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FISHERIES RESEARCH BOARD OF CANADA

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PROSPECTS FOR THE 1948 SALMON CATCH ON THE SKEENA RIVER

From time to time enquiries have been made of the investigators as to their opinions of the size of runs which can be expected in a given area in an approaching season. For that reason the following comments are being recorded for the Skeena river in 1948. The suggestions and estimates are the result of examination of large amounts of data on various phases of the life history. The deductions may only confirm opinions already held from the inspections of smaller parcels of information but even in that position, they may still be of use.

The comments are based on the assumption that the catch by the fishermen in 1948 will be governed by the same conditions, physical, biological and economic, as have prevailed generally in the past. Poor weather conditions and lack of markets, for instance, could cause a lowering of the numbers taken.

Sockeye Salmon Catch

On the basis of a slightly decreasing trend in the catches in recent years, and of a five-year rhythm which has been evident in the catches since 1928, the 1948 take in the Skeena should reach 45,000 cases. Considering the variation in this five-year fluctuation, this figure could be as low as 30,000 and as high as 60,000. Calculating in another way, namely on the basis of the proportion of the age classes in the catches over the same period, a take of about 42,000 cases can be anticipated. Although the latter method of prediction has not been too reliable previously, the agreement of the figure for 1948 obtained therefrom with that worked out in another manner altogether, lends some degree of support. This 45,000 cases will be distinctly more than were taken in 1947 (ca. 32,000 cases) but still well below the twenty-year average of 68,000 cases.

Another ray of hope for increased catch in 1948 lies in the large number of "jack" sockeye (precocious males) which appeared on the spawning grounds in 1947. It could be that this indicates a heavy return from the brood years of 1943 and 1944 and that the four- and five-year-old fish will appear in large numbers during the coming season. Since there have been cases where such a prediction for the condition held and others in which it did not come true, the investigators merely record the information without final deductions therefrom until a check can be made for the Skeena itself.

### Pink Salmon Catch

Over the last few years in northern British Columbia, the pink salmon seem to have become unpredictable. Until more detailed investigations are made, only general comments may be offered. The 1946 pink catch was one of the lowest on record yet there was a fair escapement and moderately good conditions for incubation. The return this year should be higher than the 10,000 cases in 1946 but still well below the twenty-year average of 80,000 cases. One reason for a lowered catch in 1948 may be the inability to catch the species as efficiently as sockeye in that part of the river now open for fishing.

### Chum Salmon Catch

The chum salmon catch on the Skeena, though small by comparison with those for the other species, has been good during the last three seasons. On the basis of the spawning surveys in 1944, the 1948 catch will probably be lower approaching the twenty-year average of 9,000 cases.

### Spring and Coho Salmon Catches

The Skeena catch of these species is not too readily segregated due to the fact that they are mainly handled in the fresh fish plants simultaneously with the populations from many other rivers. On the basis of the present analysis of the gill net catches and in consideration of the spawning escapements, there is every reason to believe that a catch equal to the average of the last few years should be obtained.

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