Volume 18

Study G-III-H

STATE OF ALASKA

Jay S. Hammond, Governor

Annual Performance Report for

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

by

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TABLE OF CONTENTS (Continued)

Section I

TABLE OF CONTENTS (Continued)

Section I

RESEARCH PROJECT SEGMENT

State: ALASKA Name: Sport Fish Investigations of Alaska

Project No.: F-9-9

Study No.: G-III Study Title: LAKE AND STREAM INVESTIGATIONS

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

Period Covered: July 1, 1976 to June 30, 1977

ABSTRACT

Dissolved oxygen readings were taken on 16 district lakes. Twenty-three lakes were sampled to evaluate species composition and growth. Sixty-four gravel pits were sounded for depths, test netted to determine presence or absence of fish and tested for water chemistry properties.

A creel census was conducted on the Chatanika whitefish spearing season and a calculated 111 fisherman fished 300 hours to spear 540 whitefish. Fishery pressure at Birch Lake was figured at 22,000 man-hours. Two lakes in the district were chemically treated to remove rough fish and two gravel pits and four lakes were stocked with rainbow trout, Salmo gairdneri Richardson; silver salmon, Oncorhynchus kisutch (Walbaum); or Arctic grayling, Thymallus arcticus (Pallas).

RECOMMENDATIONS

1. Evaluate stocking success of Fairbanks District lakes stocked with rainbow trout, silver salmon or grayling.

2. Continue creel census efforts on Birch Lake and other selected high use areas.

3. Conduct whitefish population estimates in selected segments of the Chatanika River.

4. Initiate a lake chub removal plan for Birch Lake.

5. Further investigate the rehabilitation possibilities for Blair Lake.

6. Further research should be conducted concerning the placement of an artificial spawning reef in Harding Lake for lake trout spawning and fry survival.

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 enhancement measures and determine availability of sport fish egg sources.

3. To assist as required in the investigation of public access status to the area's recreational fishery waters.

TECHNIQUES USED

Scales used for age determination were impressed on 20 mil acetate or 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. A Lowrance echo sounder was used to determine water depths.

Graduated mesh monofilament gill nets, 125' X 6' (38 X 1.8 m) with five mesh sizes ranging from 1/2" to 2-1/2" (12-64 mm) bar measure were used to sample fish populations in lakes.

FINDINGS

Dissolved Oxygen Testing

Sixteen Interior waters were tested for dissolved oxygen content during the reporting period (Table 1). All the waters tested were gravel pits with the exception of two newly surveyed lakes, Geskakmina and Dune lakes. Geskakmina registered a high concentration of oxygen at 9 ppm and Dune Lake had a reading of 2 ppm.

Fish Sampling in District Waters

Twenty three lakes in the Fairbanks district were test netted to determine species composition and stocking success (Table 2).

One hundred and forty silver salmon, Oncorhynchus kisutch (Walbaum), were captured from Harding Lake in test nets in October. The range of these salmon was from 105 mm to 672 mm. These are the largest landlocked silver salmon recorded in the state.

Birch Lake produced 642 Age I silver salmon ranging in length from 100 mm to 130 mm with an average of 119 mm, 131 Age II silver salmon

Table 1. Fairbanks district waters tested for dissolved oxygen, 197

Water	Date	Ice Depth	Water Depth	Snow Depth	Sample Depth
Hidden Lake* Eielson AFB	Mar. 25	36"	17'	14"	5' 10'
Pike Lake Eielson AFB	Mar. 25	36"	9'	14"	5'
Rainbow Lake Eielson AFB	Mar. 25	36"	18'	14"	5' 10'
Scout Lake Eielson AFB	Mar. 25	38"	14'	14"	5'
Grayling Lake* Eielson AFB	Mar. 26	36"	12'	12"	5'
Tar Kettle Lake*	Mar. 26	36"	22'	12"	5'
28 Mile Pit 28 Mile Richardson Hwy.	Mar. 26	36"	18'	16"	5'
Bathing Beauty Pond* Mile 343.6 Richardson Hwy.	Mar. 31	48"	22'	4"	6' 10'
Birch Lake Pit*	Mar. 31	48"	14'	8"	5' 10'
31 Mile Pit*	Mar. 31	36"	14'	14"	5'
Johnson Road Pit #1 33 Mile Richardson Hwy.	Mar. 31	38"	24'	12"	5' 8'
Johnson Road Pit #2*	Mar. 31	38"	24'	12"	5'
Mile 35.8 Steese Hwy.	Apr. 1	28"	13'	24"	5'
Michael Hartman Pond 17 Mile Chena Hot Springs Road	Apr. 2	36"	6.5'	14"	5'
Geskakmina Lake 64°37' N, 150°15' W	Apr. 15	40"	23'	6"	5' 15'
Dune Lake 64°25'30" N, 140°53'50" W	Apr. 15	36"	20'	4"	5' 10'

