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THE KAMLOOPS RAINBOW TROUT

By Charles M. Mottley
Aquatic Biologist, Division of Fishery Biology

During the past three years some spectacular fishing has developed at Lake Pend Oreille, Idaho. Apparently these fish resulted from a planting in 1941 of Kamloops trout received from Kootenay Lake in British Columbia. Questions are frequently asked regarding them. Where did they come from? Why do they grow to such a large size? What are their habits? The following notes are intended to answer some of these questions.

The Kamloops trout is really the variety of rainbow trout that is native to Central British Columbia. David Starr Jordan of Stanford University was the first to describe it scientifically from specimens sent to him in 1892 from Kamloops Lake, B. C. Actually it is not very different from the other varieties of rainbow trout which have been described from Oregon, Washington, Idaho and Montana. The fish has long enjoyed a great popularity as a game fish. The Dominion Department of Fisheries began to stock it in barren lakes about 40 years ago. These lakes, as far as can be determined, contained no fish of any kind but they abounded in natural food for trout. This type of water is very favorable for an initial planting. The trout thrived to such an extent in one of these lakes near Kamloops that the Department of Fisheries was able to establish a hatchery there, and millions of eggs and fry have been distributed all over the world. The propagation of these fish has now been taken over by the British Columbia Game Commission. A hatchery was also established in 1914 at Gerrard on the Lardeau River which is a tributary of Kootenay Lake. The native trout in Kootenay Lake are extremely large and produce big eggs which in turn result in large, healthy fry that are easy to propagate in hatcheries. This stock has been in great demand, and is the one from which the Pend Oreille fish have been produced.

The size of mature Kamloops trout may vary from a few ounces to over 40 pounds depending on the amount of food available. In 1931, a 48-pound Kamloops was caught at Jewel Lake, not far from Grand Forks, B. C., which is just over the border from the Grand Coulee Region. The reason that barren lakes produce such large trout at first is undoubtedly the presence of a great abundance of food. Trout seem to have the capacity for taking advantage of such conditions, soon after stocking, by storing up large quantities of fat and attaining an enormous over-growth in size. If there are poor spawning grounds in connection with the barren lake, only a few large trout may be produced, as was the case at Jewel Lake. If the spawning grounds are good, the trout will increase in numbers but will not attain a very large size because of competition among themselves for the food.

In the large, deep lakes of southern British Columbia like Shuswap, Okanagan, and Kootenay, which resemble Pend Oreille, there is a variety of Pacific salmon which is said to be "landlocked." These fish are variously known as kokanee, redbfish, silver trout, or landlocked sockeye salmon. In freshwater they feed on microscopic, floating animals, such as water-fleas, just as they do in the ocean. In the spring and fall they live over the deeper parts of the lake, but near the surface. In the warm summer months they retire to depths of 40 feet or more. In freshwater the kokanee seldom reaches a size greater than half a pound. They provide the main source of food for the large Kamloops trout. When the trout are small they feed on water-fleas, freshwater shrimps, aquatic and terrestrial insects, but after they reach a length of 12 to 14 inches they begin to turn to a fish diet. In Kootenay Lake, it is not uncommon to find a half dozen full-grown kokanees in a single Kamloops trout stomach.

The Kamloops trout under natural conditions may reach maturity at varying ages. For example, some of the males may mature at two years, whereas others may be four or five years old before they mature for the first time. Likewise, many of the females mature at three years of age but some may be five years old before their first spawning. The attainment of a large size in rainbow trout is usually a race between feeding and maturity. Once they mature they do not grow as fast as before. Consequently, if a fish matures as a four-year-old, and there is a plentiful supply of food, then it is likely to be quite large. Kamloops trout may spawn several times before they die. If the food supply is poor, however, very few survive after the first spawning.

Kamloops trout spawn in the spring after the ice has left the lakes. When the water temperature of the in-flowing streams reaches a temperature of 40° F. the mature trout begin to move upstream. The Kootenay Lake Kamloops migrate up the Lardeau River 32 miles to the hatchery traps at Gerrard. The large fish usually choose the main rivers, but the small fish seek out the tributaries. The choice of different streams seems to be guided by the temperature of the water and the volume of flow.

Their natural habit is to sweep out nests in the stones by fanning with their tails. The eggs are deposited in the depressions and buried with gravel. A female Kamloops trout produces about 800 to 1000 eggs per pound of fish. A ten-pound Kamloops may lay over 8,000 eggs.

The young hatch in a few weeks and emerge from the gravel nests in the summer. Many of them drift downstream at night, apparently losing their way in the dark. On bright moonlight nights the downstream movement is much less. Some of the young remain in the streams for a year or two before dropping down to the lakes. Others may spend their whole lives near the place where they were hatched. These stream residents often feed on the eggs that fail to get buried in the gravel at spawning time and also prey on the young fry.

In the case of coastal rainbows the tendency to drop downstream is quite pronounced and, if the body of water happens to be the ocean, then the returning fish, three or four years later are known as "steel-heads." Actually there is very little difference between the steelhead and the Kamloops. Frequently they can be distinguished only by a trained biologist and sometimes even he has difficulty.

Not all of the Kamloops trout in a population spawn in a given year. While a part of the adult population is spawning, the immatures and the non-spawners remain in the lakes. Two-thirds of the population may stay in the lake; they provide the excellent spring fishing in the lakes of the northwest. The spawning fish are usually darker and display the rainbow colors in their breeding dress. The fish that remain in the lake, however, have a bright silvery dress with a steel-blue head and back. The marked difference in appearance between the mature and immature fish has often led people to believe that they are distinct species, but they are really different stages of the same variety.

The Kamloops trout is perhaps the gamiest of all our trout. It provides excellent sport for fly-fishermen and trollers, provided that they know something about the right time, the right place and the right tackle. The small fish congregate where the in-flowing streams meet the still water of the lake. There they feed on in-washed insects in the spring of the year and are excellent for wet-fly fishing. In the so-called "barren" lakes Kamloops up to 16 pounds have been taken on the dry fly. In the large lakes the Kamloops follow the schools of kokanee and, although an occasional one may provide a lucky fly-fisherman with the thrill of a lifetime, they are usually caught by trolling. No doubt the flashing spoons resemble the silvery flashes of the kokanee. In the spring and fall when the kokanee are near the surface the Kamloops may be found closely associated with them. The kokanee is a fall-spawner seeking out streams and wave-washed beaches. The Kamloops trout fishing is good in the late fall because they follow the kokanees into shallow water. In the summer as the surface of the lake warms up the kokanees go down to cooler water and the Kamloops follow. By experimenting at different depths it is possible to find these summer haunts. Such secrets, however, are often closely guarded by the successful angler.