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Jay S. Hammond, Governor

Annual Performance Report for

EVALUATION OF INTERIOR ALASKA WATERS AND SPORT FISH WITH EMPHASIS ON MANAGED WATERS - FAIRBANKS DISTRICT

by

Michael J. Kramer

ALASKA DEPARTMENT OF FISH AND GAME
Ronald O. Skoog, Commissioner

SPORT FISH DIVISION
Rupert E. Andrews, Director

Job No. G-III-H Evaluation of Interior Alaska Waters and Sport Fish with Emphasis on Managed Waters - Fairbanks District

By: Michael J. Kramer

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RESEARCH PROJECT SEGMENT

State:	ALASKA	Name:	Sport Fish Investigations of Alaska
Project No.:	F-9-11		
Study No.:	G-III	Study Title:	LAKE & STREAM INVESTIGATION
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Period Covered: July 1, 1978 to June 30, 1979

ABSTRACT

Late winter dissolved oxygen readings were taken on 22 area lakes in 1978. All managed lakes had sufficient oxygen to overwinter fish. Six lakes were gill net sampled to evaluate species composition and growth. Approximately 30 lakes were surveyed to determine potential for becoming a sport fishery.

A creel census conducted during the Chatanika River whitefish, *Coregonus sp.*, spearing season in September and October showed that a calculated 473 fishermen spent 968 hours to harvest 5,515 whitefish. This is the highest harvest ever recorded for this fishery. Creel census results on the upper Chena River show that 10,508 angler hours of effort produced a harvest of 6,898 grayling, *Thymallus arcticus* (Pallas).

Thirteen gravel pits and four lakes were stocked in the Fairbanks area during 1978 with a total of 521,093 silver salmon, *Oncorhynchus kisutch* (Walbaum), 9,520 king salmon, *Oncorhynchus tshawytscha* (Walbaum), 104,449 rainbow trout, *Salmo gairdneri* Richardson, and 150,000 grayling.

BACKGROUND

The Fairbanks management area of approximately 52,000 square miles includes waters of the Tanana drainage from the Little Delta River downstream to the Tanana River mouth, including roadside waters of the Parks Highway south to the Denali Highway, the Richardson Highway south to Birch Lake, the Steese and Elliott highways, and the Chena Hot Springs Road. Also in the area are all north flowing tributaries of the upper Yukon River from Tanana to the Canadian Border. Figure 1 does not show the entire Fairbanks management area, only that part of the lower Tanana River where most of the field work for this report was accomplished.

