

THE LEWISTON FISH TRAPPING FACILITIES: SECOND YEAR OF OPERATION  
1959-1960

ROBERT MURRAY  
Region 1, Inland Fisheries  
California Department of Fish and Game

90071

W. M. W. L. P.

This is the second annual report of the Lewiston Fish Trapping Facilities. The report summarizes information for the period July 1, 1959, through June 30, 1960, on the numbers of fish trapped; fish spawned; production of eggs, fry, and fingerlings; river flows; and air and water temperatures.

#### KING SALMON MAINTENANCE PROGRAM

King salmon of the 1959 fall run, which consisted of a total of 6,658 fish, were trapped at Lewiston and transported by tank truck to a release site located at the confluence of the Trinity River and the Stuart Fork of the Trinity River. This site is located about one and a half miles above Trinity Dam. Handling methods were identical to those used during the first year of operation.

Salmon of the 1960 spring run, numbering 340 fish, were transported by tank truck to a site on the Trinity River at Hawkins Bar, which is 60 miles downstream from the Lewiston Fish Trapping Facilities. This operation was an attempt to encourage these early run fish to "summer over" in the deep holes of the lower river. Thirty-four fish were marked by the removal of a portion of the adipose fin. None of these marked fish had been recovered by the end of this report period.

#### SILVER SALMON MAINTENANCE PROGRAM

In the fall of 1959, the United States Bureau of Reclamation constructed two holding tanks and a fish sorting assembly to facilitate the sorting and spawning of silver salmon. Since the work was completed after a part of the silver salmon had arrived, only 28 females were available for spawning. On February 5, 1960, 61,750 eggs were taken. The egg size averaged 95 per ounce, with an average of 2,200 eggs per fish. These eggs were transported to Mt. Shasta Hatchery for hatching and rearing to the fingerling stage. On July 11, 1960, 16,800 fingerling silver salmon were received from Mt. Shasta and placed in the rearing tank at the trapping facilities. Due to the high water temperatures (68 - 80 degrees F.), all of these fingerlings were dead by July 24.

#### STEELHEAD TROUT MAINTENANCE PROGRAM

A total of 2,071 steelhead trout was trapped; of these, 1,704 were released above Trinity Dam at the confluence of the Trinity River and the Stuart Fork. The balance, 367 fish, were spawned during March and April, producing 625,550 eggs with an average size of 163 eggs per ounce, and an average of 3,740 eggs per female. These eggs were transported to Mt. Shasta Hatchery for hatching and rearing to fingerling size. In June, 587,000 steelhead trout fingerlings produced from Trinity eggs were planted in the Trinity River at Lewiston by personnel from Mt. Shasta Hatchery. On July 11, 1960, 26,500 steelhead trout fingerlings were delivered to the rearing tank at the Lewiston Fish Trapping Facilities. These fish were in good condition, but due to high water temperatures (68 - 80 degrees F.)

<sup>1</sup>/ Submitted December 19, 1960. Revised and issued November, 1961.

Inland Fisheries Administrative Report No. 61-16.

(Complete report available on request.)

they died off rapidly. Therefore, on July 21, the remaining 5,000 fingerlings were released in the Trinity River, in the hope that they would seek and find more favorable temperatures.

#### SUMMARY

The trapping and hauling of king salmon, silver salmon, and steelhead trout was handled as it was during the first year of operation, with the exception that spring king salmon arriving in June were released 60 miles downstream.

Some silver salmon and steelhead trout eggs were taken and delivered to Mt. Shasta Hatchery. Fingerlings from these eggs were returned to the Trinity River.

A small scale attempt was made to rear silver salmon and steelhead trout fingerlings. Because of high water temperatures (68 - 80 degrees F.), this attempt was unsuccessful.

---

---

APPENDIX

---

---

APPENDIX

Tables A-1 through A-12 give the daily air and water temperatures, weather conditions, river flow, and numbers of fish on each species trapped at the Lewiston Fish Trapping Facilities during the report period.

Figures A-1 through A-4 show the numbers of spring-run king salmon, fall-run king salmon, silver salmon, and steelhead trout trapped during each week over the report period.

TABLE A-1  
Lewiston Fish Trapping Facilities  
July, 1959

| Date   | Temperature (degrees F.) |         | Water   |         | Weather       | Flow of Trinity River*<br>at Lewiston (c.f.s.) | Fish trapped and hauled |                  |                    |
|--------|--------------------------|---------|---------|---------|---------------|--|-------------------------|------------------|--------------------|
|        | Air                      |         |         |         |               |  | King<br>salmon          | Silver<br>salmon | Steelhead<br>trout |
|        | Maximum                  | Minimum | Maximum | Minimum |               |  |                         |                  |                    |
| 1      | 93                       | 43      | 72      | 65      | Clear         | 590  | 41                      |                  | 3                  |
| 2      | 90                       | 42      | 72      | 65      | Clear         | 580  | 23                      |                  | 4                  |
| 3      | 88                       | 42      | 72      | 65      | Clear         | 560  |                         |                  |                    |
| 4      | 90                       | 43      | 72      | 65      | Clear         | 530  | 40                      |                  | 6                  |
| 5      | 92                       | 42      | 73      | 66      | Clear         | 500  |                         |                  |                    |
| 6      | 85                       | 44      | 71      | 63      | Clear         | 480  | 25                      |                  | 15                 |
| 7      | 77                       | 38      | 71      | 63      | Clear         | 450  |                         |                  |                    |
| 8      | 84                       | 44      | 72      | 63      | Clear         | 420  | 29                      |                  | 6                  |
| 9      | 93                       | 43      | 72      | 65      | Clear         | 400  | 34                      |                  | 8                  |
| 10     | 99                       | 46      | 74      | 66      | Clear         | 395  |                         |                  |                    |
| 11     | 101                      | 49      | 75      | 67      | Clear         | 375  | 35                      |                  | 4                  |
| 12     | 103                      | 52      | 77      | 68      | Clear         | 370  |                         |                  |                    |
| 13     | 100                      | 56      | 78      | 69      | Clear         | 365  | 21                      |                  | 14                 |
| 14     | 99                       | 50      | 77      | 70      | Clear         | 345  |                         |                  |                    |
| 15     | 96                       | 48      | 77      | 70      | Clear         | 330  | 4                       |                  |                    |
| 16     | 99                       | 51      | 78      | 70      | Clear         | 320  |                         |                  |                    |
| 17     | 103                      | 54      | 78      | 77      | Clear         | 310  |                         |                  |                    |
| 18     | 103                      | 57      | 79      | 71      | Clear         | 300  |                         |                  |                    |
| 19     | 102                      | 55      | 80      | 72      | Clear         | 285  |                         |                  |                    |
| 20     | 101                      | 55      | 79      | 72      | Clear         | 280  |                         |                  |                    |
| 21     | 100                      | 54      | 78      | 72      | Clear         | 270  |                         |                  |                    |
| 22     | 97                       | 51      | 77      | 71      | Partly cloudy | 260  |                         |                  |                    |
| 23     | 102                      | 62      | 78      | 72      | Clear         | 250  |                         |                  |                    |
| 24     | 98                       | 46      | 78      | 70      | Clear         | 240  |                         |                  |                    |
| 25     | 101                      | 48      | 78      | 71      | Clear         | 235  |                         |                  |                    |
| 26     | 103                      | 50      | 78      | 72      | Clear         | 230  |                         |                  |                    |
| 27     | 102                      | 50      | 78      | 72      | Clear         | 225  |                         |                  |                    |
| 28     | 98                       | 46      | 77      | 70      | Clear         | 215  |                         |                  |                    |
| 29     | 97                       | 44      | 75      | 70      | Clear         | 220  |                         |                  |                    |
| 30     | 98                       | 48      | 76      | 69      | Clear         | 215  |                         |                  |                    |
| 31     | 91                       | 49      | 76      | 70      | Clear         | 205  |                         |                  |                    |
| Totals |                          |         |         |         |               |  | 252                     |                  | 60                 |

\* From U. S. Bureau of Reclamation records.

