

Catalogue of Salmon Streams and
Spawning Escapements of
Statistical Areas 22 & 23
(Nitinat & Barkley Sound)



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Rapport statistique canadien des sciences halieutiques et aquatiques

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Les numéros 1 à 25 de cette série ont été publiés à titre de Records statistiques, Service des pêches et de la mer. Les numéros 26-160 ont été publiés à titre de Rapports statistiques du Service des pêches et de la mer, Ministère des Pêches et de l'Environnement. Le nom de la série a été modifié à partir du numéro 161.

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Fisheries and Oceans
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No. 167

November 1979



CATALOGUE OF SALMON STREAMS AND SPAWNING ESCAPEMENTS OF
STATISTICAL AREAS 22 AND 23 (KITINAT AND BARKLEY SOUND)

by

R.F. Brown, M.M. Musgrave, D.C. Demontier, D.E. Marshall, M.J. Comfort

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ABSTRACT

Brown, R.F., M.M. Musgrave, D.G. Demontier, D.E. Marshall, and M.J. Comfort. 1979. Catalogue of salmon streams and spawning escapements of Statistical Areas 22 and 23(Nitinat and Barkley Sound). Canadian Data Report of Fisheries and Aquatic Sciences No. 167.

Catalogue containing each stream's location, spawning distribution, barriers and points of difficult ascent, escapement records and other general data pertaining to the stream. The catalogue also includes a topographical map of the stream's location and in some cases a sketch which further describes the surrounding area.

Keywords: British Columbia, Statistical Areas 22 and 23, salmon streams, spawning escapements.

RÉSUMÉ

Brown, R.F., M.M. Musgrave, D.G. Demontier, D.E. Marshall, and M.J. Comfort. 1979. Catalogue of salmon streams and spawning escapements of Statistical Areas 22 and 23(Nitinat and Barkley Sound). Canadian Data Report of Fisheries and Aquatic Sciences No. 167.

Catalogue présentant, pour chaque cours d'eau, l'emplacement, la distribution des frayères, les obstructions et les points où la remonte est difficile, les données sur les remontes et d'autres renseignements d'intérêt général. Le catalogue contient aussi une carte topographique de l'emplacement du cours d'eau et, dans certains cas, un croquis qui représente avec plus de détails la région environnante.

Mots clés: Colombie-Britannique, zones statistiques 22 et 23, cours d'eau à saumons, remonte des reproducteurs.

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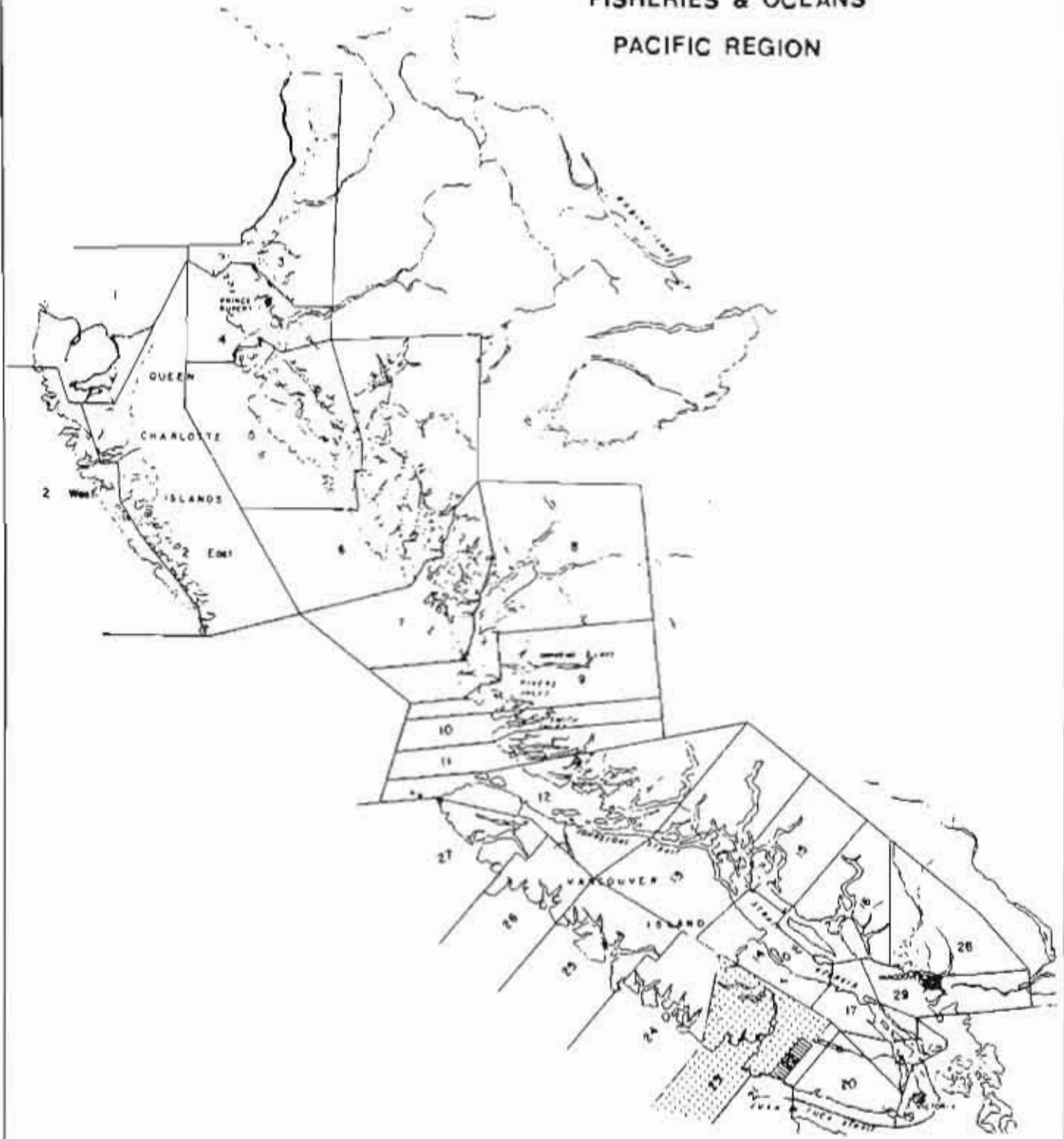
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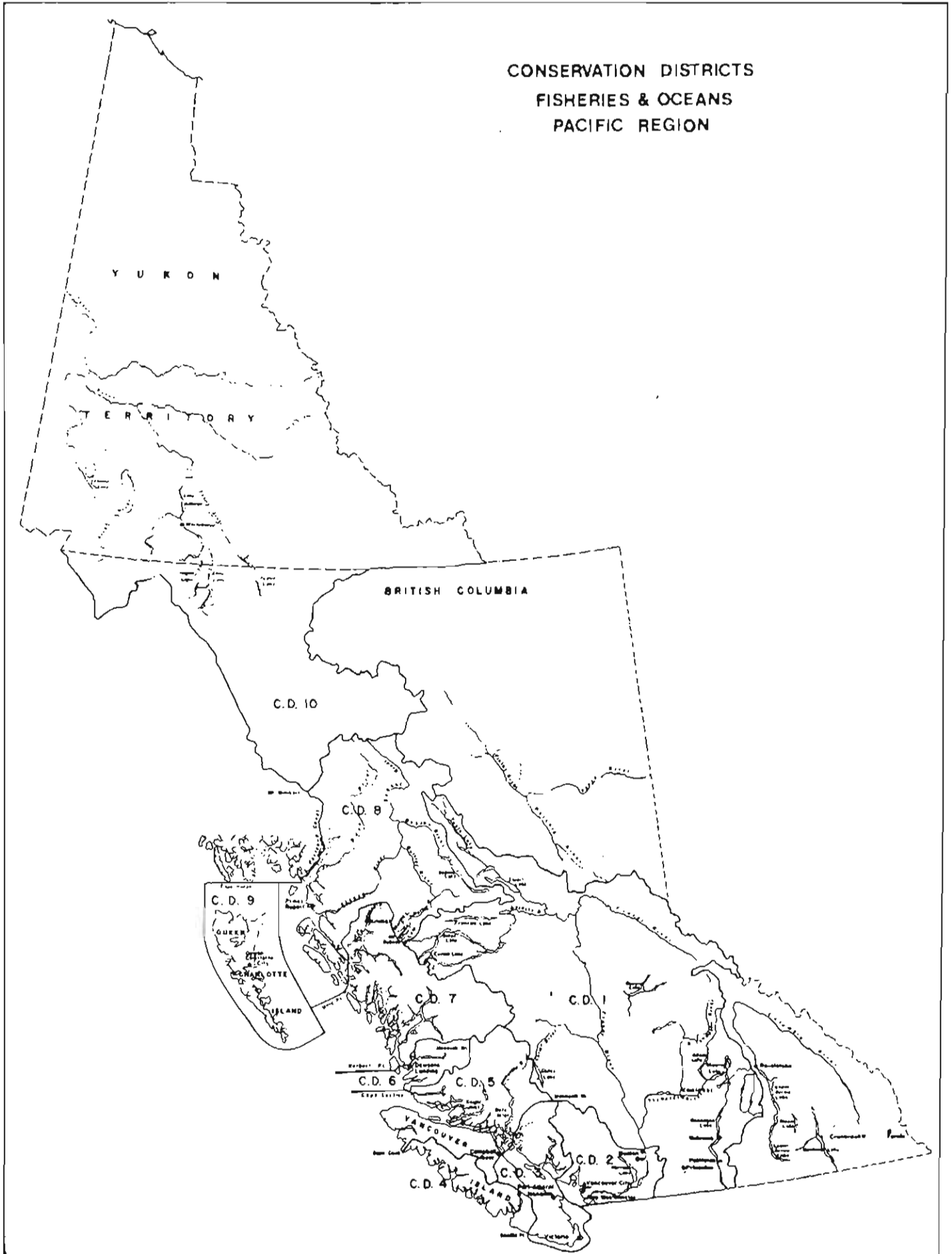
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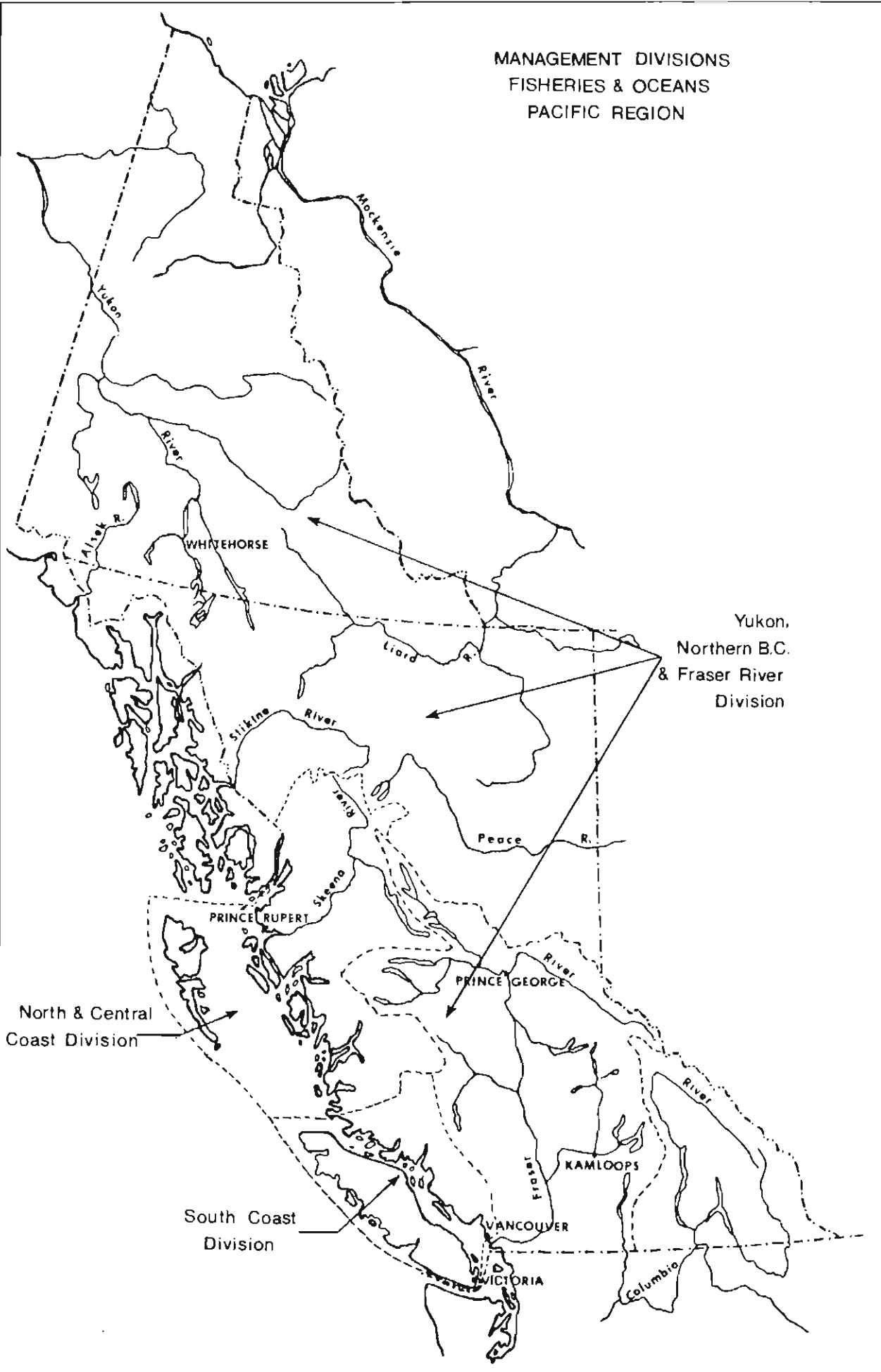
STATISTICAL AREAS
FISHERIES & OCEANS
PACIFIC REGION



CONSERVATION DISTRICTS
FISHERIES & OCEANS
PACIFIC REGION



MANAGEMENT DIVISIONS
FISHERIES & OCEANS
PACIFIC REGION



MAP REFERENCES

Roads	
hard surface, all weather	more than 2 lanes
hard surface, all weather	2 lanes, 20' less than 2
lime surface, all weather	2 lanes, wide or more
— less than 2 lanes	all weather, dry weather
Private Road, Trail	Private Road, Trail
Railways	
normal gauge, multiple track	Station
normal gauge, single track	Stop
abandoned, in under construction	siding
normal gauge, single track	
Bridges, viaducts or overpass	
Tunnel	

Boundary, International	
— Province	
— County or District	
— Township or Parish	
— City or Town	
— Reservation, Indian, Mission, etc.	
Power Transmission Line	
Telephone or Telegraph, main line	
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Mine or Pit	

Road, Hard Surface, All Weather	
• Loose Surface, All Weather	
• Loose Surface, Less than 2 lanes	
• Private Logging, Mining, etc.	
• Four Wheel Drive	
Trail	
Railways	
Main Telephone Line	
Main Electric Power Line	
Horizontal Control Station	
Control Interval (100 feet)	
Elevation on level above mean sea level	2284 (11)
Intermittent Stream	
Siding in Marsh	
Dam	
Spring	
Navigation Light	
Mine	
Glacier	
Customs Office	

House, Building	
School	
Church	
— with independent Tower or Spire	
Post Office	
Tower, Radio Mast, Lookout, etc.	
Cemetery	
Quarry	
Sand or Gravel Pit	
Cliff	
Cutting	
Embankment	
Saw Mill	

Lighthouse	
Wharf or Pier	
Foreshore Flats	
Swamp or Marsh	
Lake or Pond	
Glacier or Snowfield	
Stream, continuous	
Impoundment, Canals, Ditches	
Irregular Land, water	
Cemetery, elevation	
— depression	
— approximate	
Forest, wooded	

Surveyed timber license number	
Lot number	
Building	
School	
Non-perennial stream	
Marsh or Swamp	
Glacier	
Foreshore flats	
Contours, elevation	
Contours, depression	
Forest	

City or large town	
Town	
 Village or settlement	
Streams	
— intermittent or dry	
— regular sand or silt	
Rapids, falls	
Islands	
Leaving ground	

Post office	
School	
Church	
Impoundment, dam	
International boundary	
Highway, international	
Impoundment, dam	
Water or swamp	
Sand, gravel, silt	
Woodland	
Seawall, etc.	
Islands, etc.	
Islands, etc.	

Streams	
Highways	
Roads	
Trails	
Houses	
Railroad	
Falls	
Rapids	
Flip-Rap	
Bridges	
Dam	
Log Jams	
Log	
Power line	
Coho	
Chum	
Pink	
Chinook	
Sockeye	

STANDARDS USED ON STREAM DATA PAGE

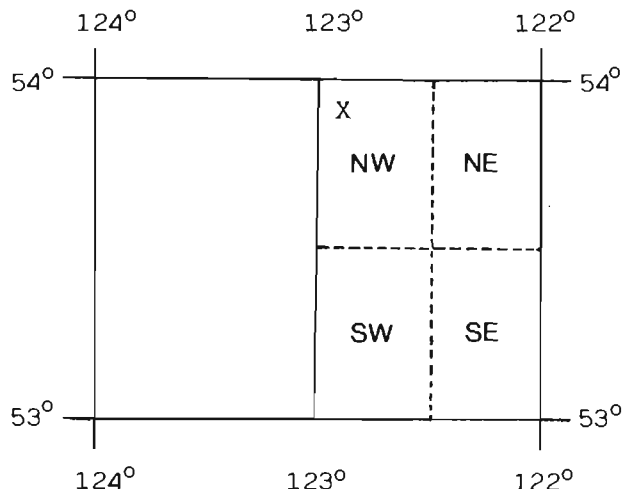
Name of Stream: Name as given in Gazetteer of Canada, British Columbia 1966 edition; local or non-gazetted names are added in lower case type.

Conservation District: As defined by the Conservation and Protection Service (April 1965).

Statistical Area: As defined by Department of the Environment, Fisheries Operations Statistical Map (January 1974).

Location and Position: Defined by quadrant indexing. Each geographical quadrilateral of the earth's surface of 1 degree in extent in latitude and longitude is divided into the SE, SW, NE and NW quarters. The south-east corner of each quadrilateral gives the initial point for the figure of reference (Gazetteer of Canada).

EXAMPLE "X"
53° 122° NW



Length: The portion of the stream accessible to spawning salmon.

Width: Average width, estimated to the nearest metre for the described length.

Drainage: Area in square kilometres of the entire drainage basin feeding the stream.

Composition:

Bedrock	bedrock
Boulder	>256 mm
Coarse	50.9 - 256 mm
Fine	3.37 - 50.8 mm
Sand & Silt	<3.37 mm
Unclassified	where bottom cannot be observed, e.g. log jams, pools, water colour, etc.

Gradient: Expressed as a percentage

Wetted Area: Number of square metres of stream bed under water at average flows within the described length.

Spawning Area: Estimated square metres of stream bed suitable for salmon spawning within the described length.

Discharge: Mean annual discharge. Maximum and minimum values are either daily means or instantaneous discharges. The latter are identified by (Inst.). Discharge data is taken from "Historical Stream Flow Summary", British Columbia, Water Survey of Canada.

Temperature: As described. (°C)

Barriers and Points of Difficult Ascent: Complete and partial barriers to salmon and their distance from the stream mouth. Species likely to be affected may be listed. Both natural and man-made obstructions are defined.

Spawning Distribution: Portion of the stream utilized by each species. Distribution is indicated by brief comments opposite the species.

Potential of Inaccessible Portion of Stream: Indicates whether or not the inaccessible portion of the stream could be utilized by spawning salmon.

General Remarks: Emphasizes features of stream and spawning populations. Also includes industrial activity, routes of accessibility, etc. The comments with dates are taken from "Annual Reports of Salmon Streams & Spawning Grounds" (B.C. 16's). In some cases, references to additional information not included in the General Remarks may be given.

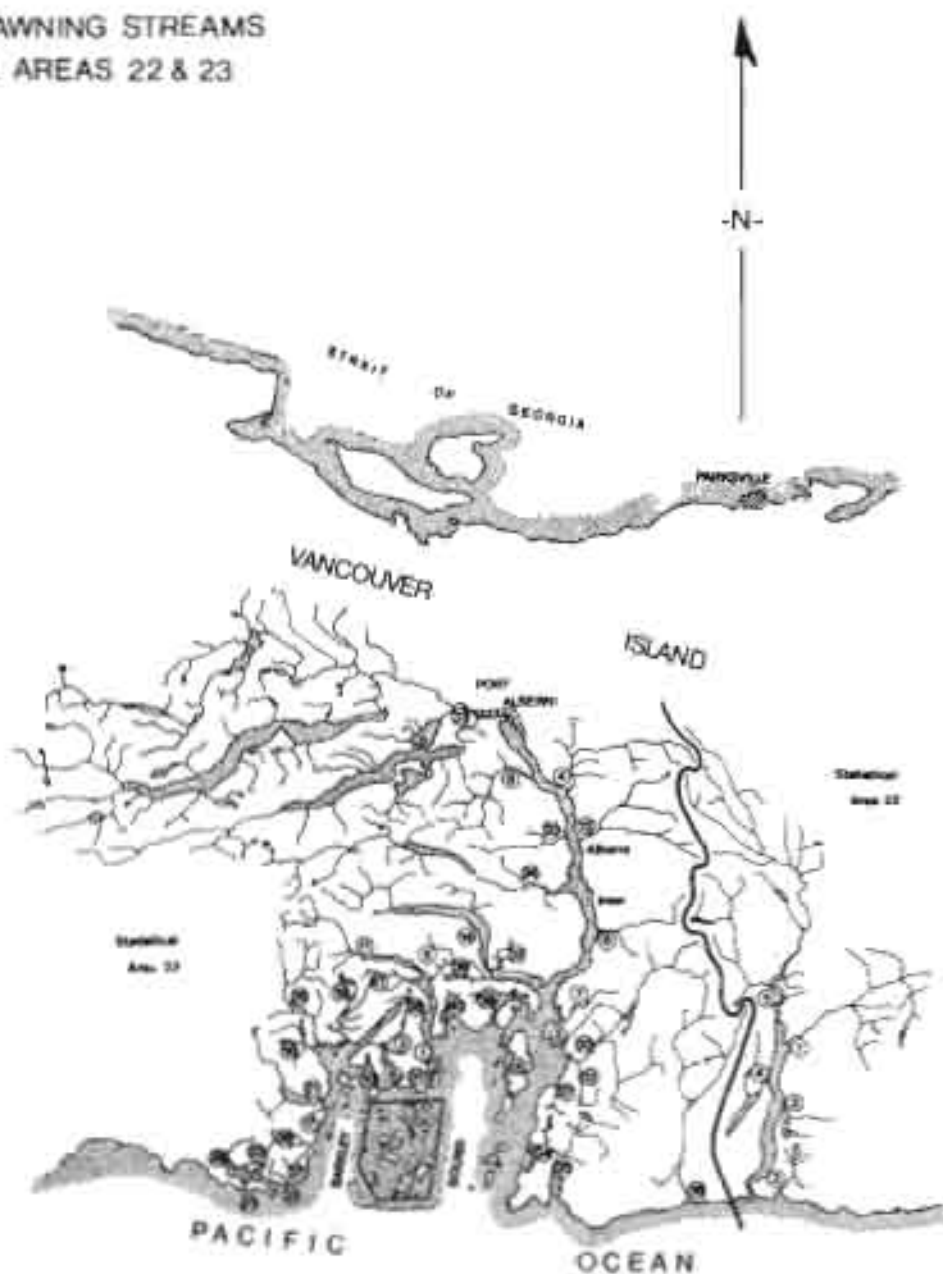
Escapement Records: The escapement represents the mid point of the coded range of escapement for each species. For example: the letter "H" representing 5000-10000 fish would be entered as 7500. Where absolute numbers are provided by Fisheries Personnel, these numbers are entered. N/O means the stream was inspected but no fish were observed; UNK means there was evidence of fish present but no estimates were made; NO RECORDS means no escapement records for the applicable years could be found in the escapement files.

Timing: Dates which salmon arrive in the stream, begin to spawn, reach peak spawning period and finish spawning.

E = early (1st to 10th of the month)
M = mid (11th to 20th of the month)
L = late (21st to end of the month)

NB: Distance references are from the mouth of the stream unless otherwise stated.

**SALMON SPAWNING STREAMS
STATISTICAL AREAS 22 & 23**



Area 22

- 1. Oculuse River
- 2. Chesnut River
- 3. Siskiwit Creek
- 4. Isadore River
- 5. Siskiwit River

Area 23

- 1. Delta River Creek
- 2. Carleton Creek
- 3. Carleton Creek
- 4. Delta Creek
- 5. Carleton Creek
- 6. Carleton Creek
- 7. Delta River Creek
- 8. Delta Creek
- 9. Delta River Creek - near
- 10. Delta River Creek - west
- 11. Delta River
- 12. Delta River
- 13. Delta Creek
- 14. Delta River
- 15. Delta Creek
- 16. Delta River
- 17. Delta River

Area 22 (continued)

- 18. Delta Creek
- 19. Delta River
- 20. Delta River
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- 22. Delta River
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- 93. Delta River
- 94. Delta River
- 95. Delta River
- 96. Delta River
- 97. Delta River
- 98. Delta River
- 99. Delta River
- 100. Delta River



ESCAPEMENT RECORD FOR STATISTICAL AREA 22

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48	1500	750	2250	7500		
49	9000	750	3000	3000		
50	9000	3500	3750	78500		
51	3000	3500	4500	12500		
52	9000	750	9000	46000		
53	9000	750	3000	16500		
54	9000	750	2650	86000		
55	3000	750	4300	12500		
56	5000	400	1700	46075		
57	5000	3500	1575	23325		
58	5000	1500	2125	18975	200	
59	5000	400	1600	22975		
60	5000	750	925	44075	25	
61	9000	1500	2125	44200		
62	5000	1500	2125	18725	75	
63	5000	1500	1050	6725		
64	9025	3500	4325	44200	25	
65	9000	3525	4150	80275		
66	5000	3500	4350	8450		
67	9500	1500	4600	21150		
68	2500	3500	4925	124700		
69	3575	1500	2000	18775		
70	2925	750	2325	8675		
71	8100	1200	1700	55200		
72	4250	800	775	264575		
73	1575	850	4325	171025		
74	3100	3000	1375	98100		
75	8250	800	1025	9900		
76	6250	1600	930	19675		
77	3380	1000	1380	43700		
78	2400	1200	1840	8400		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE						
START						
PEAK						
END						

REMARKS

STREAM DATA
STATISTICAL AREA 22



NAME OF STREAM CAYCHSE RIVER
 CONSERVATION DISTRICT 4 STATISTICAL AREA 22
 LOCATION OF MOUTH Flows W. into Nitinat L., Renfrew Dist.
 POSITION 4B 124 NW
 LENGTH 19 km WIDTH 9 m DRAINAGE 205 km²
 COMPOSITION: BEDROCK 40% BOULDER 15% COARSE 10% FINE 10%
 SILT & SAND 5% UNCLASSIFIED 20%

PERCENT GRADIENT

0.00 - 0.25 | 0 - 0.4 km

0.25 - 0.50 | 0.4 - 1.2 km

0.50 - 0.75 |

0.75 - 1.00 |

>1.00 | 1.2 - 19 km

WETTED AREA 171000 m² SPAWNING AREA 34200 m²DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT

Passable cascades in canyon from 1.2 to 17.0 km

SPAWNING DISTRIBUTION

SPECIES SECTION OF STREAM USED

SOCKEYE

CHINOOK

COHO

- through upper reaches

CHUM

- 0 to 1.6 km

PINK (ODD YEAR)

PINK (EVEN YEAR)

STEELHEAD

- throughout, mainly in upper reaches

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS

- The first two tributaries (unnamed) are each passable for 3.2 kilometres.
- 1970. Some mortality of chum and coho resulted from the inversion of anaerobic waters in Nitinat Lake.
- 1978. Logging commenced in the upper watershed.