* Indicates stocked waters.

Table 2. Fish sampling summaries, 1976.

Name	Date	Species*	No.	Range (mm)	Mean (mm)	Frequency**
Birch Lake	June 8	RT	51	200-465	293	0.7
Age I		SS	642	100-130	119	8.9
Age II		SS	131	190-285	233	1.8
Age III		SS	110	210-310	278	1.5
Dune Lake	June 16	No fish				
Eielson AFB:						
Moose Lake	Aug. 6	NP	1	...	343	0.04
Big Twin Lake	Aug. 6	No fish				
Mullens Pit (big)	Aug. 6	NP	2	135-140	138	0.08
Mullens Pit (small)	Aug. 6	NP	7	254-343	285	0.29
28 Mile Pit	Aug. 6	No fish				
Ft. Wainwright						
South Gravel Pit Lake	June 28	NP	6	273-305	286	0.25
River Road Lake	June 28	LCI	5	273-292	284	0.21
		S	11	115-394	144	0.46
Ski Lake	June 30	No fish				
Horseshoe Lake	July 1	NP	5	153-356	271	0.21
Train Fire Lake	June 30	No fish				
Blair Lake	July 15	NP	26	202-687	478	0.27
North Blair Lake	July 14	NP	64	229-369	310	0.67

Table 2. (Cont.) Fish sampling summaries, 1976.

Name	Date	Species*	No.	Range (mm)	Mean (mm)	Frequen
Geskakmina Lake	July 17	No fish				
Harding Lake	June 9-11	NP	32	185-815	552	0.15
		BB	1	...	420	0.00
		LCI	1	...	135	0.00
Harding Lake	Oct. 4-14	SS	140	...	...	0.16
		NP	105	...	...	0.12
		BB	45	...	...	0.05
		LCI	83	...	...	0.10
		LT	1	...	...	0.00
		SSC	1	...	...	0.00
Koole Lake	Aug. 23	RT	19	250-295	269	Hook
Lost Lake	June 15	RT	2	305-350	328	0.04
		LC	5	ND		
		SS	12	120-150	139	0.25
Nenana Highway: Anderson Pit #1 (long narrow pond City of Anderson)	July 20	GR	2			
Anderson Pit #2 (circular pond City of Anderson)	July 20	No Fish				
Nenana Pond (large)		SS	12	182-205	193	0.50
Nenana Pond (small)		SS	3	155-169	163	0.13
Roy Lake	Sept. 17	SS	1		292	0.50

* GR - grayling
SS - silver salmon
RT - rainbow trout
NP - northern pike
BB - burbot
LCI - least cisco
LT - lake trout
SSC - slimy sculpin
LC - lake chub
S - sucker

ranging in length from 190 mm to 285 mm with an average of 233 mm, and 110 Age III silver salmon ranging in length from 210 mm to 310 mm with an average of 278 mm. Fifty-one rainbow trout, Salmo gairdneri Richardson, were also caught in Birch Lake. Only Age II and Age IV rainbow trout were netted. There is no Age III year class in Birch Lake since none were stocked in 1973. The Age II rainbow trout ranged in length from 200 mm to 290 mm with an average of 230 mm, while the Age IV rainbow trout ranged in length from 335 mm to 465 mm and had an average of 392 mm. These growth statistics are depressed from those reported by Peckham (1973). He found Age II rainbow trout in Birch Lake ranged in length from 229 to 396 mm with a mean of 358 mm while the Age IV rainbow trout ranged from 442 to 525 mm with a mean of 469 mm. This depressed growth could be the result of a high population of lake chubs, Couesis plumbeus (Agassiz), and silver salmon.