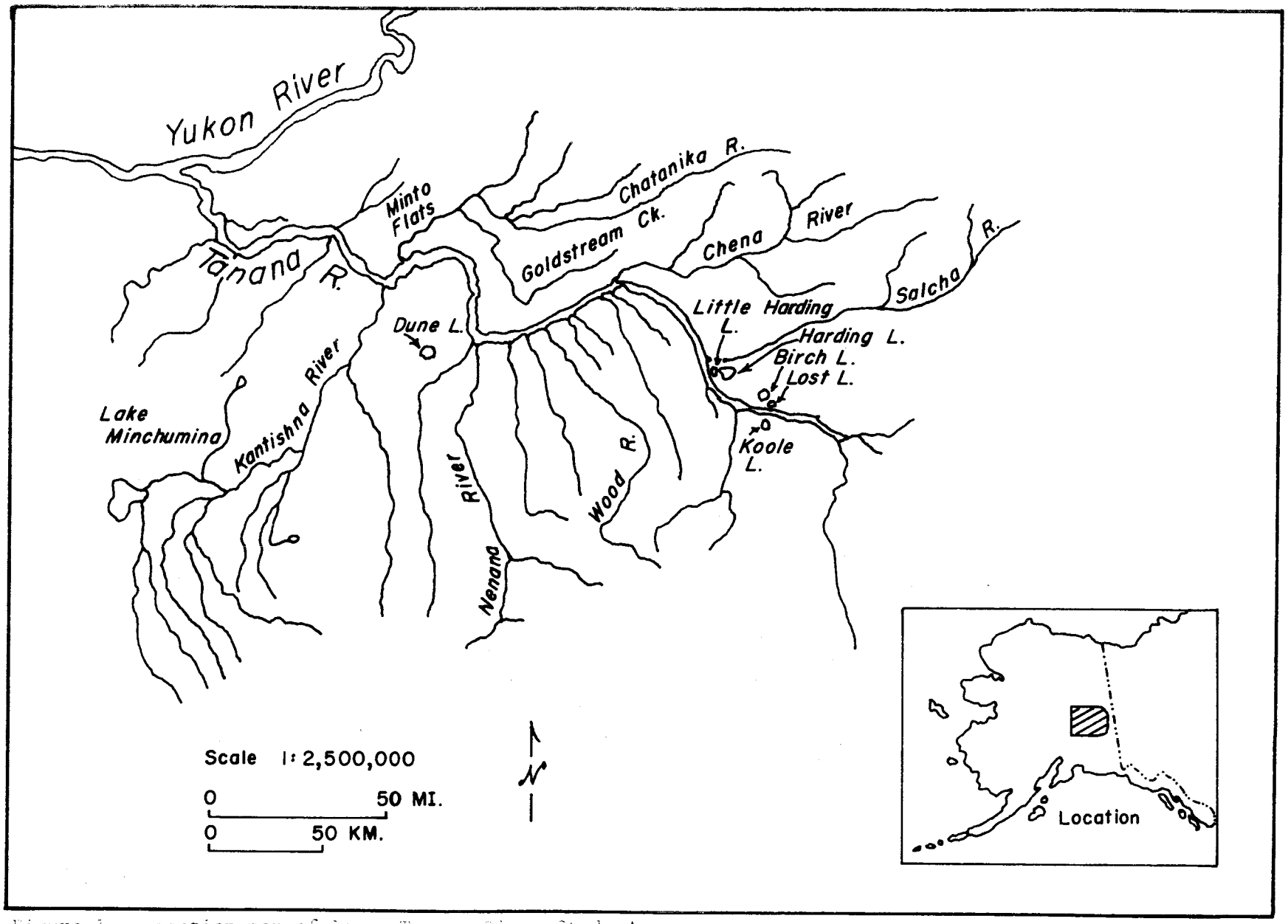

Figure 1. Location map of lower Tanana River Study Area.

This area includes some of the most highly used fisheries in the Interior including the Chena, Chatanika, and Salcha rivers, Minto Flats, and Harding and Birch lakes. There are many popular fly-in lakes in the Tanana Flats. Communities served include Fairbanks, North Pole, Central, Circle, Eagle, Livengood, Minto, Manley Hot Springs, Rampart, Nenana, Anderson, Healy, and Cantwell. Ft. Wainwright Army Post, Eielson Air Force Base, and Clear Air Force Site are also included in this area.

The climate is one of harsh contrast, with spring coming as early as mid-April and snowfall with subfreezing temperatures occurring as late as June. The short, three month summers are characterized by long daylight hours and temperatures occasionally exceeding 32°C (90°F). The fall extends through early November with snowfall and decreasing temperatures. During the dead of winter from mid-November to mid-March, temperatures may plummet below -57°C (-70°F). Annual precipitation averages around 11 inches, with most falling between June and September.

The lakes are generally iced over by late October and breakup can occur as late as June. Seasonal surface runoff streams flow from May through September, due to periods of spring ice melt and later summer rains. The streams fed by groundwater or springs may either run with marginal ice cover, or occasionally form glaciers over the streambed.

The Tanana valley is relatively unglaciated. However, large quantities of gravel, sand, and silt are discharged by nearby glacial melt. Lake formation occurs either from the damming of drainages leading from nearby hills, by silt from the Tanana River, by the melting of a former ice mass buried in the subglacial soil, or by the melt of permafrost brought upon by vegetative disturbance. Yearly precipitation regulates the levels of the majority of lakes with only those near the Tanana subject to fluctuation by river regulated water tables.