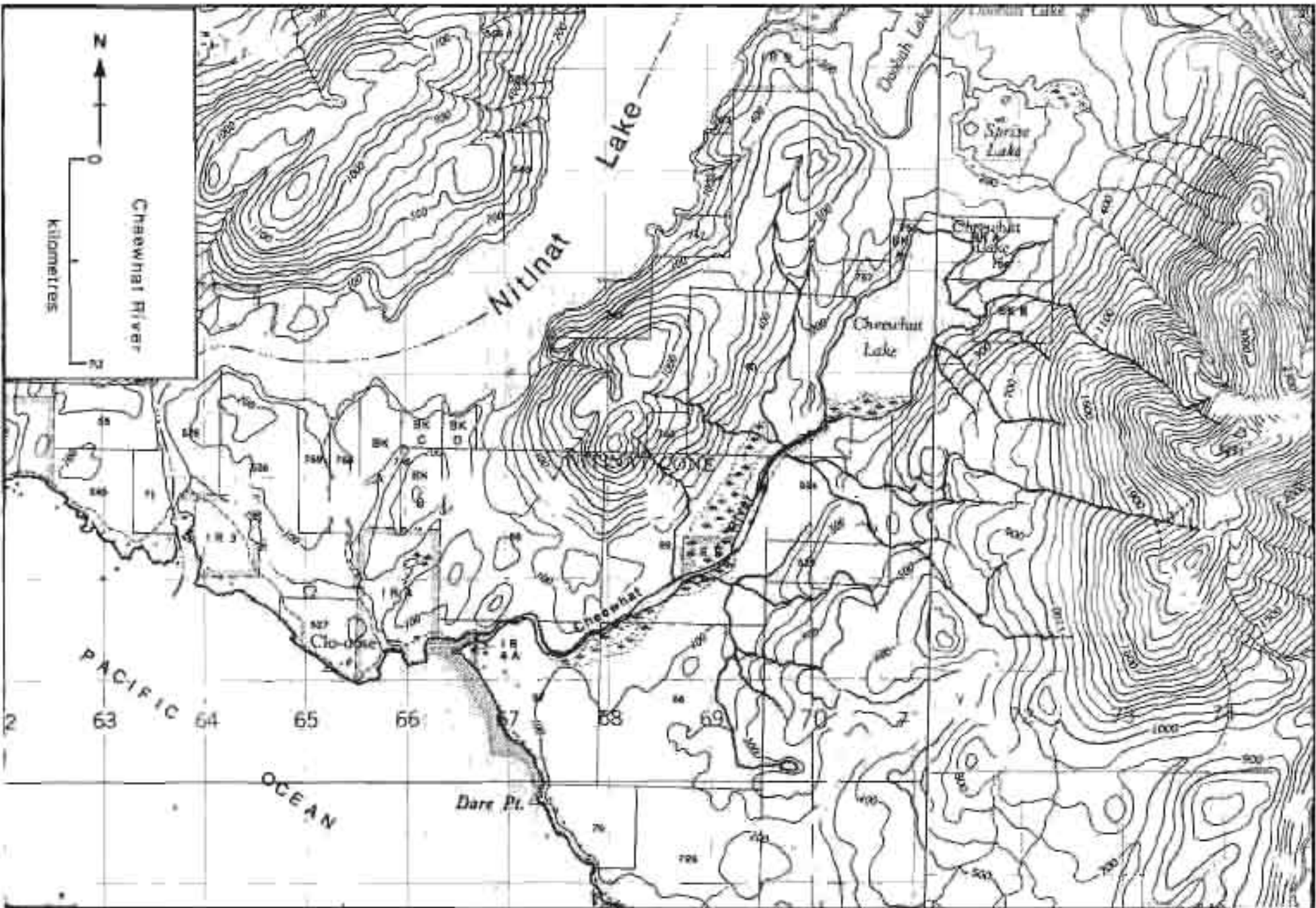
ESCAPEMENT RECORD FOR CAYCUSE RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50			NO RECORDS	FROM 1942 -	1950	
51			750	1500		400
52			750	3500		400
53			750	1500		400
54			400	3500		400
55			400	1500		75
56			200	3500		400
57			400	750		400
58			200	400		400
59			75	400		400
60			75	1500		400
61			200	1500		UNK
62			200	200		UNK
63			200	200		200
64			400	1500		200
65		25	200	200		UNK
66			400	75		UNK
67			750	1500		
68			750	3500		UNK
69			200	750		UNK
70			400	750		400
71			75	1500		400
72			200	15000		400
73			400	3500		400
74			200	1500		UNK
75			200	750		UNK
76			250	350		
77			320	300		
78			300	300		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			NOV	L. OCT		
START			NOV	E. NOV		
PEAK			L. NOV	NOV		
END			L. DEC	L. NOV		

REMARKS



NAME OF STREAM CHEEWAT RIVER
 CONSERVATION DISTRICT 4 STATISTICAL AREA 22
 LOCATION OF MOUTH Flows SW. into Pacific Ocean, S. of Nitinat L., Renfrew Dist.
 POSITION 48 124 NW
 LENGTH 3.2* km WIDTH 9 m DRAINAGE 15.5 km²
 COMPOSITION: BEDROCK _____ BOULDER _____ COARSE 10% FINE 40%
 SILT & SAND 30% UNCLASSIFIED 20%

PERCENT GRADIENT

0.00 - 0.25	0 - 2.4 km
0.25 - 0.50	2.4 - 3.2 km
0.50 - 0.75	
0.75 - 1.00	
>1.00	

WETTED AREA 28800 m² SPAWNING AREA 14400 m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

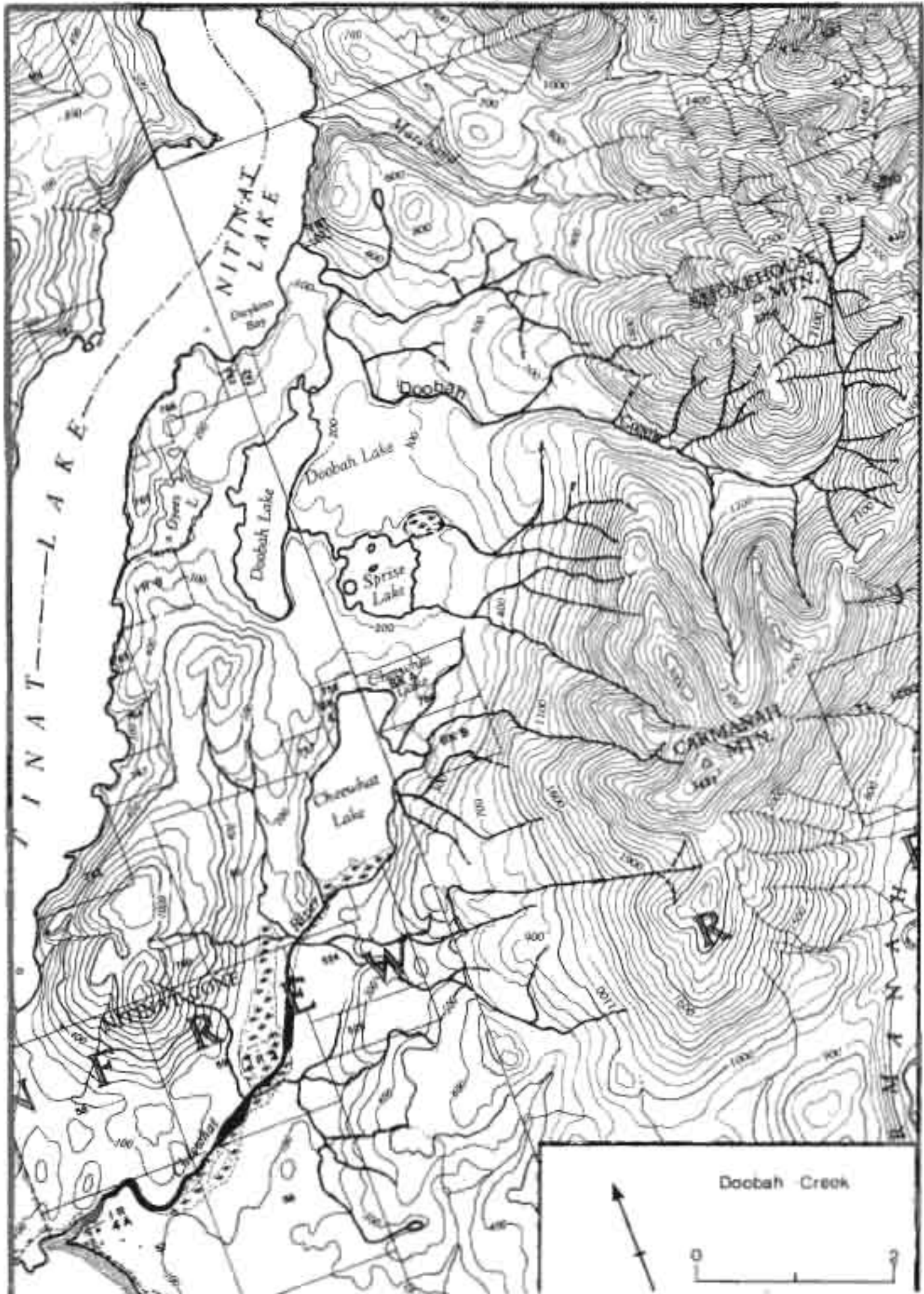
SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	- in Cheewat Lake
CHINOOK	
COHO	- throughout
CHUM	- lower reaches
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS

*Length is from the mouth to the outlet of Cheewat Lake. Composition, wetted area, and spawning area are based on this length.
 - There is a small run of creek sockeye in this creek.



NAME OF STREAM DOOBAH CREEK
 CONSERVATION DISTRICT 4 STATISTICAL AREA 22
 LOCATION OF MOUTH Flows NW. into Nitinat L., N. of Doobah L., Renfrew Dist.
 POSITION 48 124 NW
 LENGTH 3.2 km WIDTH 7.6 m DRAINAGE 26 km²
 COMPOSITION: BEDROCK 30% BOULDER 40% COARSE 10% FINE 5%
 SILT & SAND _____ UNCLASSIFIED 15%

PERCENT GRADIENT

0.00 - 0.25	- 0 - 0.8 km
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	- 0.8 - 1.6 km

WETTED AREA 24320 m² SPAWNING AREA 3650 m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

Passable 1.5 metre falls at 1.6 kilometres.

Impassable 3.7 metre falls at 0.8 kilometres from the outlet of Doobah Lake.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to 3.2 km
CHUM	- to 0.8 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	- to 3.2 km

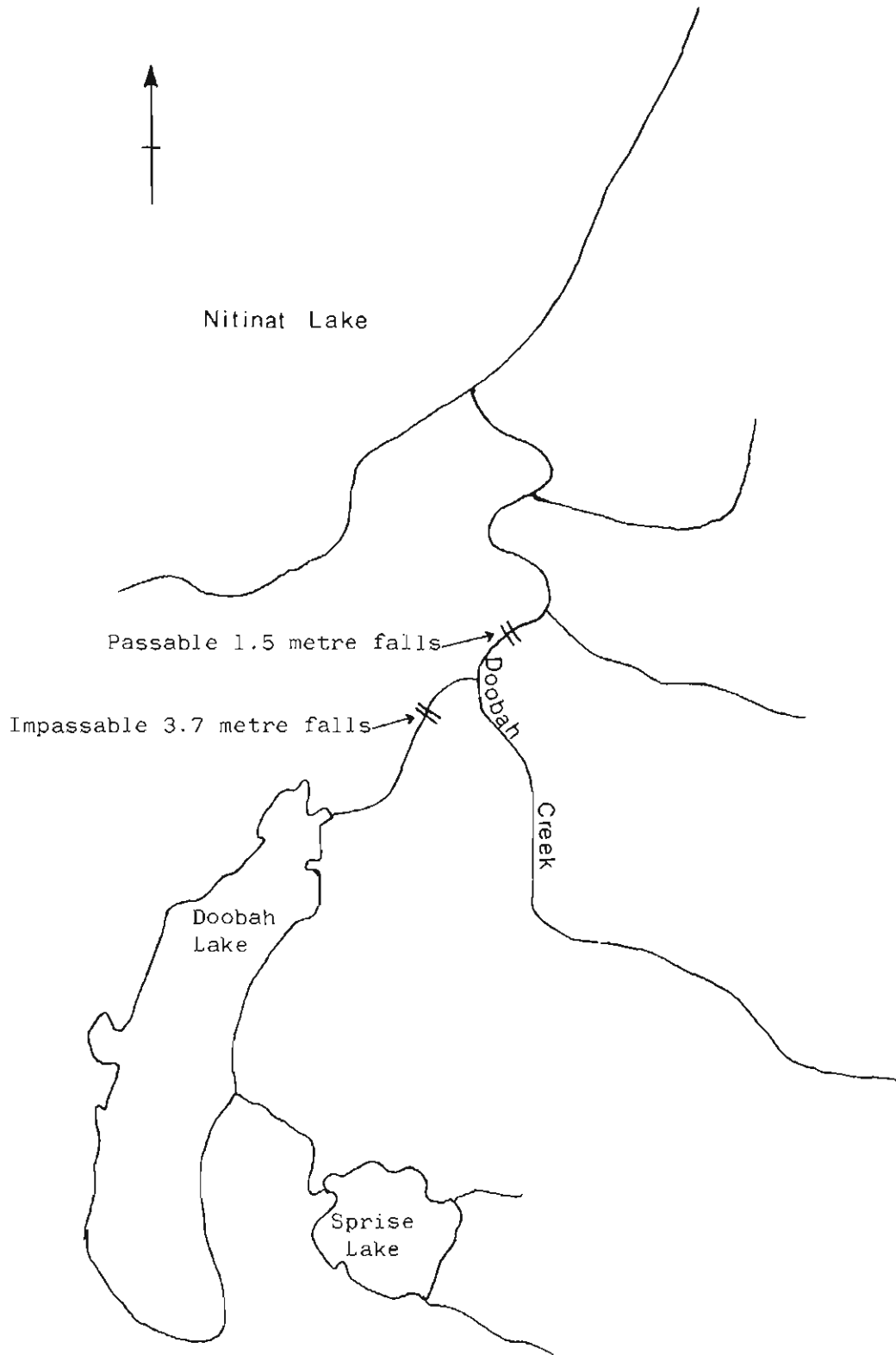
POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS _____

- 1970. Some mortality of chum and coho resulted from the inversion of anaerobic waters in Nitinat Lake.

This watershed has been logged.

Sketch of Doobah Creek showing location of falls.



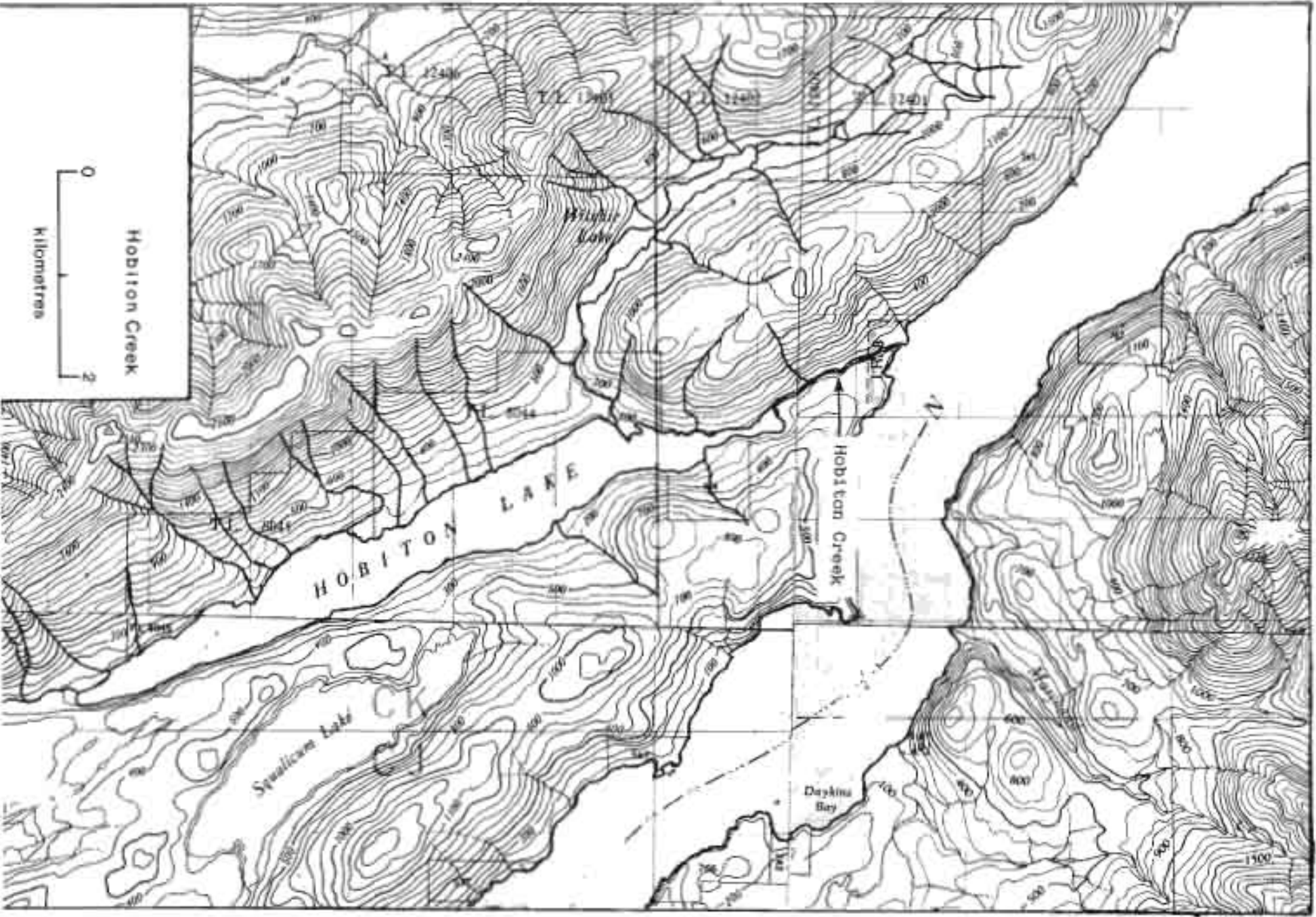
ESCAPEMENT RECORD FOR DOOBAN CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53						
54						
55						
56						
57						
58						
59						
60						
61						
62						
63			NO RECORDS	FROM 1942 -	1964	
64						
65			25	1500		
66			25	400		
67			200	750		
68			400	3500		
69			200	3500		
70			200	400		UNK
71			75	200		25
72			75	12000		25
73			200	1500		
74			150	800		
75			75	400		
76			125	850		
77			115	800		
78			150	300		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE		E. NOV	L. OCT		
START		NOV	L. OCT		
PEAK		DEC	E. NOV		
END		L. DEC	L. NOV		

REMARKS



NAME OF STREAM HOBITON CREEK (Hobarton River)
 CONSERVATION DISTRICT 4 STATISTICAL AREA 22
 LOCATION OF MOUTH Flows NE. into Nitinat Lake, Barclay Dist.
 POSITION 48 124 NW
 LENGTH 7.2 km WIDTH 12.2 m DRAINAGE 40 km²
 COMPOSITION: BEDROCK 15% BOULDER 30% COARSE 30% FINE 20%
 SILT & SAND UNCLASSIFIED 5%

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
>1.00	- 0 - 1.6 km

WETTED AREA 87840 m² SPAWNING AREA *See Remarks m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	- in Hobiton Lake
CHINOOK	
COHO	- throughout
CHUM	- in lower reaches
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS

*Length of stream between Hobiton and Nitinat Lake = 2.4 km. Spawning area = 14640 sq. m. in the stream between the two lakes and 8360 sq. m. of beach spawning area in Hobiton Lake.

- An early run of sockeye occurs from mid April to July.

- An Indian food fishery for sockeye exists on this stream.

References: _____

Anon. 1972. Hobiton Aquatic Habitat Protection Plan. C.O.E., F.M.S., Pac. Reg. MS. 31-3-N7. 16 pp.

ESCAPEMENT RECORD FOR HOBITON CREEK (Hobarton River)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48		UNABLE TO DETERMINE THE NUMBER OF SPAWNERS				
49	7500		750	1500		
50	7500		750	3500		
51	1500		750	3500		
52	7500		N/O	7500		
53	7500		N/O	7500		
54	7500		N/D	7500		
55	1500			7500		
56	3500			7500		
57	3500		25	7500		
58	3500		25	3500		
59	3500		25	7500		
60	3500		25	7500		
61	7500		25	7500		
62	3500		25	3500		
63	3500		25	1500		
64	7500		25	7500		
65	7500		25	3500		
66	3500		25	400		
67	8000		75	3500		
68	2300		200	7500		
69	3500		25	3500		
70	2500		25	3500		
71	8000		25	3500		
72	3500		25	7500		
73	1500		25	6000		
74	2600		150	800		
75	8050		75	750		
76	6000		90	400		
77	3150		125	550		
78	2150		120	1800		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE	MAY		L. OCT	L. OCT	
START	OCT		NOV	E. NOV	
PEAK	E. NOV		DEC	L. NOV	
END	M. NOV		L. DEC	L. NOV	

REMARKS



NAME OF STREAM NITINAT RIVER
 CONSERVATION DISTRICT 4 STATISTICAL AREA 22
 LOCATION OF MOUTH Flows S. into N. end of Nitinat L., Renfrew and Barclay Dists.
 POSITION 48 124 NW
 LENGTH 29 km WIDTH 30.5 m DRAINAGE 800 km²
 COMPOSITION: BEDROCK 10% BOULDER 5% COARSE 40% FINE 15%
 SILT & SAND 10% UNCLASSIFIED 20%

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	0 - 6.4 km
0.50 - 0.75	6.4 - 9.7 km
0.75 - 1.00	9.7 - 14.5 km
>1.00	14.5 - 16 km

WETTED AREA 884500 m² SPAWNING AREA 486475 m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

Passable cascades at 16 km.

Impassable falls at 29 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	- to 16 km
CHINOOK	- to 29 km (concentrated in lower reaches)
COHO	- to 29 km and tributaries
CHUM	- to 9.7 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	- throughout

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS

- Accessible Tributaries:

1. Little Nitinat River - Impassable falls are located at 4 kilometres. This stream has very little spawning area available.
 2. Worthless Creek - This stream has approximately 3.2 kilometres of excellent spawning and rearing area.
 3. Parker Creek - This creek drains Tuck Lake. It has passable 1.8 metre falls at 0.8 kilometres and impassable 7.6 metre falls at 4.8 kilometres.
- 1969. This river is subject to flash flooding as a result of past logging activities.
- 1969. There was a heavy leech infestation of the gills of the early run chums.

(cont.)

GENERAL REMARKS (cont.) - Nitinat River

- 1970. Inversion of anaerobic water in Nitinat Lake on Oct. 14 and Nov. 22 caused heavy mortality to the chum run and some mortality to the spring and coho runs.

References:

- Bourque, S.C. 1962. A preliminary survey of the Nitinat River. D.O.E., F.M.S., Pac. Reg. Memo. 5903-85-N150. 43 pp.
- Kasmer, E.T. 1968. Nitinat Lake Salmon Stocks. History and Current Status. Memo. 31-3N7.
- Slaney, P. and O. Langer. 1972. Fish Kill - H S Inversion. D.O.E., F.M.S., Pac. Reg. Memo. 31-3-N7. 2 pp.

STREAM DATA

STATISTICAL AREA 23



NAME OF STREAM _____ (Canoe Pass Creek)
 CONSERVATION DISTRICT _____ 4 _____ STATISTICAL AREA _____ 23 _____
 LOCATION OF MOUTH _____ Flows S. and SW. into Julia Passage, W. of Alma Russel Is.,
 _____ Barclay Dist. _____ POSITION _____ 48 125 NE _____
 LENGTH _____ 1.8 _____ km WIDTH _____ 3.6 _____ m DRAINAGE _____ 5.2 _____ km²
 COMPOSITION: BEDROCK _____ 15% _____ BOULDER _____ 20% _____ COARSE _____ 20% _____ FINE _____ 10%
 SILT & SAND _____ 20% _____ UNCLASSIFIED _____ 15% _____

PERCENT GRADIENT

0.00 - 0.25	0 - .3 km; 1.4 - 1.8 km
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	0.3 - 1.4 km

WETTED AREA _____ 6500 _____ m² SPAWNING AREA _____ 1900 _____ m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

Passable cascades at 1.3 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- throughout
CHUM	- lower reaches; 0 - 400 m
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS _____

ESCAPEMENT RECORD FOR

(Canoe Pass Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			200	75		
49			750	200		
50			75	1500		
51			200	750		
52			200	1500		
53			25	200		
54			75	200		
55			25	200		
56			25	75		
57			200	75		
58			75	200		
59			200	200		
60			75	200		
61			200	75		
62			200	25		
63			25	75		
64			200	200		
65			25	25		
66			25	400		
67			75	200		
68			75	200		
69			200	200		
70			200	75		
71			75	75		
72			75	200		
73			75	200		
74		25	75	150		
75			20	150		
76			50	200		
77			50	180		
78			50	200		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			E. OCT	E. OCT		
START			OCT	OCT		
PEAK			NOV	L. OCT		
END			DEC	NOV		

REMARKS



NAME OF STREAM _____ (Carnation Creek)
 CONSERVATION DISTRICT _____ 4 _____ STATISTICAL AREA _____ 23 _____
 LOCATION OF MOUTH _____ Flows SW. into Numukamis Bay, E. of Tzartus I., Barclay Dist. _____
 _____ POSITION _____ 48 125 NE _____
 LENGTH _____ 4.8 _____ km WIDTH _____ 5.5 _____ m DRAINAGE _____ 10 _____ km²
 COMPOSITION: BEDROCK _____ 15% _____ BOULDER _____ 20% _____ COARSE _____ 20% _____ FINE _____ 20% _____
 SILT & SAND _____ 10% _____ UNCLASSIFIED _____ 15% _____

PERCENT GRADIENT

0.00 - 0.25	0 - 0.4 km
0.25 - 0.50	0.4 - 1.6 km
0.50 - 0.75	
0.75 - 1.00	1.6 - 2.4 km
> 1.00	2.4 - 4.8 km

WETTED AREA _____ 26400 _____ m² SPAWNING AREA _____ 10600 _____ m²

DISCHARGE (m³/s) _____ mean = 0.94 max = 13.9 (76/11/03) min = 0.01 (74/09/18) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- throughout; mainly 0.8 - 4.0 km
CHUM	- from tidal area to counting fence at 640m
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS

- 1954. There is very good gravel in this stream for 4.8 km, after which the stream becomes steeper and the streambed bouldery.
 - 1970. This marks the commencement of the Carnation Creek Project, the study of a small salmonid stream and the effects of logging upon it. The study is designed to compare 5 years of results prior to logging with 6 years of logging and 3 years of post-logging recovery.
 It has encompassed studies of fish and stream insect populations, hydrological, meteorological, stream chemistry, stream morphology, sources of stream sediment, soil and vegetation, soil hydrology, stream algae, and the use of estuaries by salmon.

(cont.)

GENERAL REMARKS (cont.) - Carnation Creek

The Carnation Creek Project is expected to continue until 1985.
- 1975. Logging commenced this fall.

