

MEMORANDUM

State of Alaska

TO:

Roger Wadman, Regional Supervisor
Sport Fish Division
ADF&G, Juneau

DATE : June 22, 1967

FROM: Larry Heckart
Fishery Biologist
Sport Fish Division
ADF&G, Sitka

SUBJECT: THAYER LAKE KOKANEE

As I mentioned on the radio, we were unsuccessful in an attempt to capture kokanee from Thayer Lake.

Methods included the use of a beach seine, rotenone, and variable-mesh gill nets. No fish other than the expected Dolly Varden, cutthroat and stickleback were taken.

Two over-night gill net sets resulted in a catch of 33 cutthroat and 31 Dolly Varden. An additional 24 cutthroat were taken by hook and line. All fish were weighed, measured, and examined internally for evidence of fish predation.

It is quite obvious that the number of fish examined is much too small to base any gross assumptions upon, however, our findings of this year were quite similar to those of 1966.

Stomach analysis indicated that approximately 18 percent of the cutthroat taken, both by net and hook and line, were preying to some extent on other fish species. No evidence of fish remains were found in the stomachs of Dolly Varden examined. In all cases, stickleback constituted the forage species.

Based on the stomach analysis, it appears that cutthroat begin preying significantly on other fish species at a length of approximately 22 centimeters, or 9 inches. The median length of cutthroat taken in both the 1966 and 1967 sampling was 22.8 centimeters, or 9 inches. It appears to follow that only one-half of the Thayer Lake cutthroat population may be able to, or want to, successfully prey on other fish species. It also appears that at the present time that stickleback are either the preferred forage species, or the one most readily available. They are in great abundance.

June 23, 1967

The following is a brief of our net results for this year and compared with those of 1966. Due to the sample size, I question that we can take any credit for the apparent size increase.

<u>Species</u>	<u>No.</u>	<u>1966</u>		<u>No.</u>	<u>1967</u>	
		<u>Mean Lg.</u>	<u>Mean Wt.</u>		<u>Mean Lg.</u>	<u>Mean Wt.</u>
CT	44	8.15	.19	33	8.94	.25
DV	46	7.50	.15	31	8.69	.23

Hook and line sampling for both 1966 and 1967 showed a selectivity for larger fish. Average lengths of cutthroat taken by sport tackle were approximately one inch longer than those taken from the nets.

Several small pools and shoreline areas were treated with rotenone. The results were occasional Dolly Varden and numerous stickleback. No cutthroat were taken, however, it was decided unwise to use rotenone in the more typical trout habitat.

Extensive seining was conducted in shoal areas along the outlet area and mid-lake region. Stickleback and Dolly Varden were the only species taken.

Upon talking with Nelson concerning the suspected kokanee that he captured last summer, I have some doubts concerning the validity of the find. He certainly should know, but he also appears somewhat unsure of his catch.

I suggest, as I did to Nelson, that we wait and attempt to take the adults in the fyke nets. I'm not sure if this can be accomplished this fall on the two year olds, or if it will be necessary to wait for the adult three year olds. I do think, however, that to fish any type of gear we have available other than the fykes, is like looking for the proverbial "needle".

LJH:ph