Creel census studies are conducted on all high-use fisheries in the area including the Chatanika, Salcha, Little Salcha, and Chena rivers, Badger Slough, Minto Flats, and stocked lakes such as Birch, Harding, Little Harding, and Lost lakes.

Nearly all of the important waters near the major road systems have been surveyed. A number of fly-in waters have not been surveyed or need additional data. Emphasis will be placed on surveys of lower Tanana drainage waters. Data will be collected on previously unsurveyed waters and files will be updated on waters previously surveyed. Table 1 contains scientific and common names and abbreviations of all fish mentioned in this report.

Fisheries are currently maintained in 27 lakes and ponds in the management area by stocking of rainbow trout, silver salmon, and grayling. Most waters stocked are adjacent to the road system; however, several remote lakes accessible only by snowmachine or aircraft have also been stocked with rainbow trout, silver salmon, and grayling and are well received by sportsmen.

Table 1. Scientific and common names of fish mentioned in this report.

Common Name	Scientific Name	Abbreviation
Round whitefish	*Prosopium cylindraceum* (Pallas)	RWF
Humpback whitefish	*Coregonus pidschian* (Gmelin)	HWF
Least cisco	*Coregonus sardinella* Valenciennes	LCI
King salmon	*Oncorhynchus tshawytscha* (Walbaum)	KS
Chum salmon	*Oncorhynchus keta* (Walbaum)	CS
Silver salmon	*Oncorhynchus kisutch* (Walbaum)	SS
Rainbow trout	*Salmo gairdneri* Richardson	RT
Arctic grayling	*Thymallus arcticus* (Pallas)	GR
Northern pike	*Esox lucius* (Linnaeus)	NP
Alaska Blackfish	*Dallia pectoralis* (Bean)	BL

RECOMMENDATIONS

1. Stocking success in area lakes stocked with rainbow trout, silver salmon, or grayling, should be evaluated.

2. Creel census efforts on selected high use sport fisheries should continue.

3. Whitefish population estimates should be conducted in selected segments of the Chatanika River.

OBJECTIVES

1. To assess the environmental characteristics and fish species composition of the waters of the job area and where practical, obtain estimates of existing or potential angler use and sport fish harvest.

2. To evaluate application of fishery restoration and public access status to the area's recreational fisheries waters.

TECHNIQUES USED

Scales used for age determination were cleaned and mounted between glass slides. A Bruning 200 microfiche reader was used to read the scales. All fish were measured for fork length in millimeters. Water samples for dissolved oxygen readings were collected using a Kemmerer water sampler and analysis was done with a Hach Model AL-36-WR kit. Graduated mesh monofilament and multifilament gill nets, 125 ft x 6 ft (38 x 1.8 m) with five mesh sizes ranging from 1/2 in to 2 1/2 in (12-64 mm) bar measure were used to sample fish populations.

Estimates of fishing pressure on the upper Chena River were made utilizing randomized angler counts. The creel census was conducted on a randomly selected one weekday and one weekend day per week between May 29 and August 31. The sampling time periods were taken from a fishing day beginning at 8 a.m. and ending at 12 p.m. There were four possible sampling periods per day; 8 a.m. to 12 noon, 12 noon to 4 p.m., 4 p.m. to 8 p.m. and 8 p.m. to 12 midnight. The census was performed in two randomly picked time periods per day. The census taker drove the Hot Springs Road to its end and counted all fishermen. Upon his return he interviewed all fishermen to obtain catch statistics. Only interviews with those anglers having completed their trip were used to compute the catch statistics and fishing pressure totals.

FINDINGS

Dissolved Oxygen Testing

Twenty-two Interior waters were tested for dissolved oxygen content during the winter of 1977-78. All lakes currently managed for sport fishing had sufficient oxygen to overwinter fish (Table 2). Only three lakes were depleted of dissolved oxygen or had levels so low as to preclude them from further management consideration.

Fish Sampling in Area Waters

Seven lakes in the Fairbanks Area were test netted to determine species composition and stocking success (Table 3).

