

MEMORANDUM**State of Alaska**

DEPARTMENT OF FISH AND GAME

TO:

Rupe Andrews, Director
 Division of Sport Fish
 Juneau

File : 505.005

DATE : January 27, 1970

FROM:

Bob Armstrong
 Fishery Biologist

SUBJECT: Auke Lake--Fish Enhancement

I noticed in a listing of suggested projects that Auke Lake enhancement has a priority for the Juneau area. To be effective, this probably means rehabilitation and a barrier dam. I am quite concerned about the effect this may have on the Dolly Varden populations in the Juneau area. We should obtain the following information before proceeding with a rehabilitation project:

1. Determine if Auke Lake is providing wintering habitat for Dolly Varden of the Juneau area, and if so, determine the number using the Lake and obtain an indication of the dependence of these char on Auke Lake as a wintering area.

Our populations of Dolly Varden may be at a low in the Juneau area. If so, the actual number using Auke Lake now may give us a completely biased interpretation of the importance of this lake as a wintering area.

For instance, if our populations of Dolly Varden have been depleted, the number using Auke Lake may be low. Attempts to increase our Dolly Varden populations may be fruitless if their potential wintering area is rendered inaccessible.

I would suggest the following:

1. Convert the present weir in Auke Creek to an out-migrant weir and trap with 5/8" screening.
2. Enumerate, measure and finclip all out-migrating Dolly Varden and cutthroat trout captured.
3. Conduct a freshwater creel census in the Juneau area to determine the percent finclipped char and trout in the sport catch. This will give us information on the importance of Auke Lake as a wintering area.

Rehabilitation of Auke Lake may be a trade of many potentially good fishing areas for one. I truly hope this type of evaluation can be conducted before a decision is made.

RHA:nla

cc: Roger Wadman