Appendices to Kemano II Report

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Appendix I Recorded temperatures from Nanika and Kidprice Lakes, 1975

Recorded Temperatures

Nanika Lake, 1975

Station	5	5	5	5	U	U	U	10
Date	24 Aug	25 Aug	27 Aug	28 Aug	24 Aug	25 Aug	27 Aug	23 Aug
Depth (m)								
0	12.0	12.1	10.2	10.7	12.0	12.1	9.9	12.8
1			9.6					
2					12.0			12.5
3			8.4				9.7	
4			8.1					
5	12.3	12.1		10.6	12.0	11.7	9.6	12.0
6			7.9					
7				10.5				
8			7.2	10.2			9.2	
9				10.0				
10	12.3	12.0	6.6	9.8	12.0	11.4	9.1	11.5
11								
12			6.3	9.2		10.2		
13	12.2					9.0	9.0	
14				8.5		8.1		
15	12.2	11.8	5.5		12.0	8.0	8.9	8.1
16		9.0				7.5		
17		8.5	5.3					
18		7.6		8.1		7.2		
19		7.2						
20	12.0	6.7	5.2	8.0	10.2	6.9	8.4	5.7

Recorded Temperatures

Nanika Lake, 1975 (continued)

Station	5	5	5	5	U	U	U	10
Date	24 Aug	25 Aug	27 Aug	28 Aug	24 Aug	25 Aug	27 Aug	23 Aug
Depth (m)								
21	8.0							
22	7.1	5.7		7.3			8.1	
23	7.1							
24	6.8	5.3						
25	6.0		5.0	6.9		6.1		5.2
26								
27				6.1				
28						5.8		
29						5.2		
30	5.2	5.2	4.8	5.8	6.0		7.6	4.8
35		5.1		5.5			7.4	4.5
40		4.1		5.3	4.9	4.9	7.0	4.2
45				5.2		4.8	6.1	4.0
50				4.9	4.5	4.5	5.9	4.0
55				4.7		4.4	5.6	3.9
60				4.4		4.1	5.1	3.9

Recorded Temperatures

Nanika Lake, 1975

Station	D	D	D	D	D	P	P
Date	24 Aug	25 Aug	27 Aug	28 Aug	30 Aug	24 Aug	25 Aug
Depth (m)							
0	11.7	12.0	10.8	10.6	10.2	11.3	11.4
1							
2			10.6			11.6	
3							
4							
5		11.7	10.5	10.3		11.3	11.2
6							
7					10.2		
8							
9							
10	11.7	11.4	10.1	9.8		10.9	10.9
11							
12		10.2	9.7	8.9			
13		9.0			9.8		
14		8.1					
15		8.0	9.3	8.5		10.1	10.5
16		7.5	9.3				9.0
17			9.2	8.0			7.9
18		7.2	8.8				7.8
19			8.4				6.9
20	8.8	6.9	8.1	7.1		7.1	6.8

Recorded Temperatures

Nanika Lake, 1975 (continued)

Station	D	D	D	D	D	P	P
Date	24 Aug	25 Aug	27 Aug	28 Aug	30 Aug	24 Aug	25 Aug
Depth (m)							
21							
22			7.0				
23							
24							
25		6.1	6.9	6.0	6.4		6.0
26				5.7			
27							
28		5.8	6.2				
29							
30	6.1	5.2	5.8	5.2		5.2	5.5
35			5.0	4.8			5.3
40	4.9	4.9	4.9			4.8	5.0
45		4.8	4.7				4.9
50	4.7	4.5	4.4	4.3	4.9	4.3	4.7
55		4.4	4.2				4.5
60	4.3	4.1	4.1	4.1	4.2	4.2	4.4

Recorded Temperatures

Nanika Lake, 1975

Station	T	T	17
Date	28 Aug	29 Aug	23 Aug
Depth (m)			
0	10.1	10.5	10.1
1			9.6
2	10.1	10.7	9.2
3			9.2
4			9.0
5	10.1	10.8	9.0
6			
7			7.9
8			7.2
9			
10	10.1	10.2	6.9
11			
12			6.3
13		9.9	6.1
14			
15		9.5	6.0
16			
17			6.0
18			6.0
19			
20	9.9	6.5	

Recorded Temperatures

Nanika Lake, 1975 (continued)

Station	T	T	17
Date	28 Aug	29 Aug	23 Aug
Depth (m)			
21			
22			
23			
24			
25		5.5	
26			
27			
28			
29			
30	6.0	5.0	
35	5.1	4.9	
40	4.9	4.7	
45	4.5	4.5	
50	4.1	4.3	
55	4.0	4.1	
60	4.0	4.1	

Kidprice Lake, 1975

Station	18	18	18	19	19
Date	3 Aug	13 Aug	18 Aug	31 July	17 Aug
Depth(m)					
0	9.8	15.0	13.6	10.0	11.9
1	9.8	14.1	13.5	9.9	11.9
2	9.8	14.1	13.2	9.9	11.6
3	9.8	13.0	11.6	9.9	11.4
4	9.8	11.1	11.5	9.9	11.4
5	9.8	10.7	11.3	9.9	11.2
6	9.8	10.1	11.0	9.8	11.0
7	9.8	9.9	10.9	9.8	10.8
8	9.8	9.9	10.5	9.8	10.5
9	9.8	9.8	10.2	9.8	10.5
10	9.8	9.8	10.0	9.7	10.5
11	9.8	9.7	9.9	9.5	10.3
12	9.6	9.6	9.9	9.5	10.2
13	9.6	9.4	9.9	9.5	10.2
14	9.6	9.3	9.8	9.4	10.2
15	9.6	9.2	9.7	9.3	10.1
16	9.5	9.2	9.6	9.3	10.0
17	9.5	9.2	9.5	9.1	9.9
18	9.5	9.2	9.4	9.1	9.9
19	9.5	9.2	9.3	9.1	9.9
20	9.5	9.1	9.3	9.0	9.8
21					
22	9.5	9.1	9.2	8.8	9.6
23					
24	9.5	9.0	9.1	8.1	9.5
25				8.0	9.3
26				7.9	

Recorded Temperatures

Kidprice Lake, 1975

Station	20	20	20	20	20	20	20
Date	4 Aug	13 Aug	14 Aug	17 Aug	19 Aug	21 Sept	23 Sept
Depth (m)							
0	10.6	15.9	14.1	12.2	10.8	14.8	11.5
1	10.5	12.8	11.7	12.2	10.7	11.5	11.1
2	10.4	11.0	11.2	12.2	10.7	11.5	10.9
3	10.3	10.9	10.7	12.1	10.7	10.1	10.4
4	10.1	10.7	10.5	12.1	10.7	10.1	10.2
5	10.0	10.6	10.2	11.9	10.7	10.1	10.0
6	9.9	10.4		11.7	10.7	10.0	10.0
7	9.9	10.2		11.6	10.5	10.0	9.9
8	9.9	10.1	9.9	11.5	10.3	9.9	9.9
9	9.8	10.1		11.4	10.3	9.8	9.9
10	9.8	10.0		11.3	10.3	9.5	9.8
11		9.9	9.8	11.1	10.3	9.5	
12	9.7	9.9		11.0	10.3	9.4	
13		9.8		10.3	10.3	9.3	
14	9.7	9.8	9.5	10.2	10.3	9.4	
15	9.7			10.0	10.3	9.1	9.5
16	9.7	9.7		9.9	10.3	9.1	
17		9.6	9.4	9.8	10.3	9.1	
18	9.6	9.6		9.7	10.3	9.1	
19		9.6		9.6	10.3	9.1	
20	9.4	9.6	9.2	9.5	10.3	9.1	9.3

Recorded Temperatures

Kidprice Lake, 1975 (continued)

Station	20	20	20	20	20	20	20
Date	4 Aug	13 Aug	14 Aug	17 Aug	19 Aug	21 Sept	23 Sept
Depth (m)							
21							
22	9.2			9.4	10.3	9.0	
23							
24	9.1			9.3	10.0	9.0	
25	9.1	9.3	8.9	9.2	9.9	9.0	9.1
26	9.0			9.1	9.8	9.0	
27							
28	9.0			8.8	8.8	9.0	
29							
30	9.0	8.8	7.9	8.5	8.0	9.0	9.0
35	8.7	7.4	7.1	7.4	7.0	8.6	8.6
40	7.1	7.1	6.9	7.1	6.9	8.4	8.2
45	6.7 43 m				6.4 42 m		
50							
55							
60							

Recorded Temperatures

Kidprice Lake, 1975

Station	21	21	21					
Date	30 July	9 Aug	18 Aug					
Depth (m)								
0	12.0	10.6	14.5					
1	11.5	10.6	12.9					
2	11.3	10.6	12.4					
3	11.3	10.5	12.2					
4	11.3	10.3	12.0					
5	11.3	10.1	11.8					
6	11.2	10.1	11.7					
7	11.2	10.1	11.7					
8	11.3	10.0	11.6					
9	11.2		11.5					
10	11.0	9.9	11.2					
11	10.3		10.9					
12	10.2		10.5					
13	10.2		10.2					
14	9.9		10.2					
15	9.7		10.0					
16	9.4		9.9					
17	9.2		9.8					
18	9.2		9.8					
19	9.0		9.8					
20	8.8	9.7	9.7					
21	8.6		9.5					
22	8.4	8.2	9.3					

Appendix II Dissolved oxygen measurements from Nanika and Kidprice Lakes, 1975

Dissolved Oxygen (ppm)

Nanika Lake, 1975

Station	1	5	5	5	5	U	U	U
Date	24 Aug	25 Aug	27 Aug	28 Aug	31 Aug	24 Aug	25 Aug	27 Aug
Depth (m)								
0	10.7	10.0	10.4	10.5	10.2	10.6	10.8	10.4
1								
2		10.0	10.4	10.4	10.2	10.6	10.6	10.4
3								
4								
5	10.5	10.0	10.8	10.5	10.2	10.5	10.6	10.4
6								
7			11.0					
8								
9								
10	10.6	10.0	11.1	10.6	10.4	10.5	10.6	10.3
11							10.7	
12								
13	10.6	10.0	11.2	10.6	10.3	10.5	10.8	10.3
30		~10	~11	~11				
70								
90								~11
100							~12	
150								

Dissolved Oxygen (ppm)

Nanika Lake, 1975

Station	D	D	D	D	D	10	P
Date	24 Aug	25 Aug	27 Aug	28 Aug	30 Aug	23 Aug	25 Aug
Depth (m)							
0	10.8	11.0	10.0	10.8	11.4	9.9	10.9
1							
2	10.9	10.9	10.0	10.6		9.6	10.9
3							
4							
5	11.0	10.8	10.0	10.6	11.4	9.5	10.0
6							
7							
8		10.9					
9							
10	11.0	11.2	10.0	10.8		9.7	10.0
11	discont'd	11.4					
12							
13		11.7	10.1	10.8	11.4	9.9	10.1
30							
70							
90							
100	~ 9						
150			~11	~11			

Dissolved Oxygen (ppm)

Nanika Lake, 1975

Station	T	T	T	17			
Date	24 Aug	28 Aug	29 Aug	23 Aug			
Depth (m)							
0	10.8	10.9	10.5	10.7			
1				10.8			
2	10.9	10.8	10.4	10.8			
3				10.8			
4				10.8			
5	11.0	10.8	10.4	10.9			
6							
7				11.1			
8				11.5			
9							
10	11.0	10.9	10.3	11.2			
11							
12				11.3			
13		10.9	10.3	11.2			
30							
70	~9	~11.5					
90							
100							
150							

Dissolved Oxygen (ppm)

Kidprice Lake, 1975

Station	18	18	18	18	19	19	19
Date	3 Aug	12 Aug	18 Aug	21 Aug	31 July	12 Aug	17 Aug
Depth (m)							
0		9.6	9.9	9.9	10.4	8.5	10.1
1	10.2	9.6	10.1	9.8	10.4	8.6	10.1
2	10.3	9.7	10.1	9.8	10.4	8.7	10.1
3	10.3	9.7	10.2	9.8	10.4	8.7	10.1
4	10.3	9.7	10.3	9.8	10.4	8.8	10.1
5	10.3	9.8	10.4	9.8	10.4	8.8	10.1
6	10.3	9.8	10.3	9.8	10.4	8.9	10.1
7	10.4	9.8	10.3	9.8	10.4	9.0	10.1
8	10.4	9.9	10.4	9.9	10.4	9.0	10.1
9	10.4	10.0	10.4	9.9	10.5	9.0	10.1
10	10.5	10.0	10.5	10.0	10.5	9.0	10.1
11	10.4	10.0	10.5	10.0	10.5	9.0	10.1
12	10.5	9.9	10.4	9.9	10.5	9.0	10.1
13	10.4	9.9	10.4	9.9	10.5	9.0	10.1
43				~10			

Dissolved Oxygen (ppm)

Kidprice Lake, 1975

Station	20	20	20	21	21			
Date	17 Aug	21 Aug	21 Sept	9 Aug	18 Aug			
Depth (m)								
0	10.0	9.8	7.5	10.1	10.6			
1	9.8	10.0	7.9	10.1	10.8			
2	9.8	10.0	7.9	10.1	10.7			
3	9.8	10.0	7.9	10.1	10.8			
4	9.8	10.0	7.8	10.1	10.8			
5	9.9	9.9	7.9	10.0	10.8			
6	9.9	9.9	8.0	10.0	10.8			
7	9.9	9.9	7.9	10.0	10.8			
8	9.9	9.9	7.6	10.1	10.8			
9	9.9	9.9	7.8	10.1	10.9			
10	10.0	9.9	8.0	10.0	10.9			
11	10.0	9.9	8.0	10.0	10.9			
12	10.0	9.8	8.1	10.0	11.1			
13	10.0	9.8	8.1	10.0	11.2			
22					~11.0			
43	~ 10		~10					

Appendix III Analysis of Ekman dredge samples from Nanika, Kidprice, and Stepp Lakes, 1974

Analysis of Ekman dredge samples from Manika, Kidprice and Stepp Lakes, 1974

Station No.*	Sample Date	Depth	Bottom Type	Organism	Nos.
MANIKA LAKE:					
1	Sept. 10	5 m.	grey-brown mud	Oligochaetes	3
				Gastropods	4
				Caddisfly case	1
				Diptera (not Chironomids)	1
		25 m.	grey mud	Chironomids	7
9	Sept. 10	5 m.	brown mud	Sphaeriids	43
				Oligochaetes	15
				Chironomids	7
		25 m.	grey sand	Oligochaetes	8
				Chironomids	4
				Sphaeriids	1
11	Sept. 9	5 m.	grey mud	Chironomids	2
		25 m.	grey sand	Oligochaetes	8
				Chironomids	4
				Sphaeriids	1
16	Sept. 9	25 m.	grey mud		
17	Sept. 9	5 m.	brown mud	Oligochaetes	2
				Chironomids	6
				Sphaeriids	4
KIDPRICE LAKE:					
18	Sept. 17	5 m.	brown sand	Oligochaetes	9
				Sphaeriids	1
				Chironomids	2
		25 m.	grey-brown mud	Sphaeriids	3
				Chironomids	1
21	Sept. 17	5 m.	brown mud		
		25 m.	grey clay	Sphaeriids	1
				Chironomids	1
STEPP LAKE:					
23	Oct. 7	5 m.	grey-brown mud	Caddisfly case	1
				Chironomids	2
				Sphaeriids	1
		25 m.	brown mud	Sphaeriids	2

* Station locations are shown in Figs. 10, 11, and 12

Appendix IV Descriptions of tributary streams of Nanika, Kidprice, and Stepp Lakes

Descriptions of tributary streams

of Nanika, Kidprice, and Stepp Lakes*

STREAM 1 (Nanika River) draining Nanika Lake into Kidprice Lake, is clear, rapid and usually 3 to 4 feet deep, except for some rapids and riffle areas ½ to 1½ miles from Nanika Lake. It has a stable regime and bed with vegetation usually growing to the water's edge.

STREAM 11 is a torrential stream with a very recent and unstable channel in the lower one-half mile. It flows among dead trees for much of this section. There is a complete log jam block where it diverges from the old bed going to Nanika River.

STREAM 111 (Nikun Creek) is a moderate-sized, torrential stream with slightly glacial water. The regime appears to be not large for a stream of this type and the bed is relatively stable over the large alluvial fan it has built up.

STREAM IV is a very small creeklet flowing through rocks under a canopy of alder and fir. It is considered good fry habitat, but is too small for adults. The creek probably dries up at the mouth in some years.

STREAM V (Fenton Creek) starts as a relatively straight, high gradient stream with a large regime. Two and a half miles before reaching the lake, it enters a canyon where there are a number of pools and cascades. Upon leaving the canyon, it enters a large gravel delta area where the bed has shifted considerably in past years, the stream now entering the lake south of the old channel. The new bed is still ill-defined and barely

* nothing is known of conditions in spring or early summer, or in winter.

entrenched. Fenton Creek is one of the three major tributaries to Nanika Lake and the only one other than Nanika River and Stream VI with a significant area (in the lower ¼ mile) likely to allow egg incubation.

STREAM VI, a small creek flowing between deep cut banks in meadows for much of the first half mile, gradually enters more forested areas and becomes higher gradient. It contains areas of excellent spawning gravel, adult habitat and juvenile habitat.

STREAM VII, one of the Nanika Lake's major tributaries, is cold, glacial and torrential, except near the mouth. It is likely to be significant only as adult habitat. It enters a canyon approximately 0.4 miles from the mouth.

STREAM VIII, drains an unnamed lake at the southeast end of Nanika Lake and is a major tributary with an estimated flow of 200 to 250 cfs. The glacial water cascades over boulders along a very high gradient course through a canyon. It was judged impassable and is unable to support resident fish.

STREAM IX is fed by a large snow field and glacier. It is very cold, silted and torrential. Overall habitat potential is poor.

STREAM X is cold, glacial and torrential, except at the mouth. The mouth area likely supports fish life.

STREAM XI is very similar to Stream X. Fish life is likely concentrated in the first 500 feet with spawning gravel present up to 1300 feet. However, glacial silt and very cold temperatures limit its spawning potential.

STREAM XII provides good fry habitat in two shallow ponds near the mouth where 12 fry were sighted, but many more probably occur.

STREAM XIII is a small creek flowing in serveral channels from high falls 600 feet from the lake. Benthos production appears good. The creek flows through mature fir and is well shaded and inconspicuous.

STREAM XIV is similar to XIII, but somewhat larger, making a good fry habitat stream. It also drains small lakes inland and has a good benthos population. It flows through mature fir forest and is well shaded.

STREAM XV (Bergeland Creek) appears to have most of the characteristics of an excellent fish stream based on summer observations. The second largest river (in terms of discharge) in the study area, it has a great variety of habitats ranging from torrential to gentle riffles, wide and shallow to narrow, deep and rapid. There are excellent spawning areas, fry habitat areas and adult habitat in the lower four miles and along the west fork of the headwaters. However there is evidence of annual changes of regime.

The channel divides about 3½ miles from the mouth and rejoins 1 to 1½ miles later. Both were walked but the east channel, by far the major one, was not chained. It is narrow, deep and fast and meanders through alder jungle and mature fir. There are several small log jams in the lower 3/4 mile. The stream above 20,000 feet was surveyed from a helicopter.

STREAM XVI is the third largest tributary to Kidprice Lake. The water is slightly glacial and the stream torrential until about 1½ miles from

the mouth where the gradient begins to decrease. The regime appears large and channels are new and unstable in serveral places below this point. Spawning is possible, although not ideal from about ½ mile to the lake.

STREAM XVII drains "Spill Lake", a shallow, eutrophic lake bordered by meadows on the west and mature fir on the east. The lake gradually narrows into the creek which flows through meadows and mixed grassland/ forest in a sluice-type channel interrupted occasionally by old beaver settlements. Its character changes about 3000 feet from the mouth where it enters the bed of a currently dry flood channel. In this area it flows through mature fir forest, bordered by alder jungle and is choked with log jams. Beaver have blocked the entrance at the mouth.

STREAM XVIII (Stepp Creek) draining Stepp Lake is surprisingly small. It begins as a series of beaver ponds and flows through algae-coated rocks in a small canyon for a few thousand feet. About 5000 feet from Kidprice Lake, it changes into a sluice-type stream flowing through meadows and old beaver settlements and at 4000 feet, it becomes a riffle/shallow pond stream with a bed of large gravel and rock. It is passable to adults and may support a few from 4000 to 5000 feet,but appears to be most important as one of the best fry habitats in the study area.

STREAM XIX (Mystery River) has the largest drainage area in the study area with the exception of Nanika River. The river beyond 2 miles from Kidprice Lake has been surveyed from a helicopter. The two forks of Mystery River begin as high gradient torrents draining two adjacent valleys of the Sibola Mountains. The west fork has a number of

impassable falls before entering the broad valley occupied by the main river. The bed here is generally a gravel flood plain, but it occasionally entrenches into a well defined, steep-sided, meandering channel. About 2½ miles from Kidprice, it enters a deep canyon with several deep pools. Below this area to where the river turns towards the lake are several very good riffle and deep pool series. Below the turn, the river spreads out into several, as yet undiscovered channels through the lowland area. The surveyed channel proved to be a minor flood channel, but with good fry habitat. Silt load may be heavy in spring and early summer.

STREAM XX (Upper Stepp Creek) which flows from Anzac Lake is low gradient and sluggish. Where it enters Stepp Lake, it is divided into several deep slough-type channels. This area appears to be excellent rearing habitat, with good cover provided by sedge, alder and dwarf willow. Five hundred feet upstream from Stepp Lake, beaver activity and log jams make it impassible to adult fish. Overall, this stream appears to be good rearing habitat.

Appendix V Summary of catch data for juvenile fishes sampled by beach seining and redd digging in tributary streams of Nanika, Kidprice, and Stepp Lakes, 1974, and Nanika and Kidprice Lakes, 1975

Summary of catch data for juvenile fishes sampled by beach seining and redd digging in tributary streams of Nanika, Kidprice, and Stepp Lakes, 1974

Date	Time	Set #	Stn.#	Species*	Length (cm)	Weight (gm)	Comments
July 20			Bergeland Cr.	DV	4.30	1.21	
July 30			Near Fenton Cr.	DV	2.25	0.11	
Aug. 5			Near Fenton Cr.	DV	9.60	12.98	
					9.80	13.10	
Aug. 7			Nanika R. at outlet of Nanika L.	RT alevins	1.55	0.11	Redd digging
					2.05	0.18	
					1.65	0.14	
					1.80	0.12	
					2.00	0.19	
					1.90	0.17	
					1.90	0.12	
					1.75	0.09	
					2.00	0.18	
					1.70	0.12	
					2.00	0.13	
					1.70	0.11	
					1.90	0.15	
					1.70	0.14	
					1.95	0.17	
					2.00	0.18	
					1.60	0.11	
					1.75	0.14	
					2.00	0.19	
					2.00	0.18	
					1.95	0.15	
					1.70	0.12	
					1.95	0.13	
					1.65	0.11	
					1.95	0.15	
					1.95	0.12	
					1.95	0.12	
					1.70	0.12	
					1.55	0.11	
					1.85	0.12	
					2.00	0.15	
					1.80	0.12	
					1.60	0.11	
					2.00	0.15	
					2.00	0.18	

* RT = Rainbow Trout
DV = Dolly Varden Char
U = Unknown

Date	Time	Set #	Stn.#	Species	Length (cm)	Weight (gm)	Comments
				RT	1.60	0.11	
					2.00	0.19	
					1.80	0.15	
					1.60	0.11	
					2.00	0.15	
					1.90	0.15	
Aug. 9			Mouth of Nikun Cr.	DV	2.70	0.19	
					2.65	0.18	
					2.60	0.15	
					2.80	0.20	
Aug. 12			Near Creek XIV	RT	3.00	0.32	
					2.80	0.21	
					2.75	0.20	
					5.35	2.10	
				DV	3.25	0.48	
Aug. 13			Fenton Cr.	DV	2.65	0.19	
					4.20	0.88	
Aug. 14			Nanika R. at outlet of Nanika L.	RT alevins	1.75	0.11	Redd digging
					1.65	0.11	
					1.75	0.12	
					1.70	0.11	
					1.80	0.12	
					1.50	0.10	
					1.80	0.10	
					1.75	0.11	
					1.65	0.12	
					1.85	0.13	
					1.65	0.10	
					1.65	0.10	
					1.75	0.11	
					1.65	0.11	
					1.50	0.11	
					1.60	0.10	
					1.80	0.11	
					1.65	0.10	
					1.85	0.11	
					1.85	0.15	
					1.75	0.11	
					2.05	0.10	
					2.00	0.10	
					2.00	0.10	
					1.80	0.12	
					1.80	0.12	
					1.60	0.11	
					1.55	0.11	

Date	Time	Set #	Stn.#	Species	Length (cm)	Weight (gm)	Comments
				RT	1.55	0.10	
					1.60	0.11	
					1.95	0.11	
					2.05	0.10	
					1.90	0.14	
					1.70	0.11	
					1.70	0.11	
					1.65	0.10	
					1.65	0.11	
					1.80	0.08	
					2.25	0.11	
					2.15	0.10	
					2.30	0.18	
					1.85	0.11	
					2.10	0.11	
					2.05	0.12	
					2.25	0.12	
					2.15	0.12	
					2.25	0.15	
					2.15	0.14	
					2.05	0.12	
					2.25	0.15	
					2.10	0.14	
					2.15	0.15	
					2.10	0.13	
					1.95	0.11	
					2.15	0.16	
					2.05	0.11	
					2.20	0.12	
					2.10	0.15	
					1.95	0.11	
					1.95	0.11	
					2.00	0.11	
					2.20	0.15	
					1.85	0.11	
					2.30	0.18	
					2.00	0.11	
					2.30	0.10	
					2.20	0.10	
					2.20	0.10	
					2.20	0.10	
					2.15	0.11	
				DV	2.80	0.30	
Aug. 15			Near Fenton Creek	DV	3.15	0.33	
					2.70	0.20	

Date	Time	Set #	Stn.#	Species	Length (cm)	Weight (gm)	Comments
Aug. 20			Near Creek XI	DV	2.30	0.12	
					2.20	0.10	
Aug. 21			Nanika R. 1 Chain below Nanika L.	RT alevins	2.50	0.20	Redd digging
					2.25	0.20	
					2.70	0.22	
					2.75	0.20	
					2.85	0.23	
					2.70	0.21	
					2.70	0.22	
					2.55	0.22	
					2.50	0.23	
					2.45	0.19	
					2.60	0.22	
					2.60	0.23	
					2.75	0.27	
					2.60	0.22	
					2.65	0.22	
					2.30	0.20	
					2.30	0.20	
					2.65	0.25	
					2.45	0.21	
					2.00	0.20	
					2.25	0.20	
					2.50	0.21	
					2.70	0.20	
Aug. 21	1915	11	1				0 catch
	1930	12	1	DV	5.10	1.50	
					2.95	0.25	
					2.70	0.19	
					2.65	0.15	
					2.35	0.11	
					2.60	0.20	
Aug. 22			Nanika R. 1 Chain below Nanika L.	RT alevins	2.40	0.19	Redd digging
					2.50	0.20	
					2.30	0.19	
					2.30	0.19	
					2.30	0.20	
					2.30	0.20	
					2.35	0.19	
					2.40	0.19	
					2.35	0.19	
					2.40	0.20	
					2.30	0.15	
					1.85	0.09	

Date	Time	Set #	Stn.#	Species	Length (cm)	Weight (gm)	Comments
Aug. 22	1900	15	Nanika R. at outlet of Nanika Lake	RT	2.45	0.19	
					2.80	0.20	
					2.70	0.20	
					2.70	0.19	
					2.70	0.20	
					2.70	0.21	
				DV	5.70	2.10	
Aug. 22	1915	16	1	RT	2.40	0.14	
					2.70	0.20	
					2.70	0.21	
				DV	2.60	0.20	
					2.40	0.12	
					2.35	0.14	
Aug. 27			Nanika R. at 26 + 00	RT	2.90	0.24	
					2.75	0.20	
					2.70	0.21	
					2.85	0.23	
					2.95	0.24	
Aug. 27	2010	23 and	Near Nikun Creek	RT	11.10	15.80	total catch = 62 juveniles
				DV	13.00	21.40	
					9.70	11.11	
	2120	25			6.90	3.59	
					8.60	7.35	
					7.25	4.43	
					6.65	3.19	
					6.25	2.78	
					6.10	2.61	
				DV	6.10	2.49	
					6.70	3.39	
					6.20	2.42	
					7.30	3.95	
					6.50	2.81	
					6.15	2.60	
					3.60	0.58	
					3.10	0.28	
					3.45	0.42	
Aug. 27	2030	23a	Near Nikun Creek	DV	6.30	2.60	
					6.90	3.53	
					6.30	3.01	total catch= 130 juveniles
					2.90	2.09	
					3.70	1.58	
					4.35	1.01	
					3.20	0.51	
					3.35	0.40	

Date	Time	Set #	Stn.#	Species	Length (cm)	Weight (gm)	Comments
					3.95	0.69	
					3.15	0.31	
					3.65	0.42	
					3.45	0.40	
					3.45	0.40	
					2.90	0.25	
					3.70	0.58	
					3.75	0.52	
					3.30	0.39	
					3.05	0.24	
					3.10	0.30	
				U	2.70	0.20	
Aug. 27	2055	24	Near Nikun Cr.	RT	6.70	3.50	
				DV	6.25	2.89	
					2.75	0.23	
					2.60	0.21	
					2.70	0.29	
					2.75	0.23	
					2.30	0.18	
Aug. 27	2130	26	Mouth of Nikun Cr.				Total catch = 51 juveniles
Aug. 28			Nanika R. at outlet of Nanika Lake	RT	2.75	0.24	
					2.95	0.26	
					2.80	0.22	
				RT	2.85	0.20	
					2.70	0.20	
					2.80	0.21	
					2.90	0.23	
					2.70	0.21	
					2.90	0.25	
					2.80	0.21	
					2.80	0.22	
Aug. 28	2000	27 and 31	Mouth of Creek VII	DV	5.90	2.15	Total catch = 131 juveniles
					6.20	2.42	
					5.85	2.10	
					5.20	1.55	
					5.40	1.65	
					3.30	0.40	
					3.60	0.55	
					3.00	0.30	
					3.30	0.35	
					3.00	0.30	
					2.90	0.22	
					2.50	0.19	
					2.75	0.21	

Date	Time	Set #	Stn.#	Species	Length (cm)	Weight (gm)	Comments
				DV	2.80	0.22	
					2.50	0.14	
					2.25	0.11	
					2.35	0.12	
Aug. 28	2020	28	25 yds N of Creek VII	DV	3.00	0.31	
					2.75	0.23	
					2.15	0.10	
Aug. 28	2035	29	50 yds N of Creek VII	DV	3.65	0.58	
					2.40	0.12	
					2.75	0.20	
					2.25	0.10	
					2.30	0.10	
					2.40	0.15	
					2.80	0.20	
					2.10	0.09	
					1.90	0.08	
					2.20	0.10	
					2.20	0.10	
					1.90	0.09	
Aug. 28	2055	30	100 yd N of Creek VII	DV	5.95	2.79	Total catch = 53 juveniles
					5.05	1.51	
					4.40	1.02	
					5.65	2.18	
					2.80	0.29	
					2.75	0.29	
					3.20	0.38	
					2.75	0.28	
					2.60	0.21	
					2.95	0.32	
					3.30	0.50	
					3.40	0.49	
Sept. 7	1945	32	30 yds N of Fenton Cr.	DV	6.10	2.48	
					4.00	0.80	
					4.10	0.78	
					3.90	0.69	
					3.40	0.42	
					4.50	1.10	
					3.45	0.44	
Sept. 7	2005	33	S. side of Fenton Cr.				0 catch
Sept. 7	2020	34	50 yd. S of Fenton Cr.	DV	4.50	0.92	
					2.75	0.19	

Date	Time	Set #	Stn.#	Species	Length (cm)	Weight (gm)	Comments
Sept. 7	2040	35	N.Side of Fenton Cr.	DV	14.00	29.88	
					7.15	4.19	
					6.00	2.40	
					6.70	3.41	
					5.30	1.71	
					6.40	2.90	
					4.00	0.70	
Sept. 7	2045	36	25 yds N of Fenton Cr.	DV	10.35	11.70	Total catch = 34 juveniles
					9.50	8.63	
					9.95	10.45	
					9.40	8.71	
					6.80	3.71	
					6.75	3.51	
					6.60	3.30	
					4.85	1.31	
					4.30	0.90	
					3.30	0.48	
Sept.27	1900	42	20 yds S of Stepp Cr. mouth	DV	4.50	0.92	
					2.75	0.19	
Sept.27	1915	43	Stepp Cr.	RT	10.35	12.60	Total sample = 23 juveniles
	1925	44			8.40	7.45	
	2000	46			3.50	0.61	
					4.90	1.59	
					4.00	0.80	
					4.60	1.31	
					4.00	0.79	
					4.25	1.08	
					3.45	0.59	
					4.15	0.89	
					3.90	0.89	
				DV	4.10	0.80	
					4.25	0.80	
Sept.27	1945	45					0 catch
Oct. 1	1945	47	Mouth of Nanika R. on Kidprice L.	RT	3.80	0.70	
					3.60	0.60	
					4.40	1.10	
					3.50	0.52	
					3.10	0.32	
					3.40	0.48	
					3.30	0.45	
					3.75	0.60	

Date	Time	Set #	Stn.#	Species	Length	Weight	Comments
Oct. 1	1945	47		RT	3.65	0.70	
					3.35	0.52	
					2.90	0.39	
				DV	8.95	8.23	
					9.75	10.00	
					10.00	11.02	
					8.60	7.22	
					10.75	14.01	
					5.70	2.15	
					3.85	0.69	
					3.90	0.63	
					4.10	0.81	
					3.40	0.39	
					3.30	0.41	
					4.00	0.72	
					3.80	0.61	
					3.95	0.70	
					3.30	0.39	
					3.70	0.58	

Summary of catch data for juvenile fishes samples by beach seining and redd digging in tributary streams of Nanika and Kidprice Lakes, 1975

Date	Time	Set #	Stn #	Species	Length (cm)	Weight (gm)	Comments
Aug 6	1930		19	DV	12		
				DV	6		
Aug 6	1940		19	DV	15		
				DV			1 fry
Aug 6	1950		19	DV			8 fry
				RT			4 fry
Aug 10		Stepp Ck.	"F"	DV			1 fry
				RT	3.2	0.36	
Aug 13			19	DV			4 fry
				RT			3 fry
Aug 13			19	DV	2.4	0.24	
				DV	2.5	0.26	
				DV	2.6	0.50	
Aug 14			18	DV	9.0	8.5	
				DV	10.2	10.9	
				DV	9.3	8.4	
				DV	8.5	6.5	
				DV	8.1	6.3	
				DV	9.7	10.2	
				DV	6.8	4.0	
				DV	8.1	6.8	
				DV	7.1	4.3	
				DV	7.6	4.9	
				DV	6.7	3.2	
				DV	6.4	3.0	
				DV	6.9	3.9	
				DV	6.6	3.3	
				DV	4.5	1.5	
				DV	6.0	2.8	
				DV	3.5	0.40	
				DV	3.2	0.33	

Summary of catch data for juvenile fishes sampled by beach seining and redd digging in tributary streams of Nanika and Kidprice Lakes, 1975

Date	Time	Set #	Stn #	Species	Length (cm)	Weight (gm)	Comments
Aug 14	Beach near mouth of Nanika River (Stn.18)			DV		-	
				DV		-	all < 4 cm
				DV		-	
				DV		-	
				DV		-	
				DV		-	
				DV		-	
Aug 14	Beach near mouth of Nanika River (Stn.18)			DV	10	-	
				DV	< 6		
				DV	< 6		
				DV	< 6		
				DV	< 3		
				DV	< 3		
				DV	< 3		
				DV	< 3		
				DV	< 3		
				DV	< 3		
Aug 15	Beach E of Nanika River mouth (Stn.18)			RT			1 fry
Aug 16	Stepp Ck (Stn. 21)			DV	5.4	1.82	
				DV	5.1	1.58	
				DV	5.2	1.65	
				DV	4.8	1.32	
				DV	4.5	1.10	
				DV	4.1	0.79	
				RT	9.2	8.25	
				RT	8.3	6.69	
				RT	6.6	3.27	
				RT	4.5	1.13	
				RT	4.3	0.94	
				RT	3.9	0.79	
				RT	3.6	0.53	

Summary of catch data for juvenile fishes sampled by beach seining and redd digging in tributary streams of Nanika and Kidprice Lakes, 1975

Date	Time	Set #	Stn #	Species	Length (cm)	Weight (gm)	Comments
Aug 16	cont'd			RT	2.8	0.26	
Aug 16			nr 21	RT	16.7	49.8	
				DV	4.2	0.94	
Aug 29		Fenton Ck.	nr 9	DV	9.0	8.39	
				DV	8.5	7.52	
				DV	6.8	3.39	
Aug 29		Fenton Ck.	nr 9	DV	< 6.0		
				DV	< 6.0		
Sept 27	1615	CK XIX	2000'	RT	3.0	0.27	
	1730	CK XIX	1500'				2 fry seen
Aug 27		Nikun Ck.	nr 6	DV	8.0	5.19	
				DV	6.8	3.36	
				DV	6.8	3.44	
				DV	6.8	3.04	
				DV	5.0	1.19	
				DV	5.0	0.98	
				DV	4.5	0.80	
				DV	4.5	0.90	
				DV	4.5	0.74	
				DV	4.3	0.70	
				DV	4.0	0.55	
				DV	4.0	0.64	
				DV	3.5	0.36	
				DV	3.3	0.30	

Appendix VI Stream survey data and maps of tributaries of Nanika, Kidprice, and Stepp Lakes

Stream Survey Data

Numbers in the left hand column of the stream survey data indicate hundreds of feet, with the exception of those for Bergeland Creek (XV), which indicate thousands of feet.

