

Turner Lake Studied

Turner Lake, located 16 miles east of Juneau and emptying into Taku Inlet, is one of Southeast Alaska's largest lakes. It covers 3100 acres and is 9 miles in length. The outlet has a barrier consisting of a series of chutes and falls that prevents anadromous salmon runs from reaching the lake.

The fish population in Turner Lake includes cutthroat trout, Dolly Varden, kokanee, and sculpins. The kokanee population in Turner Lake matures at a fairly small size (8 inches) and is apparently lake bound. The lake is popular with recreational fishermen for its trophy-size cutthroat of 4-5 pounds. The beautiful setting of the lake and its proximity to Juneau add to its popularity. A total of 2100 visitor days were recorded by the U. S. Forest Service in 1978 and with Juneau's recent growth, it is likely that use of the lake will continue to be heavy. What effect this continued level of fishing pressure has had or will have on fishing success is unknown.

Fishermen on NSRAA's Board have been interested in Turner Lake's potential as an enhancement site. Although previous consideration of enhancement has focused on the value of the lake under its current use, the size of the lake, its proximity to a long-established gillnet fishery and its location within U. S. boundaries are attractive features for its consideration as an enhancement site for sockeye. Establishing a sockeye run to the outlet of Turner Lake would rejuvenate a troubled gillnet fishery and may increase recreational use of the Taku Inlet area.

Two concerns form the basis for NSRAA's investigation in 1985. First, can Turner Lake support a large sockeye run in terms of spawning habitat and rearing resources? Second, what would be the impact of sockeye on the

cutthroat population? Studying what currently limits the kokanee population and evaluating interaction with other species will help predict the answers to these questions, since sockeye should be similarly affected. The study will look at food, spawning area, predation and interspecific competition, in order to decide if the lake can support additional sockeye.

In addition to fisheries work on Turner Lake, a detailed analysis of the barrier will be performed, since ladderizing the lake outlet would be considered if Turner Lake does have additional rearing potential.

The project is a cooperative venture with support of the USFS and ADF&G. John Joyce is the project leader, based in Juneau.

Results of the fisheries and limnology studies, in conjunction with those conducted by ADF&G in 1977, will serve as a basis for further discussion of enhancement options with ADF&G, the USFS, and other interested parties. With the Regional Planning Team's recommendation, the USFS has included Turner Lake in its action plan, dependent on public involvement and biological feasibility.

Port Camden Gets Boxes

Two streams in Port Camden will receive pilot incubation boxes for chum in 1985, provided ADF&G gives its approval. Construction is planned for the third week in June. The project is a cooperative effort of NSRAA, ADF&G, and the USFS. Initial testing will be conducted with 100,000-250,000 eggs per box. If successful, additional boxes will be installed and filled as broodstock is available. Returning fish should be available to the seine fishery in Port Camden.