TABLE A-2  
Lewiston Fish Trapping Facilities  
August, 1959

| Date          | Temperatures (degrees F.) |         |         |         | Weather | Flow of Trinity River<br>at Lewiston (c.f.s.)* | Fish trapped and hauled |          |           |
|---------------|---------------------------|---------|---------|---------|---------|--|-------------------------|----------|-----------|
|               | Air                       |         | Water   |         |         |  | King                    | Silver   | Steelhead |
|               | Maximum                   | Minimum | Maximum | Minimum |         |  | salmon                  | salmon   | trout     |
| 1             | 98                        | 45      | 76      | 69      | Clear   | 194  |                         |          |           |
| 2             | 98                        | 47      | 77      | 70      | Clear   | 186  |                         |          |           |
| 3             | 98                        | 47      | 77      | 70      | Clear   | 178  |                         |          |           |
| 4             | 95                        | 46      | 78      | 70      | Clear   | 173  |                         |          |           |
| 5             | 95                        | 45      | 77      | 69      | Clear   | 163  |                         |          |           |
| 6             | 98                        | 46      | 79      | 70      | Clear   | 173  |                         |          |           |
| 7             | 104                       | 49      | 79      | 70      | Clear   | 168  |                         |          |           |
| 8             | 108                       | 53      | 78      | 72      | Cloudy  | 163  |                         |          |           |
| 9             | 106                       | 55      | 78      | 72      | Clear   | 163  |                         |          |           |
| 10            | 103                       | 45      | 77      | 70      | Clear   | 158  |                         |          |           |
| 11            | 98                        | 43      | 76      | 70      | Clear   | 153  |                         |          |           |
| 12            | 94                        | 46      | 74      | 69      | Clear   | 148  |                         |          |           |
| 13            | 88                        | 46      | 74      | 69      | Clear   | 148  |                         |          |           |
| 14            | 93                        | 44      | 76      | 68      | Clear   | 153  |                         |          |           |
| 15            | 98                        | 48      | 76      | 69      | Clear   | 151  | 36                      | 2        |           |
| 16            | 100                       | 51      | 78      | 70      | Clear   | 148  |                         |          |           |
| 17            | 100                       | 46      | 77      | 70      | Clear   | 146  |                         |          |           |
| 18            | 90                        | 40      | 74      | 68      | Clear   | 141  |                         |          |           |
| 19            | 90                        | 40      | 72      | 68      | Cloudy  | 141  |                         |          |           |
| 20            | 74                        | 46      | 67      | 66      | Cloudy  | 148  |                         |          |           |
| 21            | 60                        | 42      | 70      | 64      | Cloudy  | 161  | 110                     |          |           |
| 22            | 80                        | 40      | 72      | 65      | Clear   | 181  |                         |          |           |
| 23            | 90                        | 39      | 74      | 65      | Clear   | 183  | 89                      |          |           |
| 24            | 95                        | 49      | 74      | 69      | Clear   | 171  | 59                      |          |           |
| 25            | 92                        | 45      | 74      | 68      | Clear   | 158  |                         |          |           |
| 26            | 92                        | 40      | 74      | 68      | Clear   | 158  |                         |          |           |
| 27            | 91                        | 39      | 73      | 67      | Clear   | 141  | 115                     |          |           |
| 28            | 87                        | 43      | 73      | 66      | Clear   | 148  | 77                      |          |           |
| 29            | 86                        | 43      | 74      | 66      | Clear   | 146  |                         | 1        |           |
| 30            | 88                        | 42      | 73      | 66      | Clear   | 139  | 123                     |          |           |
| 31            | 90                        | 39      | 73      | 66      | Clear   | 133  | 86                      |          |           |
| <b>Totals</b> |                           |         |         |         |         |  | <b>695</b>              | <b>3</b> |           |

\*From U. S. Bureau of Reclamation records.

TABLE A-3

Lewiston Fish Trapping Facilities  
September, 1959

| Date   | Temperatures (degrees F.) |         | Weather | Flow of Trinity River<br>at Lewiston (c.f.s.)* | Fish trapped and hauled |                  |                    |
|--------|---------------------------|---------|---------|--|-------------------------|------------------|--------------------|
|        | Air                       |         |         |  | King<br>salmon          | Silver<br>salmon | Steelhead<br>trout |
|        | Maximum                   | Minimum |         |  |                         |                  |                    |
| 1      | 89                        | 40      | Clear   | 141  |                         |                  |                    |
| 2      | 95                        | 41      | Clear   | 139  |                         |                  |                    |
| 3      | 93                        | 42      | Clear   | 135  | 84                      |                  | 2                  |
| 4      | 88                        | 40      | Clear   | 131  |                         |                  |                    |
| 5      | 83                        | 40      | Clear   | 123  |                         |                  |                    |
| 6      | 84                        | 48      | Clear   | 129  | 100                     |                  | 1                  |
| 7      | 90                        | 58      | Clear   | 131  |                         |                  |                    |
| 8      | 92                        | 44      | Clear   | 129  |                         |                  |                    |
| 9      | 92                        | 45      | Clear   | 127  |                         |                  |                    |
| 10     | 94                        | 47      | Clear   | 121  | 76                      |                  | 2                  |
| 11     | 86                        | 43      | Clear   | 115  | 59                      |                  | 4                  |
| 12     | 88                        | 42      | Clear   | 119  |                         |                  |                    |
| 13     | 91                        | 43      | Cloudy  | 117  |                         |                  |                    |
| 14     | 77                        | 42      | Rain    | 115  | 199                     |                  | 3                  |
| 15     | 62                        | 34      | Cloudy  | 119  |                         |                  |                    |
| 16     | 69                        | 31      | Clear   | 129  | 180                     |                  | 1                  |
| 17     | 70                        | 33      | Cloudy  | 135  | 72                      |                  |                    |
| 18     | 64                        | 43      | Rain    | 450  |                         |                  |                    |
| 19     | 65                        | 50      | Rain    | 800  | 197                     |                  | 9                  |
| 20     | 67                        | 42      | Cloudy  | 540  |                         |                  |                    |
| 21     | 68                        | 36      | Clear   | 385  | 827                     |                  | 8                  |
| 22     | 75                        | 38      | Clear   | 310  | 498                     |                  | 5                  |
| 23     | 78                        | 35      | Clear   | 260  | 278                     |                  | 10                 |
| 24     | 83                        | 35      | Clear   | 240  | 164                     |                  | 5                  |
| 25     | 79                        | 38      | Clear   | 220  | 134                     |                  | 4                  |
| 26     | 80                        | 45      | Clear   | 210  | 149                     |                  | 7                  |
| 27     | 74                        | 35      | Clear   | 203  | 145                     |                  | 8                  |
| 28     | 73                        | 28      | Clear   | 195  | 178                     |                  | 5                  |
| 29     | 67                        | 34      | Clear   | 189  | 34                      |                  | 1                  |
| 30     | 75                        | 29      | Cloudy  | 187  | 17                      |                  | 1                  |
| Totals |                           |         |         |  | 3,391                   |                  | 76                 |

\*From U. S. Bureau of Reclamation records.