Each 100 foot section of stream has been rated for adult, juvenile, and spawning rainbow trout and Dolly Varden char habitat. Where a gap occurs between 100 foot intervals, it indicates the habitat ratings have not changed from the previous recording.

Numbers on the stream survey maps approximate thousands of feet to facilitate comparisons between maps and data. These distances are only approximate, due to difficulties in chaining in this terrain.

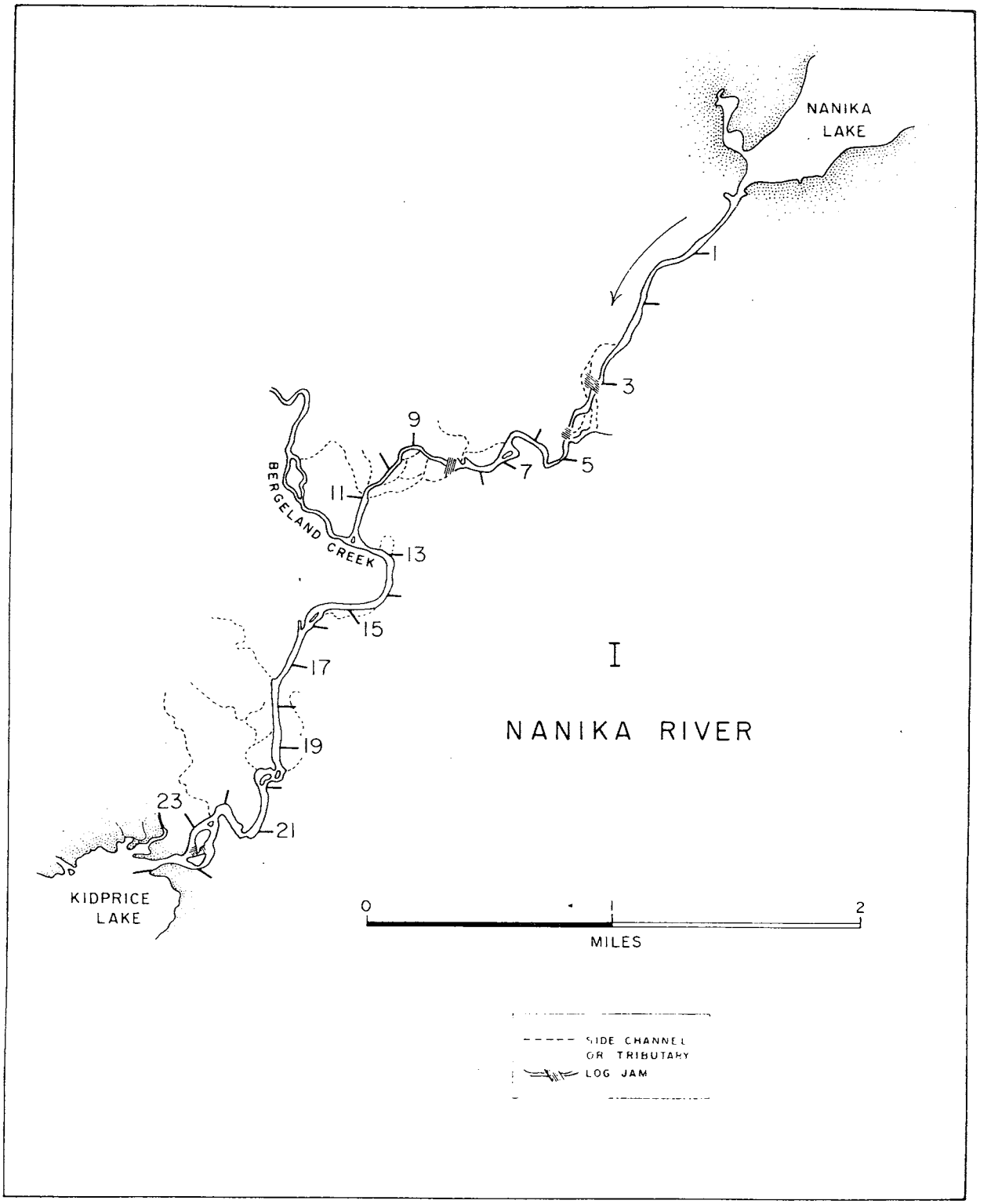
Habitat potential ratings with asterisks have been estimated from field notes.

Habitat Ratings:

1 poor-fair
2 fair-good
3 good-excellent

List of abbreviations used:

B.W.	backwater
elv.	elevation
est.	estimated
ex.	excellent
glac.	glacial
impass.	impassable (to fish)
med.	medium
mod.	moderate
pass.	passable (to fish)
sp.	spawning
trib.	tributary


NANIKA
LAKE
1
3
5
7
9
11
13
15
17
19
21
23
BERGELAND CREEK
KIDPRICE
LAKE
I
NANIKA RIVER
0
1
2
MILES
SIDE CHANNEL
OR TRIBUTARY
LOG JAM

STREAM SURVEY DATA

Stream: Nanika River (1)

Survey Date: August 7, 1974 Time: 0900 Hr.

Weather: c.c. 4/Wind S.E. 5-10

Air Temperature: 11.5° C.

Water Temperature: 11.5° C.

Water Discharge: Flow: 1098 c.f.s.

Summary Comment: Results of redd digs made 100 ft. to 300 ft. down stream of the outlet of Nanika Lake, showed this to be the main rainbow spawning area of the system.

OBSERVATIONS

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
0 - 2	2*	1*	3	Outlet of Nanika Lake
3	2*	3	0	Large rock bottom
4	2*	3	0	Large open b.w.
5	2*	2*	2	
6	2*	2	0	Fallen logs, flooded grass
7	2*	2*	1*	Mod grav., mud margins
8	1*	2*	0	B.W., Large gravel
9	1*	1*	0	B.W., Rapids start
10	1*	0	0	Rapids
10.5	0	0	0	End rapids
11	1*	3	0	Dead timber in water
12	0	2	0	B.W.
13	0	1	0	Large gravel
14	0	1*	0	Small channel on East
15	1*	1	0	Large gravel & boulder bottom
16	0	3	0	Fallen logs in water
17	0	2*	0	

STREAM SURVEY DATA

OBSERVATIONS - Continued

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
18	0	0	0	
19	2	1	0	
20	2	1	2	Good flow, riffle
21	2	3	0	
22	3	1	0	
23	2*	1*	0	Large grav.
24	2*	1*	0	Deep
25	0	1	1	Redd digs - nil
26	0	1	0	
27	0	0	0	
28	0	0	0	
29	3	0	0	Deep, rapid flow
30	3	1*	1*	1 redd dig - 2 alevins
31	3	1*	1*	
32	0	3	0	
33	3	3	3	
34	3*	2*	2*	
35	3*	2*	2*	6 ft. cut bank
36	2*	2*	0	Large log jam begins
37	3	2*	0	Deep. 2 adults sighted
38	3	2*	0	
39	3	3	0	Braided channel
40	2*	2*	0	Log jam ends
41	0	0	1	2000 ft.^{2} sp. grav.
41.5	0	2*	0	3 fry, 1 fingerling sighted
42	0	0	1	Redd digs - nil
44	0	0	0	
45	0	0	2	5500 ft.^{2} sp. grav.
47	3	2	0	Fallen logs, dead forest

STREAM SURVEY DATA

OBSERVATIONS - Continued

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
48	3	2	0	
49	3	2	2	3 fry sighted, 1 caught
50	3	3	2	Log jam, Small to mod. grav.
51	3	3	2	2 fry sighted
52	3	3	2	
53	1*	2	0	B.W., cut banks
55	1*	2*	0	2 fry sighted
56	1*	2*	0	
56.5	3*	3*	0	Flows against cliff
57	2*	2*	0	Rapid flow
58	0	2*	0	B.W.
59	0	1*	1	Sp. grav. on margins
59.5	0	1*	0	Another channel enters
60	0	0	0	Water enters over bank
64	0	1*	0	B.W.
66	1	1	1	Rapid flow
67	0	0	2	
68	0	0	1	2 channels
74	0	0	2	Cut banks
75 - 78	0	0	2	
79	0	0	2	
80	3	3	1	2500 ft.^{2} sp. grav.
83	3	3	1	2 nd. log jam
84- 85	2	1*	0	Deep, fast
86	2*	0	1	
87	2*	0	1	
88	0	1	0	B.W.
89	2	0	0	Log jam
90	0	0	3	7500 ft.^{2} sp. grav.
91	0	0	0	Channel splits

STREAM SURVEY DATA

OBSERVATIONS - Continued

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
92	3	1	0	Mud bottom on margins
93	3	1	0	Mud bottom on margins
94	2*	1*	0	Submerged logs
94.5	2*	1*	0	Logs across channel
95	2*	0	0	Rapid flow
96	2	3	0	Small channel or creek enters
97	2*	3*	0	Narrow, fast
98	2*	1*	0	Next channel joins
99	1*	0	0	Med. grav.
100	3	1*	0	Large pool
101	2	2	0	B.W. 1 fry sighted
102	2*	2*	0	Numerous B.W.
103	0	1*	1	Redd digs - nil
105	2	2	0	Trees in water
106	2	2	0	Trees in water
107	3	3	0	Channel enters on West
108	2*	2*	0	Water flowing through vegetation
109	0	2*	1	Redd digs - nil
110	2	2	0	
111	1*	1*	0	Old beaver lodge
112	0	0	0	Turns West
114	0	0	0	Large grav.
115	0	0	0	
116	0	0	0	
117	0	1*	0	Fallen trees in water
121	2	2	0	
123	1*	1*	1	
124	1*	1*	0	Bergeland Creek
125	2*	2*	0	Deep, cut bank

STREAM SURVEY DATA

OBSERVATIONS - Continued

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
127	2*	2*	0	4-5 ft. deep
128	0	0	0	Slightly glac.
129	0	0	0	Sand bar
130	2	2	2	Submerged logs
131	2	2	0	B.W.
132	2*	2*	0	Small silted grav.
133	2*	2*	0	Cut bank on West
134	2*	2*	0	
137	2*	2*	0	Deep. Overhanging vegetation
140	2*	2*	0	Much fines in grav.
141	1*	1*	0	Turns East
143	1*	1*	0	
145	2	2	0	
148	2*	2*	0	B.W.
149	2*	2*	1	B.W.
150	2*	1*	0	Deep
151	2	1*	0	One 3" rainbow trout
152	3	1*	0	Deep. Cut bank
153	1*	0	3	
154	1*	0	3	
155	0	0	3	Very good sp. bed
156	0	0	3	
157	0	2*	0	B.W., marsh
159	0	0	0	Rapid current
160	3	3	0	
161	0	2*	3	B.W.
162	0	2*	3	Old beaver activity
163	2	2	3	
164	2*	2*	3	Pool

STREAM SURVEY DATA

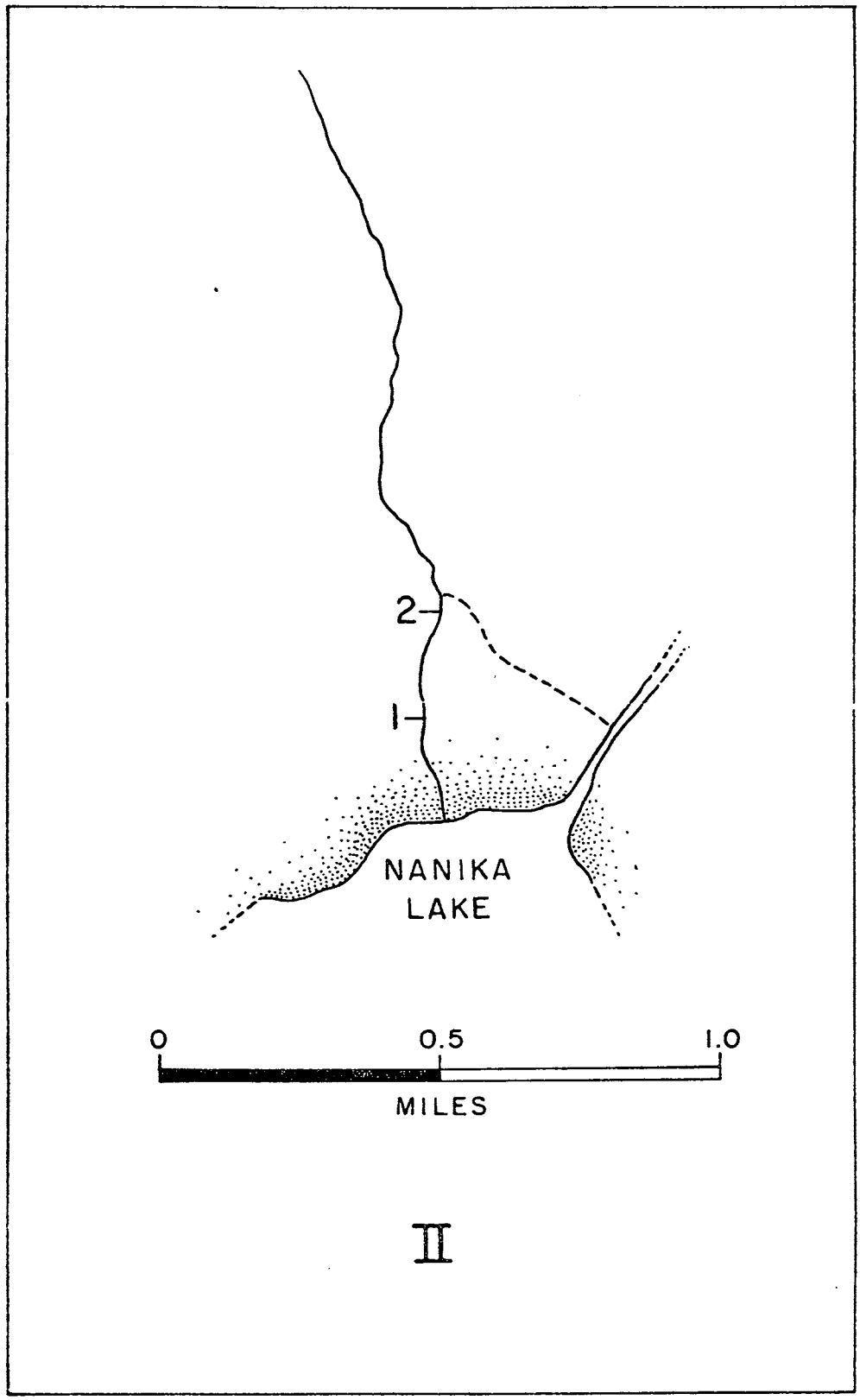
OBSERVATIONS - Continued

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
165	2*	2*	0	Narrow, deeper
167	0	2	2	Redd digs - nil
169	0	0	2	
170	0	1	2	
171	0	1	2	
172	2	1*	0	
173	2	1*	0	Marsh on east shore
173.5	2	1*	0	Mud + algae on bottom
174	2	0	0	
175	2	2	0	
176	2	2*	0	Submerged logs. Silty
177	2	2*	2	
179	0	0	1	Mod. grav., interstitial sand.
180	2	2	0	Good cover on margins
181	2	2	0	
183	2	0	0	Mud banks
184	2*	0	0	
185	2*	0	0	
186	1	1	0	Ex. grav., but sandy
187	1	1	0	
188	1*	1*	0	
189	1*	3	0	South arm of Slough
190	1*	1	0	
191	1*	1	0	
192	1*	1*	0	
193.5	0	3	0	Slough on West
194	1*	2*	3	Fast, deep
195	3	2*	0	Large log jam
196	2*	1*	0	Beaver activity, silt, sand

STREAM SURVEY DATA

OBSERVATIONS - Continued

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
197	2*	1*	0	Small grav. & sand
198	0	0	3	8000 ft.^{2} sp. grav.
199	0	1*	2*	B.W.
200	0	1*	2*	Small grav.
201	0	1*	2*	Beaver sign
202	0	1*	2*	Channel re-enters
209	1*	1*	2	Deep. Small grav.
210	1*	1*	2	
213	3	2*	0	
214	3	2*	0	
215	3	1*	0	Partial log jam
219	0	0	2	
220	0	2*	0	B.W.
221	3	0	0	Deep pool
222				
223	2*	2*	0	Creek enters
224	3	0	0	Logs in water, mud bottom
226	0	2	0	2 fry sighted
228	0	2	0	10 fry sighted
234	2*	2	0	Island. Slough
235	3	1*	0	Deep, fast
236	3	2*	0	Log jam
237	3*	2*	0	Turns east
240	2*	2*	0	3 fry sighted
242	2*	3	0	Slough on east
243	2*	3	0	
244	2*	3	0	50 fry sighted in B.W.
245	2*	3	0	Slough enters
248	2	2	0	Enters Kidprice Lake


2
1
NANIKA
LAKE
0
0.5
1.0
MILES
II

STREAM SURVEY DATA

Stream: #11

Survey Date: July 19th, 1974 Time: 0900 hr

Weather:

Air Temperature: 14.5° C

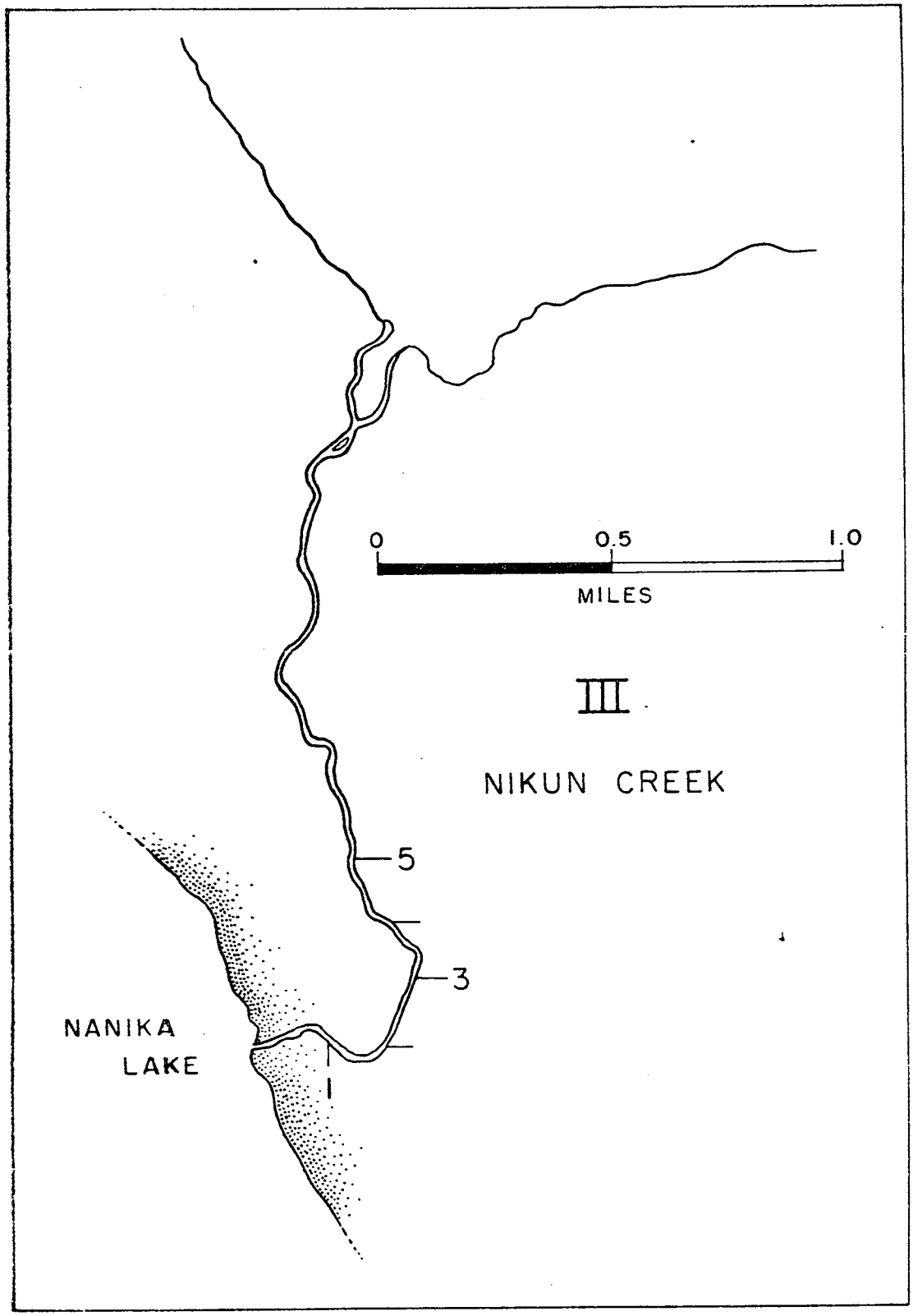
Water Temperature: 5.0° C

Water Discharge:

Summary Comment: Stream very torrential; sp. unlikely

OBSERVATIONS

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
1	0	0	1	Grav.Fan at mouth
2	0	0	0	Mod. Grav.
3	0	2	0	Fallen Logs
4 - 5	0	0	0	Two Channels
6 - 7	0	0	0	Large grav.
8 - 9	0	0	0	
9 -15	0	0	0	Torrential
15 -20	0	0	0	Torrential
20 -25	0	0	0	Torrential


0
0.5
1.0
MILES
III
NIKUN CREEK
5
3
1
NANIKA
LAKE

STREAM SURVEY DATA

Stream: NIKUN CREEK (III)

Survey Date: August 9th, 1974 Time: 0900

Weather: C.C. 1/ Wind 10

Air Temperature: 16.5°C

Water Temperature: 9.5°C

Water Discharge: Flow: 151 c.f.s.

Summary Comment: 7 - 10 fry were observed at the creek mouth

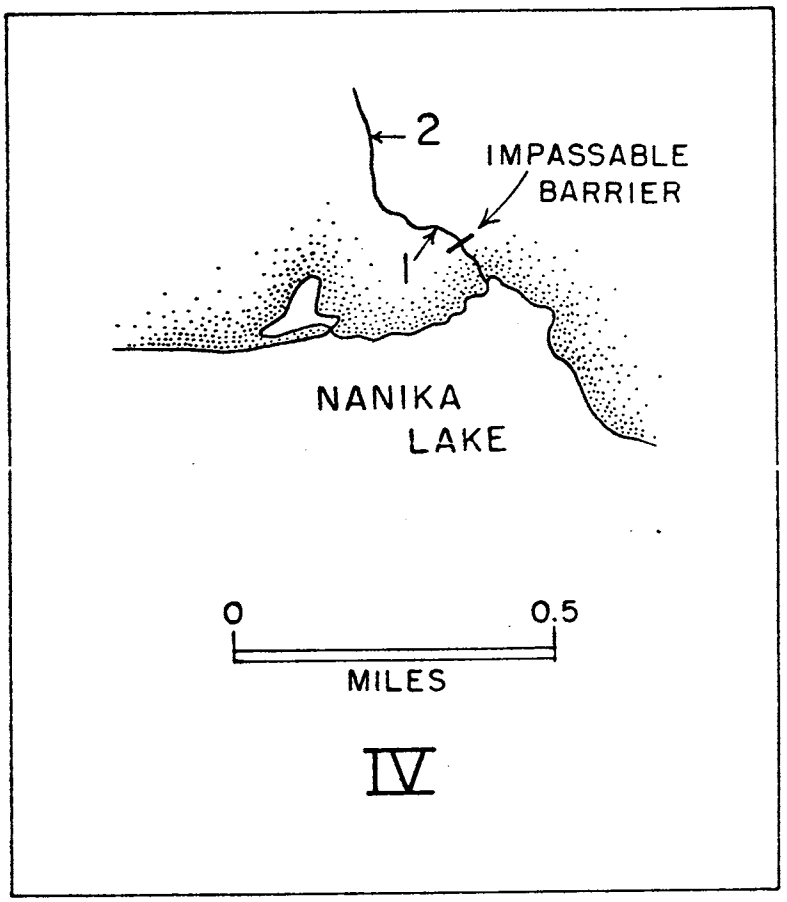
OBSERVATIONS

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
0	0	2	0	Rapid flow
4	0	2*		
5	0	1*	1	Log jam
7	0	0	1*	Mod. - Large grav.
8	0	0	1	Wide range of grav.
9	0	0	0	Poor sp.
10	0	0	0	Large grav. + boulders
11	0	0	0	Torrential
12	0	0	0	Creek turns west
13	0	0	1*	Small patches of grav.
14	0	1*	0	Rocky pools
16	0	0	0	

STREAM SURVEY DATA

OBSERVATIONS - Continued

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
17	0	2	0	
18	0	0	0	Large rocks
20	0	0	0	Torrential
20	0	2*	1*	Same sand + small grav.
23	0	0	1*	Small patches of mod. grav.
25	0	0	0	Boulders and large grav.


2
IMPASSABLE
BARRIER
1
NANIKA
LAKE
0
0.5
MILES
IV

STREAM SURVEY DATA

Stream: #IV

Survey Date: August 15th, 1974 **Time:** 1500 hr

Weather: Clear sunshine

Air Temperature:

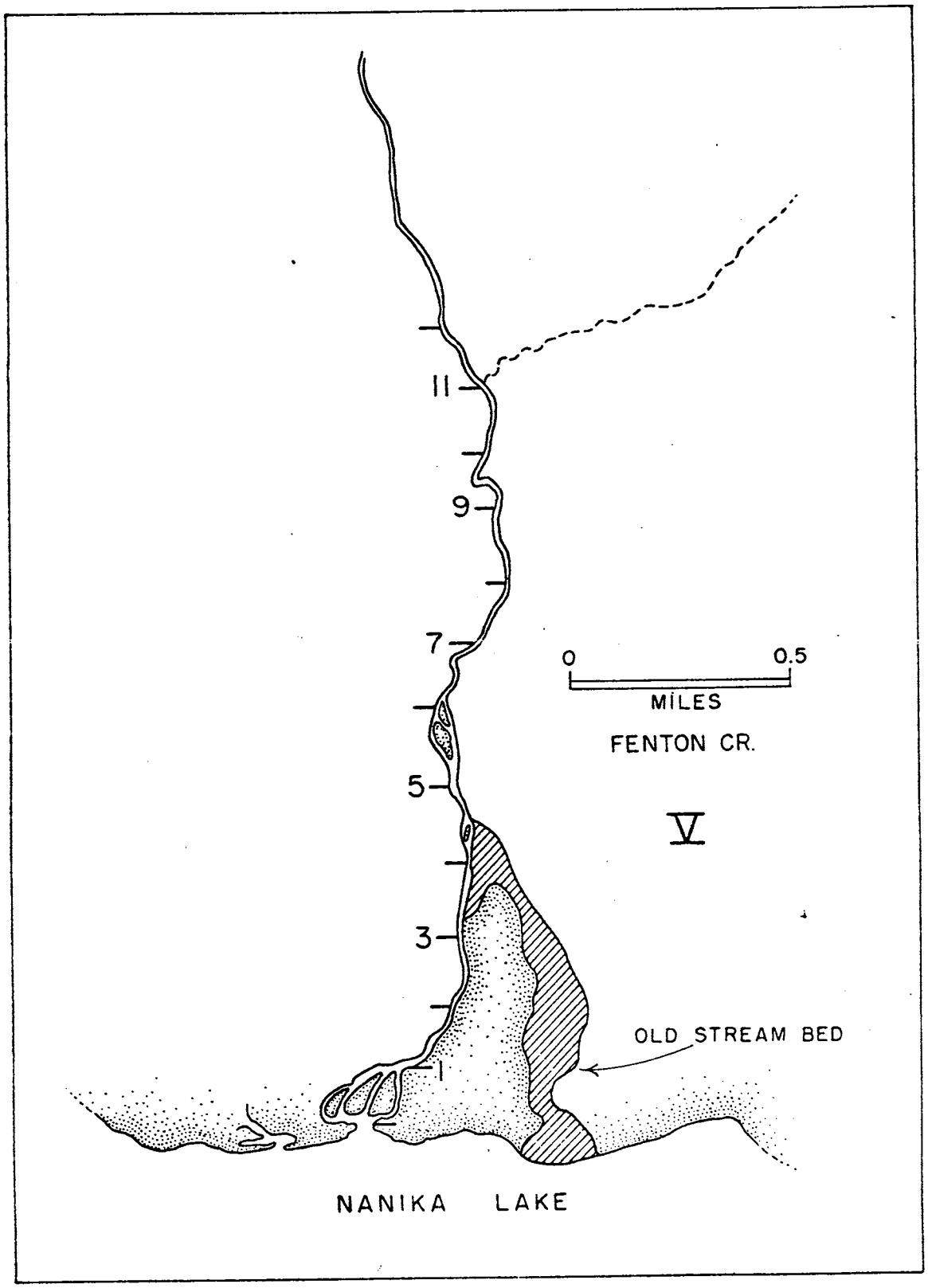
Water Temperature:

Water Discharge: Flow: less than 1 c.f.s.