References:

- Bustard, David R. 1973. Some aspects of the winter ecology of juvenile salmonids with reference to possible habitat alteration by logging in Carnation Creek, Vancouver Island. Fish. Res. Bd. Can. Manuscript Report Series No. 1277. 85 pp.
- Lill, A.F. and P. Sookachoff. 1974. The Carnation Creek fish counting fence. D.O.E., F.M.S., Pac. Reg. PAC/T-74-2. 23 pp.
- Narver, David W. and Bruce C. Andersen. 1974. Fish populations of Carnation Creek and other Barkley Sound Streams - 1970-1973: Data Record and Progress Report. Fish. Res. Bd. Can. Manuscript Report Series No. 1303. 115 pp.
- Narver, D.W. and T.W. Chamberlin. 1976. Carnation Creek: An experiment towards integrated management. D.O.E., Pacific Biological Station, Nanaimo, B.C. Circular No. 104. 20 pp.

ESCAPEMENT RECORD FOR

(Carnation Creek)

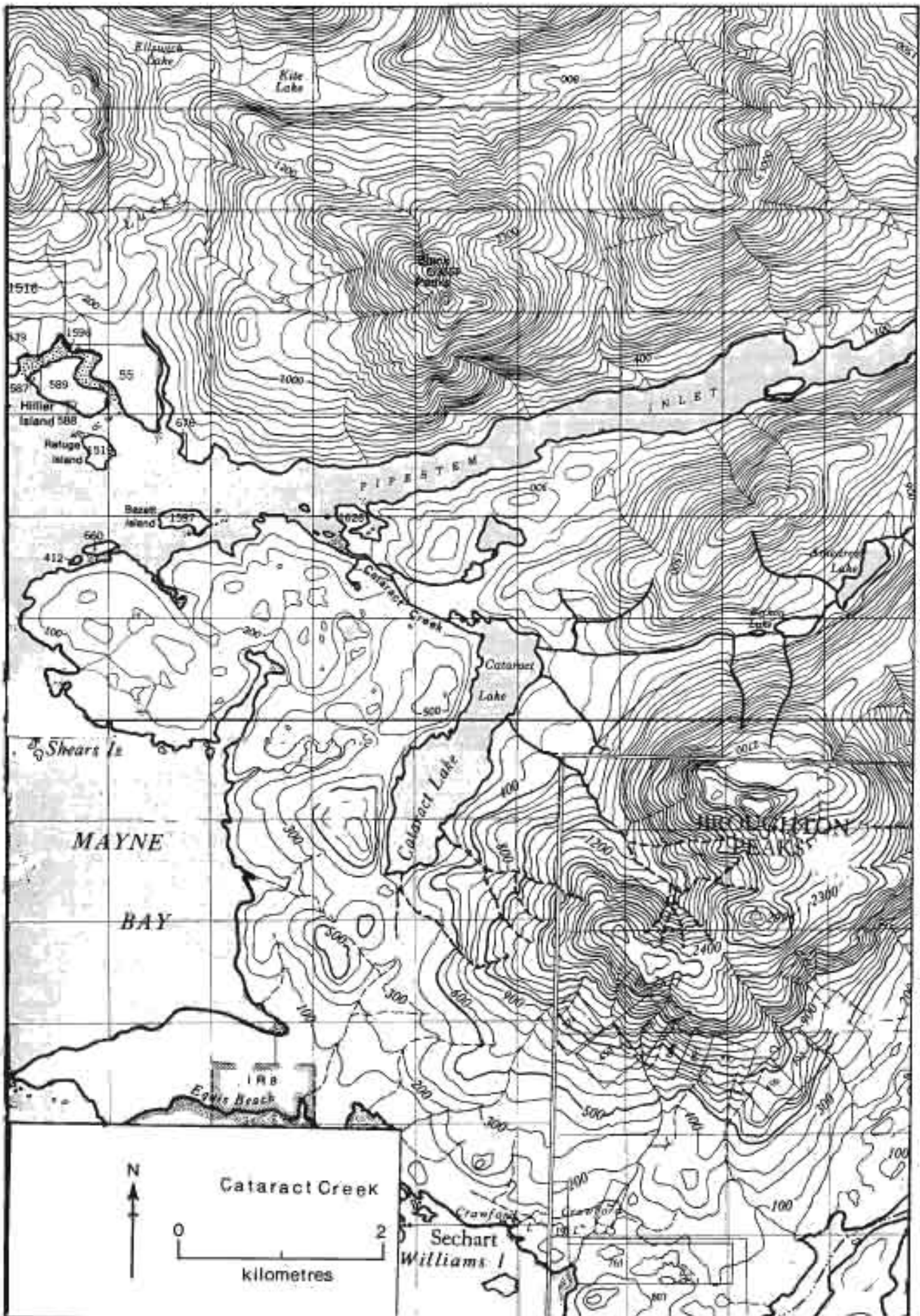
YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			1500	255		
49			1500	3500		
50			1500	1500		
51			400	750		
52			400	750	25	
53			400	1500		
54			75	1500	75	25
55			25	400	N/O	25
56			25	200	25	25
57			25	1500	N/O	25
58			25	1500	200	25
59			25	400		25
60			25	200	75	25
61			25	750		25
62			25	400	25	25
63			25	200		25
64			75	1500		25
65			75	750		UNK
66			75	1500		
67			200	1500		
68			200	1500	25	
69			75	3500		
70			400	3500		
71			200	1500		25
72			200	3500		25
73			192	4168		10
74			160	2870		
75			250	1200		
76			200	1500		
77			200	1100		
78			350	1200		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			OCT	E. OCT		
START			OCT	M. OCT		
PEAK			NOV	L. OCT		
END			DEC	M. NOV		

REMARKS

* Escapements are determined at a counting fence at 700 yards.



NAME OF STREAM CATARACT CREEK
 CONSERVATION DISTRICT 4 STATISTICAL AREA 23
 LOCATION OF MOUTH Flows NW. from Cataract L. into Pipestem Inlet, Clayoquot Dist.
 POSITION 49 125 SE
 LENGTH 0.4 km WIDTH 5.5 m DRAINAGE 20.7 km²
 COMPOSITION: BEDROCK 30% BOULDER 30% COARSE 20% FINE 10%
 SILT & SAND _____ UNCLASSIFIED 10%

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	0 - 0.4 km

WETTED AREA 2200 m² SPAWNING AREA 660 m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

Set of two impassable falls (1.8 m and 3 m) at 0.4 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to falls at 0.4 km
CHUM	- to falls at 0.4 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS _____

- 1952. This stream is bouldery and has very little good spawning gravel.



NAME OF STREAM CHINA CREEK
 CONSERVATION DISTRICT 4 STATISTICAL AREA 23
 LOCATION OF MOUTH Flows SW. into Alberni Inlet, Alberni Dist.
 POSITION 49 124 SW
 LENGTH 4.8 km WIDTH 11 m DRAINAGE 72.5 km²
 COMPOSITION: BEDROCK 30% BOULDER 10% COARSE 25% FINE 15%
 SILT & SAND 5% UNCLASSIFIED 15%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.4 km
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	0.4 - 4.8 km

WETTED AREA 52800 m² SPAWNING AREA 21000 m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

Passable 2.1 m cascades at 1.6 km.

Impassable falls and dam at 4.8 km.

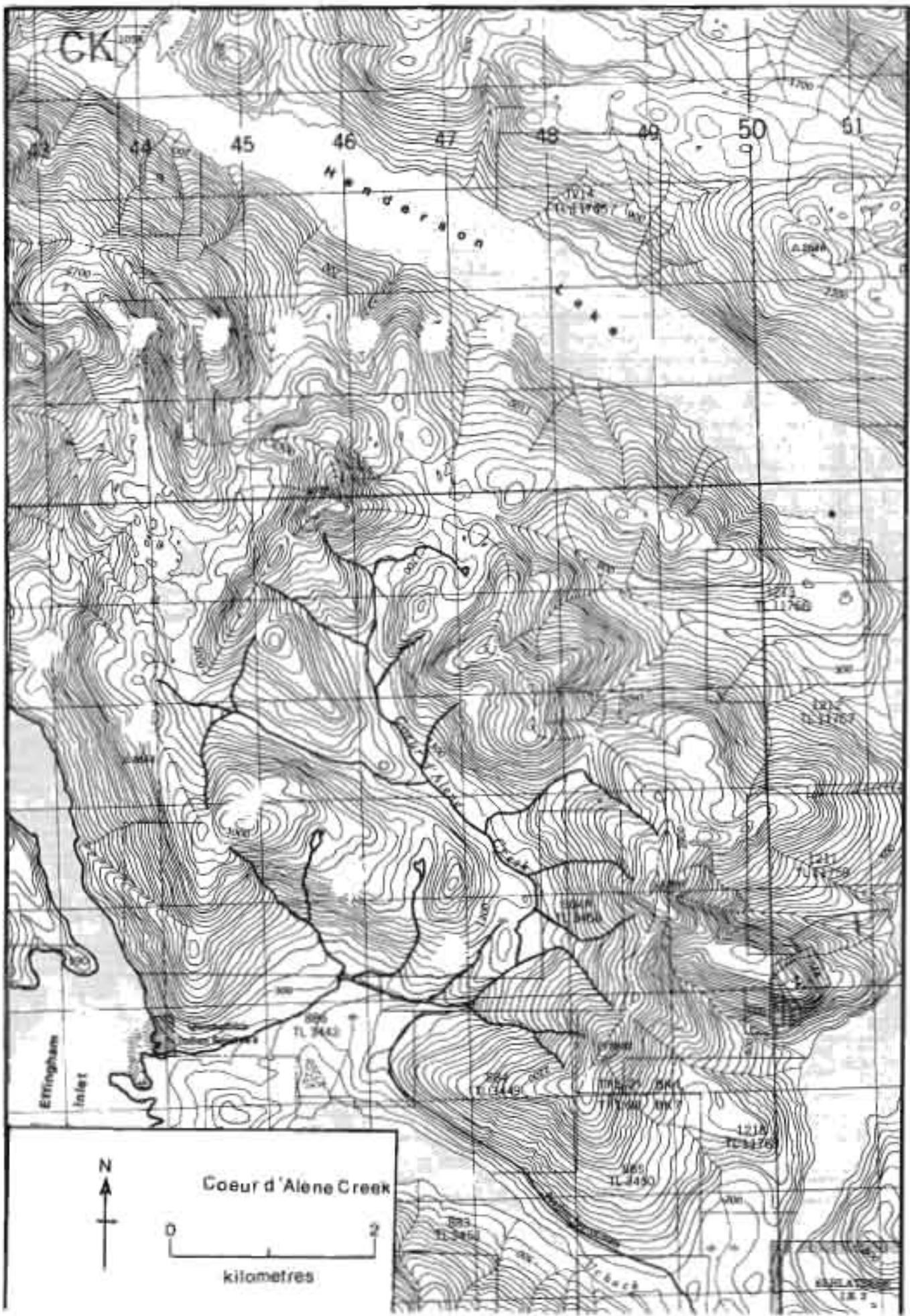
SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- to falls at 4.8 km
COHO	- to falls at 4.8 km
CHUM	- to 0.4 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS

- The city of Alberni obtains its water supply from this watershed.
- 1976. Siltation of the lower portion of the stream was caused from the city gravel pit and a former hog fuel dump.
- 1976. China Creek Marina was constructed on the estuary.
- MacMillan - Bloedel booming grounds are adjacent to the estuary.



NAME OF STREAM COEUR D'ALENE CREEK
 CONSERVATION DISTRICT 4 STATISTICAL AREA 23
 LOCATION OF MOUTH Flows SE. and W. into Effingham Inlet, Clayoquot Dist.
 POSITION 49 125 SE
 LENGTH 1.2 km WIDTH 9.1 m DRAINAGE 18 km²
 COMPOSITION: BEDROCK 20% BOULDER 40% COARSE 10% FINE 10%
 SILT & SAND 10% UNCLASSIFIED 10%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.2 km
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
>1.00	0.2 - 1.2 km

WETTED AREA 10900 m² SPAWNING AREA 2200 m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____
Impassable 15.2 m falls at 1.2 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- to falls at 1.2 km
COHO	- to falls at 1.2 km
CHUM	- to falls at 1.2 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS _____



NAME OF STREAM COLEMAN CREEK
 CONSERVATION DISTRICT 4 STATISTICAL AREA 23
 LOCATION OF MOUTH Flows NW. into Alberni Inlet, Barclay Dist.
 POSITION 49.124 SW
 LENGTH 9.7 km WIDTH 9.1 m DRAINAGE 51.8 km²
 COMPOSITION: BEDROCK 30% BOULDER 20% COARSE 15% FINE 10%
 SILT & SAND 10% UNCLASSIFIED 15%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.4 km
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	0.4 - 9.7

WETTED AREA 88000 m² SPAWNING AREA 22000 m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT

Impassable falls on Parson's Creek tributary at 2.4 km from confluence with Coleman Creek.

Impassable 6.1 m falls at 9.7 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to falls at 9.7 km; in Parson's Creek
CHUM	- lower 1.5 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	- to 8 km

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

Parson's Creek has approximately 5 km of good spawning and rearing area above the falls.

GENERAL REMARKS

- This stream is subject to heavy freshets.

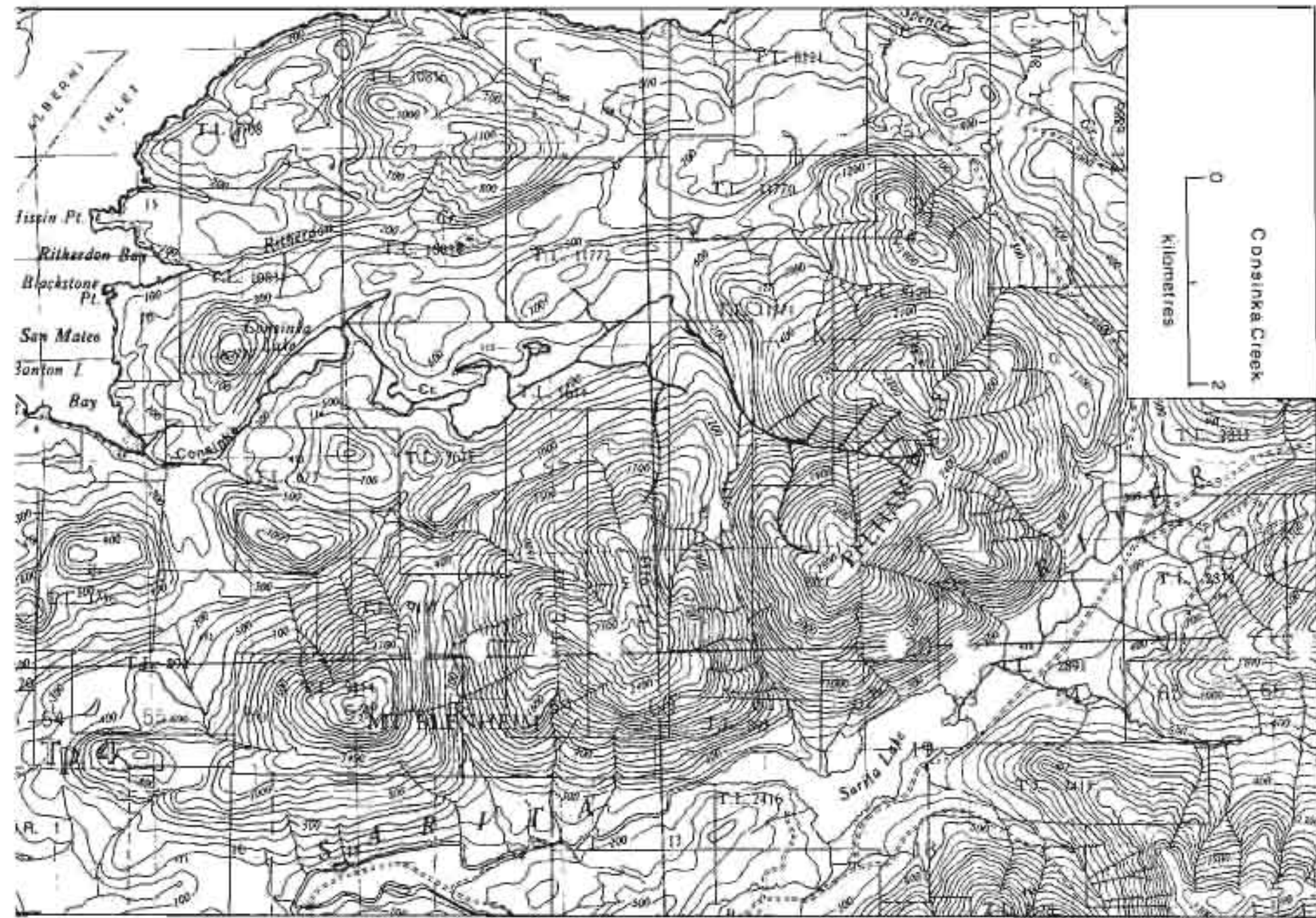
ESCAPEMENT RECORD FOR COLEMAN CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			750	200		
49			200	200		
50			400	1500		
51			200	400		
52			25	25		
53			25	25		
54			25	25		
55			25	25		
56			25	25		
57			25	25		75
58			25	25		75
59			25	25		75
60			25	25		75
61			25	25		75
62			25	25		75
63			25	25		UNK
64			75	25		75
65			25	25		UNK
66			25	400		UNK
67			25	75		
68		25	200	400		UNK
69		N/O	75	75		UNK
70			200	200		200
71			25	25		200
72		N/O	75	1500		400
73			200	N/O		
74			25	N/O		
75			75	10		
76			45	40		
77			60	30		
78			150	N/O		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			OCT	OCT		
START			L. OCT	OCT		
PEAK			NOV	L. OCT		
END			DEC	NOV		

REMARKS



NAME OF STREAM CONSINKA CREEK (Wood Creek)
 CONSERVATION DISTRICT 4 STATISTICAL AREA 23
 LOCATION OF MOUTH Flows W. into San Mateo Bay, Barclay Dist.

POSITION 48 124 NW
 LENGTH 0.4 km WIDTH 3.6 m DRAINAGE 10.4 km²
 COMPOSITION: BEDROCK 10% BOULDER 20% COARSE 20% FINE 20%
 SILT & SAND 10% UNCLASSIFIED 20%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.2 km
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
>1.00	0.2 - 0.8 km

WETTED AREA 1440 m² SPAWNING AREA 580 m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

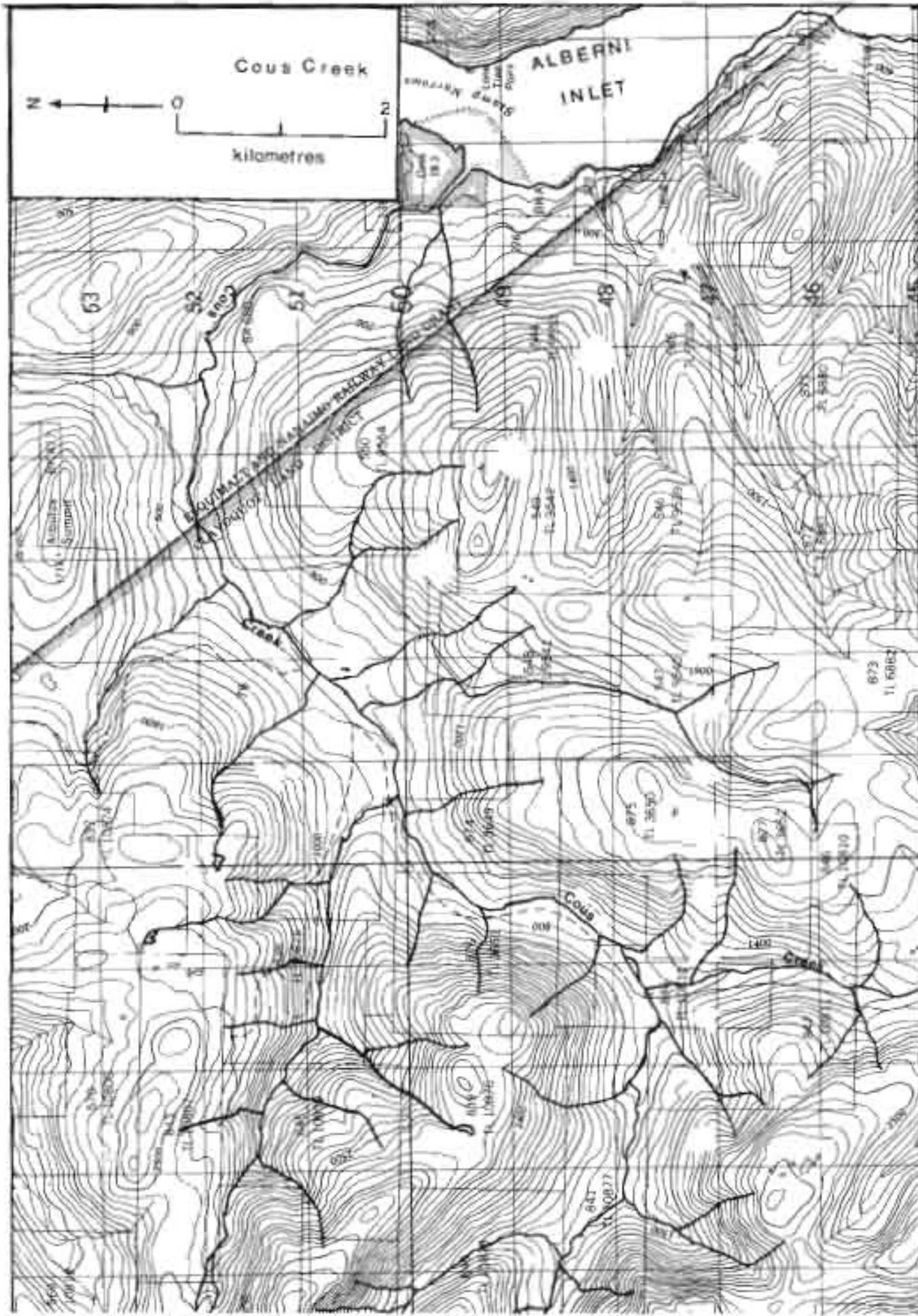
Impassable 3 m falls at 0.4 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to falls at 400 m
CHUM	- lower 180 - 275 m
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS _____



NAME OF STREAM COUS CREEK
 CONSERVATION DISTRICT 4 STATISTICAL AREA 23
 LOCATION OF MOUTH Flows SE. into Stamp Narrows, Alberni Inlet, Alberni Dist.
 POSITION 49 124 SW
 LENGTH 11.3 km WIDTH 12.2 m DRAINAGE 41.4 km²
 COMPOSITION: BEDROCK 50% BOULDER 5% COARSE 10% FINE 5%
 SILT & SAND 5% UNCLASSIFIED 25%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.8 km
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
>1.00	0.8 - 11.3 km

WETTED AREA 138000 m² SPAWNING AREA 20700 m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____
Passable cascades and canyon from 1.2 km to 6.4 km. (Impassable to chum)

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- to 11.3 km; mainly to 2.4 km
COHO	- to 11.3 km
CHUM	- below 1.2 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	- to 11.3 km

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS _____

- This stream is subject to rapid water fluctuations. The watershed has been previously logged and at present a stand of second growth timber is becoming established.



NAME OF STREAM _____ (Dutch Harbour Creek East)
 CONSERVATION DISTRICT _____ 4 _____ STATISTICAL AREA _____ 23
 LOCATION OF MOUTH _____ Flows SW. into Sechart Chan., N. of Broken Gp., Barclay Dist.
 _____ POSITION _____ 48 125 NE
 LENGTH _____ 3.2 _____ km WIDTH _____ 4.6 _____ m DRAINAGE _____ 5.2 _____ km²
 COMPOSITION: BEDROCK _____ 5% _____ BOULDER _____ 20% _____ COARSE _____ 40% _____ FINE _____ 20%
 SILT & SAND _____ 10% _____ UNCLASSIFIED _____ 5%

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	0 - 0.3 km
0.50 - 0.75	
0.75 - 1.00	0.3 - 0.8 km
> 1.00	0.8 - 2.4 km

WETTED AREA _____ 14700 _____ m² SPAWNING AREA _____ 8800 _____ m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

Impassable 3.7 m falls at 3.2 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to falls at 3.2 km
CHUM	- in lower 2.4 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS _____

NAME OF STREAM _____ (Dutch Harbour Creek West)
 CONSERVATION DISTRICT _____ 4 _____ STATISTICAL AREA _____ 23 _____
 LOCATION OF MOUTH _____ Flows SW. into Sechart Chan., N. of Broken Gp., Barclay Dist. _____
 _____ POSITION _____ 48 125 NE _____
 LENGTH _____ 0.8 _____ km WIDTH _____ 7.3 _____ m DRAINAGE _____ 5.2 _____ km²
 COMPOSITION: BEDROCK _____ 5% _____ BOULDER _____ 10% _____ COARSE _____ 30% _____ FINE _____ 30% _____
 SILT & SAND _____ 15% _____ UNCLASSIFIED _____ 10% _____

PERCENT GRADIENT

0.00 - 0.25	0 - 0.2 km
0.25 - 0.50	
0.50 - 0.75	0.2 - 0.8 km
0.75 - 1.00	
> 1.00	

WETTED AREA _____ 5800 _____ m² SPAWNING AREA _____ 3500 _____ m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

Impassable 4.6 m falls at 0.8 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to falls at 0.8 km
CHUM	- to falls at 0.8 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS _____

ESCAPEMENT RECORD FOR

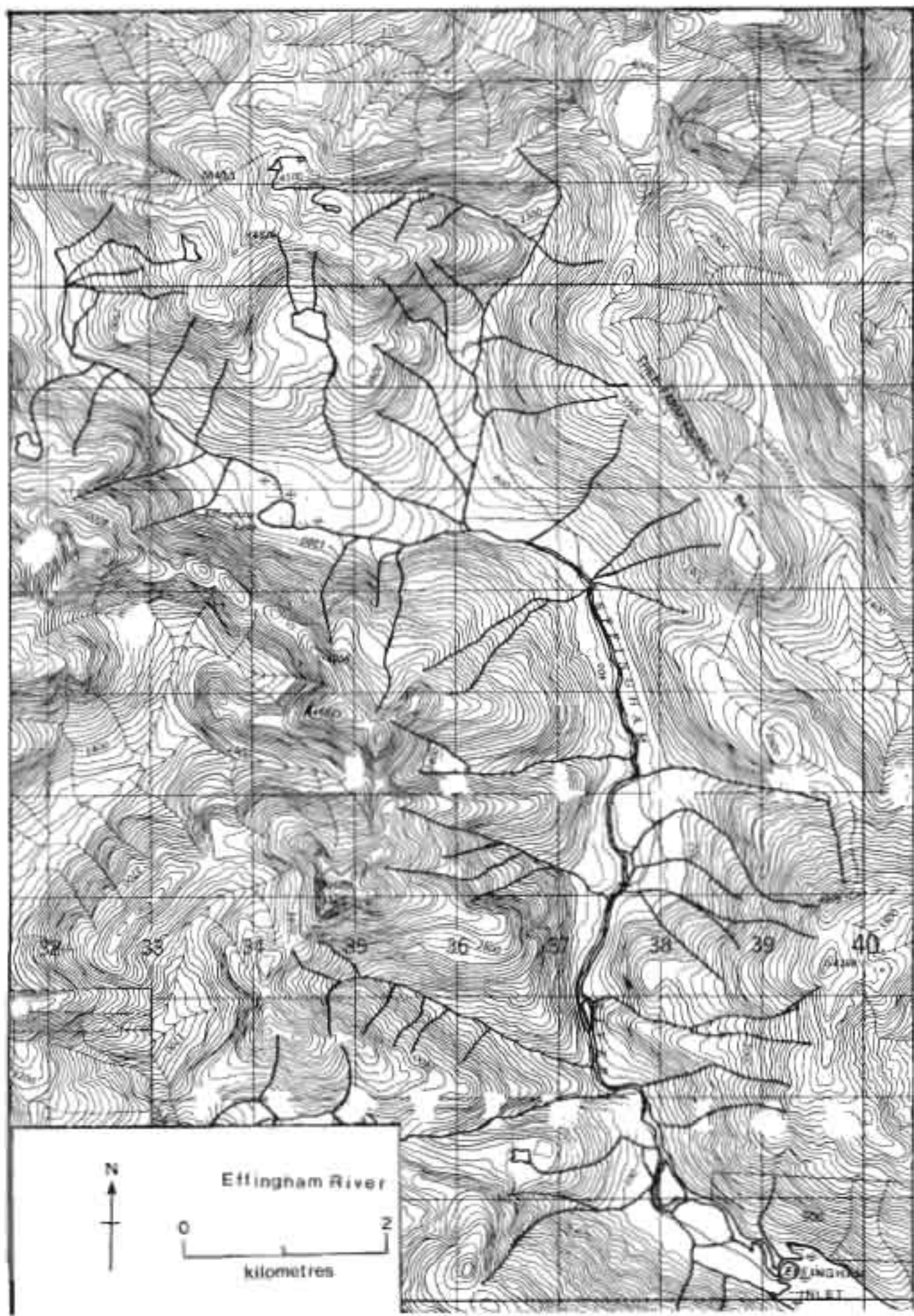
(Dutch Harbour Creek West)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53			NO RECORDS PRIOR TO 1954			
54			25	750		
55			25	750		
56			25	750		
57			25	1500		
58			25	1500		
59			25	1500		
60			25	400		
61			25	200		
62			25	75		
63			25	75		
64			25	75		
65			25	75		
66			25	750		
67			25	200		
68			400	750		
69			25	750		
70			75	750		
71			25	75		
72			25	750		
73			25	400		
74			25	400		
75			25	200		
76			35	800		
77			30	875		
78			45	150		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			M. OCT	E. OCT		
START			L. OCT	M. OCT		
PEAK			NOV	L. OCT		
END			DEC	NOV		

REMARKS



NAME OF STREAM EFFINGHAM RIVER
 CONSERVATION DISTRICT 4 STATISTICAL AREA 23
 LOCATION OF MOUTH Flows SE. into N. end of Effingham Inlet, Clayoquot Dist.
 POSITION 49 125 SE
 LENGTH 7.2 km WIDTH 9.1 m DRAINAGE 38.9 km²
 COMPOSITION: BEDROCK 20% BOULDER 30% COARSE 30% FINE 10%
 SILT & SAND 5% UNCLASSIFIED 5%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.3 km
0.25 - 0.50	0.3 - 1.2 km
0.50 - 0.75	
0.75 - 1.00	1.2 - 2.4 km
>1.00	2.4 - 7.2 km

WETTED AREA 65500 m² SPAWNING AREA 26000 m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

Passable cascades and canyon at 4.0 km.