TABLE A-4

Lewiston Fish Trapping Facilities  
October, 1959.

| Date   | Temperatures (degrees F.) |         |         |         | Weather | Flow of Trinity River<br>at Lewiston (c.f.s.)* | Fish trapped and hauled |        |           |
|--------|---------------------------|---------|---------|---------|---------|--|-------------------------|--------|-----------|
|        | Air                       |         | Water   |         |         |  | King                    | Silver | Steelhead |
|        | Maximum                   | Minimum | Maximum | Minimum |         |  | salmon                  | salmon | trout     |
| 1      | 68                        | 31      | 60      | 56      | Clear   | 183  | 85                      |        | 6         |
| 2      | 71                        | 28      | 60      | 55      | Clear   | 173  | 25                      |        | 1         |
| 3      | 77                        | 38      | 62      | 56      | Clear   | 178  | 72                      |        | 2         |
| 4      | 86                        | 32      | 62      | 57      | Clear   | 175  | 137                     | 4      | 1         |
| 5      | 80                        | 37      | 60      | 59      | Clear   | 168  | 73                      |        |           |
| 6      | 75                        | 36      | 60      | 58      | Clear   | 171  | 101                     |        | 2         |
| 7      | 64                        | 31      | 59      | 56      | Cloudy  | 168  | 99                      | 1      | 2         |
| 8      | 70                        | 39      | 61      | 58      | Cloudy  | 170  | 209                     | 1      |           |
| 9      | 69                        | 51      | 64      | 61      | Clear   | 185  | 185                     |        | 1         |
| 10     | 76                        | 43      | 64      | 59      | Clear   | 200  | 117                     |        | 2         |
| 11     | 83                        | 48      | 65      | 60      | Clear   | 197  | 140                     |        | 4         |
| 12     | 77                        | 40      | 64      | 59      | Clear   | 192  | 200                     | 1      | 2         |
| 13     | 81                        | 32      | 63      | 60      | Clear   | 185  | 71                      | 2      | 2         |
| 14     | 86                        | 32      | 61      | 58      | Clear   | 180  | 125                     |        | 9         |
| 15     | 88                        | 34      | 60      | 58      | Clear   | 180  | 71                      |        | 1         |
| 16     | 86                        | 37      | 62      | 58      | Clear   | 173  | 102                     | 3      | 5         |
| 17     | 89                        | 36      | 61      | 58      | Clear   | 164  | 88                      |        | 5         |
| 18     | 87                        | 35      | 62      | 58      | Clear   | 167  | 30                      | 2      | 3         |
| 19     | 70                        | 30      | 60      | 57      | Clear   | 162  | 19                      | 3      | 1         |
| 20     | 76                        | 33      | 60      | 56      | Cloudy  | 159  |                         |        |           |
| 21     | 75                        | 35      | 60      | 56      | Rain    | 157  | 32                      | 1      | 2         |
| 22     | 51                        | 42      | 60      | 58      | Cloudy  | 167  | 18                      |        |           |
| 23     | 73                        | 49      | 61      | 58      | Cloudy  | 189  |                         |        |           |
| 24     | 80                        | 44      | 62      | 58      | Clear   | 185  | 28                      | 1      | 1         |
| 25     | 86                        | 40      | 63      | 58      | Clear   | 183  | 41                      | 7      | 1         |
| 26     | 83                        | 37      | 62      | 58      | Clear   | 185  |                         |        |           |
| 27     | 81                        | 30      | 61      | 56      | Clear   | 180  | 13                      |        |           |
| 28     | 71                        | 26      | 57      | 53      | Clear   | 175  |                         |        |           |
| 29     | 67                        | 23      | 56      | 52      | Clear   | 170  |                         |        |           |
| 30     | 61                        | 19      | 53      | 52      | Clear   | 170  |                         |        |           |
| 31     | 69                        | 20      | 54      | 50      | Clear   | 173  |                         |        |           |
| Totals |                           |         |         |         |         |  | 2,081                   | 26     | 53        |

\*From U. S. Bureau of Reclamation records.



TABLE A-5

Lewiston Fish Trapping Facilities  
November, 1959

| Date   | Temperatures (degrees F.) |         |         |         | Weather | Flow of Trinity River<br>at Lewiston (c.f.s.) | Fish trapped and hauled |                  |                    |
|--------|---------------------------|---------|---------|---------|---------|---|-------------------------|------------------|--------------------|
|        | Air                       |         | Water   |         |         |   | King<br>salmon          | Silver<br>salmon | Steelhead<br>trout |
|        | Maximum                   | Minimum | Maximum | Minimum |         |   |                         |                  |                    |
| 1      | 81                        | 24      | 54      | 50      | Clear   | 161   |                         |                  |                    |
| 2      | 80                        | 32      | 54      | 50      | Clear   | 161   |                         |                  |                    |
| 3      | 77                        | 32      | 54      | 53      | Rain    | 161   |                         |                  |                    |
| 4      | 48                        | 38      | 54      | 52      | Cloudy  | 165   |                         |                  |                    |
| 5      | 64                        | 20      | 52      | 49      | Clear   | 170   | 152                     | 2                |                    |
| 6      | 72                        | 20      | 52      | 48      | Clear   | 170   | 26                      |                  |                    |
| 7      | 71                        | 21      | 51      | 48      | Clear   | 166   |                         |                  |                    |
| 8      | 70                        | 21      | 50      | 47      | Clear   | 166   |                         |                  |                    |
| 9      | 72                        | 21      | 50      | 46      | Clear   | 166   |                         |                  |                    |
| 10     | 73                        | 22      | 50      | 45      | Clear   | 163   | 56                      | 2                |                    |
| 11     | 73                        | 23      | 50      | 47      | Clear   | 163   |                         | 2                |                    |
| 12     | 71                        | 23      | 50      | 47      | Clear   | 162   |                         |                  |                    |
| 13     | 69                        | 20      | 49      | 46      | Clear   | 162   | 23                      |                  |                    |
| 14     | 67                        | 22      | 48      | 45      | Clear   | 162   |                         |                  |                    |
| 15     | 63                        | 18      | 48      | 44      | Clear   | 161   |                         |                  |                    |
| 16     | 63                        | 20      | 48      | 44      | Clear   | 158   |                         |                  |                    |
| 17     | 63                        | 20      | 47      | 44      | Clear   | 158   |                         |                  |                    |
| 18     | 65                        | 20      | 46      | 44      | Cloudy  | 160   |                         |                  |                    |
| 19     | 58                        | 22      | 48      | 44      | Cloudy  | 160   |                         |                  |                    |
| 20     | 59                        | 28      | 48      | 45      | Cloudy  | 160   | 23                      | 2                |                    |
| 21     | 55                        | 31      | 50      | 46      | Clear   | 161   |                         |                  |                    |
| 22     | 61                        | 21      | 48      | 44      | Clear   | 161   |                         |                  |                    |
| 23     | 62                        | 25      | 48      | 45      | Clear   | 164   |                         |                  |                    |
| 24     | 67                        | 27      | 48      | 46      | Fog     | 163   |                         |                  |                    |
| 25     | 62                        | 26      | 47      | 45      | Cloudy  | 163   |                         |                  |                    |
| 26     | 63                        | 19      | 47      | 44      | Cloudy  | 163   |                         |                  |                    |
| 27     | 67                        | 17      | 46      | 42      | Clear   | 159   |                         |                  |                    |
| 28     | 64                        | 18      | 45      | 42      | Clear   | 154   |                         |                  |                    |
| 29     | 61                        | 16      | 44      | 41      | Clear   | 152   |                         |                  |                    |
| 30     | 52                        | 21      | 46      | 42      | Clear   | 153   |                         |                  |                    |
| Totals |                           |         |         |         |         |   | 280                     | 6                | 2                  |

\*From U. S. Bureau of Reclamation records.