Summary Comment:

OBSERVATIONS

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
0	0	2	0	10 fry sighted
1	0	2	0	1 fry sighted
2	0	2	0	10 fry sighted
3	0	2	0	Shallow pond
4	0	2	0	6 fry sighted
5	0	2	0	2 fry sighted
6	0	1*	0	Gradient increasing
7.2	0	2	0	Log jam, impass.
8	0	2	0	4 fry sighted
8.5	0	2	0	
9	0	1*	0	Bedrock
11	0	1	0	Log jam.One 4" fish
12	0	1	0	1 fry,reduced flow


11
9
7
5
3
1
0
0.5
MILES
FENTON CR.
V
OLD STREAM BED
NANIKA LAKE

STREAM SURVEY DATA

Stream: FENTON CREEK (V)

Survey Date: August 13th, 1974 **Time:** 1100 hr

Weather: Wind 0 / Sunny

Air Temperature: 18°C

Water Temperature: 6.8°C

Water Discharge: 176 c.f.s.

Summary Comment: Station at 1300 feet

OBSERVATIONS

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
3	0	0	0	Small grav.+ sand
5	0	0	0	Large grav. bars
9	0	2	0	Good cover
13	0	0	0	Stream enters dead forest
16	0	0	0	Stream on left enters
18	0	2	1	Rapid flow
19	0	2	0	Large grav.
20.5	0	2*	0	Dry channel on south
22	0	2	0	Logs in water
24	0	0	0	
25	0	0	0	Dry log jam
26	0	2	0	Fallen trees

STREAM SURVEY DATA

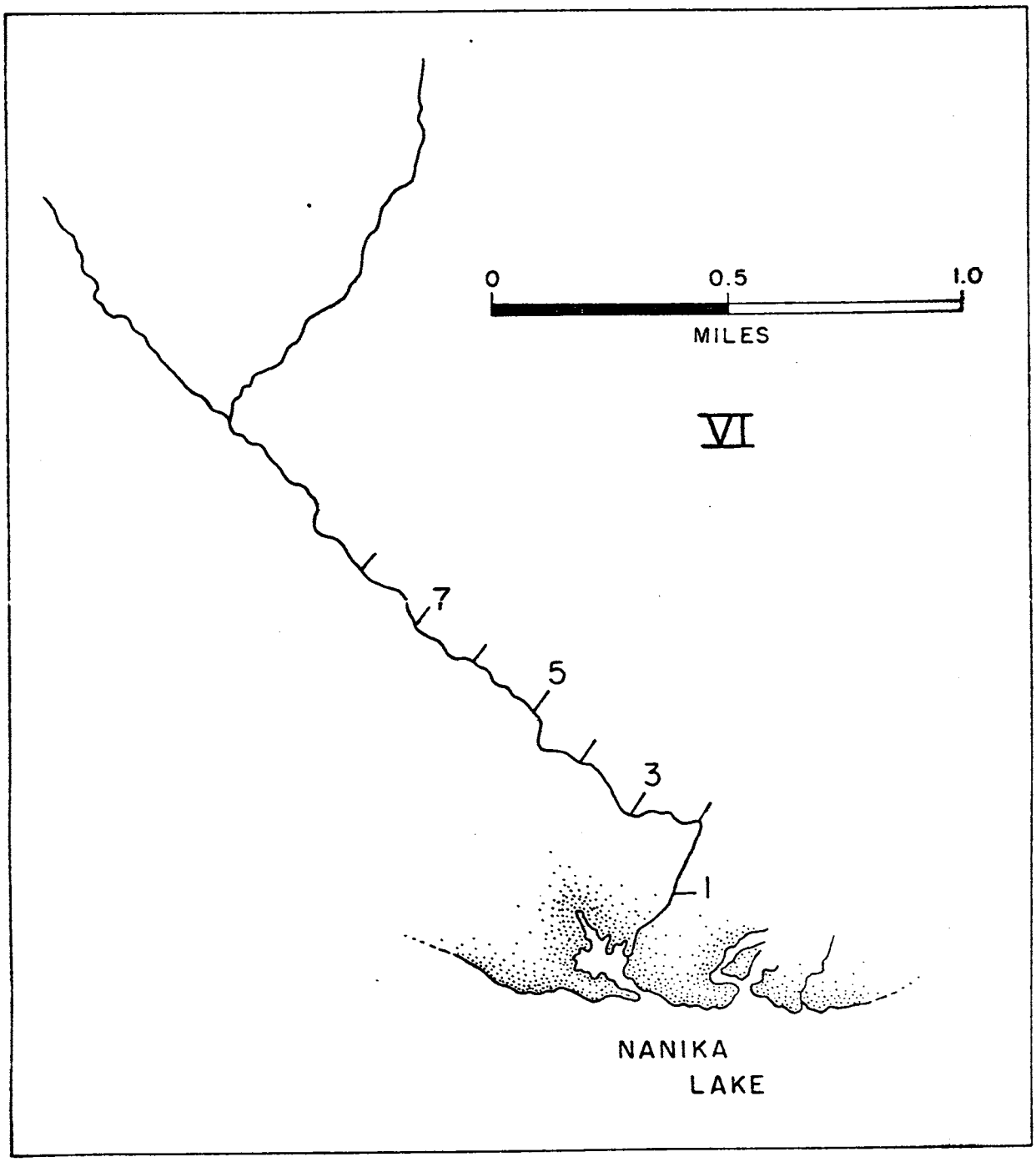
OBSERVATIONS - Continued

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
29	0	0	0	Large grav.
35	0	2	0	Wide grav. flat
38	0	0	0	High gradient
42	0	0	0	Braided channel
45	0	0	0	Boulders, rapid flow
46	0	2	1	Cut bank
47	1	2	0	Pool 3 ft. deep
49	1	2	2	12 fry sighted
50	0	0	0	Torrential
51	1*	1	1	
54	0	0	0	End of grav. flat
58	0	0	0	Entering canyon
59	0	0	0	Rock wall on west
60	0	0	0	Rock wall on east
62	0	0	0	Gradient increasing
65	0	0	0	Meadow east side
66	0	0	0	Brook enters on east
68	0	0	0	
69	2*	2	0	
70	2*	2	0	Meadow west side
72	2*	1*	0	Deep + fast
73	2*	1*	0	Cascade pool
75	2*	0	0	Stream turns east
76	1*	0	0	Torrential
79	0	0	0	Cascade, pass.
80	1*	1*	0	Pool
80.5	0	0	0	Cascade, pass.

STREAM SURVEY DATA

OBSERVATIONS - Continued

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
83	0	0	0	Torrential
86.5	0	0	0	Cascade, pass.
87	0	0	0	Stream enters on west
87.5	0	0	0	Cascade, pass.
88	0	0	0	High gradient
90	0	0	0	Stream turns east
91	1*	0	0	Pool
93	0	0	0	Cascades
96	0	0	0	Torrential
98	0	0	0	50 ft. earth bank
100	0	0	0	End of survey


0
0.5
1.0
MILES
VI
7
5
3
1
NANIKA
LAKE

STREAM SURVEY DATA

Stream: #VI

Survey Date: August 15th, 1974 Time: 1030 hr

Weather: C.C. 1 / Wind S.E. 5-10/ Sunny

Air Temperature: 22.5°C

Water Temperature: 12°C

Water Discharge: 14.6 c.f.s.

Summary Comment:

OBSERVATIONS

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
0 - 2	1	1	0	Mud bottom
3	2	2	0	20 Fry sighted
4	2	3	0	10 fry sighted
5	3	3	0	Pools, mud bottom
6	0	0	0	
7	0	0	0	
8	0	0	0	Rock bottom, rapids
9	2	2	0	Trees in water
10	1*	1*	0	Deep + fast
11	3	3	0	Ex. cover
12	1*	1*	0	Pool
13	1*	1*	0	Current increase
14	1*	1*	0	

STREAM SURVEY DATA

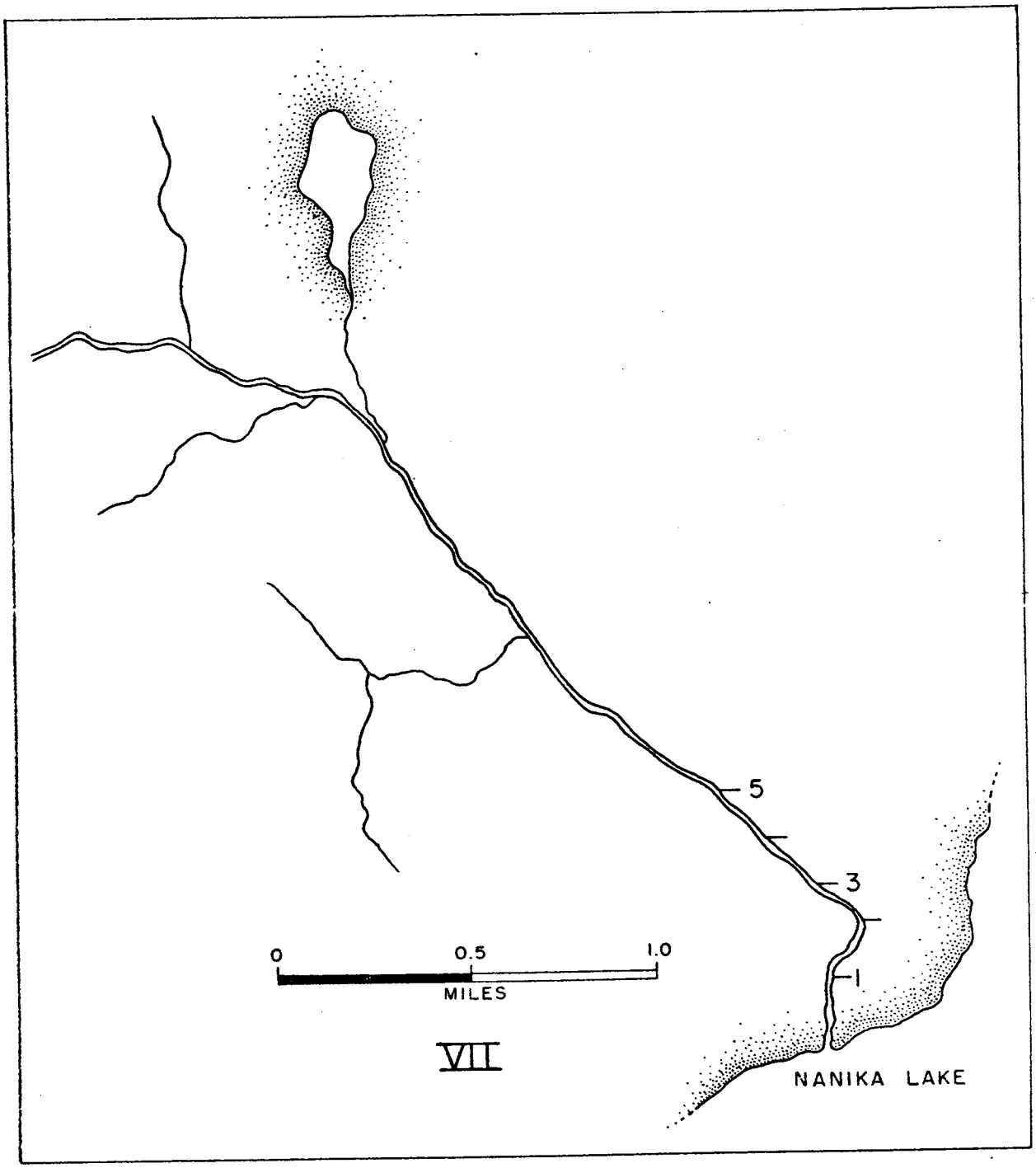
OBSERVATIONS - Continued

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
15	1*	1*	0	Small grav., silted
16	2*	2*	0	
16 - 17	0	0	0	Rapids
17	1*	1*	0	Rocks, sand
17.2	3	3	0	Log jam , pass.
18	1*	1*	3	Ex.sp.grav.
19 - 20	1*	1*	3	
21	1*	1*	0	
21 - 22	0	0	1*	Mod. grav.
22 - 23	0	0	0	
24	1*	1*	0	Pool
25 - 26	1*	1*	0	Rock bottom
27	2	2	1*	Mod. grav.
28	0	0	0	
29	0	0	0	Rapid current
30	0	0	0	
31	0	0	0	Sluice, rapid current
32	1	1	0	
33	0	0	0	Gradient increasing
34	0	0	0	Rapids
35	2	2	0	Log jam, pool
36	0	0	0	
37	0	0	0	Small falls, pass.
39	1*	1*	0	Pool
39.2	1*	1*	0	Log jam, pool
39.5	1*	1*	0	Three 6" fish sighted
40	2	2	0	One 4" fish sighted

STREAM SURVEY DATA

OBSERVATIONS - Continued

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
41	0	0	0	Large grav.
42	0	1*	0	Pool
43	1*	3	0	Stream turns right
45	1*	1*	0	
46	0	2*	0	Large pool
47	0	0	0	Large grav.


5
3
1
0
0.5
1.0
MILES
VII
NANIKA LAKE

STREAM SURVEY DATA

Stream: #V11

Survey Date: July 24, 1974 **Time:** 0900 hr

Weather: C.C. 6/WindS.E. 5-10/Showers

Air Temperature: 8.5°C

Water Temperature: 5.5°C

Water Discharge: 249.5 c.f.s.

Summary Comment: Redd digs were made in grav. patches near mouth, with nil results.

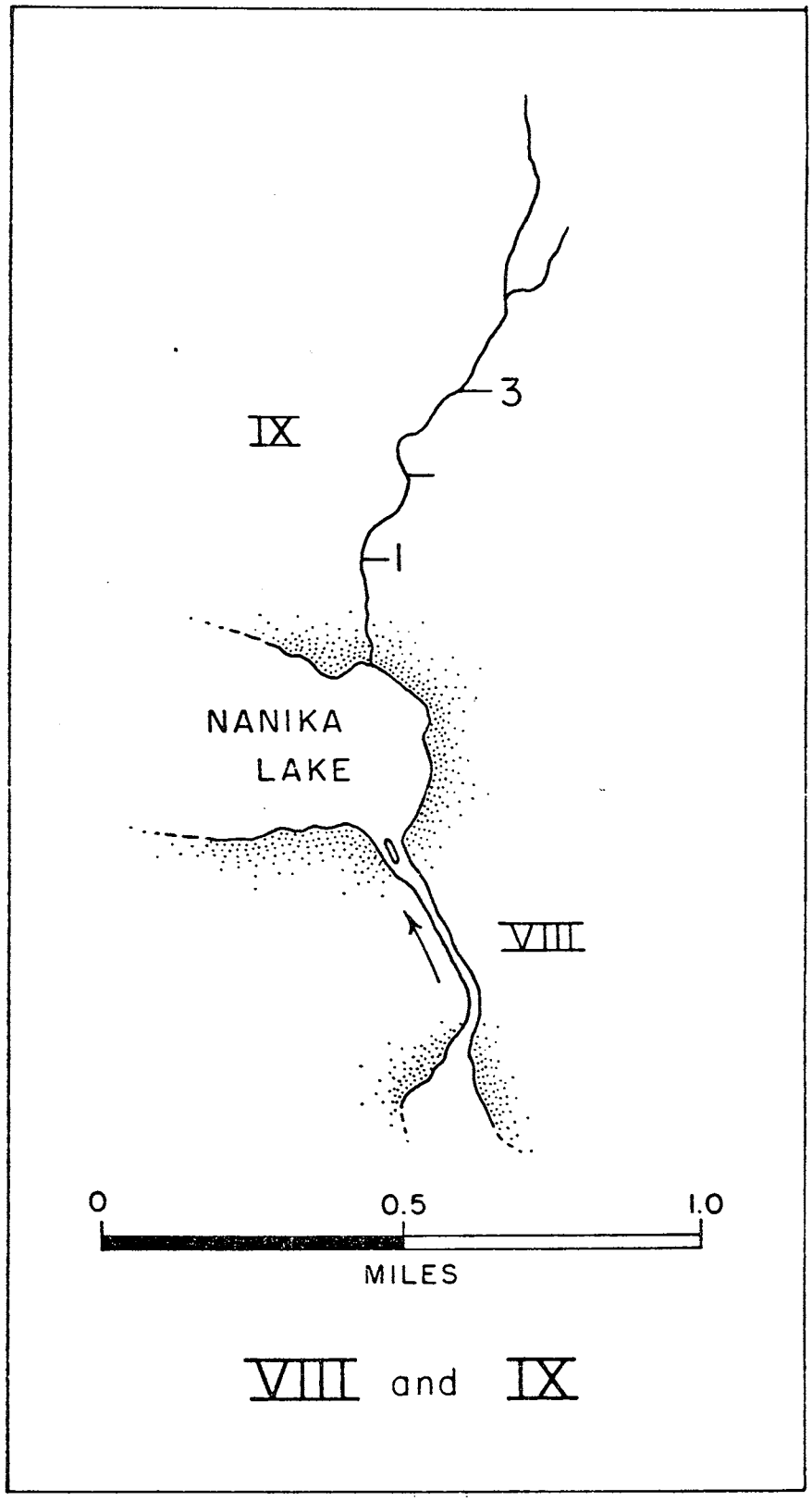
OBSERVATIONS

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
13	0	2	0	First right turn
18	0	0	0	Torrential
22	0	0	0	
22.5	0	0	0	Large grav.
25	0	2	0	Left turn
25-29	0	0	0	Torrential
31	0	0	0	Cut banks
33	0	0	0	
40-45	0	0	0	Torrential
51	0	0	0	4 ft deep
55	1	0	1	Small patch of sp. grav.
56	0	0	1	300 ft^2 of sp. grav.
57	0	0	0	Small creek on left

STREAM SURVEY DATA

OBSERVATIONS - Continued

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
60	0	0	0	
63	0	0	0	Cascade, pass.



VIII and IX

STREAM SURVEY DATA

Stream: #VIII

Survey Date: _____ Time: _____

Weather: _____

Air Temperature: _____

Water Temperature: _____

Water Discharge: _____

Summary Comment: Completely torrential. Large boulders high gradient.

OBSERVATIONS

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments

STREAM SURVEY DATA

Stream: #IX

Survey Date: August 20, 1974 **Time:** 0900

Weather:

Air Temperature: 9°C

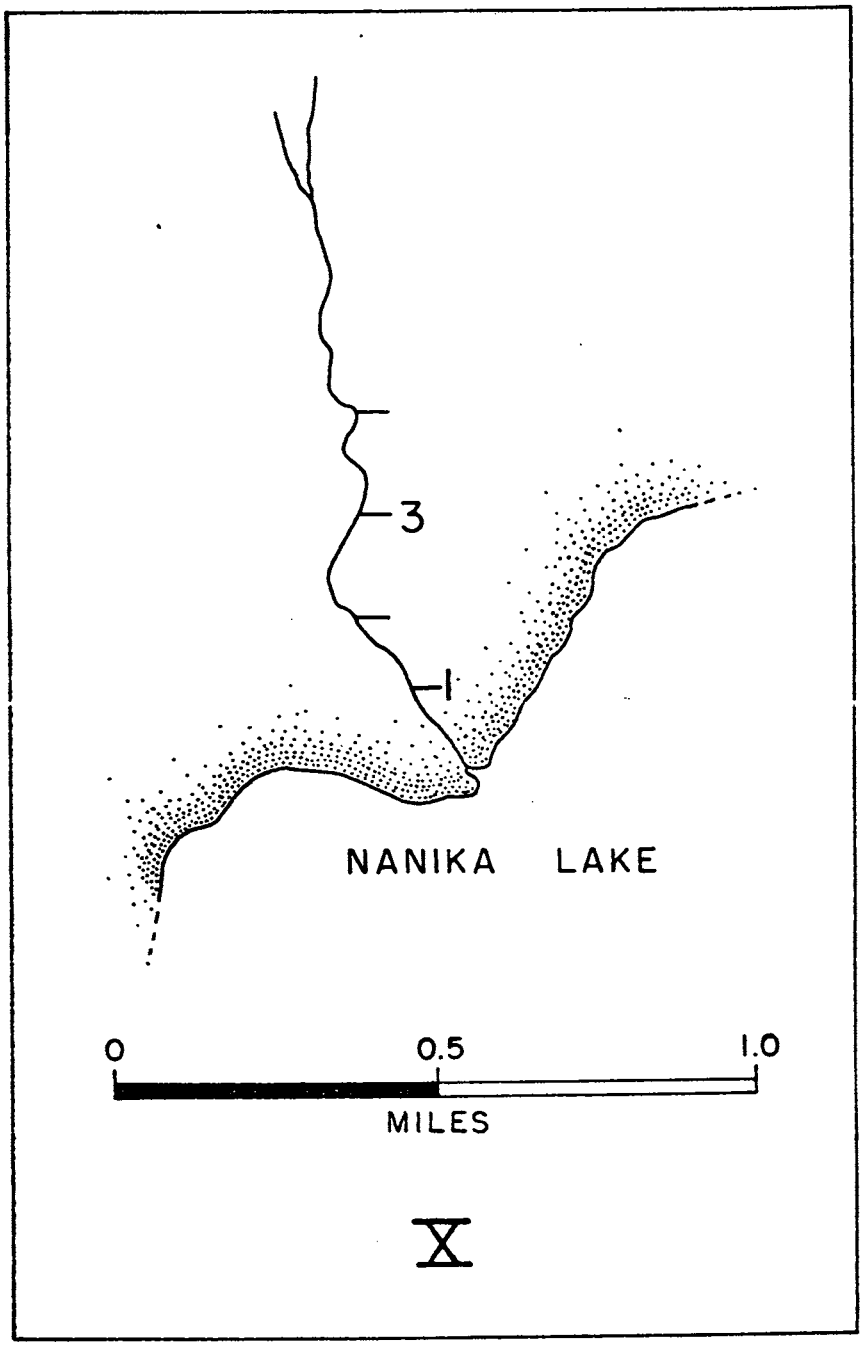
Water Temperature: 3.5°C

Water Discharge:

Summary Comment: Station at 1200 feet

OBSERVATIONS

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
0	0	0	0	Glac., mod. flow
2	0	2	0	High gradient
3	0	0	0	2' banks
4	0	2	1	1' falls, pass.
5	0	1	0	Undercut banks
6	0	0	1	
7	0	2	0	Log jam
8	0	0	0	Boulders
9	0	2	0	
10	0	0	0	
11	0	0	0	Trees
12	0	0	0	Obstructions, high gradient


3
1
NANIKA LAKE
0
0.5
1.0
MILES
X

STREAM SURVEY DATA

Stream: #X

Survey Date: July 25, 1974 Time: 1300 hr

Weather: C.C. 8 / Wind SE 5

Air Temperature: 21°C

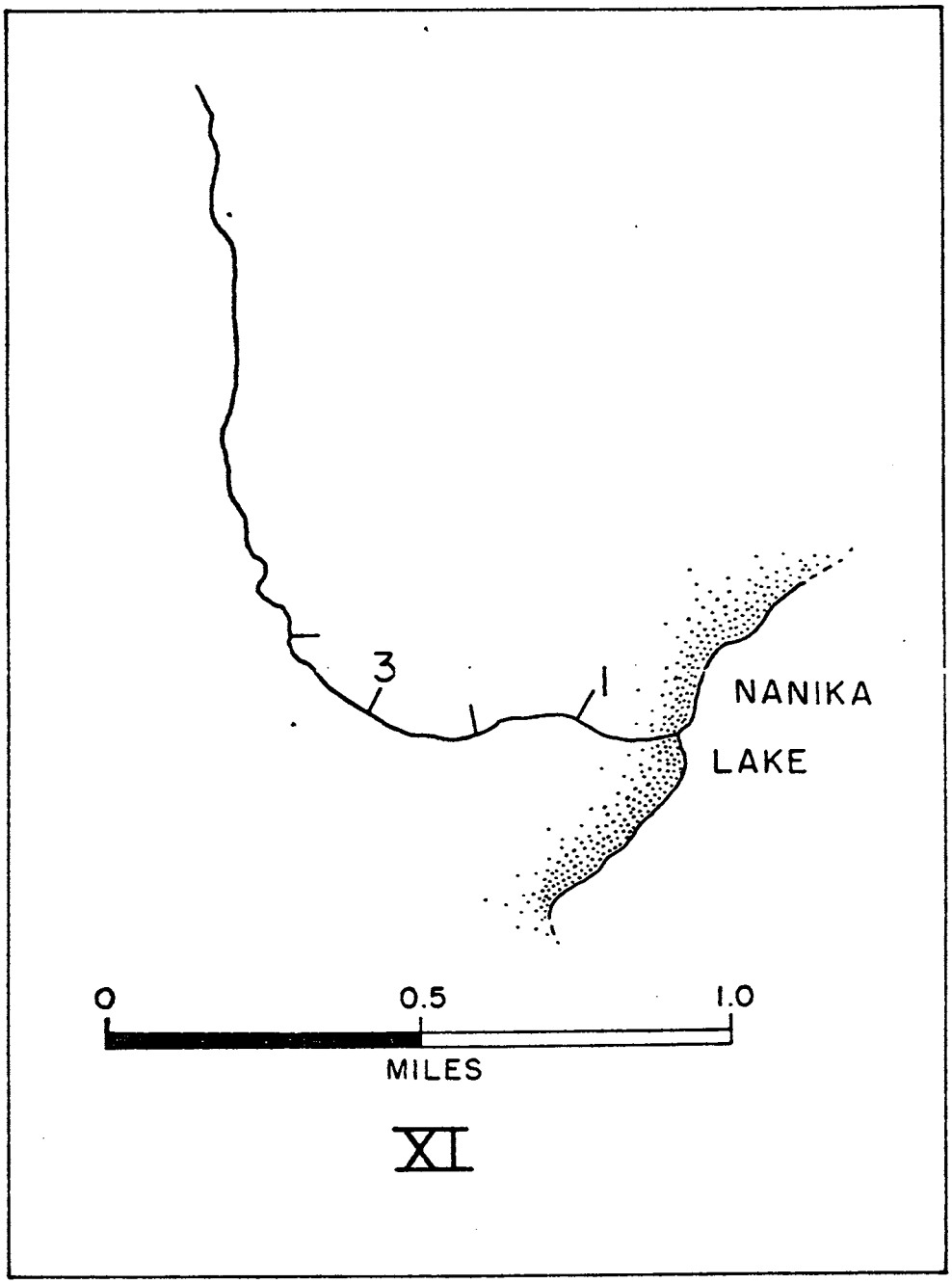
Water Temperature: 5°C

Water Discharge: 21.7 c.f.s.

Summary Comment: Station at 100 feet

OBSERVATIONS

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
0 - 7	0	1	0	Riffle type
7	0	0	0	Torrential
9	0	0	0	Log jam
10	1	0	0	High gradient
11	0	0	0	2' Cascade
12	0	0	0	Logs in water
13	0	0	0	5' falls over 20'
17	0	0	0	Raised grav. bed
22	0	0	0	Falls 8' over 30'



XI

STREAM SURVEY DATA

Stream: #XI

Survey Date: July 24, 1974 Time: 100 hr

Weather: C.C. 6 / Wind SE 5 - 10

Air Temperature: 8.5°C

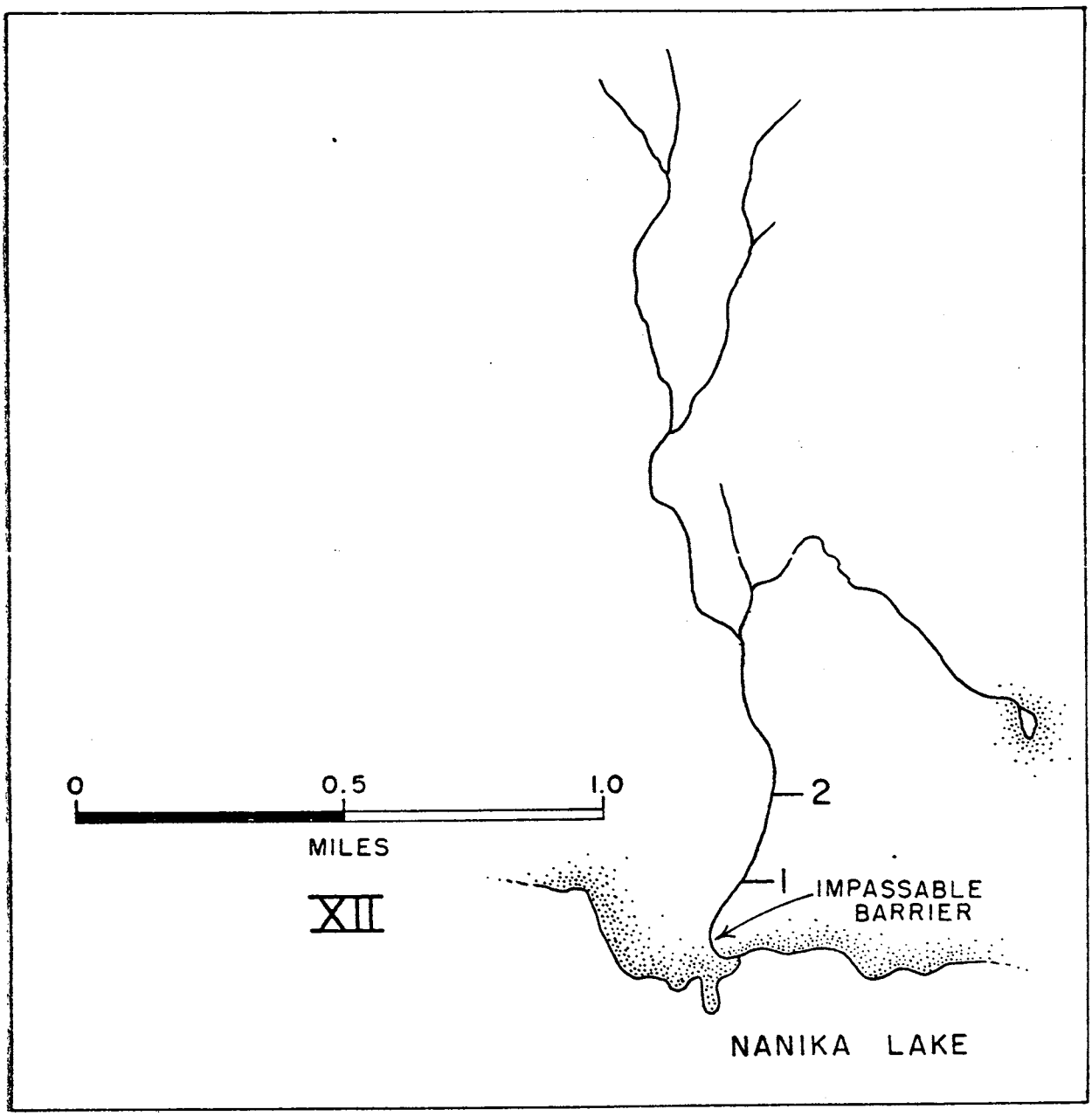
Water Temperature: 5.5°C

Water Discharge: 52.8 c.f.s.

Summary Comment:

OBSERVATIONS

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
1 - 2	0	1	0	Small silted grav.
3 - 4	1*	2	2	Narrow + Swift
7 - 8	1*	1*	3	Log jam, pass.
9	0	1*	2*	Log jam, impass.
9 - 13	0	1*	2	
14	1*	1*	0	Pool, fast water
15	0	0	0	Log jam, impass.


