|                                         |           | Wf      |                                          |      |       | 1     |       |       |       |           | 1                  |                    |                 |               |      |
|                                         |           | CC      | 7                                        | 13   | 14    | 7     | 5     | 8     | 9     |           | 63                 |                    |                 |               |      |
|                                         |           | SB      |                                          | 1    | 3     |       |       |       |       |           | 4                  |                    |                 |               |      |
|                                         |           | WSg     |                                          |      |       |       |       |       | 4     |           | 4                  |                    |                 |               |      |
|                                         |           | BC      |                                          | 8    |       |       |       |       |       |           | 8                  |                    |                 |               |      |
|                                         |           | BLB     |                                          | 1    |       |       |       |       |       |           | 1                  |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           | 290                | 171                | 602             | 1.7           | 0.48 |
| Snake River (Wallowa District)          | 8         | SB      |                                          |      | 1     |       |       |       |       | 1         |                    |                    |                 |               |      |
|                                         |           | CC      |                                          |      | 5     |       | 1     |       |       | 6         |                    |                    |                 |               |      |
|                                         |           | Sg      |                                          |      |       |       | 1     |       |       | 1         |                    | 17                 | 133             | 0.5           | 0.06 |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |
|                                         |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |

Table 58 (continued)

| Water                         | Watershed | Species | Number of Fish (by Two-Inch Size Groups) |      |       |       |       |       |       |           | Total Fish | Total Anglers | Total Hours Fished | Fish per Angler | Fish per Hour |
|-------------------------------|-----------|---------|------------------------------------------|------|-------|-------|-------|-------|-------|-----------|------------|---------------|--------------------|-----------------|---------------|
|                               |           |         | 6-8                                      | 8-10 | 10-12 | 12-14 | 14-16 | 16-18 | 18-20 | 20 & Over |            |               |                    |                 |               |
| STREAMS (continued)           |           |         |                                          |      |       |       |       |       |       |           |            |               |                    |                 |               |
| Trout Creek                   | 12        | Rb      | 11                                       | 205  | 180   |       |       |       |       |           | 396        | 28            | 156                | 14.1            | 2.54          |
| Wallowa River                 | 8         | Rb      | 37                                       | 90   | 55    | 10    |       |       |       |           | 192        |               |                    |                 |               |
|                               |           | DV      |                                          |      | 1     |       |       |       |       |           | 2          |               |                    |                 |               |
|                               |           | Wf      |                                          |      |       | 12    | 1     |       |       |           | 13         |               |                    |                 |               |
|                               |           |         |                                          |      |       |       |       |       |       |           | 207        | 91            | 178                | 2.3             | 1.16          |
| White River                   | 5         | Rb      | 2                                        | 74   | 13    |       |       |       |       |           | 89         | 30            | 129                | 3.0             | 0.69          |
| Willamette River, Section 1   | 2         | Ch      |                                          |      |       |       |       |       |       | 24        | 24         |               |                    |                 |               |
|                               |           | Sg LB   |                                          |      |       |       |       |       |       | 1         | 1          |               |                    |                 |               |
|                               |           |         |                                          |      | 1     |       |       |       |       |           | 1          |               |                    |                 |               |
|                               |           |         |                                          |      |       |       |       |       |       |           | 26         | 317           | 1,608              | 0.1             | 0.02          |
| Willamette River, Section 2   | 2         | Rb      | 2                                        | 5    |       |       |       |       |       |           | 7          |               |                    |                 |               |
|                               |           | Ct      | 1                                        | 4    | 6     | 4     | 1     |       |       |           | 16         |               |                    |                 |               |
|                               |           | ChS     |                                          |      |       |       |       |       |       |           | 22         |               |                    |                 |               |
|                               |           | WC      |                                          | 7    | 16    |       |       |       |       |           | 7          |               |                    |                 |               |
|                               |           | B       |                                          |      |       |       |       |       |       |           | 16         |               |                    |                 |               |
|                               |           |         |                                          |      |       |       |       |       |       |           | 68         | 56            | 201                | 1.2             | 0.34          |
| Willamette River, Coast Fork  | 2         | Rb      | 2                                        | 15   | 41    | 7     |       |       |       |           | 65         |               |                    |                 |               |
|                               |           | Ct      | 1                                        |      |       |       |       |       |       |           | 1          |               |                    |                 |               |
|                               |           | LB      |                                          | 1    |       |       |       |       |       |           | 1          |               |                    |                 |               |
|                               |           |         |                                          |      |       |       |       |       |       |           | 67         | 48            | 142                | 1.4             | 0.47          |
| Willamette River, Middle Fork | 2         | Rb      | 48                                       | 322  | 233   | 30    | 6     |       |       |           | 639        |               |                    |                 |               |
|                               |           | Ct      | 1                                        | 1    |       |       |       |       |       |           | 2          |               |                    |                 |               |
|                               |           | ChS     |                                          |      |       |       |       |       |       |           | 12         |               |                    |                 |               |
|                               |           | Sq      |                                          | 2    | 1     | 2     |       |       |       |           | 5          |               |                    |                 |               |
|                               |           |         |                                          |      |       |       |       |       |       |           | 658        | 242           | 928                | 2.7             | 0.71          |
| Willamette River, North Fork  | 2         | Rb      | 24                                       | 137  | 106   | 13    | 1     |       |       |           | 281        |               |                    |                 |               |
|                               |           | Ct      | 30                                       |      |       |       |       |       |       |           | 30         |               |                    |                 |               |
|                               |           | Sq      |                                          | 2    |       |       |       |       |       |           | 2          |               |                    |                 |               |
|                               |           |         |                                          |      |       |       |       |       |       |           | 313        | 227           | 649                | 1.4             | 0.48          |
| Willamina Creek               | 2         | Rb      | 13                                       | 22   |       |       |       |       |       |           | 35         |               |                    |                 |               |
|                               |           | Ct      | 59                                       | 8    |       |       |       |       |       |           | 67         |               |                    |                 |               |
|                               |           | Co      | 1                                        |      |       |       |       |       |       |           | 1          |               |                    |                 |               |
|                               |           |         |                                          |      |       |       |       |       |       |           | 103        | 40            | 152                | 2.6             | 0.68          |

Table 58 (continued)

| Water                   | Watershed | Species | Number of Fish (by Two-Inch Size Groups) |      |       |       |       |       |       |              |     |     | Total<br>Hours<br>Fished | Total<br>Fish<br>Anglers | Fish<br>per<br>Angler | Fish<br>per<br>Hour |
|-------------------------|-----------|---------|------------------------------------------|------|-------|-------|-------|-------|-------|--------------|-----|-----|--------------------------|--------------------------|-----------------------|---------------------|
|                         |           |         | 6-8                                      | 8-10 | 10-12 | 12-14 | 14-16 | 16-18 | 18-20 | 20 &<br>Over |     |     |                          |                          |                       |                     |
| STREAMS (continued)     |           |         |                                          |      |       |       |       |       |       |              |     |     |                          |                          |                       |                     |
| Williamson River        | 14        | Rb      | 14                                       | 41   | 25    | 36    | 31    | 11    | 11    | 24           | 193 |     |                          |                          |                       |                     |
|                         |           | Br      |                                          |      | 1     |       |       |       |       |              | 1   |     |                          |                          |                       |                     |
|                         |           | BrB     | 6                                        | 49   | 76    |       |       |       |       |              | 131 |     |                          |                          |                       |                     |
|                         |           | Mu      |                                          |      |       |       |       | 1     | 7     | 168          | 176 | 184 | 820                      | 2.7                      | 0.61                  |                     |
|                         |           |         |                                          |      |       |       |       |       |       |              | 501 |     |                          |                          |                       |                     |
| Wood River              | 14        | Rb      | 6                                        | 29   | 6     | 1     | 3     |       |       |              | 45  |     |                          |                          |                       |                     |
|                         |           | Br      | 1                                        | 4    | 2     | 7     | 1     |       |       |              | 15  | 30  | 84                       | 2.0                      | 0.71                  |                     |
|                         |           |         |                                          |      |       |       |       |       |       |              | 60  |     |                          |                          |                       |                     |
| Yamhill River           | 2         | Rb      | 31                                       |      |       |       |       |       |       |              | 31  |     |                          |                          |                       |                     |
|                         |           | Co      | 2                                        |      |       |       |       |       |       |              | 2   | 14  | 31                       | 2.4                      | 1.06                  |                     |
|                         |           |         |                                          |      |       |       |       |       |       |              | 33  |     |                          |                          |                       |                     |
| Yellowjacket Creek      | 12        | Rb      | 11                                       | 4    | 5     |       |       |       |       |              | 20  | 10  | 12                       | 2.0                      | 1.67                  |                     |
|                         |           |         |                                          |      |       |       |       |       |       |              |     |     |                          |                          |                       |                     |
| LAKES                   |           |         |                                          |      |       |       |       |       |       |              |     |     |                          |                          |                       |                     |
| Agency Lake             | 14        | Rb      |                                          | 1    | 2     | 10    | 29    | 38    | 36    | 30           | 146 |     |                          |                          |                       |                     |
|                         |           | Br      |                                          |      |       |       | 3     |       | 1     |              | 4   |     |                          |                          |                       |                     |
|                         |           | YP      |                                          |      | 6     |       |       |       |       |              | 6   |     |                          |                          |                       |                     |
|                         |           | BrB     |                                          |      | 4     | 1     |       |       |       |              | 5   | 212 | 1,197                    | 0.8                      | 0.13                  |                     |
|                         |           |         |                                          |      |       |       |       |       |       |              | 161 |     |                          |                          |                       |                     |
| Ann Lake                | 2         | BT      | 3                                        | 213  | 291   | 2     |       |       |       |              | 509 |     |                          |                          |                       |                     |
|                         |           | Rb      |                                          | 9    | 12    | 16    |       |       |       |              | 37  | 105 | 361                      | 5.2                      | 1.51                  |                     |
|                         |           |         |                                          |      |       |       |       |       |       |              | 546 |     |                          |                          |                       |                     |
| Antelope Reservoir      | 11        | Rb      | 7                                        | 56   | 121   | 63    | 99    | 124   | 24    |              | 494 |     |                          |                          |                       |                     |
|                         |           | BIB     |                                          | 17   | 11    |       |       |       |       |              | 28  | 354 | 1,634                    | 1.5                      | 0.32                  |                     |
|                         |           |         |                                          |      |       |       |       |       |       |              | 522 |     |                          |                          |                       |                     |
| Antelope Flat Reservoir | 5         | Rb      |                                          |      | 137   |       |       |       |       |              | 137 | 14  | 136                      | 9.8                      | 1.01                  |                     |
| Anthony Lake            | 9         | Rb      | 5                                        | 40   | 5     |       |       |       |       |              | 50  | 14  | 28                       | 3.6                      | 1.79                  |                     |
| Badger Lake             | 5         | Rb      | 12                                       | 84   | 16    | 4     |       |       |       |              | 116 | 35  | 122                      | 3.3                      | 0.95                  |                     |

Table 58 (continued)

| Water                | Watershed | Species               | Number of Fish (by Two-Inch Size Groups) |               |        |       |       |       |       |           |  |  | Total Fish                | Total Anglers | Total Hours Fished | Fish per Angler | Fish per Hour |
|----------------------|-----------|-----------------------|------------------------------------------|---------------|--------|-------|-------|-------|-------|-----------|--|--|---------------------------|---------------|--------------------|-----------------|---------------|
|                      |           |                       | 6-8                                      | 8-10          | 10-12  | 12-14 | 14-16 | 16-18 | 18-20 | 20 & Over |  |  |                           |               |                    |                 |               |
| LAKES (continued)    |           |                       |                                          |               |        |       |       |       |       |           |  |  |                           |               |                    |                 |               |
| Balm Creek Reservoir | 9         | Rb                    | 385                                      | 47            |        |       |       |       |       |           |  |  | 432                       | 74            | 49                 | 5.8             | 8.82          |
| Barclay Springs      | 14        | YP                    | 51                                       | 1             | 3      |       |       |       |       |           |  |  | 55                        | 40            | 35                 | 1.4             | 1.57          |
| Benson Lake          | 2         | Rb<br>BT              | 5                                        | 4<br>13       | 1<br>2 | 1     |       |       |       |           |  |  | 6<br>20<br>26             | 19            | 33                 | 1.4             | 0.79          |
| Benson Lake          | 3         | Rb                    |                                          | 4             |        |       |       |       |       |           |  |  | 4                         | 16            | 29                 | 0.3             | 0.14          |
| Beulah Reservoir     | 10        | Rb<br>DV<br>Wf        | 97                                       | 500           | 806    | 422   | 67    | 16    | 4     |           |  |  | 1,912<br>1<br>3<br>1,916  | 472           | 2,302              | 4.1             | 0.83          |
| Bibby Pond           | 5         | Rb                    | 1                                        | 13            | 8      | 6     |       |       |       |           |  |  | 28                        | 11            | 45                 | 2.5             | 0.62          |
| Big Creek Reservoir  | 18        | Rb<br>BrB             |                                          | 20<br>10      | 6      | 1     |       | 1     |       |           |  |  | 28<br>10<br>38            | 43            | 87                 | 0.9             | 0.44          |
| Black Lake           | 4         | BT                    | 30                                       | 7             |        |       |       |       |       |           |  |  | 37                        | 12            | 25                 | 3.1             | 1.48          |
| Blair Lake           | 2         | BT                    |                                          | 25            | 28     | 3     |       |       |       |           |  |  | 56                        | 18            | 111                | 3.1             | 0.50          |
| Blue Lake            | 2         | Rb                    |                                          |               | 2      |       |       |       |       |           |  |  | 2                         | 11            | 33                 | 0.2             | 0.06          |
| Blue Lake            | 5         | Rb                    | 2                                        | 32            | 1      |       |       |       |       |           |  |  | 35                        | 15            | 58                 | 2.3             | 0.60          |
| Blue Lake            | 13        | Rb                    | 119                                      | 229           | 217    | 16    |       |       |       |           |  |  | 581                       | 97            | 339                | 6.0             | 1.71          |
| Brownlee Reservoir   | 9         | Rb<br>BC<br>CC<br>BlB |                                          | 16<br>15<br>5 |        |       |       |       |       |           |  |  | 1<br>16<br>26<br>10<br>53 |               |                    |                 |               |
|                      |           |                       | 6<br>3                                   |               | 5<br>2 |       |       |       |       |           |  |  |                           | 29            | 122                | 1.8             | 0.43          |

Table 58 (continued)

| Water                         | Watershed | Species | Number of Fish (by Two-Inch Size Groups) |      |       |       |       |       |       |           |       |     | Total Anglers | Total Hours Fished | Fish per Angler | Fish per Hour |
|-------------------------------|-----------|---------|------------------------------------------|------|-------|-------|-------|-------|-------|-----------|-------|-----|---------------|--------------------|-----------------|---------------|
|                               |           |         | 6-8                                      | 8-10 | 10-12 | 12-14 | 14-16 | 16-18 | 18-20 | 20 & Over |       |     |               |                    |                 |               |
| LAKES (continued)             |           |         |                                          |      |       |       |       |       |       |           |       |     |               |                    |                 |               |
| Brownlee Reservoir, Section A | 9         | Rb      |                                          |      | 4     | 3     |       |       |       |           | 7     |     |               |                    |                 |               |
|                               |           | SB      |                                          |      | 1     | 1     |       |       |       |           | 2     |     |               |                    |                 |               |
|                               |           | CC      | 3                                        | 31   | 137   | 69    | 9     | 2     | 1     | 3         | 255   | 120 | 598           | 2.2                | 0.44            |               |
|                               |           |         |                                          |      |       |       |       |       |       |           | 264   |     |               |                    |                 |               |
| Brownlee Reservoir, Section B | 9         | Rb      |                                          | 1    | 1     |       | 1     |       |       |           | 3     |     |               |                    |                 |               |
|                               |           | LB      |                                          |      |       |       | 1     | 1     |       |           | 3     |     |               |                    |                 |               |
|                               |           | SB      |                                          | 4    | 18    | 6     | 2     |       |       |           | 30    |     |               |                    |                 |               |
|                               |           | BC      | 22                                       | 5    |       |       |       |       |       |           | 27    |     |               |                    |                 |               |
|                               |           | BlB     |                                          |      | 1     |       |       |       |       |           | 1     |     |               |                    |                 |               |
|                               |           | CC      | 7                                        | 7    | 42    | 46    | 10    | 3     |       |           | 115   | 92  | 444           | 1.9                | 0.40            |               |
|                               |           |         |                                          |      |       |       |       |       |       |           | 179   |     |               |                    |                 |               |
| Bull Prairie Lake             | 6         | Rb      | 62                                       | 49   | 4     | 3     |       |       |       |           | 118   |     |               |                    |                 |               |
|                               |           | BT      |                                          | 7    | 1     |       |       |       |       |           | 8     | 48  | 166           | 2.6                | 0.76            |               |
|                               |           |         |                                          |      |       |       |       |       |       |           | 126   |     |               |                    |                 |               |
| Bully Creek Reservoir         | 10        | Rb      | 87                                       | 222  | 403   | 210   | 3     |       |       |           | 925   |     |               |                    |                 |               |
|                               |           | YP      | 38                                       | 4    | 1     |       |       |       |       |           | 43    | 545 | 1,637         | 1.8                | 0.59            |               |
|                               |           |         |                                          |      |       |       |       |       |       |           | 968   |     |               |                    |                 |               |
| Burns Gravel Pond             | 12        | Rb      | 3                                        | 23   | 58    | 38    | 7     | 4     |       |           | 133   | 76  | 148           | 1.8                | 0.90            |               |
|                               |           |         |                                          |      |       |       |       |       |       |           |       |     |               |                    |                 |               |
| Campbell Lake                 | 13        | Rb      | 250                                      | 126  | 5     |       |       |       |       |           | 381   | 87  | 558           | 4.4                | 0.68            |               |
|                               |           |         |                                          |      |       |       |       |       |       |           |       |     |               |                    |                 |               |
| Carmen Reservoir              | 2         | Rb      | 43                                       | 89   | 151   | 14    |       |       |       |           | 297   |     |               |                    |                 |               |
|                               |           | Ct      | 1                                        |      |       |       |       |       |       |           | 1     |     |               |                    |                 |               |
|                               |           | BT      | 2                                        |      |       |       |       |       |       |           | 2     | 240 | 621           | 1.3                | 0.48            |               |
|                               |           |         |                                          |      |       |       |       |       |       |           | 300   |     |               |                    |                 |               |
| Chickahominy Reservoir        | 12        | Rb      | 69                                       | 295  | 542   | 594   | 445   | 72    | 9     |           | 2,026 | 597 | 2,337         | 3.4                | 0.87            |               |
|                               |           |         |                                          |      |       |       |       |       |       |           |       |     |               |                    |                 |               |
| Clear Lake                    | 2         | Rb      | 36                                       | 374  | 438   | 37    | 3     |       |       |           | 888   |     |               |                    |                 |               |
|                               |           | BT      | 2                                        | 9    | 3     |       |       |       |       |           | 14    |     |               |                    |                 |               |
|                               |           | Ct      |                                          | 3    | 2     |       |       |       |       |           | 5     | 336 | 1,327         | 2.7                | 0.68            |               |
|                               |           |         |                                          |      |       |       |       |       |       |           | 907   |     |               |                    |                 |               |
| Clear Lake                    | 5         | Rb      | 29                                       | 28   | 36    | 6     | 1     |       |       |           | 100   |     |               |                    |                 |               |
|                               |           | BT      | 34                                       | 177  | 114   | 34    | 5     | 1     |       |           | 365   | 327 | 1,064         | 1.4                | 0.44            |               |
|                               |           |         |                                          |      |       |       |       |       |       |           | 465   |     |               |                    |                 |               |