TABLE A-6

Lewiston Fish Trapping Facilities  
December, 1959

| Date   | Temperatures (degrees F.) |         | Water | Weather | Flow of Trinity River*<br>at Lewiston (c.f.s.) | Fish trapped and hauled |                  |                    |
|--------|---------------------------|---------|-------|---------|--|-------------------------|------------------|--------------------|
|        | Air                       |         |       |         |  | King<br>salmon          | Silver<br>salmon | Steelhead<br>trout |
|        | Maximum                   | Minimum |       |         |  |                         |                  |                    |
| 1      | 63                        | 22      | 44    | Cloudy  | 153  |                         |                  |                    |
| 2      | 61                        | 25      | 42    | Fog     | 155  |                         |                  |                    |
| 3      | 59                        | 25      | 42    | Fog     | 157  |                         |                  |                    |
| 4      | 59                        | 16      | 41    | Fog     | 157  | 78                      | 1                | 2                  |
| 5      | 61                        | 16      | 40    | Fog     | 157  |                         |                  |                    |
| 6      | 60                        | 13      | 42    | Clear   | 155  |                         |                  |                    |
| 7      | 57                        | 13      | 41    | Clear   | 155  |                         |                  |                    |
| 8      | 55                        | 14      | 41    | Clear   | 155  |                         |                  |                    |
| 9      | 52                        | 15      | 41    | Cloudy  | 155  |                         |                  |                    |
| 10     | 56                        | 19      | 40    | Cloudy  | 155  |                         |                  |                    |
| 11     | 51                        | 22      | 42    | Cloudy  | 157  | 15                      | 7                |                    |
| 12     | 57                        | 21      | 40    | Snow    | 169  |                         |                  |                    |
| 13     | 41                        | 21      | 41    | Clear   | 173  |                         |                  |                    |
| 14     | 46                        | 21      | 40    | Clear   | 171  |                         |                  |                    |
| 15     | 42                        | 26      | 40    | Fog     | 171  |                         |                  |                    |
| 16     | 32                        | 26      | 39    | Fog     | 173  | 79                      | 39               |                    |
| 17     | 30                        | 26      | 40    | Fog     | 173  |                         |                  |                    |
| 18     | 37                        | 29      | 40    | Fog     | 171  |                         |                  |                    |
| 19     | 34                        | 26      | 40    | Fog     | 171  |                         |                  |                    |
| 20     | 32                        | 26      | 40    | Fog     | 169  |                         |                  |                    |
| 21     | 35                        | 26      | 41    | Fog     | 166  | 33                      | 27               |                    |
| 22     | 41                        | 23      | 40    | Fog     | 166  |                         |                  |                    |
| 23     | 47                        | 32      | 42    | Rain    | 210  |                         |                  |                    |
| 24     | 43                        | 40      | 41    | Rain    | 500  |                         |                  |                    |
| 25     | 49                        | 26      | 43    | Clear   | 550  |                         |                  |                    |
| 26     | 47                        | 22      | 42    | Clear   | 400  |                         |                  |                    |
| 27     | 46                        | 21      | 41    | Clear   | 330  |                         |                  |                    |
| 28     | 42                        | 27      | 40    | Clear   | 250  |                         |                  |                    |
| 29     | 48                        | 25      | 40    | Fog     | 235  |                         |                  |                    |
| 30     | 36                        | 24      | 40    | Snow    | 220  |                         |                  |                    |
| 31     | 43                        | 17      | 38    | Clear   | 205  |                         |                  |                    |
| Total: |                           |         |       |         | 205  | 81**                    | 2                |                    |

\*From U.S. Bureau of Reclamation records.  
\*\* 63 silver salmon retained in spawning tank for spawning when mature.

TABLE A-7

Lewiston Fish Trapping Facilities  
January, 1960

| Date           | Temperatures (degrees F.) |         |         |         | Weather       | Flow of Trinity River<br>at Lewiston (c.f.s.)* | Fish trapped |        |           |
|----------------|---------------------------|---------|---------|---------|---------------|--|--------------|--------|-----------|
|                | Air                       |         | Water   |         |               |  | King         | Silver | Steelhead |
|                | Maximum                   | Minimum | Maximum | Minimum |               |  | salmon       | salmon | trout     |
| 1              | 40                        | 9       | 37      | 35      | Clear         | 188  |              |        |           |
| 2              | 42                        | 11      | 37      | 35      | Cloudy        | 178  |              |        |           |
| 3              | 34                        | 12      | 37      | 35      | Clear         | 176  |              |        |           |
| 4              | 44                        | 11      | 37      | 35      | Clear         | 178  | 3            | 1      |           |
| 5              | 47                        | 11      | 36      | 34      | Clear         | 171  |              |        |           |
| 6              | 47                        | 15      | 38      | 36      | Fog           | 178  |              |        |           |
| 7              | 43                        | 27      | 39      | 38      | Rain          | 193  |              |        |           |
| 8              | 38                        | 32      | 39      | 38      | Snow          | 235  |              |        |           |
| 9              | 44                        | 30      | 39      | 38      | Rain          | 290  |              |        |           |
| 10             | 40                        | 32      | 41      | 39      | Cloudy        | 270  |              |        |           |
| 11             | 47                        | 32      | 40      | 40      | Snow          | 310  |              |        |           |
| 12             | 40                        | 20      | 40      | 38      | Clear         | 330  |              |        |           |
| 13             | 35                        | 20      | 38      | 37      | Clear         | 290  | 3            | 2      |           |
| 14             | 35                        | 20      | 37      | 36      | Snow          | 260  |              |        |           |
| 15             | 35                        | 23      | 38      | 36      | Partly cloudy | 250  |              |        |           |
| 16             | 40                        | 19      | 38      | 37      | Cloudy        | 230  |              |        |           |
| 17             | 39                        | 23      | 40      | 38      | Cloudy        | 230  |              |        |           |
| 18             | 47                        | 31      | 40      | 39      | Cloudy        | 230  |              |        |           |
| 19             | 41                        | 32      | 40      | 39      | Cloudy        | 230  |              |        |           |
| 20             | 41                        | 32      | 41      | 40      | Cloudy        | 230  |              |        |           |
| 21             | 47                        | 32      | 40      | 40      | Cloudy        | 280  |              |        |           |
| 22             | 38                        | 32      | 40      | 40      | Cloudy        | 380  |              |        |           |
| 23             | 43                        | 35      | 41      | 40      | Cloudy        | 500  |              |        |           |
| 24             | 46                        | 37      | 42      | 40      | Rain          | 560  |              |        |           |
| 25             | 47                        | 39      | 41      | 41      | Rain          | 1,150  |              | 3      |           |
| 26             | 53                        | 32      | 41      | 41      | Cloudy        | 1,900  |              |        |           |
| 27             | 48                        | 34      | 42      | 42      | Rain          | 1,200  |              |        |           |
| 28             | 44                        | 39      | 41      | 41      | Cloudy        | 1,400  |              |        |           |
| 29             | 48                        | 34      | 41      | 41      | Rain          | 1,550  |              |        |           |
| 30             | 48                        | 38      | 44      | 42      | Clear         | 1,750  |              |        |           |
| 31             | 55                        | 31      | 43      | 43      | Rain          | 1,250  |              |        |           |
| <b>Totals:</b> |                           |         |         |         |               |  | 6            | 6      |           |

\*From U. S. Bureau of Reclamation records.

TABLE A-8  
Lewiston Fish Trapping Facilities  
February, 1960

| Date   | Temperatures (degrees F.) |         |         |         | Weather | Flow of Trinity River<br>at Lewiston (c.f.s.)* | Fish trapped   |                  |                    |
|--------|---------------------------|---------|---------|---------|---------|--|----------------|------------------|--------------------|
|        | Air                       |         | Water   |         |         |  | King<br>salmon | Silver<br>salmon | Steelhead<br>trout |
|        | Maximum                   | Minimum | Maximum | Minimum |         |  |                |                  |                    |
| 1      | 49                        | 32      | 41      | 41      | Rain    | 2,500  |                |                  |                    |
| 2      | 48                        | 29      | 41      | 40      | Cloudy  | 3,900  |                |                  |                    |
| 3      | 49                        | 29      | 41      | 41      | Rain    | 2,100  |                |                  |                    |
| 4      | 41                        | 32      | 40      | 40      | Cloudy  | 1,600  |                |                  |                    |
| 5      | 44                        | 34      | 42      | 41      | Clear   | 1,850  |                |                  |                    |
| 6      | 53                        | 37      | 44      | 43      | Rain    | 1,850  |                |                  |                    |
| 7      | 44                        | 40      | 43      | 43      | Rain    | 6,500  |                |                  |                    |
| 8      | 51                        | 41      | 44      | 44      | Rain    | 15,700   |                |                  |                    |
| 9      | 51                        | 41      | 42      | 41      | Rain    | 13,600   |                |                  |                    |
| 10     | 46                        | 33      | 42      | 41      | Clear   | 6,500  |                |                  |                    |
| 11     | 51                        | 30      | 44      | 43      | Clear   | 3,700  |                |                  |                    |
| 12     | 54                        | 32      | 43      | 43      | Cloudy  | 2,650  |                |                  |                    |
| 13     | 49                        | 29      | 44      | 42      | Clear   | 2,150  |                |                  |                    |
| 14     | 52                        | 28      | 44      | 43      | Clear   | 1,800  |                |                  |                    |
| 15     | 55                        | 31      | 45      | 43      | Clear   | 1,650  |                |                  | 254                |
| 16     | 57                        | 25      | 44      | 43      | Clear   | 1,450  |                |                  |                    |
| 17     | 58                        | 24      | 41      | 41      | Clear   | 1,350  |                |                  | 208                |
| 18     | 55                        | 27      | 42      | 41      | Cloudy  | 1,250  |                |                  |                    |
| 19     | 48                        | 23      | 43      | 41      | Clear   | 1,150  |                |                  | 10                 |
| 20     | 56                        | 22      | 43      | 41      | Clear   | 1,050  |                |                  |                    |
| 21     | 63                        | 23      | 45      | 42      | Clear   | 1,000  |                |                  |                    |
| 22     | 61                        | 19      | 44      | 41      | Clear   | 940  |                |                  |                    |
| 23     | 56                        | 19      | 44      | 41      | Clear   | 910  |                |                  |                    |
| 24     | 56                        | 19      | 44      | 40      | Clear   | 880  |                |                  |                    |
| 25     | 64                        | 20      | 45      | 42      | Clear   | 850  |                |                  |                    |
| 26     | 59                        | 20      | 44      | 41      | Clear   | 860  |                |                  | 67                 |
| 27     | 50                        | 17      | 44      | 40      | Clear   | 840  |                |                  |                    |
| 28     | 53                        | 20      | 44      | 41      | Clear   | 810  |                |                  |                    |
| 29     | 55                        | 17      | 44      | 40      | Clear   | 780  |                |                  |                    |
| Totals |                           |         |         |         |         |  |                |                  | 539                |