Eight-mile Lake, located 13 km (8 mi) west of the Parks Highway on the Stampede Trail, was test netted and found to contain Arctic grayling and round whitefish. No Age II or III grayling were captured, nor were Age II, III, or IV round whitefish. The lake was surveyed in response to a proposal by the Department of Transportation to upgrade the existing trail into the lake and construction of a recreation area.

Dune Lake, a fly-in lake located 40 km (25 mi) southwest of Nenana, was stocked with grayling fry in 1976 after test netting revealed no fish were present in the lake. In 1978 the grayling ranged in fork length from 280 to 305 mm (11 to 12 in) and averaged 289 mm (11.4 in). This is good growth for Age II grayling, as Age II grayling captured from the Chena River in 1977 averaged only 176 mm (6.9 in), (Hallberg, 1978). Eight fish were caught on hook and line in 15 minutes and it appears that Dune Lake will provide a good fly-in grayling fishery.

Approximately 50 more lakes were surveyed and all were found to be too shallow for sport fish management. Table 4 lists lakes surveyed in 1978.

Data from all lakes surveyed was recorded and is on file with the Sport Fish Division in Fairbanks.

Creel Census

Chatanika River:

A spear fishing season for whitefish in the Tanana River drainage was initiated in 1970 to provide an additional method for sport fishermen to harvest these desirable fish. A creel census has been taken every fall since 1972 on the Chatanika River where most of the fishing pressure occurs. A creel census station was set up at the Elliot Highway bridge to count fisher-men and their catch. The census covered 42% of the possible fishing time throughout the period from September 9 through October 21, 1978.

An expansion of the data to 100% shows that 473 fishermen spent 968 hours to spear 3,211 humpback whitefish, 1,968 least cisco, and 336 round whitefish (Table 5). The total harvest, 5,515, is the highest ever recorded for this fishery. One reason for the high harvest is increased spearing efficiency

Table 2. Fairbanks area waters tested for dissolved oxygen, 1978.

Water	Date	Ice Depth mm (in)	Water Depth m (ft)	Snow Depth mm (in)	Sample Depth m (ft)	D.O. ppm
Eielson AFB:						
Bear Lake (Small portion)	Mar. 24	610 (24)	5.2 (17)	355 (14)	1.5 (5) 3.0 (10) 4.5 (15)	3.0 2.0 0.0
Bear Lake (large portion)	Mar. 21	711 (28)	5.8 (19)	279 (11)	1.5 (5)	0.0
Engineer Hill Lake* (sample #1)	Mar. 29	559 (22)	2.7 (9)	355 (14)	1.5 (5)	5.0
Engineer Hill Lake (sample #2)	Mar. 29	559 (22)	2.7 (9)	355 (14)	1.5 (5)	3.0
Grayling Lake*	Mar. 24	711 (28)	3.8 (12.5)	355 (14)	1.5 (5)	4.0
Hidden Lake*	Mar. 23	610 (24)	4.5 (15)	279 (11)	1.5 (5)	3.0
Loop Pit	Mar. 30	584 (23)	3.6 (12)	406 (16)	1.5 (5) 3.0 (10)	11.0 3.0
Moose Lake (north half)	Mar. 30	914 (36)	6.1 (20)	178 (7)	1.5 (5) 3.0 (10) 4.5 (15)	6.0 5.0 4.0
Moose Lake (south half)	Mar. 30	914 (36)	6.1 (20)	178 (7)	1.5 (5)	0.0

Table 2. (cont.) Fairbanks area waters tested for dissolved oxygen, 1978.