SPAWNING DISTRIBUTION

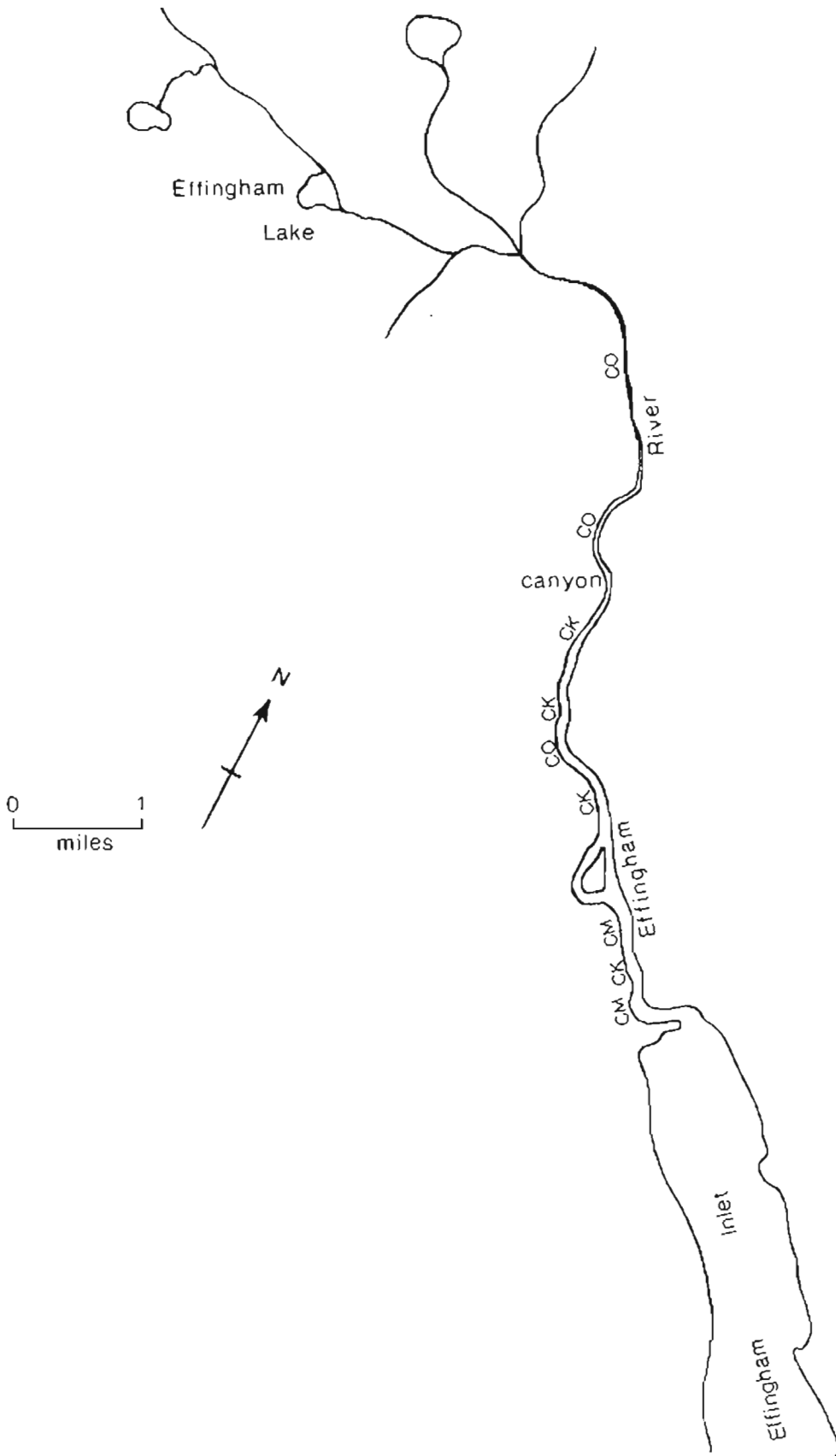
SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- to canyon at 4 km
COHO	- throughout
CHUM	- to 2.5 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	- throughout

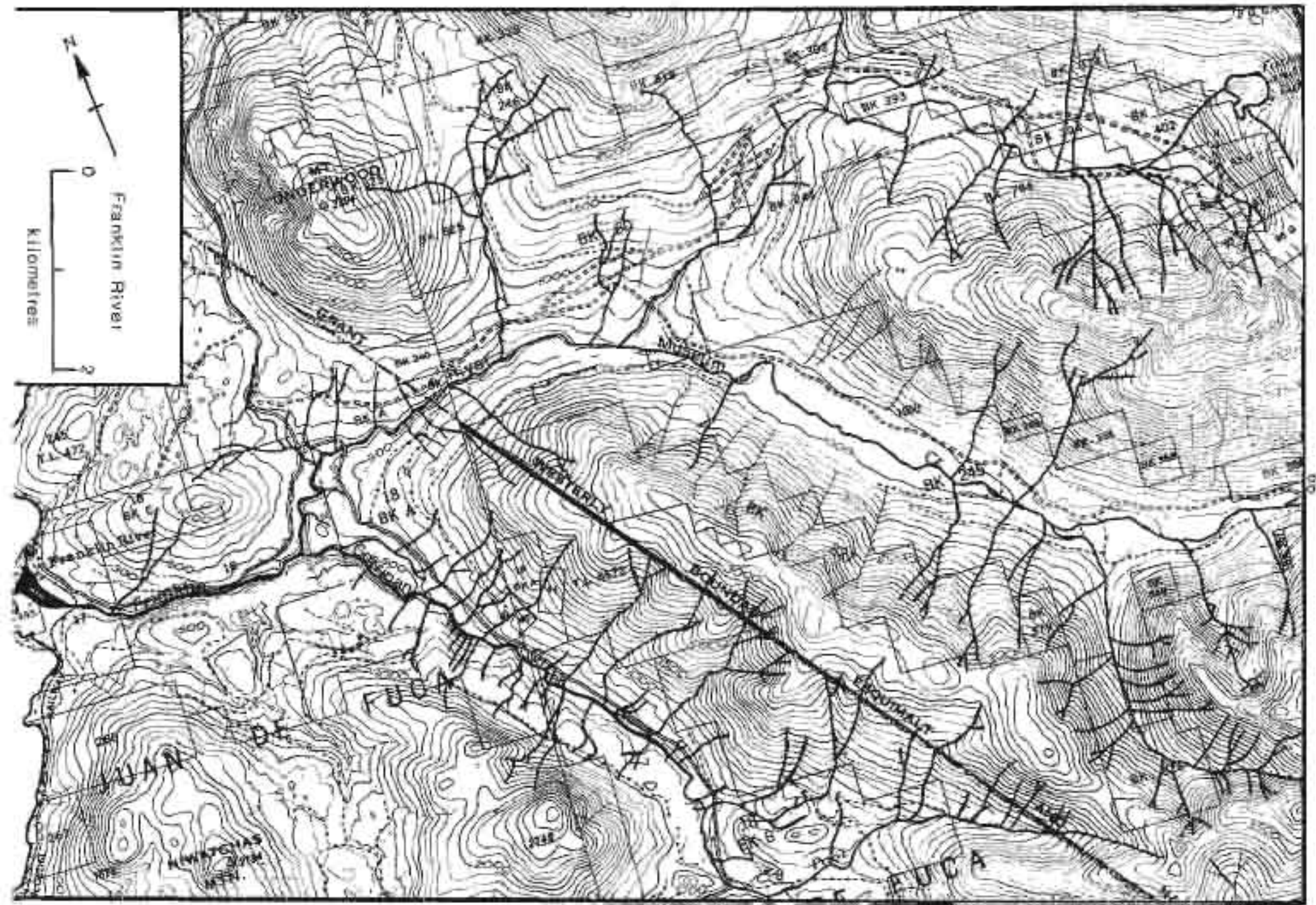
POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS _____

- 1971. Logging operations have stopped at present and a good regeneration of forest cover has been established.

Sketch of Effingham River Spawning Grounds (1969)





NAME OF STREAM FRANKLIN RIVER
 CONSERVATION DISTRICT 4 STATISTICAL AREA 23
 LOCATION OF MOUTH Flows W. into Sproat Narrows, Aiberni Inlet, Barclay Dist.
 POSITION 49 124 SW
 LENGTH 2.8 km WIDTH _____ m DRAINAGE 77,7 km²
 COMPOSITION: BEDROCK 25% BOULDER 25% COARSE 30% FINE 10%
 SILT & SAND _____ UNCLASSIFIED 10%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.3 km
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
>1.00	0.3 - 2.8 km

WETTED AREA _____ m² SPAWNING AREA _____ m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

Impassable 2.1 m and 3.7 m falls at 2.8 km.

Impassable falls at 0.5 km on Corrigan Creek.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- to falls at 2.8 km; mainly from 1.5 km to 2.8 km
COHO	- to falls at 2.8 km
CHUM	- lower 1.5 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	- to falls at 2.8 km

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

Approximately 3 km of good coho habitat exists above Corrigan Creek falls.

GENERAL REMARKS _____

- 1978. Logging in the watershed has had adverse effects on the stream. Most of the spawning gravel has been washed out into the estuary by freshets.



NAME OF STREAM (Frederick Creek)
 CONSERVATION DISTRICT 4 STATISTICAL AREA 23
 LOCATION OF MOUTH Flows N. into mouth of Sarita R., Numukamis Bay, Barclay Dist.
 POSITION 48 125 NE
 LENGTH 4 km WIDTH 6 m DRAINAGE 10.4 km²
 COMPOSITION: BEDROCK 20% BOULDER 20% COARSE 20% FINE 20%
 SILT & SAND 10% UNCLASSIFIED 10%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.8 km
0.25 - 0.50	
0.50 - 0.75	0.8 km - 1.2 km
0.75 - 1.00	
> 1.00	1.2 km - 4 km

WETTED AREA 24000 m² SPAWNING AREA 9600 m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) 13.3 (mean temp. for August 1971)

BARRIERS OR POINTS OF DIFFICULT ASCENT _____
Impassable 3 m and 7.6 m falls at 4 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to falls at 4 km
CHUM	- to 3 km; heaviest above 2.5 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS

- 1974. The early part of this stream's chum run appears to have spawned in the Sarita River due to low water conditions.
 - This stream drains Frederick Lake located at 6.4 km.

ESCAPEMENT RECORD FOR

(Frederick Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			200	400		
49			200	750		
50			400	1500		
51			200	200		
52			750	200		
53			200	200		
54			200	400		
55			75	400		
56			75	25		
57			200	200		
58			75	200		
59			75	200		
60			25	25		
61			200	200		
62			75	75		
63			25	25		
64			200	25		
65			75	200		
66			75	200		
67			200	3500		
68			200	3500		
69			25	3500		
70			200	400		
71			75	750		
72			25	750		
73			200	1500		
74			150	1000		
75			75	750		
76			70	2500		
77			90	2500		
78			120	10800		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE		L. OCT	M. OCT	
START		NOV	L. OCT	
PEAK		L. NOV	M. NOV	
END		DEC	L. NOV	

REMARKS



NAME OF STREAM (Henderson River, Anderson River)
 CONSERVATION DISTRICT 4 STATISTICAL AREA 23
 LOCATION OF MOUTH Flows SE. into Uchucklesit Inlet, NE. of Barkley Sd.,
Clayoquot Dist. POSITION 49 125 SE
 LENGTH 1 km WIDTH 36.6 m DRAINAGE 142.5 km²
 COMPOSITION: BEDROCK 20% BOULDER 30% COARSE 25% FINE 20%
 SILT & SAND 5% UNCLASSIFIED _____

PERCENT GRADIENT

0.00 - 0.25
0.25 - 0.50
0.50 - 0.75
0.75 - 1.00
> 1.00

WETTED AREA 36600 m² SPAWNING AREA 16500 m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	- in Henderson Lake and Clemens Creek
CHINOOK	- lower reaches
COHO	- throughout
CHUM	- lower reaches of Henderson River and Clemens Creek
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS

Henderson Lake: length = 16.9 km; width = 1.4 km; spawning area = 29300 m²
 Clemens Creek: length = 5.6 km; width = 13.7 m; wetted area = 76900 m²
 spawning area = 46000 m²; Composition = 5% bedrock, 15% boulder,
 40% coarse, 20% fine and 20% unclassified

- There has been active logging in this watershed since 1973.
- 1976. Artificial lake fertilization was started this year by the Fisheries Research Board to increase the sockeye population.



NAME OF STREAM HOLFORD CREEK
 CONSERVATION DISTRICT 4 STATISTICAL AREA 23
 LOCATION OF MOUTH Flows NW. into Holford Bay, Tzartus I., Barclay Dist.
 POSITION 48 125 NE
 LENGTH 0.4 km WIDTH 3 m DRAINAGE 3.9 km²
 COMPOSITION: BEDROCK 10% BOULDER 20% COARSE 50% FINE 10%
 SILT & SAND 10% UNCLASSIFIED _____

PERCENT GRADIENT

0.00 - 0.25	0 - 0.2 km
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
>1.00	0.2 - 0.4 km

WETTED AREA 1200 m² SPAWNING AREA 700 m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

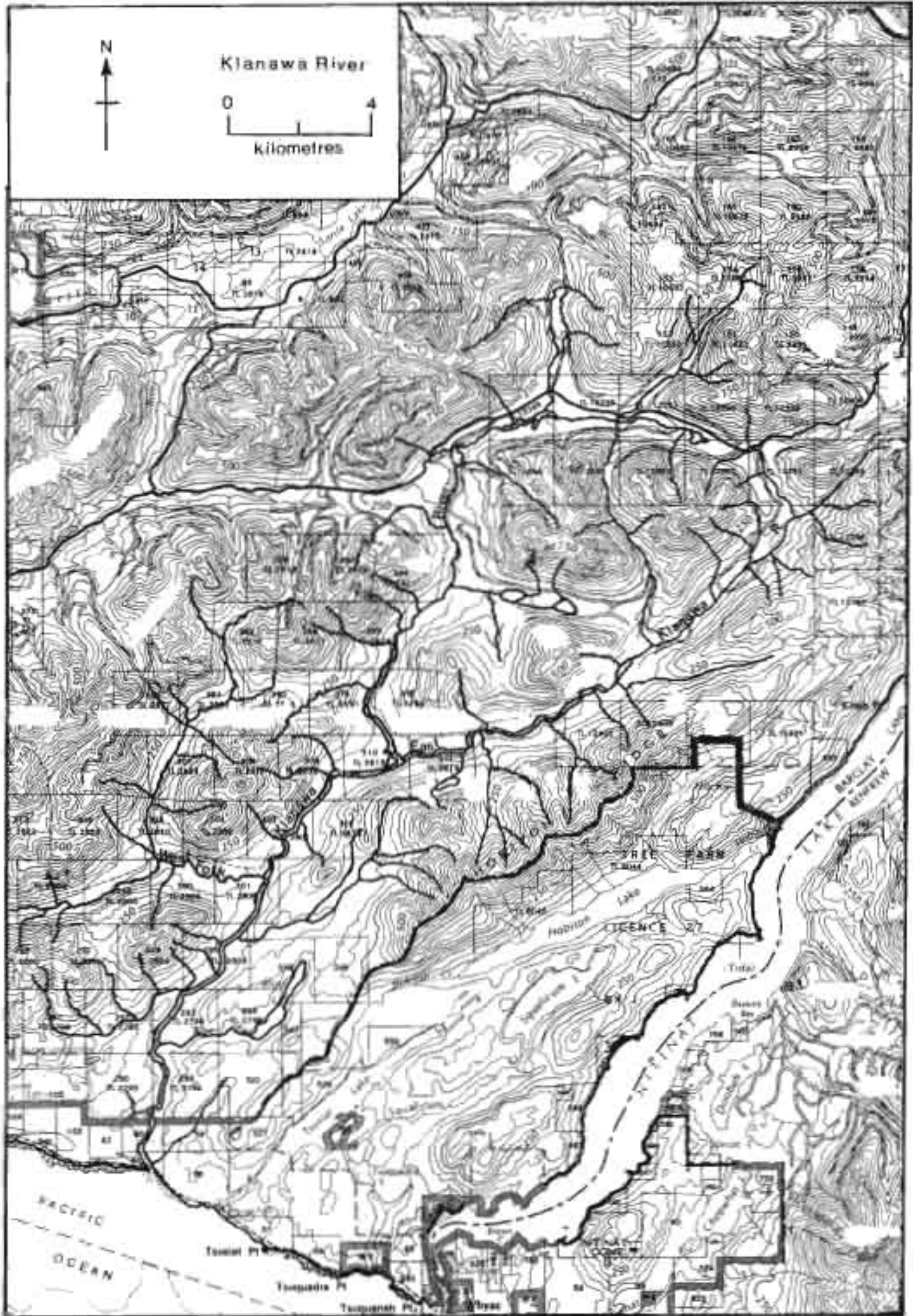
BARRIERS OR POINTS OF DIFFICULT ASCENT _____
Impassable falls at 0.4 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to falls at 0.4 km
CHUM	- to falls at 0.4 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS _____



NAME OF STREAM KLANAWA RIVER

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows SW. and S. into Pacific Ocean, W. of Nitinat L.,
Barclay Dist. POSITION 48 124 NW

LENGTH 22.5 km WIDTH 15.2 m DRAINAGE 168.4 km²

COMPOSITION: BEDROCK 15% BOULDER 20% COARSE 20% FINE 30%
SILT & SAND 10% UNCLASSIFIED 5%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.5 km
0.25 - 0.50	0.5 - 4.8 km
0.50 - 0.75	
0.75 - 1.00	4.8 - 16 km
>1.00	16 - 22.5 km

WETTED AREA 342000 m² SPAWNING AREA 171000 m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT

Impassable falls on east fork at 22.5 km from mouth of river.
Impassable 9 m falls on the north fork at 6.4 km from the mouth of river.
Passable slide on west fork at 9.6 km from the mouth of river.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- east fork and west fork
COHO	- to 22.5 km
CHUM	- lower reaches up to 11 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	- throughout

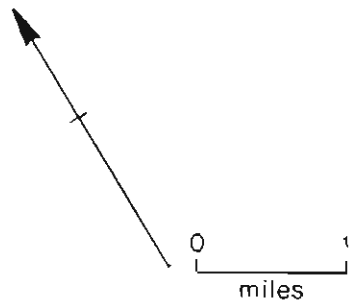
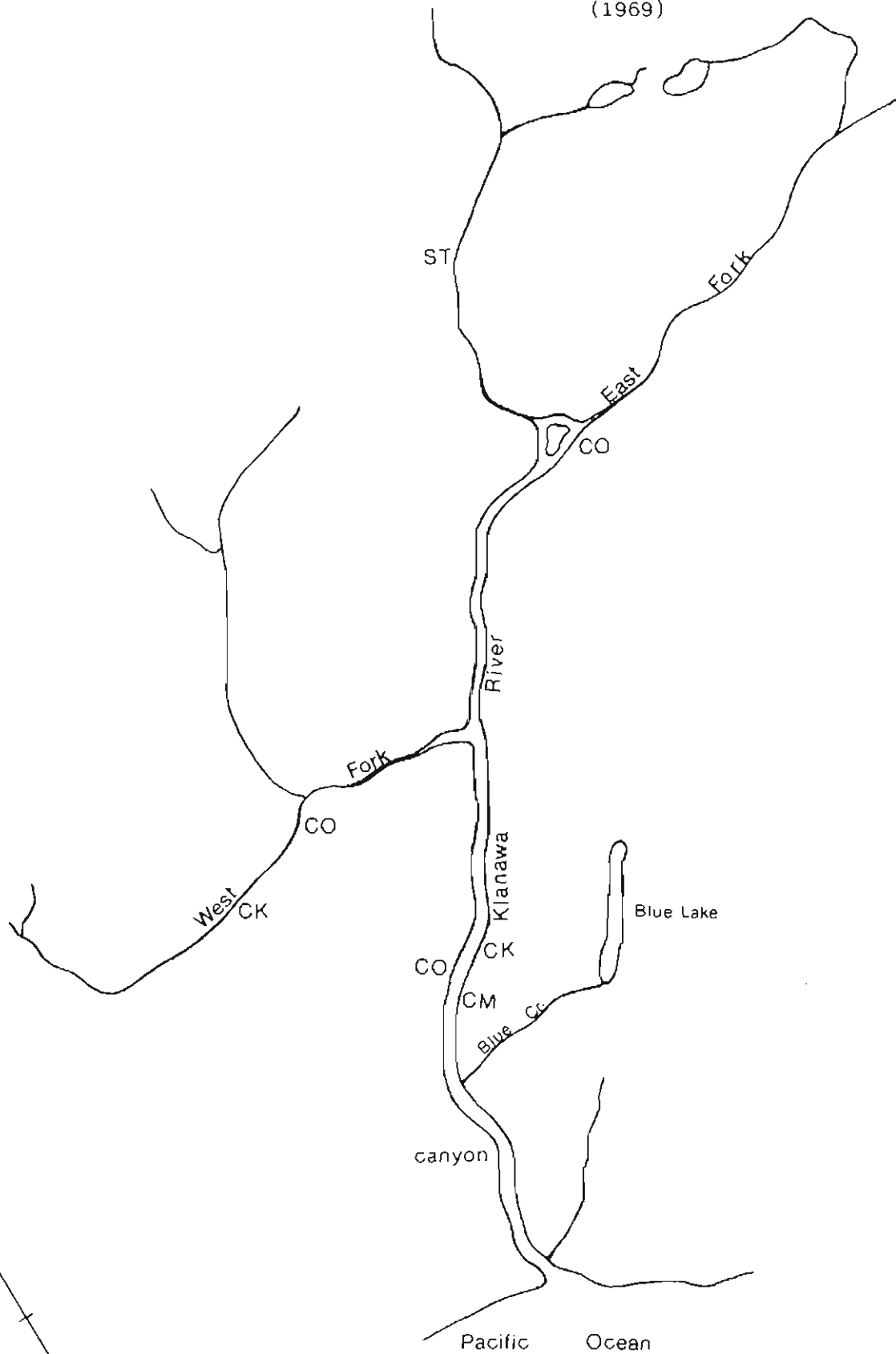
POTENTIAL OF INACCESSIBLE PORTION OF STREAM

There is approximately 5 km of good rearing area above the obstruction on the north fork.

GENERAL REMARKS

- 1968. This is a good salmon stream, however, logging is affecting run-off and erosion.
- 1974. Logging operations commenced in the upper watershed.
- Road construction in the watershed is creating heavy silting through slides and washouts.

Sketch of Klanawa River Spawning Grounds
(1969)





NAME OF STREAM _____ (Little Maggie River)
 CONSERVATION DISTRICT _____ 4 _____ STATISTICAL AREA _____ 23 _____
 LOCATION OF MOUTH _____ Flows E. into Maccoah Pass., Loudoun Chan., Barclay Dist. _____
 _____ POSITION _____ 48 125 NE _____
 LENGTH _____ 0.4 _____ km WIDTH _____ 2.7 _____ m DRAINAGE _____ 1.9 _____ km²
 COMPOSITION: BEDROCK _____ BOULDER _____ COARSE _____ 40% _____ FINE _____ 40%
 SILT & SAND _____ 10% _____ UNCLASSIFIED _____ 10% _____

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	throughout

WETTED AREA _____ 1100 _____ m² SPAWNING AREA _____ 900 _____ m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to 0.4 km
CHUM	- to 0.4 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS

- This is a small stream with good spawning gravel.
- The lower reaches of the stream were logged in the early 1950's.

ESCAPEMENT RECORD FOR

(Little Maggie River)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53						
54			25	750		
55			25	75		
56			25	25		
57			25	400		
58			25	400		
59			25	750		
60			25	200		
61			75	400		
62			25	75		
63			25	75		
64			25	75		
65			25	200		
66			75	750		
67			25	200		
68			75	200		
69			25	400		
70			25	75		
71			25	25		
72			75	750		
73			75	400		
74			25	150		
75			75	75		
76			90	800		
77			80	180		
78			70	50		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			OCT	OCT		
START			E. NOV	L. OCT		
PEAK			NOV	NOV		
END			DEC	NOV		

REMARKS



NAME OF STREAM LITTLE TOQUART CREEK
 CONSERVATION DISTRICT 4 STATISTICAL AREA 23
 LOCATION OF MOUTH Flows SE. into Toquart Bay, W. of Toquart R., Clavoquot
Dist. POSITION 49 125 SE
 LENGTH 3.2 km WIDTH 4.6 m DRAINAGE 11.7 km²
 COMPOSITION: BEDROCK 5% BOULDER 10% COARSE 20% FINE 40%
 SILT & SAND 15% UNCLASSIFIED 10%

PERCENT GRADIENT

0.00 - 0.25	0 - 1.6 km
0.25 - 0.50	
0.50 - 0.75	1.6 - 2.4 km
0.75 - 1.00	
>1.00	2.4 - 3.2 km

WETTED AREA 14700 m² SPAWNING AREA 8800 m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____
Impassable 6 m falls at 3.2 km.