\*From U. S. Bureau of Reclamation records.

TABLE A-9

Lewiston Fish Trapping Facilities  
March, 1960

| Date   | Temperatures (degrees F.) |         |         |         | Weather | Flow of Trinity River<br>at Lewiston (c.f.s.)* | Fish trapped   |                  |                    |
|--------|---------------------------|---------|---------|---------|---------|--|----------------|------------------|--------------------|
|        | Air                       |         | Water   |         |         |  | King<br>salmon | Silver<br>salmon | Steelhead<br>trout |
|        | Maximum                   | Minimum | Maximum | Minimum |         |  |                |                  |                    |
| 1      | 58                        | 19      | 44      | 41      | Clear   | 760  |                |                  |                    |
| 2      | 51                        | 31      | 43      | 41      | Cloudy  | 740  |                |                  |                    |
| 3      | 47                        | 32      | 41      | 39      | Snow    | 800  |                |                  |                    |
| 4      | 35                        | 32      | 38      | 37      | Rain    | 960  |                |                  |                    |
| 5      | 43                        | 33      | 43      | 41      | Rain    | 2,350  |                |                  |                    |
| 6      | 45                        | 35      | 43      | 41      | Rain    | 5,000  |                |                  |                    |
| 7      | 59                        | 39      | 45      | 44      | Clear   | 8,700  |                |                  |                    |
| 8      | 59                        | 30      | 43      | 42      | Cloudy  | 8,500  |                |                  |                    |
| 9      | 55                        | 34      | 44      | 43      | Cloudy  | 5,000  |                |                  |                    |
| 10     | 50                        | 22      | 44      | 42      | Clear   | 3,500  |                |                  |                    |
| 11     | 59                        | 27      | 43      | 43      | Rain    | 2,900  |                | 177              |                    |
| 12     | 50                        | 32      | 43      | 42      | Rain    | 2,700  |                |                  |                    |
| 13     | 42                        | 36      | 44      | 42      | Clear   | 3,000  |                |                  |                    |
| 14     | 56                        | 26      | 45      | 43      | Clear   | 2,650  |                |                  |                    |
| 15     | 58                        | 27      | 45      | 43      | Cloudy  | 2,350  |                |                  |                    |
| 16     | 55                        | 29      | 46      | 43      | Clear   | 2,100  |                | 220              |                    |
| 17     | 70                        | 31      | 48      | 46      | Clear   | 2,150  |                | 272              |                    |
| 18     | 79                        | 28      | 48      | 46      | Clear   | 2,400  |                | 151              |                    |
| 19     | 80                        | 28      | 48      | 46      | Clear   | 2,750  |                |                  |                    |
| 20     | 78                        | 30      | 48      | 47      | Clear   | 3,100  |                |                  |                    |
| 21     | 78                        | 31      | 48      | 46      | Clear   | 3,250  |                |                  |                    |
| 22     | 73                        | 36      | 48      | 47      | Clear   | 3,700  |                | 125              |                    |
| 23     | 78                        | 33      | 48      | 47      | Clear   | 3,900  |                |                  |                    |
| 24     | 82                        | 33      | 48      | 47      | Clear   | 4,100  |                |                  |                    |
| 25     | 84                        | 34      | 48      | 47      | Clear   | 4,300  |                | 100              |                    |
| 26     | 73                        | 41      | 48      | 48      | Cloudy  | 4,300  |                |                  |                    |
| 27     | 57                        | 42      | 47      | 46      | Rain    | 4,300  |                |                  |                    |
| 28     | 57                        | 35      | 44      | 44      | Rain    | 4,100  |                | 53               |                    |
| 29     | 50                        | 38      | 44      | 44      | Rain    | 3,100  |                |                  |                    |
| 30     | 43                        | 39      | 45      | 44      | Rain    | 3,900  |                | 3                |                    |
| 31     | 52                        | 29      | 45      | 44      | Rain    | 3,600  |                |                  |                    |
| Totals |                           |         |         |         |         |  |                | 1,101            |                    |

\*From U. S. Bureau of Reclamation records.

TABLE A-10

Lewiston Fish Trapping Facilities  
April, 1960

| Date  | Temperatures (degrees F.) |         |         |         | Weather | Flow of Trinity River<br>at Lewiston (c.f.s.)* | Fish trapped   |                  |                    |
|-------|---------------------------|---------|---------|---------|---------|--|----------------|------------------|--------------------|
|       | Air                       |         | Water   |         |         |  | King<br>salmon | Silver<br>salmon | Steelhead<br>trout |
|       | Maximum                   | Minimum | Maximum | Minimum |         |  |                |                  |                    |
| 1     | 49                        | 35      | 48      | 44      | Clear   | 2,800  |                |                  |                    |
| 2     | 68                        | 41      | 50      | 47      | Clear   | 2,850  |                |                  |                    |
| 3     | 78                        | 38      | 51      | 47      | Clear   | 3,150  |                |                  |                    |
| 4     | 72                        | 40      | 51      | 50      | Clear   | 3,650  |                |                  |                    |
| 5     | 82                        | 37      | 49      | 49      | Clear   | 4,450  |                |                  |                    |
| 6     | 73                        | 40      | 49      | 48      | Cloudy  | 4,450  |                |                  |                    |
| 7     | 72                        | 40      | 50      | 48      | Cloudy  | 4,650  |                |                  |                    |
| 8     | 66                        | 35      | 50      | 48      | Cloudy  | 4,250  |                | 41               |                    |
| 9     | 68                        | 40      | 51      | 49      | Clear   | 3,950  |                |                  |                    |
| 10    | 61                        | 28      | 50      | 48      | Cloudy  | 3,750  |                |                  |                    |
| 11    | 64                        | 38      | 51      | 48      | Cloudy  | 3,350  |                |                  |                    |
| 12    | 55                        | 29      | 50      | 47      | Cloudy  | 2,950  |                |                  |                    |
| 13    | 60                        | 34      | 49      | 47      | Cloudy  | 2,650  |                |                  |                    |
| 14    | 67                        | 37      | 49      | 47      | Cloudy  | 2,650  |                |                  |                    |
| 15    | 57                        | 37      | 50      | 46      | Clear   | 2,450  |                | 66               |                    |
| 16    | 56                        | 24      | 50      | 47      | Clear   | 2,250  |                |                  |                    |
| 17    | 70                        | 29      | 48      | 48      | Cloudy  | 2,150  |                |                  |                    |
| 18    | 60                        | 42      | 48      | 48      | Rain    | 2,100  |                |                  |                    |
| 19    | 63                        | 37      | 52      | 48      | Cloudy  | 2,100  |                | 56               |                    |
| 20    | 65                        | 33      | 52      | 50      | Clear   | 2,100  |                |                  |                    |
| 21    | 67                        | 34      | 51      | 49      | Clear   | 2,250  |                |                  |                    |
| 22    | 53                        | 22      | 47      | 46      | Snow    | 2,150  |                | 40               |                    |
| 23    | 48                        | 30      | 43      | 43      | Cloudy  | 2,050  |                |                  |                    |
| 24    | 47                        | 28      | 46      | 45      | Cloudy  | 1,800  |                |                  |                    |
| 25    | 51                        | 37      | 46      | 46      | Rain    | 1,700  |                |                  |                    |
| 26    | 47                        | 37      | 46      | 46      | Rain    | 1,650  |                |                  |                    |
| 27    | 56                        | 37      | 47      | 45      | Rain    | 2,100  |                |                  |                    |
| 28    | 53                        | 28      | 49      | 45      | Rain    | 2,050  |                |                  |                    |
| 29    | 59                        | 33      | 54      | 48      | Clear   | 1,850  |                |                  |                    |
| 30    | 70                        | 33      | 53      | 50      | Cloudy  | 1,950  |                |                  |                    |
| Total |                           |         |         |         |         |  |                | 203              |                    |

\*From U. S. Bureau of Reclamation records.