Water	Date	Ice Depth mm (in)	Water Depth m (ft)	Snow Depth mm (in)	Sample Depth m (ft)	D.O. ppm
Mullens Pits (large)	Mar. 30	635 (25)	2.6 (8.5)	254 (10)	1.5 (5)	2.5
Mullens Pits (small) (sample #1)	Mar. 30	584 (23)	8.8+(29+)	355 (14)	1.5 (5)	0.0
Mullens Pits (small) (sample #2)	Mar. 30	584 (23)	3.3 (11)	355 (14)	1.5 (5)	0.0
Mullens Pits (small) (sample #3)	Mar. 30	584 (23)	3.6 (12)	355 (14)	1.5 (5)	0.0
Mullens Pits (small) (sample #4)	Mar. 30	584 (23)	2.3 (7.5)	355 (14)	1.5 (5)	0.0
Pike Lake	Mar. 23	559 (22)	2.4 (8)	355 (14)	1.5 (5)	0.0
Rainbow Lake	Mar. 23	610 (24)	4.3 (14)	279 (11)	1.5 (5)	1.6
Scout Lake	Mar. 23	610 (24)	4.0 (13)	355 (14)	1.5 (5) 3.0 (10)	6.0 4.0
Tar Kettle Lake	Mar. 23	533 (21)	3.3 (11)	355 (14)	1.5 (5)	0.4
Twin Lakes (big)	Mar. 23	762 (30)	5.2 (17)	330 (13)	1.5 (5) 3.0 (10)	5.0 2.0
Twin Lakes (little)	Mar. 23	762 (30)	3.8 (12.5)	355 (14)	1.5 (5)	Trace

Table 2. (cont.) Fairbanks area waters tested for dissolved oxygen, 1978.

Water	Date	Ice Depth mm (in)	Water Depth m (ft)	Snow Depth mm (in)	Sample Depth m (ft)	D.O. ppm
28-Mile Pit*	Mar. 24	559 (22)	4.0 (13)	355 (14)	1.5 (5)	9.0
338.7 Pit #1	Mar. 23	584 (23)	5.2 (17)	406 (16)	1.5 (5)	0.6
338.7 Pit #2	Mar. 23	584 (23)	4.0 (13)	406 (16)	1.5 (5)	0.4
8-Mile Lake	Mar. 24	913 (36)	1.8 (6)	305 (12)	1.5 (5) 2.7 (9)	4.5 2.0
Walden Pond (17 mile Chena Hot Springs Road)	Apr. 12	913 (36)	6.7 (22)	102 (4)	1.5 (5) 3.0 (10) 4.5 (15)	3.0 2.0 1.0
Ft. Wainwright:						
Weigh Station Pit #1	Mar. 31	711 (28)	5.8 (19)	457 (18)	1.5 (5)	6.0
Weigh Station Pit #2	Mar. 31	711 (28)	7.0 (23)	457 (18)	1.5 (5)	1.5
River Road Lake	Mar. 31	762 (30)	2.4 (8)	457 (18)	1.5 (5)	5.0

* Indicates lakes currently managed.

Table 3. Fish sampling summaries, 1978.

Water	Date	Species	No.	Age	Fork Length mm Range	Fork Length mm Mean	Frequency*
Eight-Mile Lake	July 11	GR	35	I	120-130	125	0.73
		GR	10	IV	210-240	226	0.21
		GR	6	V	240-260	249	0.12
		GR	2	VI	250-270	260	0.04
		RWF	1	I		130	0.02
		RWF	3	V	270-290	283	0.06
		RWF	6	VI	280-295	290	0.12
Dune Lake	June 20	GR	8	II	280-305	289	Rod & Reel
Deadman Lake	June 17	NP	15	...	405-960	630	0.21
		HWF	7	...	435-520	488	0.10
Nenana Pond	Aug. 8	SS	4	I	190-203	193	0.17
		SS	6	III	254-330	299	0.25
Slate Creek Lake			0				
Redlands Lake	Aug. 7	NP	9		458-610		0.38
Unnamed Lake	Aug. 3	BL	1				0.04

* Fish per hour in 125 ft graduated mesh set.

Table 4. Lakes surveyed in Fairbanks area in 1978.

