

The spawning grounds of Lakelse Lake.

~~General Description of Spawning Area~~

Lakelse Lake, ^(Fig. 1) is ~~situated~~^{located} in the Skeena River watershed among mountains of the Coast Range. It is ~~situated~~^{located} about 15 miles south of the village of Terrace and is about 90 miles upriver from Prince Rupert. The lake is 5.4 miles long and varies from 0.7 to 1 mile in width, with an area of 5.47 square miles. (Brett, 1950)

There is one outlet of the lake, Lakelse River which drains into the Skeena River approximately 13 miles away. The major outlet and the principal spawning stream is Willoughby ~~crack~~^{crack}, ~~large creek~~ which drains

creek about 30 miles long which
flowing into the northern end of Lakelse
Lake. Sockeye spawn ^{only} in ^{only} the lower
3 miles of the creek, ^(Fig. 2) although there
are many stretches of good gravel

accessible to ^{the} fish further upstream

~~The ^{upper} sockeye salmon spawn at
and which are utilized by sockeye salmon
for spawning least 5 miles upstream~~

(sockeye salmon utilize at least the first
5 miles of the stream for spawning).

~~During~~ From 1952 to 1955 (for which
accurate counts have been obtained)
Williams Creek has received around
90% of the sockeye spawning in
Lakelse Lake. It probably provide

around 90% of the total ~~creek~~^{water} discharge into the lake, and ~~around~~^{around} ~~of amount of available spawning~~ gravel (Brett, 195) ~~indicate~~^{to} of the available spawning area (Brett, 195) of the Lakelse area.

After Williams Creek, the next most important sockeye tributary is Scully, ^(Scullabuchan) Creek, ~~which~~ draining into the south-east corner of Lakelse Lake. In the past 4 years, Scully has received around 10% of the total spawning escapement.

of the ~~habitat~~ ~~run~~. In recent years, ③
have been of ~~use~~ of almost no importance at all, ~~the~~
~~run~~ being utilized by ~~about~~ ^{only} 1% of the
run. However in earlier years (prior to
1944), Granite Creek carried a run ~~that~~
~~was often equal or greater than the~~
of the same order as Scully Creek.

Williams Creek, the largest creek flowing into Lakelee Lake, accommodates from 80-90% of the spawning population. The creek itself is 25-30 miles in length, although only the lower three miles are utilized by sockeye.

for spawning. Because it drains a large area of steep mountainside not in the immediate vicinity of the lake, heavy rainfall may cause severe, unexpected freshets. These sudden freshets have caused many changes in the course of the creek and consequent changes in the amount and type of gravel suitable for spawning.

In 1952, the creek broke through a low spot into Blackwater Swamp (see map Fig.) and many of the spawners by-passed the fences and ascended to the spawning grounds by way of Blackwater Creek,

(3)

normally a brackish, sluggish drainage from
the swamp. This diversion was blocked by
July of 1953 and no serious changes had
occurred in the creek since then. Two minor
course changes occurred in 1954 and 1955
(points E and F on map) but the water still
returned to its original channel.

During the spawning period, periodic surveys are carried out to note the distribution of the fish on the grounds and also to check on stream conditions. If possible surveys are carried out weekly; but in abnormal rainfall during August cause high water conditions and subsequent poor visibility, so the regular weekly sum-

were not possible. ~~The map~~ (8)

The map of the Williams Creek spawning grounds (Fig.) and the accompanying Table (Table e) show the distribution of spawning fish in the creek at various times throughout the spawning period. Very few fish spawn in the lower section of the creek (Sec I) nor with the exception of a small area in the immediate vicinity of the weirs, (Position on map) the bottom is very silty and the creek is not suitable for spawning. Sections II and IIIa have very good spawning gravel and in the last two years, this portion of the creek has been utilized by

majority of the spawners. Section III⁹ prior to 1954 had a few patches of good gravel but a new breakthrough of the creek, through a heavily wooded area, (point on map) has left little desirable spawning area. Section IV has long stretches of new good gravel, but with the reduced pressure of smaller escapements, it has not been utilized to any great extent. Eliza Creek, a small tributary of Williams contains some very good spawning grounds, but it is only used by 3-4% of the spawners which ascend Williams Creek.

Tagging at Williams Creek fence shows