TABLE A-11

Lewiston Fish Trapping Facilities  
May, 1960

| Date   | Temperatures (degrees F.) |         |         |         | Weather | Flow of Trinity River<br>at Lewiston (c.f.s.)* | Fish trapped   |                  |                    |
|--------|---------------------------|---------|---------|---------|---------|--|----------------|------------------|--------------------|
|        | Air                       |         | Water   |         |         |  | King<br>salmon | Silver<br>salmon | Steelhead<br>trout |
|        | Maximum                   | Minimum | Maximum | Minimum |         |  |                |                  |                    |
| 1      | 68                        | 41      | 51      | 50      | Rain    | 2,000  |                |                  |                    |
| 2      | 63                        | 34      | 52      | 50      | Clear   | 2,250  |                |                  |                    |
| 3      | 68                        | 40      | 52      | 51      | Cloudy  | 2,300  |                |                  |                    |
| 4      | 58                        | 35      | 51      | 47      | Clear   | 2,400  |                |                  |                    |
| 5      | 66                        | 31      | 54      | 49      | Clear   | 2,250  |                |                  |                    |
| 6      | 75                        | 38      | 54      | 51      | Cloudy  | 2,400  |                | 11               |                    |
| 7      | 74                        | 45      | 55      | 53      | Cloudy  | 3,150  |                |                  |                    |
| 8      | 68                        | 35      | 52      | 50      | Clear   | 3,650  |                |                  |                    |
| 9      | 75                        | 40      | 54      | 52      | Clear   | 3,550  |                |                  |                    |
| 10     | 79                        | 40      | 54      | 52      | Clear   | 4,100  |                |                  |                    |
| 11     | 81                        | 44      | 54      | 52      | Clear   | 5,000  |                |                  |                    |
| 12     | 79                        | 55      | 52      | 52      | Rain    | 5,400  |                |                  |                    |
| 13     | 60                        | 32      | 52      | 48      | Clear   | 4,050  |                |                  |                    |
| 14     | 71                        | 36      | 54      | 50      | Clear   | 3,350  |                |                  |                    |
| 15     | 74                        | 35      | 54      | 52      | Clear   | 3,300  |                |                  |                    |
| 16     | 70                        | 41      | 54      | 52      | Clear   | 3,300  |                |                  |                    |
| 17     | 67                        | 33      | 54      | 51      | Clear   | 3,000  |                |                  |                    |
| 18     | 60                        | 30      | 54      | 50      | Clear   | 2,650  |                |                  |                    |
| 19     | 68                        | 33      | 56      | 51      | Clear   | 2,500  |                |                  |                    |
| 20     | 79                        | 44      | 54      | 52      | Rain    | 2,700  |                |                  |                    |
| 21     | 68                        | 28      | 44      | 48      | Rain    | 2,700  |                |                  |                    |
| 22     | 53                        | 28      | 47      | 47      | Rain    | 2,250  |                |                  |                    |
| 23     | 51                        | 36      | 46      | 46      | Rain    | 2,150  |                |                  |                    |
| 24     | 45                        | 38      | 45      | 44      | Rain    | 2,250  |                |                  |                    |
| 25     | 52                        | 38      | 46      | 46      | Rain    | 2,600  |                |                  |                    |
| 26     | 47                        | 40      | 49      | 46      | Rain    | 3,650  |                |                  |                    |
| 27     | 65                        | 40      | 51      | 48      | Clear   | 4,400  |                |                  |                    |
| 28     | 75                        | 38      | 52      | 50      | Clear   | 4,550  |                |                  |                    |
| 29     | 83                        | 46      | 54      | 52      | Clear   | 4,950  |                |                  |                    |
| 30     | 84                        | 44      | 56      | 52      | Clear   | 5,300  |                |                  |                    |
| 31     | 86                        | 46      | 58      | 53      | Clear   | 5,200  |                |                  |                    |
| Total: |                           |         |         |         |         |  |                | 11               |                    |

\*From U. S. Bureau of Reclamation records.

TABLE A-12  
Lewiston Fish Trapping Facilities  
June, 1960

| Date   | Temperatures (degrees F.) |         | Weather | Flow of Trinity River at Lewiston (c.f.s.)* | Fish trapped |               |                 |
|--|---------------------------|---------|---------|---|--------------|---------------|-----------------|
|  | Air                       |         |         |   | King salmon  | Silver salmon | Steelhead trout |
|  | Maximum                   | Minimum |         |   |              |               |                 |
| 1  | 89                        | 45      | Clear   | 5,550                                       |              |               |                 |
| 2  | 96                        | 47      | Clear   | 5,850                                       |              |               |                 |
| 3  | 98                        | 47      | Clear   | 5,700                                       |              |               |                 |
| 4  | 98                        | 48      | Clear   | 5,300                                       |              |               |                 |
| 5  | 92                        | 46      | Clear   | 4,750                                       |              |               |                 |
| 6  | 93                        | 47      | Clear   | 4,300                                       |              |               |                 |
| 7  | 87                        | 41      | Clear   | 3,750                                       |              |               |                 |
| 8  | 80                        | 40      | Cloudy  | 3,200                                       |              |               |                 |
| 9  | 83                        | 41      | Clear   | 2,950                                       |              |               |                 |
| 10   | 89                        | 44      | Clear   | 2,700                                       |              |               |                 |
| 11   | 90                        | 46      | Clear   | 2,700                                       |              |               |                 |
| 12   | 92                        | 48      | Clear   | 2,650                                       |              |               |                 |
| 13   | 94                        | 50      | Clear   | 2,600                                       |              |               |                 |
| 14   | 95                        | 49      | Clear   | 2,400                                       | 5            |               |                 |
| 15   | 89                        | 52      | Clear   | 2,250                                       |              |               |                 |
| 16   | 91                        | 52      | Cloudy  | 2,200                                       |              |               |                 |
| 17   | 90                        | 43      | Cloudy  | 1,950                                       |              |               |                 |
| 18   | 86                        | 44      | Clear   | 1,700                                       |              |               |                 |
| 19   | 82                        | 39      | Clear   | 1,550                                       |              |               |                 |
| 20   | 81                        | 37      | Clear   | 1,350                                       |              |               |                 |
| 21   | 82                        | 35      | Clear   | 1,150                                       | 62           | 2             |                 |
| 22   | 89                        | 62      | Clear   | 1,100                                       | 66           | 1             |                 |
| 23   | 91                        | 44      | Clear   | 1,100                                       | 51           |               |                 |
| 24   | 96                        | 47      | Clear   | 1,050                                       | 42           |               |                 |
| 25   | 91                        | 49      | Clear   | 1,050                                       |              |               |                 |
| 26   | 89                        | 44      | Clear   | 1,000                                       |              |               |                 |
| 27   | 88                        | 45      | Clear   | 950   | 66           | 10            |                 |
| 28   | 89                        | 46      | Clear   | 920   |              |               |                 |
| 29   | 85                        | 45      | Clear   | 880   | 48           | 8             |                 |
| 30   | 85                        | 44      | Cloudy  | 840   |              |               |                 |
| Totals   |                           |         |         |   | 340**        | 21**          |                 |
| Grand totals, July 1, 1959 through June 30, 1960 |                           |         |         |   | 7,250        | 119 2 071     |                 |

\*From U. S. Bureau of Reclamation records.

