

STATE OF ALASKA

William A. Egan, Governor



Annual Progress Report for

DISTRIBUTION, ABUNDANCE AND NATURAL
HISTORY OF THE ARCTIC GRAYLING IN
THE TANANA RIVER DRAINAGE

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ANNUAL REPORT OF PROGRESS

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Job R-I-D Creel Census of the Sport Fishery in the Tanana River Drainage.

Objectives

1. To obtain estimates of fishing pressure and catch in grayling waters to evaluate the fishery from year to year.
2. To determine the age makeup of the catch.

Creel Census

Creel census work planned for 1971 on the Chena River could not be carried out because manpower, usually furnished on a cooperative basis by the Branch of River Basin Studies, U. S. Fish and Wildlife Service, was restricted to intermittent help only.

The only creel census work on the Chena River system was done on July 8, 9, and 10. Fishermen along the Chena Hot Springs Road from mile 24 to 60 were contacted and their catch measured. The mean fork length of 77 grayling was 210 mm (range 182-280 mm).

Hooking Mortality

A preliminary hooking mortality study was conducted July 28 - 30. Two net holding pens 4'x8'x4' were placed in slow current at about 85-mile on the Chena River. The water temperature ranged from 11-13°C. All grayling used were captured by angling with flies and Mepps "0" spinners. The fish ranged from 141 - 242 mm, so involved no mature grayling.

Three test schemes were used: (1) the fish were pulled in directly after being hooked (short fight); (2) the fish were played until exhausted (long fight); (3) the fish were anesthetized, measured, fin clipped, a scale sample removed, and tagged after being captured by a short fight. All 28 fish subjected only to a short fight and 16 fish subjected to a long fight appeared healthy and were released after 48 hours. Twenty grayling subjected to scheme 3 were held only 24 hours but appeared healthy when released. Fourteen fish were sacrificed and stomachs examined. Only a small amount of unidentifiable material remained indicating the fish did not feed while in captivity.

Though a much larger study is needed to accurately assess hooking mortality, it is apparent that grayling can withstand the rigors of being caught and released quite well.

