Idaho Wildlife Review

VOLUME VIII No. 2

PUBLISHED BI-MONTHLY
BY
IDAHO FISH AND GAME DEPARTMENT
518 FRONT STREET
BOISE, IDAHO

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The magazine is mailed free to Idaho residents upon request; subscription rate to non-residents is $1.00 per year.

Entered as second class matter June 30, 1948, at the post office, Boise, Idaho, under act of August 21, 1912.

COVER

Loon Creek, leading downward to the Middle Fork of the Salmon River and the Primitive Area.

Everybody Loses . . .

History shows that game laws to protect wildlife apparently had their earliest beginnings with Kublai "The Great Khan" about 1270 A.D. The Khan prohibited the killing of certain animals between the months of March and October. He also set aside game preserves where food patches were provided for winter feeding and cover for wildlife.

It appears that closed seasons came as a result of "custom," rather than a law. Down through the ages, man gradually imposed restrictions upon the harvest of fish and game, especially as the human population increased and the wildlife diminished.

As more and more land was taken from its wild state for domestic production, it seemed only logical to make laws to protect our heritage. A review of this sequence of events shows clearly that laws, rules, and regulations came from a majority of the *people*.

So that when today we hear of the poacher who killed a deer or grouse out-of-season, the person who took more fish than the law allowed, or the neighbor who hunted in a game preserve, we should feel not only resentful as the law is violated, but a sense of being robbed, cheated and imposed upon.

For that's what it is. Barefaced robbery. Not a bit different than if someone held up a bank and made off with our hard-earned savings or carried away our television set. Would you sit back and grin with that weak, knowing attitude, while the robber told of stealing our property?

How many times have you listened to someone fill the air with his bragging of how he shot a pheasant before the season opened, or loaded up with trout when they were really biting, and drove back roads to avoid the game warden?

Did you really feel in harmony with that fellow while he boasted of how he "outwitted the game department" or "hid in the brush while the conservation officer walked past"? We doubt it.

For our wildlife belongs to everyone even though it is described by law as the property of the State of Idaho. The people of the State signified their desire to have the State preserve, perpetuate, control and manage the wildlife when they passed legislation to that effect. They knew the wildlife was an asset to the State that had to be protected before it was exterminated. So they regulated themselves.

That is why even though at times we may feel certain restrictions regarding closed areas, small bag limits, or special hunts may place a brake upon our fishing or hunting activities, we still know deep inside that such things are usually necessary to insure a fair share for everyone.

And that's where the violator offends our sense of right. For when he takes property which doesn't belong to him—he eliminates a chance for someone to take a legal share—and to find pleasure in true sportsmanship.

We know that laws will not make everyone respect the fish and game code. We know that we have people who will break laws in spite of severe penalties. And we know that many cannot be changed from their belief that our wildlife can be taken anytime. But we can see to it that the poacher knows how we resent his taking our share.

The time may come when public resentment against the game law violator becomes strong enough to stop his stealing. But, until that day comes, everybody loses.

Pend Oreille Lake, famous home of the kamloops trout in Idaho. These trout were first introduced into the lake in 1942. The first kamloops weighing more than five pounds was caught from the lake in 1944.

Kamloops Trout in Pend Oreille Lake

JAMES C. SIMPSON
Chief, Fisheries Division

During the past several years a great deal of interest has been created throughout the country because of the introduction and growth of the kamloops trout, *Salmo gairdneri kamloops,* in Pend Oreille Lake, Idaho. The purpose of this article is to set forth the sequence of events concerning the project.

The introduction of kamloops, a member of the rainbow trout series, into Pend Oreille Lake was brought about primarily through the efforts of sportsmen of Bonner County, in northern Idaho, who had angled for the species in the lakes of British Columbia, Canada, and who were interested in establishing a population of the species in one of the lakes of the area.

Pend Oreille Lake was chosen because it contained an established population of kokanee, *Oncorhynchus nerka kennerlyi,* a species of salmon common to the waters of British Columbia where the kamloops is native. It has been well established that kamloops feed extensively on kokanee after they turn to a diet of fish. Probably the reason they feed extensively on kokanee, even though other species of fish may be present, is that the kokanee tend to stay in schools and inhabit much the same area of the lake as do the kamloops. In summertime, both species inhabit the area near the thermocline, which ranges from 65 to 80 feet in Pend Oreille Lake.

