Idaho Fish Hatchery Production

Past Present Future

BY JAMES C. SIMPSON
Fish Culturist
Idaho Fish and Game Department

The Idaho Fish and Game Department has been producing fish since 1907, when the first fish hatchery was built on Loving Creek in Blaine County. It was given the name "Hayspur" because it was located near the Hayspur railroad siding. It was followed one year later by the Sandpoint Hatchery. Since the construction of these two hatcheries, the Fish and Game Department has expanded its facilities until at present it is operating 12 hatcheries. Two of these are owned by sportsmen's clubs. They are located at Mullan and Twin Falls. In addition to the 12 full-time hatcheries, two seasonal stations and several redistribution centers are operated during the summer time.

Prior to 1947, the department had placed emphasis on the production of fish in numbers rather than in size. As a result, the large majority of the fish planted ranged from 1 to 4 inches. The greatest number of fish produced in any one year was 25,791,500 in 1943. In spite of this large production, the sporting public continually requested larger releases of trout, with the thought in mind that the larger the number of fish planted the larger would be the harvest. The results hoped for, however, did not materialize and fishing appeared to be getting poorer and poorer. In the final analysis, fishing was not declining. Actually, the annual production of fish in the waters of the State remained the same but had to be spread thinner because of a continued annual increase in the number of fishermen.

What then could be done to improve the fishing? To answer this question fisheries biologists were assigned to the project to determine what was happening to the hatchery fish and to make recommendations for possible improvement of fishing. In view of the limited time available to make surveys and report recommendations, only general conclusions could be reached. These were:

1. The fishermen were harvesting the crop of fish in the majority of road-side lakes and streams during the early part of the season, thus resulting in poor fishing during the latter part of the season.

2. A large percentage of the small hatchery fish planted each year was not surviving to reach the fishermen's creels the following season. This was particularly true in streams. The reasons for this were not fully explored, but it was felt that

(a) many of the small hatchery fish fell prey to the predatory fishes,

(b) hatchery fish were unable to adjust themselves to a wild habitat, and

(c) the long, severe winter weather was a controlling factor

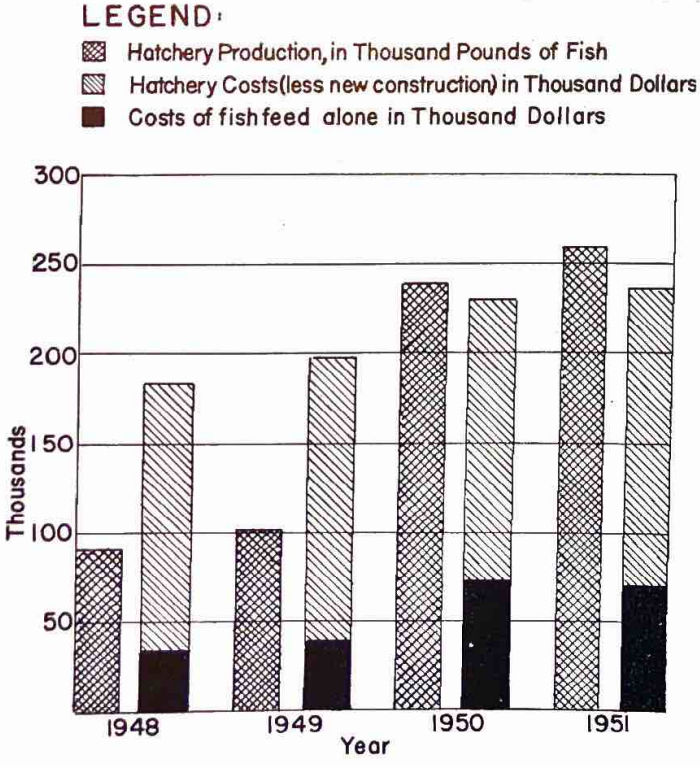


Table I

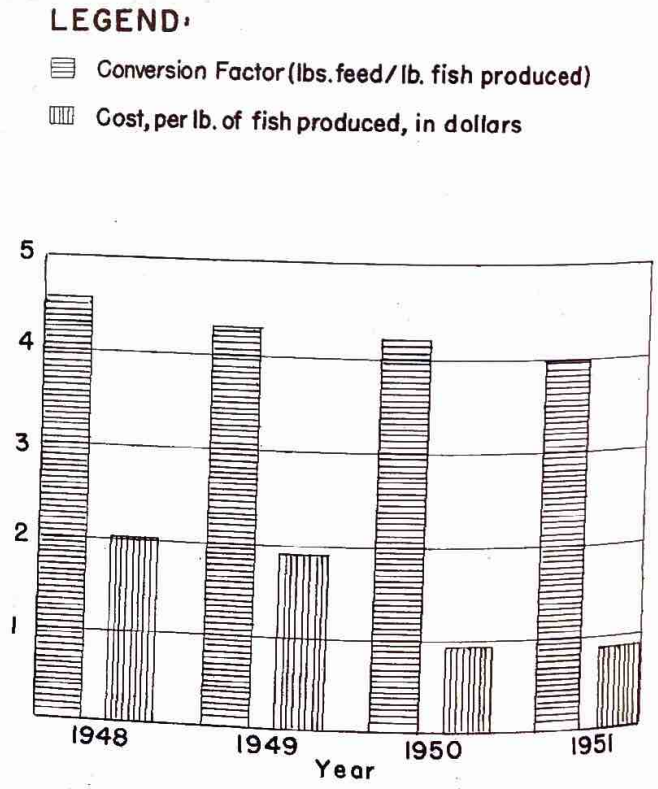


Table II

Idaho Fish Hatchery Production

on the carrying capacity of most streams and rivers.

