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DEPARTMENT OF THE INTERIOR

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FISH AND WILDLIFE SERVICE

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The most ambitious experiment in salmon conservation ever undertaken--the transplanting of large runs of salmon from their native spawning grounds above Grand Coulee Dam to lower tributaries of the Columbia--met its crucial test during the season just ended and was proved successful, it was reported today to Secretary of the Interior Harold L. Ickes.

Salmon ascending the upper half of the Columbia River this year are not attempting to go above Grand Coulee as their ancestors have done for countless generations--instead, they are seeking the streams to which their parents were transplanted four years ago in a mammoth salmon relocation project, according to Dr. Ira N. Gabrielson, Director of the U. S. Fish and Wildlife Service.

Teaching some 35,000 salmon a year to change deeply rooted habits has been accomplished by scientists of the Fish and Wildlife Service and was made necessary when the completion of Grand Coulee Dam--553 feet high or more than three times as high as Niagara--prevented an important part of the Columbia's salmon runs from reaching their native spawning grounds in the headwaters of the river.

Beginning in 1939, the salmon have been trapped each year in the fish ladders at Rock Island Dam, 150 miles downstream from Grand Coulee. Refrigerated tank trucks carry them, some to hatcheries, others to selected streams below Grand Coulee where they are released in an effort to transfer the runs to these lower tributaries.

Salmon fry reared from the eggs of the fish that are taken to hatcheries have also been planted in the streams below Grand Coulee.

The first significant test of the success of the experiment was made this summer when the progeny of the salmon transplanted in 1939 returned as spawning adults. Although the trapping of all salmon at Rock Island has been continued this year as a precautionary measure, nearly 2,000 were released from the traps and allowed to continue their migration.

Careful watch was kept at Grand Coulee for any migrants that might attempt to reach the ancestral spawning grounds. By the end of September--well past the

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peak of the salmon season--none of the migrants had appeared at Grand Coulee. More than 300 of them, however, had been observed in the tributaries to which their parents had been transplanted.

This change in the migratory habits of a whole generation of salmon does not interfere with the well-known homing instinct of salmon, according to Dr. Gabrielson; it merely takes advantage of a special feature of this instinct that has been understood only recently. Contrary to the popular impression, salmon return to the spawning grounds of their ancestors only if this is the place where they themselves lived as fry. If the eggs or young fish have been transferred to other suitable waters, the salmon will return at maturity to the stream to which they were transplanted.

Although various plantings of hatchery-reared salmon have indicated that these fish return to places which they "remember" as individuals, the mass transplantation of the runs native to the upper Columbia has provided the first large-scale testing of the theory. A similar salvage program is being undertaken on the Sacramento River below Shasta Dam, Dr. Gabrielson said.

Trapping and transplanting of fish at Rock Island in 1942 completed the transfer of one complete cycle, for most of the salmon returning this year are the offspring of the 1939 runs. However, trapping was continued this season pending the outcome of the test release of the 2,000 salmon. Since no strays were reported "a much larger proportion--possibly all--of the adult salmon will be released at Rock Island next year," Dr. Gabrielson said.

Although four species of salmon and the related steelhead trout enter the Columbia, only the chinook and blueback salmon spawn in the tributaries of the upper Columbia in important numbers. The chinook is the largest and best known of the Columbia River salmon, averaging about 22 pounds. The blueback, known as "red salmon" in Alaska, is the most valuable salmon in price per pound.