Table 58 (continued)

| Water                   | Watershed | Species               | Number of Fish (by Two-Inch Size Groups) |                  |                 |               |         |        |       |           |  |  | Total Fish                 | Total Anglers | Total Hours Fished | Fish per Angler | Fish per Hour |
|-------------------------|-----------|-----------------------|------------------------------------------|------------------|-----------------|---------------|---------|--------|-------|-----------|--|--|----------------------------|---------------|--------------------|-----------------|---------------|
|                         |           |                       | 6-8                                      | 8-10             | 10-12           | 12-14         | 14-16   | 16-18  | 18-20 | 20 & Over |  |  |                            |               |                    |                 |               |
| LAKES (continued)       |           |                       |                                          |                  |                 |               |         |        |       |           |  |  |                            |               |                    |                 |               |
| Cliff Lake              | 2         | Rb<br>BT              |                                          | 2                | 11<br>1         | 2             |         |        |       |           |  |  | 15<br>1<br>16              | 14            | 52                 | 1.4             | 0.31          |
| Coffenbury Lake         | 1         | Rb<br>Ct              |                                          |                  | 9               | 17            |         |        |       |           |  |  | 17<br>350<br>367           | 154           | 416                | 2.4             | 0.88          |
| Collins Lake            | 3         | Rb<br>BT              | 8<br>3                                   | 66<br>2          | 40              |               |         |        |       |           |  |  | 114<br>5<br>119            | 48            | 142                | 2.5             | 0.84          |
| Cottage Grove Reservoir | 2         | Ct<br>LB<br>Bg<br>BrB |                                          | 1                | 1               |               |         |        |       |           |  |  | 1<br>3<br>4<br>13<br>21    | 19            | 49                 | 1.1             | 0.43          |
| Cottonwood Reservoir    | 13        | Rb                    | 4                                        | 19               | 24              | 29            |         | 4      | 1     | 2         |  |  | 83                         | 69            | 286                | 1.2             | 0.29          |
| Cottonwood Meadows Lake | 13        | Rb<br>BT              | 42<br>6                                  | 46<br>9          | 27<br>1         | 9             | 3<br>1  |        |       |           |  |  | 127<br>17<br>144           | 94            | 338                | 1.5             | 0.43          |
| Cougar Reservoir        | 2         | Rb<br>ChS<br>DV       | 38<br>16                                 | 106              | 164             | 41            | 1       |        |       |           |  |  | 350<br>16<br>367           | 181           | 810                | 2.0             | 0.45          |
| Crane Prairie Reservoir | 5         | Rb<br>BT<br>K         | 68<br>23<br>1                            | 331<br>163<br>76 | 177<br>98<br>78 | 41<br>23<br>9 | 12<br>5 | 4<br>1 | 2     | 2         |  |  | 637<br>313<br>164<br>1,114 | 539           | 2,414              | 2.1             | 0.46          |
| Crescent Lake           | 5         | Rb<br>K<br>Br<br>LT   | 30                                       | 90               | 4<br>33         | 3<br>233      | 12      |        | 2     |           |  |  | 9<br>398<br>3<br>16<br>426 | 366           | 1,477              | 1.2             | 0.29          |

Table 58 (continued)

| Water                | Watershed | Species | Number of Fish (by Two-Inch Size Groups) |      |       |       |       |       |       |           |  |  | Total Fish | Total Anglers | Total Hours Fished | Fish per Angler | Fish per Hour |
|----------------------|-----------|---------|------------------------------------------|------|-------|-------|-------|-------|-------|-----------|--|--|------------|---------------|--------------------|-----------------|---------------|
|                      |           |         | 6-8                                      | 8-10 | 10-12 | 12-14 | 14-16 | 16-18 | 18-20 | 20 & Over |  |  |            |               |                    |                 |               |
| LAKES (continued)    |           |         |                                          |      |       |       |       |       |       |           |  |  |            |               |                    |                 |               |
| Creswell Borrow Pits | 2         | Ct      | 1                                        |      |       |       |       |       |       |           |  |  | 1          |               |                    |                 |               |
|                      |           | LB      | 3                                        |      |       |       |       |       |       |           |  |  | 3          |               |                    |                 |               |
|                      |           | Bg      | 14                                       |      |       |       |       |       |       |           |  |  | 14         |               |                    |                 |               |
|                      |           | BrB     | 8                                        | 1    |       |       |       |       |       |           |  |  | 9          | 39            | 65                 | 0.7             | 0.42          |
| <hr/>                |           |         |                                          |      |       |       |       |       |       |           |  |  |            |               |                    |                 |               |
| Cultus Lake, Big     | 5         | Rb      | 1                                        | 1    | 1     | 10    |       |       |       |           |  |  | 13         |               |                    |                 |               |
|                      |           | K       |                                          |      | 2     |       |       |       |       |           |  |  | 2          |               |                    |                 |               |
|                      |           | LT      |                                          |      | 3     | 3     |       | 2     | 1     |           |  |  | 9          | 11            | 48                 | 2.2             | 0.50          |
| <hr/>                |           |         |                                          |      |       |       |       |       |       |           |  |  |            |               |                    |                 |               |
| Cultus Lake, Little  | 5         | Rb      | 24                                       | 71   | 14    | 3     | 1     |       |       |           |  |  | 113        |               |                    |                 |               |
|                      |           | BT      | 25                                       | 249  | 28    |       | 1     |       |       |           |  |  | 303        | 60            | 214                | 6.9             | 1.94          |
| <hr/>                |           |         |                                          |      |       |       |       |       |       |           |  |  |            |               |                    |                 |               |
| Daly Lake            | 2         | BT      | 70                                       | 13   |       |       |       |       |       |           |  |  | 83         |               |                    |                 |               |
|                      |           | Ct      | 24                                       | 11   |       |       |       |       |       |           |  |  | 35         | 50            | 142                | 2.4             | 0.83          |
| <hr/>                |           |         |                                          |      |       |       |       |       |       |           |  |  |            |               |                    |                 |               |
| Davis Lake           | 5         | Rb      | 1                                        | 3    | 25    | 20    | 39    | 42    | 27    | 43        |  |  | 200        |               |                    |                 |               |
|                      |           | BT      |                                          |      |       |       | 1     |       |       |           |  |  | 1          |               |                    |                 |               |
|                      |           | Co      |                                          |      | 1     | 2     | 1     | 1     | 1     |           |  |  | 6          | 248           | 862                | 0.8             | 0.24          |
| <hr/>                |           |         |                                          |      |       |       |       |       |       |           |  |  |            |               |                    |                 |               |
| Deadhorse Lake       | 13        | Rb      | 46                                       | 63   | 1     |       |       |       |       |           |  |  | 110        |               |                    |                 |               |
|                      |           | BT      | 12                                       | 8    |       |       |       |       |       |           |  |  | 20         |               |                    |                 |               |
|                      |           | K       | 1                                        |      |       |       |       |       |       |           |  |  | 1          | 61            | 193                | 2.1             | 0.68          |
| <hr/>                |           |         |                                          |      |       |       |       |       |       |           |  |  |            |               |                    |                 |               |
| Deer Lake            | 5         | BT      |                                          |      | 26    | 47    | 2     | 1     |       |           |  |  | 76         | 11            | 53                 | 6.9             | 1.43          |
| <hr/>                |           |         |                                          |      |       |       |       |       |       |           |  |  |            |               |                    |                 |               |
| Delintment Lake      | 12        | Rb      |                                          | 2    | 36    | 68    | 71    | 5     |       |           |  |  | 182        | 100           | 344                | 1.8             | 0.53          |
| <hr/>                |           |         |                                          |      |       |       |       |       |       |           |  |  |            |               |                    |                 |               |
| Devils Lake          | 5         | Rb      | 38                                       | 15   |       |       |       | 1     |       |           |  |  | 54         |               |                    |                 |               |
|                      |           | BT      | 1                                        |      |       |       |       |       |       |           |  |  | 1          |               |                    |                 |               |
|                      |           | GT      |                                          |      |       |       |       |       |       |           |  |  | 1          | 16            | 42                 | 3.5             | 1.33          |

Table 58 (continued)

| Water              | Watershed | Species | Number of Fish (by Two-Inch Size Groups) |      |       |       |       |       |       |           |              |            | Total Fish Anglers | Total Hours Fished | Fish per Angler | Fish per Hour |
|--------------------|-----------|---------|------------------------------------------|------|-------|-------|-------|-------|-------|-----------|--------------|------------|--------------------|--------------------|-----------------|---------------|
|                    |           |         | 6-8                                      | 8-10 | 10-12 | 12-14 | 14-16 | 16-18 | 18-20 | 20 & Over |              |            |                    |                    |                 |               |
| LAKES (continued)  |           |         |                                          |      |       |       |       |       |       |           |              |            |                    |                    |                 |               |
| Devils Lake        | 18        | Ct      |                                          |      | 1     |       | 1     |       |       |           |              |            | 2                  |                    |                 |               |
|                    |           | Rb      |                                          | 40   | 4     |       | 1     |       |       |           |              |            | 48                 |                    |                 |               |
|                    |           | YP      |                                          | 2    |       |       |       | 3     |       |           |              |            | 2                  |                    |                 |               |
|                    |           | BrB     |                                          |      | 1     |       |       |       |       |           |              |            | 1                  |                    |                 |               |
|                    |           | LB      |                                          |      |       | 1     |       |       |       |           |              |            | <u>54</u>          | 168                | 328             | 0.3           |
| Dollarhide Pond    | 6         | Rb      | 12                                       | 33   | 5     |       |       |       |       |           |              | 50         | 16                 | 34                 | 3.1             | 1.47          |
| Dorena Reservoir   | 2         | Rb      | 23                                       | 164  | 183   | 181   | 10    |       |       |           |              | 561        |                    |                    |                 |               |
|                    |           | Ct      | 1                                        |      |       |       |       |       |       |           |              | 1          |                    |                    |                 |               |
|                    |           | LB      |                                          | 2    |       | 1     | 1     |       |       |           |              | 4          |                    |                    |                 |               |
|                    |           | BrB     |                                          | 3    | 7     |       |       |       |       |           |              | 10         |                    |                    |                 |               |
|                    |           | Co      | 17                                       | 9    | 1     |       |       |       |       |           |              | <u>27</u>  | 585                | 1,663              | 1.0             | 0.36          |
| Douglas Lake       | 8         | BT      | 33                                       | 7    |       |       |       |       |       |           |              | 40         |                    |                    |                 |               |
|                    |           | Rb      |                                          | 3    |       |       |       |       |       |           |              | <u>43</u>  | 11                 | 18                 | 3.9             | 2.39          |
| Drews Reservoir    | 13        | Rb      |                                          |      |       | 7     | 1     | 1     |       |           |              | 9          | 22                 | 43                 | 0.4             | 0.31          |
| Duffy Lake         | 2         | BT      |                                          | 50   | 54    | 7     |       |       |       |           |              | 111        |                    |                    |                 |               |
|                    |           | Rb      | 1                                        | 9    | 20    | 15    |       |       |       |           |              | <u>45</u>  | 48                 | 231                | 3.3             | 0.68          |
|                    |           |         |                                          |      |       |       |       |       |       |           |              | <u>156</u> |                    |                    |                 |               |
| Dunaway Pond       | 11        | LB      | 10                                       | 20   |       |       |       |       |       |           |              | 30         |                    |                    |                 |               |
|                    |           | BC      | 1                                        |      |       |       |       |       |       |           | 1            |            |                    |                    |                 |               |
|                    |           | Bg      | 22                                       | 2    |       |       |       |       |       |           |              | 24         |                    |                    |                 |               |
|                    |           | CC      |                                          |      |       |       |       | 1     |       |           |              | <u>1</u>   | 18                 | 26                 | 3.1             | 2.15          |
| Duncan Reservoir   | 13        | Rb      | 5                                        | 26   | 43    | 18    | 5     | 1     | 1     |           | 99           | 55         | 172                | 1.8                | 0.58            |               |
| East Lake          | 5         | Rb      | 87                                       | 880  | 2,087 | 630   | 140   | 20    | 1     |           | 3,845        |            |                    |                    |                 |               |
|                    |           | BT      | 1                                        | 36   | 209   | 231   | 60    | 10    | 1     |           | <u>548</u>   |            |                    |                    |                 |               |
|                    |           | Br      |                                          |      |       | 1     | 1     | 2     | 4     | 1         | <u>9</u>     | 1,664      | 6,115              | 2.7                | 0.72            |               |
|                    |           |         |                                          |      |       |       |       |       |       |           | <u>4,402</u> |            |                    |                    |                 |               |
| Eastern Brook Lake | 2         | BT      |                                          | 1    | 14    | 5     |       |       |       |           | 20           | 12         | 33                 | 1.7                | 0.61            |               |

Table 58 (continued)

| Water                  | Watershed | Species | Number of Fish (by Two-Inch Size Groups) |      |       |       |       |       |       |           | Total Fish Anglers | Total Hours Fished | Fish per Angler | Fish per Hour |      |      |  |
|------------------------|-----------|---------|------------------------------------------|------|-------|-------|-------|-------|-------|-----------|--------------------|--------------------|-----------------|---------------|------|------|--|
|                        |           |         | 6-8                                      | 8-10 | 10-12 | 12-14 | 14-16 | 16-18 | 18-20 | 20 & Over |                    |                    |                 |               |      |      |  |
| LAKES (continued)      |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
| Eckman Lake            | 18        | Ct      |                                          |      | 38    | 3     |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           | Rb      | 18                                       | 44   | 4     |       |       | 1     |       |           |                    | 21                 | 58              | 5.1           | 1.86 |      |  |
| Eddeleo Lake, Upper    | 2         | BT      |                                          | 2    | 36    | 2     |       |       |       |           |                    |                    | 10              | 56            | 4.0  | 0.71 |  |
| Eel Lake               | 17        | Ct      |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           | K       |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
| Elk Lake               | 3         | BT      | 7                                        | 3    | 2     |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           | K       | 78                                       | 8    |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           | GT      | 2                                        |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           | Rb      | 1                                        |      |       |       |       |       |       |           |                    | 32                 | 94              | 3.2           | 1.07 |      |  |
| Elk Lake               | 5         | Rb      |                                          |      | 9     | 3     |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           | BT      |                                          | 1    | 10    | 2     | 1     |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           | K       | 141                                      | 92   |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           | AS      |                                          |      |       |       |       |       |       |           |                    | 66                 | 251             | 3.9           | 1.04 |      |  |
| Emigrant Reservoir     | 15        | LB      |                                          | 1    | 11    | 1     |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           | BC      |                                          | 31   |       |       |       |       |       |           |                    | 12                 | 34              | 3.7           | 1.29 |      |  |
| Erma Bell Lake, Lower  | 2         | Rb      | 5                                        | 14   | 42    | 12    |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           | BT      |                                          | 11   | 15    | 20    | 10    | 6     |       |           |                    | 72                 | 295             | 1.9           | 0.46 |      |  |
| Erma Bell Lake, Middle | 2         | Rb      |                                          | 14   | 107   | 17    | 2     | 1     |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    | 44                 | 312             | 3.1           | 0.45 |      |  |
| Erma Bell Lake, Upper  | 2         | Rb      | 1                                        | 12   | 10    |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           | BT      | 3                                        | 4    |       |       |       |       |       |           |                    | 12                 | 101             | 2.5           | 0.30 |      |  |
| Fall Creek Reservoir   | 2         | Rb      | 51                                       | 63   | 116   | 43    | 16    | 4     | 1     |           |                    |                    |                 |               |      |      |  |
|                        |           | ChS     | 4                                        | 1    |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           | St      |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |
|                        |           |         |                                          |      |       |       |       |       |       |           |                    |                    |                 |               |      |      |  |

Table 58 (continued)

| Water                 | Watershed | Species                      | Number of Fish (by Two-Inch Size Groups) |                        |                       |             |        |       |       |           |  |  | Total Fish Anglers                    | Total Hours Fished | Fish per Angler | Fish per Hour |      |
|-----------------------|-----------|------------------------------|------------------------------------------|------------------------|-----------------------|-------------|--------|-------|-------|-----------|--|--|---------------------------------------|--------------------|-----------------|---------------|------|
|                       |           |                              | 6-8                                      | 8-10                   | 10-12                 | 12-14       | 14-16  | 16-18 | 18-20 | 20 & Over |  |  |                                       |                    |                 |               |      |
| LAKES (continued)     |           |                              |                                          |                        |                       |             |        |       |       |           |  |  |                                       |                    |                 |               |      |
| Pay Lake              | 2         | Rb<br>BT<br>GT               | 11<br>10<br>3                            | 7<br>4<br>1            | 2                     |             |        |       |       |           |  |  | 20<br>14<br>4<br><u>38</u>            | 20                 | 97              | 1.9           | 0.39 |
| Fern Ridge Borrow Pit | 2         | Rb<br>Ct<br>BrB<br>Cp<br>CRC | 54<br>1<br>1<br>1<br>1                   | 40<br>2<br>2<br>1<br>1 | 3<br>1<br>1<br>1<br>1 | 15          | 24     | 24    | 8     |           |  |  | 168<br>1<br>1<br>3<br>1<br><u>174</u> | 150                | 524             | 1.2           | 0.33 |
| Fern Ridge Reservoir  | 2         | Ct<br>LB<br>BrB<br>WC        | 1<br>7<br>6<br>1                         | 3<br>5<br>4<br>30      | 2<br>5<br>4<br>17     |             | 1      |       |       |           |  |  | 6<br>13<br>10<br>53<br>82             | 34                 | 111             | 2.4           | 0.74 |
| Fir Lake              | 2         | BT                           | 27                                       | 41                     | 4                     | 4           | 1      |       |       |           |  |  | 77                                    | 34                 | 150             | 2.3           | 0.51 |
| Fish Lake             | 12        | Rb<br>BT                     | 248<br>239                               | 4,790<br>1,273         | 5,557<br>519          | 1,045<br>81 | 4      | 2     |       |           |  |  | 11,640<br>2,118<br><u>13,758</u>      | 1,159              | 8,634           | 11.9          | 1.59 |
| Fish Lake             | 15        | Rb<br>BT                     | 352<br>1                                 | 821<br>178             | 222<br>121            | 31<br>17    | 1<br>3 | 5     |       |           |  |  | 1,427<br>325<br><u>1,752</u>          | 621                | 2,180           | 2.8           | 0.82 |
| Fourmile Lake         | 14        | BT<br>K /2                   | 55<br>293                                | 48<br>29               | 11<br>2               | 3           |        |       |       |           |  |  | 117<br>324<br><u>441</u>              | 160                | 754             | 2.8           | 0.58 |
| Frog Lake             | 5         | Rb<br>BT                     | 21<br>15                                 | 213<br>13              | 81<br>5               | 5           | 3      |       |       |           |  |  | 323<br>33<br><u>356</u>               | 177                | 546             | 2.0           | 0.65 |
| Gander Lake           | 2         | Rb<br>BT                     | 3<br>3                                   | 2<br>19                | 7<br>4                | 4<br>1      |        |       |       |           |  |  | 16<br>27<br><u>43</u>                 | 12                 | 86              | 3.6           | 0.50 |

/2 Kokanee and coho salmon combined by resort operator.