\*\*Released 60 miles downstream at Hawkins Bar.



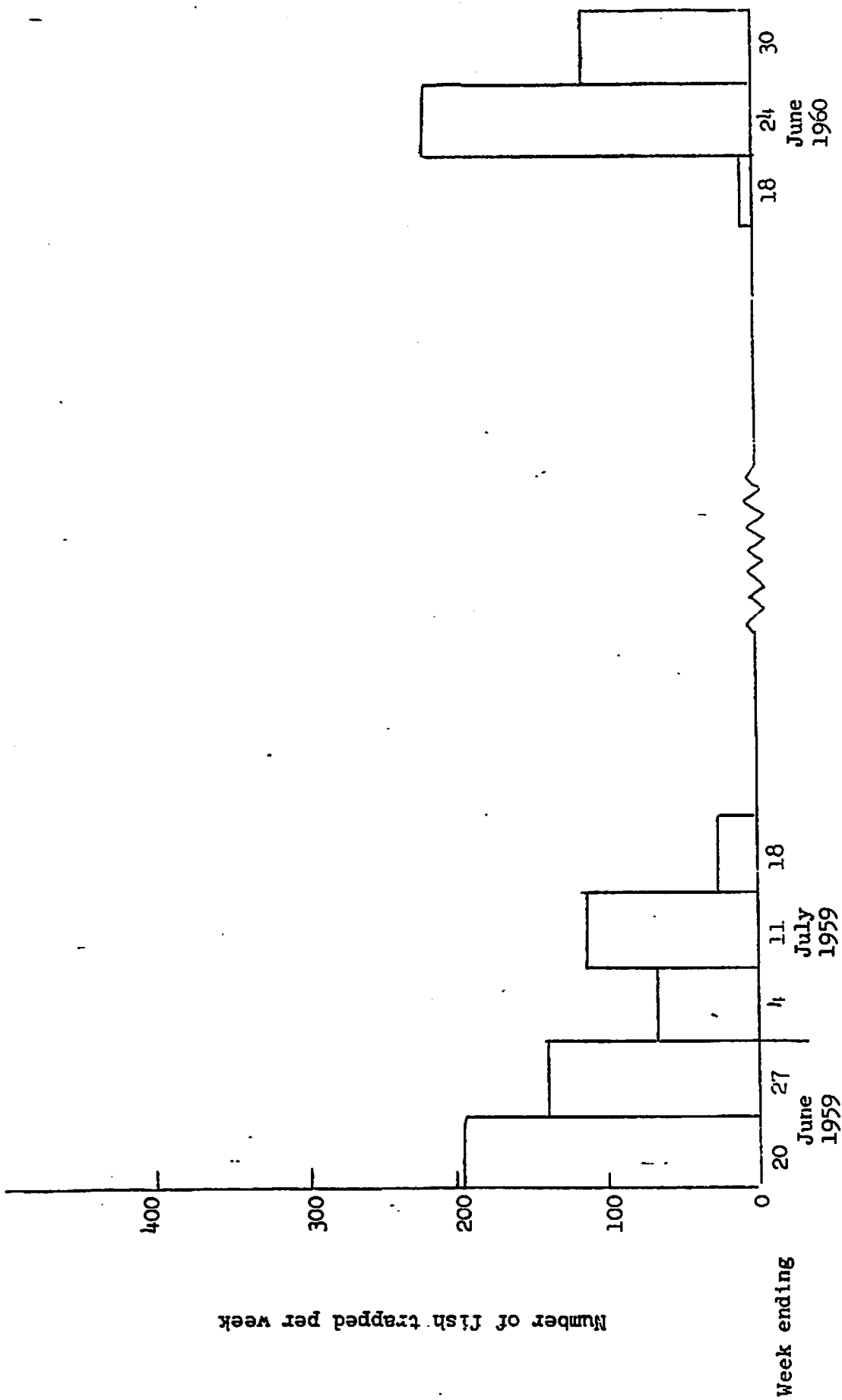


FIGURE A-1. Spring-run king salmon trapped at Leviston Fish Trapping Facilities, June 15 to July 15, 1959, and June 14 to June 29, 1960.

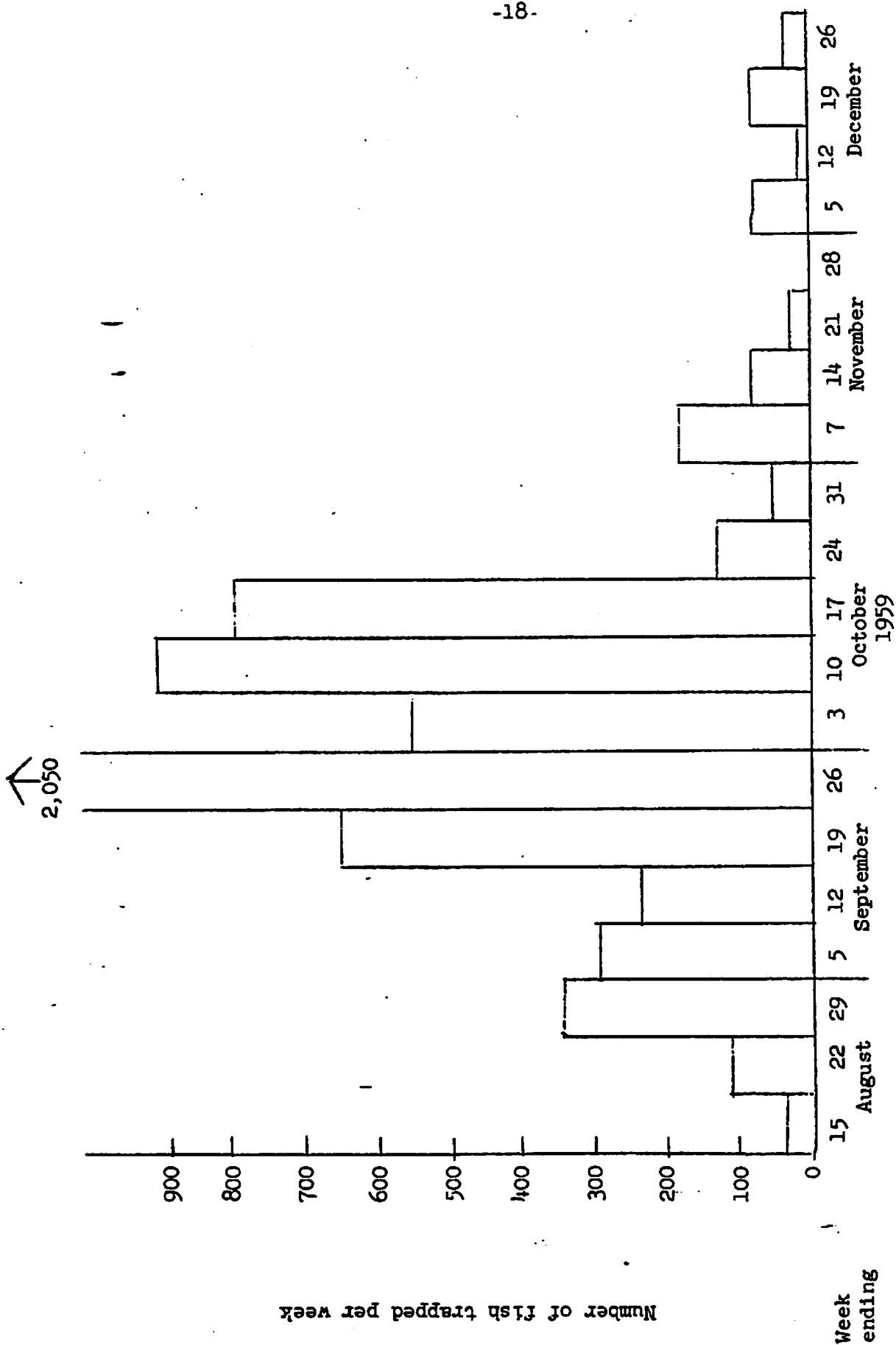


FIGURE A-2. Fall-run king salmon trapped at Lewiston Fish Trapping Facilities, August 15 to December 21, 1959.