Two lakes, Dune Lake 64°25'30" N, 140°53'50" W and Geskakmina Lake 64°37' N, 15°15' W, were netted and found to be barren of fish life. An experimental plant of 75,000 grayling fry was made in Dune Lake where a winter dissolved oxygen sample indicated adequate oxygen for grayling survival.

Geskakmina Lake had a mid winter oxygen reading of 9 ppm and was put on the stocking schedule for 1977.

The Age II rainbow trout in Koole Lake were sampled by hook and line and information was gathered from 19 rainbow trout. These fish averaged 269 mm fork length. A contour map of Koole Lake is provided on Figure 1.

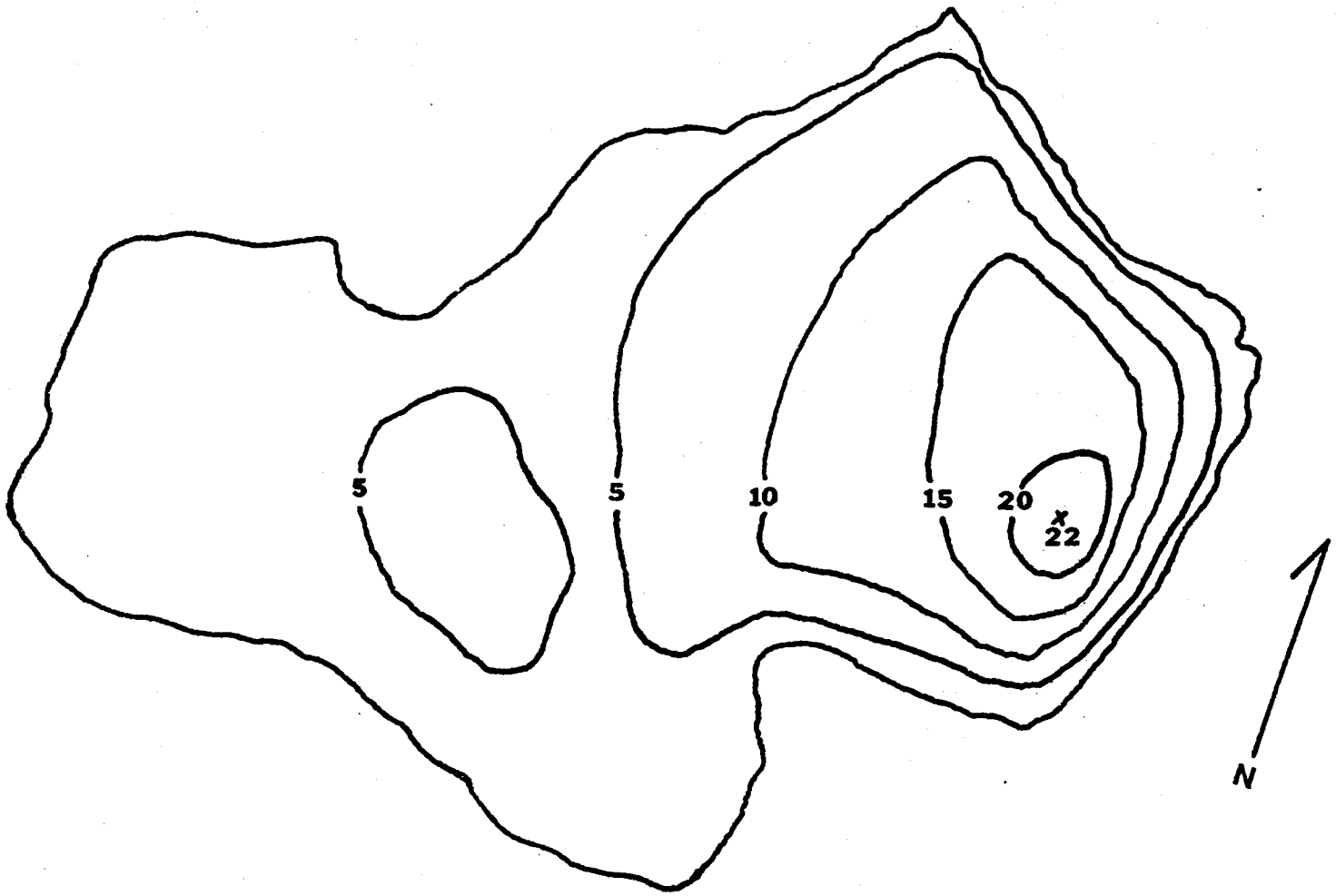
Blair Lake and North Blair Lake were surveyed during the reporting period. Test netting indicated only northern pike, Esox lucius Linnaeus, in both lakes (Table 2). A contour map is provided in Figure 2.