SPAWNING DISTRIBUTION

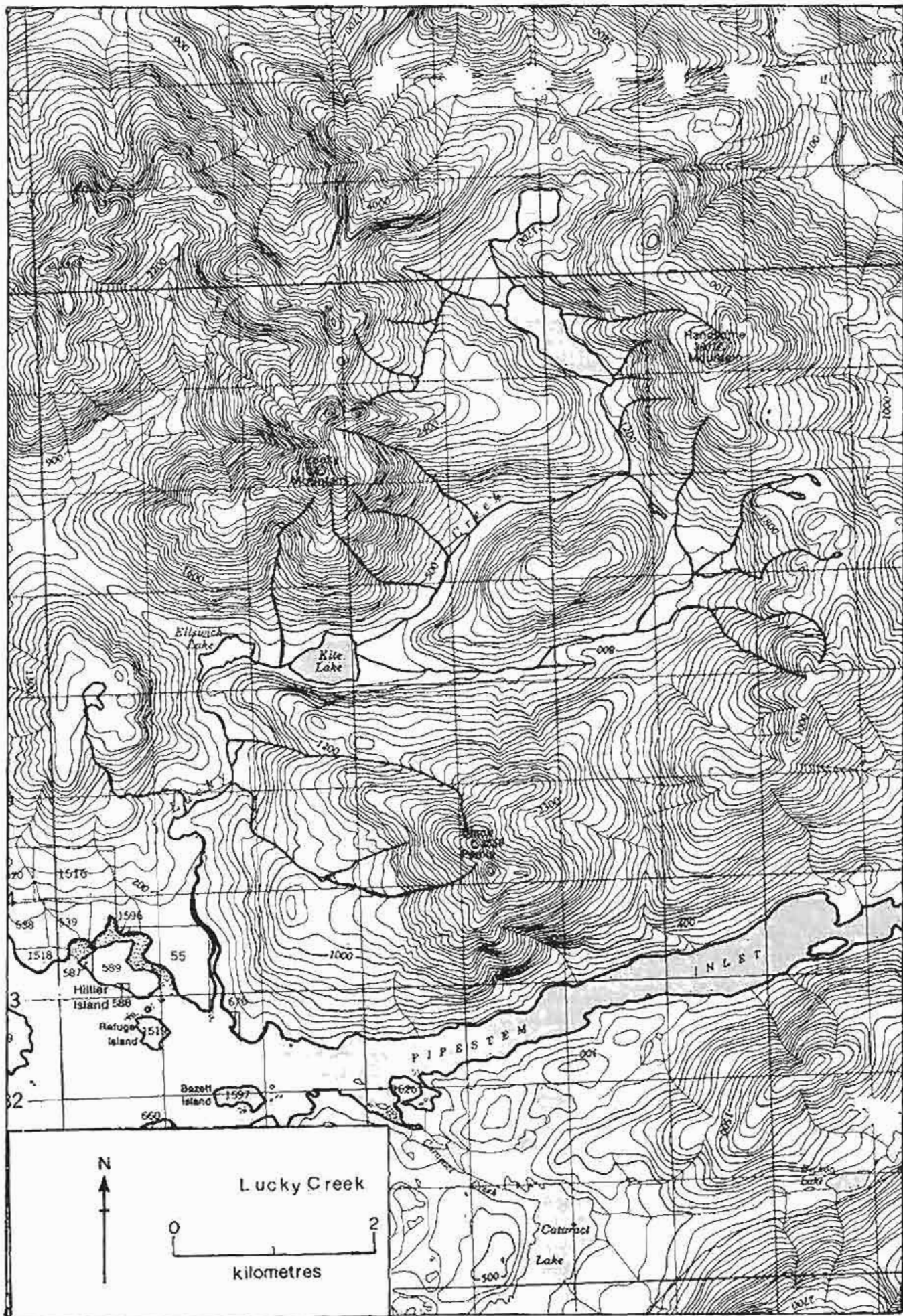
SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	to falls at 3.2 km
CHUM	through lower 1.5 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

There are 3.2 km of potential area above the falls.

Little Toquart Lake and associated swamp have good potential as rearing areas.

GENERAL REMARKS _____



NAME OF STREAM LUCKY CREEK
 CONSERVATION DISTRICT 4 STATISTICAL AREA 23
 LOCATION OF MOUTH Flows S. into Pipestem Inlet, W. of Effingham Inlet,
Clayoquot Dist. POSITION 49 125 SE
 LENGTH 0.8 km WIDTH 6 m DRAINAGE _____ km²
 COMPOSITION: BEDROCK 20% BOULDER 30% COARSE 30% FINE 10%
 SILT & SAND 10% UNCLASSIFIED _____

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA 4800 m² SPAWNING AREA 1900 m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

Passable 1.5 m falls at 0.5 km.

Impassable 6 m falls at 0.8 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to falls at 0.8 km
CHUM	- lower tidal section
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

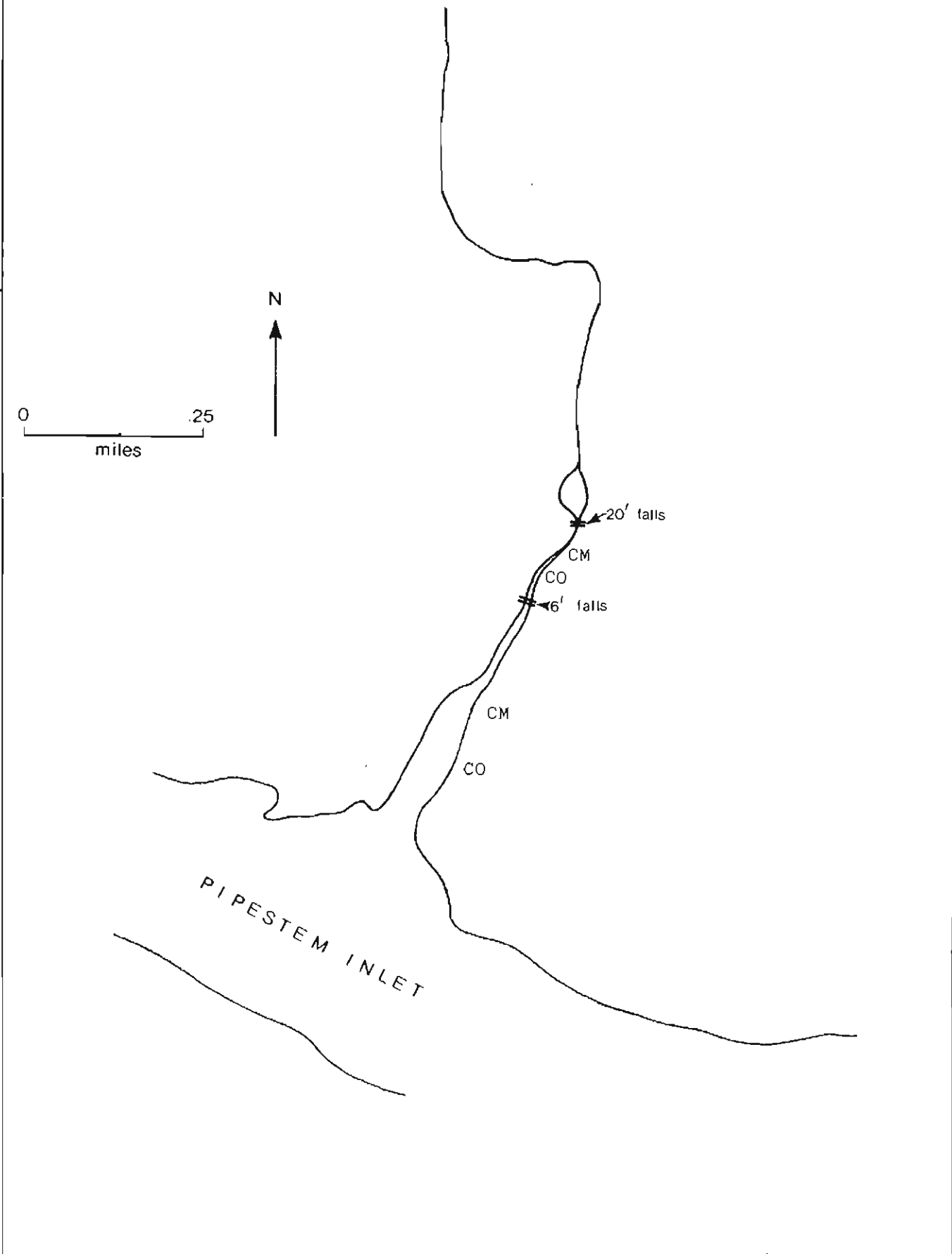
Above 0.8 km the stream is a mass of falls and canyons with little or no spawning gravel.

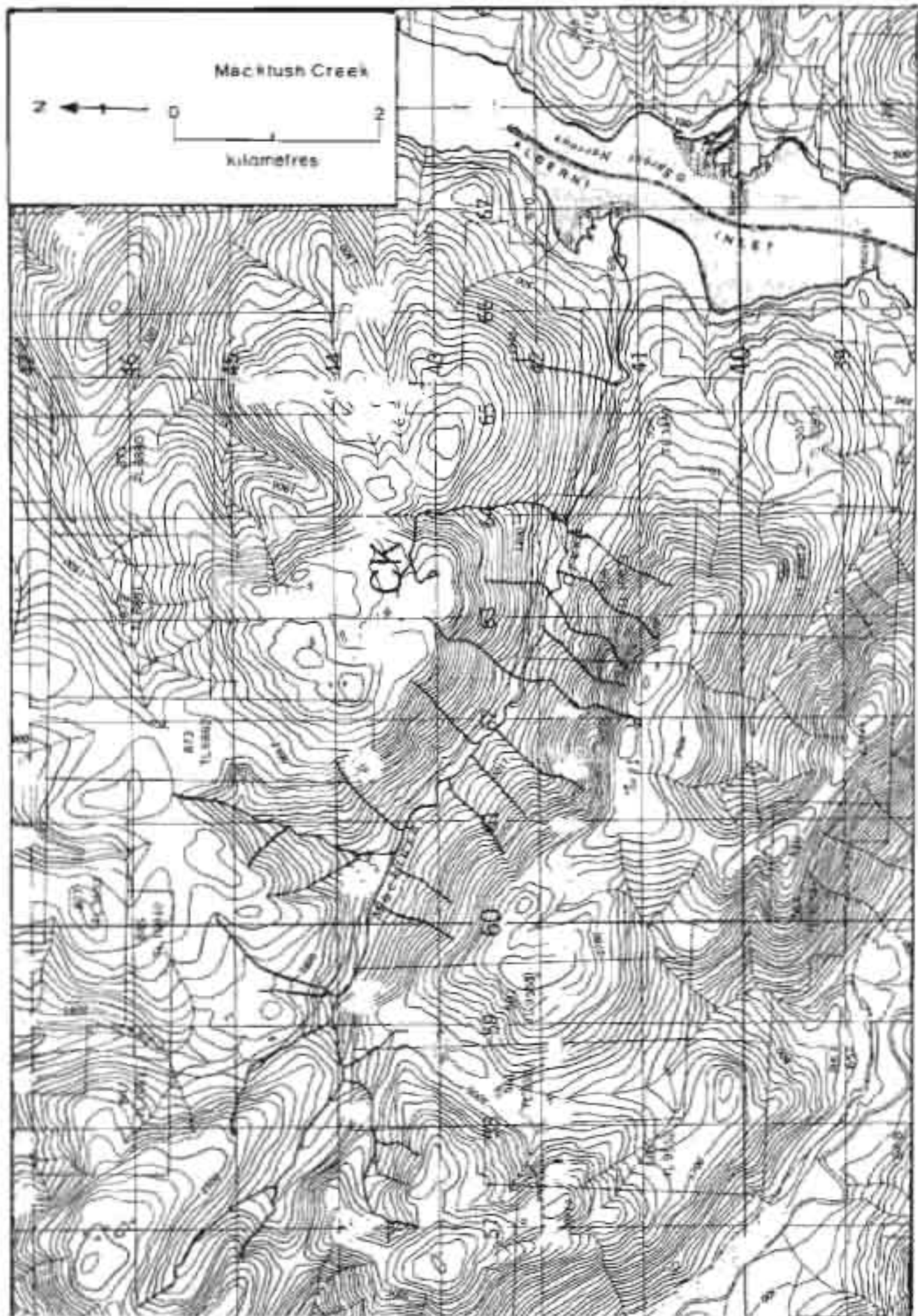
GENERAL REMARKS _____

- Most of stream utilized by salmon is in the tidal section.

- There is heavy predation by birds during low water periods.

Sketch of Lucky Creek Spawning Grounds
(1969)





NAME OF STREAM MACKTUSH CREEK (Macktoosh Creek)
 CONSERVATION DISTRICT 4 STATISTICAL AREA 23
 LOCATION OF MOUTH Flows E. into Sproat Narrows, Alberni Inlet, Clayoquot Dist.
 POSITION 49 124 SW
 LENGTH 8 km WIDTH 7.6 m DRAINAGE 23.3 km²
 COMPOSITION: BEDROCK 15% BOULDER 30% COARSE 30% FINE 10%
 SILT & SAND 10% UNCLASSIFIED 5%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.2 km
0.25 - 0.50	
0.50 - 0.75	0.2 - 0.8 km
0.75 - 1.00	
>1.00	0.8 - 4.8 km

WETTED AREA 60800 m² SPAWNING AREA 24300 m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- throughout; mainly 0.8 - 4.8 km
CHUM	- lower 1.6 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS

- 1974. Logging operations commenced in this watershed.
 - 1975. Silting of the stream occurs due to poor logging road construction.



NAME OF STREAM MAGGIE RIVER
 CONSERVATION DISTRICT 4 STATISTICAL AREA 23
 LOCATION OF MOUTH Flows SE. into Macoah Pass., S. of Toquart Bay, Barclay Dist.
 POSITION 48 125 NE
 LENGTH _____ km WIDTH 18.3 m DRAINAGE 25.9 km²
 *COMPOSITION: BEDROCK 30% BOULDER 20% COARSE 20% FINE 10%
 SILT & SAND 10% UNCLASSIFIED 10%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.8 km
0.25 - 0.50	
0.50 - 0.75	0.8 - 2.4 km; lake to 1.2 km on Draw Creek
0.75 - 1.00	
>1.00	1.2 - 3.2 km on Draw Creek

WETTED AREA * 14700 m² SPAWNING AREA * 4400 m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

Falls and cascades at 0.8 km bypassed with a fish ladder.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- throughout
CHUM	- lower 0.8 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS _____

* For the section of stream from 0 to 0.8 km.

Tributaries:

Draw Creek: length = 3.2 km width = 9 m wetted area = 28800 m²
 spawning area = 8400 m² (the stream is accessible for another 5 km)
 - The stream is a series of long riffles interconnected with deep pools.
 - A total of 8,500,000 sockeye eggs were planted in Draw Creek during the years 1929, 1930, 1931, 1933, 1937, 1938, 1939 & 1941 but no appreciable returns were observed.

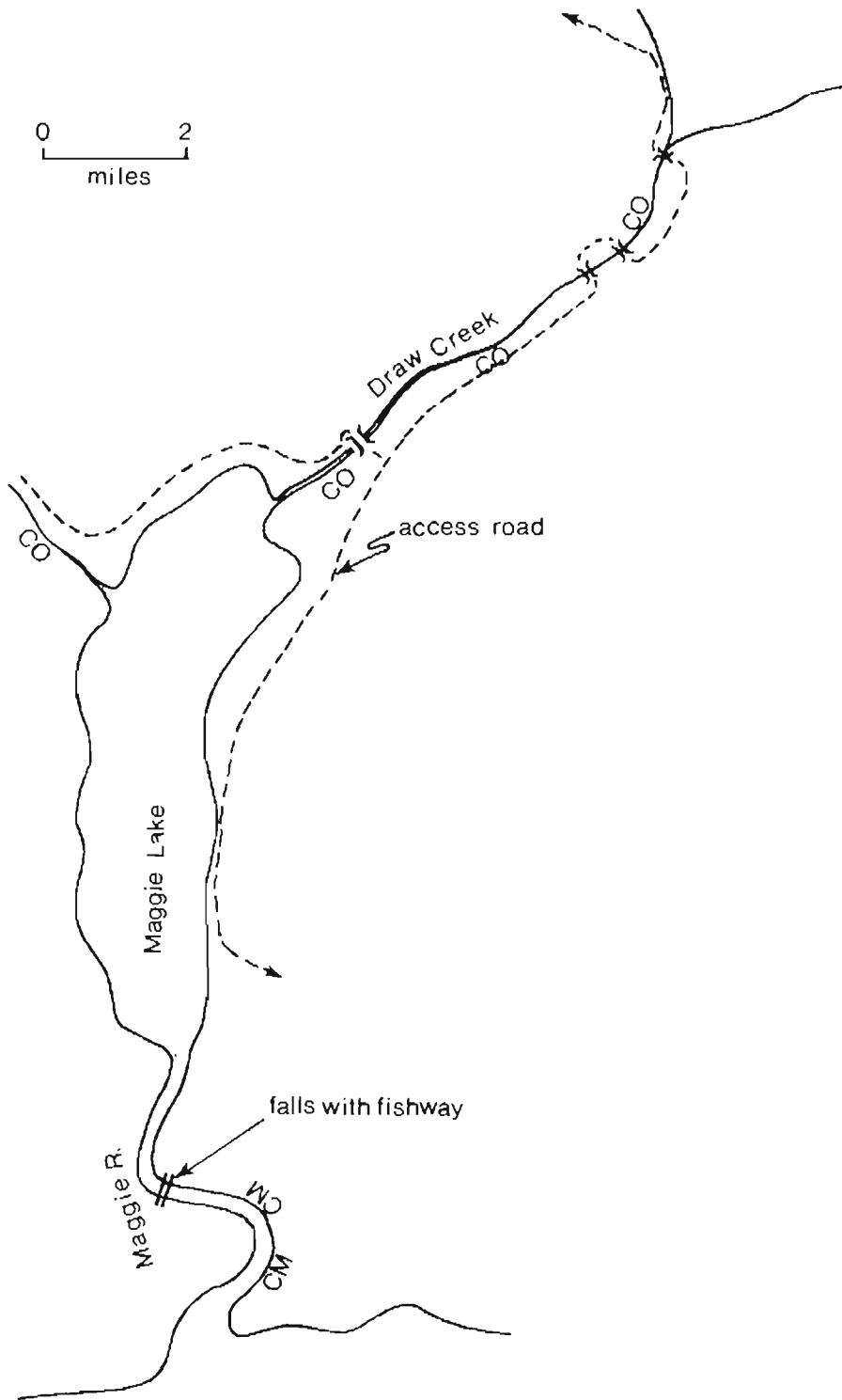
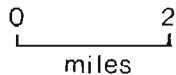
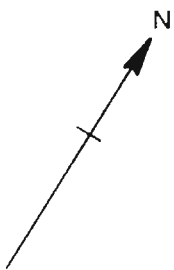
GENERAL REMARKS (cont.) - Maggie River

Side Creek: - contains small to medium sized gravel
- has approximately 4200 km² suitable spawning area

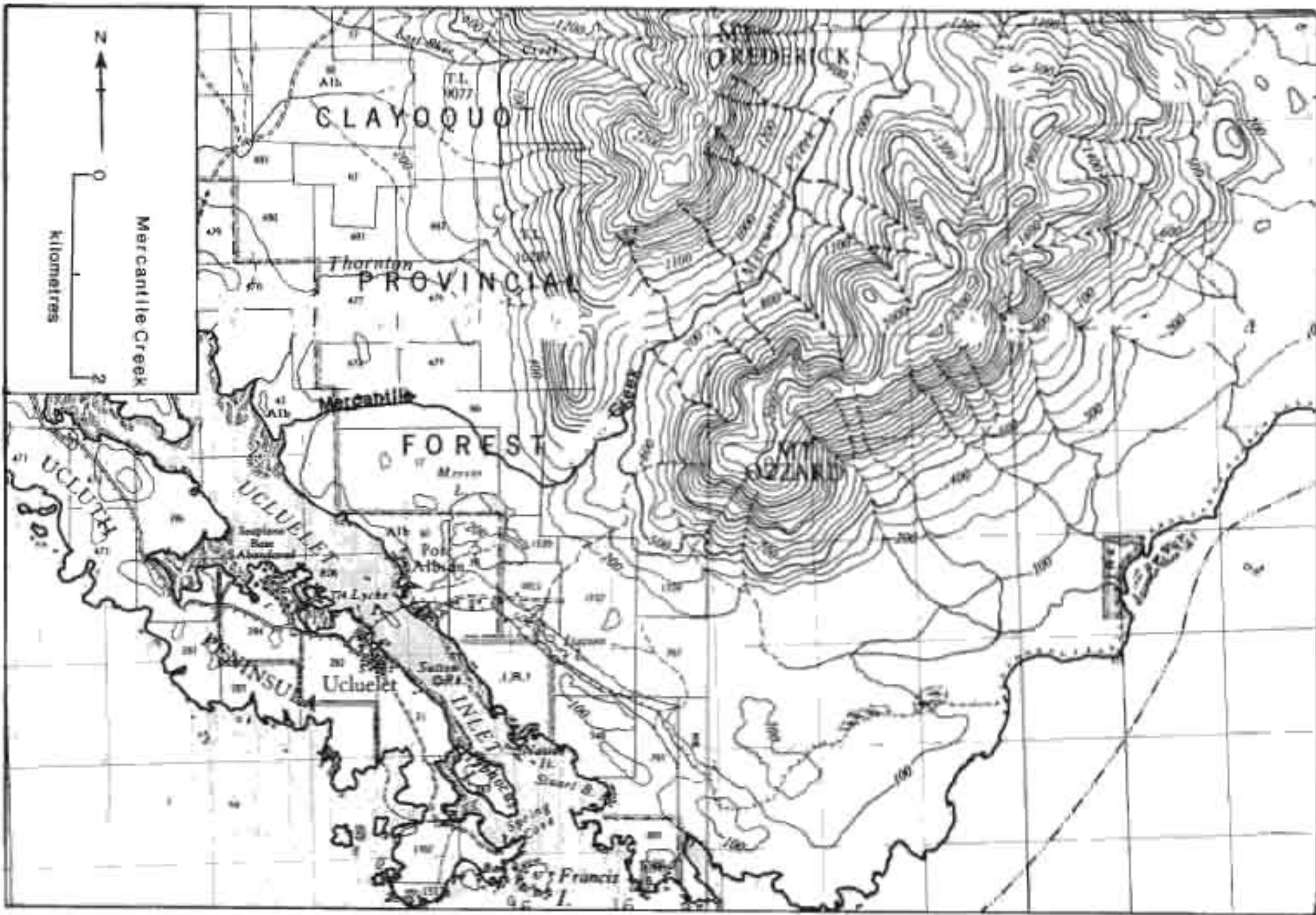
Maggie Lake: length = 3.5 km width = 0.8 km surface area = 2.8 km²
- The shoreline consists of bedrock and in most places drops off very steeply. The bottom is composed of mud and weed sections.
- There are small areas of suitable spawning gravel at the exit of the lake and where Side and Draw Creeks enter the lake.

- 1961 to 1969. Noranda Mining Co. had a large mine operating on Draw Creek.
- The fishway at 0.8 km on Maggie River is constantly in need of repairs.

Sketch of Maggie River Spawning Grounds
(1969)



MACOAH PASSAGE



NAME OF STREAM MERCANTILE CREEK (Mill Creek)
 CONSERVATION DISTRICT 4 STATISTICAL AREA 23
 LOCATION OF MOUTH Flows S. and W. into Ucluelet Inlet, Clayoquot Dist.
 POSITION 48 125 NW
 LENGTH 0.2 km WIDTH 9.1 m DRAINAGE 20.7 km²
 COMPOSITION: BEDROCK _____ BOULDER 10% COARSE 50% FINE 30%
 SILT & SAND 10% UNCLASSIFIED _____

PERCENT GRADIENT

0.00 - 0.25	throughout
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
>1.00	

WETTED AREA 1800 m² SPAWNING AREA 1400 m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

Impassable falls and dam at 0.2 km.

SPAWNING DISTRIBUTION

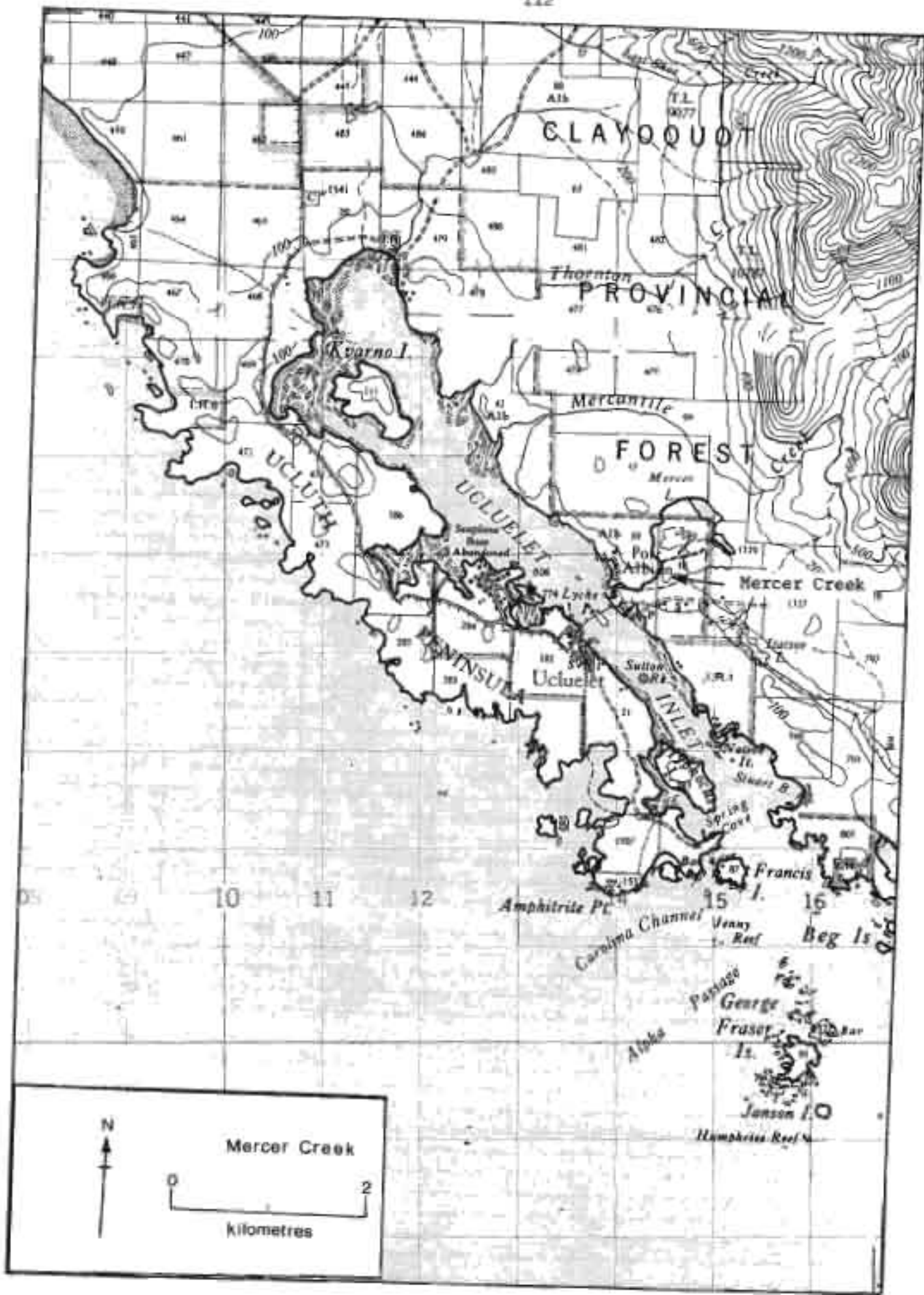
SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	<u>- to falls at 0.2 km</u>
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS

- This stream has very little good spawning area.