Table 58 (continued)

| Water                    | Watershed | Species        | Number of Fish (by Two-Inch Size Groups) |              |              |          |         |       |        |                       | Total Fish | Total Anglers | Total Hours Fished | Fish per Angler | Fish per Hour |  |  |
|--------------------------|-----------|----------------|------------------------------------------|--------------|--------------|----------|---------|-------|--------|-----------------------|------------|---------------|--------------------|-----------------|---------------|--|--|
|                          |           |                | 6-8                                      | 8-10         | 10-12        | 12-14    | 14-16   | 16-18 | 18-20  | 20 & Over             |            |               |                    |                 |               |  |  |
| LAKES (continued)        |           |                |                                          |              |              |          |         |       |        |                       |            |               |                    |                 |               |  |  |
| Gold Lake                | 2         | Rb<br>BT       | 1                                        | 43<br>11     | 49<br>23     | 47<br>16 | 21<br>1 | 12    |        | 173<br>51<br>224      | 95         | 596           | 2.4                | 0.38            |               |  |  |
| Grande Ronde Lake        | 8         | BT             | 3                                        | 5            |              |          |         |       |        | 8                     | 11         | 22            | 0.7                | 0.36            |               |  |  |
| Haines Pond No. 1        | 9         | Rb             | 4                                        | 37           | 1            |          |         |       |        | 42                    | 22         | 52            | 1.9                | 0.81            |               |  |  |
| Hand Lake                | 2         | BT             |                                          |              | 1            |          |         |       |        | 1                     | 16         | 47            | 0.1                | 0.02            |               |  |  |
| Harriet Lake             | 3         | Rb<br>Br       | 1                                        | 34           | 66           | 6<br>1   | 1       |       |        | 108<br>1<br>109       | 78         | 295           | 1.4                | 0.37            |               |  |  |
| Haystack Reservoir       | 5         | Rb<br>K<br>BrB | 17                                       | 58<br>6<br>2 | 24<br>7<br>2 | 9<br>1   | 3       |       |        | 111<br>14<br>4<br>129 | 105        | 315           | 1.2                | 0.41            |               |  |  |
| Highway 203 Pond         | 9         | Rb<br>BrB      | 98<br>5                                  | 62<br>25     | 47<br>3      | 16       | 1       | 2     |        | 226<br>33<br>259      | 100        | 149           | 2.6                | 1.74            |               |  |  |
| Hills Creek Reservoir    | 2         | Rb             | 247                                      | 167          | 76           | 29       | 8       | 1     | 1      | 529                   | 361        | 1,072         | 1.5                | 0.49            |               |  |  |
| Horse Lake, Upper        | 2         | BT             | 36                                       | 147          | 217          | 24       |         |       |        | 424                   | 49         | 212           | 8.7                | 2.00            |               |  |  |
| Horseshoe Lake           | 8         | BT             | 36                                       | 1            |              |          |         |       |        | 37                    | 10         | 20            | 3.7                | 1.85            |               |  |  |
| Hosmer Lake              | 5         | BT<br>AS       |                                          | 1<br>10      | 10           | 4        | 4       | 7     | 1<br>5 | 2<br>67<br>69         | 40         | 165           | 1.7                | 0.42            |               |  |  |
| Howard Prairie Reservoir | 15        | Rb<br>BrB      | 53<br>5                                  | 619<br>10    | 5,181<br>3   | 628      | 85      | 19    | 6      | 3                     | 1,413      | 6,064         | 4.7                | 1.09            |               |  |  |

Table 58 (continued)

| Water               | Watershed | Species | Number of Fish (by Two-Inch Size Groups) |      |       |       |       |       |       |           |     |     | Total Fish | Total Anglers | Total Hours Fished | Fish per Angler | Fish per Hour |
|---------------------|-----------|---------|------------------------------------------|------|-------|-------|-------|-------|-------|-----------|-----|-----|------------|---------------|--------------------|-----------------|---------------|
|                     |           |         | 6-8                                      | 8-10 | 10-12 | 12-14 | 14-16 | 16-18 | 18-20 | 20 & Over |     |     |            |               |                    |                 |               |
| LAKES (continued)   |           |         |                                          |      |       |       |       |       |       |           |     |     |            |               |                    |                 |               |
| Hyatt Lake          | 15        | Rb      | 3                                        | 2    | 3     | 6     | 18    | 29    | 8     | 7         | 76  |     |            |               |                    |                 |               |
|                     |           | LB      | 2                                        | 4    | 3     |       |       |       |       |           | 9   |     |            |               |                    |                 |               |
|                     |           | BrB     | 45                                       | 109  | 134   | 6     |       |       |       |           | 294 | 286 | 1,101      | 1.3           | 0.34               |                 |               |
|                     |           |         |                                          |      |       |       |       |       |       |           |     |     |            |               |                    |                 |               |
| Indian Prairie Lake | 2         | Rb      | 133                                      | 20   | 3     | 13    | 3     |       |       |           | 172 |     |            |               |                    |                 |               |
|                     |           | BT      | 1                                        | 1    |       |       |       |       |       |           | 2   | 38  | 150        | 4.6           | 1.16               |                 |               |
|                     |           |         |                                          |      |       |       |       |       |       |           |     |     |            |               |                    |                 |               |
| Jorn Lake           | 2         | BT      |                                          | 24   | 6     |       |       |       |       |           | 30  | 10  | 29         | 3.0           | 1.03               |                 |               |
|                     |           |         |                                          |      |       |       |       |       |       |           |     |     |            |               |                    |                 |               |
| Juniper Lake        | 12        | Rb      |                                          | 91   | 34    |       |       |       |       |           | 125 | 29  | 63         | 4.3           | 1.98               |                 |               |
|                     |           |         |                                          |      |       |       |       |       |       |           |     |     |            |               |                    |                 |               |
| Kingsley Reservoir  | 4         | Rb      | 39                                       | 111  | 8     | 3     |       |       |       |           | 161 |     |            |               |                    |                 |               |
|                     |           | BT      | 1                                        |      |       |       |       |       |       |           | 1   | 95  | 220        | 1.7           | 0.74               |                 |               |
|                     |           |         |                                          |      |       |       |       |       |       |           |     |     |            |               |                    |                 |               |
| Kinney Lake         | 8         | Rb      | 3                                        | 4    | 7     | 1     |       |       |       |           | 15  |     |            |               |                    |                 |               |
|                     |           | BrB     | 23                                       | 3    |       |       |       |       |       |           | 26  | 19  | 37         | 2.2           | 1.11               |                 |               |
|                     |           |         |                                          |      |       |       |       |       |       |           |     |     |            |               |                    |                 |               |
| Kiwa Lake           | 2         | Rb      |                                          |      | 3     | 8     | 4     | 2     | 1     |           | 18  | 13  | 14         | 1.4           | 1.29               |                 |               |
|                     |           |         |                                          |      |       |       |       |       |       |           |     |     |            |               |                    |                 |               |
| Klamath Lake        | 14        | Rb      |                                          | 1    | 7     | 34    | 40    | 66    | 27    | 40        | 215 |     |            |               |                    |                 |               |
|                     |           | Br      |                                          | 1    | 1     |       |       |       |       |           | 1   |     |            |               |                    |                 |               |
|                     |           | YP      |                                          | 1    |       |       |       |       |       |           | 1   | 314 | 1,122      | 0.7           | 0.19               |                 |               |
|                     |           |         |                                          |      |       |       |       |       |       |           |     |     |            |               |                    |                 |               |
| Krumbo Reservoir    | 12        | Rb      | 8                                        | 1    | 23    | 13    | 1     |       |       |           | 46  | 38  | 55         | 1.2           | 0.84               |                 |               |
|                     |           |         |                                          |      |       |       |       |       |       |           |     |     |            |               |                    |                 |               |
| Lake of the Woods   | 14        | Rb      | 1                                        | 33   | 3     | 1     | 1     | 1     | 1     |           | 41  |     |            |               |                    |                 |               |
|                     |           | BT      | 6                                        | 16   | 15    | 4     | 3     |       |       |           | 45  |     |            |               |                    |                 |               |
|                     |           | K       | 39                                       | 221  | 24    | 1     |       |       |       |           | 285 |     |            |               |                    |                 |               |
|                     |           | BrB     | 5                                        | 2    | 1     |       |       |       |       |           | 8   | 184 | 681        | 2.1           | 0.56               |                 |               |
|                     |           |         |                                          |      |       |       |       |       |       |           |     |     |            |               |                    |                 |               |
| Lava Lake, Big      | 5         | BT      |                                          | 27   | 470   | 79    |       |       |       |           | 576 | 396 | 1,232      | 1.5           | 0.47               |                 |               |

Table 58 (continued)

| Water                 | Watershed | Species | Number of Fish (by Two-Inch Size Groups) |      |       |       |       |       |       |              |     |     | Total<br>Fish | Total<br>Anglers | Total<br>Hours<br>Fished | Fish<br>per<br>Angler | Fish<br>per<br>Hour |
|-----------------------|-----------|---------|------------------------------------------|------|-------|-------|-------|-------|-------|--------------|-----|-----|---------------|------------------|--------------------------|-----------------------|---------------------|
|                       |           |         | 6-8                                      | 8-10 | 10-12 | 12-14 | 14-16 | 16-18 | 18-20 | 20 &<br>Over |     |     |               |                  |                          |                       |                     |
| LAKES (continued)     |           |         |                                          |      |       |       |       |       |       |              |     |     |               |                  |                          |                       |                     |
| Lava Lake, Little     | 5         | Rb      |                                          |      | 4     | 3     |       |       |       |              |     |     | 7             |                  |                          |                       |                     |
|                       |           | BT      | 5                                        | 3    |       |       |       |       |       |              |     |     | 8             | 10               | 24                       | 1.5                   | 0.63                |
|                       |           |         |                                          |      |       |       |       |       |       |              |     |     | 15            |                  |                          |                       |                     |
| Leaburg Lake          | 2         | Rb      | 7                                        | 65   | 55    | 11    |       |       |       |              |     |     | 138           | 101              | 237                      | 1.4                   | 0.58                |
| Lemolo Reservoir      | 16        | Br      |                                          |      |       |       |       |       |       |              |     |     | 273           |                  |                          |                       |                     |
|                       |           | Rb      |                                          |      |       |       |       |       |       |              |     |     | 22            |                  |                          |                       |                     |
|                       |           | BT      |                                          |      |       |       |       |       |       |              |     |     | 3             |                  |                          |                       |                     |
|                       |           | K       |                                          |      |       |       |       |       |       |              |     |     | 1             |                  |                          |                       |                     |
|                       |           |         |                                          |      |       |       |       |       |       |              |     |     | 299           | 472              | 1,661                    | 0.6                   | 0.18                |
| Leone Lake            | 2         | BT      | 4                                        | 22   | 9     |       |       |       |       |              |     |     | 35            |                  |                          |                       |                     |
|                       |           | Br      |                                          |      | 1     |       |       |       |       |              |     |     | 1             |                  |                          |                       |                     |
|                       |           |         |                                          |      |       |       |       |       |       |              |     |     | 36            | 14               | 69                       | 2.6                   | 0.95                |
| Linton Lake           | 2         | BT      | 14                                       | 8    | 3     | 2     |       |       |       |              |     |     | 27            |                  |                          |                       |                     |
|                       |           | Br      |                                          |      |       | 2     |       |       |       |              |     |     | 2             | 24               | 146                      | 1.2                   | 0.20                |
|                       |           |         |                                          |      |       |       |       |       |       |              |     |     | 29            |                  |                          |                       |                     |
| Littlefield Reservoir | 11        | Rb      |                                          | 1    | 11    | 24    | 32    |       |       | 1            |     |     | 69            | 15               | 74                       | 4.6                   | 0.93                |
| Lofton Reservoir      | 13        | Rb      | 6                                        | 184  | 16    | 14    | 4     |       |       | 1            |     |     | 225           |                  |                          |                       |                     |
|                       |           | BT      | 7                                        | 52   | 12    | 9     | 6     |       |       |              |     | 86  | 128           | 489              | 2.4                      | 0.64                  |                     |
|                       |           |         |                                          |      |       |       |       |       |       |              |     |     | 311           |                  |                          |                       |                     |
| Long Lake             | 2         | BT      |                                          | 2    | 5     |       |       |       |       |              |     |     | 7             | 10               | 42                       | 0.7                   | 0.17                |
| Loon Lake             | 16        | Rb      |                                          |      |       |       |       |       |       |              |     |     | 250           |                  |                          |                       |                     |
|                       |           | Ct      |                                          |      |       |       |       |       |       |              |     |     | 109           |                  |                          |                       |                     |
|                       |           |         |                                          |      |       |       |       |       |       |              |     |     | 359           | 105              | 318                      | 3.4                   | 1.13                |
| Lost Lake             | 1         | Ct      |                                          |      | 2     | 6     | 3     |       |       |              |     |     | 11            |                  |                          |                       |                     |
|                       |           | Rb      |                                          | 152  |       |       |       |       |       |              |     |     | 152           | 60               | 174                      | 2.7                   | 0.94                |
|                       |           |         |                                          |      |       |       |       |       |       |              |     |     | 163           |                  |                          |                       |                     |
| Lost Lake             | 2         | BT      | 28                                       | 119  | 52    | 7     |       |       |       |              |     |     | 206           |                  |                          |                       |                     |
|                       |           | Rb      | 118                                      | 29   | 22    | 2     |       |       |       |              |     | 171 |               |                  |                          |                       |                     |
|                       |           | GT      | 6                                        | 2    |       |       |       |       | 8     | 97           | 341 | 4.0 | 1.13          |                  |                          |                       |                     |
|                       |           |         |                                          |      |       |       |       |       |       |              |     |     | 385           |                  |                          |                       |                     |



Table 58 (continued)

| Water               | Watershed | Species | Number of Fish (by Two-Inch Size Groups) |       |       |       |       |       |       |           |  |       | Total Fish | Total Anglers | Total Hours Fished | Fish per Angler | Fish per Hour |
|---------------------|-----------|---------|------------------------------------------|-------|-------|-------|-------|-------|-------|-----------|--|-------|------------|---------------|--------------------|-----------------|---------------|
|                     |           |         | 6-8                                      | 8-10  | 10-12 | 12-14 | 14-16 | 16-18 | 18-20 | 20 & Over |  |       |            |               |                    |                 |               |
| LAKES (continued)   |           |         |                                          |       |       |       |       |       |       |           |  |       |            |               |                    |                 |               |
| Lost Lake           | 4         | Rb      | 139                                      | 592   | 288   | 11    |       |       |       |           |  |       | 1,030      |               |                    |                 |               |
|                     |           | Bt      | 5                                        | 2     |       |       |       |       |       |           |  |       | 7          |               |                    |                 |               |
|                     |           | K       | 1                                        |       |       |       |       |       |       |           |  |       | 1          |               |                    |                 |               |
|                     |           | Br      | 3                                        | 4     |       | 1     |       | 2     |       |           |  |       | 10         | 414           | 1,396              | 2.5             | 0.75          |
|                     |           |         |                                          |       |       |       |       |       |       |           |  | 1,048 |            |               |                    |                 |               |
| Macone Lake         | 6         | Rb      | 178                                      | 108   | 11    | 2     | 2     |       |       |           |  |       | 301        |               |                    |                 |               |
|                     |           | Bt      | 80                                       | 70    | 6     | 1     |       |       |       |           |  |       | 157        |               |                    |                 |               |
|                     |           | K       | 78                                       | 3     |       |       |       |       |       |           |  |       | 81         |               |                    |                 |               |
|                     |           |         |                                          |       |       |       |       |       |       |           |  |       | 539        | 117           | 408                | 4.6             | 1.32          |
| Malheur Reservoir   | 10        | Rb      | 786                                      | 1,866 | 2,288 | 1,354 | 92    | 56    | 6     |           |  |       | 6,448      | 1,530         | 9,355              | 4.2             | 0.69          |
| Marilyn Lake, Lower | 2         | Bt      |                                          | 36    | 19    | 13    | 16    | 9     | 2     |           |  |       | 95         | 35            | 167                | 2.7             | 0.57          |
| Marilyn Lake, Upper | 2         | Bt      | 3                                        | 24    | 44    | 4     | 4     |       |       |           |  |       | 79         | 52            | 155                | 1.5             | 0.51          |
| Marion Lake         | 2         | Rb      | 17                                       | 83    | 122   | 183   | 26    |       |       |           |  |       | 437        |               |                    |                 |               |
|                     |           | Bt      | 1                                        | 127   | 149   | 10    | 1     |       |       |           |  |       | 291        |               |                    |                 |               |
|                     |           | Ct      | 1                                        |       |       |       |       |       |       |           |  |       | 1          | 170           | 846                | 4.3             | 0.86          |
|                     |           |         |                                          |       |       |       |       |       |       |           |  |       | 729        |               |                    |                 |               |
| Miller Lake         | 14        | Bt      |                                          | 2     | 2     |       |       |       |       |           |  |       | 4          |               |                    |                 |               |
|                     |           | Rb      | 1                                        | 3     | 31    | 12    | 3     | 3     |       |           |  |       | 53         | 94            | 284                | 0.6             | 0.20          |
|                     |           |         |                                          |       |       |       |       |       |       |           |  | 57    |            |               |                    |                 |               |
| Miller Reservoir    | 10        | Rb      | 6                                        | 15    | 30    | 20    | 2     |       |       |           |  |       | 73         | 29            | 115                | 2.5             | 0.63          |
| Mink Lake           | 2         | Rb      |                                          |       | 1     |       | 1     | 1     | 2     | 1         |  |       | 5          |               |                    |                 |               |
|                     |           | Bt      |                                          |       |       |       |       |       |       |           |  |       | 3          | 19            | 112                | 0.4             | 0.07          |
|                     |           |         |                                          |       |       |       |       |       |       |           |  |       | 8          |               |                    |                 |               |
| Mirror Lake         | 3         | Rb      | 12                                       |       |       |       |       |       |       |           |  |       | 12         |               |                    |                 |               |
|                     |           | Bt      | 22                                       | 5     |       |       |       |       |       |           |  |       | 27         | 37            | 106                | 1.1             | 0.37          |
|                     |           |         |                                          |       |       |       |       |       |       |           |  | 39    |            |               |                    |                 |               |
| Mirror Lake         | 8         | Bt      | 52                                       | 5     |       |       |       |       |       |           |  |       | 57         | 25            | 49                 | 2.3             | 1.16          |

Table 58 (continued)

| Water                | Watershed | Species         | Number of Fish (by Two-Inch Size Groups) |               |           |          |         |        |        |           |                       |  | Total Fish Anglers | Total Hours Fished | Fish per Angler | Fish per Hour |
|----------------------|-----------|-----------------|------------------------------------------|---------------|-----------|----------|---------|--------|--------|-----------|-----------------------|--|--------------------|--------------------|-----------------|---------------|
|                      |           |                 | 6-8                                      | 8-10          | 10-12     | 12-14    | 14-16   | 16-18  | 18-20  | 20 & Over |                       |  |                    |                    |                 |               |
| LAKES (continued)    |           |                 |                                          |               |           |          |         |        |        |           |                       |  |                    |                    |                 |               |
| Moon Reservoir       | 12        | Rb              | 2                                        | 2             |           |          |         |        | 2      |           | 6                     |  | 12                 | 19                 | 0.5             | 0.32          |
| Morgan Lake          | 8         | Rb<br>BT        | 925<br>190                               | 5,564<br>47   | 107<br>21 | 65<br>12 | 32<br>8 | 6      |        |           | 6,699<br>278<br>6,977 |  | 1,141              | 4,272              | 6.1             | 1.63          |
| Mowich Lake          | 2         | BT<br>Rb        | 1                                        | 5             | 26<br>10  | 10<br>36 | 1       |        |        |           | 42<br>47<br>89        |  | 22                 | 96                 | 4.0             | 0.93          |
| North Fork Reservoir | 3         | Rb<br>Wf        | 37                                       | 166           | 136       | 4<br>1   | 3       |        |        |           | 346<br>1<br>347       |  | 235                | 953                | 1.5             | 0.36          |
| Ochoco Reservoir     | 5         | Rb              | 23                                       | 132           | 149       | 20       | 8       |        |        |           | 332                   |  | 202                | 668                | 1.6             | 0.50          |
| Olalla Lake          | 18        | Ct<br>Rb<br>BrB | 1<br>16                                  | 7<br>123<br>3 | 3<br>27   | 4        |         | 17     |        |           | 11<br>187<br>3<br>201 |  | 135                | 483                | 1.5             | 0.42          |
| Olallie Lake         | 5         | Rb<br>BT<br>K   |                                          | 21<br>3       | 64        |          |         |        |        |           | 85<br>42<br>5<br>132  |  | 61                 | 229                | 2.2             | 0.58          |
| Olive Lake           | 6         | Rb<br>BT<br>K   | 14<br>15<br>15                           | 3             |           | 1        |         |        |        |           | 18<br>15<br>15<br>48  |  | 55                 | 197                | 0.9             | 0.24          |
| Opal Lake            | 2         | BT              | 33                                       | 4             |           |          | 1       |        |        |           | 38                    |  | 13                 | 46                 | 2.9             | 0.83          |
| Opal Lake            | 2         | BT              |                                          |               | 5         | 3        |         |        |        |           | 8                     |  | 10                 | 30                 | 0.8             | 0.27          |
| Otter Lake           | 2         | Rb<br>BT        |                                          | 2<br>3        | 4<br>6    | 2<br>11  | 1<br>7  | 1<br>3 | 1<br>1 |           | 11<br>32<br>43        |  | 45                 | 231                | 1.0             | 0.19          |