Sixty-four gravel pits along the highway system were test netted for species composition, sounded for depths, and tested for water chemistry properties (Table 3). Some information concerning pits on the military reservation was obtained with the help of military personnel.

Population Estimates

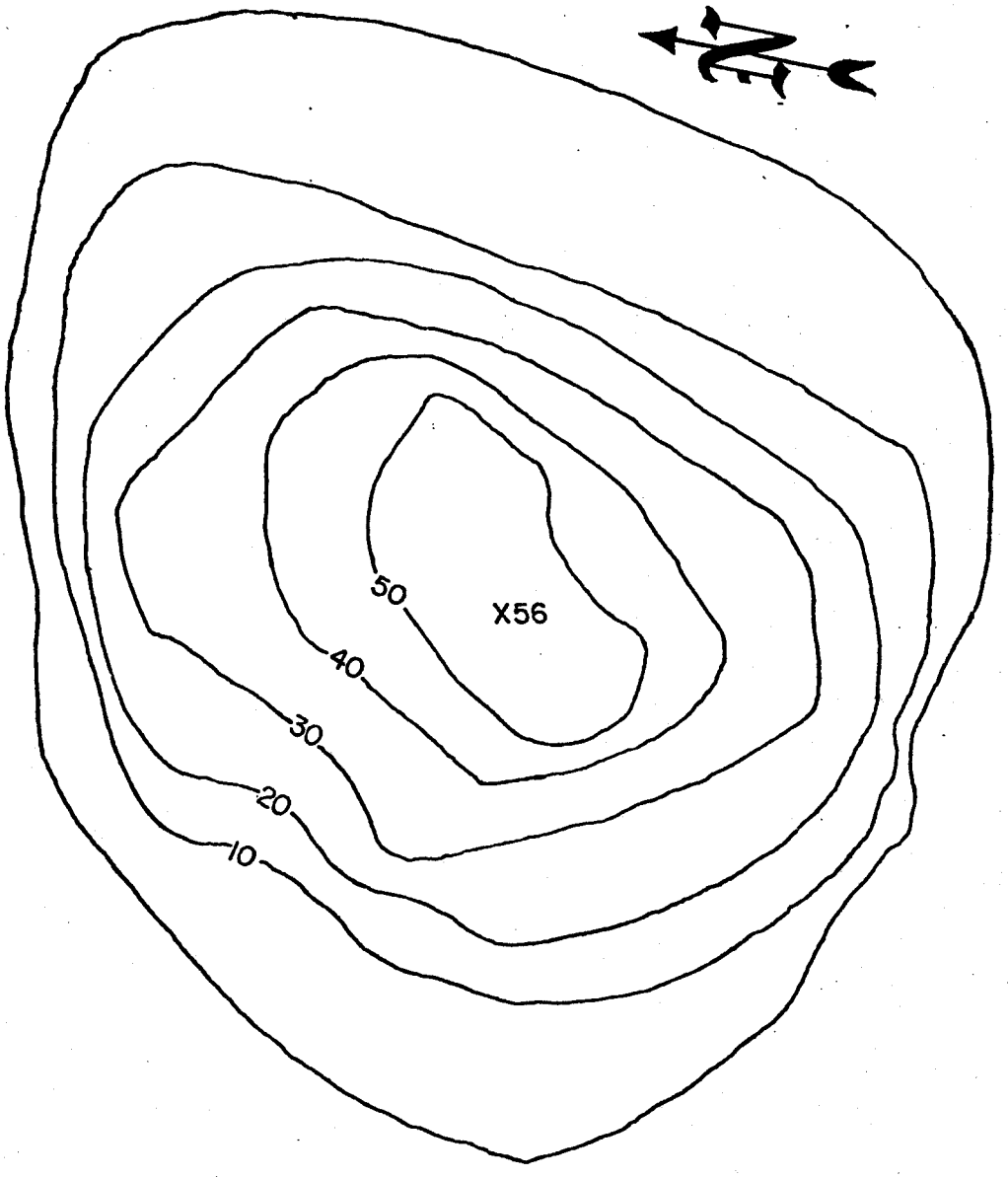
An annual population estimate of humpback whitefish, Coregonus pidschian (Gmelin), and least cisco, Coregonus sardinella Valenciennes, in selected areas of the Chatanika River was attempted in late August but was unsuccessful due to an extremely low water level prohibiting the effective use of an outboard motor equipped riverboat. A helicopter was obtained for this purpose, and on September 9 and 10 the river was flown at low level, but no fish were located. It is thought that the low water level kept many of the whitefish further downstream than usual.