- The city of Ucluelet obtains it's water supply from this stream.



NAME OF STREAM _____ (Mercer Creek, Hillier Creek)

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows S. and W. into Ucluelet Inlet at Port Albion,
Clayoquot Dist. POSITION 48 125 NW

LENGTH 0.8 km WIDTH 6 m DRAINAGE 3.9 km²

COMPOSITION: BEDROCK 25% BOULDER 25% COARSE 20% FINE 10%
SILT & SAND 10% UNCLASSIFIED 10%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.3 km
0.25 - 0.50	
0.50 - 0.75	0.3 - 0.8 km
0.75 - 1.00	
> 1.00	0.8 - 1.9 km

WETTED AREA 4800 m² SPAWNING AREA 1400 m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	- to 0.8 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS _____

NAME OF STREAM NAHMINT RIVER
 CONSERVATION DISTRICT 4 STATISTICAL AREA 23
 LOCATION OF MOUTH Flows SE. through Nahmint L., into Alberni Inlet, Alberni
 Dist. _____ POSITION 49 124 SW
 LENGTH 4.8 km WIDTH _____ m DRAINAGE 198 km²
 COMPOSITION: BEDROCK _____ BOULDER _____ COARSE _____ FINE _____
 SILT & SAND _____ UNCLASSIFIED _____

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	0 - 4.8 km
0.75 - 1.00	4.8 - 11.9 km
>1.00	11.9 - 12.9 km

WETTED AREA 138000 m² SPAWNING AREA 117000 m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT

Impassable set of 3 cascades (1.8 m, 2.4 m & 1.5 m) over a distance of 182 m beginning at 4.8 km.

Impassable 1.8 m falls at 11.3 km.

Upper Nahmint River - Impassable series of falls beginning at 4.8 km above the lake.

Impassable falls at 12.9 km above the lake.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- to falls at 4.8 km
COHO	- to falls at 4.8 km
CHUM	to falls at 4.8 km; mainly in lower 2.4 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

Lower Nahmint River - Above the cascades at 4.8 km there is approximately 6.5 km of good spawning area (117000 m² wetted area; 41800 m² spawning area).

Upper Nahmint River - From the lake to 4.8 km there is approximately 25000 m of good spawning area. Above the falls at 4.8 km there is another 25000 m² of good spawning area over 8 km.

GENERAL REMARKS

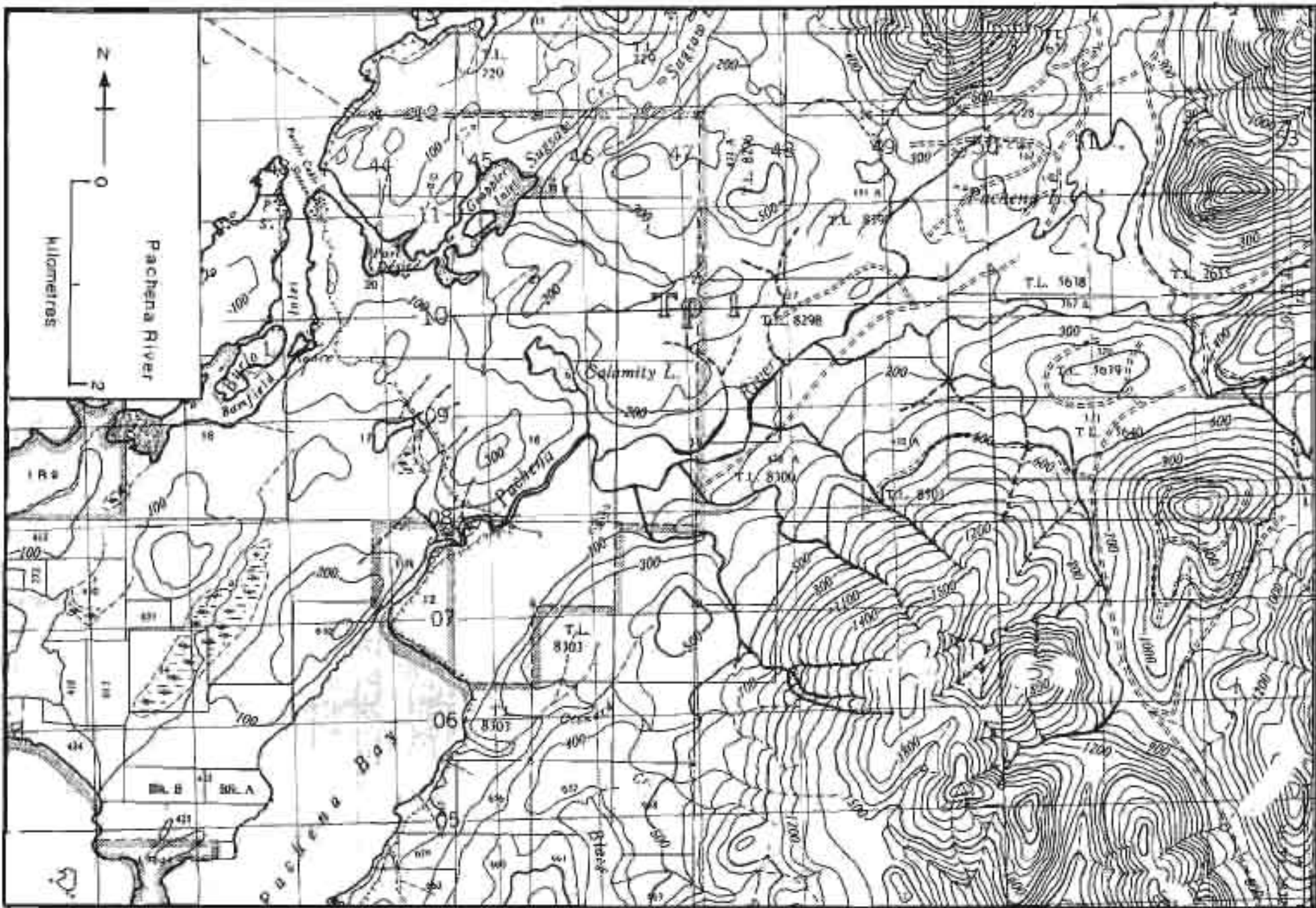
- 1974. A heavy sport fishery exists on this stream.

- 1977. Logging commenced in this watershed.

References:

Bond, K. W., M. J. Brownlee, T. W. Chamberlain and J. M. Lamb. 1975. Biophysical stream survey of the Upper Nahmint River and Nahmint Lake. Environment Canada, F.M.S. Tech. Rep. PAC/T-75-3. 31 pp.
(also contains a bibliography of studies done on the Nahmint River to 1975)

Narver, D. W. 1974. Age and size of Nahmint River summer steelhead in angler's catches, 1973. Pacific Biological Station, Nanaimo. Circular 97. 15 pp.



NAME OF STREAM PACHENA RIVER
 CONSERVATION DISTRICT 4 STATISTICAL AREA 23
 LOCATION OF MOUTH Flows SW. into Pachena Bay, SE. of Barkley Sd., Barclay Dist.
 POSITION 48 125 NE
 LENGTH 8.9 km WIDTH 9.1 m DRAINAGE 31 km²
 COMPOSITION: BEDROCK 5% BOULDER 5% COARSE 30% FINE 30%
 SILT & SAND 15% UNCLASSIFIED 15%

PERCENT GRADIENT

0.00 - 0.25	0 - 2.4 km
0.25 - 0.50	2.4 - 6.4 km
0.50 - 0.75	
0.75 - 1.00	
> 1.00	6.4 - 8.9 km

WETTED AREA 81000 m² SPAWNING AREA 49000 m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____
Impassable 3 m falls at 8.9 km.

SPAWNING DISTRIBUTION

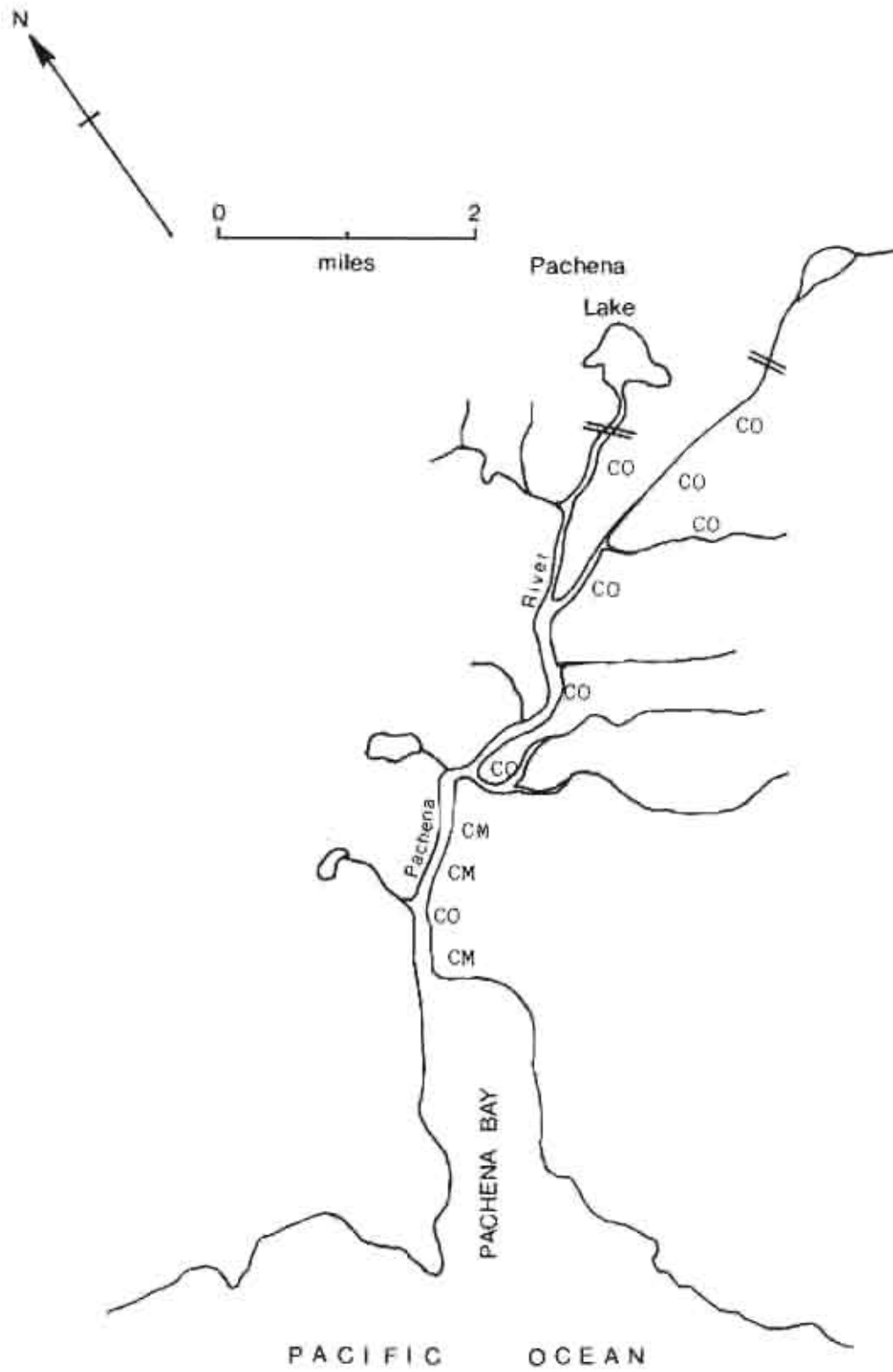
SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to falls at 8.9 km
CHUM	- to 4.8 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS

- The Pachena River watershed has been heavily logged and active logging is still going on.
- 1977. A single incubation box for coho was installed on the river by a local Bamfield group.
- This watershed has many inaccessible tributaries and swampy areas.

Sketch of Pachena River Spawning Grounds (1969)





NAME OF STREAM _____ (Pipestem River)
 CONSERVATION DISTRICT _____ 4 _____ STATISTICAL AREA _____ 23 _____
 LOCATION OF MOUTH _____ Flows SE. and W. into Pipestem Inlet, W. of Effingham Inlet,
 Clayoquot Dist. _____ POSITION _____ 49 125 SE _____
 LENGTH _____ 1.2 _____ km WIDTH _____ 4.6 _____ m DRAINAGE _____ 7.8 _____ km²
 COMPOSITION: BEDROCK _____ 10% _____ BOULDER _____ 15% _____ COARSE _____ 30% _____ FINE _____ 10%
 SILT & SAND _____ 15% _____ UNCLASSIFIED _____ 20% _____

PERCENT GRADIENT

0.00 - 0.25	0 - 0.3 km
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
>1.00	0.3 - 1.2 km

WETTED AREA _____ 5500 _____ m² SPAWNING AREA _____ 2200 _____ m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

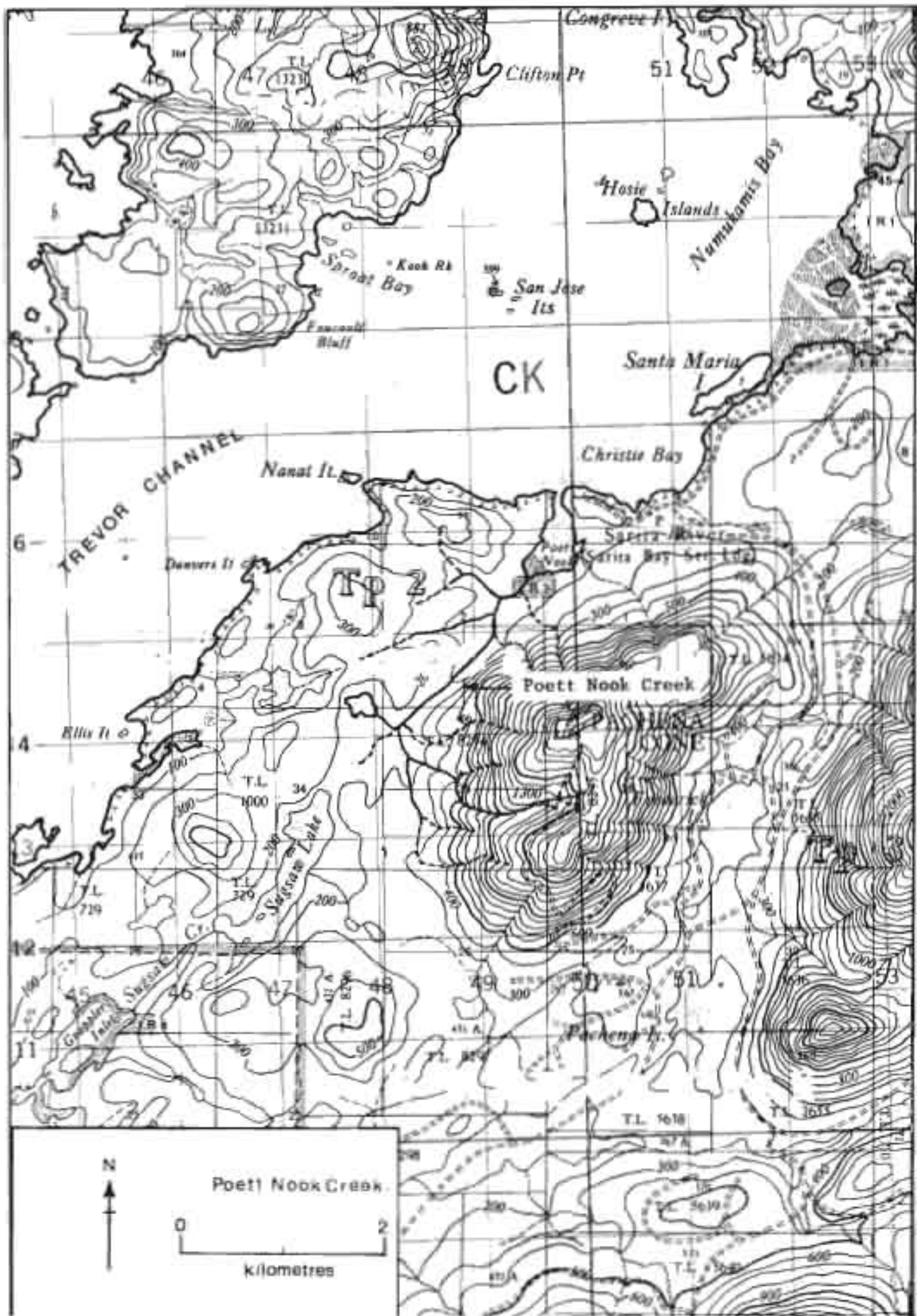
BARRIERS OR POINTS OF DIFFICULT ASCENT _____
 Impassable cascades and canyon at 1.2 km

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to cascades at 1.2 km
CHUM	- to cascades at 1.2 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS _____



NAME OF STREAM _____ (Poett Nook Creek)
 CONSERVATION DISTRICT _____ 4 _____ STATISTICAL AREA _____ 23
 LOCATION OF MOUTH _____ Flows NE, into Poett Nook, S. of Christie Bay, Barclay Dist.
 _____ POSITION _____ 48 125 NE
 LENGTH _____ 2.4 _____ km WIDTH _____ 4.6 _____ m DRAINAGE _____ 6.5 _____ km²
 COMPOSITION: BEDROCK _____ BOULDER _____ 10% _____ COARSE _____ 40% _____ FINE _____ 20%
 SILT & SAND _____ 20% _____ UNCLASSIFIED _____ 10%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.8 km
0.25 - 0.50	
0.50 - 0.75	0.8 - 2.4 km
0.75 - 1.00	
> 1.00	2.4 - 3.2 km

WETTED AREA _____ 11000 _____ m² SPAWNING AREA _____ 6600 _____ m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

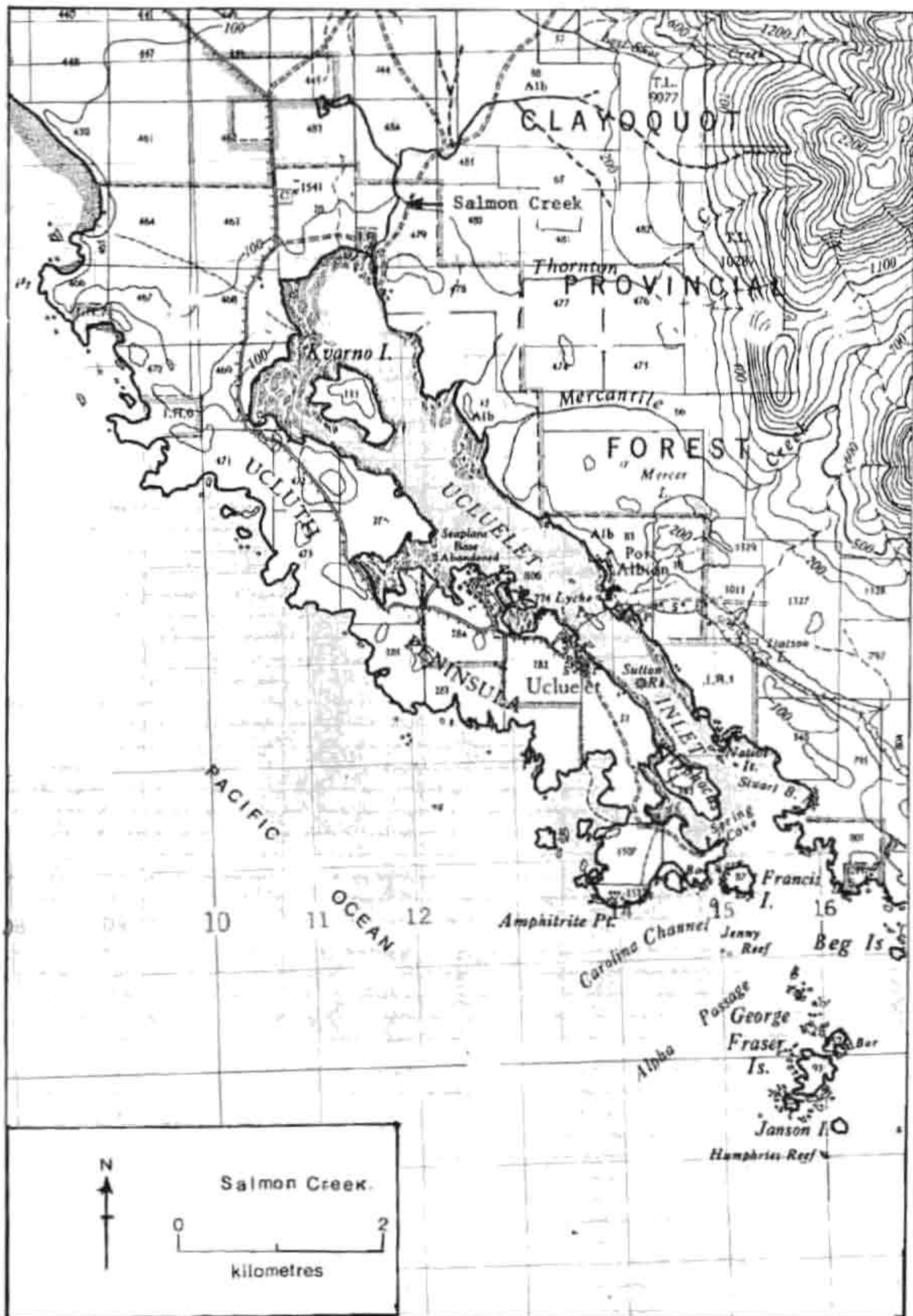
SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- throughout
CHUM	- lower 0.8 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS _____

Logging is taking place in this water shed.



NAME OF STREAM _____ (Salmon Creek)
 CONSERVATION DISTRICT _____ 4 _____ STATISTICAL AREA _____ 23 _____
 LOCATION OF MOUTH _____ Flows S. into Ueluelet Inlet, N. of Kvarno I., Clayoquot Dist.
 _____ POSITION _____ 48 125 NW
 LENGTH _____ 3.2 _____ km WIDTH _____ 3.7 _____ m DRAINAGE _____ 13 _____ km²
 COMPOSITION: BEDROCK _____ BOULDER _____ 20% _____ COARSE _____ 30% _____ FINE _____ 30%
 SILT & SAND _____ 15% _____ UNCLASSIFIED _____ 5% _____

PERCENT GRADIENT

0.00 - 0.25	0 - 1.6 km
0.25 - 0.50	1.6 - 3.2 km
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA _____ 11800 _____ m² SPAWNING AREA _____ 7100 _____ m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

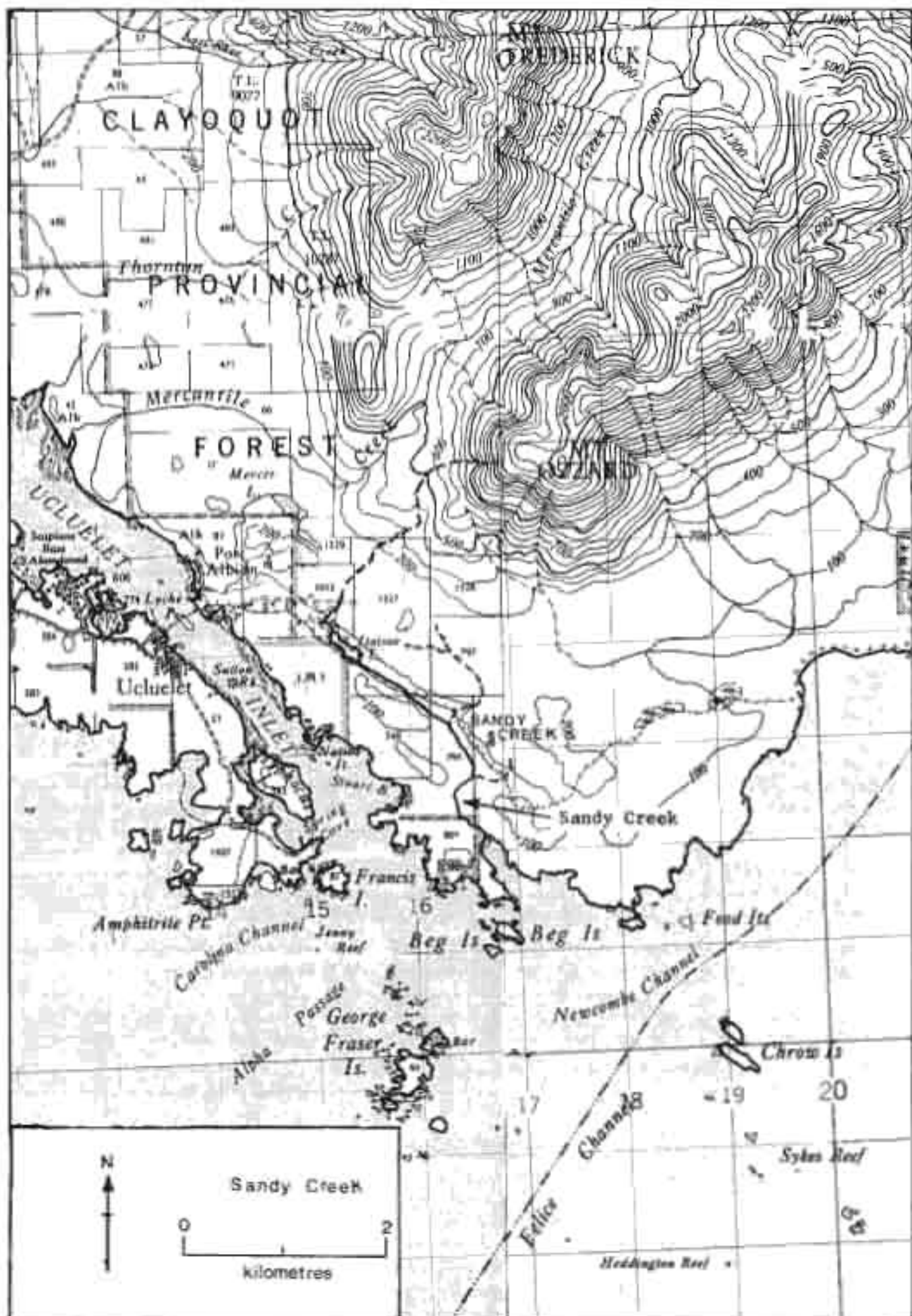
SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- throughout
CHUM	- to 2.4 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS _____

- 1976-77. This stream is being used as a source of chum salmon eggs for the
 Thornton Creek Hatchery.



NAME OF STREAM _____ (Sandy Creek)

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows SE. into Newcombe Chan., N. of Beg Is., Clayoquot Dist.

