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STATE OF ALASKA

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Alaska Department of Fish and Game

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Sport Fish Division

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ANNUAL REPORT OF PROGRESS, 1961-1962

FEDERAL AID IN FISH RESTORATION PROJECT F-5-R-3

SPORT FISH INVESTIGATIONS OF ALASKA

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INTRODUCTION

This report of progress consists of the job completion reports from the State of Alaska Federal Aid in Fish Restoration Project F-5-R-3, "Sport Fish Investigations of Alaska."

The current project is composed of twenty separate studies and was designed to evaluate the various aspects of the State's recreational fishery resources. The information gathered will provide the necessary background data for better management practices and for the development of future studies. During the current segment, continued emphasis was placed on the overall inventory and cataloging of accessible waters, evaluation of catch data, and investigations on various species of fish.

As a result of several problems of immediate concern, several new studies were instigated during the report year. Data accumulated from these studies has helped solve some problems in projects already in progress.

The population of Alaska is increasing rapidly and this is being reflected in the ever increasing number of "No Trespassing" signs put up by individuals in the vicinity of population centers. Fortunately, much of Alaska's fishery waters are still in the public domain. The division's program of acquiring access to fishing waters continued at a much faster pace since being instigated in 1959. Emphasis is being placed on this job and the successful continuation of this activity will forstall many serious recreational use problems currently facing other states.

The enclosed progress reports are fragmentary in many respects and the interpretations contained therein are subject to re-evaluation as the work progresses.

JOB COMPLETION REPORT
RESEARCH PROJECT SEGMENT

State: ALASKA

Project No: F-5-R-3

Name: Sport Fish Investigations
of Alaska

Job No: 13-A

Title: Inventory and Cataloging
of the Sport Fish and
Sport Fish Waters in the
Interior of Alaska

Period Covered: July 1, 1961 to December 1, 1961

Abstract:

Twenty lakes and ponds were surveyed during the 1961-1962 segment. Seven of these lakes were classified unsuitable for game fishes.

Recommendations:

Additional surveys should be made on the 80 Mile Pit, Lost Lake, Harding Lake and Birch Lake.

Creel census coverage of Lost Lake should be increased.

Continued efforts should be made to get dykes built around Eielson Pit and Float Plane Pit.

Objectives:

To conduct lake and stream surveys and evaluate the extent, the potential and the current use of the waters readily available to the area's anglers.

To investigate the possible sources for providing a supply of grayling and lake trout eggs for experimental hatching and rearing.

To determine the relative need for future management investigations and to direct the course of such studies.

Techniques Used:

The test netting was done with standard 125 foot variable mesh gill nets, a fyke net of 1/2 inch nylon mesh with 4 ft. x 6 ft. frame openings and one 75 foot wing of 3/8 inch mesh, and various types of seines.

Netting was done in several locations on each lake. Most gill net and fyke net sets were for 24 hour periods.

The physical, chemical and biological characteristics were compiled through standard lake survey techniques. Oxygen and chemical analysis were made by use of a Kemmerer water sampler and a Hach Direct Reading colorimeter.

Findings:

Thorough or partial investigations were conducted on the following lakes:

<u>LAKE</u>	<u>NEAREST TOWN</u>
Mansfield Lake	Tanacross
2 Mile Lake	Fairbanks
Lost Lake	Big Delta
Craig Lake	Delta Junction
Alaska Railroad Pits	Fairbanks
Deadman Lake	Northway
Harding Lake	Fairbanks
Float Plane Pit	Eielson AFB
Eielson Pit	Eielson AFB
Silver Fox Lake	Fairbanks
Miller Pond	Fairbanks
Nenana Pond	Nenana
Gravel Pit	Eielson AFB
30 Mile Pit	Fairbanks
31 Mile Pit	Fairbanks
80 Mile Pit	Big Delta
81 Mile Pit	Big Delta

Table Number 1. - Test-Netting Results (1961)

AREA	DATE	NO. OF		SPECIES	SIZE AVG.	WGT. AVG.	FREQ.	% COMP.	REMARKS
		FISH TAKEN							
Mansfield Lk.	May	9		N.Pike	25"	-	0.39	60	Maximum depth 12 feet, avg. 8 feet
	30-	6		Whitefish	17"	-	0.26	40	
	31								
2 Mile Lake	July	95		Cisco	9"	6 oz.	2.00	60	Rehabilitated and restocked with Silver Salmon in Fall of 1961
	5-6	38		Whitefish	12"	1 lb.	0.80	24	
		18		L.N.Sucker	14"	1.5#	0.38	13	
		4		Inconnu	18"	4 lb.	0.08	2	
		1		River Chub	6"	3 oz.	0.02	1	
Lost Lake	May	210		L.N.Sucker	13"	1.5#	8.70	69	Sucker popula- tion could pos- sibly be trap- ped down consid- erably by use of frame sets in Spring
	31-	71		Sil.Sal.&	10.5"	.75#	2.90	23	
	June			Rainbow Tr.					
	1	22		River Chub	4.5"	1 oz.	0.91	8	
Lost Lake	Sept.	24		L.N.Sucker	12.5"	1.5#	0.99	75	
	14-	8		Rainbow Tr.	12"	.75#	0.30	25	
	15								

Table Number 1. (Continued) - Test-Netting Results (1961)

AREA	DATE	NO. OF		SPECIES	SIZE AVG.	WGT. AVG.	FREQ.	% COMP.	REMARKS
		FISH	TAKEN						
Lost Lake	Aug.	9		Rainbow Tr.12"		.75#	0.50	34	
	21- 22	18		& Sil. Sal. L.N.Sucker 16"		2.0#	1.00	66	
Lost Lake	Aug.	57		River Chub 5"		2 oz.	4.38	74	Parasite (Ligula intestinalis) found in <u>all</u> <u>species</u> .
	8-9	14		L.N.Sucker 13"		1.5#	1.07	18	
		6		Rainbow Tr.13"		1.0#	0.46	8	
Craig Lake	July 19- 20	5		Rainbow Tr.11.5"		.75#	0.35	100	Maximum depth 65', avg. over 40'. Initial stock of 1100 R.Tr. in Fall of 1960.
Deadman Lake	Sept. 19- 20	39		N. Pike 24"		2.0#	0.70	100	No sign of last year's R.Tr. planting.
Harding Lake	June 19- 20	24		N. Pike 20"		2.25#	1.30	100	More and exten- sive testing needed.

Table Number 1. (Continued) - Test-Netting Results (1961)

AREA	DATE	NO. OF FISH TAKEN	SPECIES	SIZE AVG.	WGT. AVG.	FREQ.	% COMP.	REMARKS
Float Plane pit	July	43	Whitefish	13"	1.25#	1.07	97.6	To be eradicated as soon as Air- force puts up a dyke on French Cr. side of Pit
	10-	1	N. Pike	15"	.75#	0.02	2.4	
	11							
Eielson Pit	June	112	L.N.Sucker	9"	.50#	5.00	75.6	To be eradicated as soon as Air- force puts up a dyke to keep Tanana Slough from overflowing into Pit.
	10-	34	Whitefish	11"	.75#	1.54	23.0	
	11	1	Rainbow Tr.	6"	.25#	0.04	.7	
		1	N. Pike	15"	1.75#	0.04	.7	

The following lakes were found to presently have little or no value to a sport fishery:

Alaska Railroad Pits - three of the four pits winter killed in 1960 - 1961

Silver Fox Lake
Miller Pond
Nenana Pond
Gravel Pit near Eielson (26 Mile)

Test-netting results are shown in Table 1.

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