Past estimates of whitefish and least cisco have ranged between 19,000 and 29,100 (Kramer, 1975).



Contour intervals in feet

Figure 1. Contour Map of Koole Lake, 1976.



Contour intervals in feet

Figure 2. Contour map of Blair Lake, 1976.

Table 3. Fish sampling, depth summary, dissolved oxygen and water chemistry; highway gravel pits, 1975, 1976.

Location	Date	Species* Net Results	Max. Depth (ft.)	Total Aikalinity (ppm)	Hardness (ppm)	pH	DO Sampling Date	DO Sampling Depth (ft.)	DO (ppm)	Comments
Richardson Highway										
Mile:	1975						1977			
357.6 (Weigh station Pit #1)	July 15	S, LC	30	188	171	9	Mar. 23	5	5	Has management potential
375.6 (Weigh station Pit #2)	July 15	2 LCH, 1 GR	33	171	154	9	Mar. 23	5	3	Has management potential
							1976			
357.6 Old Rich Hwy Pit (1/4 mi. behind Weigh Station)	July 15	No fish	18	137	137	9	Mar. 2	5	0	No management potential
347.1 (two, one on each side of hwy.; private)	July 15									Private pit
345.8 (private)	July 15									Private pit
343.6 (Bathing Beauty Pit)	July 15	4 LCH	25	188	154	9	Mar. 31	6	7	Stocked with GR
335 (approx.) (28 Mile Pit)	July 15	No fish	13	188	188	9	Mar. 26	5	9	Has management potential

Table 3. (Cont.) Fish sampling, depth summary, dissolved oxygen and water chemistry; highway gravel pits, 1975, 1976.

Location	Date	Species* Net Results	Max. Depth (ft.)	Total Alkalinity (ppm)	Hardness (ppm)	pH	DO Sampling Date	DO Sampling Depth (ft.)	DO (ppm)	Comments
Eielson AFB										
Mile:							1976			
338.9	July 15		4							Too shallow
338.7	July 15	11 LCH	19	85	103	9.5	Mar. 22	5	5	Further DO testing required
338.4	July 15		9	137	154	9				Needs DO test
337.5 (Tar Kettle L.)	July 15	No fish	25	154	154	9	Mar. 26	5	0.2	Further DO tests required
#1	July 15		4	85	85	10				Too shallow
#2-Hidden	July 15	No fish	18	137	120	9	Mar. 25	5	3	Stocked with GR
#3-Pike	July 15	9 NP	22	120	120	9.5	Mar. 25	5	0	Further DO testing required
#4-Rainbow		9 HWF, 3 NP, 1 S	22	154	154	9	Mar. 25	5	1	Has management potential
#5-Scout	July 15	29 S, 9 NP	25	154	154	9	Mar. 25	5	5	Further DO testing required
#6-Grayling	July 15	1 HWF	15	137	137	9	Mar. 26	5	0.6	Stocked with GR

Table 3. (Cont.) Fish sampling, depth summary, dissolved oxygen and water chemistry; highway gravel pits, 1975, 1976.