It soon became apparent that it was going to be increasingly difficult to obtain a continued annual supply of kamloops eggs from Canada for stocking purposes. Therefore, the Idaho Fish and Game Department was encouraged to establish a brood stock at a fish hatchery. Initially, the department attempted the establishment of brood stock at two hatcheries —American Falls and Clark Fork. In 1946, brood fish at American Falls were transferred to Clark Fork, where all activities on the propagation of kamloops has since been centered. In addition to the hatchery brood fish, the Department planted 5,730 kamloops in Stanley Lake with the hope of establishing a population of wild fish which could also be used for spawning purposes. The lake was closed to fishing for several years. However, the kamloops did not take in this lake.

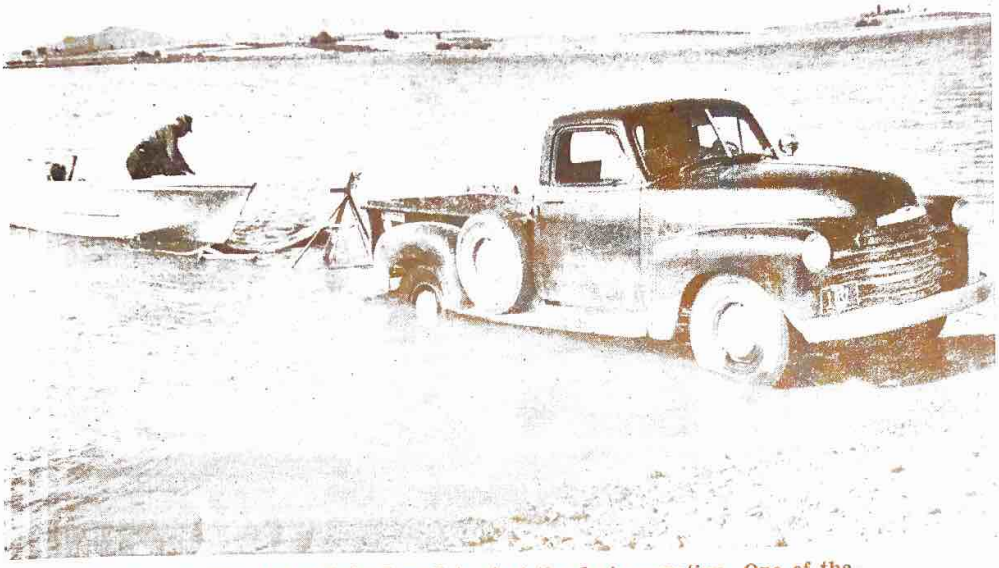
Summary of Kamloops Trout Releases Pend Oreille Lake, Idaho

Year	*Number*	*Size*
1942	19,113	6" to 10"
1943	65,800	3" to 6"
1946	6,385	2"
1947	23,899	2" to 8"
1948	46,915	2" to 7 lb. ea.
1949	14,537	3" to 10"
1950	28,221	2" to 2 lb. ea.
1951	560,187	3/4" to 4½ lb. ea.
1952	557,642	3/4" to 2 lb. ea.
1953	340,169	3/4" to 2 lb. ea.
1954	224,100	1" to 11"

Unfortunately, records are incomplete concerning the early harvest of kamloops from Pend Oreille Lake. From newspaper reports, it is concluded that the first kamloops trout caught, weighing more than five pounds, was taken in 1944. The largest fish taken that year, a 19¾-pounder, was caught in October. An examination of the scales of this fish indicated it was 3 plus years of age. In 1945, the record fish caught was 32½ pounds. No records were kept of the total number of fish taken during the year but it is estimated to be fewer than 100.