0
0.5
1.0
MILES
XII
2
1
IMPASSABLE
BARRIER
NANIKA LAKE

STREAM SURVEY DATA

Stream: #XII

Survey Date: August 20, 1974 Time: 1330 hr

Weather: C.C. 7 / Wind SE 5 / Slight rain

Air Temperature: 10.0°C

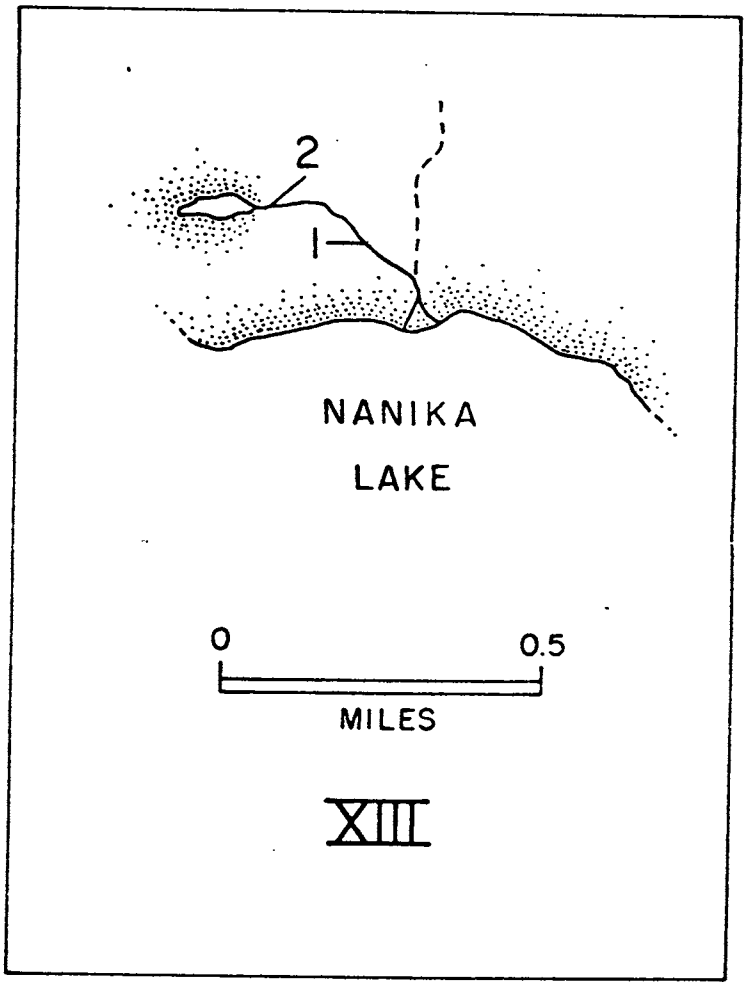
Water Temperature: 7.0°C

Water Discharge: Flow: est. 1 c.f.s.

Summary Comment: Two shallow ponds near mouth, not connected to lake, held at least 12 fry

OBSERVATIONS

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
0 - 1	0	0	0	Water percolates through grav.
2	0	0	0	Flow under grav., impass.
3	0	0	1	Flow over grav. again
4	0	0	0	Log across, impass
5	0	1	0	Logs in water
6	0	0	0	Unstable bed
7	0	0	0	Log barrier
8	0	0	0	
9	0	0	0	Riffle flow
10	0	0	0	Med. grav.



XIII

STREAM SURVEY DATA

Stream: #XIII

Survey Date: August 20, 1974 Time: 0900

Weather:

Air Temperature:

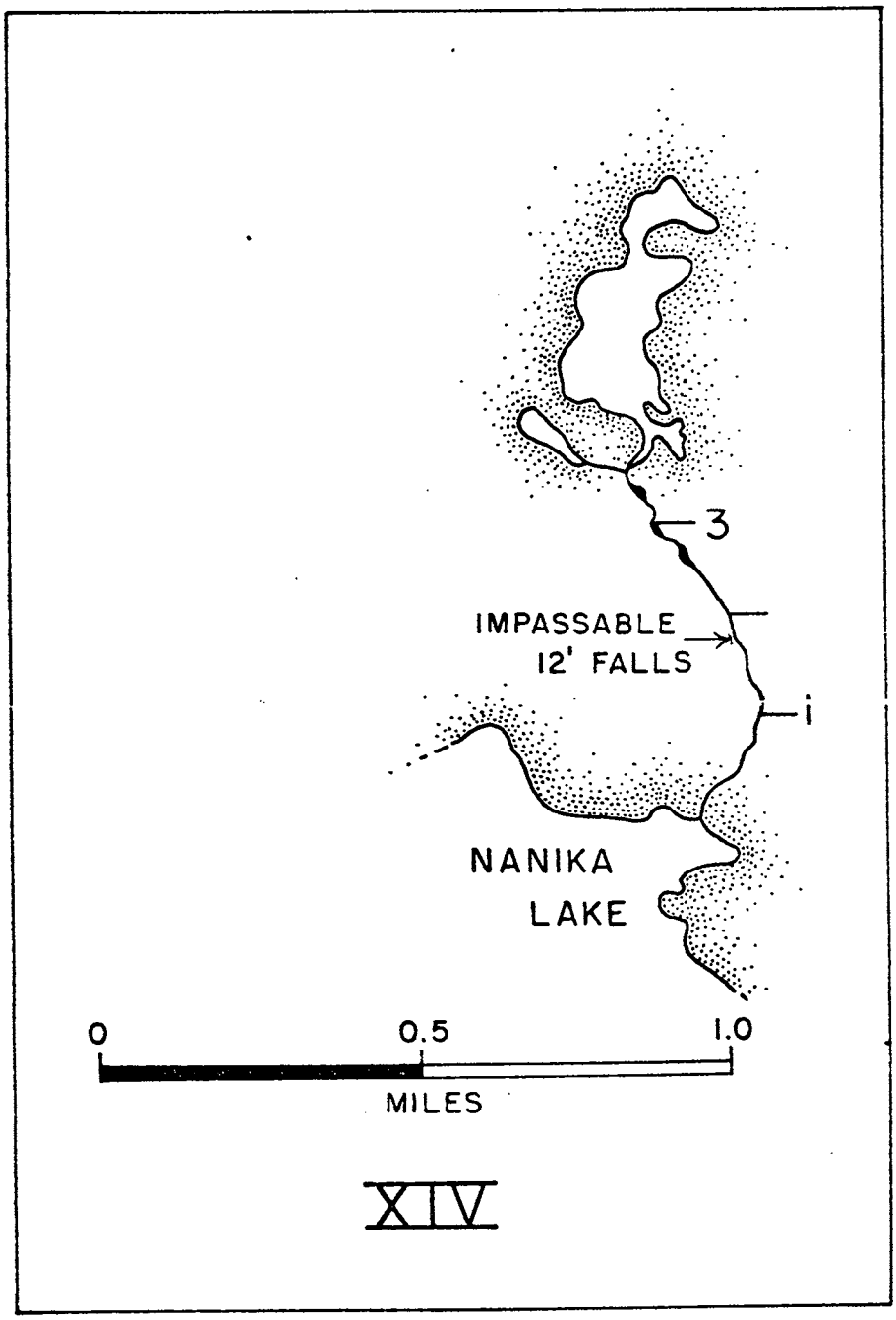
Water Temperature:

Water Discharge: Flow est. 1 - 3 c.f.s.

Summary Comment:

OBSERVATIONS

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
2	0	0	0	Many barriers
5	0	0	0	Log jam, 3 ft. falls, impass.
6	0	0	0	40 ft falls impass. Three 6" juveniles sighted



XIV

STREAM SURVEY DATA

Stream: #XIV

Survey Date: August 13, 1974 Time: 1400 hr

Weather: C.C. 2 / Wind NW 10

Air Temperature:

Water Temperature:

Water Discharge: Flow: est. under 10 c.f.s.

Summary Comment:

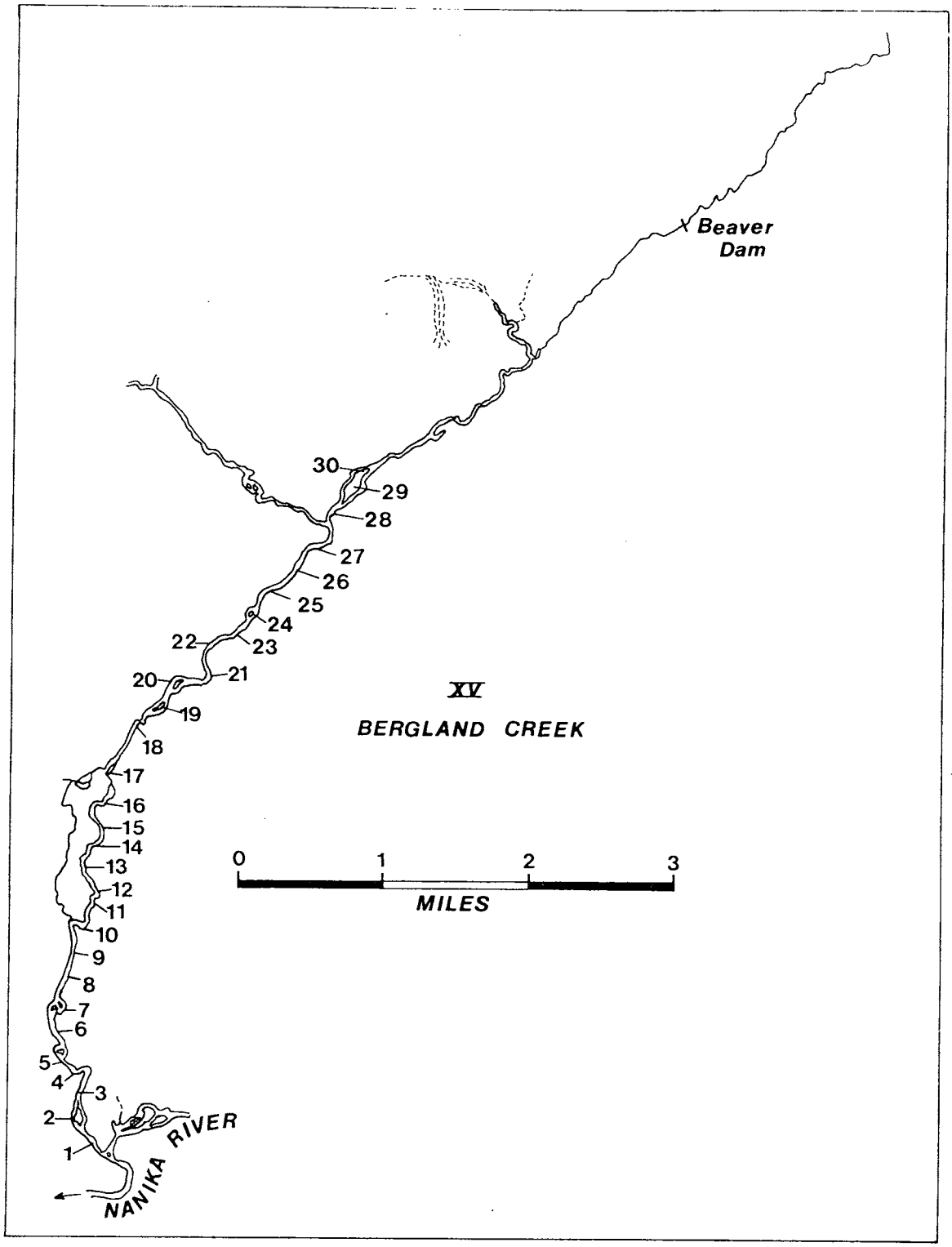
OBSERVATIONS

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
1	0	3	0	12 fry sighted
2	0	3	0	Algae on rocks
2.75	0	3	0	21 fry sighted
4	0	2*	0	Riffle type stream
5	0	2*	0	5 fry, 7 fingerlings sighted
6.75	0	2*	0	2 fry, 1 fingerling sighted
7.25	0	0	0	Impass.
7.50	0	0	0	
7.75	0	0	0	Impass.at this level
8.25	0	0	0	Boulder bottom
9	0	1*	0	Trees in water

STREAM SURVEY DATA

OBSERVATIONS - Continued

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
9.3	0	1*	0	Impass
10	0	2*	0	2 fingerlings sighted
10.2	0	2*	0	
10.4	0	2*	0	
12	0	2*	0	Algae covered grav.
12.25	0	2*	0	12 fingerlings
12.8	0	2*	0	4 fingerlings
13	0	2*	0	Heavy algae
15	0	2*	0	2 fingerlings sighted
16	0	2*	0	Three 4" fish sighted
18.4	2	2	0	Two 6" fish sighted
18.5	2	2	0	12 ft. falls. impass.
20	2	2	0	Stillwater


Beaver Dam
30
29
28
27
26
25
24
23
22
21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
XV
BERGLAND CREEK
0
1
2
3
MILES
NANIKA RIVER

STREAM SURVEY DATA

Stream: BERGELAND CREEK (XV)

Survey Date: July 17, 1974 Time:

Weather: Overcast, light rain, wind 0-5

Air Temperature: 12.5° C

Water Temperature: 5.4°C

Water Discharge: 426 c.f.s.

Summary Comment:

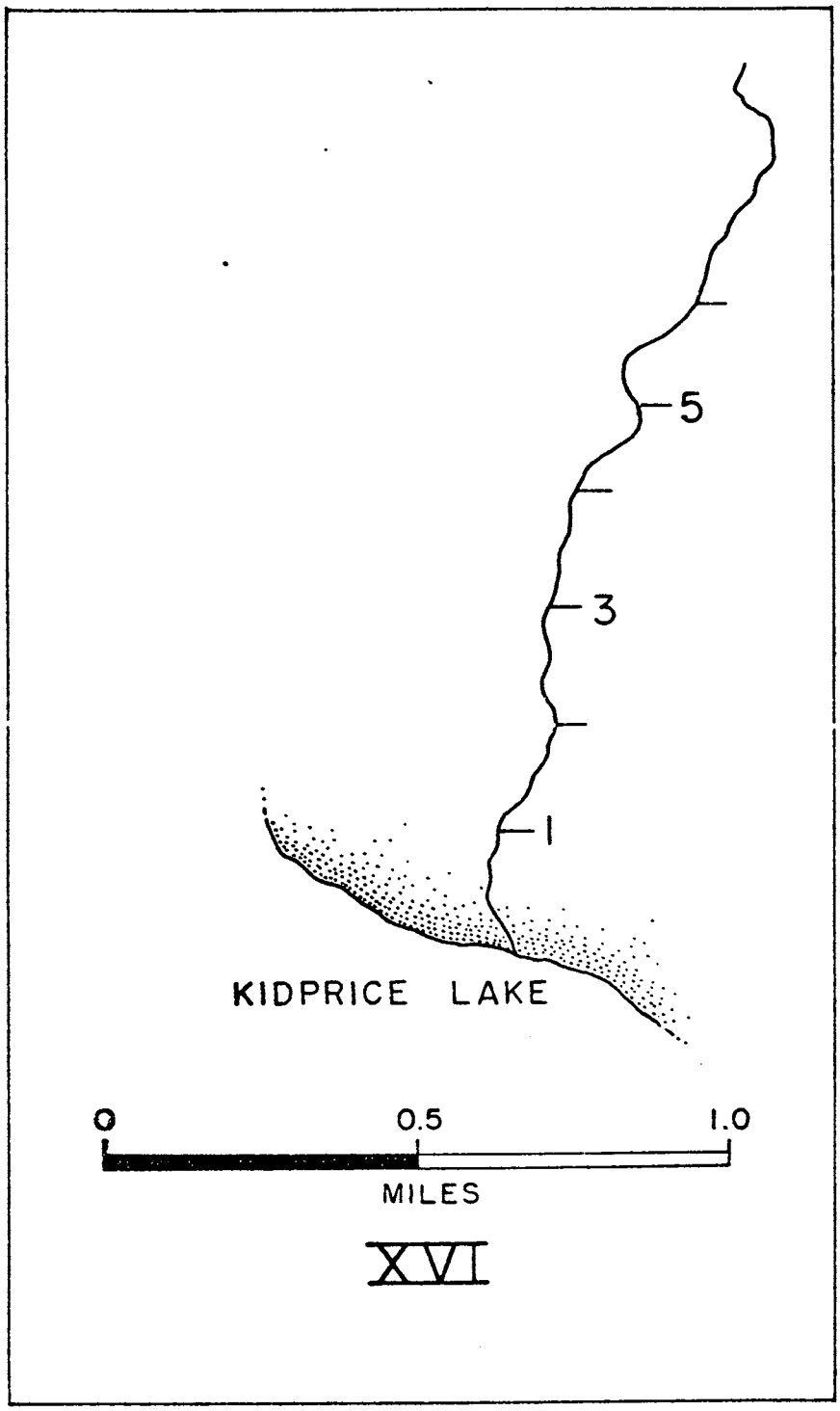
OBSERVATIONS

Distance from mouth x 1000ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
1	0	1	3	
2	0	2	1	Grav. and sand
3	1*	2	2	
3 - 4	1*	2	2	B.W. area
4 - 5	1*	1*	3	
5	1*	2*	2	
5 - 6	1*	2*	3	
6	1*	1*	3	
7	2*	3	0	Deep logs.
8	0	1	3	Marsh on east
9	2	2	2*	
10	1*	1*	0	

STREAM SURVEY DATA

OBSERVATIONS - Continued

Distance from mouth x 1000ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
11	1	1	3	
12	2	2	0	
13	2	2	0	Log jams. Creek spits
13 -14	3	3	0	
14	2	2	3	
15	2*	3	0	B.W.
16	1*	2*	0	
17	2*	3	0	
17 - 18	3	3	3	
18 - 19	0	0	1	
20	2*	3	1	
THIS SECTION SURVEYED BY HELICOPTER				
21	0	1	0	Glacial
22	2	2	0	Logs in water
23	2*	2*	0	Trib. 1/3 size of Bergeland
24	2	2	2	Ex. grav. size
25	0	0	2	Large areas of good gravel
26	0	0	0	Boulders
27	0	0	0	Semi-torrential
28	2	2	0	Braided through dead forest
29	0	0	3	Ex. sp. area
30	0	0	3	Ex. sp.



XVI

STREAM SURVEY DATA

Stream: #XVI

Survey Date: October 3rd, 1974 **Time:**

Weather: C.C. 2 / Wind S. 5-10 / Snow flurries

Air Temperature:

Water Temperature:

Water Discharge: 29.7 c.f.s.

Summary Comment: Station at 4700 feet

OBSERVATIONS

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
0	0	1*	1	Mod. grav. fan.
1	0	3	1	
2	0	3	1	Water glac.
3	0	3	2	Good sp. for 100'
4	0	2*	2	Sp. continues
5	0	2*	2	Braided channel
6	0	2*	2	
7	2	1	2	Good cover
8	3	1	3	
9	0	1*	3	Fast flow
10	0	1*	2	
11	0	1*	2	

STREAM SURVEY DATA

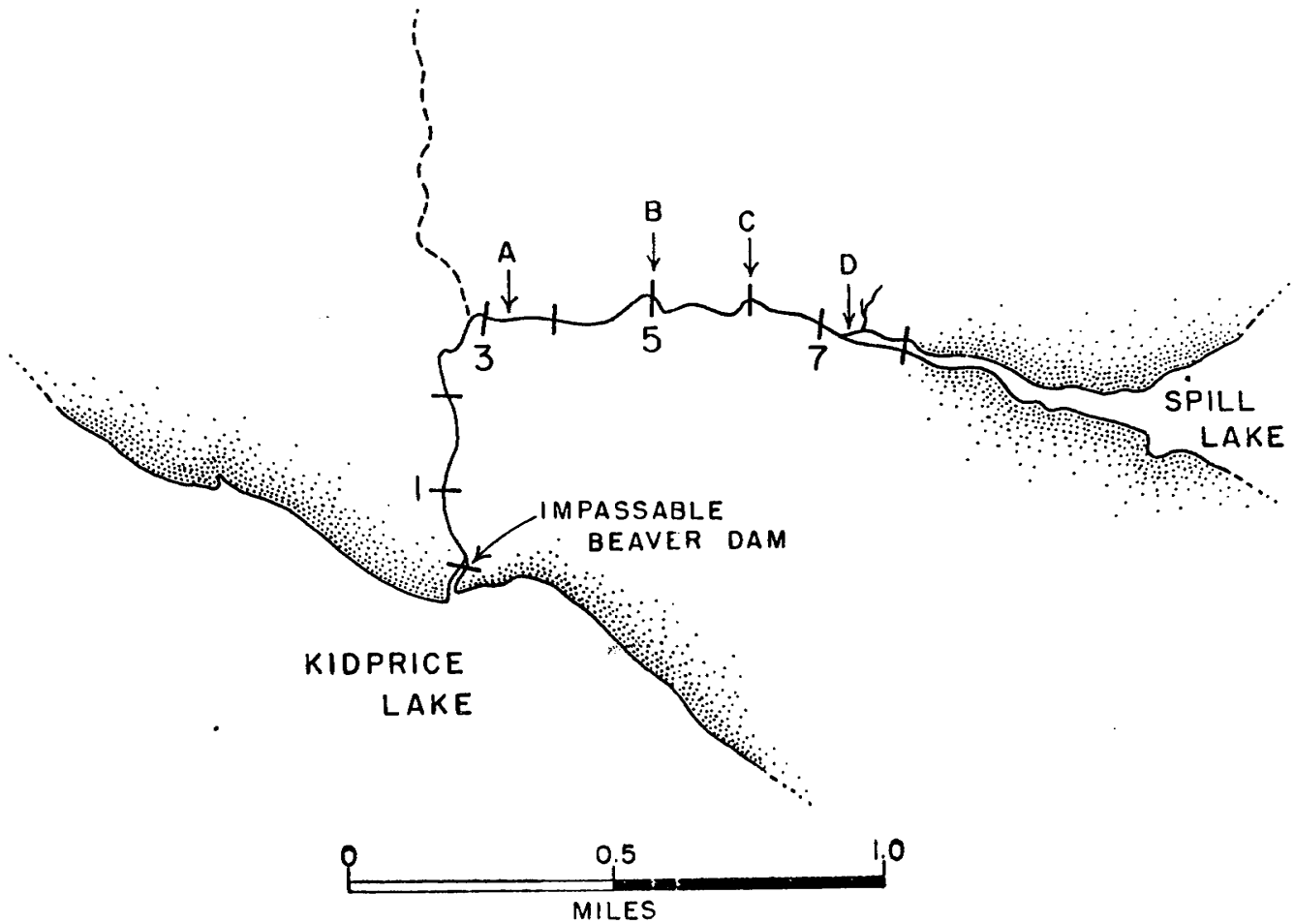
OBSERVATIONS - Continued

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
12	0	1*	1	
13	0	3	2	Ex. cover
14	0	2*	0	Flood plain
15	2	1*	1	Elv. 3010'
16	0	1*	0	
17	0	1*	0	Several channels
18	0	0	2	Log jams, rapid flow
19	0	0	1	
20	0	0	0	Clearing on right
21	-	1	-	Good cover
22	0	0	1	Several channels
23	0	0	0	
24	0	2	0	Elv. 3,046
25	0	0	0	
26	0	0	3	
27	0	0	1	300 ft^2 sp. grav.
28	0	0	1	
29	0	0	1	
30	0	0	1	
31	0	0	1	
32	0	0	0	Several channels
33	0	1	0	Flood bed through trees
34	0	0	1	
35	0	0	0	
36	0	0	0	Elv. 3,095
37	0	0	0	Unstable bed
38	0	0	0	Steep gradient
39	0	0	0	Large grav.

STREAM SURVEY DATA

OBSERVATIONS - Continued

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
40	0	0	0	Torrential
41	0	0	0	
42	0	0	0	
43	0	0	0	
44	0	0	0	Torrential
45	0	0	0	
46	0	0	0	
47	0	0	0	
48	0	0	0	
49	0	0	0	
50	0	0	0	Torrential
51	0	0	0	
52	0	0	0	1 ft. falls
53	0	0	0	Trib.on right
54	0	0		Trib.on left
55	0	0	0	Torrential
56	-	-	-	
57	-	-	-	Raised bed, pass. with extreme diff. Elv. 3,145'


A
B
C
D
3
5
7
1
IMPASSABLE
BEAVER DAM
KIDPRICE
LAKE
SPILL
LAKE
0
0.5
1.0
MILES

XVII

STREAM SURVEY DATA

Stream: #XVII

Survey Date: September 28th, 1974 Time: 0900 - 1500

Weather: C.C. 6 / S. 10-20 /

Air Temperature: 7.0° C

Water Temperature: 6.0°C

Water Discharge: 6.8 c.f.s.

Summary Comment: Station at 4000 feet

OBSERVATIONS

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
0	0	1*	0	2 ft. beaver dam, impass.
1	1*	2*	0	Flooded willow thicket Pool 2 ft.deep. Mud.
2	1*	2*	0	Beaver pond
3	1	3	0	Sand + mod. grav.
4	0	1*	1*	Sp. sized grav., but silt
5	1*	1*	1*	
6	0	1	1*	Mod grav.
7	1*	1*	0	Log., pass. with diff.
8	0	1*	1	
9	1*	2*	0	Good cover
10	0	1*	0	Log jam falls, barely pass.

STREAM SURVEY DATA

OBSERVATIONS - Continued

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
11	1*	2*	0	Mod. grav.
12	0	1*	0	Log jam falls, pass.
13	0	0	0	Three channels
14	0	3*	1*	Ex. cover
15	0	1*	0	Ground rising on right
16	2	2	0	Small grav. and sand
17	1*	0	2	Log jams, falls, pass.
18	1*	0	0	Logs in water
19	1*	1	2	Ex. cover
20	1*	1*	2	Creek turns south
21	0	0	2	Mod. grav.
22	2	2	2	Mod grav.
23	0	0	2	Small and mod. grav.
24	0	2*	1	Good cover
25	2	1*	0	Large jam, pass.
26	1	1	2	Small creek on left
27	3	0	1*	Beaver activity
28	1*	0	0	Creek turns north
29	0	0	0	Beaver dam. impass.
30	0	1*	1	Mod. grav.
31	0	0	0	Old flood plain
32	0	1	0	Ex. cover
"A" 33	1*	1*	0	Pond
34	0	3	0	Shallow weedy pond
35	0	3	0	Pond continues
36	2	3	0	Pond continues
37	1*	2*	0	Sedge

STREAM SURVEY DATA

OBSERVATIONS - Continued

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
38	3	1	0	Slough
39	1*	1*	0	Logs in water
40	1*	1*	0	Station here
41	0	3	0	Mod. grav. with silt
42	0	2*	0	Log jam falls, pass
43	0	3	0	Sluice type creek
44	0	1*	2	Mod. grav.
45	0	1*	2	
46	0	1*	0	Log jam, falls
47	1	2	0	Silted
48	3	1*	0	3 ft. deep pool
49	2	1*	0	Ex. cover
"B" 50	0	3	0	Meadow on left. Many logs in water.
51	0	2*	0	Fine substrate
52	0	1*	0	
53	0	1*	0	3 ft. deep pool
54	2	2	0	
55	0	0	0	Creek turns left
56	0	0	0	Trees in water
57	0	2	0	Good cover
58	0	1*	0	10 ft. wide
59	0	1*	0	Mod. silted grav.
"C" 60	0	1*	0	First meadow of Spil Lake. Broken beaver dam
61	0	1*	0	Pool, riffle
62	2	2	0	Old beaver canals
63	1	1	0	Mud bottom

STREAM SURVEY DATA

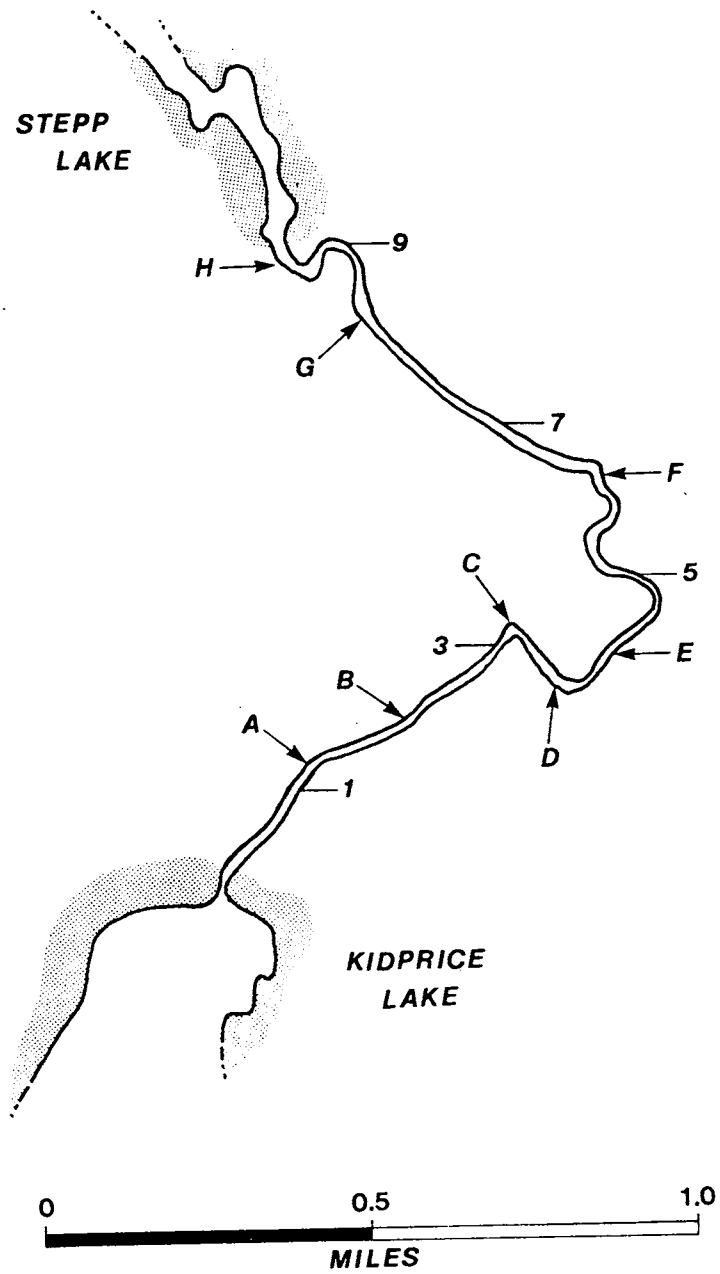
OBSERVATIONS - Continued

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
64	1	1	0	Mud bottom
65	1	1	0	Riffle, canals
66	0	1*	0	Mud. mod. grav.
67	0	1*	0	Canal,riffle pools
68	2	2	0	Heavy algae
69	1*	2*	0	Heavy organic growth
70	0	2*	0	Weed bottom
71	0	1*	0	Heavy weed
"D" 72	0	1*	0	Creek enters on left
73	0	1*	0	Mud margins
74	0	1	0	Mud + weeds
75	0	1*	0	Gentle flow
76	0	2	0	Cover poor
77	0	0	0	Stream size reduced
78	0	0	0	Small grav.+ detritus
79	0	1*	0	Start of lake slough
80	0	1*	0	
81	0	1*	0	Slough less than 1' deep
82	0	1*	0	Slough less than 1' deep
83	0	0	0	Slough
84	0	0	0	Slough
85	0	0	0	Slough
86	0	1*	0	Old beaver lodge
87	0	1*	0	
88	0	0	0	

STREAM SURVEY DATA

OBSERVATIONS - Continued

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
89	0	1*	0	Marshy flat
90	0	1*	0	Marshy flat area



XVIII

STEPP CREEK

STREAM SURVEY DATA

Stream: STEPP CREEK - STREAM (XVIII)

Survey Date: September 20, 1974 **Time:** 0940 hr

Weather: Sunny, slight mist

Air Temperature: 14.0°C

Water Temperature: 10.0°C

Water Discharge: 1.76 c.f.s.

Summary Comment: Station at 300 feet

OBSERVATIONS

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
0	0	0	1	Mod. grav.
1	0	0	1	Mod. grav.
2	0	0	1	Siltation
3	0	1	0	4 fry sighted
4	0	0	0	Stream width 8', bed 20'
5	0	0	0	
6	0	2	0	1 fry
7	0	1	0	1 fry age 0 1 fry age 1
8	0	0	0	
9	0	0	0	
10	0	0	0	
11	0	0	0	

STREAM SURVEY DATA

OBSERVATIONS - Continued

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
12	0	1*	0	
13	0	1	0	1 fry age 0
"A" 14	0	1*	0	
15	0	0	0	Small creek on right
16	0	0	0	
17	0	1	0	1 fry, age 1
18	0	0	0	
19	0	0	0	
20	0	0	0	Stream 1' deep
"B" 21	0	0	0	Algae covered rocks
22	-	1	-	Mod. to large grav.
23	0	1	0	Rocks getting smaller
24	0	0	0	
25	0	0	0	
26	0	0	0	Mod. to large grav.
27	0	0	0	
28	0	1	0	1 fry, age 1
29	0	0	0	1 fry age 0
30	0	0	0	
31	0	0	0	Heavy algae growth
"C" 32	0	2	0	Small to large grav.
33	1	0	1	Sp. size grav.
34	0	0	1*	
35	0	1*	0	1 fry caught
36	0	0	0	Grav. becomes cleaner
"D" 37	0	0	0	Mod. grav.
39	0	0	0	
40	0	1	0	Small to mod. grav.