Location	Date	Species* Net Results	Max. Depth (ft.)	Total Alkalinity (ppm)	Hardness (ppm)	pH	DO Sampling Date	DO Sampling Depth (ft.)	DO (ppm)	Comments
Duck Pond #4	Apr. 1	...	2.5	...	...	...				Too shallow
Duck Pond #3	Apr. 1	...	1.5	...	...	...				Too shallow
							1976			
Duck Pond #2	Apr. 1	No fish	13.5	...	...	...	Apr. 1	5	0	No management potential
							1974			
Duck Pond #1	Apr. 1	No fish	17	...	...	...	Apr. 9	4	0	No management potential
Hidden Lake	Jan.	...	5.5	...	...	...				Too shallow
							1976			
Ski Lake	Mar. 18	No fish	17.3	51	68	7	Mar. 18	5	0.2	Further DO testing required
Horseshoe Lake	Mar. 6	5 NP	19	...	...	...	Mar. 6	5	5	Has management potential
North Horseshoe Lake	Mar. 6	...	13	...	...	...	Mar. 6	5	8	Has management potential
Yukon Lake	Mar. 20	...	11	...	...	...	Mar. 20	5	7	Further DO testing required
Train Fire Lake (Manchu Lake)	Apr. 9 June 30	... No fish	10	...	34	6	Apr. 9	5	8	Has management potential

Table 3. (Cont.) Fish sampling, depth summary, dissolved oxygen and water chemistry; highway gravel pits, 1975, 1976.

Location	Date	Species* Net Results	Max. Depth (ft.)	Total Alkalinity (ppm)	Hardness (ppm)	pH	DO Sampling Date	DO Sampling Depth (ft.)	DO (ppm)	Comments
	1976									
Moose Lake	Aug. 6	1 NP	...	154	137	9	Mar. 8	6	5	Further DO testing required
Little Twin Lake	Aug. 6	...	...	137	120	9	Mar. 18	5	2.4	Has management potential
Big Twin Lake	Aug. 6	No fish	...	137	120	9	Mar. 18	5	5	Has management potential
Mullens Pit (Big)	Aug. 6	2 NP	...	120	137	9	Mar. 22	5	4	Has management potential
Mullens Pit (Small)	Aug. 6	7 NP	...	103	120	9.5	Mar. 22	5	1	Has management potential
Ft. Wainwright										
South Gravel Pit Lake (Badger Lake)	Mar. 29	6 NP	12	188	222	8	Mar. 2	5	1	Has management potential
Monterey Lake (east)	Jan.	...	9	...	...	...				DO required
Monterey Lake (west)	Jan.	...	2.5'	...	...	...				Too shallow
North Post Lake	Jan.	...	5	...	...	...				Too shallow
							1977			
River Road Lake	June 28	5 LCI, 11 S	...	...	...	...	Mar. 23	5	1	Has management potential

Table 3. (Cont.) Fish sampling, depth summary, dissolved oxygen and water chemistry; highway gravel pits, 1975, 1976.

Location	Date	Species* Net Results	Max. Depth (ft.)	Total Alkalinity (ppm)	Hardness (ppm)	pH	DO Sampling Date	DO Sampling Depth (ft.)	DO (ppm)	Comments
Steese Highway										
Mile:	1975									
29.6	July 16	3 RWF	12	51	68	7.5				Needs DO test
30.6	July 16	No fish	12	34	68	7				Needs DO test
31.6	July 16	1 GR, 3 RWF	10	68	85	7.5				Needs DO test
33	July 16	1 HWF	14	51	51	7.5				Needs DO test
33.5	July 16	7 GR	10	34	51	7				Needs DO test
34.6	July 16	No fish	15	34	34	7				Needs DO test
35.8	July 16	No fish	15	34	34	7	Apr. 1	5	4	Stocked with GR
36.5	July 16	No fish	15	68	68	8	Mar. 13	5	7.6	Has management potential
38.3	July 16		6	68	85	9				Too shallow
38.5	July 16		5	102	85	8				Too shallow
39.5	July 16		6	68	51	7.5				Too shallow
40	July 16		5	68	51	7.5				Too shallow
40.8	July 16	5 GR, 5 SSC	9	85	85	9				Needs DO test
43.2 (private; posted)	July 16									

Table 3. (Cont.) Fish sampling, depth summary, dissolved oxygen and water chemistry; highway gravel pits, 1975, 1976.