For 1946, the following informa-

(Continued on page 11)

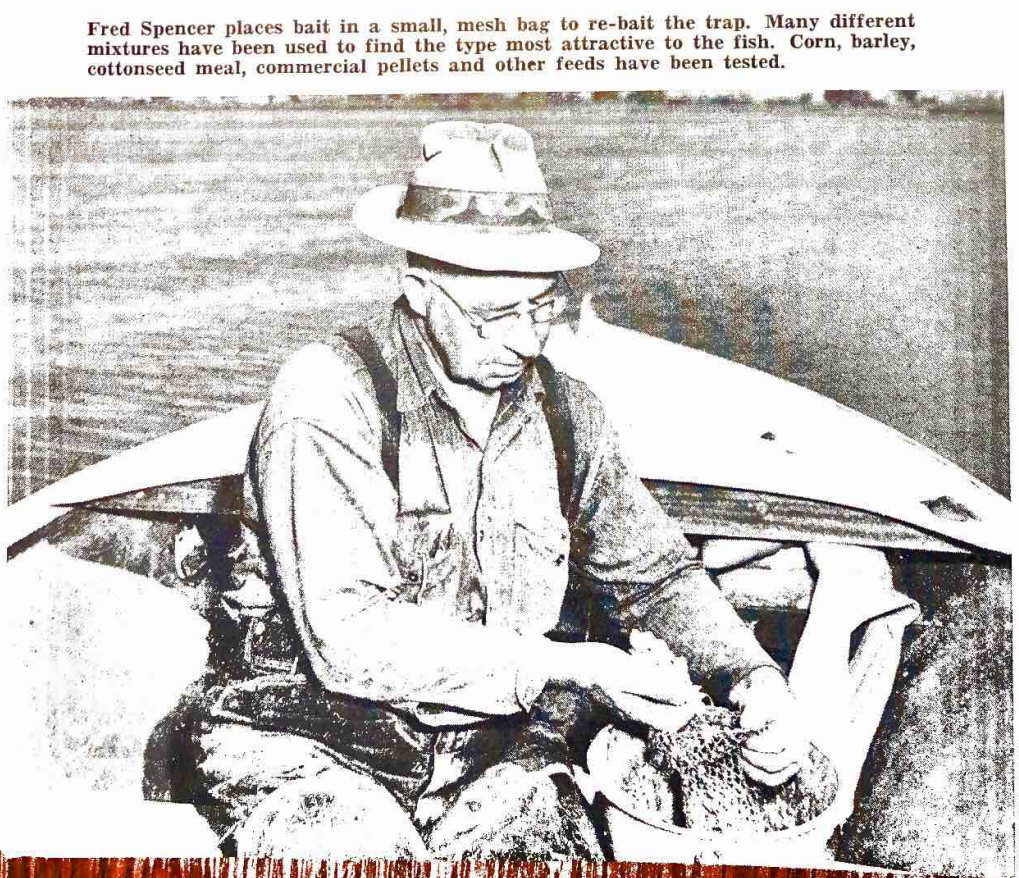


The boat is unloaded at Lake Lowell to start the day's operation. One of the aims of the project is to determine the efficiency of different fish traps and baits. This work is carried on under Federal Aid to Fisheries, project F22-R-1.

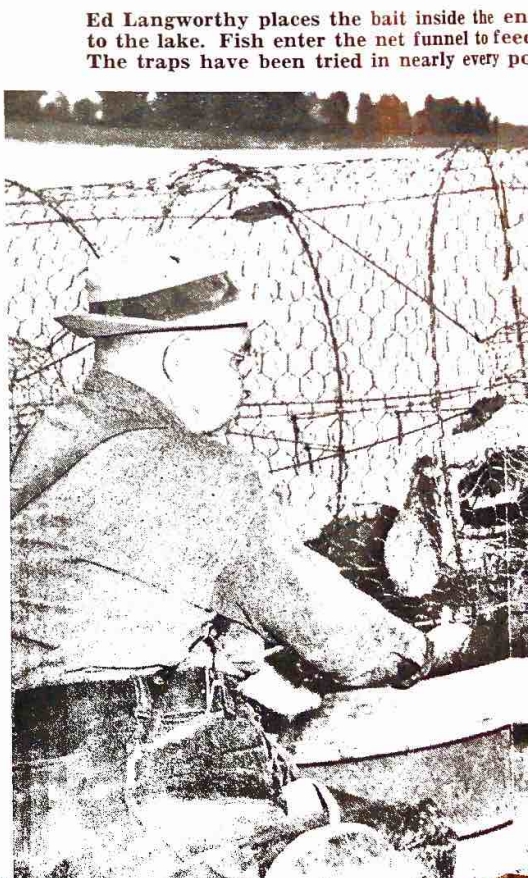
One of the several different types of traps use by Fred Spencer and Ed Langworthy. Traps designs are used to find which one will take