Table 58 (continued)

| Water                | Watershed | Species | Number of Fish (by Two-Inch Size Groups) |       |       |       |       |       |       |           |  |       | Total Fish | Total Anglers | Total Hours Fished | Fish per Angler | Fish per Hour |
|----------------------|-----------|---------|------------------------------------------|-------|-------|-------|-------|-------|-------|-----------|--|-------|------------|---------------|--------------------|-----------------|---------------|
|                      |           |         | 6-8                                      | 8-10  | 10-12 | 12-14 | 14-16 | 16-18 | 18-20 | 20 & Over |  |       |            |               |                    |                 |               |
| LAKES (continued)    |           |         |                                          |       |       |       |       |       |       |           |  |       |            |               |                    |                 |               |
| Owyhee Reservoir     | 11        | Rb      |                                          |       | 2     |       |       |       |       |           |  |       | 2          |               |                    |                 |               |
|                      |           | Bc      | 1,382                                    | 2,721 | 1,719 | 1     |       |       |       |           |  |       | 5,823      |               |                    |                 |               |
|                      |           | Yp      | 2                                        |       |       |       |       |       |       |           |  |       | 2          |               |                    |                 |               |
|                      |           | Blb     | 2                                        | 32    | 33    | 7     |       |       |       |           |  |       | 74         |               |                    |                 |               |
|                      |           | Lb      | 7                                        | 21    | 62    | 60    | 35    | 11    |       |           |  |       | 196        | 753           | 2,678              | 8.1             | 2.28          |
|                      |           |         |                                          |       |       |       |       |       |       |           |  | 6,097 |            |               |                    |                 |               |
| Oxbow Reservoir      | 9         | Rb      | 12                                       | 23    | 30    | 17    |       |       |       |           |  |       | 82         |               |                    |                 |               |
|                      |           | Sb      | 1                                        | 14    | 11    | 2     |       |       |       |           |  |       | 28         |               |                    |                 |               |
|                      |           | Bc      | 4                                        | 92    | 2     |       |       |       |       |           |  |       | 98         |               |                    |                 |               |
|                      |           | Cc      | 14                                       | 31    | 13    | 4     | 2     | 9     | 2     |           |  |       | 75         |               |                    |                 |               |
|                      |           | Blb     | 22                                       | 26    | 19    | 1     |       |       |       |           |  |       | 68         | 116           | 338                | 3.0             | 1.04          |
|                      |           |         |                                          |       |       |       |       |       |       |           |  | 351   |            |               |                    |                 |               |
| Pamelia Lake         | 2         | Gt      | 52                                       | 21    | 14    |       |       |       |       |           |  |       | 87         | 50            | 120                | 1.7             | 0.73          |
| Parrish Lake         | 2         | Bt      | 30                                       | 21    | 5     |       |       |       |       |           |  |       | 56         | 14            | 59                 | 4.0             | 0.95          |
| Paulina Lake         | 5         | Rb      | 322                                      | 1,075 | 1,868 | 259   | 20    | 1     | 1     |           |  |       | 3,546      | 1,546         | 5,728              | 2.3             | 0.62          |
| Pelton Reservoir     | 5         | Rb      | 62                                       | 595   | 646   | 28    | 2     |       |       |           |  |       | 1,333      |               |                    |                 |               |
|                      |           | St      |                                          |       | 4     |       |       |       |       |           |  |       | 4          |               |                    |                 |               |
|                      |           | Co      |                                          | 8     |       |       |       |       |       |           |  |       | 8          |               |                    |                 |               |
|                      |           | Ch      | 7                                        | 17    | 1     |       |       |       |       |           |  |       | 25         |               |                    |                 |               |
|                      |           | Wf      |                                          | 1     |       |       |       |       |       |           |  |       | 1          |               |                    |                 |               |
|                      |           | Br      |                                          |       | 1     |       |       |       |       |           |  |       | 1          |               |                    |                 |               |
|                      |           | K       | 6                                        | 5     | 2     | 4     |       |       |       |           |  |       | 17         |               |                    |                 |               |
|                      |           |         |                                          |       |       |       |       |       |       |           |  | 1,389 | 446        | 1,735         | 3.1                | 0.80            |               |
| Pika Lake            | 2         | Bt      | 33                                       |       |       |       |       |       |       |           |  |       | 33         | 13            | 40                 | 2.5             | 0.83          |
| Porky Lake           | 2         | Bt      |                                          |       | 3     | 6     | 1     | 1     |       |           |  |       | 11         | 12            | 40                 | 0.9             | 0.28          |
| Presley Lake         | 2         | Rb      | 6                                        | 35    | 26    |       |       |       |       |           |  |       | 67         | 15            | 47                 | 4.5             | 1.43          |
| Prineville Reservoir | 5         | Rb      | 45                                       | 159   | 274   | 360   | 29    |       |       |           |  |       | 867        |               |                    |                 |               |
|                      |           | Lb      | 7                                        | 9     | 8     | 2     | 7     |       |       |           |  |       | 33         |               |                    |                 |               |
|                      |           | Sb      |                                          | 1     |       | 2     |       |       |       |           |  |       | 3          |               |                    |                 |               |
|                      |           | BrB     | 2                                        | 23    | 49    | 31    | 2     |       |       |           |  |       | 107        | 787           | 2,763              | 1.3             | 0.37          |
|                      |           |         |                                          |       |       |       |       |       |       |           |  |       | 1,010      |               |                    |                 |               |

Table 58 (continued)

| Water                 | Watershed | Species                                       | Number of Fish (by Two-Inch Size Groups) |                               |                                          |                            |                         |                  |       |           |  |  | Total Fish                                                        | Total Anglers | Total Hours Fished | Fish per Angler | Fish per Hour |
|-----------------------|-----------|-----------------------------------------------|------------------------------------------|-------------------------------|------------------------------------------|----------------------------|-------------------------|------------------|-------|-----------|--|--|-------------------------------------------------------------------|---------------|--------------------|-----------------|---------------|
|                       |           |                                               | 6-8                                      | 8-10                          | 10-12                                    | 12-14                      | 14-16                   | 16-18            | 18-20 | 20 & Over |  |  |                                                                   |               |                    |                 |               |
| LAKES (continued)     |           |                                               |                                          |                               |                                          |                            |                         |                  |       |           |  |  |                                                                   |               |                    |                 |               |
| Quartz Lake           | 1         | Ct                                            |                                          | 50                            | 5                                        | 5                          |                         |                  |       |           |  |  | 60                                                                | 17            | 42                 | 3.5             | 1.43          |
| Rainbow Lake          | 2         | BT<br>Rb                                      | 2                                        |                               | 2                                        |                            |                         |                  |       |           |  |  | $2\frac{2}{4}$                                                    | 19            | 32                 | 0.2             | 0.13          |
| Red Butte Lake        | 2         | BT                                            | 17                                       | 1                             | 17                                       | 1                          |                         |                  |       |           |  |  | 36                                                                | 10            | 29                 | 3.6             | 1.24          |
| Rigdon Lake, Lower    | 2         | Rb<br>BT                                      |                                          |                               | 3                                        | 13<br>1                    | 8                       |                  |       |           |  |  | 24<br>$\frac{1}{25}$                                              | 14            | 40                 | 1.8             | 0.63          |
| Robinson Lake         | 2         | BT                                            |                                          |                               | 8                                        | 5                          |                         |                  |       |           |  |  | 13                                                                | 12            | 69                 | 1.1             | 0.19          |
| Rock Lake, Middle     | 3         | Rb<br>BT                                      | 14<br>8                                  | 4                             | 1                                        |                            |                         |                  |       |           |  |  | 14<br>13<br>$\frac{1}{27}$                                        | 12            | 62                 | 2.3             | 0.44          |
| Rock Creek Reservoir  | 5         | Rb                                            | 2                                        | 178                           | 324                                      | 27                         | 8                       | 1                |       |           |  |  | 540                                                               | 320           | 1,083              | 1.7             | 0.50          |
| Roulet Pond           | 8         | Rb<br>BrB                                     | 16<br>19                                 | 19<br>1                       | 13                                       | 1                          |                         |                  |       |           |  |  | 49<br>$\frac{20}{69}$                                             | 21            | 65                 | 3.3             | 1.06          |
| Round Lake            | 2         | Rb<br>BT                                      |                                          | 4<br>1                        | 21                                       | 13                         | 5                       | 2                | 2     |           |  |  | 47<br>$\frac{2}{49}$                                              | 14            | 62                 | 3.5             | 0.79          |
| Round Lake            | 3         | BT<br>Br                                      | 3                                        | 12<br>5                       | 4<br>2                                   | 1<br>2                     | 1                       |                  |       |           |  |  | 20<br>$\frac{10}{30}$                                             | 10            | 40                 | 3.0             | 0.75          |
| Round Butte Reservoir | 5         | Rb<br>StS<br>Co<br>Ch<br>K<br>DV<br>BrB<br>Wf | 64<br>2<br>16<br>56<br>4                 | 366<br>25<br>161<br>157<br>11 | 1,188<br>33<br>592<br>12<br>5<br>11<br>1 | 807<br>236<br>27<br>3<br>2 | 53<br>16<br>1<br>2<br>8 | 1<br>1<br>2<br>8 |       |           |  |  | 2,479<br>61<br>1,022<br>225<br>35<br>40<br>1<br>$\frac{2}{3,865}$ | 1,082         | 5,192              | 3.6             | 0.74          |

Table 58 (continued)

| Water                  | Watershed | Species   | Number of Fish (by Two-Inch Size Groups) |         |         |       |       |       |       |           | Total Fish       | Total Anglers | Total Hours Fished | Fish per Angler | Fish per Hour |
|------------------------|-----------|-----------|------------------------------------------|---------|---------|-------|-------|-------|-------|-----------|------------------|---------------|--------------------|-----------------|---------------|
|                        |           |           | 6-8                                      | 8-10    | 10-12   | 12-14 | 14-16 | 16-18 | 18-20 | 20 & Over |                  |               |                    |                 |               |
| LAKES (continued)      |           |           |                                          |         |         |       |       |       |       |           |                  |               |                    |                 |               |
| Rowe Creek Reservoir   | 6         | Rb        | 9                                        | 147     | 67      |       |       |       |       |           | 223              | 61            | 211                | 3.7             | 1.06          |
| Short Lake             | 2         | BT<br>Rb  | 6<br>1                                   | 1<br>1  | 2       |       |       |       |       |           | 9<br>1<br>10     |               |                    |                 |               |
| Smith River Reservoir  | 2         | Rb<br>BT  | 13                                       | 93<br>1 | 168     | 21    |       |       |       |           | 295<br>1<br>296  |               |                    |                 |               |
| Soda Springs Reservoir | 16        | Rb<br>Br  |                                          |         |         |       |       |       |       |           | 35<br>26<br>61   | 70            | 277                | 0.9             | 0.22          |
| Sparks Lake            | 5         | BT        | 7                                        | 40      | 53      | 12    | 7     |       |       |           | 119              | 37            | 118                | 3.2             | 1.01          |
| Spirit Lake            | 2         | Rb<br>BT  | 1<br>3                                   | 2<br>10 | 3<br>22 | 3     | 2     |       |       |           | 6<br>40<br>46    | 11            | 46                 | 4.2             | 1.00          |
| Spruce Run Lake        | 1         | Ct        | 61                                       | 15      |         |       |       |       |       |           | 91 <sup>13</sup> | 36            | 87                 | 2.5             | 1.05          |
| Squaw Lake, Lower      | 15        | Rb<br>BrB | 10<br>9                                  | 61<br>9 | 123     | 11    |       |       |       |           | 205<br>18<br>223 | 138           | 600                | 1.6             | 0.37          |
| Squaw Lake, Upper      | 15        | Rb<br>BrB | 8                                        | 56<br>3 | 46      | 1     |       |       |       |           | 111<br>3<br>114  | 37            | 104                | 3.1             | 1.10          |
| Strawberry Lake        | 6         | Rb<br>Ct  | 3                                        | 2<br>8  | 2       |       |       |       |       |           | 2<br>13<br>15    | 11            | 30                 | 1.4             | 0.50          |
| Sunset Lake            | 1         | Ct<br>Rb  |                                          | 184     | 1       |       | 28    |       |       |           | 185<br>28<br>213 | 105           | 369                | 2.0             | 0.58          |

<sup>13</sup> Total includes 15 cutthroat in the 4- to 6-inch size group.

Table 58 (continued)

| Water                  | Watershed | Species | Number of Fish (by Two-Inch Size Groups) |      |          |          |       |       |       |           |  |                | Total Fish          | Total Anglers | Total Hours Fished | Fish per Angler | Fish per Hour |
|------------------------|-----------|---------|------------------------------------------|------|----------|----------|-------|-------|-------|-----------|--|----------------|---------------------|---------------|--------------------|-----------------|---------------|
|                        |           |         | 6-8                                      | 8-10 | 10-12    | 12-14    | 14-16 | 16-18 | 18-20 | 20 & Over |  |                |                     |               |                    |                 |               |
| LAKES (continued)      |           |         |                                          |      |          |          |       |       |       |           |  |                |                     |               |                    |                 |               |
| Suttle Lake            | 5         | Rb      | 14                                       | 114  | 72       |          | 1     |       |       |           |  |                | 201                 |               |                    |                 |               |
|                        |           | K       |                                          | 57   | 800      | 52       |       |       |       |           |  |                | 909                 |               |                    |                 |               |
|                        |           | Br      |                                          | 9    | 11       | 8        |       |       | 1     | 5         |  |                | 38                  |               |                    |                 |               |
|                        |           | Wf      | 3                                        | 13   | 9        | 3        | 1     | 1     |       |           |  |                | <u>30</u><br>1,178  | 490           | 2,754              | 2.4             | 0.43          |
|                        |           |         |                                          |      |          |          |       |       |       |           |  |                |                     |               |                    |                 |               |
| Tennile Lakes          | 17        | Rb      |                                          |      |          |          |       |       |       |           |  |                | 9                   |               |                    |                 |               |
|                        |           | Ct      |                                          |      |          |          |       |       |       |           |  |                | <u>31</u><br>40     | 24            | 40                 | 1.7             | 1.00          |
|                        |           |         |                                          |      |          |          |       |       |       |           |  |                |                     |               |                    |                 |               |
| Thompson Reservoir     | 13        | Rb      | 33                                       | 130  | 27       | 18       | 12    | 4     | 3     |           |  |                | 227                 | 130           | 646                | 1.7             | 0.35          |
|                        |           |         |                                          |      |          |          |       |       |       |           |  |                |                     |               |                    |                 |               |
| Timothy Lake           | 3         | Rb      | 48                                       | 37   | 11       | 6        | 4     |       |       |           |  |                | 106                 |               |                    |                 |               |
|                        |           | Ct      |                                          |      |          | 1        |       |       |       |           |  |                | 1                   |               |                    |                 |               |
|                        |           | Br      | 41                                       | 37   | 19       | 3        | 1     |       |       |           |  |                | 101                 |               |                    |                 |               |
|                        |           | Sct     | 11                                       |      |          |          |       |       |       |           |  |                | 11                  |               |                    |                 |               |
|                        |           | K       | 422                                      | 407  |          |          |       |       |       |           |  |                | <u>829</u><br>1,048 | 555           | 1,630              | 1.9             | 0.64          |
|                        |           |         |                                          |      |          |          |       |       |       |           |  |                |                     |               |                    |                 |               |
| Toketee Reservoir      | 16        | Br      |                                          |      |          |          |       |       |       |           |  |                | 48                  |               |                    |                 |               |
|                        |           | Rb      |                                          |      |          |          |       |       |       |           |  |                | <u>3</u><br>51      | 108           | 510                | 0.5             | 0.10          |
|                        |           |         |                                          |      |          |          |       |       |       |           |  |                |                     |               |                    |                 |               |
| Trail Bridge Reservoir | 2         | Rb      | 7                                        | 70   | 181      | 12       | 2     | 1     |       |           |  |                | 273                 |               |                    |                 |               |
|                        |           | Ct      | 1                                        | 1    |          |          |       |       |       |           |  |                | 2                   |               |                    |                 |               |
|                        |           | Wf      |                                          |      |          | 1        |       |       |       |           |  |                | <u>1</u><br>276     | 117           | 433                | 2.4             | 0.64          |
|                        |           |         |                                          |      |          |          |       |       |       |           |  |                |                     |               |                    |                 |               |
| Trillium Lake          | 3         | Rb      | 10                                       | 38   | 37       | 3        | 1     |       |       |           |  | 89             |                     |               |                    |                 |               |
|                        |           | Br      |                                          |      | <u>1</u> | <u>1</u> |       |       |       |           |  | <u>2</u><br>91 | 100                 | 332           | 0.9                | 0.27            |               |
|                        |           |         |                                          |      |          |          |       |       |       |           |  |                |                     |               |                    |                 |               |
| Tumble Lake            | 2         | Br      | 109                                      | 41   |          |          |       |       |       |           |  | 150            | 15                  | 102           | 10.0               | 1.47            |               |
|                        |           |         |                                          |      |          |          |       |       |       |           |  |                |                     |               |                    |                 |               |
| Twin Lake, North       | 5         | Rb      | 10                                       | 232  | 99       | 8        | 4     | 2     |       |           |  | 1              | 356                 |               |                    |                 |               |
|                        |           | Co      | 97                                       | 27   |          |          |       |       |       |           |  |                | <u>124</u><br>480   | 119           | 345                | 4.0             | 1.39          |
|                        |           |         |                                          |      |          |          |       |       |       |           |  |                |                     |               |                    |                 |               |
| Twin Lake, South       | 5         | Rb      | 10                                       | 83   | 22       |          |       |       |       |           |  | 115            | 81                  | 347           | 1.4                | 0.33            |               |

Table 58 (continued)

| Water                  | Watershed | Species | Number of Fish (by Two-Inch Size Groups) |       |       |       |       |       |       |           |  |     | Total Fish | Total Anglers | Total Hours Fished | Fish per Angler | Fish per Hour |
|------------------------|-----------|---------|------------------------------------------|-------|-------|-------|-------|-------|-------|-----------|--|-----|------------|---------------|--------------------|-----------------|---------------|
|                        |           |         | 6-8                                      | 8-10  | 10-12 | 12-14 | 14-16 | 16-18 | 18-20 | 20 & Over |  |     |            |               |                    |                 |               |
| LAKES (continued)      |           |         |                                          |       |       |       |       |       |       |           |  |     |            |               |                    |                 |               |
| Unity Reservoir        | 9         | Rb      | 65                                       | 145   | 98    | 27    | 3     | 2     |       |           |  |     | 340        | 130           | 459                | 2.6             | 0.74          |
| Upper Cow Lake         | 11        | Rb      | 71                                       | 175   | 195   | 184   | 93    | 11    |       | 1         |  |     | 730        | 224           | 770                | 3.3             | 0.95          |
| Valsetz Lake           | 18        | Ct      |                                          | 2     | 111   | 10    |       |       |       |           |  |     | 123        |               |                    |                 |               |
|                        |           | Rb      |                                          | 3     | 4     |       |       |       |       |           |  |     | 7          |               |                    |                 |               |
|                        |           | Br      |                                          |       | 1     |       | 1     |       |       |           |  |     | 2          |               |                    |                 |               |
|                        |           | LB      | 5                                        |       |       |       |       |       |       |           |  |     | 5          |               |                    |                 |               |
|                        |           | YB      | 1                                        |       |       |       |       |       |       |           |  |     | 1          |               |                    |                 |               |
|                        |           |         |                                          |       |       |       |       |       |       |           |  |     | 138        | 64            | 276                | 2.2             | 0.50          |
| Wahnum Lake            | 4         | BT      | 31                                       | 77    | 1     |       |       |       |       |           |  |     | 109        | 30            | 113                | 3.6             | 0.96          |
| Waldo Lake             | 2         | Rb      |                                          |       |       |       |       | 3     |       |           |  |     | 3          |               |                    |                 |               |
|                        |           | BT      |                                          |       |       |       |       |       |       | 1         |  |     | 1          |               |                    |                 |               |
|                        |           | K       | 10                                       | 123   | 35    | 3     |       |       |       |           |  |     | 171        | 90            | 657                | 1.9             | 0.27          |
|                        |           |         |                                          |       |       |       |       |       |       |           |  |     | 175        |               |                    |                 |               |
| Warm Springs Reservoir | 10        | Rb      | 2                                        | 5     | 4     | 3     |       |       |       |           |  |     | 14         |               |                    |                 |               |
|                        |           | SB      |                                          | 2     | 2     | 2     | 2     |       |       |           |  |     | 8          |               |                    |                 |               |
|                        |           | Bg      | 10                                       |       |       |       |       |       |       |           |  |     | 10         |               |                    |                 |               |
|                        |           | YP      | 22                                       | 4     | 1     |       |       |       |       |           |  |     | 27         |               |                    |                 |               |
|                        |           | BrB     | 10                                       | 37    | 23    |       |       |       |       |           |  |     | 70         |               |                    |                 |               |
|                        |           |         |                                          |       |       |       |       |       |       |           |  |     | 129        | 35            | 133                | 1.0             | 3.7           |
| Wickiup Reservoir      | 5         | Rb      | 23                                       | 48    | 90    | 115   | 37    | 15    | 2     | 2         |  |     | 332        |               |                    |                 |               |
|                        |           | BT      |                                          |       |       | 1     |       |       |       |           |  |     | 1          |               |                    |                 |               |
|                        |           | K       | 1                                        | 18    | 51    | 74    | 17    | 1     |       |           |  |     | 162        |               |                    |                 |               |
|                        |           | Br      | 3                                        | 4     | 16    | 16    | 26    | 11    | 9     | 5         |  |     | 90         |               |                    |                 |               |
|                        |           | Wf      |                                          |       | 9     | 2     |       |       |       |           |  |     | 11         |               |                    |                 |               |
|                        |           |         |                                          |       |       |       |       |       |       |           |  | 596 | 522        | 2,029         | 1.1                | 0.29            |               |
| Wildhorse Lake         | 12        | Ct      |                                          |       |       | 4     | 4     | 4     | 2     |           |  |     | 14         | 10            | 70                 | 1.4             | 0.20          |
| Willow Creek Reservoir | 15        | Rb      | 669                                      | 1,002 | 68    | 9     | 1     |       |       |           |  |     | 1,749      |               |                    |                 |               |
|                        |           | K       | 216                                      | 605   | 26    | 2     |       |       |       |           |  |     | 849        |               |                    |                 |               |
|                        |           | Ct      |                                          |       |       |       |       |       |       |           |  |     | 6          |               |                    |                 |               |
|                        |           |         |                                          |       |       |       |       |       |       |           |  |     | 2,604      | 595           | 2,238              | 4.4             | 1.16          |

## HABITAT IMPROVEMENT

Effort to maintain desirable levels of dissolved oxygen for trout in Delintment Lake in the winter of 1965-66 were unsuccessful. The windmill and air pump were inoperative by late February, and the dissolved oxygen level was reaching a critical level. By spring, all trout appeared to have suffocated. A new windmill and pump were put in operation for the winter of 1966-67.

