

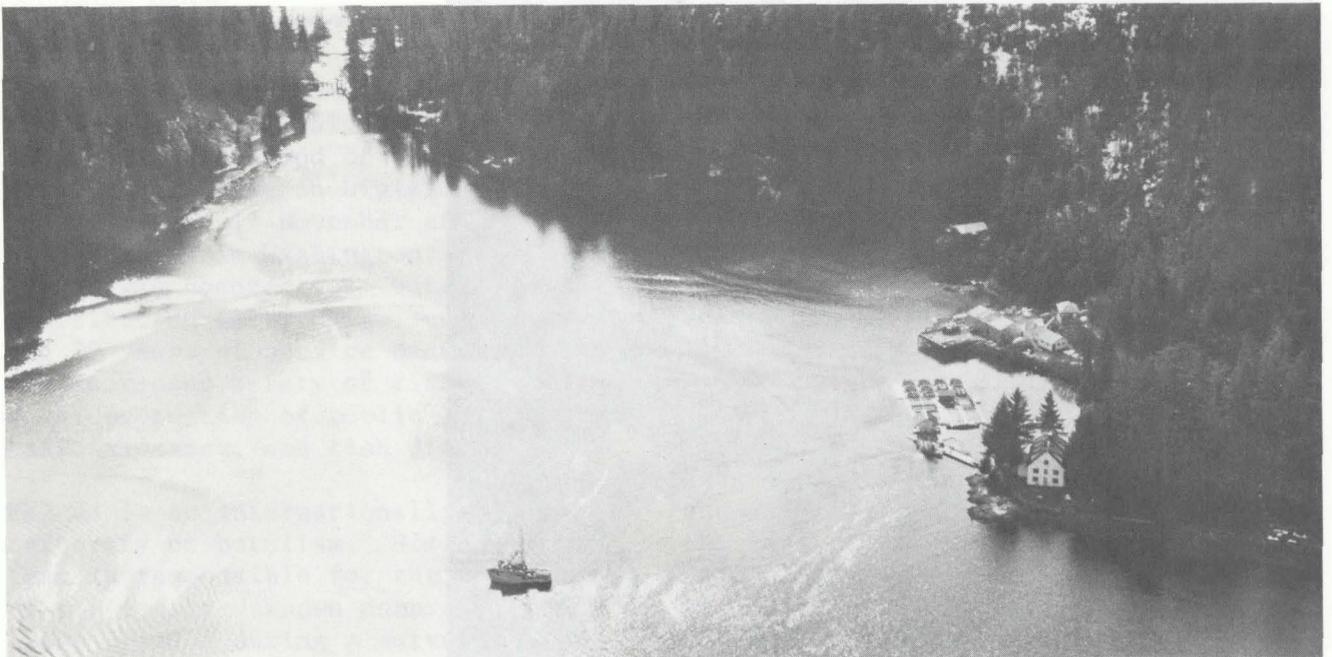
### **Fifty Years of Fisheries Research Commemorated at Little Port Walter**

Wakefield Fisheries established a processing facility for herring and salmon at Little Port Walter on the inland bay near the southern tip of Baranof Island in southeastern Alaska in 1917. In 1925 a young Bureau of Commercial Fisheries (BCF) scientist, George A. Rounsefell, made the first of several visits to the area while studying herring. By 1932 Rounsefell had convinced Dr. Fred Davidson to move the Bureau's salmon research at Olive Cove on Etolin Island to Little Port Walter where "herring and salmon personnel could work together." Temporary field facilities were first established, including (in 1934) the weir cabin on Sashin Creek that is still in use today. Under the direction of Sam Hutchinson, a permanent weir was built in 1939. In 1940, the main three-story headquarters building was constructed using bricks from the now-abandoned Wakefield plant and a \$5,000 BCF budget. (In 1984 a new sheet metal roof

cost three times the total cost of the original building, though it was purchased at a bargain price.) Both the weir and headquarters were built with Civilian Conservation Corps and Forest Service aid. The station has been occupied on a year-round basis since 1940.

Research priorities at Little Port Walter have changed dramatically since the 1930's and can be divided into three time periods. During the first two periods, roughly 35 years, research focused on pink salmon ecology in Sashin Creek. In the last 15 years, the emphasis has been on enhancement of several salmon species and increasing their numbers in the local fisheries.

Initially, researchers concentrated on the environmental factors which affect the freshwater survival of pink salmon. Environmental conditions were unusually harsh in the 1940's on Sashin Creek, including both dry spells and flooding, and gave scientists a variety of factors to study.



Little Port Walter with laboratory buildings on the right; Sashin Creek in the upper left is the site of many freshwater studies.

In the late fifties, however, scientists began to notice that although few adults spawned in the upper part of Sashin Creek, this area produced the most fry. This observation changed the research emphasis at Little Port Walter and began the second era of study. Researchers found that substrate type and stream gradient had an important effect on both egg production and egg and fry mortality.

Studies on pink-coho salmon interactions in Sashin Creek in the 1960's led first to classical life history work on coho and then to initial salmon enhancement research in the early 1970's and the start of the third period at the station. The State of Alaska established a major fisheries enhancement program in 1972 and since

then cooperative research on salmon enhancement technology with the Alaska Department of Fish and Game, regional aquaculture associations and private hatchery groups has been a prominent part of Little Port Walter activities.

Initial enhancement research focused on coho, pink, and chum salmon. This work involved a broad range of research, including short-term fry culture, time and size-at-release studies on smolts, estuarine net-pen research, lake stocking of fry for smolt production, vaccination studies for improved ocean survival, and development of floating raceways. Some research was also conducted with sockeye salmon, and beginning in 1976, on chinook, when about 60,000 chinook salmon eggs from two Behm Canal stocks were transplanted to Little Port Walter.



Facilities at Little Port Walter include the original laboratory at the shore end of the pier and floating net-pens.

Current chinook research focuses on the technology needed to put more Alaska fish in local fisheries to alleviate pressure on depressed coastwide stocks. Research is coordinated as a vital part of a formalized southeastern Alaska chinook enhancement plan.

Little Port Walter produced over 2 million chinook eggs from anadromous returns in 1984 after making significant fishery contributions. About three-fourths of these eggs were utilized by other agencies. More important, however, is the considerable body of new knowledge on chinook biology and the resulting enhancement opportunities for Alaska.

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The preceding information was provided by William Heard and Steven Ignell of the Auke Bay Laboratory and edited by Mike Seamans of the Fisheries Data and Management Systems Division.