Name	Location	Latitude	Longitude	Quadrangle	Remarks
Baker Lake	13 km (8 mi) NE of Manley	65°02'	150°22'	Tanana	No fish captured.
Clear Lake	32 km (20 mi) WSW of Tanana	65°04'	151°29'	Tanana	Too shallow to overwinter fish.
Deep Creek Lakes	42 km (26 mi) WSW of Tanana	65°03'	151°19'	Tanana	Too shallow to overwinter fish.
Fish Lake	38 km (24 mi) WSW of Tanana	65°04'	151°20'	Tanana	Too shallow to overwinter fish.
Long Lake	26 km (16 mi) WSW of Tanana	65°08'	151°33'	Tanana	Too shallow to overwinter fish.
Spring Camp Lake	38 km (24 mi) WSW of Tanana	65°02'	151°23'	Tanana	Too shallow to overwinter fish.
Several Unnamed* Lakes	Between the Yukon and Tanana Rivers west of Eureka and east of Tanana	65°05'	151°30'	Tanana	Too shallow to overwinter fish.
Slate Creek Lake	10 km (6 mi) NW of Healy	63°56'	149°09'	Healy	No fish captured.
Unnamed Lake	14 km (9 mi) SW of Manley	64°52'	150°45'	Kantishna River	Blackfish caught.
275 Lake	14 km (9 mi) SW of Manley	64°53'	150°43'	Kantishna River	Too shallow to overwinter fish.
Redlands Lake	56 km (35 mi) S of Tanana	64°41'	152°18'	Kantishna River	Northern pike caught.

Table 4. (cont.) Lakes surveyed in Fairbanks area in 1978.

Name	Location	Latitude	Longitude	Quadrangle	Remarks
303 Lake	40 km (25 mi) E of Manley	65°00'	149°42'	Livengood Fairbanks	Too shallow to overwinter fish.
310 Lake	80 km (50 mi) WNW of Fairbanks (Head of Rock Island Slough)	65°07'	149°30'	Livengood	Too shallow to overwinter fish.
1892 Lake	32 km (20 mi) W of Parks Highway on Stampede Trail	63°51'	149°39'	Healy	Too shallow to overwinter fish.
1894 Lake	32 km (20 mi) W of Parks Highway on Stampede Trail	63°52'	149°37'	Healy	Too shallow to overwinter fish.
Deadman Lake	99 km (62 mi) west of Fairbanks	64°51'	149°58'	Fairbanks	Northern pike caught.
Eight-Mile Lake	13 km (8 mi) W of Parks Highway on Stampede Trail	63°53'	149°15'	Healy	Arctic grayling and round whitefish caught.

* These lakes are identified and are on file in the Sport Fish lake survey files in Fairbanks. All are apparently too shallow to overwinter fish for year-round management, but may provide a summer sport fishery, if inlets or outlets allow fish passage mainly for pike.

Table 5. Chatanika River whitefish harvest summary September 1 - October 21, 1978 in area of Elliot Highway bridge.*

	Calculated Totals
Number of fishermen	473
Number of angler hours	968
Total harvest	5,515
Fish/angler hour	5.69
Fish/angler trip	11.6
Mean hours per angler trip	2.0

Calculated fish harvest by species:

	Number	Percent of Harvest
Humpback whitefish	3,211	58
Least cisco	1,968	36
Round whitefish	336	6

* Although there was no creel census count near the Steese Highway bridge it is estimated that between 400-600 whitefish were speared in that vicinity.

by the fishermen. Whitefish per hour increased from the previous high in 1977 of 2.37 per hour to 5.69 per hour. This increased efficiency came about because many of the spearers had speared for several years and had refined their equipment and techniques. The river was very low and this concentrated the fish, making them vulnerable to wading spear fishermen. The low water also kept many humpback whitefish below the Elliot Highway bridge, where they were very accessible to fishermen, thus the high harvest of humpback whitefish. Some fishermen also claimed they were selecting humpback whitefish. A summary of spearfishing harvests in the Chatanika River from 1972 to 1978 is presented in Table 6.

Population estimates were not made during 1978 due to the low water condition which made boat navigation very difficult. The average of the prior 4 years where population estimates were taken (Kramer, 1978), was approximately 6,600 humpback whitefish. Creel census results for 1978, show that approximately 3,200 humpback whitefish were harvested. These harvest figures indicate that the fishing should be closely monitored and harvest restrictions may need to be imposed on this sport fishery in the near future.