3. Many waters were stocked with the wrong species of fish.

The conclusions reached, with reference to hatchery production, called for a change in operation, wherein emphasis would be placed on the production of catchable fish. The proposed plan meant constructing new stations in areas with suitable water supplies, enlarging certain existing stations and increasing the fish transportation facilities. Such a plan called for the initial expenditure of a large sum of money for construction and equipment, and an increased annual expenditure of funds for operations. The plan was placed before the commission and was adopted. Hatchery expansion was undertaken, and new transportation and distribution equipment added. The original program is now nearly completed.

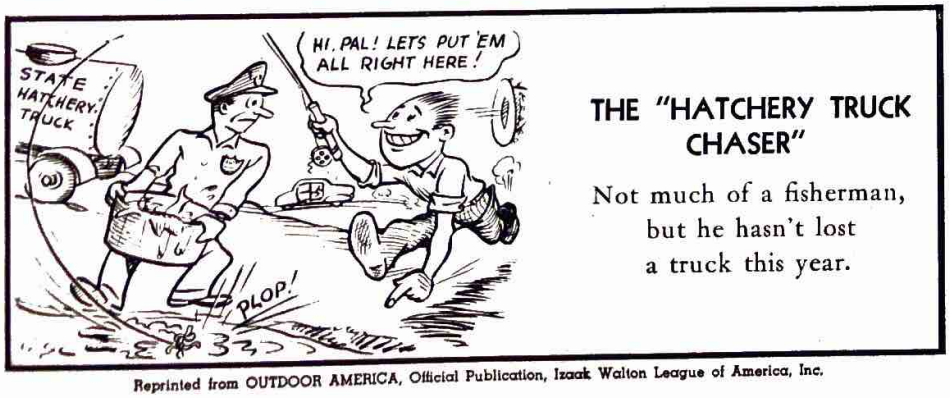
The production of fish in 1951, as expressed in poundage, was the largest in the history of the department. The correlation between hatchery production and the overall cost of operation and the cost of fish feed is presented in Table I. From the table it can be seen that the production of fish has climbed from approximately 90,000 pounds of fish at a cost of $184,000 in 1948 to 260,000 pounds at a cost of $236,000 in 1951. With the completion of presently authorized facilities, it is anticipated that production will reach nearly 300,000 pounds. It is interesting to note that the cost of fish feed, in spite of spiraling costs, has not increased proportionately to the increase in poundage of fish feed consumed. This has been due to improved diets and feeding methods.

If the Fisheries Division is to operate within its budget and obtain the maximum production from the hatcheries, continued attention must be given to the cost of producing a pound of fish. Table II gives the conversion factor; that is, the pounds of feed consumed to produce a pound of fish and the cost per pound of fish. Through the improvement of diets and operation, the division has been able to reduce the cost of producing one pound of fish from two dollars in 1948 to ninety-five cents in 1951. This means that in 1951 more than twice as many fish were produced for the same amount of money as were produced in 1948.

Fish feed is becoming increasingly more difficult to procure and may, in the future, be a controlling factor in the production of hatchery fish. The department is attempting to overcome the problem by conducting experiments to test feeds which have, so far, been used only to a limited extent.

At the present time there is conclusive evidence that the change in the hatchery program has been to the advantage of the sportsmen. However, fish hatcheries alone are not the sole answer to continued good fishing; they can be only an integral part of the program. To round out the program, we must rely on the research work of the biologists to point the way for the wise use of the hatchery fish, methods for the control of rough fish, and the many other related problems.

FISH HOGS YOU MAY KNOW . . . . . *by Jack Mitchell*



THE "HATCHERY TRUCK CHASER"

Not much of a fisherman, but he hasn't lost a truck this year.

Reprinted from OUTDOOR AMERICA, Official Publication, Izaak Walton League of America, Inc.

Trash Fish Removal Improves Sublett Reservoir Fishing

Increased game fish production following removal of competition of trash fish is revealed in sportsmen's voluntary creel census on Sublett Reservoir, according to a fisheries division report.

The reservoir was restocked with 13,000 three-inch rainbow fingerlings in 1949, one year after removal with toxicants in 1948 of a heavy population of chubs, and opened to fishing on June 4, 1950. On that day a total of 670 fishermen were counted on the reservoir. During the 1950 season, ending on September 15, it was estimated that 2,220 fishermen took 4,035 trout weighing a total of 3,027 pounds at Sublett.

An additional 31,000 fingerling trout were planted in the reservoir in 1950. The following year census figures revealed 2,164 fishermen took 3,834 rainbows weighing 3,980 pounds. The 1950 harvest of trout per surface acre of water amounted to 37.8 pounds. This production had increased in 1951 to 49.7 pounds per surface acre.

Total cost of the project, including treatment of the waters for the removal of the trash fish, and cost of fingerlings planted, amounted to $2,063.74.

Values returned are apparently far in excess of this amount. On the basis of the market value of 90 cents a pound for dressed trout, Sublett already has returned to the sportsmen fish valued at $6,306.30.

In addition to this food value, Sublett Reservoir has provided 4,384 fishermen recreational sport fishing and esthetic values attached to this form of outdoor recreation.

Multiflora rose was greeted as a stranger when it was introduced as game bird cover in Idaho. Few people knew at the time that it is an old settler in many Idaho flower gardens. For half a century it has been used as a root stock for grafting ornamental roses.