Location	Date	Species* Net Results	Max. Depth (ft.)	Total Alkalinity (ppm)	Hardness (ppm)	pH	DO Sampling Date	DO Sampling Depth (ft.)	DO (ppm)	Comments
Nenana Highway										
Mile:	1976									
303.9 (pit adjacent to Nenana pond)	July 20	4 S	12	137	120	9.5				Needs DO test
297	July 22		shallow							Too shallow
296	July 22		3							Too shallow
295.2	July 22		3							Too shallow
294.4	July 22		3							Too shallow
292.8	July 23	4 AB	5							Too shallow
289.9 (private)	July 22									Too shallow
288.4	July 22		3							Too shallow
286.4	July 23	1 AB	6							Too shallow
270.9	July 22		3							Too shallow
261.1	July 22		3							Too shallow

Table 3. (Cont.) Fish sampling, depth summary, dissolved oxygen and water chemistry; highway gravel pits, 1975, 1976.

Location	Date	Species* Net Results	Max. Depth (ft.)	Total Alkalinity (ppm)	Hardness (ppm)	pH	DO Sampling Date	DO Sampling Depth (ft.)	DO (ppm)	Comments
Anderson Pit #1 (long narrow pond) (City of Anderson)	July 20	2 GR	10	154	188	9				Needs DO Test
Anderson Pit #2 (circular pond) (City of Anderson)	July 20	None	8	85	85	9.5				Needs DO test

* S - sucker, Catostomus catostomus (Forster)
GR - grayling, Thymallus arcticus (Pallas)
NP - northern pike, Esox lucius (Linnaeus)
HWF - humpback whitefish, Coregonus pidschian (Gmelin)
RWF - round whitefish, Prosopium cylindraceum (Pallas)
SSC - slimy sculpin, Cottus cognatus Richardson
LCH - lake chub, Couesis plumbeus (Agassiz)
BL - Alaska blackfish, Dallis pectoralis Bean
LCI - Least cisco, Coregonus sardinella (Valenciennes)

Creel Census

Chatanika River:

Due to low water in the Chatanika River, the spear fishing season, which began September 1, was slow compared to past years. A creel census station was set up at the Elliot Highway bridge to count fishermen and their catch. Thirty-three percent of the possible fishing time was censused throughout the period from September 1 to October 6, 1976. Thirty-seven fishermen interviewed fished 101 hours to catch 129 humpback whitefish, 34 least cisco and 17 round whitefish, Prosopium cylindraceum (Pallas). An expansion of the above figures gives us a calculated 111 fishermen fishing 300 hours to spear 387 humpback whitefish, 102 least cisco and 51 round whitefish (Table 4). The total harvest (540) is down in 1976 from a high of 3,032 in 1973. The smaller harvest was probably due to an exceptionally low water level that not only prohibited boat travel but kept the fish from migrating upstream as far as they had in previous years; thus, the fish remained less accessible to the spear fishermen during the first part of September. Whitefish began being harvested on September 19 in significant numbers probably because the fish began to move upriver to their spawning grounds.

The same problems occurred in 1975 when creel census efforts were abandoned because of very low fishing pressure.

A summary of spearfishing in the Chatanika River from 1972 to 1976 is found in Table 5.

Table 4. Chatanika River whitefish harvest summary, September 1 to October 12, 1976.

	Calculated Totals
Number of fishermen	111
Number of angler hours	300
Total harvest	540
Fish/angler hour	1.8
Fish/angler trip	4.9
Mean hours per angler trip	2.7

Calculated number of fish harvested by species:

	Number	%
Humpback whitefish	387	72
Least cisco	102	19
Round whitefish	51	9

Table 5. Chatanika River harvest summary, 1972-1976.

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	1.8	540

Salcha River:

A limited creel census was taken on the Salcha River king salmon, O. tschawytscha (Walbaum), and chum salmon O. keta (Walbaum), fishery between July 22 and August 1, 1976. The run was approximately 2 weeks late this year and, when it did arrive, the salmon moved upstream more quickly than normal. Approximately 180 fishermen fished 292 hours in the area of the Richardson Highway Bridge to catch 20 king salmon and 30 chum salmon. This is less than the previous high of 137 king salmon and 187 chum salmon caught in 1974 (Kramer, 1975). The low harvest is also partly the result of a ban on snagging imposed by the Board of Fisheries in 1975.