STREAM SURVEY DATA

OBSERVATIONS - Continued

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
41	0	3	0	Bw.
"E" 42	0	1	0	
43	2	0	0	Old beaver dam
44	0	1*	0	2 fry age 1
45	0	3	0	10 fry age 1
45.5	0	3	0	15 fry age 1
46	0	0	1	Spawn size grav.
47	0	1*	0	1 fry age 0
48	0	1*	1	2 fry age 0
49	0	1*	0	13 fry age 0 Old beaver dam
50	0	0	0	1 fry
51	0	0	0	1 fry
52	0	1*	1	3 fry
53	1	1	0	8 fry sighted
54	2	2	0	12 fry, old beaver lodge
55	0	1*	0	Est. 50-100 fry Poor cover
56	0	0	0	5 fry
57	0	0	0	Mod. grav. + detritus
58	0	1*	1	20 fry, mod. grav.
59	1	1	0	Est. 30 fry
"F" 60	0	1	0	Est. 50 fry
61	1	3	0	Est. 50 fry
62	0	0	0	
63	0	1*	0	Fry abundant
64	0	1*	0	Logs in water
65	0	0	0	

STREAM SURVEY DATA

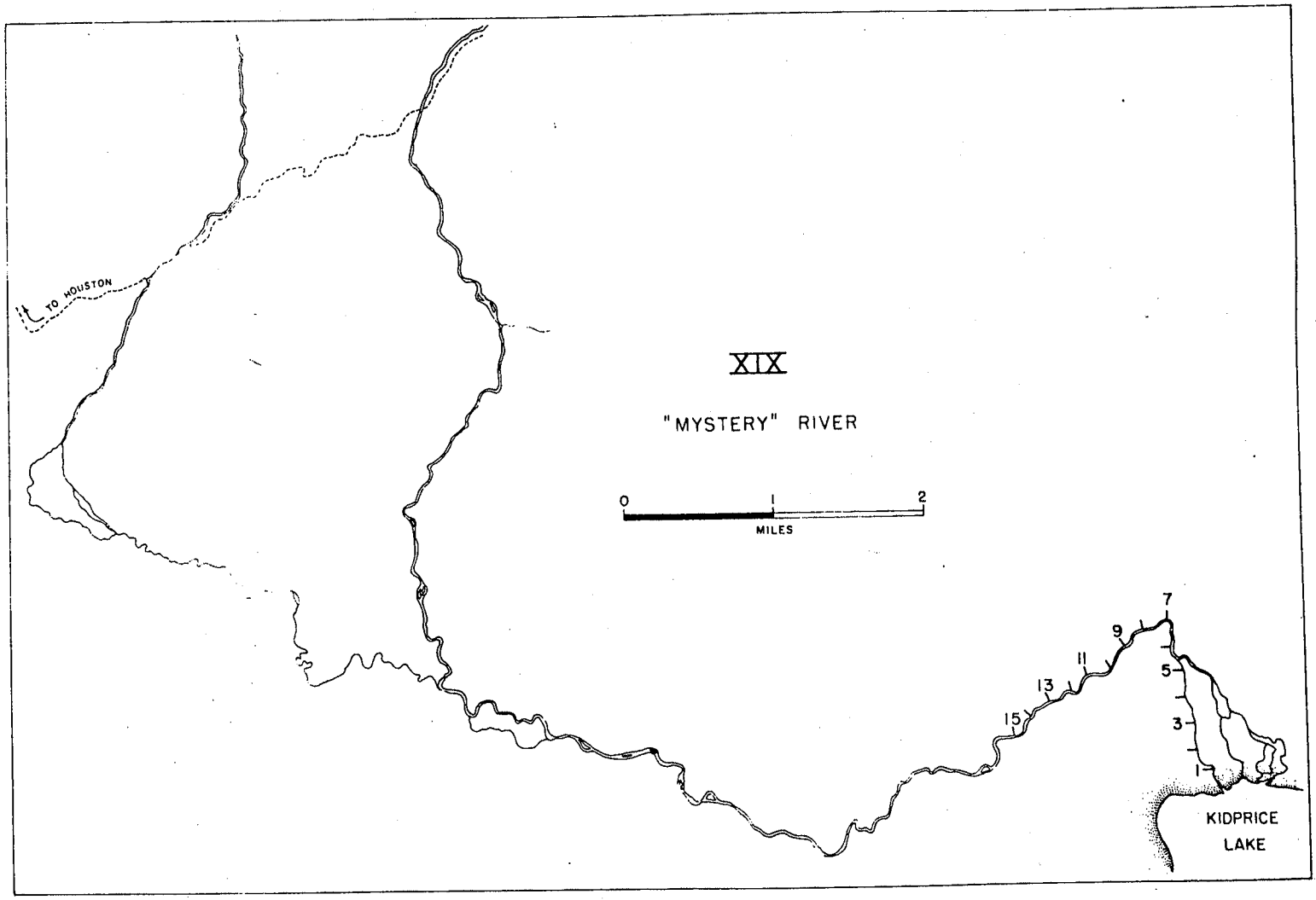
OBSERVATIONS - Continued

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
66	0	0	0	Logs in water
67	0	0	0	Creek enters on right
68	0	0	0	Greater flow
69	0	0	0	Flood plain in several dry channels
70	0	0	0	Log jams
71	0	0	0	Log jam 30 ft. long
72	0	0	0	3 fry, 1 fingerling
73	0	0	0	2 fry age 1, 5 fry age 0
74	0	0	0	30 ft. deep gulley
75	0	0	0	Large rocks, algae covered
76	0	0	0	1 fry, gradient increasing
77	0	0	0	
78	0	0	0	Pass. cascade
79	0	0	0	Mod. gradient
80	0	0	0	
81	0	0	0	1 fry
82	0	0	0	Pass rock barrier
83	0	0	0	Mod. grad., boulders
84	0	0	0	
85	0	0	0	Pass. cascade
86	0	0	0	Bedrock, heavy brown algae
87	0	0	0	Pass. cascades
88	0	0	0	Two, 5 inch trout
89	0	0	0	
90	0	1*	0	2 fry

STREAM SURVEY DATA

OBSERVATIONS - Continued

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
91	0	0	0	Heavy organic growth
92	0	0	0	1 fry. Large grav.
93	0	0	0	6 fry. Turns west
94	0	0	0	Low gradient
"H" 95	0	0	0	Pool
96	0	0	0	5 fry. Fresh beaver dam
97				Beaver pond. 1 fry


TO HOUSTON
XIX
"MYSTERY" RIVER
0
1
2
MILES
7
9
11
13
15
5
3
1
KIDPRICE
LAKE

STREAM SURVEY DATA

Stream: MYSTERY RIVER (XIX)

Survey Date: September 30th, 1974 **Time:**

Weather: C.C. 8 / n. 0-5 / light snow to rain

Air Temperature: 5°C

Water Temperature: 4°C

Water Discharge: 136.7 c.f.s.

Summary Comment: Station at 8380 feet

OBSERVATIONS

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
0	0	2*	0	1 fry
1	0	2*	0	Mud bottom
2	0	2*		Old beaver dam
3	0	0	0	
4	0	0	0	
5	0	2	0	Riffle pool
6	0	1*	0	
7	0	0	0	
8	1*	1*	0	Marginal flow for adults
9	1*	0	0	Pool
10	0	0	0	Orange discoloration
11	0	0	0	Organic growth

STREAM SURVEY DATA

OBSERVATIONS - Continued

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
12	2*	2	0	
13	1*	2	0	More red discoloration
14	0	0	0	Impass. to adults at this level
15	0	0	0	
16	0	0	0	Slow current
17	0	0	0	Shallow pool type stream
18	0	0	0	Channel divides
19	0	0	0	Rich benthos
20	2*	3	0	
21	0	0	0	
22	2*	3	0	Large log jams
23	2	3	0	Continuous log jams
24	2	2*	0	
25	1*	3	1	
26	0	3	0	Braided channel
27	0	0	0	
28	0	0	0	
29	0	0	0	Silted grav.
30	0	0	0	
31	0	0	0	
32	0	0	0	
33	0	0	0	
34	0	0	0	
35	0	3	0	Old beaver dam
36	0	0	0	
37	0	0	0	Dry channel on left

STREAM SURVEY DATA

OBSERVATIONS - Continued

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
38	0	0	0	
39	0	0	0	Impass.barr. to fry
40	0	0	0	Log jams
41	0	0	0	
42	2*	2*	0	3 ft. pool with logs
43	0	1	0	
44	0	1*	0	
45	0	0	0	Log jam
46	0	0	0	Log jam
47	0	0	0	
48	0	0	0	
49	0	0	0	
50	0	0	0	
51	0	0	0	
52	0	0	0	
53	0	0	0	Mod. glac. water
54	0	0	0	
55	0	0	0	Log jam 8' high.Impass
56	0	0	0	
57	0	0	0	50 ft. grav. bank on left
58	0	0	0	
59	0	0	0	
60	0	0	0	
61	0	0	0	Joined main stream
62	2	1	1	Clean grav.mod. flow
63	1*	1*	1*	
64	1*	1*	0	Large gravel

STREAM SURVEY DATA

OBSERVATIONS - Continued

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
65	1*	1*	1*	Sand and large grav.
66	1*	1*	0	
66.5	0	0	0	Elv. 3120
67	2*	0	0	Deep pool on corner
68	2	1*	0	
69	0	0	0	Mod. grav.
70	3	1*	0	
71	3	1*	0	Large rocks
72	0	0	0	
73	0	0	0	Rapids
74	0	0	0	
75	3	0	0	Deep pool
76	0	0	0	Compacted grav.
77	0	0	0	
78	3	0	1	
79	0	0	0	
80	0	0	0	
81	0	0	2	Deep pool
82	0	0	0	Large rocks
83	0	0	0	
83.8	0	0	0	Station
84	0	0	0	Glac.
86	0	0	0	Riffle, pool
87	3	2	0	
88	0	0	0	
89	0	0	0	
90	0	0	0	Mod. grav.
91	0	0	0	

STREAM SURVEY DATA

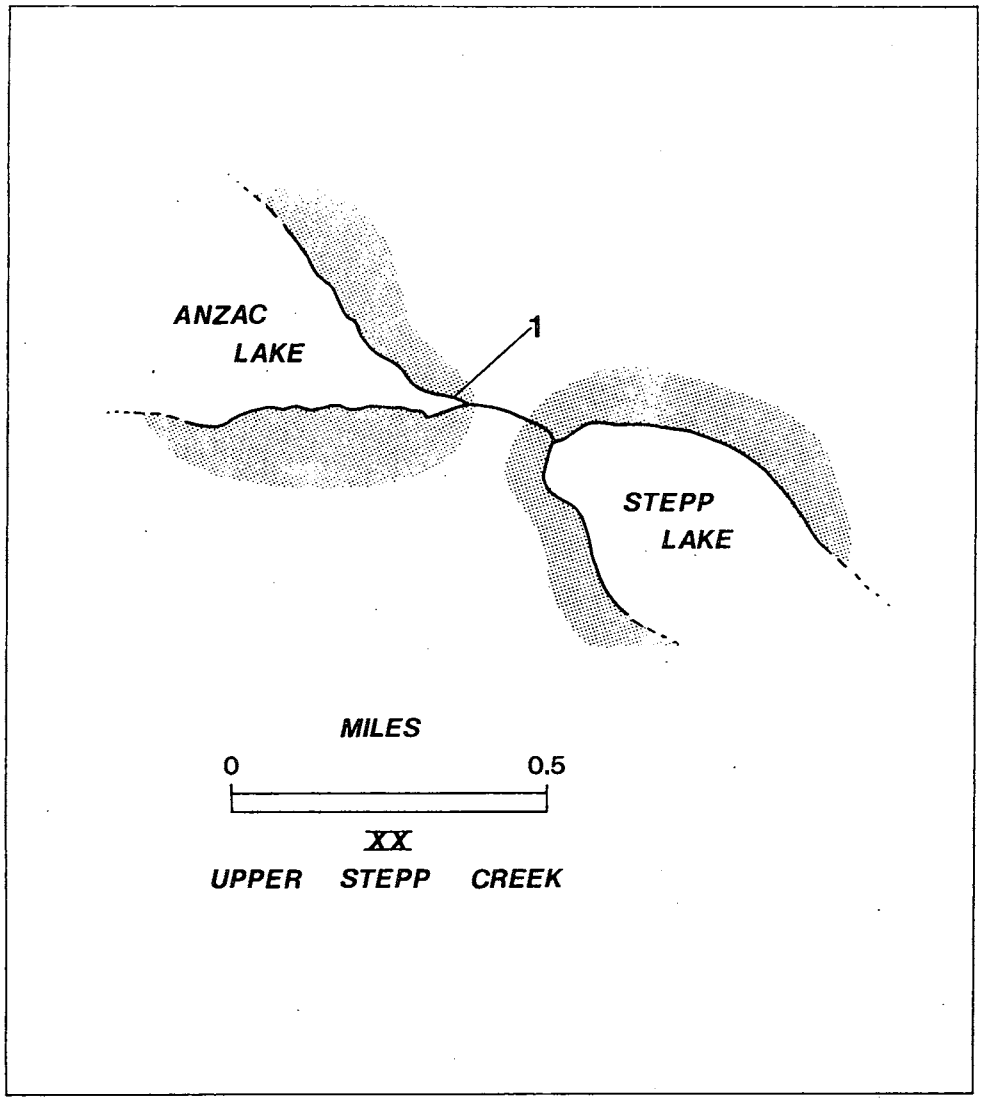
OBSERVATIONS - Continued

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
92	0	0	0	
93	0	0	0	
94	0	0	0	Mod. gradient
95	0	0	0	
96	0	0	0	Deep and fast
97	0	0	0	
98	0	0	0	Riffle
99	3	1*	2	200 ft^2 of sp. grav.
100	0	0	0	
101	0	0	0	Gradient increase
102	0	0	0	Cascade, 4'/100' pass
103	0	0	0	
104	0	0	3	700 ft^2 of sp. grav.
105	0	0	0	Boulders
106	0	0	0	
107	0	0	0	Unstable bank
108	0	0	2	
109	2*	0	0	Deep pool
110	0	0	0	
111	0	0	0	Deep fast, cascade
112	3	1*	0	Small grav.and silt
113	2*	1*	0	Pool, canyon
114	0	0	0	50 ft. cascade, pass
115	0	0	0	
116	0	0	0	100 ft. deep canyon
117	0	0	0	Gradient decreasing
118	3	0	0	Deep pool
119	3	0	0	Deep pool

STREAM SURVEY DATA

OBSERVATIONS - Continued

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
120	0	0	0	
121	2*	0	0	Small pool
122	2	0	0	
123	0	0	0	Grav. and small boulder
124	2*	0	0	Deep pool
125	0	0	0	Cascade
126	0	0	0	Torrential
127	0	0	0	
128	2*	0	0	Pool
129	2*	0	0	Pool
130	0	0	0	High gradient
131	3*	2*	0	Log jam. B.W.


ANZAC
LAKE
1
STEPP
LAKE
MILES
0
0.5
XX
UPPER STEPP CREEK

STREAM SURVEY DATA

Stream: UPPER STEPP CREEK (XX)

Survey Date: October 5, 1974 Time: 1500 hr

Weather: C.C. 6 / Wind S. 20-25 / Rain

Air Temperature:

Water Temperature:

Water Discharge: Est. flow less than 1 c.f.s.

Summary Comment:

OBSERVATIONS

Distance from mouth x 100 ft.	Adult Habitat	Juvenile Habitat	Spawning Habitat	Comments
0	0	0	0	Gravel, sand bar
1	2	2	0	Cut banks
2	2	2	0	Sluggish flow
3	2*	2*	0	
4	0	0	0	Mod. grav., algae
5	0	2	0	
6	0	2	0	Pass. for fry only
7	2	3	0	
8	0	2	0	
9	0	2	0	
10	0	2	0	Beaver activity
11	0	2*	0	Start of Anzac Lake

Appendix VII Catch data from Nanika, Kidprice, Spill, and Stepp Lakes, 1974, and from Nanika, Kidprice, Tahtsa, and Morice Lakes and the lower Nanika River, 1975

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1. Gill net catch data from Nanika Lake, 1974

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Comments
Jul.11	1430-1930	1	3	2½"	RT	F	M		35.5	373	
					RT	M	M		39.8	594	
					RT	M	I		37.6	524	
					RT	M	M		37.4	470	
					RT	F	I		34.0	396	
					RT	F	I		34.5	441	Preserved lengths & weights
					RT						
					RT						
					RT						
					RT						
					RT						
Jul. 12	0930-1430	2	1	3"	RT	F	I		33.2	383	Preserved lengths & weights
					RT	M	M		34.8	431	
					RT	M	M		37.7	547	
Jul. 12	1130-1630	3	4	3"							0 Catch
Jul. 12	1230-1730	4	3	1½"							0 Catch
Jul. 12	1930-0730	5	4	1½"	RT				34.0		
					DV				19.0	87	
					DV				17.0	67	
					DV				19.5	75	

RT = Rainbow Trout
DV = Dolly Varden
LS = Longnose Sucker
M = Mature
I = Immature
U = Unknown

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Comments
July 12	- Continued										
	1930-0730	5	4	1½"	DV				18.5	65	
					DV				19.5	85	
					DV				20.5	85	
					DV				17.5	61	
					DV				21.5	102	
					DV				21.0	83	
	2010-0810	6	3	3"	RT	F	I		34.5		
					RT	F	M		35.0		
					RT				38.0		
					RT				37.0		
					RT				35.0		
					RT				35.5		
					RT				35.0		
					RT				36.0		
					RT				37.0		
					RT				35.5		
					RT				34.5		
					RT				31.0		
					RT				37.5		
					RT				37.5		
					RT				34.0		
					RT				35.0		
					RT				38.0		

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Comments
Jul. 12	2110-0910	7	1	2½"	RT	F	I		31.7	370	Preserved lengths & weights
					RT	M	M		36.0	370	
					RT	F	I		35.7	484	
					RT	M	I		33.2	409	
					RT	M	M		36.5	498	
Jul. 14	2000-0800	8	1	1½"							0 Catch
Jul. 14	2020-0820	9	4	2½"	RT			5	32.0		
					RT			6	38.0		
Jul. 26	2030-0830	10	6	1½"	RT			3	30.0		
					RT			3	30.0		
					RT			4	35.0		
					RT			4	35.0		
					RT			4	33.5		
					RT			5	37.5		
					RT			5	35.0		
					RT			5	34.0		
					RT			5	33.0		
					RT				34.0		
					RT				30.0		
					RT				34.0		
					RT				34.0		
					RT				34.5		
					RT				32.5		
					RT				29.0		
					RT	F	I		18.5	70	
					RT	F	I		18.0	65	
					RT	F	I		16.5	55	

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Comments
Jul. 26	2030-0830	10	6	1½"	LS	M	I		16.5	70	
				2½"	RT				31.5		
					RT				28.0		
					RT				35.0		
					RT				32.0		
					RT				31.0		
					RT				31.0		
					RT				35.5		
					RT				36.0		
					RT				33.0		
					RT				33.5		
					RT				31.0		
					RT				37.0		
					RT				30.0		
					RT				33.0		
					RT				35.5		
					RT				34.5		
					RT				30.5		
					RT				36.5		
					RT				32.5		
					RT				35.0		
					RT				33.5		

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Comments
Aug. 21	2000-0800	13	1	1½",2"	RT	M			36.5	475	
				3"	RT	M		6	37.0	550	
					RT	M		4	38.0	590	
					RT	M			36.0	475	
					RT	M			30.0	325	
					RT	F			30.5	425	
					RT	F			34.5	95	
					DV	M		3	20.5	60	
					DV	U			17.0	325	
					LS	F	M	6	29.0	175	
					LS	F	M	6	23.5	275	
					LS	F	M		28.5	55	
					LS	U			15.5		
Aug. 21	2100-0900	14	6	1½",2"	RT	M		5	36.0	525	
				3"	RT	F			37.5	550	
Aug. 22	2010-0830	17	7	1½",2"	RT	M		4	35.0	450	
				3"	RT	M		5	33.0	375	
					RT	M	I		18.5	71	
					RT	M	I		17.0	51	
					RT	M	I		21.0	102	

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Comments
Aug. 22	2010-0830	17	7	1½",2"-Cont'd							
				3"	RT	M	I		16.0	48	
					RT	M	I		37.5	625	
					RT	M	M		43.5	1155	
					RT	F	I		35.5	395	
					RT	M	M		38.0	600	
					RT	M	M		16.5	58	
					DV	F			22.5	125	
					DV	F			24.0	142	
					DV	M			22.5	120	
					DV	M	M		25.0	162	
					DV	F	M		16.5	46	
					DV	F	I		20.0	84	
					DV	M	M		20.0	88	
					DV	F	M		21.0	101	
					DV	F	I		19.5	82	
					DV	F	I		20.5	88	
					DV	M	I		20.5	96	
					DV	M	M		18.0	67	
					DV	M	M		22.5	120	
					DV	F	I		24.5	133	
					DV	F	I		23.0	133	
					DV	F	I		18.5	64	
					DV	F	I		23.5	142	
					DV	F	M		21.5	103	

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Comments
Aug. 22	2010-0830	17	7	1½",2"-Cont'd 3"	DV	F	I		16.0	48	
					DV	F	I		17.5	60	
					DV	M	M		22.5	112	
					DV	M	M		20.0	92	
					DV	F	I		20.5	91	
					DV	M	I		17.0	55	
					DV	M	M		24.5	145	
					LS	F	M		30.5	325	
					LS	F			22.5	130	
					LS	F			22.5	137	
					LS	M	M		19.0	85	
					LS	U			19.0	70	
					LS	M			16.0	50	
					LS	F			18.0	78	
					LS	F	I		17.0	53	
					LS	F	I		18.0	75	
					LS	M	M		17.0	57	
					LS	M	M		17.5	67	
					LS	M	M		18.0	69	
					LS	M	M		17.5	65	
					LS	M	M		17.0	60	
					LS	M	I		15.5	50	
					LS	M	M		16.5	52	

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Comments
Aug. 22	2010-0830	17	7	1½",2"-3"	Cont'd						
					LS	F	M		15.5	57	
					LS	F	I		16.0	49	
					LS	F	I		17.5	72	
					LS	M	I		17.0	58	
					LS	F	M		17.0	61	
					LS	M	M		19.0	85	
					LS	M	M		15.0	42	
					LS	M	M		16.0	55	
					LS	F	M		18.0	69	
					LS	F	M		24.0	150	
					LS	F	I		17.0	57	
					LS	M	M		17.0	58	
					LS	M	M		18.0	76	
					LS	M	M		15.5	41	
					LS	M	M		17.5	63	
					LS	M	M		19.0	65	
					LS	M	M		17.0	60	
					LS	F	M		28.0	265	
					LS	F	M		31.5	370	
					LS	F	M		28.0	270	
					LS	F	M		31.5	355	
					LS	M	M		26.5	275	
					LS	F	M		28.0	260	

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Comments
Aug. 22	2010-0830	17	7	1½",2"-Cont'd							
				3"	LS	F	M		28.0	270	
					LS	F	M		28.0	300	
					LS	F	M		27.5	250	
					LS	F	M		29.0	300	
					LS	M	M		16.5	55	
Aug. 22	2100-0930	18	5	1½",2"	RT	M	I	5	39.5	625	
				3"	RT	M	I	4	35.0	465	
					DV	M	M	1	21.5	96	
					LS				15-20		
Aug. 23	2000-0800	19	11	1½",2"							
				3"	RT	M	M	4	36.5	490	
					RT	M	I	4	35.0	460	
					RT	F	I		33.0	425	
					RT	F	I		33.0	375	
					RT	M	M		38.0	535	
					RT	M	I		32.5	355	
					RT	M	I		32.0	380	
					RT	M	I		34.0	440	
					RT	M	M		38.5	565	
					RT	F	I		36.5	535	
					RT	F	I		32.0	410	
					RT	M	M		36.5	505	

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Comments
Aug. 23	2000-0800	19	11	1½",2"-3"	Cont'd						
					RT	F	I		35.0	370	
					RT	M	I		34.0	430	
					RT	F	I		34.5	455	
					RT	M	I		33.5	430	
					RT	M	I		36.5	495	
					RT	M	I		30.5	330	
					DV	F	M	1	19.0	78	
					DV	F	M	1	14.5	43	
					LS	M	M	3	15.5	53	
Aug. 23	2030-0930	20	9	1½",2"-3"							
					RT	F	I	5	36.5	435	
					RT	M	M		36.5	450	
					RT	F	I		36.0	430	
					RT	M	I		34.5	435	
					RT	F	I		34.0	425	
					RT	M	I		32.0	390	
					RT	M	M		34.0	500	
					RT	M	I	4	36.0	470	
					RT	M	I	5	33.0	410	
					RT	F	I		32.5	400	
					RT	F	I		32.5	365	
					RT	F	I		33.0	410	
					RT	F	I		34.0	380	

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Comments
Aug. 23	2030-0930	20	9	1½",2"-3"	Cont'd RT	F	I		31.0	310	+ 13 RT thrown back
					RT	F	I		29.0	290	
					RT	F	I		35.0	450	
					RT	F	I		36.5	520	
					RT	M	I		34.0	425	
					RT	M	I		39.0	590	
					RT	M	I		29.0	280	
					RT	M	M		37.5	535	
					RT	F	I		31.5	350	
					RT				38.0	590	
					RT	M	I		34.5	425	
					RT	M	I		35.0	450	
					RT	M	I		35.5	450	
					RT	M	I		32.5	430	
					RT	M	I		31.5	340	
					RT	F	I		33.0	400	
					RT	F	I		36.5	475	
					RT	M	I		36.0	425	
					RT	M	I		32.5	425	
					RT	F	I		31.5	370	
					RT	M	M		38.0	590	
					RT	M	I		32.5	375	
					RT	F			34.0	425	Resid. Eggs
					RT	F			32.0	385	Residual Eggs

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Comments
Aug. 23	2030-0930	20	9	1½",2"-3"	Cont'd						
					RT	F	Spawned		33.5	380	Residual Eggs
					RT	F	I		35.0	435	
					RT	M	M		33.5	445	
					RT	F	I		35.5	400	
					RT	M	I		33.5	425	
					RT	F	I		33.0	415	
					RT	F	I		35.0	455	
					RT	M	I		37.5	460	
					RT	F	I		37.5	550	
					RT	F	I		34.5	420	
					RT	M	I		32.0	350	
					RT	F	I		35.0	470	
					RT	M	I		34.0	440	
					RT	M	I		34.5	460	
					RT	M	M		37.0	505	
					RT	M	I		36.5	475	
					RT	F	I		34.0	405	
					RT	M	I		37.0	460	
					RT	M	I		36.5	525	
					RT	F	Spawned		34.5	435	Residual Eggs
					RT	F	I		31.5	370	
					RT	M	I		36.5	455	
					RT	M	I		37.0	530	
					RT	M	M		37.0	575	

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Comments
Aug. 23	2030-0930	20	9	1½",2"-Cont'd							
				3"	RT	F	I		33.0	400	
					RT	M	I		31.5	340	
					RT	M	I		36.0	475	
					RT	M	M		35.0	475	
					RT	F	Spawned		35.5	425	Residual
					RT	F	I		36.0	460	Eggs
					RT	F	Spawned		38.0	530	Residual
					RT	M	I		36.5	500	Eggs
					RT	M	I		36.5	465	
					RT	M	M		36.5	500	
					RT	F	I		30.5	335	
					RT	M	I		36.0	470	
					RT	M	I		33.0	425	
					RT	M	M		39.5	675	
					RT	F	I		31.0	350	
					RT	F	I		35.5	445	
					RT	F	I		34.5	445	
					RT	F	I		36.0	455	
					RT	M	I		34.0	450	
					RT	M	I		34.5	425	
					RT	F	Spawned		34.5	455	Residual
					RT	M	M		35.5	500	Eggs
					RT	F	I		35.5	470	
					RT	M	I		32.5	375	
					RT	M	I		35.0	520	

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Comments
Aug. 23	2030-0930	20	9	1½",2"-Cont'd							
				3"	RT	M	M		35.0	485	
					RT	F	I		38.5	560	
					RT	M	I		33.0	420	
					RT	F	I		26.5	210	
					RT	M	I		21.5	118	
					RT	M	I		34.0	435	
					RT	M	I		35.5	465	
					RT	F	I		36.5	410	
					RT	M	I		33.5	455	
					RT	M	M		37.5	565	
					RT	M	M		36.5	545	
					RT	F	I		30.5	315	
					RT	F	Spawned		33.0	405	Residual Eggs
					RT	F	I		28.0	275	
					RT	F	I		31.0	350	
					RT	M	I		27.5	212	
					RT	F	I		32.5	400	
					RT	M	M		37.0	515	
					RT	F	I		35.0	425	
					RT	F	I		33.5	420	
					RT	M	I		37.0	470	
					RT	M	I		35.5	440	
					RT	F	I		32.5	425	
					RT	M	I		31.5	350	

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Comments
Aug. 23	2030-0930	20	9	1½",2"-Cont'd							
				3"	RT	F	I		31.5	360	
					RT	F	I		32.5	370	
					RT	M	I		36.0	485	
					RT	M	I		32.5	380	
					RT	M	I		29.0	285	
					RT	F	I		32.0	395	
					RT	F	I		35.0	465	
					RT	F	I		34.0	435	
					RT	F	I		33.5	425	
					RT	M	I		28.0	280	
					RT	M	I		26.0	230	
					RT	F	I		35.5	430	
					RT	M	I		34.5	445	
					RT	F	I		31.0	350	
					RT	M	I		31.0	355	
					RT	M	M		35.0	460	
					RT	M	I		32.5	365	
					RT	M	I		33.5	450	
					RT	F	I		34.5	430	
					RT	M	I		30.0	330	
					RT	M	I		30.5	315	
					RT	M	I		30.0	330	
					RT	F	Spawned		34.0	395	Residual Eggs
					RT	M	I		35.5	465	

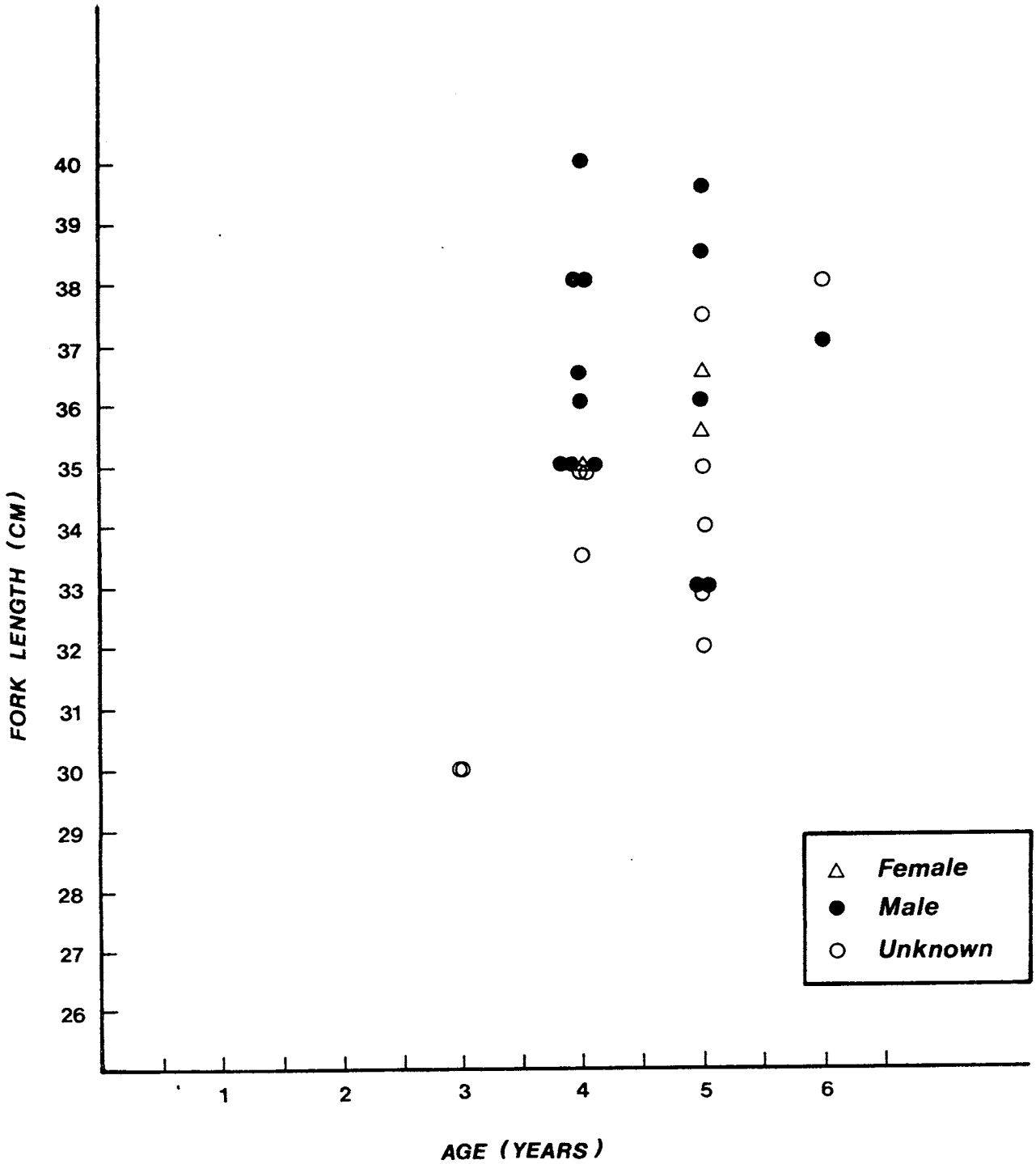
Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Comments
Aug. 23	2030-0930	20	9	1½", 2"-Cont'd 3"							
					RT	F	I		33.0	400	
					RT	F	I		32.0	420	
					RT	M	I		34.5	430	
					RT	F	I		34.5	415	
					RT	F	I		34.0	400	
					DV	F	I	2	24.0	143	
					DV	M	M		27.0	192	
					DV	M	I		22.0	118	
					DV	F	I		19.0	85	
					DV	M	M		21.5	108	
					DV	F	M		22.0	117	
					DV	F	M		17.5	58	
					DV	U			16.5	51	
					DV	F	M		14.0	38	
					DV	M	M		21.5	113	
					DV	M	M		24.5	173	
					DV	M	I		18.5	77	
					DV	M	M		15.0	37	
					DV	F	M		20.5	100	
					DV	M	I		21.0	87	
					LS	F	M		27.5	275	
					LS	M	M		15.0	47	

