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STATE OF ALASKA
 Walter J. Hickel, Governor

ANNUAL REPORT OF PROGRESS, 1967 - 1968

FEDERAL AID IN FISH RESTORATION PROJECT F-5-R-9

SPORT FISH INVESTIGATIONS OF ALASKA

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INTRODUCTION

This report of progress consists of findings and work accomplished under the State of Alaska Federal Aid in Fish Restoration Project F-5-R-9, "Sport Fish Investigations of Alaska."

The project during this reporting period was composed of 21 separate studies. Of these, seven jobs continued the inventorying and cataloging of the numerous waters, providing a comprehensive index of the State's recreational waters. Nine jobs accomplished special studies involving Dolly Varden, grayling, silver salmon, king salmon and sheefish, among others. The remaining five jobs are designed to accomplish creel census, migration, access and silver salmon egg-take studies. The egg-take study, Job 7-F, was inactive because egg-takes were accomplished under other projects.

Special reports on specific phases of the Dolly Varden Life History Study have been published in the Department's Research Report series.

The information gathered from all of these studies provides the background necessary for better management and assists in development of future investigational studies.

The subject matter contained within these reports is often fragmentary in nature. The findings may not be conclusive and the interpretations contained therein are subject to re-evaluation as the work progresses.

RESEARCH PROJECT SEGMENT

STATE: ALASKA Name: Sport Fish Investigations of Alaska.

Project No: F-5-R-9 Title: Investigations of the Tanana River and Tangle Lakes Fisheries: Migratory and Population Study.

Job No: 16-B

Period Covered: July 1, 1967 to June 30, 1968.

ABSTRACT

This project was without a principal investigator during the field season from July to September 1967. Subsequently, field work was terminated by loss of equipment in the August flood in the Tanana River Valley.

A creel census station was operated on the Goodpaster River by temporary personnel, and limited numbers of grayling were captured and tagged or otherwise marked on this river; however, these projects were terminated in early July because of the lack of a biologist to analyze findings and give direction to the project.

Data collected are fragmentary and will be included in future segment reports as appropriate.

Emphasis during the remainder of the field season was on developing electro-fishing gear as a capture tool. Findings of this project are reported on elsewhere in this volume under Chena River Investigations.

Following appointment of a new investigator to lead this project, findings from 1960 through 1966 were summarized and published in Volume 8, Sport Fish Investigations of Alaska.

RECOMMENDATIONS

It is recommended that this study be continued with emphasis on the following aspects:

1. Development of techniques for estimation of the magnitude of the grayling populations in the Chena and Salcha Rivers, and determination of intrastream movements of grayling in these rivers.
2. Determination of present angler utilization of the grayling in the Chena and Salcha Rivers and the Tangle Lakes system.
3. A study of the possible overwintering of grayling in the Chena River.
4. Continued evaluation of grayling stocking into lakes of varied water quality and ecological characteristics.
5. Incidental to the above investigations, collection of additional grayling life history data whenever possible.

OBJECTIVES

To study the grayling populations of the Goodpaster River and, as time permits, the Tangle Lakes system, with emphasis on the following aspects:

1. Estimation of the magnitude of the grayling population in the study area.

2. Determination of grayling growth rates in these systems.
3. Determination of present angler utilization of these grayling populations.
4. Incidental to the above investigations, collection of data on timing and area of grayling spawning, and natural movements of grayling within these systems.

TECHNIQUES USED

Grayling were captured both by rod and line and electro-fishing gear, whichever was deemed most efficient in the capture area.

Captured grayling were marked with subcutaneous tags or other distinguishing marks and released.

Date and area of capture and fork length of the fish were recorded. Scale samples were taken from a representative sample of the grayling captured and from all tagged grayling recovered.

A creel census station was established on the lower Goodpaster River to monitor angler utilization and grayling harvest.

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s/ Louis S. Bandirola
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Date: April 1, 1968

s/ Alex H. McRea, Director
Sport Fish Division