Experimental Rough

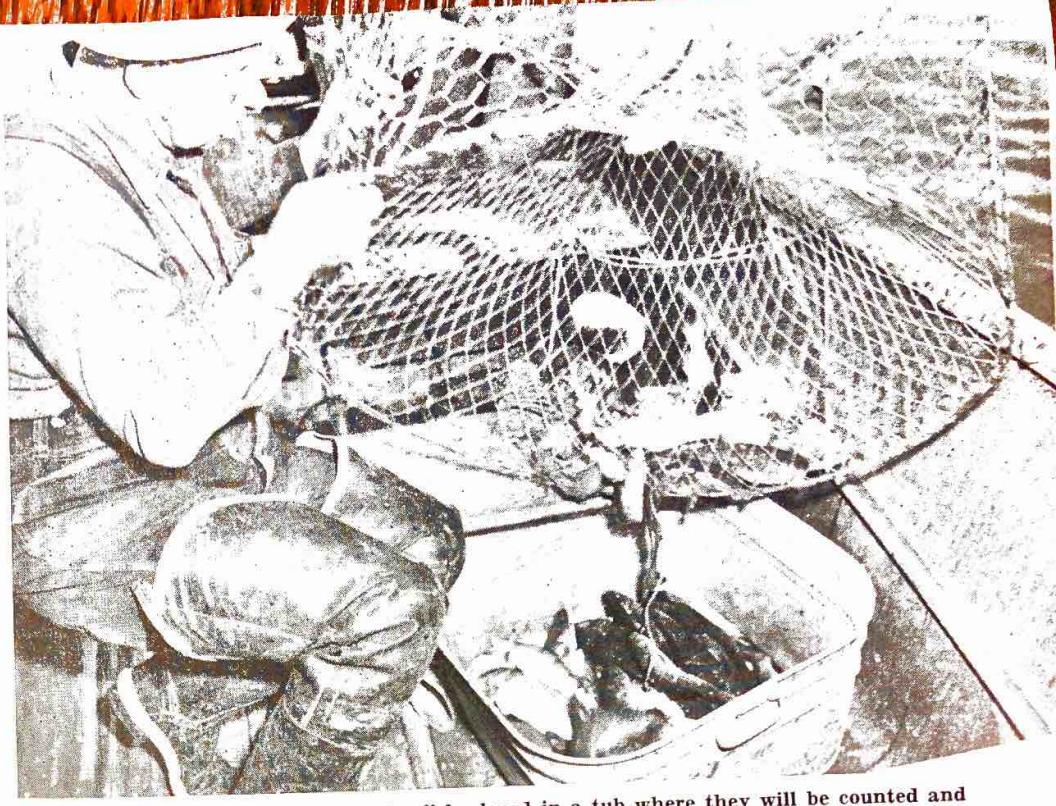
Fred Spencer places bait in a small, mesh bag to re-bait the trap. Many different mixtures have been used to find the type most attractive to the fish. Corn, barley, cottonseed meal, commercial pellets and other feeds have been tested.



Ed Langworthy places the bait inside the en to the lake. Fish enter the net funnel to feed The traps have been tried in nearly every po



raps used on the study is pulled into the boat
Traps are checked every two days. Different
ill take the most fish.



End netting is unlaced and the fish placed in a tub where they will be counted and the species determined. Game fish are placed back into the lake. The rough fish, or trash fish, are used at the hatchery for fish food.

Fish Control Study

the entrance of the trap before it is returned
to feed, and are unable to find their way out.
very portion of the lake.

Bullhead catfish, one of the game fish species, are being counted as they are returned to the lake. Developing markets and uses for rough fish, are also objectives of the control study.

year in the over-all fawn production as well as by age classes.