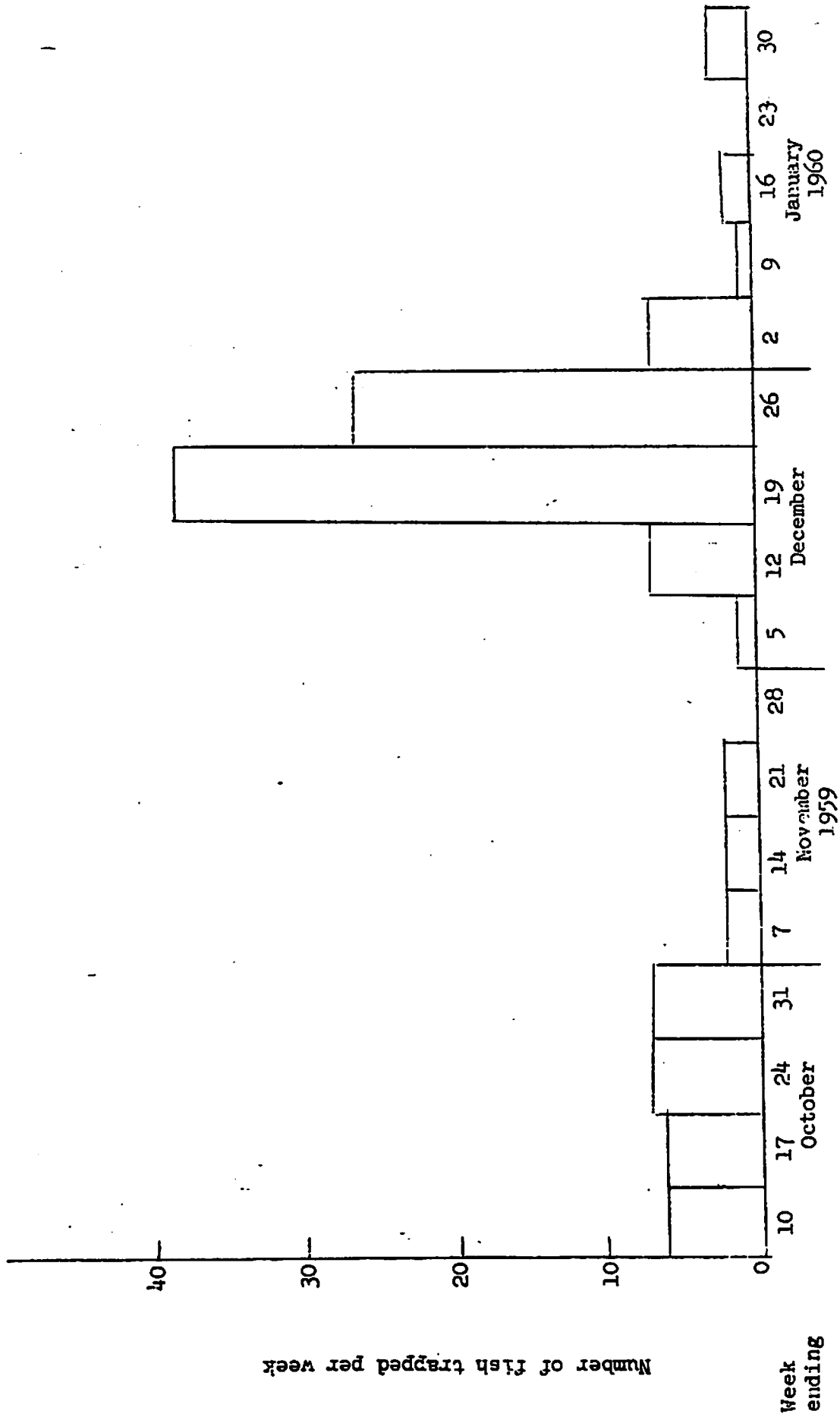


FIGURE A-3. Silver salmon trapped at Lewiston Fish Trapping Facilities, October 4, 1959, to January 25, 1960.

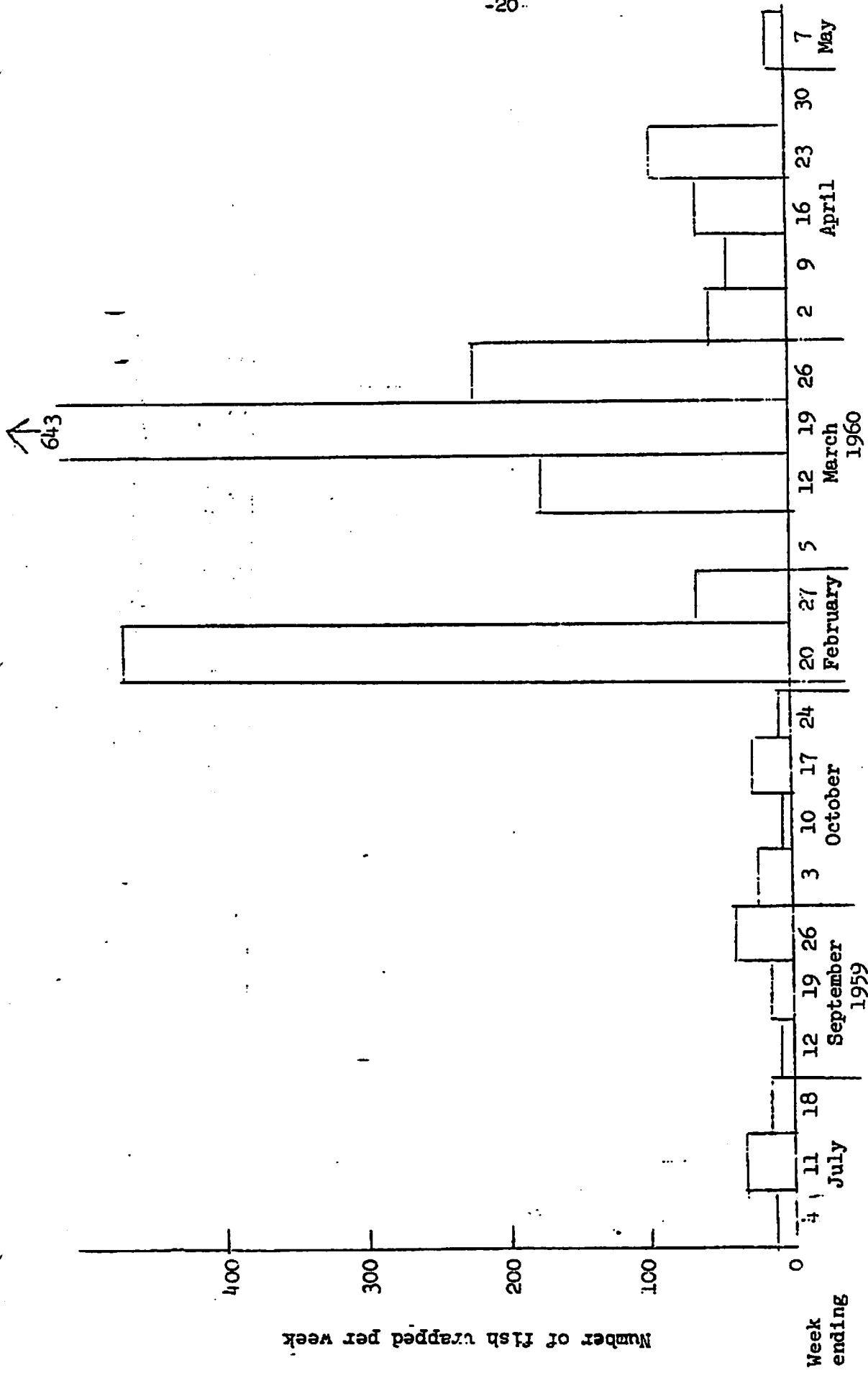


FIGURE A-4. Steelhead trout trapped at Lewiston Fish Trapping Facilities, July 1, 1959, to May 6, 1960.