POSITION 48 125 NW

LENGTH 1 km WIDTH 4.6 m DRAINAGE 2.1 km²

COMPOSITION: BEDROCK 10% BOULDER 20% COARSE 30% FINE 20%

SILT & SAND 10% UNCLASSIFIED 10%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.3 km
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	0.3 - 1 km

WETTED AREA 4600 m² SPAWNING AREA 2300 m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

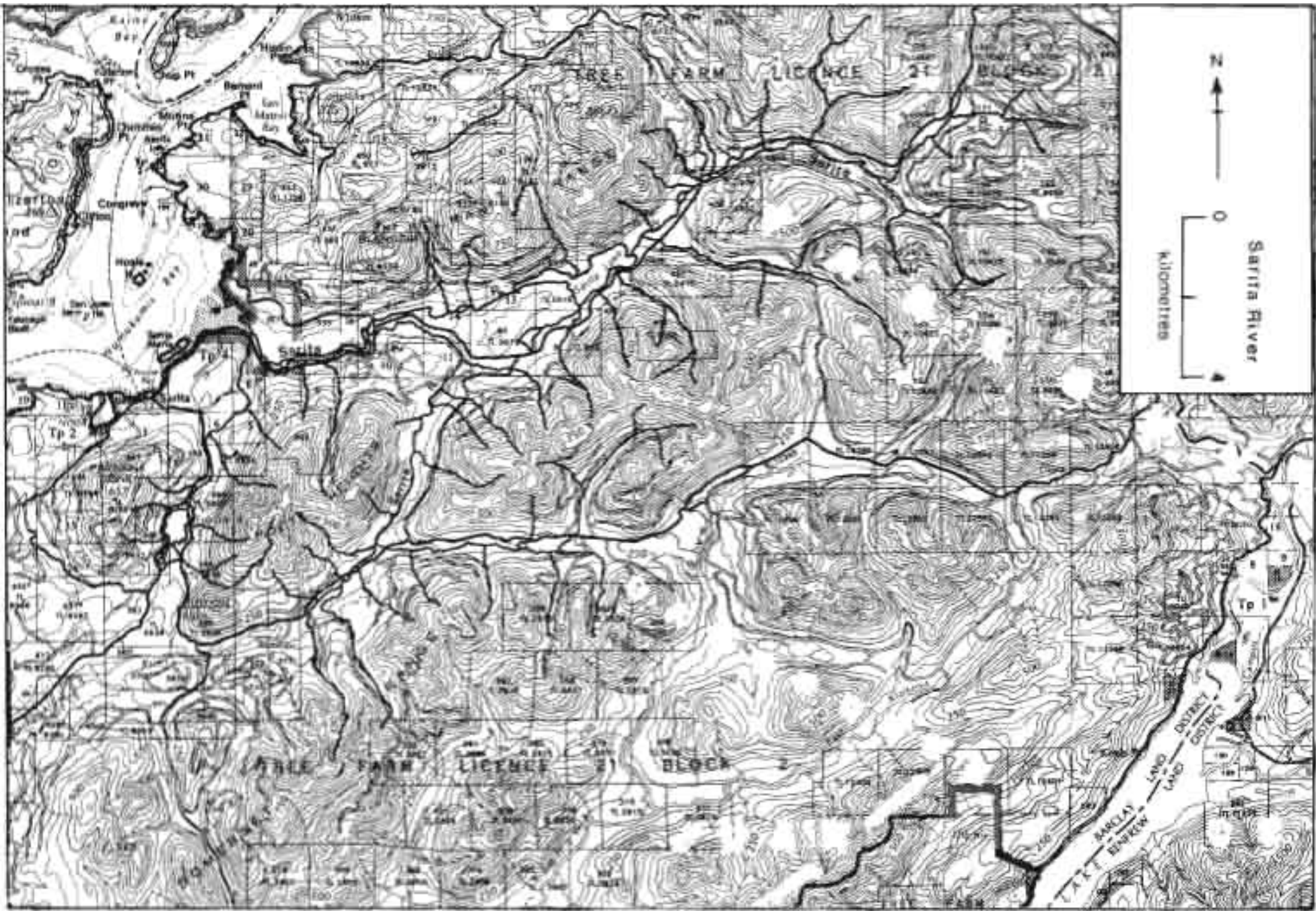
Impassable 3.7 m falls and dam at 1 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS _____



NAME OF STREAM SARITA RIVER
 CONSERVATION DISTRICT a STATISTICAL AREA 23
 LOCATION OF MOUTH Flows SW. and NW. into Numukamis Bay, E. of Tzarus Is.,
Barclay Dist. POSITION 48 125 NE
 LENGTH 9.7 km WIDTH _____ m DRAINAGE 160.6 km²
 COMPOSITION: BEDROCK _____ BOULDER _____ COARSE _____ FINE _____
 SILT & SAND _____ UNCLASSIFIED _____

PERCENT GRADIENT

0.00 - 0.25
 0.25 - 0.50
 0.50 - 0.75
 0.75 - 1.00
 > 1.00

WETTED AREA _____ m² SPAWNING AREA _____ m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____
Impassable falls at 9.7 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	to falls at 9.7 km
COHO	throughout
CHUM	mainly throughout north fork
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS

- 1949. This stream has very good spawning gravel.
 - 1974. Logging is taking place in this watershed.
 - 1978. This system under Salmon Enhancement studies.

ESCAPEMENT RECORD FOR SARITA RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48		200	750	35000		
49		400	1500	35000		
50		1500	400	35000		
51		75	15000	7500		
52		400	1500	15000	1500	
53		750	400	15000	N/O	
54		750	400	75000	25	400
55		200	400	15000	N/O	UNK
56		200	400	35000	400	400
57		200	200	35000	N/O	400
58		200	750	35000	750	400
59		200	400	15000	25	400
60		200	200	15000	200	400
61		400	750	7500		400
62		200	400	15000	25	400
63		750	200	7500		400
64		400	750	35000	N/O	750
65		750	400	15000		UNK
66		750	400	35000		UNK
67		400	1500	40000		UNK
68		750	1500	75000		UNK
69		400	750	65000		UNK
70		400	1500	35000		750
71	25	600	1500	50000		400
72		400	400	70000		UNK
73		75	1500	50000		
74		700	750	55000	100	UNK
75		400	1500	40000		
76		475	450	72000	250	
77		390	650	38000	N/O	
78		25	750	67000	40	
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE		L. SEP	OCT	E. OCT		
START		OCT	OCT	M. OCT		
PEAK		OCT	NOV	L. OCT		
END		L. OCT	DEC	L. NOV		

REMARKS



NAME OF STREAM (Sechart Creek)
 CONSERVATION DISTRICT 4 STATISTICAL AREA 23
 LOCATION OF MOUTH Flows SW. into Sechart Chan., N. of Broken Gp., Barclay Dist.
 POSITION 48 125 NE
 LENGTH 1.6 km WIDTH 3 m DRAINAGE 2.6 km²
 COMPOSITION: BEDROCK 15% BOULDER 10% COARSE 30% FINE 30%
 SILT & SAND 10% UNCLASSIFIED 5%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.2 km
0.25 - 0.50	
0.50 - 0.75	0.3 - 1.6 km
0.75 - 1.00	
>1.00	0.2 - 0.3 km

WETTED AREA 4800 m² SPAWNING AREA 2900 m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

Passable cascades at 270 m.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	throughout
CHUM	to cascades at 270 m
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS _____

ESCAPEMENT RECORD FOR

(Sechart Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48				200		
49				75		
50				750		
51				750		
52				25		
53				400		
54			25	400		
55			N/O	200		
56				25		
57				400		
58				200		
59				200		
60				25		
61				75		
62				25		
63				200		
64				75		
65			25	25		
66			25	400		
67				75		
68			75	200		
69			75	400		
70			25	200		
71				25		
72				200		
73			75	200		
74			75	75		
75			25	50		
76			30	140		
77			35	80		
78			30	100		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			OCT	OCT		
START			L. OCT	OCT		
PEAK			NOV	L. OCT		
END			DEC	NOV		

REMARKS



NAME OF STREAM _____ (Snug Basin Creek)
 CONSERVATION DISTRICT _____ 4 _____ STATISTICAL AREA _____ 23 _____
 LOCATION OF MOUTH _____ Flows S. into Snug Basin, head of Uchucklesit Inlet.
 Clayoquot Dist. _____ POSITION _____ 49 125 SE
 LENGTH _____ 1.6 _____ km WIDTH _____ 3.7 _____ m DRAINAGE _____ 5.2 _____ km²
 COMPOSITION: BEDROCK _____ 10% _____ BOULDER _____ 10% _____ COARSE _____ 35% _____ FINE _____ 35%
 SILT & SAND _____ 10% _____ UNCLASSIFIED _____

PERCENT GRADIENT

0.00 - 0.25	0 - 0.2 km
0.25 - 0.50	0.2 - 0.8 km
0.50 - 0.75	
0.75 - 1.00	
> 1.00	0.8 - 1.6 km

WETTED AREA _____ 5900 _____ m² SPAWNING AREA _____ 4100 _____ m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____
 Impassable 7.6 m falls at 1.6 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to falls at 1.6 km
CHUM	- to .5 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS _____

- Logging has been taking place in this watershed since 1954.



NAME OF STREAM SOMASS RIVER
 CONSERVATION DISTRICT 4 STATISTICAL AREA 23
 LOCATION OF MOUTH Flows SE. and S. through Alberni into Alberni Inlet.
 Alberni Dist. _____ POSITION 49 124 SW
 LENGTH _____ km WIDTH _____ m DRAINAGE 1284.6 km²
 COMPOSITION: BEDROCK _____ BOULDER _____ COARSE _____ FINE _____
 SILT & SAND _____ UNCLASSIFIED _____

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
>1.00	

WETTED AREA _____ m² SPAWNING AREA _____ m²

DISCHARGE (m³/s) mean = 117.5 max = 979.8 (75/11/05) min = 30.9 (76/10/07)

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____
see General Remarks

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	- to Sproat & Great Central Lakes and their tributaries
CHINOOK	- throughout the system
COHO	- throughout the system
CHUM	- in Somass River
PINK (ODD YEAR)	
PINK (EVEN YEAR)	- in Somass River
STEELHEAD	- throughout the system

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS

Watershed - General: The Somass River system includes the Somass River, the Sproat Lake and River system and the Great Central Lake - Stamp River system. The mainstem Somass is 7.2 km long and branches to form the Sproat and Stamp Rivers. Sproat Lake has an area of approximately 44 km². Its main tributary is the Taylor River. With the aid of a fishway, the Sproat River system is accessible for 48 km.

Great Central Lake has an area of approximately 52 km². It is fed mainly by the Drinkwater and McBride Rivers and drained by the Stamp River. The main tributary to the Stamp River is the Ash River. With the aid of fishways, the Great Central Lake system is accessible for 55 km.

The Somass River system also has approximately 320 km of smaller tributaries

GENERAL REMARKS (cont.) - Somass River

which support salmon populations.

Special Facilities

- Sproat River falls are located at approximately 2 km (immediately downstream of the highway bridge). In 1903 some rock blasting was done to improve salmon migration. In 1951, a vertical slot fishway was constructed. It is 49 m long and has 15 baffles.
- In 1927 a fishway was constructed at the Stamp River falls located at approximately 8 km. In 1954, this was replaced with a vertical slot fishway which is 149 m long and has 37 baffles.
- Great Central Lake dam at the head of Robertson Creek channel was bypassed with a 19 baffle vertical slot fishway constructed in 1957 by MacMillan Bloedel Ltd.
- In 1960, the Robertson Creek spawning channel was opened. The purpose of the channel was to a) work towards a solution of fisheries problems associated with hydro-electric power development, b) increase coho and chinook runs to Robertson Creek, and c) to introduce runs of pink salmon to the Somass River system. In the past few years it has mainly become a research - hatchery style facility directed towards the enhancement of coho, chinook and steelhead.
- In 1970, the Fisheries Research Board of Canada began a lake enrichment program on Great Central Lake to increase the sockeye production.

References - Great Central Lake

Barraclough, W. E. and D. Robinson. 1972. The fertilization of Great Central Lake. III. Effect on juvenile sockeye salmon. U. S. Nat. Mar. Fish. Serv. Fish. Bull. 70: 37 - 48.

LeBrasseur, R. J. and O. D. Kennedy. 1972. The fertilization of Great Central Lake. II. Zooplankton standing stock. U. S. Nat. Mar. Fish. Serv. Fish. Bull. 70: 25- 36.

LeBrasseur, R. J., C. D. McAllister, W. E. Barraclough, O. D. Kennedy, J. Manzer, D. Robinson and K. Stevens. 1978. Enhancement of sockeye salmon (*Oncorhynchus nerka*) by lake fertilization in Great Central Lake: summary report. J. Fish. Res. Bd. Can. 35(12): 1580 - 1596.

(The paper includes a complete bibliography on studies related to the Great Central Lake fertilization program.)

Parsons, T. R., K. Stephens and M. Takahashi. 1972. The fertilization of Great Central Lake. I. Effect on primary production. U. S. Nat. Mar. Fish. Serv. Fish. Bull. 70: 13- 23.

Somass River - General

- 1956. Lampreys are present in the river in large numbers.
- 1963. Heavy logging activities are being carried out in the watershed.
- 1967. Pulp mill effluent and sewage from the city of Port Alberni are seriously polluting the Somass River estuary.
- 1976. There was a major fish kill in Kitsucksis Creek following a heating fuel spill.
- 1978. Factors which are causing a strain on this watershed include: logging (past & present), water use for industry and domestic uses, illegal fishing and industrial activity in the estuary area.
- 1978. There were severe low water levels this year. A concrete dam was constructed on the Sproat River to channelize a sufficient flow through the

GENERAL REMARKS (cont.) - Somass River

fishway.

- 1978. A logging-truck accident resulted in the dumping of approximately 115 litres of diesel fuel into the Taylor River.

References:

- Canada, Dept. of Fisheries. 1957. Salmon spawning ground survey on the Somass River system - 1956. 35 pp.
- Canada, Dept. of Fisheries. 1960. Descriptive notes on other fish facilities on the Somass River system. 2pp.
- Ellis, D. V. 1962. Interim report on the ecology and behaviour of juvenile salmonids in the Somass River system, British Columbia. Nanaimo, Fish. Res. Bd. Can. MS Rept. 720. 12 pp.
- Kask, B. A. and Robert R. Parker. 1972. Observations on juvenile chinook salmon in the Somass River estuary Port Alberni, B. C. Fish. Res. Bd. Can. Tech. Rept. 308. 15 pp.

ESCAPEMENT RECORD FOR SOMASS RIVER

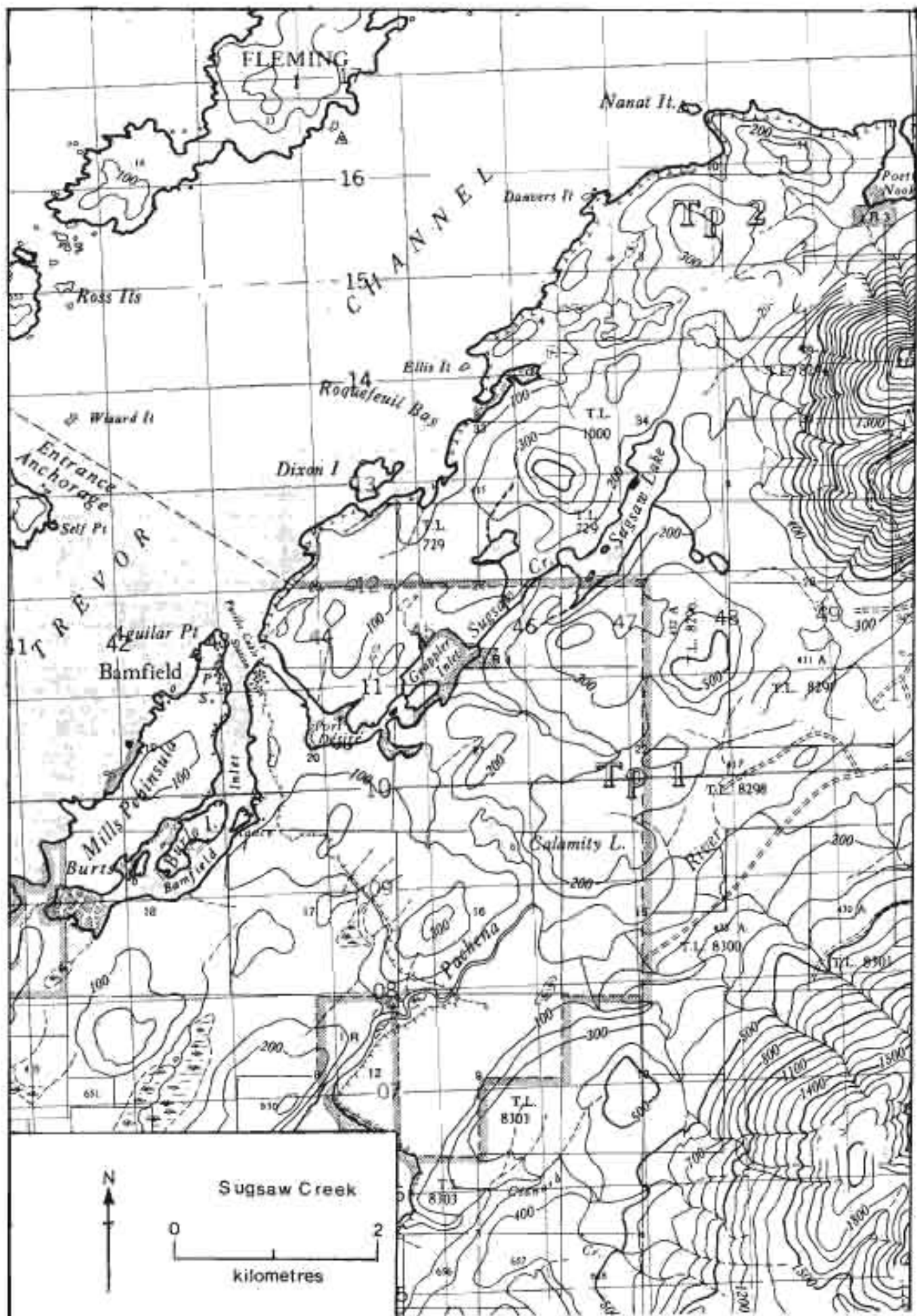
YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48	50000	7500	40000	750		400
49	200000	7500	15000	1500		750
50	35000	7500	35000	7500		1500
51	100000+	7500	35000	15000		750
52	15000	7500	100000+	750		1500
53	35000	7500	35000	7500		1500
54	35000	7500	35000	7500		3500
55	35000	7500	35000	3500		3500
56	7500	15000	35000	1500	75	3500
57	100000+	7500	15000	7500		3500
58	35000	15000	35000	7500	400	3500
59	35000	7500	35000	3500	N/O	3500
60	35000	7500	15000	1500	400	3500
61	35000	7500	35000	3500	7	3500
62	35000	7500	35000	3500	750	3500
63	35000	7500	35000	1500	3500	3500
64	35000	15000	35000	750	750	3500
65	35000	7500	35000	1500	3500	3500
66	75000	7500	75000	1500	1500	UNK
67	75000	15000	75000	1500	200	UNK
68	99000	12500	60000	3500	400	UNK
69	115000	13000	35000	2500	25	UNK
70	36000	8500	120000	3000	100	1500
71	67000	13500	85000	1500	200	1500
72	137000	9000	30000	4000	400	UNK
73	261000	11000	130000	7000		
74	93000	12500	125000	3500	400	UNK
75	191000	15000	40000	750	100	
76	148322	13000	35000	4500	500	UNK
77	293000	12300	31200	500	N/O	UNK
78	151978	9000	32000	300	N/O	UNK
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE	MAY	AUG	AUG	L. OCT	JUL	
START	L. OCT	OCT	OCT	L. OCT	SEP	
PEAK	NOV	NOV	NOV	NOV	SEP	
END	L. NOV	DEC	DEC	NOV	OCT	

REMARKS

The above escapements include the tributaries to the Somass River.



NAME OF STREAM SUGSAW CREEK (Grappler Creek)
 CONSERVATION DISTRICT 4 STATISTICAL AREA 23
 LOCATION OF MOUTH Flows SW. into Grappler Inlet, E. of Bamfield Inlet,
Barclay Dist. POSITION 48 125 NE
 LENGTH 0.6 km WIDTH 2.4 m DRAINAGE 6.5 km²
 COMPOSITION: BEDROCK 10% BOULDER 10% COARSE 30% FINE 30%
 SILT & SAND 10% UNCLASSIFIED 10%

PERCENT GRADIENT

0.00 - 0.25 | 0 - 0.3 km

0.25 - 0.50

0.50 - 0.75

0.75 - 1.00

> 1.00 | 0.3 - 0.6 km

WETTED AREA 1400 m²SPAWNING AREA 900 m²DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Impassable 9.1 m falls at 0.6 km.

SPAWNING DISTRIBUTION

SPECIES

SECTION OF STREAM USED

SOCKEYE

CHINOOK

COHO

- to falls at 0.6 km

CHUM

- to falls at 0.6 km

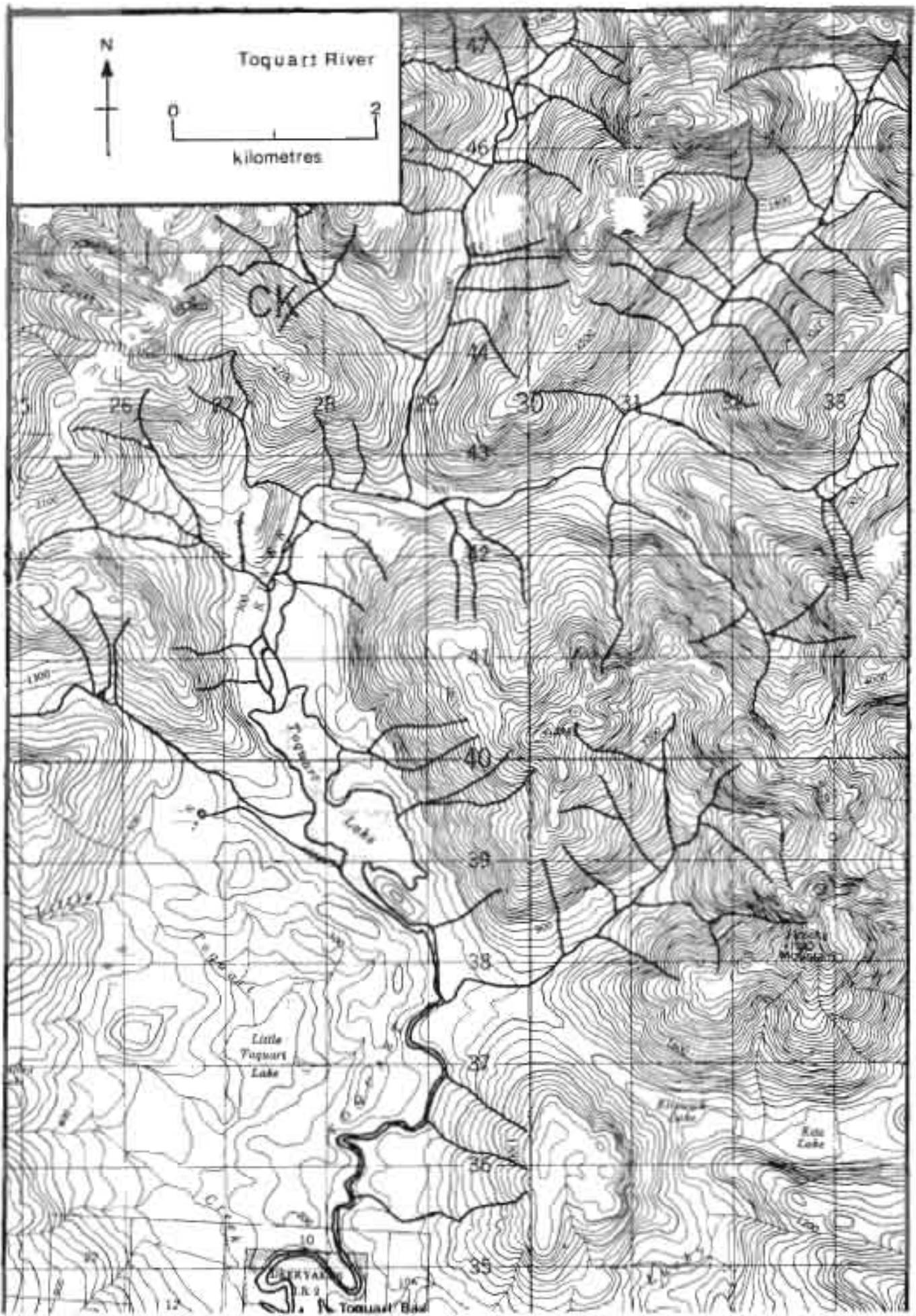
PINK (ODD YEAR)

PINK (EVEN YEAR)

STEELHEAD

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS



NAME OF STREAM TOQUART RIVER
 CONSERVATION DISTRICT 4 STATISTICAL AREA 49 125 SE
 LOCATION OF MOUTH Flows S. into Toquart Bay, Clayoquot Dist.
 POSITION 49 125 SE
 LENGTH 11.6 km WIDTH 9 - 18 m DRAINAGE 51.8 km²
 COMPOSITION: BEDROCK 15% BOULDER 15% COARSE 20% FINE 30%
 SILT & SAND 10% UNCLASSIFIED 10%

PERCENT GRADIENT

0.00 - 0.25	0 - 2.4 km; 6.4 - 8.5 km
0.25 - 0.50	2.4 - 4 km; 4.8 - 6.4 km
0.50 - 0.75	
0.75 - 1.00	
> 1.00	4 - 4.8 km; 8.5 - 11.6 km

WETTED AREA 157000 m² SPAWNING AREA 78000 m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

Passable rock slide and cascades at 4 km.