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Comments
Aug. 26	2015-0800	21	17	1½",2" 3"	RT	M	M	5	38.5		
					RT	M	I	4	38.0		
					RT	M	I		36.5		
					RT	F	I		36.5		
					DV	M	I	1	17.5	50	
					DV	M	M	1	16.5	49	
					DV	F	I		17.5	52	
Aug. 26	2050-0830	22	14	1½",2" 3"	RT	F	I	4	35.0		
					RT	F	I		31.5		
					RT	F	I		34.0		
					RT	F	I	5	35.5		
					RT	F	I		34.0		
					RT	F	I		35.0		
					RT	F	I		32.0		
					RT	M	I		35.5		
					RT	F	I		34.5		
					RT	F	I		28.5		
					RT	M	I		33.5		
					RT	F	Spawned		34.0		Residual Eggs
					RT	M	M		35.5		
					RT	M	I		36.0		
					RT	M	I		30.5		
					RT	M	I		38.0		

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Comments
Aug. 26	2030-0830	22	14	1½",2"-Cont'd 3"	RT	M	M		33.0		
					RT	M	M		35.0		
					RT	M	I		34.0		
					RT	M	I		35.5		
					RT	M	I		33.5		
					RT	M	I		35.0		
					RT	M	M		36.5		
					RT	F	I		33.0		
					RT	M	I		37.5		
					RT	F	I		36.0		
					RT	M	I		37.5		
					RT	M	I		40.0		
					RT	M	I		31.0		
					RT	M	M		37.0		
					RT	M	M		38.0		
					RT	M	I		36.5		
					RT	M	I		36.0		
					RT	F	I		36.0		
					RT	M	M		38.0		
					RT	M	M		36.0		
					RT	M	M	4	40.0		
					RT	M	M		37.5		
					RT	M	I		34.0		
					RT	F	I		35.5		
					RT	F	I		37.0		

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Comments
Aug. 26	2030-0830	22	14	1½",2"-Cont'd							
				3"	RT	M	I		36.5		
					RT	M	I		36.5		
					RT	M	I		37.5		
					RT	M	M		36.0		
					RT	M	I		34.5		
					RT	M	M		38.0		
					RT	M	M		33.5		
					DV	M	I	1	19.0	87	
					DV	U			17.5	58	
					DV	F	I	1	17.0	50	
					LS	F	M	3	26.0	228	

2. The relationship of length and age for male and female rainbow trout from Nanika Lake, 1974



3. Gill net catch data from Kidprice Lake, 1974

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Comments
Sept. 24	1800-1015	38	21	1½",2" 3"	RT	M	M	4	31.5	270	Maturing
					RT	F	M	5	31.0	240	Maturing
					RT	F	M		32.5	245	Maturing
					DV	F	I		18.0	33	
Sept. 25	1815-0630	39	21	1½",2" 3"	RT	F	I		30.0	265	
					RT	U	I		16.0	40	
					DV	F	M		18.0	75	Maturing
					DV	F	M		18.0	73	Maturing
					LS	M	I		17.0	55	
					LS	F	M		18.0	75	Maturing
					LS	F	I		16.5	55	
					LS	F	I		18.0	85	
					LS	M	I		15.5	45	

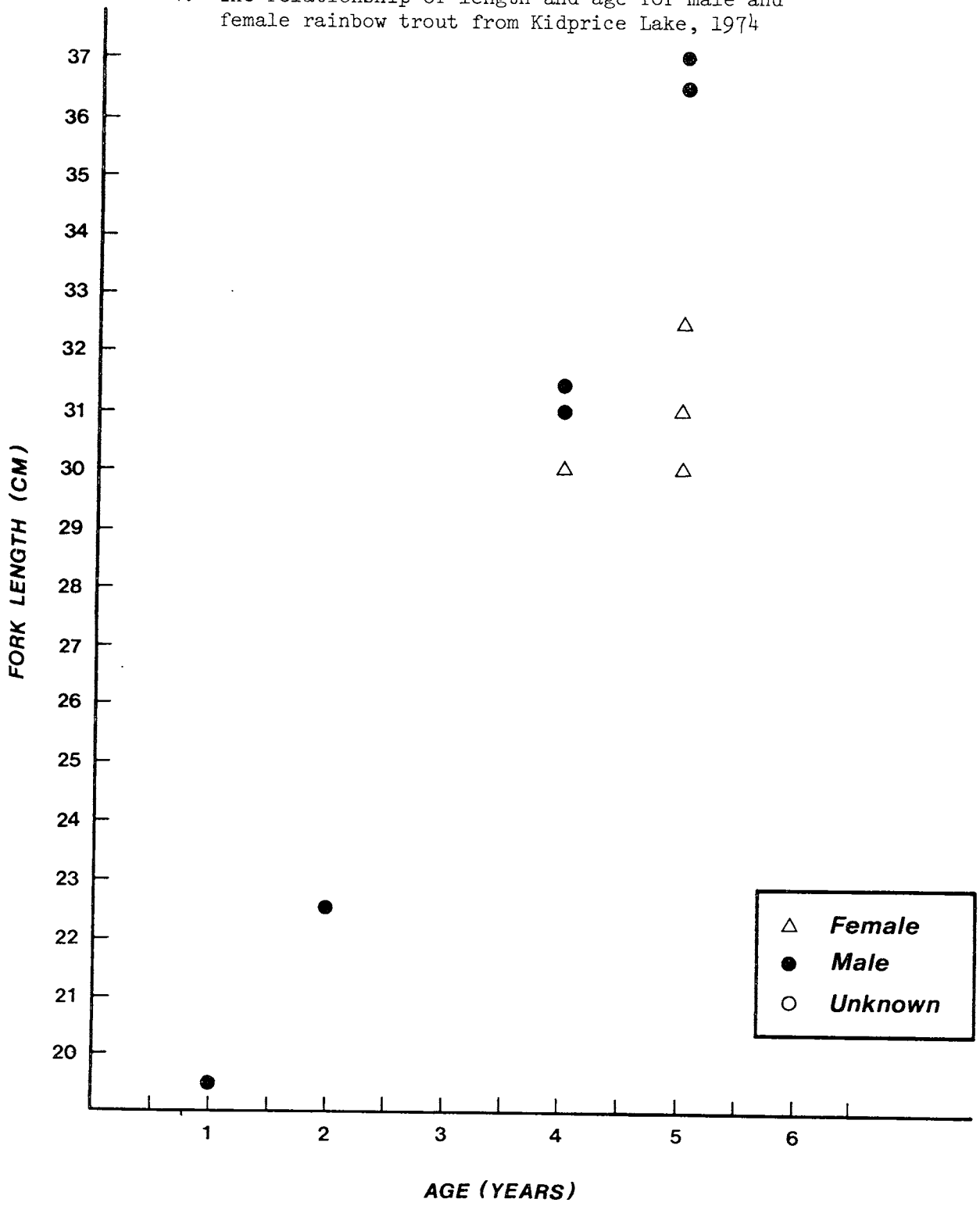
RT = Rainbow Trout
DV = Dolly Varden
LS = Longnose Sucker
M = Mature
I = Immature
U = Unknown

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Comments
Sept. 26	1830-0815	40	18	1½",2" 3"	RT	M	I	4	31.0	286	
					RT	F	I		16.0	58	
					DV	M	M		22.0	113	
					DV	U	I		19.0	78	
					DV	M	I		18.0	64	
					DV	F	I		17.5	58	
					DV	M	I		19.0	80	
					DV	F	I		16.0	50	
					DV	F	M		18.0	78	Maturing
					DV	F	I		17.5	60	
					DV	U	I		18.0	70	
Sept. 26	1915-1000	41	19	1½",2" 3"	RT	F	M	5	32.5	395	Maturing
					DV	F	I	2	18.0	58	
					DV	F	I		19.5	80	
					DV	U	I	1	17.5	57	
					DV	F	I		18.0	70	
					DV	U	I		17.0	52	
					DV	M	I		18.5	75	
					LS	F	M	4	27.0	240	Maturing
					LS	U	I	3	15.5	46	
					LS	U	I	3	15.5	45	

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Comments
Oct. 1	1020-0900	47	18	1½",2"	RT	M	M	5	37.0	521	
				3"	RT	M	I	1	19.5	80	
					RT	F	I	4	30.0	260	
					RT	M	I		20.0	80	
					RT	M	M		31.0	300	
					RT	F	M		31.5	303	Maturing
					RT	M	I		35.0	427	
					DV	M	M		18.5	64	
					DV	M	M	2	22.5	108	
					DV	F	M	2	23.5	128	
					DV	F	I		20.0	80	
					DV	M	Spawned		18.5	68	
					DV	M	M		22.0	108	
					DV	F	I		18.0	67	
					DV	F	I		16.5	45	
					DV	M	M		20.0	79	
					LS	F	I		28.5	265	
					LS	F	I		28.5	255	
					LS	M	M		17.5	63	
					LS	U	I		15.5	42	
					LS	M	I		18.0	60	
					LS	M	M		16.5	50	Maturing
					LS	U	I		15.5	40	
					LS	U	I		16.5	42	

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Comments
Oct. 1	1020-0900	47	18	1½",2"-Cont'd 3"							
					LS	U	I		16.0	45	
					LS	M	M		16.0	42	
					LS	U	I		14.5	37	
					LS	F	M		27.0	235	Maturing
Oct. 1	1035-1000	48	18	1½",2" 3"	RT	M	I	5	36.5	598	
					RT	M	I	2	22.5	123	
					RT	F	M	5	30.0	298	Maturing
					RT	F	I		17.5	52	
					DV	M	I	2	20.0	71	
					DV	M	M		21.5	102	
					DV	M	M		23.0	112	
					DV	F	M		17.0	47	
					DV	F	M		20.0	83	
					LS	F	I		30.5	365	
					LS	M	I		26.5	287	
					LS	F	I		26.0	238	
					LS	F	I		31.0	416	
					LS	M	I		17.0	47	
					LS	M	I		17.0	60	
					LS	U	I		14.5	33	
					LS	M	M		16.0	42	
					LS	U	I		16.5	47	
					LS	U	I		15.5	42	
					LS	F	I		18.5	68	

4. The relationship of length and age for male and female rainbow trout from Kidprice Lake, 1974



5. Gill net catch data from Spill Lake, 1974

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Comments
Sept. 23	1320-1620	37	Spill Lake	1½",2" 3"	RT	F	I	4	28.5	238	
					RT	M	I	2	22.0	119	
					RT	M	I	2	26.0	107	
					RT	M	I		29.0	243	
					RT	F	M		30.5	260	Maturing
					RT	F	I		23.5	140	
					RT	M	I		19.0	76	
					RT	F	I		17.0	55	
					RT	M	I		20.5	105	
					RT	M	I		20.5	105	
					RT	M	I		20.0	86	
					RT	F	I		18.0	64	
					RT	U	I		17.0	55	
					RT	F	I		20.5	95	
					RT	F	I		18.0	61	
					RT	M	I		24.0	107	
					DV	M	M		34.5	380	Spawning
					DV	M	I	2	27.0	223	Condition

RT = Rainbow Trout
DV = Dolly Varden
LS = Longnose Sucker
M = Mature
I = Immature
U = Unknown

6. Gill net catch data from Stepp Lake, 1974

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Comments
Oct. 4	1935-0900	49	22	1½",2"	RT	F	I	4	26.0	185	
				3"	RT	M	M	4	32.0	320	Dark
					RT	M	I	4	26.0	185	
					RT	M	I		21.0	100	
					RT	F	I		22.5	112	
					DV	M	M	2	28.5	225	Dark
					DV	F	I	1	17.0	55	Fish only
					DV	F	I	1	18.5	65	lightly
					LS	F	I		23.5	162	parasitized.
					LS	F	I		20.0	98	
					LS	M	M		18.0	65	Red
					LS	F	I		16.5	52	
					LS	F	I		16.0	50	
					LS	M	M		16.0	52	Red
					LS	F	I		17.5	68	
					LS	M	M		17.0	55	Red
					LS	F	I		18.0	75	
					LS	F	I		16.5	50	
					LS	U	I		15.5	50	

RT = Rainbow Trout
DV = Dolly Varden
LS = Longnose Sucker
M = Mature
I = Immature
U = Unknown

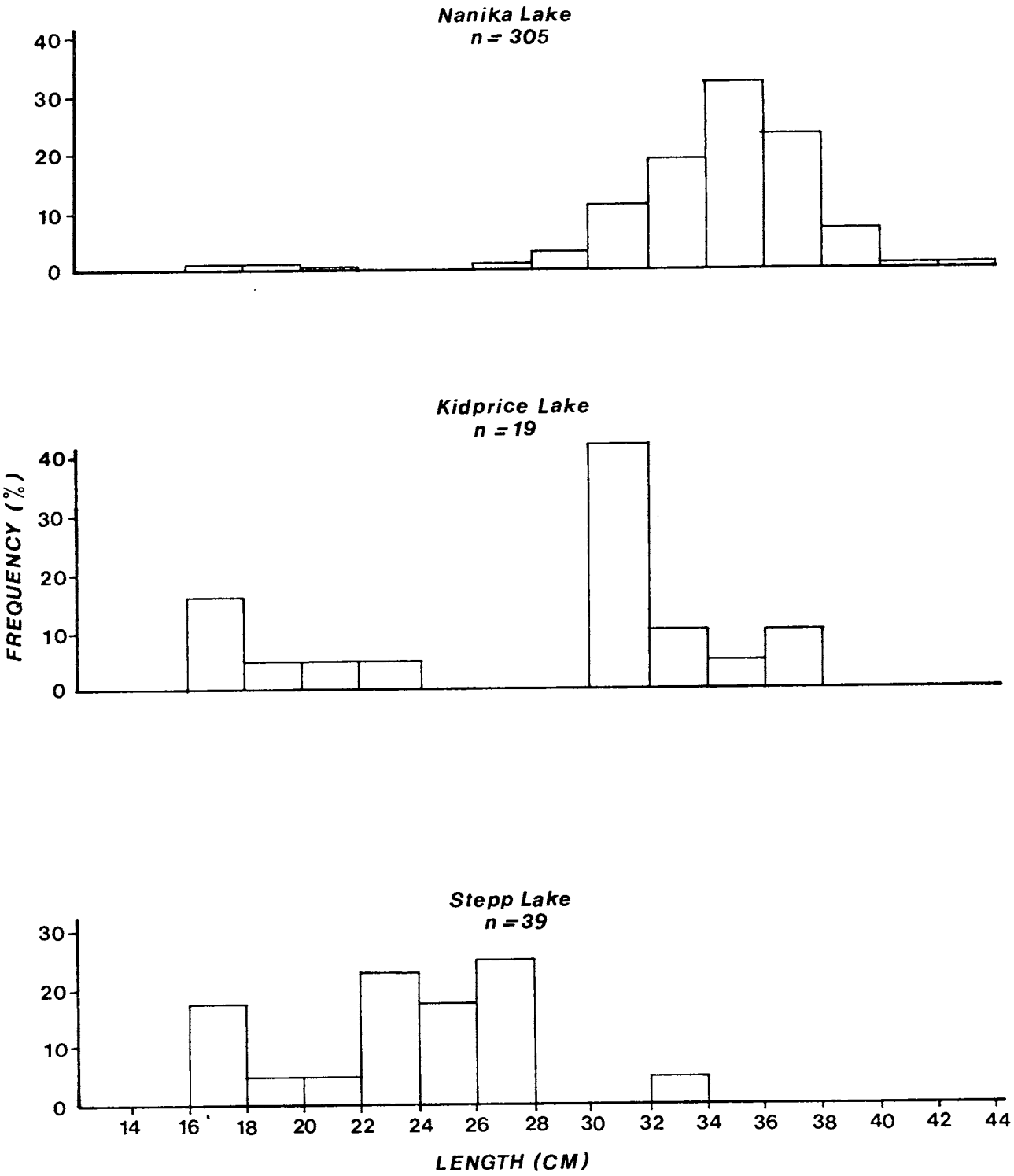
Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Comments
Oct. 4	1935-0900	49	22	1½",2"-Cont'd							
				3"	LS	M	I		16.5	52	
					LS	F	I		15.5	50	
					LS	M	I		15.0	42	
					LS	F	I		16.0	54	
					LS	F	I		16.0	53	
					LS	M	I		15.5	42	
					LS	M	I		16.5	50	
Oct. 5	2000-0900	50	23	1½",2"	RT	U	I	2	23.5	130	
				3"	RT	F	I		23.5	160	
					RT	M	I		22.5	120	
					RT	F	I		24.5	160	
					RT	M	I		26.5	200	
					RT	F	I		22.0	110	
					RT	F	I		18.5	65	
					RT	F	I		16.5	55	
					RT	F	I		19.5	80	
					RT	M	I		27.5	200	
					RT	F	I		24.0	160	
					RT	F	M		26.0	170	
					RT	F	M		25.0	150	
					RT	F	M		22.5	100	
					RT	U	I		23.5	125	
					RT	F	I		24.5	150	
					RT	F	I		22.5	125	

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Comments
Oct. 5	2000-0900	50	23	1½",2"-Cont'd							
				3"	RT	F	I		23.0	135	
					RT	F	I		26.0	185	
					RT	F	M		33.0	325	Maturing
					RT	M	I		24.0	150	
					RT	F	I		26.0	190	
					RT	F	I		24.5	160	
					RT	M	I		26.5	205	
					RT	M	I		26.5	195	
					RT	F	I		24.5	155	
					RT	M	I		17.0	55	
					RT	F	I	2	17.5	60	
					RT	F	I		16.5	45	
					RT	M	I		16.5	50	
					RT	U	I		16.5	45	
					RT	M	I		16.5	50	
					RT	F	I		26.0	170	
					RT	U	I		20.0	80	
					DV	F	M	2	24.0	140	
					LS	F	I		29.0	290	
					LS	F	I		26.5	200	
					LS	F	I		17.5	60	
					LS	M	M		16.5	50	Red
					LS	U	I		17.0	50	
					LS	F	I		16.5	50	
					LS	F	M		16.0	50	Red
					LS	M	I		16.0	45	

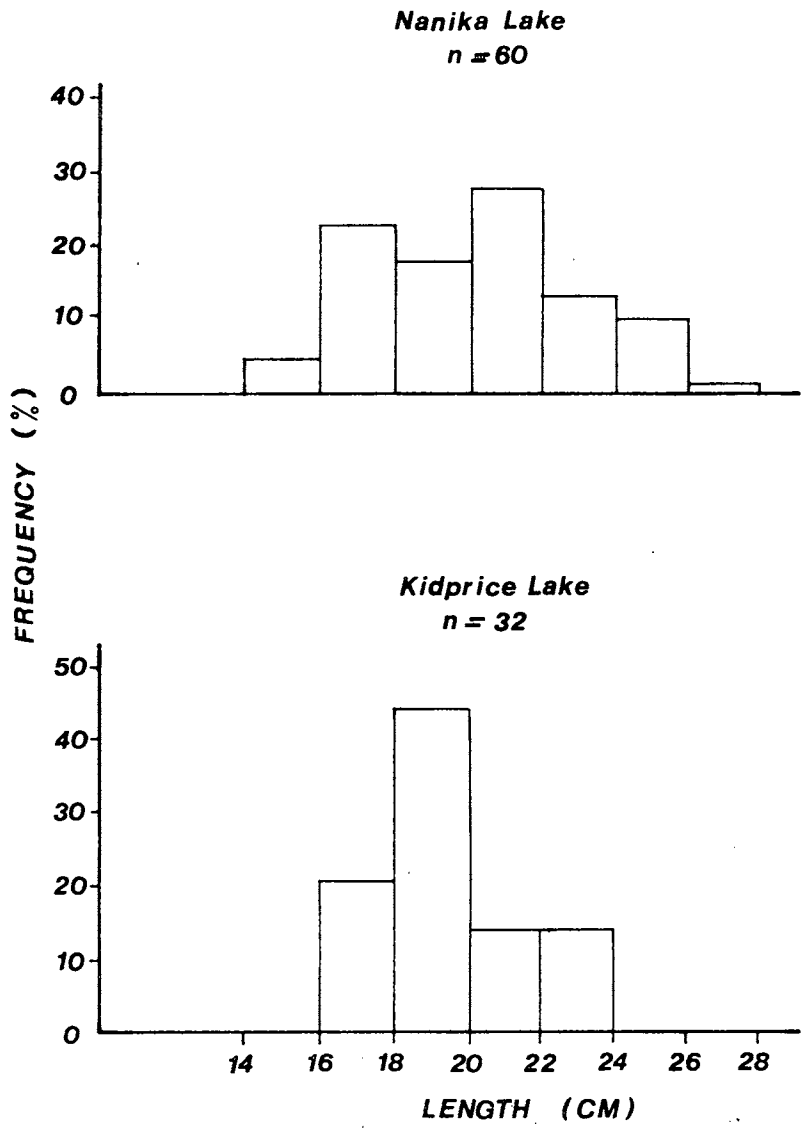
Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Comments
Oct. 5	2000-0900	50	23	1½",2" 3"	-Cont'd						
					LS	F	M		16.5	50	Red
					LS	M	M		19.5	80	
					LS	M	M		17.0	55	
					LS	M	M		17.5	50	
					LS	M	M		17.0	55	
					LS	F	I		17.0	50	
					LS	M	M		16.5	50	
					LS	F	I		16.5	50	
					LS	M	M		19.5	90	Red
					LS	F	M		21.5	100	
					LS	F	I		16.0	45	
					LS	F	I		17.0	55	
					LS	F	I		16.0	40	
					LS	M	M		16.0	45	
					LS	F	I		17.0	55	
					LS	F	I		17.5	55	
					LS	F	I		16.5	50	
					LS	M	I		17.5	45	
					LS	M	I		14.5	35	
					LS	M	I		17.0	50	
					LS	M	I		17.0	55	
					LS	M	I		17.5	55	
					LS	F	I		17.0	50	
					LS	F	I		17.0	50	
					LS	M	I		16.0	40	

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Comments
Oct. 5	2000-0900	50	23	1½",2"-Cont'd							
				3"	LS	M	Spawned		17.0	50	
					LS	M	I		15.0	35	
					LS	F	I		17.5	60	
					LS	M	I		15.5	40	
					LS	M	I		16.5	45	
					LS	F	I		15.5	40	
					LS	M	M		17.0	50	
					LS	M	I		18.0	70	
					LS	F	I		17.0	55	
					LS	F	I		17.0	50	
					LS	M	I		15.0	40	
					LS	F	I		18.0	65	
					LS	F	I		18.5	70	
					LS	F	I		19.0	65	
					LS	M	I		16.0	50	
					LS	F	I		15.5	45	
					LS	F	I		16.5	50	

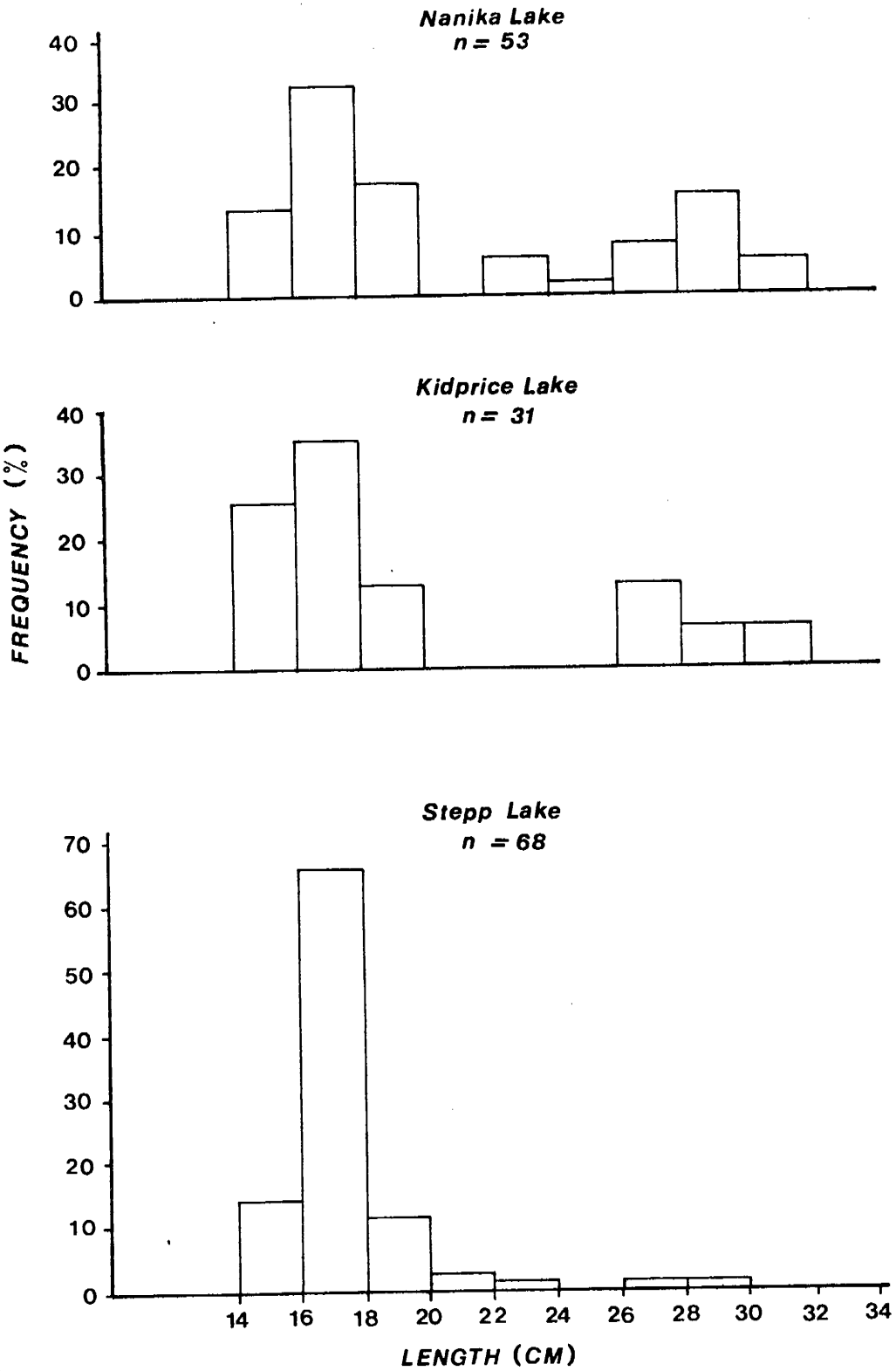
7. The relationship of fish length and catch frequency for rainbow trout from Nanika, Kidprice, and Stepp Lakes, 1974



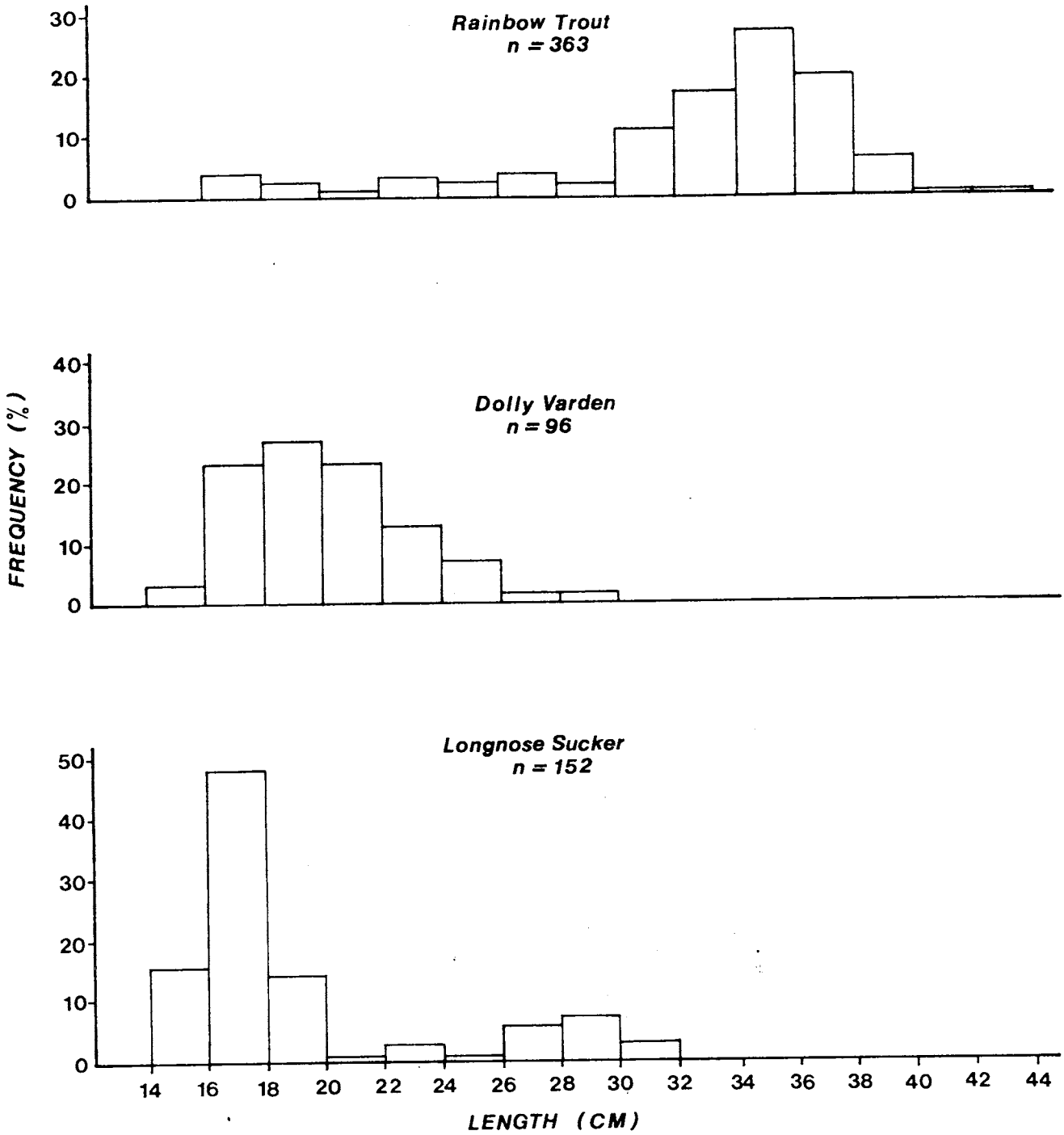
8. The relationship of fish length and catch frequency for Dolly Varden from Nanika and Kidprice Lakes, 1974



9. The relationship of fish length and catch frequency for longnose sucker from Nanika, Kidprice, and Stepp Lakes, 1974



10. The relationship of fish length and catch frequency for rainbow trout, Dolly Varden, and longnose sucker from Nanika, Kidprice, and Stepp Lakes, 1974