Most of the debris from the 1964 flood believed to be detrimental to fish migrations had been removed from streams by the fall of 1966. Pollution from logging, insecticides, glue wastes, etc., continued to destroy game fish, as well as trout and salmon habitat, in various parts of the State.

Streams were extremely low in the summer and early fall of 1966 due to prolonged drouth periods. A few trout were lost in isolated pools and in beaver ponds as the result of the low flows and poor water quality.

Heavy silting, following a 46,000-acre forest fire in the Umpqua drainage, destroyed much trout habitat in some of the smaller streams. The smaller tributaries, however, continued to support juvenile salmonids.

One adult redbside shiner was found in Diamond Lake. Since this species was not present at the time Diamond Lake was chemically treated, we assume that the introduction was made by anglers using the redbside shiner for bait.

Vascular plants in Siltcoos and Tahkenitch Lakes did not adversely affect the success of anglers in 1966. Through dams on the outlets, the surface elevation of both lakes was maintained at a reasonably high level throughout the summer, hence large beds of Anacharis densa failed to reach the surface.

The dam on Siltcoos outlet was opened on several occasions in the fall in order to flush sand out of the channel near the ocean and permit entrance of adult anadromous species.

A 1,000-foot section of a Trillium Lake tributary was opened with dynamite in order to obtain a better supply of cold oxygenated water at the lake. Low oxygen concentrations have in the past been responsible for summer and winter losses of trout in the lake.

An old dam, which had been a partial to complete barrier to salmon and steelhead on the East Fork of Hood River, was finally removed by the new owner of the lumber mill at Dee.

Coho and steelhead eggs were hatched in a spawning channel at the Wallowa Hatchery. A large percentage of the coho eggs were lost when the intake structure to the channel became plugged. The survival of coho to the fry stage was 15.5 percent. About 60 percent of the steelhead eggs hatched.

There were approximately 1,200 screens operated by the Game Commission in irrigation diversions in 1966. Screens are maintained in the John Day, Rogue, Grande Ronde, Umatilla, Imnaha, and Walla Walla River systems. Bypass traps on screens of the Northeast Region caught substantial numbers of steelhead and chinook salmon. The contents of 93 bypass traps in the Northeast Region



show that 145,378 steelhead and 46,822 chinook migrants were salvaged. Based on the number of salmon and steelhead salvaged in bypass traps, the total statewide recovery would be in excess of two million fish.

There were thirteen rehabilitation projects completed in 1966. The projects included 403 surface acres and 225 miles of stream. A total of 3,247 gallons of rotenone was used on the thirteen projects. The cost for the thirteen projects was estimated to be \$60,400. At normal pool elevations, the rehabilitated waters were equal to 12,589 surface acres. Table 59 shows the location, area, cost, etc., of the various projects.

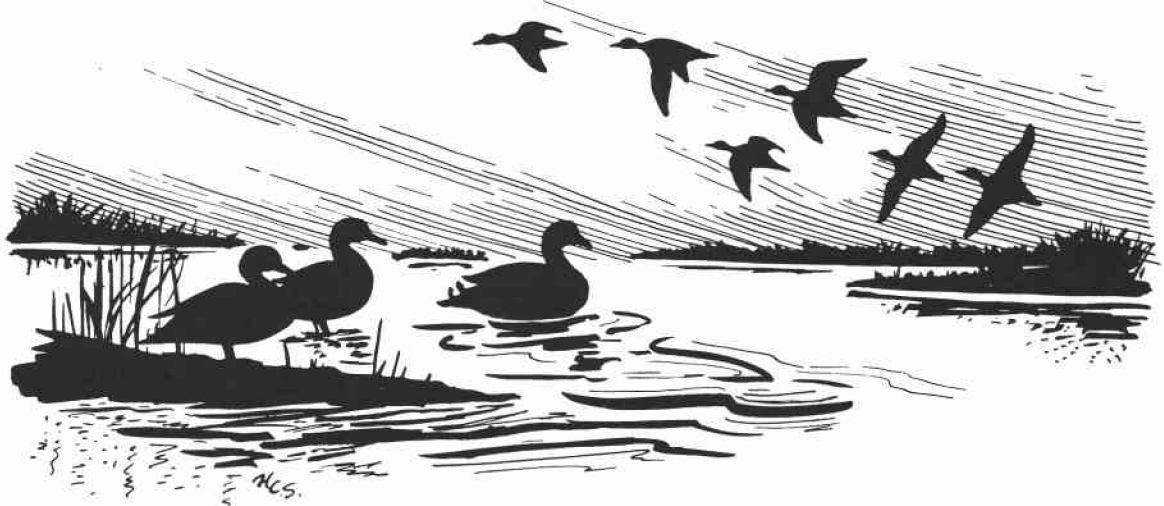


Table 59

Summary of Oregon State Game Commission Fishery Rehabilitation Projects, 1966

| Water                              | Surface Acreage<br>at<br>Treatment | Normal | Water<br>Volume<br>Treated<br>(Acre-Feet) | Miles of<br>Rivers and<br>Streams<br>Treated | Location<br>by<br>County | Month<br>of Treatment | Liquid<br>Rotenone<br>Used<br>(Gallons) | Species of<br>Undesirable<br>Fish<br>Removed | Estimated<br>Cost of<br>Total<br>Project | Restocking<br>(Species) |
|------------------------------------|------------------------------------|--------|-------------------------------------------|----------------------------------------------|--------------------------|-----------------------|-----------------------------------------|----------------------------------------------|------------------------------------------|-------------------------|
| Antelope Reservoir                 | 70                                 | 2,500  | 300                                       | 0                                            | Malheur                  | November              | 260                                     | CSu, BSu,<br>Sq, HLB                         | \$ 2,500                                 | Rb                      |
| Cottage Grove Reservoir            | 70                                 | 3,000  | 200                                       | 35                                           | Lane                     | July-September        | 260                                     | CSu, BrB,<br>Sq                              | 9,200                                    | Rb, Ct, LB,<br>SB       |
| McKay Reservoir                    | 30                                 | 1,200  | 250                                       | 2                                            | Umatilla                 | October               | 165                                     | WC, BSu, CSu,<br>Sq, BrB                     | 2,200                                    | LB, Bg                  |
| Fish Lake                          | 227                                | 440    | 1,127                                     | 1                                            | Jackson                  | October               | 560                                     | Ro                                           | 11,000                                   | Rb, BT                  |
| Taft-Miller Reservoir              | 2                                  | 384    | 20                                        | 10                                           | Harney                   | October               | 20                                      | Ro                                           | 500                                      | Rb                      |
| Green Peter Reservoir              | 0                                  | 3,720  | 0                                         | 45                                           | Linn                     | June-October          | 950                                     | BrB, CSu, Sq,<br>BSu, Rss, Gf                | 20,000                                   | StW, Rb                 |
| Poster Reservoir                   | 0                                  | 1,220  | 0                                         | 25                                           | Linn                     | June-October          | 650                                     | BrB, CSu, Sq,<br>BSu, Rss, Gf                | 11,500                                   | St, Rb                  |
| Cottonwood Creek Res.              | 0                                  | 118    | 0                                         | 17                                           | Harney                   | September             | 30                                      | Rss                                          | 700                                      | Rb                      |
| Miller Lake                        | 3                                  | 5      | 15                                        | 0                                            | Jackson                  | September             | 7                                       | BrB                                          | 250                                      | Bt                      |
| Miller Lake, Little                | 1                                  | 2      | 4                                         | 0                                            | Jackson                  | September             | 5                                       | BrB                                          | 150                                      | BT                      |
| Big Tom Polley and<br>Brush Creeks |                                    |        |                                           | 20                                           | Douglas                  | August                | 40                                      | Sq, Rss,<br>CSu, BSu                         | 500                                      | Co                      |
| John Day River,<br>North Fork      |                                    |        |                                           | 28                                           | Grant                    | August                | 180                                     | Clm, Sq, CSu,<br>BSu, Rss                    | 800                                      | St, Rb                  |
| John Day River,<br>Middle Fork     |                                    |        |                                           | 42                                           | Grant                    | August                | 120                                     | Clm, Sq, CSu,<br>BSu, Rss                    | 1,100                                    | St, Rb, Ct              |
| TOTALS                             | 403                                | 12,589 | 1,916                                     | 225                                          |                          |                       | 3,247                                   |                                              | \$60,400                                 |                         |

/1 Irrigation and flood reservoirs are chemically treated in the late summer or fall, at the time of lowest drawdown following irrigation season. Normal surface acreage is given to show the amount of the fishery area improved by chemical treatment.

## SCALE STUDIES

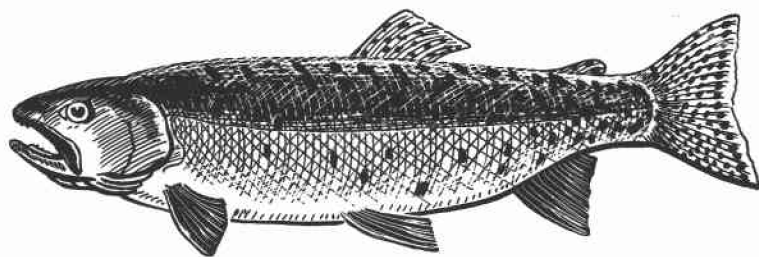
Much time of the scale analyst was involved in reading scales of anadromous species. Scales of winter and summer races of steelhead were examined. Some difficulty was experienced in determining the age of Rogue River summer steelhead entering fresh water from the ocean. Both maturing and immature fish enter the Rogue River after having spent some time in the ocean.

Scales of known age hatchery steelhead were a definite aid in determining the age of both wild and hatchery adult steelhead.

Scales of juvenile spring chinook salmon from the Willamette River system were studied intensively. Growth rates and scale patterns of wild and hatchery juvenile salmon were determined. A group of scales from known age chinook was read for the U. S. Bureau of Commercial Fisheries in relation to their Columbia River hatchery evaluation study.

Hatchery rainbow trout collected from the various waters throughout the State were aged and growth rates calculated from scale samples.

Scales of sea-run and resident cutthroat trout were examined and freshwater and marine growth patterns developed. In one instance, an increased growth rate as the result of lake fertilization was detected in the scale sample. Scales of brook trout, brown trout, lake trout, and kokanee were also aged and growth rates of the fish calculated.



## FISH PROPAGATION

Chris C. Jensen

The following tables cover the fish production data at fifteen Game Commission hatcheries for 1966.

Annual egg production by species and hatchery including exchanges is shown in Tables 60 and 61. Table 62 summarizes the egg production from 1960 through 1966.

Fish production data by hatchery showing liberations from each station and net pounds produced are listed in Table 63.

Table 64 presents a comparison of conversion ratios (pounds of food fed as compared to pounds of fish liberated in the same calendar year) from 1960 through 1966.

Average food conversion ratios by species released in 1965-66 are shown in Table 65. The ratios represent the actual amounts of food fed to each group from the fry to release stage.

Fiscal year expenditures are shown in Table 66 for each hatchery. Total costs in 1966 (\$682,753) are somewhat lower than for the previous year (\$728,390) primarily because of lack of spending in the maintenance, supplies, and capital items category. Of special interest is the fact that salaries contribute over 50 percent to the costs of rearing fish.

Production costs covering each phase of the operation for the past ten years are shown in Table 67. Gross rearing costs for 1966 (from financial statements) total \$0.63 per pound. Total costs other than depreciation equaled \$0.73 per pound of fish reared. Depreciation of facilities increased the cost to \$0.83 per pound.

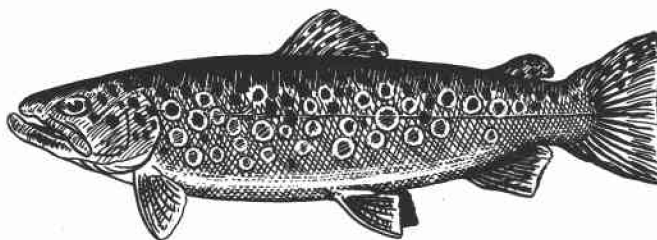


Table 60

Annual Egg Production, Including Eggs Imported  
from Other States and Countries, 1966

| Species             | Eggs from<br>Wild Fish | Eggs from<br>Hatchery<br>Brood Fish | Eggs<br>Imported<br>or Exchanged                            | Eggs<br>Exported<br>or Exchanged                              |
|---------------------|------------------------|-------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------|
| Spring Rainbow      | 1,846,514              | 2,838,040                           |                                                             |                                                               |
| Fall Rainbow        |                        | 14,820,010                          |                                                             |                                                               |
| Kamloops            | 132,600                |                                     |                                                             |                                                               |
| Cutthroat           |                        | 742,830                             | 458,050 <u>/1</u>                                           |                                                               |
| Brook Trout         | 4,867,000              |                                     |                                                             | 476,000 <u>/1</u><br>1,019,200 <u>/2</u><br>200,600 <u>/3</u> |
| Brown Trout         |                        |                                     | 401,000 <u>/2</u>                                           |                                                               |
| Golden Trout        |                        | 69,500                              |                                                             |                                                               |
| Winter Steelhead    | 2,519,536              |                                     |                                                             |                                                               |
| Summer Steelhead    | 923,614                |                                     | 590,000 <u>/1</u><br>678,800 <u>/4</u><br>104,448 <u>/1</u> |                                                               |
| Coho Salmon         | 1,413,000              |                                     |                                                             |                                                               |
| Spring Chinook      | 408,045                |                                     |                                                             |                                                               |
| Fall Chinook        | 2,022,480              |                                     |                                                             |                                                               |
| Atlantic Salmon     |                        | 768,420                             |                                                             |                                                               |
| Kokanee             |                        |                                     | 2,626,320                                                   |                                                               |
| TOTALS              | 14,132,789             | 19,238,800                          | 4,858,618                                                   | 1,695,800                                                     |
| TOTAL INCOMING EGGS |                        | 38,230,207                          |                                                             |                                                               |

/1 Washington./2 California./3 Montana./4 Idaho; returned as fry.

Table 61

Number of Eggs Taken at Oregon Egg-Taking Stations, 1966

| Station or Hatchery                              | Rainbow   |            | Cutthroat | Brook Trout            | Golden Trout | Steelhead |                   | Chinook Salmon |           | Coho Salmon | Atlantic Salmon | Total      |
|--------------------------------------------------|-----------|------------|-----------|------------------------|--------------|-----------|-------------------|----------------|-----------|-------------|-----------------|------------|
|                                                  | Spring    | Fall       |           |                        |              | Winter    | Summer            | Spring         | Fall      |             |                 |            |
| Alsea<br>(Big Creek, OFC)<br>(Fall Creek, OFC)   |           |            | 724,400   |                        |              | 1,970,000 |                   |                | 600,000   | 1,000,000   |                 | 4,294,400  |
| Bandon<br>(Lobster Creek)                        |           |            |           |                        |              |           |                   |                | 134,000   |             |                 | 134,000    |
| Butte Falls<br>(Rogue)                           |           |            |           |                        |              |           | 173,928           | 84,660         |           |             |                 | 258,588    |
| Cedar Creek<br>(Trask, OFC)                      |           |            |           |                        |              | 22,280    |                   |                |           | 413,000     |                 | 435,280    |
| Diamond Lake                                     | 1,846,514 |            |           | 132,600                |              |           |                   |                |           |             |                 | 1,979,114  |
| Fall River<br>(East Lake)<br>(Big Lava Lake)     |           |            |           | 3,716,000<br>1,151,000 |              |           |                   |                |           |             | 109,200         | 4,976,200  |
| Gnat Creek<br>(Big Creek, OFC)                   |           |            |           |                        |              | 527,256   |                   |                | 1,032,480 |             |                 | 1,559,736  |
| Hood River<br>(Pelton)                           |           |            |           |                        |              |           | 15,270            | 65,790         |           |             |                 | 81,060     |
| Lesburg                                          |           | 2,366,720  | 18,430    |                        |              |           |                   |                |           |             |                 | 2,385,150  |
| Oak Springs                                      |           | 3,597,880  |           |                        |              |           |                   |                |           |             |                 | 3,597,880  |
| Roaring River<br>(Siletz River)<br>(Alsea River) |           | 8,855,410  |           |                        |              |           | 259,500<br>13,520 |                |           |             |                 | 9,128,430  |
| Rock Creek<br>(Umpqua)<br>(Bonneville, OFC)      |           |            |           |                        |              | 267,480   |                   | 240,750        | 256,000   |             |                 | 764,230    |
| Willamette                                       | 2,838,040 |            |           |                        |              |           |                   |                |           |             |                 | 2,838,040  |
| Wizard Falls<br>(Pelton)<br>(California)         |           |            |           |                        | 69,500       |           | 193,916           | 16,845         |           |             | 659,220         | 939,481    |
| TOTALS                                           | 4,684,554 | 14,820,010 | 742,830   | 4,867,000              | 69,500       | 2,519,536 | 923,614           | 408,045        | 2,022,480 | 1,413,000   | 768,420         | 33,371,589 |

Table 62

Eggs Produced and Imported  
from Other States and Countries from 1960 through 1966

| Species          | 1960       | 1961       | 1962       | 1963       | 1964       | 1965       | 1966                   |
|------------------|------------|------------|------------|------------|------------|------------|------------------------|
| Spring Rainbow   | 3,677,910  | 4,005,756  | 3,410,431  | 4,749,677  | 7,200,806  | 8,521,730  | 4,684,554              |
| Fall Rainbow     | 10,021,414 | 12,359,008 | 11,965,814 | 11,017,748 | 20,419,984 | 16,308,900 | 14,820,010             |
| Kamloops Rainbow | 4,046,000  | 15,571,149 | 21,116,652 | 13,224,311 | 1,211,888  | 389,500    | 132,600                |
| Cutthroat        | 1,918,734  | 1,937,686  | 2,291,880  | 2,289,467  | 1,506,198  | 1,430,500  | 1,200,880              |
| Brook Trout      | 3,470,031  | 4,126,838  | 4,065,627  | 4,353,540  | 4,455,530  | 5,363,220  | 4,867,000              |
| Brown Trout      |            | 468,228    | 200,408    | 300,104    | 301,000    | 301,300    | 401,000                |
| Golden Trout     | 78,852     | 9,159      | 76,950     | 39,401     | 37,650     | 32,940     | 69,500                 |
| Lake Trout       | 74,139     | 40,334     | 12,600     | 185,918    |            |            |                        |
| Winter Steelhead | 725,420    | 865,761    | 1,009,375  | 1,377,736  | 1,580,304  | 2,264,830  | 2,519,536              |
| Summer Steelhead | 357,029    | 682,579    | 760,675    | 1,078,698  | 813,425    | 988,640    | 2,296,862 <sup>1</sup> |
| Coho Salmon      | 98,240     | 80,000     | 80,000     | 310,167    | 763,981    | 1,393,500  | 1,413,000              |
| Spring Chinook   | 246,436    | 193,124    | 307,660    | 328,443    | 231,014    | 378,850    | 408,045                |
| Fall Chinook     |            |            | 45,710     | 92,600     | 1,332,584  | 625,520    | 2,022,480              |
| Atlantic Salmon  | 394,812    | 148,740    | 53,268     | 78,796     | 339,505    | 747,140    | 768,420                |
| Kokanee          | 2,785,669  | 3,752,427  | 3,421,062  | 2,447,369  | 4,700,170  | 2,561,050  | 2,626,320              |
| TOTALS           | 27,894,686 | 44,240,789 | 48,818,112 | 41,873,975 | 44,894,039 | 41,307,620 | 38,230,207             |

<sup>1</sup> Approximately 0.7 million eyed and hatched for Idaho.