Upper Chena River:

The grayling sport fishery on the upper Chena River, where the river and the Chena Hot Springs Road parallel one another from 41.8 km to 90 km (mile 26 to 56), usually begins about the end of May. The creel census program established in 1978 to monitor the fishing pressure in this area began on May 29 and continued through August 31.

Creel census data collected during the 95-day period are summarized in Table 7. It shows that 10,508 angler hours of effort produced a harvest of 6,898 grayling. The estimated total number of grayling caught, including those that were subsequently released, was 11,370. Thus 61% of all grayling caught were taken home. Table 8 summarizes creel census results on the upper Chena River since 1970.

Length and age frequency of 115 grayling sampled from the angler catch on the upper Chena River in 1978 appear in Table 9. The angler harvested grayling ranged in length from 133 to 350 mm (5 1/4 to 13 3/4 in) with a mean of 221 mm (8 3/4 in). In the creel census conducted in 1977 (Hallberg, 1978) the mean length of grayling caught was 208 mm (8 1/4 in).

Periodic sampling of fish caught and kept throughout the summer, with emphasis on the first six weeks, resulted in 115 fish sampled. No trends in size of fish or number of grayling caught and kept were noted throughout the season.

Salcha River:

A limited creel census was taken on the Salcha River king salmon and chum salmon fisheries between July 11 and July 27. One hundred sixty-five people who were contacted had fished 395 hours to catch 13 king salmon and 5 chum salmon. It is estimated that 50-70 king salmon and 20-40 chum salmon were harvested in 1978.

Table 6. Chatanika River whitefish harvest summary, 1972-1978.

Year	Date	Angler Hours	Hours Per Trip	Whitefish Per Hour	Total Whitefish Harvested
1972	Oct. 1-16	302	1.7	2.32	701
1973	Sept. 1-Oct. 7	1,356	2.5	2.24	3,032
1974	Sept. 1-Oct. 4	1,054	2.6	1.82	1,924
1976	Sept. 1-Oct. 12	300	2.7	1.80	540
1977	Sept. 1-Oct. 16	416	1.7	2.37	986
1978	Sept. 9-Oct. 21	968	2.0	5.69	5,515

Table 7. Creel Census of grayling fishery on the upper Chena River adjacent to Chena Hot Springs Road, 1978.

	Angler Hours		
Period	Weekdays	Weekends	Total
May 29 - June 30	1,297	2,781	4,078
July	1,271	2,523	3,794
August	1,587	1,049	2,636
Total	4,155	6,353	10,508

	Fishery Statistics			
	May 29 - June 30	July	August	Total
Number of completed angler interviews	89	62	52	203
Average hours fished/ angler interviewed	2.1	2.4	2.0	2.2
Total grayling kept by anglers interviewed	124	84	82	290
Grayling kept/ angler hour	0.66	0.56	0.79	0.65
Calculated grayling harvest	2,691	2,125	2,082	6,898
Number of grayling caught by anglers interviewed (kept and released)	173	198	139	510
Calculated number of grayling caught/hour (kept and released)	0.93	1.33	1.34	1.14
Calculated total catch (kept and released)	3,792	5,046	2,532	11,370

Table 8. Summary of creel census results for the upper Chena River, 1970 - 1978.*

Year	Dates	Days	Total Angler Hours	Total Grayling Harvest	Grayling Caught & Kept Per Angler Hour
1970	May 1-31 July 14-Aug. 29	78	12,518	6,770	0.54
1974	July 1-Aug. 31	62	11,680	18,049	1.55
1975	June 1-Aug. 31	92	22,657	14,067	0.62
1976	June 1-Aug. 31	92	10,762	4,161	0.39
1977	June 1-Aug. 31	92	13,536	9,406	0.69
1978	May 29-Aug. 31	95	10,508	6,898	0.65

* Data before 1978 taken from Hallberg, 1978.

Table 9. Age and length composition of 115 angler caught grayling sampled from creel census areas, upper Chena River, 1978.