11. Gill net catch data from Nanika Lake, 1975

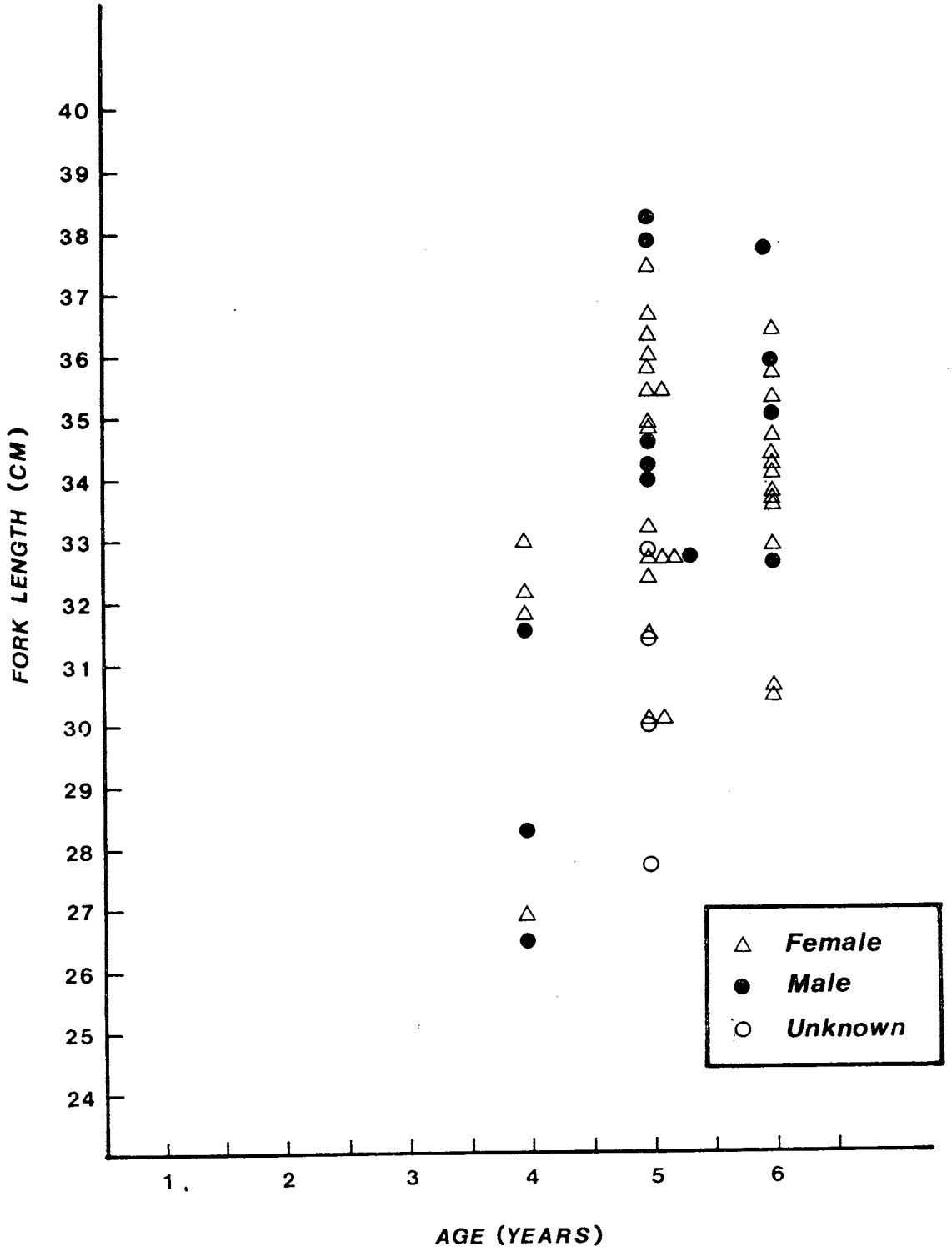
Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Diphyllo-bothrium
Aug. 27	2130-0930	13	1 mi.S of stn. 3	4",5" Deep Set	0 Catch						
Aug. 27	2100-0900	14	3		RT	F		6	30.5	414.8	12
					RT	M		5	36.7	471.5	>50
					RT	F		4	33.0	381.6	50
					RT	M		5	35.9	482.7	45
					RT	F		6	33.6	399.7	20
					RT	M		5	32.7	357.5	35
					RT	M		4	26.5	215.0	10
					RT	M		5	34.6	396.3	25
Aug. 27	2100-0900	15	3	1½",2" 3"	RT	F	M		38.0		>50
					RT						
Aug. 29	2100-0900	16	¼ mi. N of stn. 14		RT	F	M	5	32.7	416.2	15
					RT	M	M	5	37.8	599.4	50
					RT	F	M	5	36.6	497.9	20
					RT	M	M	5	37.5	548.2	>50
					RT	M	M	4	31.5	378.4	50
					RT	F	M	6	34.2	415.6	>50
					RT	F	M	6	33.7	424.7	>50
					RT	M	M	6	35.0	467.0	>50

RT = Rainbow Trout
DV = Dolly Varden
M = Mature
I = Immature
U = Unknown

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Diphyllo-bothrium
Set No. 16 cont'd					RT	F	M	6	35.7	420.8	>50
					RT	M	M	6	35.8	469.8	20
					RT	M	M	6	32.6	410.5	35
					RT	M	M	5	34.1	428.3	40
					RT	F	M	6	34.4	444.2	>50
					RT	M	M	6	47.7	524.6	>50
					RT	F	M	6	36.4	528.4	45
					RT	M	M	5	38.2	547.8	>50
					RT	M	M	5	34.0	398.6	25
					RT	F	M	5	33.2	421.9	>50
					RT	F	M	5	32.7	414.6	35
					RT	F	M	6	33.8	421.2	25
					RT	F	M	5	35.8	421.3	>75
					RT	U		5	31.4	316.5	5
					RT	U		5	30.0	322.2	10
					RT	F	M	5	33.1	358.4	30
					RT	U		5	32.8	394.4	10
					RT	F	M	5	37.4	500.9	35
					RT	F	M	5	36.3	492.3	25
					RT	F	M	4	32.2	404.2	15
					RT	F	M	4	31.8	391.4	>50
					RT	F	M	5	32.4	377.8	15
					RT	F	M	5	36.0	538.3	>50
					RT	F	M	5	34.9	468.3	40
					RT	F	M	6	32.9	383.8	15
					RT	F	M	5	30.1	305.5	15
					RT	F	M	5	32.7	363.8	>50

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Diphyllo-bothrium
Set No. 16 cont'd					RT	F	M	5	35.4	407.2	
					RT	F	M	5	30.1	334.3	
					RT	M	M	4	28.2	258.4	
					RT	F	M	4	26.9	223.9	
					RT	U		5	27.7	227.3	
					DV	F	M	6	25.5	187.1	
					DV	F	M	6	25.4	167.4	
					DV	F	M	5	22.9	134.4	
					RT	F	M	5	35.4	468.2	
					RT	F	M	5	24.8	424.0	
					RT	F	M	6	35.3	446.9	
					RT	F	M	6	34.1	423.6	
					RT	F	M	6	34.7	444.4	
					RT	F	M	6	30.6	317.0	
					RT	F	M	5	31.5	356.5	
					DV	M	M	7	27.5	229.4	
					DV	M	M	4	19.5	90.3	

12. The relationship of length and age for male and female rainbow trout from Nanika Lake, 1975



13. Gill net catch data from Kidprice Lake, 1975

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condition	Age	Length (cm)	Weight (gm)	*Diphyllobothrium*
Aug. 1	2200-1000	1	19	1½",2½" 3"	RT	M		5+	38.6	556.7	35
					RT	F		4+	29.5	259.7	15
					DV			8	33.3	387.7	0
					DV			5	21.8	95.2	0
Aug. 1	2200-1000	2	19	4",5" Deep Set	0 Catch						
Aug. 3	2000-0800	3		1½",2½" 3"	RT	F	I	5	32.3	316.2	>50
					RT	M	I	6	29.7	272.2	27
					RT	M	I	6	29.1	229.2	32
					RT	F	I	5	27.2	196.2	26
					RT	F	I	5	26.9	162.1	0
					RT	M	I	4	25.0	157.6	11
					RT	F	I	4	32.0	342.6	35
					RT	M	I	3	22.3	103.5	5
					DV	F	I	4	19.7	71.5	5
					DV	F	I	4	17.5	55.0	0
Aug. 3	2030-0830	4	18	4",5" Deep Set	0 Catch						
Aug. 3	2000-0800	5		1½",2½" 3"	RT	F	I	5	28.7	229.0	18
					DV	F	I	5	21.8	90.0	7
					DV	M	I	4	19.4	72.1	10
					DV	F	I	4	19.1	67.8	7
					DV	M	I	4	18.5	62.1	20
					DV	F	I	4	18.9	67.6	2

RT = Rainbow Trout
DV = Dolly Varden
LS = Longnose Sucker
M = Mature
I = Immature
U = Unknown

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Diphyllo-bothrium
					DV	M	I	4	19.4	73.0	15
					DV	F	I	4	18.9	66.7	8
					DV	M	I	4	17.9	55.2	3
					DV	F	I	4	17.7	49.2	2
Aug. 4	2030-0830	6	21	4",5" Deep Set	0 Catch						
Aug. 4	2000-0800	7	21	1½",2½" 3"	RT	F	I	5	29.8	256.6	3
					RT	F	I	4	27.1	184.1	3
					RT	F	I	4	27.4	187.8	4
					RT	F	I	4	25.4	171.5	1
					RT	U		3	22.6	118.7	4
					RT	F	I	3	22.9	118.7	4
					RT	M	I	4	29.2	235.2	8
					RT	F	I	4	33.2	297.7	35
					RT	F	I	5	28.2	232.2	8
					RT	F	I	4	27.3	179.4	1
					RT	M	I	4	28.0	218.4	10
					RT	F	I	3	25.2	160.9	4
					RT	U		4	28.5	225.1	0
					RT	F	I	4	25.5	167.9	0
					RT	F	I	3	23.6	129.2	5
					RT	U		3	22.4	114.4	6
					RT	F	I	3	24.5	147.8	16
					DV	F	I	5	21.1	94.2	0
					DV	F	I	4	20.1	75.3	0
					DV	M	I	4	21.4	93.2	0

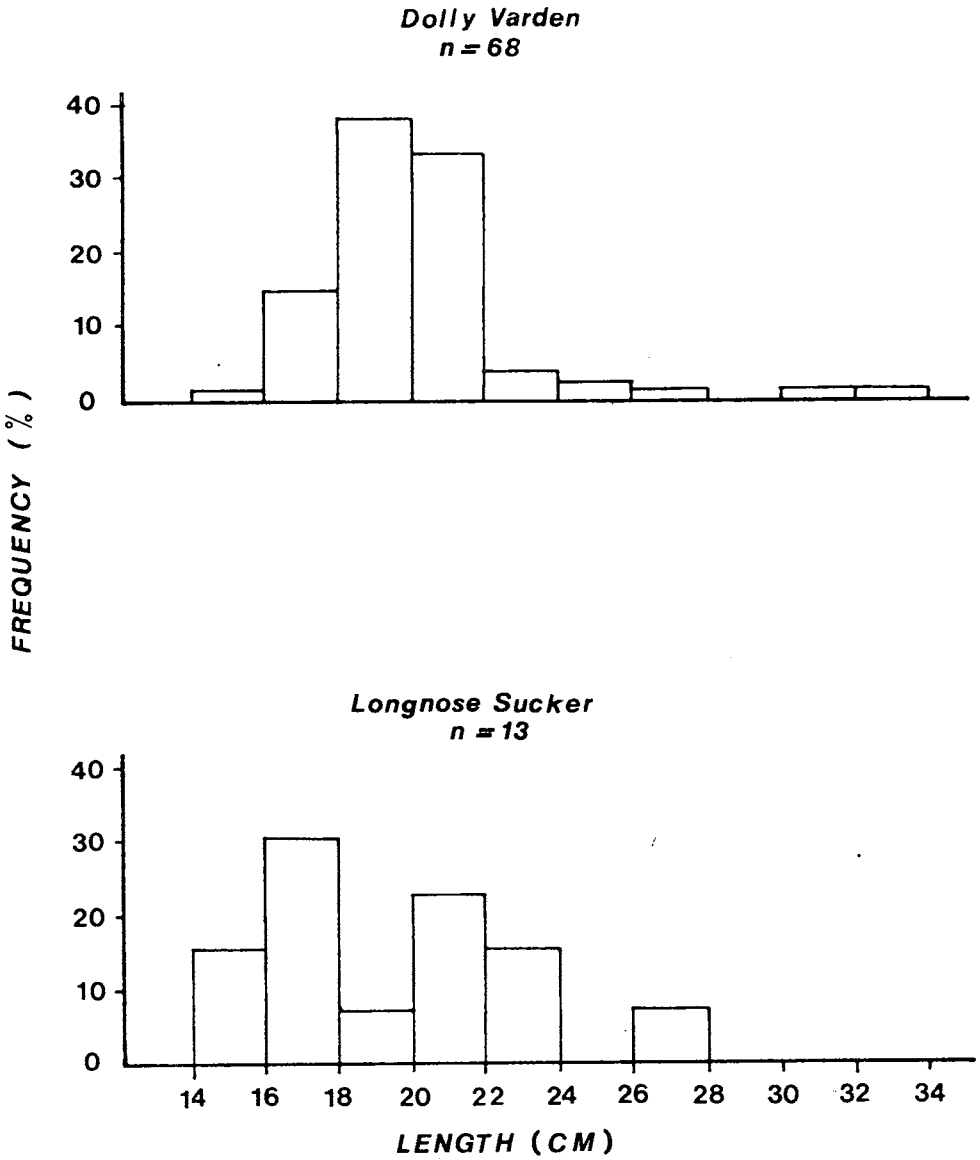
Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Diphyllo-bothrium
Set No. 7 cont'd					DV	F	I	6	21.6	96.3	0
					DV	M	I	4	19.5	80.9	0
					DV	F	I	4	19.9	74.8	0
					DV	F	I	5	21.2	85.0	0
					DV	F	I	4	20.3	82.2	0
					DV	F	I	4	20.7	84.1	0
					DV	F	I	4	20.9	85.1	0
					DV	F	I	4	21.1	85.2	0
					DV	F	I	4	19.9	74.0	0
					DV	F	I	4	19.4	73.4	0
					DV	M	I	4	20.2	77.2	2
					DV	F	I	5	19.8	77.7	0
					DV	M	I	4	19.0	69.5	0
					DV	F	I	4	17.7	54.8	1
					RT	F	I	3	16.6	51.9	0
					DV	F	I	4	19.5	72.0	0
					DV	M	I	5	18.6	63.4	0
					RT	U		3	16.5	51.2	5
					RT	F	I	3	16.3	69.5	1
					DV	F	I	4	19.4	65.1	0
					DV	F	I	4	17.5	55.0	0
					DV	F	I	3	17.3	49.3	0
					DV	M	I	4	18.1	64.2	2
					DV	F	I	4	19.0	69.8	0
					DV	F	I	4	18.1	61.4	0
					RT	F	I	3	15.2	41.6	0

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	Diphyllo-bothrium
Aug. 4	2030-0830	8	21	1",2" 3"	RT	F	I	4	23.8	135.8	8
					RT	F	I	5	30.9	282.6	5
					RT	F	I	3	21.8	108.8	3
					RT	M	I	5	30.9	271.4	8
					RT	M	I	4	29.4	240.7	20
					RT	F	I	3	19.6	83.8	4
					DV	M	I	5	22.1	94.5	0
					DV	M	I	5	20.4	81.0	1
					DV	F	I	4	21.0	90.1	0
					DV	F	I	4	21.8	88.0	0
					DV	F	I	4	20.1	69.2	0
					RT	F	I	3	17.7	62.0	0
					DV	M	I	4	19.8	75.7	0
					DV	F	I	4	19.7	73.1	0
					RT	F	I	3	17.1	56.6	0
					DV	F	I	3	17.7	57.3	0
					DV	F	I	4	18.2	58.3	0
					DV	F	I	4	17.2	51.2	0
					RT	F	I	3	17.3	60.2	0
					DV	F	I	3	15.9	42.2	0
Aug. 17	2000-0800	9	1 mi. SW of Stn. 20	6",5" Deep Set	0 Catch						
Aug. 17	2030-0830	10	19	1",2" 3"	RT	U		3	21.0	93.6	8
					DV	U		4	21.0	79.4	0
					LS	U			18.4	63.1	0
Aug. 19	2100-0900	11	19	6",5"	0 Catch						
Aug. 19	2130-0930	12		1",2" 3"	DV	U		5	21.4	90.6	
					LS	U			23.3	153.3	
					RT	U		3	23.5	124.0	25
					DV	U		6	26.5	184.5	
					RT	U		3	26.2	152.2	30

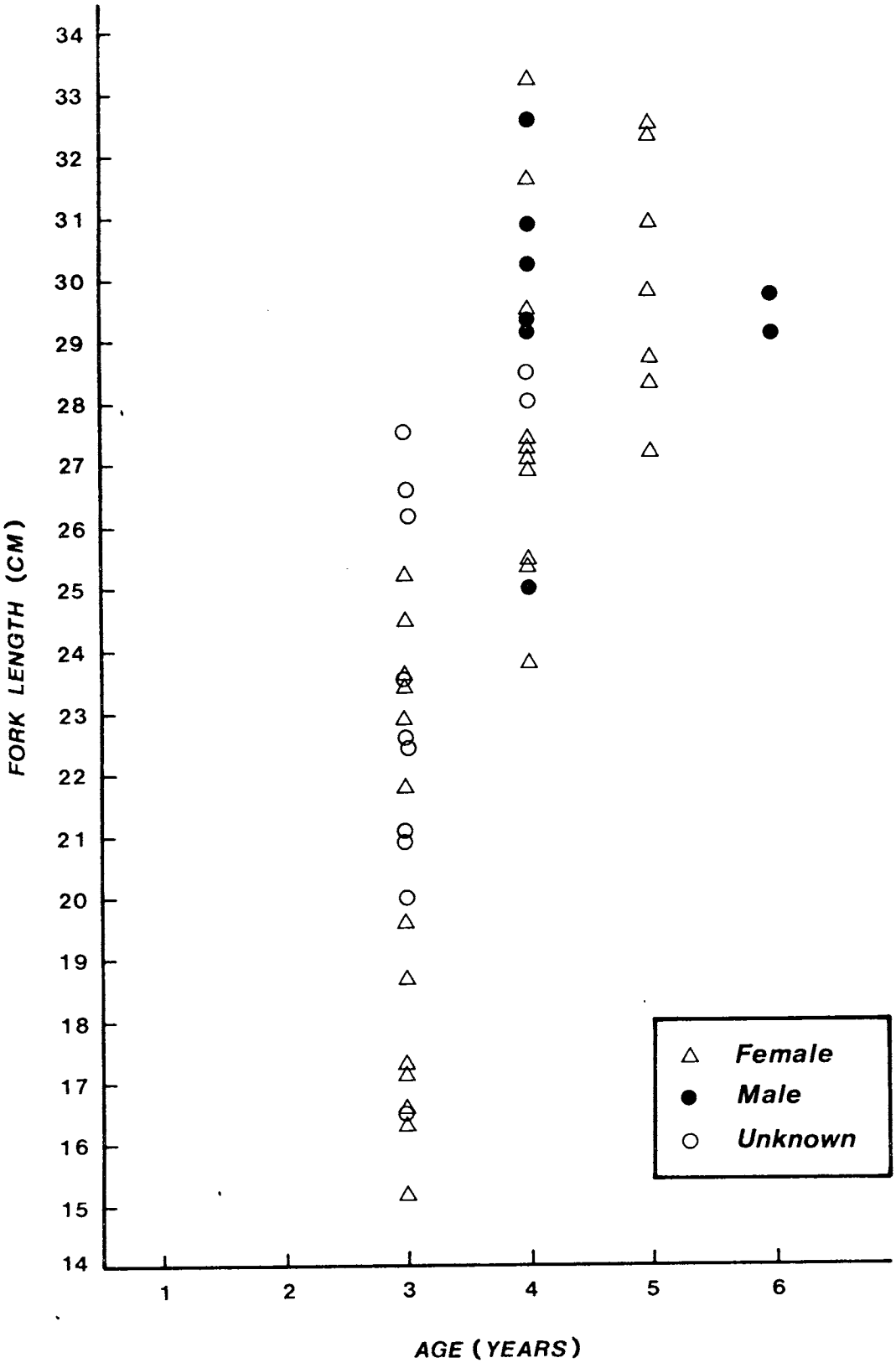
Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condition	Age	Length (cm)	Weight (gm)	Diphyllobothrium
Sept. 22	2000-0800	17	19	1½",2½"	RT	M	M	5	35.2	418	10
				3"	RT	F	I	5	32.5	289	15
					RT	M	I	4	30.2	267	17
					RT	M	I	4	32.6	292	5
					RT	F	I	4	31.6	271	4
					RT	U		3	26.6	206	2
					RT	U		3	27.5	199	1
					RT	F	I	3	23.4	132	0
					RT	U		3	20.0	99	1
					RT	U		3	20.9	107	3
					DV	M	I	8	30.0	263	0
					DV	M	M	7	24.5	171	2
					DV	M	M	6	24.0	164	2
					DV	M	M	6	22.5	125	0
					DV	M	M	5	22.5	120	1
					DV	F	M	5	21.0	94	0
					DV	M	M	4	20.0	83	0
					DV	F	M	5	21.0	91	0
					DV	M	I	5	21.0	89	0
					DV	M	I	4	20.0	83	0
					DV	U		3	18.5	66	0
					DV	M	M	4	18.5	68	0
					DV	F	I	4	18.4	65	0
					DV	F	I	4	18.0	62	0
					DV	F	I	3	17.0	56	0
					DV	F	I	4	17.0	56	0
Ligula intestinalis					LS	F	I		27.6	266	0
wt. (gm) = 11.2					LS	F	I		23.3	150*	0
					LS	M	I		20.2	104	0
					LS	F	I		20.4	116	0
					LS	M	I		20.1	96	0
wt. (gm) = 5.9					LS	M	I		17.6	78*	0
wt. (gm) = 8.2					LS	F	I		16.9	59*	0
					LS	U			16.6	48	0
					LS	M	I		15.9	51	0
					LS	M	I		16.5	53	0
wt. (gm) = 9.1					LS	U			14.6	41*	0

* L. intestinalis removed

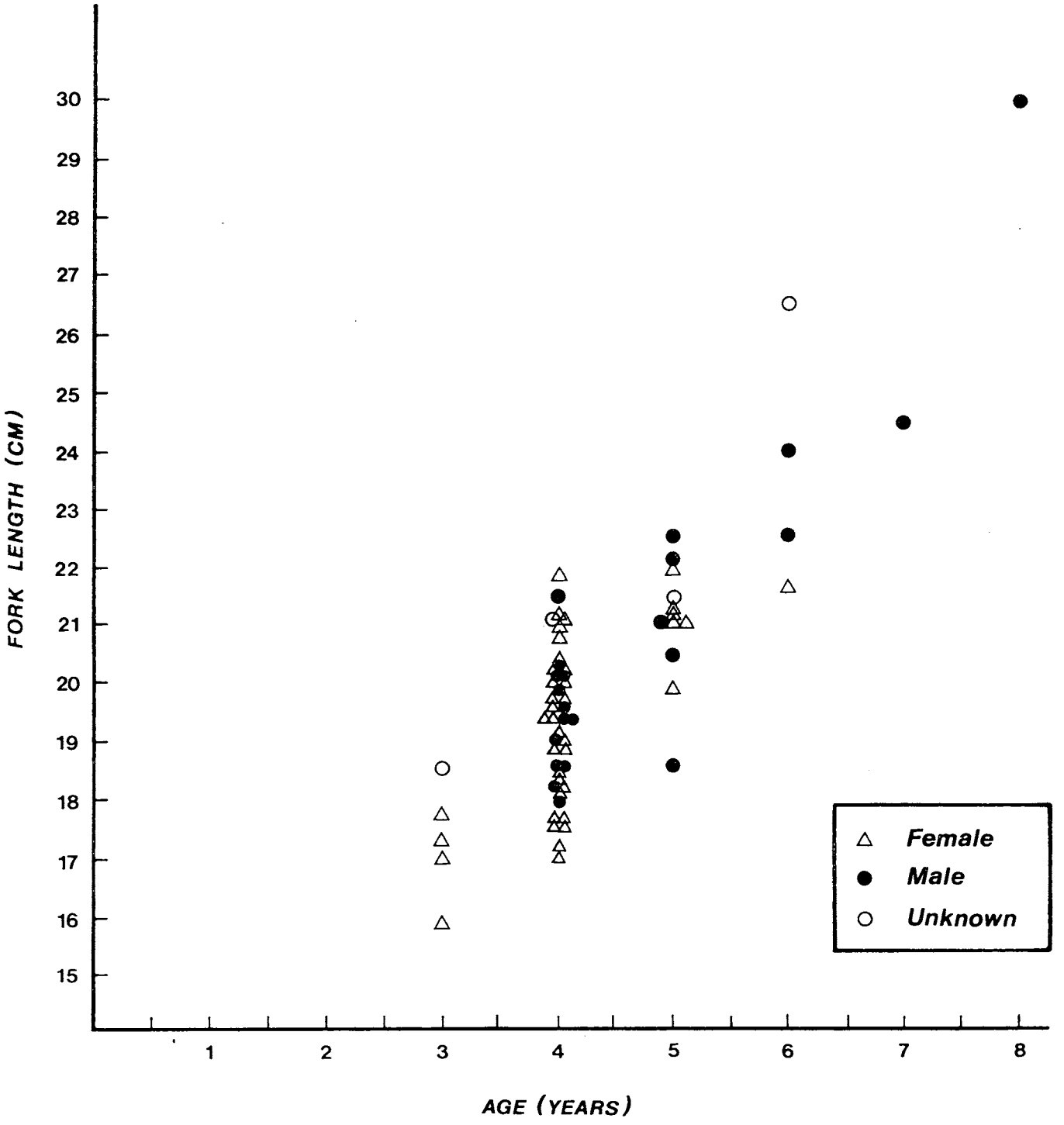
14. The relationship of fish length and catch frequency for Dolly Varden and longnose sucker from Kidprice Lake, 1975



15. The relationship of length and age for male and female rainbow trout from Kidprice Lake, 1975



16. The relationship of length and age for male and female Dolly Varden from Kidprice Lake, 1975



17. Gill net catch data from Tahtsa Lake, 1975

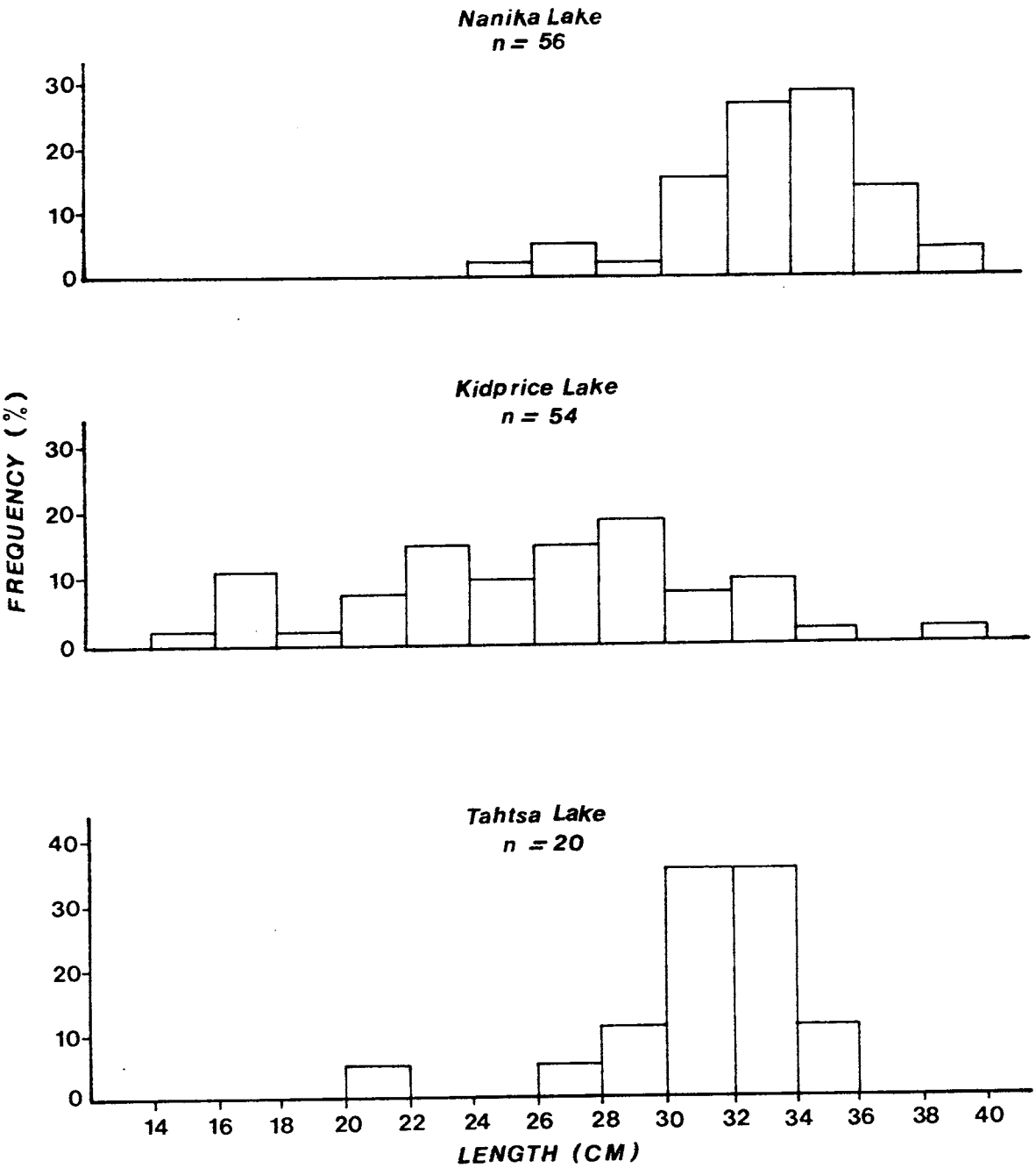
Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condition	Age	Length (cm)	Weight (gm)	*Diphyllobothrium*
Oct. 17	2000-0800	18	See Below	1½",2½"	RT	U		3+	21.4	108.2	0
				3"	K					43.8	0
Oct. 18	1000-0800	19		1½",2½"	RT	F	I	4	31.9	303.8	0
				3"	RT	F	M	5	34.4	474.3	0
					RT	F	M	5	34.0	427.1	0
Proximity of proposed tunnel inlet from Nanika Lake					RT	F	M	5	32.6	399.0	0
					RT	M	M	5	32.3	362.4	0
					RT	F	I	4	32.2	344.6	0
					RT	U		5	32.7	316.8	0
					RT	U		5	32.8	352.1	0
					RT	F	M	5	32.8	394.0	0
					RT	F	I	5	32.0	301.0	0
					RT	F	M	4	31.5	324.0	0
					RT	F	M	4	31.3	364.6	0
					RT	F	M	4	31.6	356.1	0
					RT	F	M	4	30.7	292.0	0
					RT	F	M	4	30.5	319.3	0
					RT	M	I	4	30.1	323.2	0
					RT	F	M	4	29.3	301.4	0
					RT	F	I	4	28.6	245.6	0
					RT	M	M	4	26.5	214.6	0
					K	M	M		18.8	81.8	0
					K	F	M		18.7	70.0	0
					K	M	M		18.5	68.2	0

RT = Rainbow Trout
K = Kokanee
M = Mature
I = Immature
U = Unknown

Date	Time	Set No.	Stn. No.	Mesh Size (in.)	Species	Sex	Condi-tion	Age	Length (cm)	Weight (gm)	*Diphyllo-bothrium*
Oct. 19	0800			1½",2½" 3"							
					K	M	M		18.2	68.9	0
					K	F	M		17.1	61.1	0
					K	U			17.9	53.5	0
					MW	F	M		39.0	753.5	0
					MW	F	M		35.6	547.5	0
					MW	F	M		35.5	633.9	0
					MW	M	M		35.3	487.8	0
					MW	F	M		34.8	492.0	0
					MW	F	M		34.0	412.3	0
					MW	F	M		31.9	384.3	0
					MW	F	M		31.4	410.1	0
					S	F	M		27.6	251.8	0

K = Kokanee
MW = Mountain Whitefish
S = Squawfish
M = Mature
I = Immature
U = Unknown

18. The relationship of fish length and catch frequency for rainbow trout from Nanika, Kidprice, and Tahtsa Lakes, 1975



19. Morice Lake trolling catch data, 1975

Date	Location	Species	Sex	Length (cm)	Diphyllobothrium
Sept. 14	Off mouth of Nanika River Trolling	RT	F	35.2	8
		RT	F	32.5	6
		RT	F	30.1	15
		RT	F	30.7	0
		RT	M	30.5	2
		DV	M	27.9	0
Sept. 14	Near Morice Lk. outlet Trolling	RT	M	35.8	4
		RT	F	33.4	1
		RT	F	32.0	5
		RT	M	31.8	0
		RT	M	31.1	1
		RT	F	30.7	0
		RT	M	30.1	0
		RT	F	26.3	2
		RT	F	25.8	0
		RT	F	25.1	0
		RT	F	24.0	1
Sept. 14	Near Atna Arm Trolling	RT	F	43.0	1
		RT	M	38.1	0
		RT	F	37.3	0
		RT	F	36.1	0
		RT	F	36.0	1
		RT	F	34.5	0
		RT	M	33.8	0
		RT	F	32.5	0
		RT	F	32.2	0
		RT	M	31.7	2
		RT	F	31.0	0
		RT	F	29.2	0
		RT	F	29.0	0
		RT	F	26.5	1
		RT	M	25.8	0
		RT	F	23.7	0
		RT	M	23.0	0

20. Angling catch data from Nanika River below Nanika Falls, 1975

Date	Species	Sex	Length (cm)	*Diphyllobothrium*
July. 30	RT	F	31	> 5
	RT	F	27	10
	RT	M	25	8
	RT	F	21	1
	DV	M	25	3
Aug. 15	RT	M	25	15
	RT	F	23	10
	RT	F	21	0
	DV	F	27	1
	DV	M	19	1
Sept. 20	RT	F	24	5
	RT	M	20	5
	DV	M	23	0
	DV	F	20	1
Sept. 27	RT	F	36	25
	RT	F	33	10
	RT	F	31	3
	DV	F	28	0
	DV	M	21	3
	C*		50-55	
Sept. 28	RT	F	30	3
	DV	M	31	4
	C*	M	55	1?