Table 63

## Summary of Fish Production Data for Calendar Year 1966

| Hatchery      | Pounds of Food Fed |                                          | Total<br>Pounds<br>Food Fed | Fish Liberated<br>from Hatcheries |           | Net Production<br>(Including Transfers In<br>and Out) |           |
|---------------|--------------------|------------------------------------------|-----------------------------|-----------------------------------|-----------|-------------------------------------------------------|-----------|
|               | Brood<br>Fish      | Fry, Fingerling,<br>and<br>Yearling Fish |                             | Number                            | Pounds    | Number                                                | Pounds    |
|               |                    |                                          |                             |                                   |           |                                                       |           |
| Alsea         | 13,554             | 159,355                                  | 172,909                     | 631,761                           | 58,212    | 625,749                                               | 56,538    |
| Bandon        | 4,268              | 142,610                                  | 146,878                     | 761,775                           | 61,594    | 1,060,730                                             | 74,377    |
| Butte Falls   |                    | 105,022                                  | 105,022                     | 946,690                           | 59,743    | 1,120,920                                             | 74,021    |
| Cedar Creek   |                    | 141,282                                  | 141,282                     | 1,082,591                         | 65,621    | 1,088,103                                             | 67,239    |
| Fall River    | 2,074              | 29,617                                   | 31,691                      | 2,277,752                         | 9,743     | 2,359,933                                             | 8,320     |
| Gnat Creek    |                    | 65,000                                   | 65,000                      | 797,682                           | 43,344    | 312,245                                               | 42,512    |
| Hood River    |                    | 62,060                                   | 62,060                      | 345,433                           | 26,151    | 150,277                                               | 24,704    |
| Klamath       |                    | 123,310                                  | 123,310                     | 2,442,590                         | 60,659    | 2,531,015                                             | 60,319    |
| Leaburg       | 11,974             | 434,031                                  | 446,005                     | 2,108,194                         | 256,261   | 1,927,521                                             | 254,776   |
| Oak Springs   | 75,640             | 209,775                                  | 285,415                     | 3,823,988                         | 131,237   | 4,967,267                                             | 137,037   |
| Roaring River | 40,320             | 161,650                                  | 201,970                     | 1,122,950                         | 97,140    | 1,123,260                                             | 97,467    |
| Rock Creek    |                    | 51,774                                   | 51,774                      | 707,934                           | 3,536     | 229,877                                               | 3,536     |
| Wallowa       |                    | 70,454                                   | 70,454                      | 234,861                           | 40,218    | 25,994                                                | 36,778    |
| Willamette    | 18,233             | 145,095                                  | 163,328                     | 1,150,133                         | 87,685    | 830,024                                               | 85,340    |
| Wizard Falls  | 11,634             | 159,107                                  | 170,741                     | 1,149,238                         | 86,147    | 1,464,764                                             | 91,202    |
| TOTALS        | 177,697            | 2,060,142                                | 2,237,839                   | 19,583,572                        | 1,087,291 | 19,817,679                                            | 1,114,166 |



Table 64

Comparison of Conversion Ratios from 1960 through 1966  
Computed from Net Pounds of Fish Liberated and Transferred  
As Related to Pounds of Food Fed During the Calendar Year

| Hatchery           | Annual Net Fish Production in Pounds, with Conversion Ratios |                 |                 |                   |                   |                    |                   |
|--------------------|--------------------------------------------------------------|-----------------|-----------------|-------------------|-------------------|--------------------|-------------------|
|                    | 1960                                                         | 1961            | 1962            | 1963              | 1964              | 1965               | 1966              |
| Alsea              | 39,279<br>2.28                                               | 60,268<br>1.90  | 54,057<br>1.97  | 52,307<br>285     | 55,302<br>1.76    | 41,948<br>2.52     | 56,538<br>2.82    |
| Bandon             | 19,379<br>3.10                                               | 33,232<br>2.00  | 43,478<br>2.09  | 36,647<br>2.29    | 42,683<br>2.25    | 56,900<br>2.44     | 74,377<br>1.92    |
| Butte Falls        | 56,372<br>2.85                                               | 50,599<br>2.30  | 50,989<br>2.03  | 49,838<br>1.94    | 37,261<br>1.79    | 46,197<br>2.49     | 74,021<br>1.42    |
| Cedar Creek        | 39,742<br>3.00                                               | 44,487<br>2.90  | 66,865<br>1.77  | 76,330<br>1.92    | 64,950<br>1.72    | 61,811<br>2.16     | 67,239<br>2.10    |
| Diamond Lake       | 484                                                          | 117             | 362             |                   |                   |                    |                   |
| Fall River         | 4,625<br>3.54                                                | 10,645<br>2.80  | 11,536<br>2.82  | 12,052<br>3.00    | 12,189<br>2.65    | 9,966<br>2.90      | 8,320<br>3.56     |
| Gnat Creek         |                                                              | 22,237<br>2.40  | 24,499<br>2.42  | 33,972<br>2.33    | 47,718<br>2.06    | 47,963<br>2.13     | 42,512<br>1.53    |
| Hood River         | 33,160<br>2.17                                               | 33,919<br>1.70  | 28,614<br>1.84  | 28,834<br>2.00    | 24,092<br>2.22    | 22,758<br>2.24     | 24,704<br>2.51    |
| Klamath            | 35,670<br>3.27                                               | 58,111<br>1.90  | 62,280<br>1.70  | 57,326<br>1.64    | 50,015<br>1.68    | 43,373<br>2.09     | 60,319<br>2.04    |
| Leaburg            | 149,541<br>1.82                                              | 158,834<br>1.90 | 157,893<br>2.02 | 195,570<br>2.04   | 261,015<br>1.73   | 200,766<br>2.82    | 254,776<br>1.70   |
| Oak Springs        | 100,168<br>2.22                                              | 131,643<br>1.70 | 140,183<br>1.79 | 207,634<br>1.92   | 145,644<br>1.53   | 166,112<br>1.74    | 137,037<br>1.53   |
| Roaring River      | 48,660<br>3.03                                               | 71,428<br>2.40  | 70,906<br>1.82  | 85,019<br>1.80    | 68,940<br>1.88    | 88,210<br>1.76     | 97,467<br>1.66    |
| Rock Creek         | 62,410<br>3.08                                               | 99,196<br>1.90  | 56,478<br>1.95  | 75,826<br>1.80    | 69,099<br>1.61    | 42,706<br><u>1</u> | 3,536<br><u>1</u> |
| Wallowa            | 27,261<br>2.56                                               | 27,869<br>2.60  | 31,828<br>1.96  | 17,921<br>1.77    | 17,234<br>2.59    | 27,987<br>2.50     | 36,778<br>1.92    |
| Willamette         | 42,418<br>2.50                                               | 55,228<br>2.20  | 53,745<br>1.76  | 57,977<br>1.76    | 86,649<br>1.36    | 13,391<br><u>1</u> | 85,340<br>1.70    |
| Wizard Falls       | 65,028<br>2.11                                               | 94,469<br>1.60  | 86,234<br>1.78  | 88,205<br>1.98    | 93,642<br>1.81    | 89,532<br>1.92     | 91,202<br>1.74    |
| TOTALS<br>AVERAGES | 724,197<br>2.49                                              | 952,282<br>2.01 | 939,947<br>1.90 | 1,075,458<br>1.99 | 1,076,433<br>1.75 | 959,620<br>2.22    | 1,114,166<br>1.85 |

1 Out of operation for most of year because of 1964-65 flood.

Table 65

Net Food Conversion Factors Computed  
from Lots of Fish Liberated in 1965-66

| Species            | Number<br>Fish<br>Liberated | Pounds<br>of Fish<br>Liberated | Pounds<br>of<br>Food Fed | Food<br>Conversion<br>Factor |
|--------------------|-----------------------------|--------------------------------|--------------------------|------------------------------|
| Rainbow            | 12,618,137                  | 723,902                        | 1,257,576                | 1.74                         |
| Cutthroat          | 372,458                     | 47,181                         | 86,375                   | 1.83                         |
| Brook Trout        | 1,601,219                   | 7,001                          | 16,893                   | 2.41                         |
| Brown Trout        | 211,683                     | 2,042                          | 8,638                    | 4.23                         |
| Steelhead          | 2,845,798                   | 184,663                        | 409,165                  | 2.22                         |
| Kokanee            | 1,614,740                   | 9,589                          | 25,485                   | 2.66                         |
| Atlantic Salmon    | 121,599                     | 2,357                          | 6,165                    | 2.62                         |
| Fall Chinook       | 516,190                     | 1,047                          | 990                      | 0.95                         |
| Spring Chinook     | 417,317                     | 43,221                         | 77,655                   | 1.80                         |
| Coho Salmon        | 1,297,280                   | 3,374                          | 3,643                    | 1.08                         |
| TOTALS             | 21,616,421                  | 1,024,377                      | 1,892,585                |                              |
| AVERAGE CONVERSION |                             |                                |                          | 1.85                         |



Table 66

Fiscal Year Expenditures  
As Shown on the June 1966 Financial Statement

| Hatchery          | Salaries            | Feed      | Maintenance<br>and Supplies | Capital<br>Expense | Total<br>Fiscal Costs |
|-------------------|---------------------|-----------|-----------------------------|--------------------|-----------------------|
| Alsea             | \$ 24,316           | \$ 15,619 | \$ 1,487                    | \$ 381             | \$ 41,803             |
| Bandon            | 23,920              | 15,323    | 2,017                       |                    | 41,260                |
| Butte Falls       | 24,429              | 12,448    | 3,326                       | 117                | 40,320                |
| Cedar Creek       | 19,988              | 14,731    | 2,240                       | 632                | 37,591                |
| Diamond Lake      | 1,426               |           | 219                         |                    | 1,645                 |
| Fall River        | 18,911              | 4,144     | 2,037                       | 383                | 25,475                |
| Gnat Creek        | 31,068 <sup>1</sup> | 10,599    | 18,689                      | 2,497              | 62,853                |
| Hood River        | 18,122              | 4,280     | 2,393                       | 530                | 25,325                |
| Klamath           | 22,923              | 13,646    | 3,683                       | 1,884              | 42,136                |
| Leaburg           | 40,470 <sup>2</sup> | 53,510    | 6,750                       | 179                | 100,909               |
| Oak Springs       | 36,320              | 33,381    | 3,480                       | 524                | 73,705                |
| Roaring River     | 23,899              | 20,842    | 3,036                       | 1,583              | 49,360                |
| Rock Creek        | 15,608              | 283       | 1,924                       |                    | 17,815                |
| Wallowa           | 13,964              | 6,825     | 3,264                       |                    | 24,053                |
| Willamette        | 23,958              | 14,709    | 5,668                       | 1,735              | 46,070                |
| Wizard Falls      | 26,132              | 20,311    | 5,231                       | 759                | 52,433                |
| TOTALS            | \$365,454           | \$240,651 | \$65,444                    | \$11,204           | \$682,753             |
| Percent of Totals | 53.53               | 35.24     | 9.58                        | 1.65               |                       |
| Ending June 1965  | \$361,510           | \$248,295 | \$89,854                    | \$28,731           | \$728,390             |
| Percent of Totals | 49.64               | 34.09     | 12.33                       | 3.94               |                       |

<sup>1</sup> Includes \$2,248 other payroll expense; 7.25 percent.

<sup>2</sup> Includes \$2,928 other payroll expense.

Table 67

Summary of Fiscal Year Production Costs, 1957 through 1966

| Year | Gross Pounds of Fish Liberated from Hatcheries | Fiscal Year Costs |                                |              | Rearing Costs per Pound of Fish |                         |                                                | Average Cost of Food per Pound | Pounds of Food Fed |                |                 |                       |
|------|------------------------------------------------|-------------------|--------------------------------|--------------|---------------------------------|-------------------------|------------------------------------------------|--------------------------------|--------------------|----------------|-----------------|-----------------------|
|      |                                                | Operation /1      | Including Capital Expenditures | Feed Only /2 | Gross                           | Rearing Plus Liberation | Estimated Rearing and Liberation Plus Other /3 |                                | Feed Only /4       | Piscal Year    |                 | Total for Fiscal Year |
|      |                                                |                   |                                |              |                                 |                         |                                                |                                |                    | First 6 Months | Second 6 Months |                       |
| 1957 | 516,395                                        | \$635,335         | \$209,123                      | \$1.2329     | \$1.3179                        | \$0.4050                | \$0.0802                                       | 1,210,551                      | 1,393,777          | 2,604,328      |                 |                       |
| 1958 | 706,279                                        | 651,455           | 267,681                        | 0.9224       | 1.0074                          | 0.3790                  | 0.0843                                         | 1,306,062                      | 1,869,012          | 3,175,074      |                 |                       |
| 1959 | 685,773                                        | 730,880           | 267,819                        | 1.0658       | 1.1508                          | 0.3910                  | 0.0917                                         | 1,670,965                      | 1,249,067          | 2,920,032      |                 |                       |
| 1960 | 729,530                                        | 599,645           | 217,325                        | 0.8220       | 0.8870                          | 0.2980                  | 0.1004                                         | 992,098                        | 1,172,263          | 2,164,361      |                 |                       |
| 1961 | 951,838                                        | 638,106           | 219,716                        | 0.6704       | 0.7554                          | 0.2308                  | 0.1006                                         | 870,660                        | 1,245,827          | 2,116,487      |                 |                       |
| 1962 | 939,947                                        | 724,807           | 216,163                        | 0.7711       | 0.8561                          | 0.2300                  | 0.1068                                         | 937,708                        | 1,086,918          | 2,024,626      |                 |                       |
| 1963 | 1,075,458                                      | 983,391           | 291,531                        | 0.9144       | 0.9950                          | 0.2700                  | 0.1300<br>0.1100 /5                            | 944,839                        | 1,278,911          | 2,223,750      |                 |                       |
| 1964 | 1,076,288                                      | 689,237           | 251,793                        | 0.6403       | 0.7253                          | 0.2339                  | 0.1121                                         | 1,071,511                      | 1,174,614          | 2,246,125      |                 |                       |
| 1965 | 958,750                                        | 728,390           | 248,295                        | 0.7597       | 0.8447                          | 0.2590                  | 0.1136                                         | 929,028                        | 1,256,541          | 2,185,569      |                 |                       |
| 1966 | 1,087,291                                      | 682,753           | 240,651                        | 0.6279       | 0.7129                          | 0.2213                  | 0.1073                                         | 1,067,968                      | 1,174,275          | 2,242,243      |                 |                       |

/1 Excludes automotive and related supplies, feed transportation, retirement, salary overhead, postage, office supplies (Leaburg and Gnat Creek excepted in 1963, 1965, and 1966).

/2 Food inventory not deducted.

/3 Includes salary overhead, retirement, feed transportation, and automotive; excludes depreciation of facilities. Estimated total costs with depreciation, \$958,000, or \$1.00 per pound in 1965; and \$899,000, or \$0.83 per pound in 1966.

/4 Includes brood fish.

/5 Minus inventory.

## OREGON SALMON AND STEELHEAD SPORT FISHERY

R. O. Koski

Sport catch estimates for salmon and steelhead for the calendar year 1966 were obtained from analysis of returned catch record cards.

The total salmon catch was not as large as in the bumper year of 1965, but 287,200 fish were recorded. The individual catch rate of all those fishing for salmon dropped to 1.38 fish per angler -- identical to the 1964 figure.

Substantial returns of hatchery steelhead and good angling conditions provided a bonanza year for steelheaders. A total of 168,083 fish was recorded, an increase of 52,644 over the 1965 figure. The individual catch rate for all anglers was 0.70 fish per angler, the highest figure on record.

Table 68 presents the analysis of catch record card data for 1965 and includes estimates computed in the standard manner as well as revised estimates correcting for nonresponse bias.

The total catch figures by year are presented in Table 69. Deviation from original computations is shown as a percentage for each species and total catch by year. A summary listing stream catch by year is available from the Fishery Division.

In 1966, more salmon-steelhead licenses were issued than for any year since the program began in 1953. Although 288,197 cards were issued, 74,845 anglers did not fish. Active anglers numbered 213,352, a slight reduction from the previous year total of 217,451 participants. Table 70 presents participation and catch figures per angler by species for each year since 1953.



Table 68

## 1966 Oregon Salmon-Steelhead Catch

|                                                                                                                                                                                                         | Salmon               | Steelhead            | Total                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------|----------------------|
| Number anglers receiving tags                                                                                                                                                                           |                      |                      | 288,197              |
| Percent tags returned                                                                                                                                                                                   |                      |                      | 23.48                |
| Estimated number anglers not fishing                                                                                                                                                                    |                      |                      | 74,845               |
| Estimated number anglers fishing; no catch                                                                                                                                                              |                      |                      | 63,692               |
| Estimated number anglers catching both                                                                                                                                                                  |                      |                      | 25,353               |
| Estimated number anglers catching fish                                                                                                                                                                  | 118,705              | 56,295               | 150,968              |
| Estimated number fish caught <u>1</u>                                                                                                                                                                   | 399,902 $\pm$ 4,928  | 203,323 $\pm$ 4,092  | 603,225 $\pm$ 6,744  |
| Estimated number fish per angler                                                                                                                                                                        | 1.3876 $\pm$ 0.0171  | 0.7055 $\pm$ 0.0142  | 2.0931 $\pm$ 0.0234  |
| Estimated number fish per angler catching                                                                                                                                                               | 3.37                 | 3.61                 | 4.03                 |
| <u>1</u> Revised estimates of catch using alternative method as described in "An Evaluation of the Punch Card Method of Estimating Salmon-Steelhead Sport Catch" by Ronald H. Hicks and Lyle D. Calvin. |                      |                      |                      |
| Estimated number fish caught                                                                                                                                                                            | 287,200 $\pm$ 18,526 | 168,083 $\pm$ 22,303 | 455,283 $\pm$ 28,994 |
| 95 percent confidence limits on number of fish caught                                                                                                                                                   | 268,674 - 305,726    | 145,780 - 190,386    | 426,289 - 484,277    |

Table 69

Revised Total Catch Figures, 1957 through 1966

| Year              | Cards Issued | Percent Cards Returned | Salmon  |                   | Steelhead |                   | Total Catch | Percent Deviation |
|-------------------|--------------|------------------------|---------|-------------------|-----------|-------------------|-------------|-------------------|
|                   |              |                        | Catch   | Percent Deviation | Catch     | Percent Deviation |             |                   |
| 1957              | 135,230      | 51.41                  | 106,959 | -17.9             | 51,399    | -11.0             | 158,358     | -15.7             |
| 1958              | 215,410      | 32.08                  | 95,944  | -25.0             | 76,736    | -15.4             | 172,680     | -21.0             |
| 1959              | 285,700      | 23.46                  | 158,958 | -28.2             | 100,198   | -17.3             | 259,156     | -24.3             |
| 1960 <sup>1</sup> | 172,332      | 30.75                  | 92,053  | -25.5             | 80,175    | -15.7             | 172,228     | -23.6             |
| 1961              | 202,977      | 27.90                  | 164,362 | -26.5             | 69,613    | -16.3             | 233,975     | -23.7             |
| 1962              | 221,364      | 29.33                  | 175,917 | -26.0             | 106,067   | -16.0             | 281,984     | -22.5             |
| 1963              | 236,277      | 30.87                  | 225,928 | -25.4             | 97,468    | -15.6             | 323,396     | -22.7             |
| 1964              | 256,951      | 20.89                  | 251,774 | -29.1             | 85,954    | -17.9             | 337,728     | -26.5             |
| 1965              | 276,003      | 26.04                  | 348,318 | -27.2             | 111,439   | -16.7             | 459,757     | -24.9             |
| 1966              | 288,197      | 23.48                  | 287,200 | -28.2             | 168,083   | -17.3             | 455,283     | -24.5             |
| AVERAGES          |              |                        | 190,741 |                   | 94,713    |                   | 285,454     |                   |

<sup>1</sup> Initial year for \$1.00 punch card.