Birch Lake:

Statistically based angler counts were conducted on Birch Lake in 1976 from July 14 to August 31 (Table 6). Data were expanded to cover the period from May 27 to August 31 to provide a basis for comparison with past angler pressure estimates (Peckham, 1973). The total man hours (22,000) fished is considered very conservative since neither Memorial Day or Labor Day weekends were censused and the month of June normally has the most fishing pressure of any of the summer months.

From this information it is estimated that during the period of May 27 to August 31 there was a minimum of 2,420 rainbow trout and 2,640 silver

Table 6. Birch Lake angler pressure estimates, May 27-August 31, 1976.

Month	Weekends Estimated Angler Hours	Week days Estimated Angler Hours	Total
May 27-June 30*	3,960	4,536	8,496
July 1-31*	4,075	3,507	7,582
August 1-31	3,013	2,909	5,922
Totals	11,048	10,952	22,000

* Information for the period May 27-July 13 based on the average obtained for the July 14-31 census period so these figures are a minimum count. These were presented only to provide a comparison to past data (Peckham, 1973). Actual censusing period was from July 14 to August 31.

salmon harvested. The average size of rainbow trout harvested from Birch Lake was 315 mm (12.4") and the average size of silver salmon harvested was 249 mm (9.8").

A voluntary creel census on Birch Lake was conducted at the Air Force Recreation Camp and is presented in Table 7.

Rehabilitation Projects

Little Harding Lake:

Little Harding Lake, which has 45 surface acres and is located approximately 45 miles south of Fairbanks on the Richardson Highway, was chemically treated on June 25, 1976 to rid the lake of a stunted northern pike population. Liquid rotenone was used at a concentration of 1 ppm. Following a 57-day detoxification period and test netting for 101 net days in which no fish were caught, silver salmon were planted.

Engineer Hill Lake:

Little Harding Lake with 50 surface acres located on Eielson Air Force Base was chemically treated on August 25, 1976 to rid the lake of a large population of lake chubs. Liquid rotenone was used at a concentration of 1 ppm. The lake will be test netted to check for a complete kill in the spring of 1977 and will be restocked with grayling fry.

Lake Stocking

Two gravel pits and four lakes were stocked in the Fairbanks district during 1976 (Table 8). Arctic grayling were stocked for the first time in Dune Lake near Nenana, after test netting determined the lake to be barren of fish.

Table 7. Voluntary Birch Lake creel census (Air Force Recreation Area) May 27 - September 6, 1976.

Month	Anglers Censused	Angler Hours	RT Taken	RT/ Angler Hr	SS Taken	SS/ Angler Hr
May	168	399	75	0.19	61	0.15
June	427	1,721.3	249	0.14	153	0.09
July	182	818.5	39	0.05	130	0.16
August	185	576	28	0.05	41	0.07
September	17	33.5	4	0.12	24	0.72
Total	979	3,548.3	395	0.11	409	0.12

Table 8. Lake stocking, Fairbanks District, 1976.

Lake	Location	Date	Species*	Size	Number
Birch Lake	Richardson Highway	9-15	RT	5.5/lb	766
		6-14	SS	222/lb	54,900
Harding Lake	Richardson Highway	6-10	SS	465/lb	179,000
		6-14	SS	495/lb	211,300
		6-16	SS	456/lb	198,000
		7-12	SS	252/lb	109,200
Dune Lake	25 Mile SW of Nenana	6-28	GR	Fry	75,000
Johnson Road Pit #2	Johnson Road	6-28	GR	Fry	12,500
Johnson Road Pit #1	Johnson Road	6-28	GR	Fry	12,500
Little Harding Lake	Richardson Highway	8-26	SS	78.2/lb	23,700
		8-31	SS	72/lb	24,700

* RT - rainbow trout
SS - silver salmon
GR - grayling

LITERATURE CITED

Kramer, M. J. 1975. Inventory and cataloging of Interior Alaska waters - Fairbanks District. Alaska Dept. of Fish and Game. Federal Aid in Fish Restoration, Annual Report of Progress, 1974-1975, Project F-9-7, 16(G-I-G):145-181.

Peckham, R. D. 1973. Evaluation of Interior Alaska waters and sport fish with emphasis on managed lakes. Alaska Dept. of Fish and Game. Federal Aid in Fish Restoration, Annual Report of Progress, 1972-1973, Project F-9-5, 14(G-III-E):18-47.

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