In 1952 and 1953, slightly over one-half of the yearling does were bred. During 1954, however, breeding among yearling does increased to 88 per cent. On the other hand, all 2-year-old does examined in 1952 and 1953 had produced young. A three-year average of fawn production in the prime age group (3 to 8 years of age) indicated that 16.0 per cent produced single fawns; 75.5 per cent, twins; and 6.4 per cent, triplets; and 2.1 per cent were barren.

Variation in fawn production in the different age classes is to be expected from year to year. Deer herds are never static and only a longer-time average will indicate the true productivity of a herd. For example, studies in Utah show that productivity may vary as much as 11 per cent within a four-year period. The net productivity of the Cassia herd during 1952 and 1953 was nearly 32 per cent.

Both winter and summer ranges are showing some overuse, but apparently not enough to depress materially the productivity of the deer herd. A definite correlation is known to exist between deer reproduction, maintenance, survival and the over-all condition of the range. Quality as well as quantity of browse is of utmost importance in this relationship. Animals in poor condition may bear still-born fawns, resorb embryos or abort. The breeding performances of yearling does are most apt to be affected by dietary deficiencies. To maintain the high rate of reproduction and survival indicated by current studies, the deer population must remain balanced with its food supply.

This fall, hunters on the Cassia Division of the Sawtooth National Forest will again be asked to bring in the reproductive tracts and lower jaws of all does except fawns. Diagrams of the position of the ovaries in the does will be available to hunters. Many hunters eager to cooperate in this study have endeavored to save reproductive tracts only to learn that one, or sometimes both ovaries, were left behind in cleaning out their animals. Fawn production cannot be determined from one ovary. Both must be present.

Aging deer by the teeth (molars and premolars) is the only practical method available at present so inclusion of lower jaws with the reproductive tracts is essential in this productivity study. The yearling deer (one year and four months at hunting season) have permanent molars, but still retain the milk premolars which are considerably worn. Deer two years and three to four months of age at hunting season have a complete set of permanent teeth. In some deer, the permanent third molar can be seen coming in underneath the milk tooth. The age classes of the prime group (3 to 8 years of age) must be classified according to the wear of the teeth.

In summary, the Cassia deer herd has been an important big game resource since the days of the early settlers. Today, its importance is seen in the development of the Cassia Deer herd Management Plan in which both State and Federal agencies cooperated. No other herd of deer in Idaho has received so much attention and consideration. Productivity of the Cassia deer herd is high and compares favorably with productivity rates of mule deer elsewhere in the West. ▲▲▲

The large kamloops trout of Pend Oreille lake bring fishermen to the area from many points. This fish weighed nearly 24 pounds.

Hatchery Superintendent Alan Clark with kamloops brood stock at the Clark Fork fish hatchery, where all propagation efforts are now centered.

Kamloops Trout in Pend Oreille Lake

(Continued from page 3)

tion is taken from the December 5 issue of the News-Bulletin of Sandpoint, Idaho:

"Records kept in the derbies and by the Sandpoint Chamber of Commerce show a total of approximately 245 of the big fellows caught this season, although there were undoubtedly others."

No.	*Size*
1	31½
5	30
5	29
6	28
14	27
15	26
13	25
16	24
21	23
14	22
14	21
9	20
112	under 20

The largest fish of record taken to date weighed 37 pounds and was caught in 1947. The total number of large fish taken that year dwindled greatly over the preceding year and in 1948 the catch was practically nil.

During 1954 and 1955, the total number and size of large kamloops has definitely increased. This has led to the conclusion that the population of kamloops in Pend Oreille Lake is dependent largely on fish supplied from hatcheries. Although there has been some escapement of spawners into Lightning and Granite Creeks, it is yet too early to place an estimate on the success of natural reproduction.

Rainbow trout were present in limited numbers in Pend Oreille Lake at the time the kamloops was introduced and, also, there were periodic releases of rainbow trout from 1942 through 1947; however, there appears to be a correlation between the releases of fish from Kootenai Lake kamloops strain and the harvest of large fish. ▲▲▲