Table 70

Salmon-Steelhead Angler Participation and Catch per Angler <sup>/1</sup>,  
1953 through 1966

| Year               | Anglers<br>Receiving<br>Tags | Percent<br>Not<br>Fishing | Catch per Angler  |           |                    |           |
|--------------------|------------------------------|---------------------------|-------------------|-----------|--------------------|-----------|
|                    |                              |                           | All Those Fishing |           | Successful Anglers |           |
|                    |                              |                           | Salmon            | Steelhead | Salmon             | Steelhead |
| 1953               | 173,216                      | 45                        | 0.53              | 0.51      | 2.56               | 3.12      |
| 1954               | 170,879                      | 46                        | 0.57              | 0.43      | 2.71               | 2.97      |
| 1955               | 165,422                      | 50                        | 0.49              | 0.36      | 2.66               | 2.83      |
| 1956               | 166,386                      | 42                        | 0.94              | 0.50      | 3.17               | 3.12      |
| 1957               | 135,230                      | 45                        | 0.96              | 0.43      | 3.27               | 3.07      |
| 1958               | 215,410                      | 48                        | 0.59              | 0.42      | 2.57               | 3.08      |
| 1959               | 285,700                      | 42                        | 0.77              | 0.42      | 2.80               | 3.21      |
| 1960 <sup>/2</sup> | 172,332                      | 34                        | 0.85              | 0.46      | 2.80               | 3.22      |
| 1961               | 202,977                      | 30                        | 1.10              | 0.41      | 2.98               | 2.93      |
| 1962               | 221,364                      | 28                        | 1.07              | 0.57      | 2.90               | 3.09      |
| 1963               | 236,277                      | 32                        | 1.28              | 0.49      | 3.18               | 3.00      |
| 1964               | 256,951                      | 26                        | 1.38              | 0.40      | 3.06               | 2.98      |
| 1965               | 276,003                      | 21                        | 1.73              | 0.48      | 3.68               | 3.16      |
| 1966               | 288,197                      | 26                        | 1.38              | 0.70      | 3.37               | 3.61      |

<sup>/1</sup> The nonresponse bias correction factor not applied to these estimates.

<sup>/2</sup> First year for \$1.00 charge for punch card.





## FISH DISTRIBUTION

R. O. Koski

The fish distribution program in 1966 was similar in most respects to the previous two years. The catchable trout reduction of 20 percent was still in effect. Hatchery production was up from the previous low levels caused by floods. Fewer fry and fingerling were stocked because of added production of yearling classes.

A total of 19,811,626 fish was distributed to waters of the State. The total weight of fish stocked increased to 1,123,183 pounds, the highest annual total recorded. Table 71 presents the distribution to various watersheds by species, number, and pounds.

The number and pounds of fish by species released from each hatchery are shown in Table 72. This table does not reflect total production including fish reared and then transferred to other stations. Other production tables are presented in the Fish Propagation section.

Fish stocked from Hagerman National Fish Hatchery into State waters are included in all tables except Table 72. Except for exchange fish from Hagerman Hatchery, all other distribution by our personnel and equipment is included under transfer activities noted at the end of this section. Rainbow trout from Hagerman Hatchery numbered 449,186 and weighed 38,727 pounds.

Table 73 delineates the release of fish by species and size class. It may be noted that steelhead smolt distribution increased, and that yearling trout releases reached the planned level after two years of reduction because of flood-caused problems.

Pounds of fish stocked per angler are an index of comparison for angling pressure and fish production. Table 74 illustrates the trend of the associated factors for a number of years.

Table 75 depicts the importance of anadromous fish in the stocking program. A slow but steady increase in production of these species is noted.

Aerial stocking of the isolated lakes was again completed in July with only 12 days required to stock 338 lakes. In a peak day, 49 lakes were stocked. The average cost per lake under the flying contract amounted to \$19.79, a slight decrease from the previous season.

Transfer activities again required much use of personnel and equipment. In addition to 1,891 distribution trips under the stocking schedule, 210 transfer trips were made. Included are courtesy hauls for other agencies, transplantation of surplus adults, interhatchery transfers, and releases of warm-water species. A total of 4,930,754 fish was transfereed. Adult coho transplantations involved the moving of 13,709 coho by Commission personnel.

Distribution of warm-water fish is shown in Table 76.

Table 71

Fish Stocking by Watersheds, 1966

| Watershed | Rainbow                 | Cutthroat           | Brook Trout          | Steelhead              | Kokanee               | Brown Trout        | Golden Trout   | Chinook Salmon      | Atlantic Salmon   | Coho Salmon          | Totals                    |
|-----------|-------------------------|---------------------|----------------------|------------------------|-----------------------|--------------------|----------------|---------------------|-------------------|----------------------|---------------------------|
| 1         | 7,090<br>8,254.2        | 106,782<br>29,751.0 |                      | 546,767<br>56,807.0    |                       |                    |                |                     |                   | 114,464<br>102.2     | 774,703<br>94,914.4       |
| 2         | 2,918,182<br>315,924.0  | 8,351<br>139.5      | 574,235<br>2,163.8   | 107,831<br>8,636.0     | 459,643<br>2,182.0    |                    | 7,500<br>18.8  |                     | 1,044<br>12.0     |                      | 4,076,786<br>329,076.1    |
| 3         | 279,850<br>85,771.5     | 55,050<br>194.0     | 96,926<br>386.0      | 216,691<br>22,887.0    | 2,607<br>3.1          |                    |                | 377,520<br>481.0    |                   |                      | 1,028,644<br>109,722.6    |
| 4         | 62,595<br>14,773.0      |                     | 15,234<br>46.0       | 70,657<br>10,066.0     | 25,010<br>410.0       |                    |                |                     |                   |                      | 173,496<br>25,295.0       |
| 5         | 2,902,159<br>140,290.2  |                     | 689,944<br>2,733.0   | 124,911<br>13,452.8    | 449,489<br>3,258.0    | 211,283<br>2,038.2 | 912<br>226.0   |                     | 79,213<br>3,867.2 | 431,166<br>1,860.9   | 4,889,077<br>167,726.3    |
| 6         | 201,072<br>20,537.5     | 59,425<br>253.0     | 40,000<br>400.0      | 55,518<br>302.0        |                       |                    |                |                     |                   |                      | 356,015<br>21,492.5       |
| 7         | 184,225<br>11,399.0     |                     |                      |                        |                       |                    |                |                     |                   |                      | 184,225<br>11,399.0       |
| 8         | 212,395<br>32,582.1     |                     |                      |                        | 201,940<br>1,553.8    |                    |                |                     |                   |                      | 414,335<br>34,135.9       |
| 9         | 364,166<br>23,975.5     | 49,985<br>100.0     | 25,080<br>76.0       |                        |                       |                    |                |                     |                   |                      | 439,231<br>24,151.5       |
| 10        | 396,837<br>14,246.8     |                     |                      |                        |                       |                    |                |                     |                   |                      | 396,837<br>14,246.8       |
| 11        | 248,656<br>2,925.1      |                     |                      |                        |                       |                    |                |                     |                   |                      | 248,656<br>2,925.1        |
| 12        | 58,288<br>12,511.5      | 3,880<br>16.5       |                      |                        |                       |                    |                |                     |                   |                      | 62,168<br>12,528.0        |
| 13        | 270,455<br>11,271.6     |                     |                      |                        | 2,683<br>3.2          |                    |                |                     |                   | 25,540<br>119.9      | 298,678<br>11,394.7       |
| 14        | 1,894,281<br>27,826.6   |                     | 84,416<br>577.3      |                        | 206,746<br>2,126.7    |                    |                |                     |                   | 50,000<br>250.0      | 2,235,443<br>30,780.6     |
| 15        | 1,053,404<br>42,638.5   | 56,074<br>2,286.5   | 42,387<br>515.7      | 118,167<br>6,202.0     | 50,114<br>88.0        |                    |                | 210,697<br>8,756.0  |                   |                      | 1,530,843<br>60,486.7     |
| 16        | 689,991<br>33,768.0     | 21,811<br>7,317.1   | 25,907<br>81.6       | 206,928<br>19,561.5    | 88,540<br>230.0       |                    |                | 114,200<br>5,024.0  |                   |                      | 1,147,377<br>65,982.2     |
| 17        | 18,052<br>5,242.8       | 64,264<br>24,209.2  |                      | 1,023<br>16.0          | 29,313<br>43.0        |                    |                |                     |                   | 75,718<br>505.0      | 188,370<br>30,016.0       |
| 18        | 60,865<br>20,392.4      | 82,190<br>14,380.0  |                      | 438,609<br>41,233.5    | 184,795<br>368.1      |                    |                |                     |                   | 600,283<br>536.0     | 1,366,742<br>76,910.0     |
| TOTALS    | 11,822,563<br>824,330.3 | 507,812<br>78,646.8 | 1,594,129<br>6,979.4 | 1,886,702<br>179,163.8 | 1,700,880<br>10,265.9 | 211,283<br>2,038.2 | 8,412<br>244.8 | 702,417<br>14,261.0 | 80,257<br>3,879.2 | 1,297,171<br>3,374.0 | 19,811,626<br>1,123,183.4 |

NOTE: Lower figures denote pounds of fish.

Table 72

## Total Release of Fish by Hatchery, 1966

| Hatchery      | Species | Fish Released |           | Total Fish Released |           |
|---------------|---------|---------------|-----------|---------------------|-----------|
|               |         | Number        | Pounds    | Number              | Pounds    |
| Alsea         | StW     | 631,305       | 58,167.5  | 631,305             | 58,167.5  |
| Bandon        | Ct      | 142,149       | 33,812.8  | 761,585             | 61,529.3  |
|               | Rb      | 347,633       | 4,153.0   |                     |           |
|               | StS     | 219,661       | 18,441.4  |                     |           |
|               | StW     | 52,142        | 5,122.1   |                     |           |
| Butte Falls   | Ch      | 236,409       | 12,240.0  | 944,455             | 59,651.4  |
|               | Rb      | 708,046       | 47,411.4  |                     |           |
| Cedar Creek   | Co      | 714,747       | 638.2     | 1,085,192           | 63,234.2  |
|               | Ct      | 188,972       | 44,131.0  |                     |           |
|               | StW     | 181,473       | 18,465.0  |                     |           |
| Fall River    | BT      | 1,485,628     | 6,640.2   | 2,302,356           | 9,778.1   |
|               | GT      | 8,300         | 20.8      |                     |           |
|               | K       | 625,773       | 1,906.1   |                     |           |
|               | Rb      | 182,655       | 1,211.0   |                     |           |
| Gnat Creek    | Ch      | 377,520       | 481.0     | 797,713             | 43,339.0  |
|               | StS     | 90,067        | 10,712.0  |                     |           |
|               | StW     | 330,126       | 32,146.0  |                     |           |
| Hood River    | BT      | 20,313        | 61.0      | 344,520             | 26,130.7  |
|               | Rb      | 157,872       | 25,509.2  |                     |           |
|               | Ct      | 166,335       | 560.5     |                     |           |
| Klamath       | Br      | 211,283       | 2,038.2   | 2,416,753           | 59,591.8  |
|               | BT      | 88,188        | 278.2     |                     |           |
|               | K       | 96,364        | 698.4     |                     |           |
|               | Rb      | 2,020,918     | 56,577.0  |                     |           |
| Leaburg       | Ct      | 10,356        | 142.5     | 2,068,052           | 255,489.5 |
|               | Rb      | 2,057,696     | 255,347.0 |                     |           |
| Libby Pond    | Ch      | 81,356        | 708.0     | 81,356              | 708.0     |
| Medco Pond    | StS     | 32,175        | 1,970.0   | 32,175              | 1,970.0   |
| Oak Springs   | K       | 474,215       | 5,137.2   | 3,523,424           | 130,791.3 |
|               | Rb      | 2,882,509     | 105,275.1 |                     |           |
|               | St      | 166,700       | 20,379.0  |                     |           |
| Roaring River | Rb      | 1,120,293     | 96,083.7  | 1,120,369           | 96,463.7  |
|               | StS     | 76            | 380.0     |                     |           |

Table 72 (continued)

| Hatchery     | Species | Fish Released |          | Total Fish Released |             |
|--------------|---------|---------------|----------|---------------------|-------------|
|              |         | Number        | Pounds   | Number              | Pounds      |
| Rock Creek   | Ch      | 4,157         | 594.0    |                     |             |
|              | Co      | 582,424       | 2,735.8  |                     |             |
|              | K       | 120,857       | 206.0    | 707,438             | 3,535.8     |
| Wallowa      | Rb      | 174,819       | 39,843.0 |                     |             |
|              | StS     | 55,518        | 302.0    | 230,337             | 40,145.0    |
| Willamette   | Rb      | 1,147,132     | 87,437.5 | 1,147,132           | 87,437.5    |
| Wizard Falls | AS      | 80,257        | 3,879.2  |                     |             |
|              | GT      | 112           | 224.0    |                     |             |
|              | K       | 383,671       | 2,318.6  |                     |             |
|              | Rb      | 573,804       | 66,755.4 |                     |             |
|              | StS     | 105,319       | 12,832.8 | 1,143,163           | 86,010.0    |
| TOTALS       |         |               |          | 19,337,325          | 1,083,972.8 |

Table 73

Comparison of Numbers of Salmon, Steelhead, and Trout Yearlings,  
and Total Fish Stocked, 1960 through 1966

| Year | Fry and<br>Fingerlings | Yearlings |           |         | Total Fish |
|------|------------------------|-----------|-----------|---------|------------|
|      |                        | Trout     | Steelhead | Salmon  |            |
| 1960 | 14,086,171             | 2,354,859 | 381,164   | 103,453 | 16,925,647 |
| 1961 | 16,436,181             | 2,458,496 | 777,464   | 269,978 | 19,942,119 |
| 1962 | 19,246,294             | 2,613,366 | 881,302   | 166,432 | 22,907,394 |
| 1963 | 17,687,240             | 2,534,146 | 882,002   | 235,658 | 21,339,046 |
| 1964 | 16,960,680             | 2,216,083 | 1,198,193 | 281,424 | 20,656,380 |
| 1965 | 22,904,746             | 2,076,077 | 1,140,431 | 89,030  | 26,210,284 |
| 1966 | 16,197,162             | 2,296,874 | 1,228,214 | 89,376  | 19,811,626 |

Table 74

Fish Production per Licensed Angler,  
1957 through 1966

| Year           | Number<br>Anglers | Pounds of<br>Fish Stocked | Pounds of Fish<br>per Angler |
|----------------|-------------------|---------------------------|------------------------------|
| 1957           | 337,248           | 525,979                   | 1.56                         |
| 1958           | 400,044           | 713,806                   | 1.78                         |
| 1959           | 440,522           | 703,007                   | 1.59                         |
| 1960 <u>/1</u> | 451,015           | 766,310                   | 1.70                         |
| 1961           | 474,900           | 976,917                   | 2.06                         |
| 1962           | 504,771           | 954,838                   | 1.89                         |
| 1963           | 531,118           | 1,093,532                 | 2.06                         |
| 1964           | 585,118           | 1,097,731                 | 1.87                         |
| 1965           | 624,412           | 995,172                   | 1.54                         |
| 1966           | 666,199           | 1,123,183                 | 1.68                         |

/1 Includes daily anglers after 1960.

Table 75

Salmon and Steelhead Stocking Summary,  
1955 through 1966

| Year | Steelhead |         | Salmon    |        | Total Fish Stocked |         |
|------|-----------|---------|-----------|--------|--------------------|---------|
|      | Number    | Pounds  | Number    | Pounds | Number             | Pounds  |
| 1955 | 268,896   | 32,739  | 570,419   | 31,449 | 839,315            | 64,188  |
| 1956 | 306,807   | 31,873  | 831,721   | 19,589 | 1,138,528          | 52,462  |
| 1957 | 294,354   | 21,309  | 1,436,712 | 10,420 | 1,731,066          | 31,719  |
| 1958 | 345,722   | 28,065  | 263,848   | 10,565 | 609,570            | 38,630  |
| 1959 | 372,012   | 42,123  | 207,602   | 22,783 | 579,614            | 64,906  |
| 1960 | 416,325   | 40,021  | 158,009   | 14,079 | 574,334            | 54,100  |
| 1961 | 1,069,242 | 68,674  | 275,122   | 27,061 | 1,344,364          | 95,735  |
| 1962 | 1,221,746 | 86,087  | 166,432   | 37,174 | 1,388,178          | 123,261 |
| 1963 | 1,304,464 | 93,127  | 271,613   | 33,432 | 1,576,077          | 126,559 |
| 1964 | 1,586,209 | 135,516 | 529,592   | 37,724 | 2,115,801          | 173,240 |
| 1965 | 2,026,819 | 131,548 | 1,729,021 | 24,624 | 3,755,840          | 156,172 |
| 1966 | 1,886,702 | 179,163 | 1,999,588 | 17,635 | 3,886,290          | 196,798 |

Table 76

## Warm-Water Game Fish Stocking Records, 1966

| Region | Water Stocked             | Date | Species | Number<br>Fish | Size<br>(Inches) |
|--------|---------------------------|------|---------|----------------|------------------|
| I      | Blue Lake                 | 3/21 | BC      | 8,375          | 3.0              |
|        |                           | 3/22 | Bg      | 2,000          | 2.5              |
|        | Fairview Home Pond        | 6/8  | LB      | 7              | 8-12             |
|        |                           | 6/8  | Bg      | 12             | 6-10             |
|        |                           | 6/24 | LB      | 5              | 12.0             |
|        | Poodle Creek Pond         | 6/24 | LB      | 15             | 8-12             |
|        |                           | 6/24 | Bg      | 10             | 6-10             |
|        |                           |      |         |                |                  |
| II     | Stewart Park Pond         | 2/17 | BC      | 789            | 3.0              |
|        | Garrison Lake             | 5/5  | LB      | 10             | 14.0             |
| III    | Baker Pond                | 8/4  | LB      | 440            | 2.5              |
|        | Hansen Pond No. 1         | 8/4  | LB      | 50             | 2.5              |
|        | Hansen Pond No. 2         | 8/4  | LB      | 37             | 2.5              |
|        | Hansen Pond No. 3         | 8/4  | LB      | 60             | 2.5              |
|        | White River Pond No. 1    | 9/14 | LB      | 300            | 2.5              |
|        | White River Pond No. 2    | 9/14 | LB      | 500            | 2.5              |
|        | White River Pond No. 3    | 9/14 | LB      | 500            | 2.5              |
|        | White River Pond No. 5    | 9/14 | LB      | 700            | 2.5              |
|        |                           |      |         |                |                  |
|        | Bibby Reservoir           | 9/14 | LB      | 1,000          | 2.5              |
| V      | Silvies River             | 9/6  | SB      | 64             | 2-4              |
|        | Middle Fork Malheur River | 9/6  | SB      | 55             | 2-4              |