Fork Length mm	Age Class II	III	IV	V	VI	VII	VIII	Total Number	Length Frequency Percent
130-139	1							1	0.9
140-149									
150-159		1						1	0.9
160-169	1	3						4	3.5
170-179	1	5						6	5.2
180-189		6	2					8	6.9
190-199		7	7					14	12.2
200-209		2	15					17	14.8
210-219			15					15	13.0
220-229		1	10					11	9.5
230-239			9					9	7.8
240-249			8					8	6.9
250-259			2	2				4	3.5
260-269				2				2	1.8
270-279			2	1				3	2.6
280-289				4	1			5	4.2
290-299				2				2	1.8
300-309									
310-319						1		1	0.9
320-329							1	1	0.9
330-339					1			1	0.9
340-349							1	1	0.9
350-359							1	1	0.9
Total Number	3	25	70	11	2	1	3	115	
Age Frequency Percent	2.6	21.7	60.8	9.6	1.8	0.9	2.6		100.0
Mean Fork Length (mm)	154	184	219	276	307	315	340		

Table 10. Lake Stocking, Fairbanks District, 1978.

Lake	Location	Date	Species*	Size	Number
Harding Lake	Richardson Highway	May 25	SS	639/lb	243,779
		July 6	SS	278/lb	137,994
		Aug. 2	SS	258/lb	139,320
Little Harding Lake	Richardson Highway	July 6	KS	48/lb	9,520
Koole Lake	88 km (55 mi) SE of Fairbanks	Sept. 6	RT	144/lb	10,000
Birch Lake	88 km (55 mi) SE of Fairbanks (On Richardson Highway)	Sept. 6	RT	144/lb	89,159
		Sept. 6	RT	160/lb	5,290
29.6 Mile Pit	Steese Highway	June 12	GR	Fry	10,000
30.6 Mile Pit	Steese Highway	June 12	GR	Fry	12,500
31.6 Mile Pit	Steese Highway	June 12	GR	Fry	10,000
33.0 Mile Pit	Steese Highway	June 12	GR	Fry	10,000
33.5 Mile Pit	Steese Highway	June 12	GR	Fry	10,000
34.6 Mile Pit	Steese Highway	June 12	GR	Fry	12,500
36.5 Mile Pit	Steese Highway	June 12	GR	Fry	10,000
Johnson Road Pit # 1	53 km (33 mi) Richardson Highway	June 12	GR	Fry	12,500

Table 10. (cont.) Lake Stocking, Fairbanks District, 1978.

Lake	Location	Date	Species*	Size	Number
Johnson Road Pit # 2	53 km (33 mi) Richardson Highway	June 12	GR	Fry	12,500
Bathing Beauty Pond	Moose Creek	May 12	GR	Fry	12,500
Hidden Lake	Eielson, AFB	June 12	GR	Fry	12,500
Grayling Lake	Eielson, AFB	June 12	GR	Fry	12,500
31 Mile Pit	50 km (31 mi) Richardson Highway	June 12	GR	Fry	12,500

* SS - Silver salmon
KS - King salmon
RT - Rainbow trout
GR - Grayling

Lake Stocking

Thirteen gravel pits and four lakes were stocked in the Fairbanks area during 1978 (Table 10). Birch Lake was stocked with 94,449 rainbow trout, and Koole Lake was stocked with 10,000 rainbows. These fish were in very poor condition by the time they arrived at the lake in the hatchery truck. Approximately 50% of these fish died immediately upon stocking and many more were found dead on the shoreline opposite the planting sites two days later, which indicates many more than 50% died soon after planting in both lakes.

All waters had been previously stocked including Little Harding Lake which was stocked with 9,520 king salmon. This was the first lake in Interior Alaska stocked with king salmon. The stocking was done on an experimental basis and monitoring will continue on these fish to see if king salmon provide desirable sport fishing.

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Prepared by:

Michael J. Kramer
Fishery Biologist

Approved by:

Rupert E. Andrews, Director
Sport Fish Division

Mark C. Warner, Ph.D.
Sport Fish Research Chief