* Coho salmon

Appendix VIII Stomach contents of rainbow trout, Dolly Varden char, and longnose sucker from the Nanika-Kidprice system, 1974 and 1975

Stomach contents of 46 rainbow trout

from Nanika Lake, 1974

Food Organism	Abundance*		Occurrence**	
	Nos.	Percent	Nos.	Percent
CLADOCERA				
Daphnia sp.	1147	40.9	4	8.6
COPEPODA				
Limnocalanus sp.	136	4.8	3	6.5
Diaptomus sp.	35	1.2	1	2.1
Eurytemora sp.	12	0.4	1	2.1
AMPHIPODA				
Gammarus sp.	5	0.2	6	13.0
MOLLUSCA				
Gastropoda	904	32.2	20	43.4
Pelecypoda (Sphaeriids)	1	<0.1	1	2.1
ANNELIDA	1	<0.1	1	2.1
ARACHNIDA	1	<0.1	1	2.1
INSECTA				
Coleoptera	100	3.6	18	39.1
Collembola	5	0.2	2	4.3
Diptera	173	6.2	20	43.4
Chironomidae	110	3.9	8	17.3
Ephemeroptera	8	0.3	5	10.8

* Total number of the organism in all the stomachs.
** Number of stomachs containing the organism.

Stomach contents of 46 rainbow trout

from Nanika Lake, 1974 (continued)

Food Organism	Abundance*		Occurrence**	
	Nos.	Percent	Nos.	Percent
INSECTA - Cont'd				
Hemiptera	2	< 0.1	2	4.3
Homoptera	1	< 0.1	5	10.8
Hymenoptera	127	4.5	14	30.4
Lepidoptera	7	0.2	3	6.5
Odonata	3	0.1	3	6.5
Orthoptera	1	<0.1	1	2.1
Psochoptera	1	<0.1	1	2.1
Unidentified	-	-	6	13.0
Fish remains	-	-	13	28.2
Eggs	25	0.9	2	4.3
Plant Material	-	-	4	8.6
Empty stomachs	-	-	3	6.5

* Total number of the organism in all the stomachs.

** Number of stomachs containing the organism.

Stomach contents of 14 rainbow trout

from Kidprice Lake, 1974

Food Organism	Abundance		Occurrence	
	Nos.	Percent	Nos.	Percent
CLADOCERA				
Daphnia sp.	5512	99.4	10	71.4
Alona sp.	3	< 0.1	2	14.2
AMPHIPODA				
Gammarus sp.	7	0.1	1	7.1
MOLLUSCA				
Gastropoda	14	0.2	1	7.1
POLYCHAETA	1	< 0.1	1	7.1
ARACHNIDA	1	<0.1	1	7.1
INSECTA				
Coleoptera	1	<0.1	2	14.2
Diptera				
Chironomidae	1	<0.1	1	7.1
Homoptera	2	<0.1	1	7.1
Hymenoptera	1	<0.1	1	7.1
Odonata	1	<0.1	1	7.1
Unidentified	-	-	3	21.4
Fish Remains	-	-	6	42.8
Plant Material	1	<0.1	1	7.1
Empty Stomachs			0	

Stomach contents of 6 rainbow trout

from Stepp Lake, 1974

Food Organisms	Abundance		Occurrence	
	Nos.	Percent	Nos.	Percent
CLADOCERA				
Daphnia sp.	882	98.7	2	33.3
AMPHIPODA				
Gammarus sp.	1	0.1	2	33.3
MOLLUSCA				
Gastropoda	1	0.1	2	33.3
POLYCHAETA	1	0.1	1	16.6
Empty Stomachs	-	-	3	50.0

Stomach contents of 16 Dolly Varden

from Nanika Lake, 1974

Food Organisms	Abundance		Occurrence	
	Nos.	Percent	Nos.	Percent
CLADOCERA				
Daphnia sp.	57	2.1	1	6.3
Unidentified Cladocera			4	25.0
COPEPODA				
Limnocalanus sp.	1	<0.1	1	6.3
AMPHIPODA				
Gammarus sp.	1	<0.1	1	6.3
MOLLUSCA				
Pelecypoda (Sphaeriids)	11	0.4	1	6.3
ARACHNIDA	-	<0.1	1	6.3
INSECTA				
Diptera - Chironomidae	1	<0.1	1	6.3
Unidentified	-		4	25.0
Eggs	2592	97.4	3	18.8
Empty Stomachs			6	37.5

Stomach contents of 17 Dolly Varden

from Kidprice Lake, 1974

Food Organism	Abundance		Occurrence	
	Nos.	Percent	Nos.	Percent
CLADOCERA				
Daphnia sp.	2114	92.3	7	41.2
Unidentified Cladocera	-		1	5.9
AMPHIPODA				
Gammarus sp.	2	<0.1	2	11.8
DECAPODA	1	<0.1	1	5.9
MOLLUSCA				
Gastropoda	3	0.1	1	5.9
Pelecypoda (Sphaeriids)	2	<0.1	2	11.8
INSECTA				
Homoptera	1	<0.1	1	5.9
Eggs	169	7.4	3	17.6
Plant Material	-		1	5.9
Empty Stomachs			7	41.2

Stomach contents of 4 Dolly Varden

from Stepp Lake, 1974

Food Organism	Abundance		Occurrence	
	Nos.	Percent	Nos.	Percent
AMPHIPODA				
Gammarus sp.	5	41.7	4	100
MOLLUSCA				
Gastropoda	1	8.3	1	25
Pelecypoda (Sphaeriids)	4	33.3	2	50
INSECTA				
Coleoptera	1	8.3	1	25
Unidentified	1	8.3	1	25
Fish Remains	-	-	1	25
Empty Stomachs	-		0	

Stomach contents of 6 longnose suckers

from Nanika Lake, 1974

Food Organism	Abundance		Occurrence	
	Nos.	Percent	Nos.	Percent
AMPHIPODA				
Gammarus sp.	30	75.0	4	60.6
MOLLUSCA				
Gastropoda	1	2.5	1	16.6
Pelecypoda (Sphaeriids)	4	10.0	1	16.6
INSECTA				
Diptera - Chironomidae	5	12.5	3	50.0
Unidentified			1	16.6
Empty Stomachs			1	16.6

Food organisms from the stomachs of 10 rainbow trout

from Kidprice Lake, September, 1975 (Set No. 17)

Organism	Abundance No.	Abundance Per cent	Occurrence No.	Occurrence Per cent
CLADOCERA				
Daphnia sp.	221	64.4	6	60
COPEPODA				
Calanoida	63	18.4	5	50
Cyclopoids	41	12.0	4	40
AMPHIPODA				
Gammarus sp.	8	2.3	4	40
MOLLUSCA				
Gastropoda	3	0.9	2	20
INSECTA				
Coleoptera	3	0.9	2	20
Diptera				
Chironomidae	2	0.6	2	20
Homiptera	1	0.3	1	10
Hymenoptera	1	0.3	1	10
Empty stomachs			1	10

Food organisms from the stomachs of 16 Dolly Varden char from Kidprice Lake, September, 1975 (Set No. 17)

Organism	Abundance No.	Abundance Per cent	Occurrence No.	Occurrence Per cent
CLADOCERA				
Daphnia sp.	384	94.8	8	50
AMPHIPODA				
Gammarus sp.	5	1.2	3	18.8
COPEPODA				
Calanoida	4	1.0	2	12.5
Cyclopoida	1	0.2	1	6.3
MULLUSCA				
Gastropoda	2	0.5	2	12.5
Pelecypoda	1	0.2	1	6.3
INSECTA				
Coleoptera	4	1.0	3	18.8
Diptera	2	0.5	1	6.3
Homiptera	2	0.5	2	12.5
Plant Material	-	-	2	12.5
Empty Stomachs	-	-	1	6.3

Food organisms from the stomachs of 11 longnose sucker from Kidprice Lake, September, 1975 (Set No. 17)

Organism	Abundance No.	Abundance Per cent	Occurrence No.	Occurrence Per cent
CLADOCERA				
Daphnia sp.	15	34.1	2	18.2
AMPHIPODA				
Gammarus sp.	12	27.3	8	72.7
COPEPODA				
Cyclopoida	2	4.5	1	9
MOLLUSCA				
Gastropoda	2	4.5	2	18.2
Pelecypoda	6	13.6		
INSECTA				
Diptera	5	11.4	4	36.4
Coleoptera	2	4.5	2	18.2
Plant Material	-	-	6	54.5
Empty stomachs	-	-	2	18.2

Appendix IX Statistical analyses of the level of *Diphyllobothrium* infection in male and female rainbow trout in age groups, sampled from Nanika and Kidprice Lakes, 1975

NANIKA FEMALE RAINBOW TROUT (EXCLUDING D>50)

	4+	5+	6+	Total
ΣX_K	3.4223	14.1271	8.6133	26.1627
ΣX_D	70	300	182	552
ΣX_L	92.1	438	267.8	797.9
ΣX_A	12	65	48	125
ΣX^2_K	3.91516371	15.43886255	9.28051715	28.63454341
ΣX^2_D	2750	8000	6044	16794
ΣX^2_L	2849.45	14826.44	8995.55	26671.44
ΣX^2_A	48	325	288	661
$\Sigma X_K X_D$	76.998	322.994	194.3075	594.2995
$\Sigma X_K X_L$	104.95099	474.10188	288.07684	867.12971
$\Sigma X_K X_A$	13.6892	70.6355	51.6798	136.0045
$\Sigma X_D X_L$	2267.5	10228	6259	18754.5
$\Sigma X_D X_A$	280	1500	1092	2872
N	3	13	8	24
$\bar{X}_K$	1.140766667	1.0867	1.0766625	1.0901125
$\bar{X}_D$	23.33333333	23.07692308	22.75	23
$\bar{X}_L$	30.7	33.69230769	33.475	33.24583333
$\bar{X}_A$	4.0	5.0	6.0	5.208333333
S_D				13.34818014
S_L				2.507290096
S_A				0.6580053301
S_K				0.0704819145

NANIKA MALE RAINBOW TROUT (EXCLUDING D>50)

	4+	5+	6+	Total
ΣX_K	3.5182	6.2265	2.1891	11.9338
ΣX_D	60	220	55	335
ΣX_L	86.2	209.1	68.4	363.7
ΣX_A	12	30	12	54
ΣX^2_K	4.12807742	6.47593843	2.41236953	13.01638538
ΣX^2_D	2600	8600	1625	12825
ΣX^2_L	2489.74	7302.91	2344.4	12137.05
ΣX^2_A	48	150	72	270
$\Sigma X_K X_D$	72.088	230.7005	61.554	364.3425
$\Sigma X_K X_L$	101.24454	217.25343	74.57842	393.07639
$\Sigma X_K X_A$	14.0728	31.1325	13.1346	58.3399
$\Sigma X_D X_C$	1840	7729	1857	11426
$\Sigma X_D X_A$	240	1100	330	1670
N	3	6	2	11
$\bar{X}_K$	1.172733333	1.03775	1.09455	1.084890909
$\bar{X}_D$	20	36.66666667	27.5	30.45454545
$\bar{X}_L$	28.73333333	34.85	34.2	33.06363636
$\bar{X}_A$	4.0	5.0	6.0	4.909090909
S_D				16.19483644
S_L				3.343732263
S_A				0.7006490497
S_K				0.0833752056

KIDPRICE FEMALE RAINBOW TROUT (EXCLUDING D>50)

	3+	4+	5+	6+	Total
ΣX_K	14.0501	8.470	6.5703		29.0904
ΣX_D	37.0	71.0	75.0		183.0
ΣX_L	261.20	250.80	204.30		716.30
ΣX_A	39.0	36.0	35.0		110.0
ΣX^2_K	15.24736843	8.02444416	6.19846139		29.47027398
ΣX^2_D	339.0	1557.0	1323.0		3219.0
ΣX^2_L	5400.0	7063.36	5987.13		18451.39
ΣX^2_A	117.0	144.0	175.0		436.0
$\Sigma X_K X_D$	37.7153	63.495	71.3089		172.5192
$\Sigma X_K X_L$	279.33868	234.51853	191.56921		705.42642
$\Sigma X_K X_A$	42.1503	33.88	32.8515		108.8818
$\Sigma X_D X_L$	862.5	2164.9	2181.6		5209.0
$\Sigma X_D X_A$	111.0	284.0	375.0		770.0
N	13	9	7		29
$\bar{X}_K$	1.080776923	0.9411111111	0.9386142857		1.003117241
$\bar{X}_D$	2.846153846	7.888888889	10.71428571		6.310344828
$\bar{X}_L$	20.09230769	27.86666667	29.18571429		24.7
$\bar{X}_A$	3.0	4.0	5.0		3.743103448
S_D					8.586132708
S_L					5.205697428
S_A					0.8185051856
S_K					0.1016282057

KIDPRICE MALE RAINBOW TROUT (EXCLUDING D>50)

	3+	4+	5+	6+	Total
ΣX_K	0.9333	6.7531	2.8463	1.9681	12.5008
ΣX_D	5.0	106.0	53.0	59.0	223.0
ΣX_L	22.30	206.40	104.70	58.80	392.20
ΣX_A	3	28	15	12	58
ΣX^2_K	0.87104889	6.53986435	2.70177057	1.94253001	12.05521382
ΣX^2_D	25	2224	1389	1753	5391
ΣX^2_L	497.29	6124.80	3683.81	1728.90	12034.8
ΣX^2_A	9	112	75	72	268
$\Sigma X_K X_D$	4.666666667	104.8315	50.8232	57.7892	218.1105
$\Sigma X_K X_L$	20.812	198.71228	99.52539	57.89451	376.94477
$\Sigma X_K X_A$	2.7999	27.0124	14.2315	11.8086	55.8524
$\Sigma X_D X_L$	111.5	3173	1950.2	1733.1	6967.8
$\Sigma X_D X_A$	15	424	265	354	1058
N	1	7	3	2	13
$\bar{X}_K$	0.9333	0.9647285714	0.9487666667	0.98405	0.9616
$\bar{X}_D$	5	15.14285714	17.66666667	29.5	17.15384615
$\bar{X}_L$	22.3	29.48571429	34.9		30.16923077
$\bar{X}_A$	3	4	5	6	4.461538462
S_D					11.42253733
S_L					4.107185698
S_A					0.8770580193
S_K					0.0535759119

Appendix X Wildlife observations in the Nanika-Kidprice and Morice systems, 1974 and 1975

Wildlife sightings in the Nanika-Kidprice Area, 1975 (compiled by J. R. Sutherland)

MOOSE

29 July 1975	Cow moose swam across Kidprice outlet, by Alcan camp.
3 Aug. 1975	Abundant fresh moose tracks along west side of Kidprice Lake, and along southern margin.
29 Aug. 1975	Heavy old browse at Fenton Creek.
30 Aug. 1975	Very heavy browse by Stream IX.
23 Sept. 1975	Bull moose on west shore of Kidprice Lake, 1 Km north of Alcan camp.
24 Sept. 1975	Cow moose on north side of Kidprice outlet, across from Alcan camp.
27 Sept. 1975	Bull moose on northern shore of riparian area between Nanika and Kidprice Lakes.
6 Dec. 1975	Bull moose on road by Collins Lake.
7 Dec. 1975	Bull moose on road near turn off to Francois Lake.

7 Dec. 1975	Bull moose and 3 cows near Morice Lake road.

MOUNTAIN GOAT

8 Aug. 1975	5 mountain goats seen on north slope of mountain behind Alcan camp.
28 Aug. 1975	2 mountain goats seen high up on cliff to west of Station D on Nanika Lake.

BLACK BEARS

15 Aug. 1975	Tracks of small black bear on beach, south end of Kidprice Lake.
25 Aug. 1975	Sow and cub in Bergeland Creek area.
16 Oct. 1975	Tracks of small black bear on beach at Atna Lake.
19 Oct. 1975	2 small black bears by forestry cabin at Morice Lake.

GRIZZLY BEARS

15 Aug. 1975	Tracks of large grizzly on beach, south end of Kidprice Lake.

25 Sept. 1975	Tracks of large grizzly on shore at north end of Kidprice Lake.

MUSTELIDS

27 Sept. 1975	5 otters in large pool behind beach at Fenton Creek.

WATERFOWL

3 Aug. 1975	Canada geese heard. Abundant signs on beach at south end of Kidprice Lake.
9 Aug. 1975	40 plus Canada geese flying in formation down east side of Kidprice Lake, slowly descending.
27 Aug. 1975	5 Canada geese in marshy area behind beach at Fenton Creek.
28 Aug. 1975	Abundant sign on sand and gravel banks beside outlet from Nanika Lake.

GULLS

13 Aug. 1975	4 immature Mew Gulls, and 2 in second year plumage, Kidprice Lake.

13 Aug. 1975	3 immature Mew gulls, and 5 in second year plumage.
29 Aug. 1975	18 Mew gulls near Stream X on Nanika Lake.
NOTE:	Throughout August and the second half of September, Mew gulls were of common occurrence on Kidprice Lake. Probably 25 plus adults. Large numbers were seen on Nanika Lake in August. Probably 50 plus adults between Fenton Creek and Stream X.

RAPTORS

7 Aug. 1975	1 Bald eagle, above Nanika Falls.
20 Sept. 1975	1 Bald eagle, by Spill Creek.
7 Dec. 1975	1 Bald eagle over Morice River.

UPLAND GAME BIRDS

Aug. 1975	5 grouse in heavy forest between Kidprice and Spill Lakes.

Wildlife sightings in the Morice Lake-Morice River area, 1974-1975. (mainly compiled by J. Mitchell, Department of Fisheries, Environment Canada)

MOOSE

31 May/74	Saw 5 moose at Mile 32+ of Morice Lake road, 2 cows, 2 young bulls, 1 yearling cow. Young appeared to be yearlings. Sunny in am., cloudy in pm.
31 May/74	Saw 2 moose at Mile 31½ of Morice Lake road. Both were cows, 1 was a yearling.
27 June/74	Cow moose and calf Mile 6, 12:00 noon.
8 June/74	2 bull moose Mile 46 in slash area and 1 cow moose in same area. 1 cow moose at Mile 32.
21 June/74	3 moose - 1 cow, twin calves at Mile 44 on Lake shore, Mile 36 1 bull moose.
5 June/74	1 yearling moose (bull) mile 12.
3 June/74	1 moose mile 36 on hillside in deciduous area.
1 June/74	7 moose mile 32 on side road.
18 July/74	1 largish male moose, sauntering across road just by the gate of camp (mile 51) at Morice Lake - 23:00 hours, cool, twilight.
1 June/74	Saw a moose at mile 47 (bull) Morice Lake Road.
3 June/74	Saw 3 moose at mile 34 Morice Lake Road.
3 June/74	Jim and I saw a bull moose at mile 42 and a cow and calf at old hatchery site.
24 June/74	Saw 2 moose at mile 47 Morice Lake Road - 1 bull, 1 ?
24 June/74	Saw 1 bull moose in water near logged area.
24 Aug./74	Mile 37 1 large bull moose.
14 Sept./74	Approximately 3 miles west of Houston on Highway 16 - 1 cow moose at 10:00 pm.
15 Sept./74	Mile 35 Morice Lake Road - 1 bull moose at mid-day.
26 Sept./74	RC 1 young bull moose (2-3 years) shot in early evening on road to washed out bridge on Nanika River
2 Oct./74	2½ year old bull moose Mile 6 Morice Lake Road ran across road, heavy snow flurries.

7 Oct./74	Saw very large bull moose at Mile 49 Morice Lake Road, moose hit with truck.
3 Oct./74	Saw 2 cow moose east of Houston 5 miles on highway, 5 cars and trucks containing hunters.
8 Oct./74	1 bull moose shot by hunters mile 35 west Morice Lake Road.
13 Oct./74	Saw 14 moose on Gosnell Creek from air, all were from Morice River to large meadows about 8 miles back. Saw 1 bull with 3 cows and a calf, 1 bull 2 cows, 1 cow and calf, and 4 lone bulls.
13 Oct./74	Delta flats at south end of Morice Lake saw 1 cow and 1 calf about ½ mile back from lake. About 5 miles back saw 1 bull, 1 cow, all from the air.
29 Apr./75	18 unclassified along Morice River and Lake.
6 May/75	2 unclassified Morice Lake Road.
6 May/75	4 unclassified mile 22 Morice Lake Road.
7 May/75	3 unclassified mile 30 Morice Lake Road.
12 May/75	1 ♂ Mile 26 Morice Lake Road.
15 May/75	2 unclassified mile 34 Morice Lake Road.
16 May/75	1 ♂ mile 48 Morice Lake Road.
20 May/75	1 ♀ 1 young, Morice Lake Road.
23 May/75	1 ♀ 2 young, McBride Cr., young few days old.
12 June/75	1 ♀ 1 young Morice R. young few days old
12 June/75	2 ♂ 1 ♀ 1 young, 2 unclassified, Gosnell Cr.

MULE DEER

31 May/74	3 deer - 2 juveniles, 1 adult at 7 am. at the bend of the Morice River as it turns south towards Houston (Tom Cleugh, air).
29 June/74	1 small deer (buck) mile 9.
29 May/74	1 small deer (doe?) mile 6.
21 June/74	mile 25 - 3 deer (sex?).
1 June/74	1 deer, mile 14.
17 July/74	1 doe 11:00 am., slash area at mile 46.
1 June/74	saw 1 deer at mile 20, Morice Lake Road.
9 Aug./74	saw 3 deer up side of road in headlights very late at night, Morice Lake Road.
23 Aug./74	4-point buck, summit of Grouse Mountain on Highway 16.
24 Aug./74	1 deer (doe) mile 32.
10 Sept./74	1 juvenile mule deer mile 48 Morice Road (morning).
2 Oct./74	1 female mule deer mile 20 Morice Lake Road running along road after coming out of bush.
8 Oct./74	Tom Cleugh saw a buck on upper Morice Road.
12 June/75	2 doe, Morice River

MOUNTAIN GOAT

4 or 5 Jul/74	10 goats seen from Nanika Mountain on facing slope 14:00 hr.
15 Aug./74	1 goat on ridge near Glacier Creek.
25 Aug./74	Mountain goat tracks north of Pyramid Creek on Morice Lake beach.
27 Sept./74	Approximately 6 mountain goat observed from helicopter ¼ mile west of confluence of Gosnell Creek and Morice River on east bank of Morice River, resting until disturbed by helicopter. Cloudy with sunny periods, fresh snow on Nanika Mtn.

6 May/75	1 goat 5000' level west side Kidprice Lake
7 May/75	2 goat Morice Lake near Atna Bay (S. of Atna).
20 May/75	6 goat Penteuch Pass near Aquaduct area.

CARIBOU

20 May/75	2 bulls, 8 unclassified top of mtn. Sibola Peak.

BLACK BEARS

31 May/74	1 black bear with 2 cubs one-half mile south of Morice Lake heading west. Tom Cleugh (air).
30 May/74	saw a female bear, 2 cubs on roadside at Mile 26 of Morice Lake Road. All looked in good condition. Saw at 1500. Sunny, cool (presumably black bear, KH).
13 July/74	1 black bear mile 28 Morice Lake Road.
12 July/74	1 black bear cub mile 28 Morice Lake Road.
9 July/74	1 black bear cub mile 28 Morice Lake Road.
4 June/74	1 brown bear - mile 35 (saw him twice in same evening).
21 June/74	1 black bear mile 19.
1 June/74	1 black bear and 3 cubs mile 34.
2 June/74	Black bear on south end of Morice Lake scree slope.
22 June/74	Black bear mile 19 seen 11 am.
31 May/74	saw 4 bears - 1 sow, 3 cubs at mile 29½ (presumably black bear (KH).
3 June/74	saw 1 black bear at mile 39 Morice Lake Road.
8 June/74	saw 1 black bear on West Morice Lake Road.
22 June/74	saw a black bear at mile 35 of Morice Lake Road. This bear was very fat and large.

14 Aug/74	1 bear mile 42.
19 Aug./74	1 small black bear mile 1 (!!) seen from air, 12:00 noon.
29 Aug./74	1 black bear mile 31 Morice R. Road.
9 Sept./74	1 black bear mile 9½ 18:15.
8 Oct./74	Black bear mile 32 west Morice Lake Road.
7 May/75	1 black bear on beach, south end Morice Lake.
20 May/75	1 female black bear, 3 cubs, mile 28, Morice Lake Road.
21 May/75	1 bear near Houston (presumably black bear, KH.)
10 June/75	1 small black bear, Morice Lake Road.
12 June 75	1 female and 2 cubs, Morice River.

GRIZZLY BEARS

16 Aug./74	2 grizzlies, Nanika Mtn. - sow and cub.
26 Oct./74	saw a grizzly sow and 2 cubs feeding on a small dead young moose at about 1½ mile off Delta Creek. She was very silver, cubs were very fat.
10 June/75	1 medium sized grizzly, Lower Nanika R.

CANIDS

29 May/74	saw a large coyote at mile 25 of Morice Lake Road. It was very fat, looked in excellent condition. Saw at 1600 crossing road.
4 June/74	1 wolf mile 50 on road.
4 June/74	a lone small wolf wandered into camp, sniffed around and then left.
6 Aug./74	saw 1 wolf at mile 23 Morice Lake Road, looked young.
12 Aug./74	1 coyote pup seen 17:00 about mile 4.

29 Aug./74	1 coyote pup mile 10 on Morice R. Road.
9 Sept./74	1 coyote, mile 5¼ 14:45.
12 Sept./74	1 coyote mile 37 Morice Lake Road.
16 Sept./74	1 coyote mile 11 17:30 hours,small, greyish.
17 Sept./74	1 wolf and 3 pups on shore of Morice Lake.
19 Sept./74	saw lone coyote cross the road mile 22 Morice Lake Road.
29 Apr/75	12 wolves Morice Lake, around cabin early am.
7 May/75	5 wolves on ice, Morice Lake.
17 May/75	1 coyote Morice R. Road, mile 26.
21 May/75	1 coyote Morice R. Road, mile 31.

MUSTELIDS

30 May/74	saw a marten cross the road at mile 47 Morice Lake Road.
4 June/74	1 marten on road at 45 mile crossing from lake side to upland area.
10 July/74	1 marten mile 44.
5 Sept./74	2 otters in Morice Lake in area between Nanika Road McBride Creek, swimming in the lake, not very large (8:00 pm.) rainy.
8 Oct./74	Tom Cleugh saw a wolverine on upper Morice R.

LYNX

1 June/74	1 lynx mile 34 on upland side of road.
31 May/74	saw lynx between mile 35 and 36 Morice Lake Road.
29 June/74	saw one lynx at mile 32 Morice Lake Road at 8:15.
15 Aug./74	1 small lynx about mile 30 side of road 16:00 hours.

RODENTS

13 July/74	1 beaver Collins Lake.
9 July/74	1 beaver in Collins Lake.
11 July/74	1 marmot old hatchery site - has been seen several times.
11 July/74	1 porcupine feeding near moosey-looking swamp upper Nanika River 20:30 hours.
16 July/74	1 beaver pm. off McBride Creek on Morice Lake.
16 July/74	1 beaver, mouth of McBride Creek.
16 Aug./74	1 hoary marmot.
23 Aug./74	1 beaver on pond between Collin & McBride Lakes.
27 Aug./74	1 rabbit, mile 25 on road.
16 Sept./74	beaver mile 48 18:30 hours.
21 Sept./74	had 1 very large porcupine come into camp late in evening.
24 Sept./74	1 porcupine off road to washed out bridge on Nanika River (on foot).
8 Oct./74	saw a muskrat at beaver dam on McBride Creek mile 50 Morice Lake Road.
1 Oct./74	there seem to be a lot of beaver on McBride Creek as there are 10 dams on the lower part and a couple of lodges. Saw a muskrat in a dam on Oct. 8/74. Have removed portions of the dams each day to aid passage of fish, but each night they are rebuilt.

WATERFOWL (Including loons, grebes, etc.)

31 May/74	3 sets of lesser Canadas on Morice Lake, south end. On Atna arm of Morice Lake - several trumpeters, no juveniles (Tom Cleugh - air).
30 May/74	3 Canada geese have been seen in that area (mile 47, Morice Lake Road) for a few days. Near McBride Creek.

15 July/74	4 loons - scattered at various places on the lake (Morice L.)
17 July/74	7 Goldeneye chicks - pm. - on pond between McBride and Collins Lake, about mile 4.
24 July/74	2 mergansers, one with clutch of 6, one with clutch of 8 on Morice River between Morice Lake and Gosnell Creek.
12 June/74	saw Canada Geese on nest on island in Morice Lake. Have 5 eggs, nest about 15' above water line.
	6 arctic terns, 6-8 red necked grebes, many scoters sighted in last 2 weeks, still here (Aug. 10-28).
24 Aug./74	2 loons, 9 mergansers, outlet of the Morice.
21 Aug./74	9 Canada geese seen from helicopter on Morice River.
29 Aug./74	1 mature and 1 immature loon on Collins Lake.
5 Sept./74	3 large Canada geese on Nanika River area where it pours into Morice Lake. Sighted twice, in morning and evening. Rainy, stormy day.
7 Sept./74	1 small black gull on Morice Lake.
30 Sept./74	R.C. on Morice Lake with CWS personnel. Red throated loon, throughout area 30+, common loon south end 6, arctic loon south and north ends 6, red-necked grebe 40+, western grebe 2, Canada geese 25+, mallard 2, bufflehead 1, common merganser 10+.
29 Sept./74	a flock of approximately 15 mallards flying over north end of Morice Lake - flying south, observed from boat.
<u>Note</u>	Throughout month of September red-necked grebe, red throated loons, surf scoters, white winged scoters have been observed on Morice Lake - primarily in Atna Bay at southern ¼ of lake.
11 Oct./74	Bufflehead male on Morice Lake.
6 May/75	6 Canada geese, Upper Morice Road.

RAPTORS

31 May/74	Numerous eagles along Nanika River (Tom Cleugh - air).
4 June/74	1 Horned Owl, mile 50.
5 July/74	1 osprey - Morice River Mouth. 1 bald eagle 1 mile down from mouth of Morice River.
4 June/74	1 bald eagle over camp mile 51, pestered by ravens and flew off.
15 July/74	2 bald eagles south end Morice Lake 14:00 hours.
23 July/74	1 great horned owl - mile 50, Morice Lake Road 16:00 hours.
24 July/74	3 bald eagles on Morice River between Morice Lake & Gosnell Ck.
31 May/74	Saw an osprey at mile 49 Morice Lake Road.
14 Aug./74	2 eagles, one at outlet of Morice River, one on Nanika at caves.
23 Aug./74	Generally, lots of bald eagles around the lake and Morice and Nanika Rivers - 1 golden eagle sighted.
24 Aug./74	1 sharp-shinned hawk mile 48.
22 Aug./74	1 sharp-shinned hawk at confluence of Morice at Bulkley.
25 Aug./74	1 falcon, possible peregrine on Nanika River.
29 Aug./74	1 rough-legged hawk near confluence of Morice and Bulkley Rivers approximately 1 pm.
31 Aug./74	1 immature golden eagle mile 42.
7 Sept./74	1 immature bald eagle about 4 miles below lake on Morice R.
8 Sept./74	1 osprey Morice River 1 mile down from outlet of lake, 1 immature golden eagle 2½ miles down from Morice River.
10 Sept./74	1 mature bald eagle Morice Lake Atna Bay.
9 Sept./74	1 osprey on Morice River about ½ mile below lake.
12 Sept./74	9 bald eagles on Morice R. (upper part between outlet and Gosnell Creek).
15 Sept./74	15 bald eagles observed from outlet of Morice R. to Gosnell Cr.

UPLAND GAME BIRDS

16 July/74	Hen grouse mile 28 on Morice Lake Road with small chicks.
17 July/74	1 grouse and 2 chicks mile 29.
19 July/74	3 grouse on road mile 32, mile 48 mile 20.
22 July/74	1 grouse mile 40
24 July/74	2 grouse on road mile 5 and mile 17.
16 Aug./74	9 ptarmigan Nanika Mtn.
18 Aug./74	female grouse, 4 chicks on washed-out bridge road.
24 Aug./74	5 grouse mile 32.
27 Aug./74	5 grouse mile 26.
29 Aug./74	1 grouse mile 31 on Morice Lake Road.
2 Sept./74	ruffed grouse 1 mature hen and 4 chicks which were almost as large as mother.
8 Sept./74	1 ruffed grouse mile 39 rainy 14:00 hours.
10 Sept./74	1 hen willow grouse, appeared to be this year's brood mile 43.
14 Sept./74	mile 33 on Morice Lake Road - 9 grouse (10:00) am.).
20 Sept./74	I shot 3 ruffed grouse from 2 large groups, 6 or more birds, 2 or 3 very small. This years birds. Others in group looked equally small, so did not pursue. All around Morice Lake area.
19 Sept./74	saw large blue grouse, Nanika River.
Note	most "grouse" above were Spruce Grouse.