Federal Aid Expenditures by Activity  
January 1 to December 31, 1966

| Description                                         | Project Number  | Expenditures |              |
|-----------------------------------------------------|-----------------|--------------|--------------|
|                                                     |                 | Federal      | State        |
| <u>Coordination</u>                                 | FW-17-C-20-21   | \$ 7,467.63  | \$ 2,489.21  |
|                                                     |                 |              | \$ 9,956.84  |
| <u>Development and Operation of Access Projects</u> |                 |              |              |
| Statewide Maintenance                               | F-29-D-9 and 10 | 1,132.02     | 377.34       |
| Stream Clearance Operations                         | F-70-D-1 and 2  | 20,714.10    | 6,904.70     |
| Delintment Lake Canal                               | F-73-D-1        | 44.46        | 14.82        |
|                                                     |                 |              | 1,509.36     |
|                                                     |                 |              | 27,618.80    |
|                                                     |                 |              | 59.28        |
| <u>Fishery Rehabilitation Projects</u>              |                 |              |              |
| South Twin Lake                                     | F-20-D-25       | 99.69        | 33.23        |
| Saunders and Clear Lakes                            | F-20-D-26       | 174.62       | 58.21        |
| Cottage Grove Reservoir                             | F-20-D-27       | 5,025.00     | 1,675.00     |
| Rotenone                                            | F-20-D-28       | 9,622.80     | 3,207.60     |
| Fish Lake                                           | F-20-D-29       | 2,463.88     | 821.30       |
| McKay Reservoir                                     | F-20-D-31       | 453.13       | 151.04       |
| Antelope Reservoir                                  | F-20-D-32       | 764.32       | 254.77       |
| Opossum Shrimp Collection                           | F-76-D-1 and 2  | 3,339.64     | 1,113.21     |
|                                                     |                 |              | 132.92       |
|                                                     |                 |              | 232.83       |
|                                                     |                 |              | 6,700.00     |
|                                                     |                 |              | 12,830.40    |
|                                                     |                 |              | 3,285.18     |
|                                                     |                 |              | 604.17       |
|                                                     |                 |              | 1,019.09     |
|                                                     |                 |              | 4,452.85     |
| <u>Acquisition of Access</u>                        |                 |              |              |
| Klamath Lake, Failor Tract                          | F-66-L-2        | 10,199.25    | 3,399.75     |
| Grande Ronde River                                  | F-77-L-1        | 50.62        | 16.87        |
| Grande Ronde River, Burns Tract                     | F-77-L-2        | 8,696.74     | 2,898.91     |
| Grande Ronde River, Banks Tract                     | F-77-L-3        | 1,350.00     | 450.00       |
| Grande Ronde River, Hester Tract                    | F-77-L-4        | 855.00       | 285.00       |
| Columbia River, Jacobs Tract                        | F-78-L-1        | 0.75         | 0.25         |
|                                                     |                 |              | 13,599.00    |
|                                                     |                 |              | 67.49        |
|                                                     |                 |              | 11,595.65    |
|                                                     |                 |              | 1,800.00     |
|                                                     |                 |              | 1,140.00     |
|                                                     |                 |              | 1.00         |
| <u>Research Projects</u>                            |                 |              |              |
| Stream Flow Requirements                            | F-69-R-3 and 4  | 34,447.38    | 11,482.46    |
| Kokanee Salmon Ecology                              | F-71-R-2 and 3  | 15,470.20    | 5,156.74     |
| Coastal Cutthroat                                   | F-72-R-2 and 3  | 14,123.11    | 4,707.70     |
| Reservoir Research, Central                         | F-74-R-1 and 2  | 10,322.58    | 3,440.86     |
| Umpqua River Research                               | F-75-R-1 and 2  | 6,859.56     | 2,286.52     |
| Reservoir Research, Southwest                       | F-74-R-3        | 1,291.60     | 430.54       |
|                                                     |                 |              | 45,929.84    |
|                                                     |                 |              | 20,626.94    |
|                                                     |                 |              | 18,830.81    |
|                                                     |                 |              | 13,763.44    |
|                                                     |                 |              | 9,146.08     |
|                                                     |                 |              | 1,722.14     |
| <u>TOTAL EXPENDITURES</u>                           |                 | \$154,968.08 | \$51,656.03  |
|                                                     |                 |              | \$206,624.11 |

FISHERY RESOURCE EXPENDITURES  
Fiscal Year July 1, 1965 to June 30, 1966

| <u>Fish Resource</u>        | <u>Expenditures<br/>Fiscal Year</u> |
|-----------------------------|-------------------------------------|
| Basin Investigations        | \$ 29,755.15                        |
| Fishery Administration      | 154,850.63                          |
| Fish Propagation            | 56,883.01                           |
| Alsea Hatchery              | 41,803.62                           |
| Bandon Hatchery             | 41,259.64                           |
| Butte Falls Hatchery        | 40,319.77                           |
| Cedar Creek Hatchery        | 37,591.41                           |
| Diamond Lake Hatchery       | 1,644.66                            |
| Fall River Hatchery         | 25,475.49                           |
| Hood River Hatchery         | 25,324.88                           |
| Klamath Hatchery            | 42,136.43                           |
| Oak Springs Hatchery        | 73,705.21                           |
| Roaring River Hatchery      | 49,359.95                           |
| Rock Creek Hatchery         | 17,815.26                           |
| Wallowa Hatchery            | 24,052.88                           |
| Willamette Hatchery         | 46,070.10                           |
| Wizard Falls Hatchery       | 52,433.18                           |
| Fishery Habitat Improvement | 84,537.06                           |
| Sandy River                 | 1,163.28                            |
| Corvallis Screen Plant      | 18,880.08                           |
| Lake and Stream Management  | 272,173.53                          |
| <b>FISH RESOURCES TOTAL</b> | <b>\$1,137,235.22</b>               |

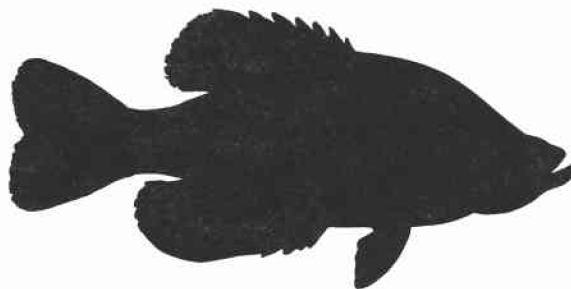


OREGON STATE GAME COMMISSION  
HATCHERIES  
1966

| Hatchery      | Location       | Superintendent                      |
|---------------|----------------|-------------------------------------|
| Alsea         | Philomath      | . Paul E. Vroman                    |
| Bandon        | Bandon         | Willis C. Baker                     |
| Butte Falls   | Butte Falls    | James H. Olsen                      |
| Cedar Creek   | Hebo           | Charles T. Roadarmel                |
| Diamond Lake  | Chemult        | John H. Shaw                        |
| Fall River    | Bend           | John K. Susac                       |
| Gnat Creek    | Clatskanie     | Arne V. Shannon<br>Richard A. Evans |
| Hood River    | Hood River     | Archie H. McRae<br>John D. Bliss    |
| Klamath       | Klamath Agency | Richard A. Evans<br>Charles F. Grow |
| Leaburg       | Leaburg        | Lynn W. Webb                        |
| Oak Springs   | Maupin         | Raymond F. Culver                   |
| Roaring River | Scio           | William C. Wingfield                |
| Rock Creek    | Idleyld Park   | John H. Shaw                        |
| Wallowa       | Enterprise     | John D. Bliss<br>Homer B. Clendenen |
| Willamette    | Oakridge       | Henry J. Reed                       |
| Wizard Falls  | Camp Sherman   | K. E. (Gene) Morton                 |

# CONTRIBUTING PERSONNEL

|                     |                         |                                  |
|---------------------|-------------------------|----------------------------------|
| Bauer, J. A.        | Aquatic Biologist       | Umpqua District                  |
| Bisbee, L. E.       | Aquatic Biologist       | Southeast District               |
| Christianson, W. H. | Aquatic Biologist       | Tillamook District               |
| Gerlach, A. H.      | Aquatic Biologist       | Klamath District                 |
| Goin, J. W.         | Assistant Controller    | Federal Aid Expenditures         |
| Grenfell, R. A.     | Aquatic Biologist       | Warm-Water Game Fish             |
| Griggs, J. D.       | Aquatic Biologist       | Bend District                    |
| Haight, W. I.       | Aquatic Biologist       | Rogue and South Coast District   |
| Heckerorth, D. N.   | Aquatic Biologist       | Umatilla District                |
| Herrig, R. G.       | Aquatic Biologist       | Ochoco District                  |
| Hewkin, J. A.       | Aquatic Biologist       | John Day District                |
| Hosford, W. E.      | Aquatic Biologist       | Lower Columbia District          |
| Hutchison, J. M.    | Aquatic Biologist       | Siuslaw District                 |
| Jensen, C. C.       | Fish Culture Supervisor | Fish Propagation                 |
| Knispel, W. M.      | Aquatic Biologist       | Astoria District                 |
| Koski, R. O.        | Aquatic Biologist       | Fish Liberation                  |
| Lichens, A. B.      | Aquatic Biologist       | Columbia District                |
| Mastin, H. E.       | Aquatic Biologist       | Lake County District             |
| McDivitt, R. L.     | Aquatic Biologist       | Umpqua District                  |
| Montgomery, M. L.   | Aquatic Biologist       | Rehabilitation                   |
| Riikula, A. G.      | Aquatic Biologist       | Rogue and South Coast District   |
| Rousseau, R. F.     | Aquatic Biologist       | Lincoln District                 |
| Saltzman, W. O.     | Aquatic Biologist       | Siuslaw District                 |
| Sayre, R. C.        | Aquatic Biologist       | La Grande District               |
| Schwartz, E. H.     | Aquatic Biologist       | Coos-Coquille District           |
| Smith, H. C.        | Staff Artist            | Information & Education Division |
| Stout, W. H.        | Aquatic Biologist       | Lower Willamette District        |
| Sumner, F. H.       | Aquatic Biologist       | Scale Analysis                   |
| Swan, R. L.         | Aquatic Biologist       | Upper Willamette District        |
| Wetherbee, J. J.    | Aquatic Biologist       | Middle Willamette District       |
| Witty, K. L.        | Aquatic Biologist       | Wallowa District                 |



# TABLE INDEX

| <u>Table</u> |                                                                                                                                                                                  | <u>Page</u> |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| 1            | Winchester Dam Fish Counts, 1957-1966. . . . .                                                                                                                                   | 2           |
| 2            | Origin of Marked Chinook, by Brood Year, Examined at Winchester<br>Dam, 1966 . . . . .                                                                                           | 3           |
| 3            | South Umpqua Spring Chinook Inventory, 1957-1966 . . . . .                                                                                                                       | 3           |
| 4            | Counts of Anadromous Fish Runs over Gold Ray Dam, 1942-1966. . .                                                                                                                 | 5           |
| 5            | Composition and Length Frequency of Fish Populations of Rogue<br>District Lakes, 1966. . . . .                                                                                   | 7           |
| 6            | Summary of Steelhead Spawning Survey by Stream System, Middle<br>Willamette District, 1966 . . . . .                                                                             | 9           |
| 7            | Comparison of Catch, Detroit Reservoir, 1954-1966. . . . .                                                                                                                       | 10          |
| 8            | Upstream Migrant Fish Counts, North Fork Dam, Clackamas River,<br>1958-1966 . . . . .                                                                                            | 11          |
| 9            | Downstream Migrant Fish Counts, North Fork Dam, Clackamas<br>River, 1958-1966. . . . .                                                                                           | 12          |
| 10           | Sandy River Steelhead Sport Fishery, 1954-1966 . . . . .                                                                                                                         | 13          |
| 11           | Steelhead Migration at Marmot Dam, Sandy River, 1953-1966. . . .                                                                                                                 | 14          |
| 12           | A Comparison of Willamette River Spring Chinook Sport Fishery<br>Data, 1946-1966 . . . . .                                                                                       | 14          |
| 13           | Calculated Willamette River Spring Chinook Salmon Runs,<br>1946-1966 . . . . .                                                                                                   | 15          |
| 14           | Spring Chinook Salmon Resting Hole Counts, Molalla River,<br>1961-1966 . . . . .                                                                                                 | 15          |
| 15           | Spring Chinook Spawning Ground Counts Completed on Streams of<br>the La Grande District, 1966, With Comparisons for Six<br>Years of Previous Redd Counts . . . . .               | 17          |
| 16           | Summary of Anadromous Creel Census on Four Streams of the<br>La Grande District, 1966. . . . .                                                                                   | 18          |
| 17           | Composition and Length Frequency of Catch by Gill Nets, Repre-<br>sented in One-Inch Size Groups, Fork Length Measurements,<br>in Some La Grande District Waters, 1966 . . . . . | 19          |
| 18           | Steelhead Creel Census from Four Streams in Wallowa County in<br>1966 With a Comparison of Hours per Fish for 1965 . . . . .                                                     | 22          |
| 19           | Spawning Ground Counts for Steelhead in Wallowa County,<br>1960-1966 . . . . .                                                                                                   | 22          |
| 20           | Annual Spawning Ground Counts of Spring Chinook Within an<br>Index Unit on Some Wallowa County Streams, 1959-1966. . . .                                                         | 23          |
| 21           | Composition and Length Frequency of Catch by Gill Nets, Repre-<br>sented in One-Inch Size Groups, Fork Length Measurements,<br>in Some Wallowa County Lakes, 1966. . . . .       | 24          |
| 22           | A Comparison of Total Catch Estimates, Wallowa Lake, 1956-1966 .                                                                                                                 | 25          |
| 23           | Composition and Length Frequency of Catch by Gill Net and Trap<br>Net Represented in One-Inch Size Groups, Southeast<br>District, 1966. . . . .                                  | 27          |
| 24           | Summary of Fish Population Samples Taken by Means Other Than<br>Nets in Waters of the Southeast District, 1966. . . . .                                                          | 31          |
| 25           | Composition and Length Frequency of Catch by Gill Net and Trap<br>Net Represented in One-Inch Size Groups, Lake County<br>District, 1966. . . . .                                | 34          |
| 26           | Transplanted Coho Spawning Counts, 1966. . . . .                                                                                                                                 | 35          |

# TABLE INDEX (continued)

| Table |                                                                                                                                                                                                                  | Page |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 27    | Hood River Steelhead Creel Census by Year, 1957-1966 . . . . .                                                                                                                                                   | 36   |
| 28    | Summer Steelhead Sport Catch, Lower Deschutes River, 1956-1965 .                                                                                                                                                 | 36   |
| 29    | Steelhead Redd Counts, Deschutes River, 1963-1966. . . . .                                                                                                                                                       | 37   |
| 30    | Steelhead Redds Observed in a Three-Mile Section of Buckhollow<br>Creek, 1961-1966. . . . .                                                                                                                      | 37   |
| 31    | Summary of Chinook Salmon Spawning Counts, Lower Deschutes<br>River, October 21 to November 1, 1966 . . . . .                                                                                                    | 38   |
| 32    | Catch Statistics at Lost Lake, 1957-1966 . . . . .                                                                                                                                                               | 39   |
| 33    | Calculated Angler Catch, Lower Columbia River, 1966. . . . .                                                                                                                                                     | 41   |
| 34    | Composition and Length Frequency of Catch by Gill Nets, Repre-<br>sented in One-Inch Size Groups, Fork Length Measurements,<br>in Some Central Oregon Lakes, 1966. . . . .                                       | 43   |
| 35    | Composition and Length Frequency of Fish Populations Obtained<br>by Nets and Chemicals, Represented in One-Inch Size Groups,<br>Fork Length Measurements, Deschutes River Brown Trout<br>Project, 1966 . . . . . | 47   |
| 36    | Brown Trout Spawning Ground Surveys, 1965-66 . . . . .                                                                                                                                                           | 50   |
| 37    | Summary of East and Paulina Lake Catch Statistics. . . . .                                                                                                                                                       | 51   |
| 38    | Percent of Fish from Each Plant Harvested at East Lake, 1966 . .                                                                                                                                                 | 51   |
| 39    | Percent of Fish from Each Plant Harvested at Paulina Lake, 1966.                                                                                                                                                 | 52   |
| 40    | Composition and Length Frequency of Catch by Gill Nets, Repre-<br>sented in One-Inch Size Groups, Fork Length Measurements,<br>Klamath District, 1966. . . . .                                                   | 54   |
| 41    | Composition and Length Frequency of Catch by Gill Nets, Repre-<br>sented in One-Inch Size Groups, Fork Length Measurements,<br>Ochoco District, 1966 . . . . .                                                   | 56   |
| 42    | An Eight-Year Summary of Steelhead Spawning Ground Inventory<br>on Streams in the John Day District, 1959-1966. . . . .                                                                                          | 59   |
| 43    | Steelhead Catch Statistics, John Day River, 1956-1966. . . . .                                                                                                                                                   | 60   |
| 44    | Spring Chinook Salmon Spawning Survey, John Day District, 1966 .                                                                                                                                                 | 60   |
| 45    | Chinook Salmon Spawning Inventory on Four Streams in the<br>John Day District, 1958-1966. . . . .                                                                                                                | 61   |
| 46    | Spring Chinook Resting Pool Trend Counts for Tillamook<br>District, 1962-1966 . . . . .                                                                                                                          | 63   |
| 47    | Standard Underwater Survey of Siletz River Summer Steelhead,<br>1960-1966 . . . . .                                                                                                                              | 65   |
| 48    | Annual Estimated Intensity and Catch, Siletz River Tidewater<br>Fishery, 1957-1966. . . . .                                                                                                                      | 66   |
| 49    | Annual Estimated Intensity and Catch, Alsea River Tidewater<br>Fishery, 1957-1966. . . . .                                                                                                                       | 67   |
| 50    | Summary of Statistics of the Siuslaw Estuary Fishery, 1966 . . .                                                                                                                                                 | 69   |
| 51    | Summary of Gill-Net Collections, Siuslaw District, 1966. . . . .                                                                                                                                                 | 70   |
| 52    | A Five-Year Comparison of Salmon and Steelhead Angling Success<br>on the Columbia River in the Umatilla District, Winter<br>Season, November 1 to May 31. . . . .                                                | 72   |
| 53    | A Seven-Year Comparison of Steelhead Angling Success on the<br>Umatilla and Walla Walla Rivers, 1959-1966. . . . .                                                                                               | 73   |
| 54    | Statewide Coho Spawning Ground Counts, 1966. . . . .                                                                                                                                                             | 76   |
| 55    | Statewide Fall Chinook Salmon Spawning Ground Counts, 1966 . . .                                                                                                                                                 | 77   |

# TABLE INDEX (continued)

| <u>Table</u> |                                                                                                                                                                                        | <u>Page</u> |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| 56           | Offshore Salmon Calculated Catch, 1966 . . . . .                                                                                                                                       | 77          |
| 57           | Winter Steelhead Catch Data, 1966. . . . .                                                                                                                                             | 78          |
| 58           | Statewide Creel Census Summary for Streams, Lakes, and<br>Reservoirs, 1966. . . . .                                                                                                    | 79          |
| 59           | Summary of Oregon State Game Commission Fishery Rehabilitation<br>Projects, 1966. . . . .                                                                                              | 110         |
| 60           | Annual Egg Production, Including Eggs Imported from Other<br>States and Countries, 1966. . . . .                                                                                       | 113         |
| 61           | Number of Eggs Taken at Oregon Egg-Taking Stations, 1966 . . . .                                                                                                                       | 114         |
| 62           | Eggs Produced and Imported from Other States and Countries from<br>1960 through 1966 . . . . .                                                                                         | 115         |
| 63           | Summary of Fish Production Data for Calendar Year 1966 . . . . .                                                                                                                       | 116         |
| 64           | Comparison of Conversion Ratios from 1960 through 1966 Computed<br>from Net Pounds of Fish Liberated and Transferred as<br>Related to Pounds of Food Fed During the Calendar Year. . . | 117         |
| 65           | Net Food Conversion Factors Computed from Lots of Fish<br>Liberated in 1965-66. . . . .                                                                                                | 118         |
| 66           | Fiscal Year Expenditures as Shown on the June 1966 Financial<br>Statement . . . . .                                                                                                    | 119         |
| 67           | Summary of Fiscal Year Production Costs, 1957 through 1966 . . .                                                                                                                       | 120         |
| 68           | 1966 Oregon Salmon-Steelhead Catch . . . . .                                                                                                                                           | 122         |
| 69           | Revised Total Catch Figures, 1957 through 1966 . . . . .                                                                                                                               | 123         |
| 70           | Salmon-Steelhead Angler Participation and Catch per Angler,<br>1953 through 1966 . . . . .                                                                                             | 124         |
| 71           | Fish Stocking by Watersheds, 1966. . . . .                                                                                                                                             | 126         |
| 72           | Total Release of Fish by Hatchery, 1966. . . . .                                                                                                                                       | 127         |
| 73           | Comparison of Numbers of Salmon, Steelhead, and Trout Yearlings,<br>and Total Fish Stocked, 1960 through 1966 . . . . .                                                                | 128         |
| 74           | Fish Production per Licensed Angler, 1957 through 1966 . . . . .                                                                                                                       | 129         |
| 75           | Salmon and Steelhead Stocking Summary, 1955 through 1966 . . . .                                                                                                                       | 129         |
| 76           | Warm-Water Game Fish Stocking Records, 1966. . . . .                                                                                                                                   | 130         |

