



DEPARTMENT OF THE INTERIOR

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UNITED STATES FISHERY SCIENTISTS TO CONTINUE STUDIES OF NORTH PACIFIC SALMON

Biologists of the Bureau of Commercial Fisheries of the United States Fish and Wildlife Service at Seattle, Wash., will set out on May 1, in two chartered schooners to continue their effort to determine which North Pacific salmon are Asiatic and which are American, Assistant Secretary of the Interior Ross Leffler announced today.

The halibut schooners, Pioneer and Attu, will carry biologists of the Pacific Salmon Investigations laboratory on a four-month study which will cover the central North Pacific ocean and much of the Bering Sea from 46° to 58° North latitude and from the west coast to 172° east longitude, an area of about 1,500,000 square miles. The most distant point is some 75 miles west of Attu and about 450 miles east of Siberia's Kamchatka peninsula.

Also participating in the high seas studies of salmon will be vessels of the Fisheries Institute of the University of Washington, the Fisheries Research Board of Canada, and the Fisheries Agency of the Japanese government. The work is being conducted under the International Convention for the High Seas Fisheries of the North Pacific Ocean, signed at Tokyo, Japan, May 9, 1952, in the North Pacific Fisheries Act of 1954, which implements the convention.

Serving as research agency for the United States Section of the International North Pacific Fisheries Commission, the scientists are trying to determine the home base of salmon taken on the high seas. Were these salmon spawned in American or Asiatic streams? In what areas do they mingle in the high seas? By what characteristics may the Asiatic and American fish be distinguished?

The purpose of the high seas investigations, according to Assistant Secretary Leffler, is to study the distribution and abundance of salmon, to collect salmon samples for racial identification, and to continue the oceanographic survey of the area. "This is the fourth year of our high seas studies of salmon," he said. "We are pulling together the pattern of distribution and movements of salmon. We are

primarily interested in determining what North American stocks enter waters west of the 175° provisional treaty line and therefore become available to the Japanese high seas fisheries."

Scientists aboard the vessels hope to take some 8,000 salmon samples for the racial studies. As provided in the convention, data on five species of salmon are being collected, with greatest emphasis on red salmon (Oncorhynchus nerka), pink salmon (Oncorhynchus gorbuscha), and chum salmon (Oncorhynchus keta). The whole salmon specimens are frozen and placed in individual plastic bags.

During the 1957 season, U. S. Scientists took 12,004 fish in the high seas of which 3,507 were red salmon, 3,179 were pinks, 5,057 chums, 59 were chinooks, 202 silvers, and 104 steelhead trout.

Back in the Montlake salmon laboratory in Seattle biologists are seeking to discover ways of telling an Asiatic salmon from an American salmon. To do this, scientists are studying the salmon's blood, parasites, bone structure, scales, and measurements of seven different physical characteristics. All the fish are x-rayed to compare skeletal structures. Tell-tale scales reveal the age of the fish and are clues to the home stream. Gill-rakers (part of the breathing apparatus) are compared in fishes for distinguishing traits.

Preliminary results show samples from the western end of the Pacific ocean, Okhotsk sea, and along the eastern coast of Kamchatka peninsula formed a group with characters somewhat different from those of the North American continent.

Results of the 1958 studies will be presented at the next meeting of the international North Pacific Fisheries Commission to be held in Tokyo, Japan, in November 1958.

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