SPAWNING DISTRIBUTION

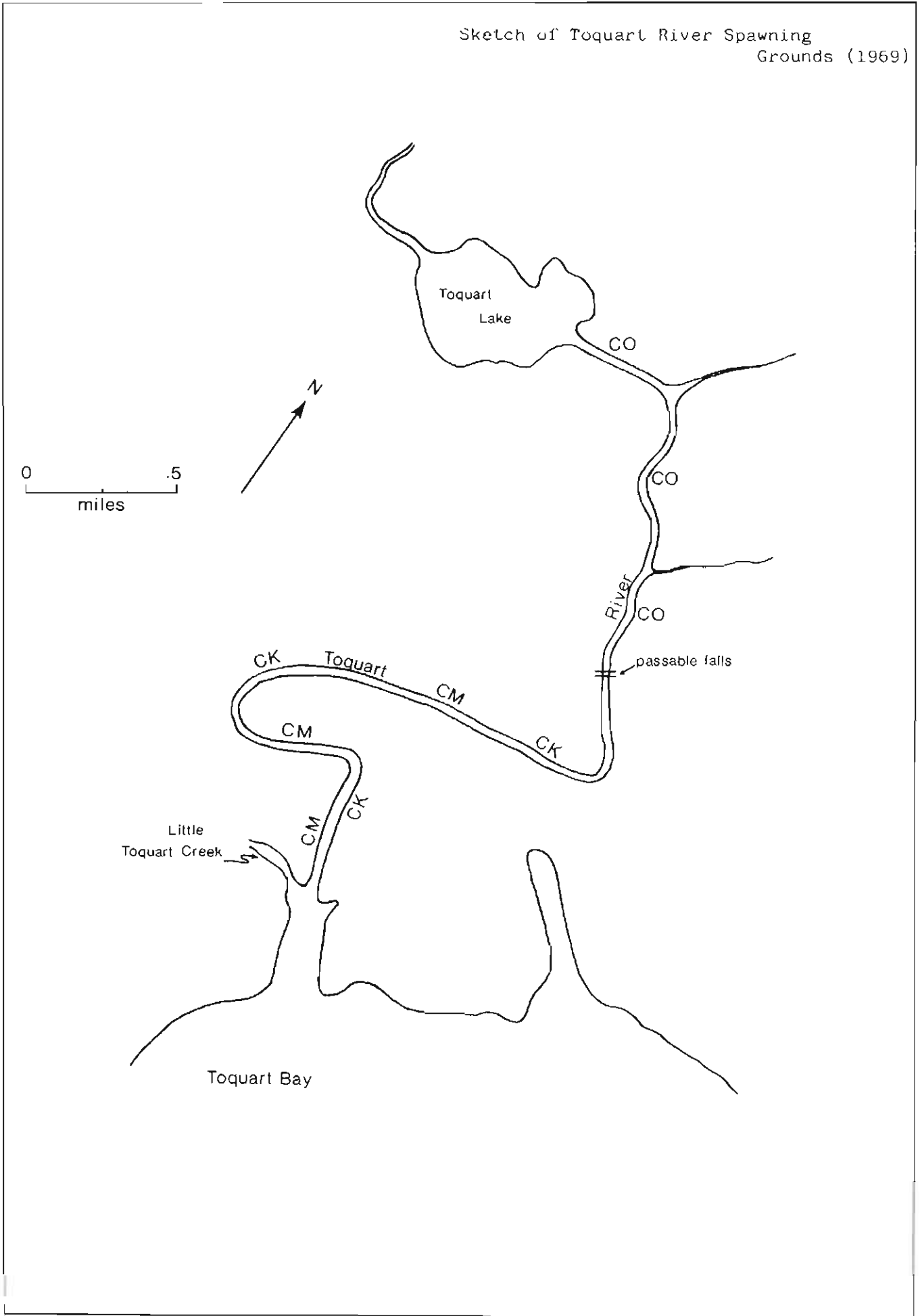
SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- above cascades
COHO	- throughout
CHUM	- to cascades at 4 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	- throughout

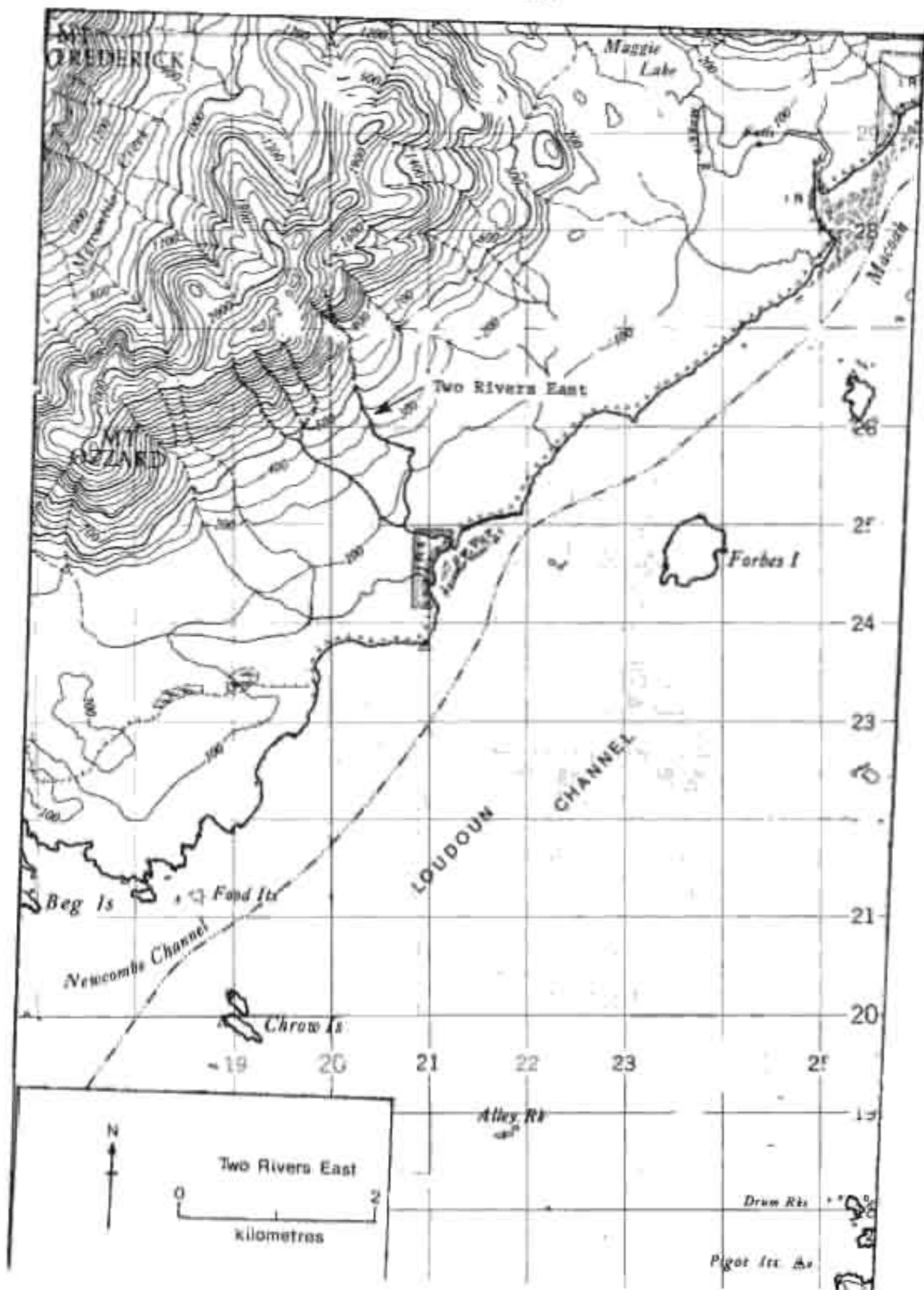
POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS

- 1955. The permanent rock slide at 4 km was improved by blasting a narrow channel between the rocks.
- Noranda Mining has a pumphouse on the Lower Toquart River to supply water to their iron ore mill at Toquart Bay.
- Logging operations are being carried out in the watershed.

Sketch of Toquart River Spawning
Grounds (1969)





NAME OF STREAM _____ (Two Rivers East, Twin Rivers East)
 CONSERVATION DISTRICT _____ 4 _____ STATISTICAL AREA _____ 23 _____
 LOCATION OF MOUTH _____ Flows SE. into Loudoun Chan., W. of Forbes Is., Barclay Dist. _____
 _____ POSITION _____ 48 125 NE _____
 LENGTH _____ 2.4 _____ km WIDTH _____ 3.0 _____ m DRAINAGE _____ 7.8 _____ km²
 COMPOSITION: BEDROCK _____ BOULDER _____ 15% _____ COARSE _____ 30% _____ FINE _____ 30%
 SILT & SAND _____ 20% _____ UNCLASSIFIED _____ 5% _____

PERCENT GRADIENT

0.00 - 0.25	0 - 0.3 km
0.25 - 0.50	
0.50 - 0.75	0.3 - 0.8 km
0.75 - 1.00	
>1.00	0.8 - 2.4 km

WETTED AREA _____ 7200 _____ m² SPAWNING AREA _____ 4320 _____ m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

There are many passable log jams throughout the system.

Passable cascades at 2.4 km but insufficient water above. (headwater area)

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- throughout
CHUM	- throughout lower 1.6 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS _____

- This watershed has been logged off and this has resulted in unstable water conditions.

ESCAPEMENT RECORD FOR

(Two Rivers East, Twin Rivers East)

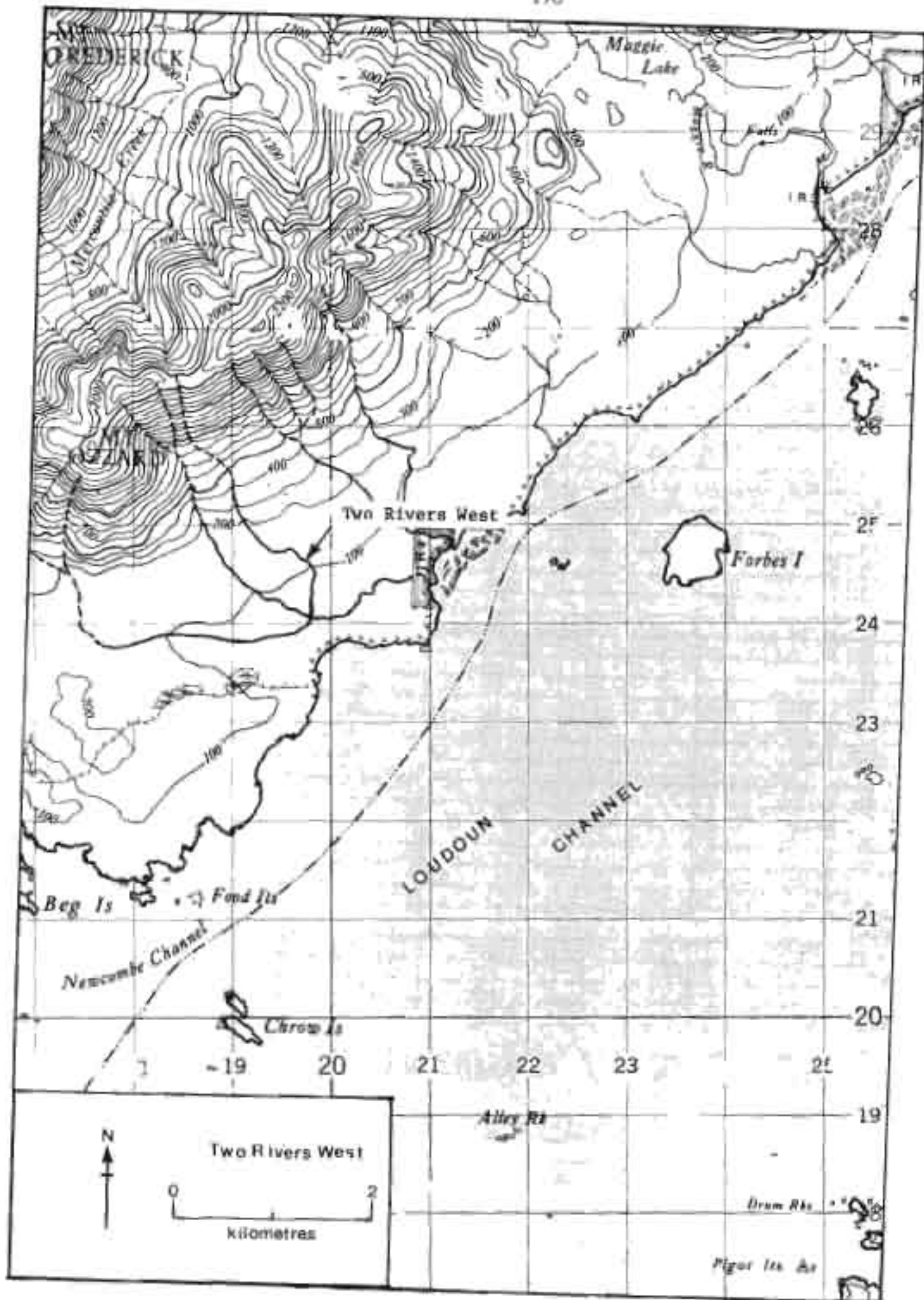
YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53						
54			25	7500		
55			25	200		
56			25	3500		
57			25	3500		
58			25	7500		
59			25	3500		
60			25	400		
61			25	400		
62			25	400		
63			25	750		
64			25	400		
65			25	400		
66			75	3500		
67			75	200		
68			75	750		
69			400	3500		
70			200	3500		
71			75	150		
72			75	3500		
73			200	1500		
74			75	3500		
75			75	750		
76			75	700		
77			85	500		
78			100	50		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			OCT	OCT		
START			NOV	OCT		
PEAK			NOV	L. OCT		
END			DEC	NOV		

REMARKS

Escapements prior to 1954 are included with Two Rivers West data.



NAME OF STREAM _____ (Two Rivers West, Twin Rivers West)
 CONSERVATION DISTRICT 4 STATISTICAL AREA 23
 LOCATION OF MOUTH Flows E. into Loudoun Chan., W. of Forbes Is., Barclay Dist.
 _____ POSITION 48 125 NE
 LENGTH 3.2 km WIDTH 3.7 m DRAINAGE 13 km²
 COMPOSITION: BEDROCK 5% BOULDER 10% COARSE 30% FINE 30%
 SILT & SAND 15% UNCLASSIFIED 10%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.5 km
0.25 - 0.50	
0.50 - 0.75	0.5 - 1.9 km
0.75 - 1.00	
> 1.00	1.9 - 3.2 km

WETTED AREA 12000 m² SPAWNING AREA 7100 m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

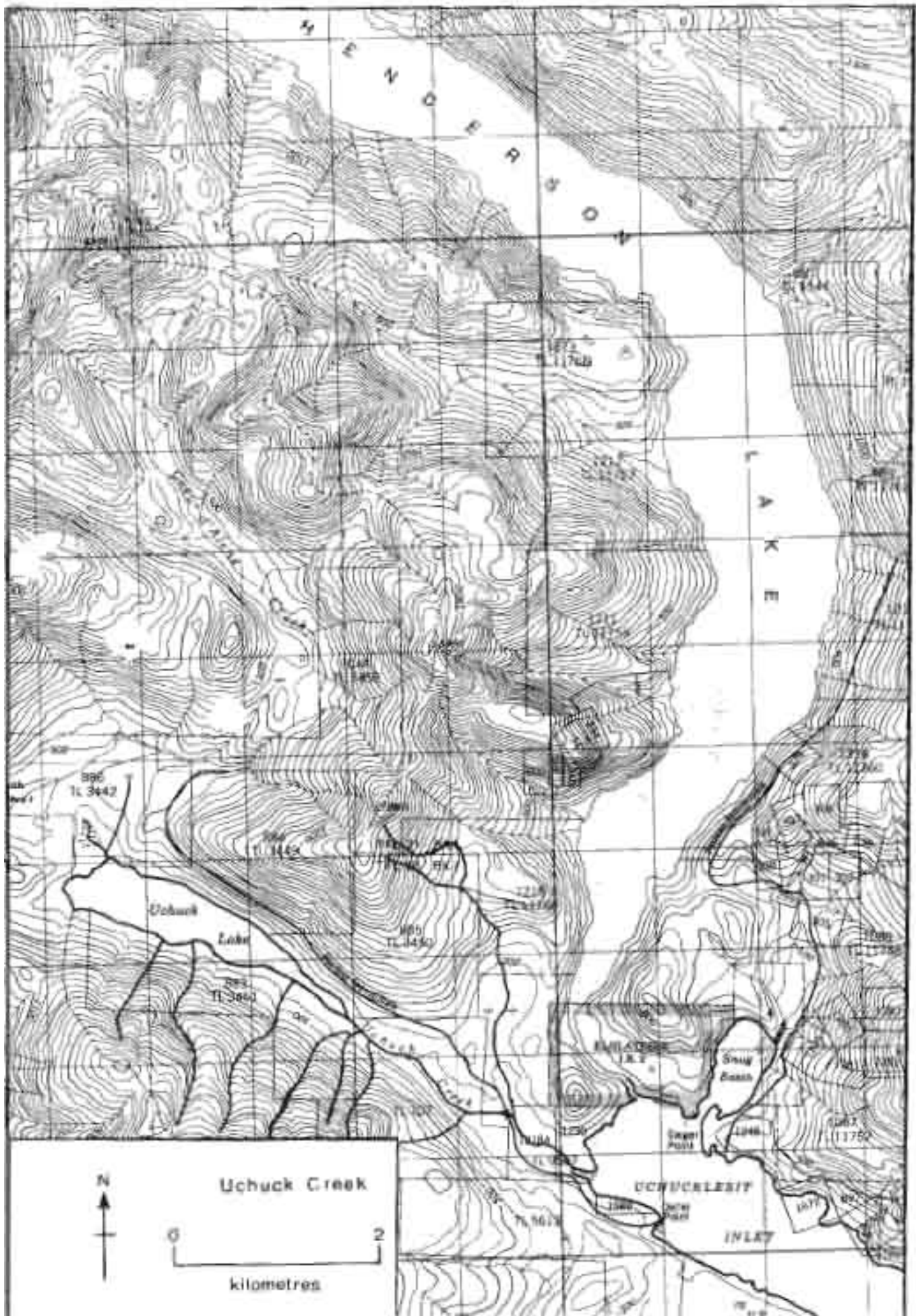
BARRIERS OR POINTS OF DIFFICULT ASCENT _____
Impassable cascades at 3.2 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- throughout
CHUM	- lower sections
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS _____



NAME OF STREAM UCHUCK CREEK (Silver Creek)
 CONSERVATION DISTRICT 4 STATISTICAL AREA 23
 LOCATION OF MOUTH Flows SE. from Uchuck L., into Uchucklesit Inlet, Clavognot
 Dist. _____ POSITION 49 125 58
 LENGTH 2.4 km WIDTH 6 m DRAINAGE 15.5 km²
 COMPOSITION: BEDROCK 15% BOULDER 15% COARSE 40% FINE 15%
 SILT & SAND 10% UNCLASSIFIED 5%

PERCENT GRADIENT

0.00 - 0.25 | 0 - 0.2 km

0.25 - 0.50

0.50 - 0.75 | 0.5 - 1.2 km

0.75 - 1.00

>1.00 | 0.2 0.5 km

WETTED AREA 14400 m²SPAWNING AREA 7900 m²DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

Passable cascades at 0.2 km.Impassable 3.7 m falls at 2.4 km.

SPAWNING DISTRIBUTION

SPECIES

SECTION OF STREAM USED

SOCKEYE

CHINOOK

COHO

- to falls at 2.4 km

CHUM

- to falls at 2.4 km

PINK (ODD YEAR)

PINK (EVEN YEAR)

STEELHEAD

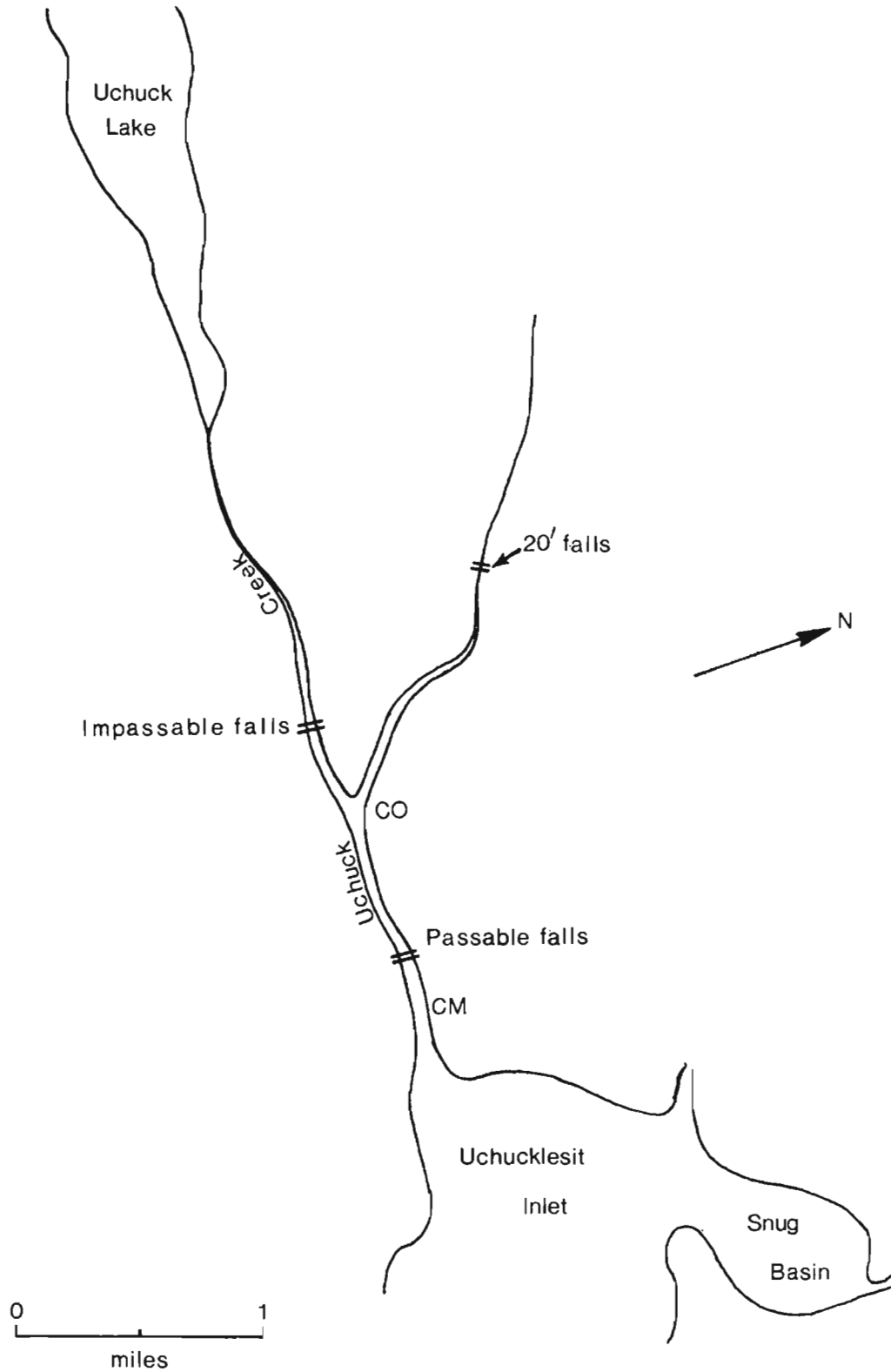
POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

There are approximately 1.5 km of good spawning and rearing area above the obstruction.

GENERAL REMARKS _____

- Logging is taking place in this watershed.

Sketch of Uchuck Creek Spawning Grounds
(1969)



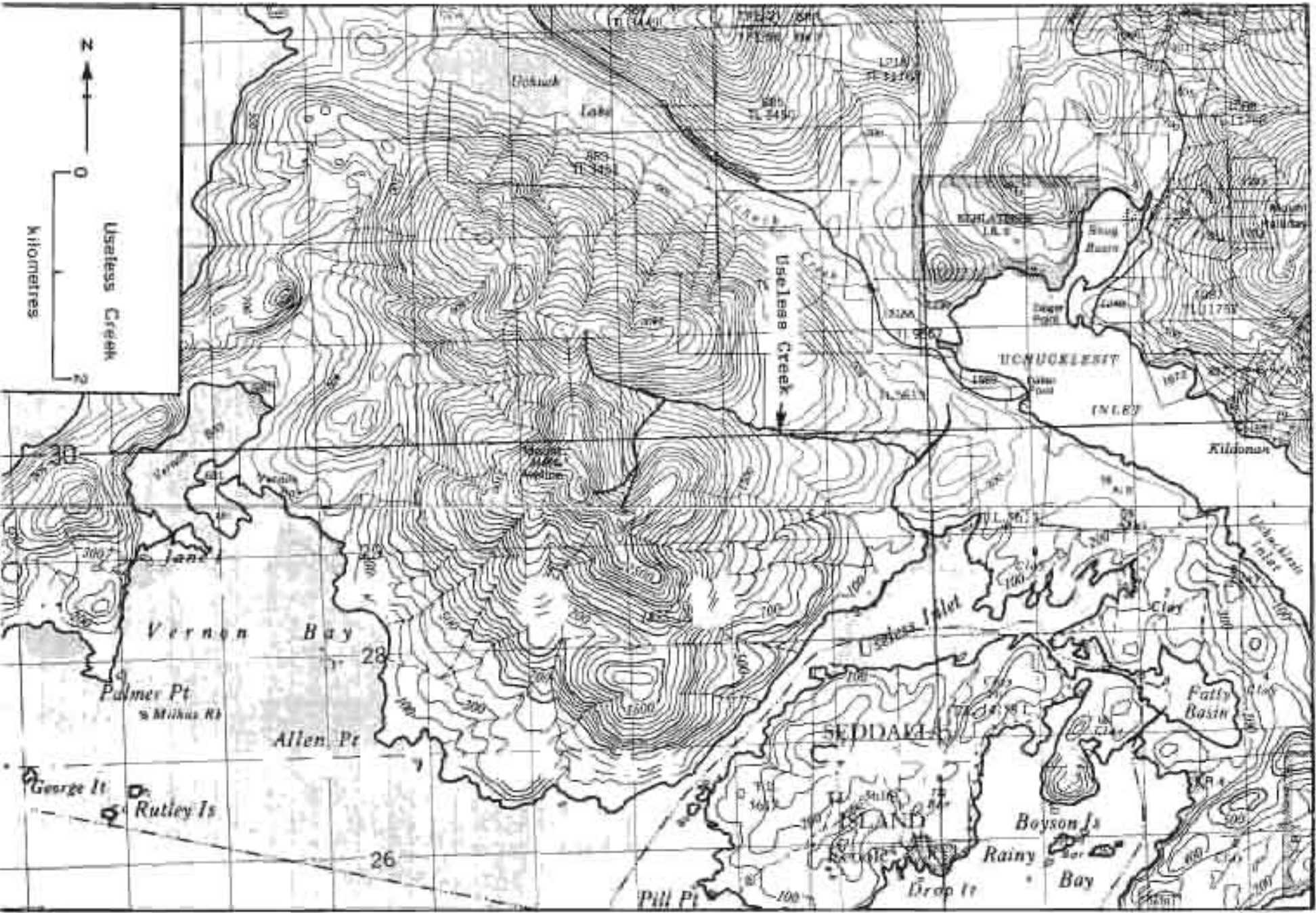
ESCAPEMENT RECORD FOR UCHUCK CREEK (Silver Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			750	3500		400
49			1500	3500		400
50			1500	15000		200
51			400	3500		400
52		25	400	1500		25
53		25	3500	3500		75
54			750	7500		25
55			400	3500		25
56			75	3500		25
57		25	25	7500		25
58			200	7500		25
59			75	3500		75
60			25	1500		75
61			200	1500		75
62			200	3500		75
63			25	750		200
64			25	1500		25
65			75	1500		75
66			25	3500		UNK
67			25	1500		
68			200	3500		UNK
69			400	7500		
70			400	7500		75
71			400	7500		
72			200	3500		
73			400	5500		
74			400	10000		
75			200	6000		
76			325	4400		
77			390	3500		
78			500	2500		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			OCT	OCT	
START			NOV	M. OCT	
PEAK			NOV	L. OCT	
END			DEC	NOV	

REMARKS



NAME OF STREAM _____ (Useless Creek)
 CONSERVATION DISTRICT 4 STATISTICAL AREA 23
 LOCATION OF MOUTH Flows E. and S. into Useless Inlet, N. of Seddall Is.,
Barclay Dist. POSITION 48 125 NE
 LENGTH 0.8 km WIDTH 3 m DRAINAGE 5.2 km²
 COMPOSITION: BEDROCK 10% BOULDER 10% COARSE 35% FINE 30%
 SILT & SAND 10% UNCLASSIFIED 5%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.3 km
0.25 - 0.50	
0.50 - 0.75	0.3 - 0.6 km
0.75 - 1.00	
> 1.00	0.6 - 0.8 km

WETTED AREA 2400 m² SPAWNING AREA 1600 m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) 9.4 (August 1971 mean)

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

Impassable 3.6 m falls and cascades at 0.8 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to falls at 0.8 km
CHUM	- to falls at 0.8 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS _____

ESCAPMENT RECORD FOR

(Useless Creek)

YEAR	SOKKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48				750		
49				75		
50				400		
51				400		
52			25	200		
53			25	750		
54			25	750		
55			25	75		
56			25	200		
57			25	400		
58			25	200		
59			N/O	400		
60			N/O	75		
61			25	75		
62			25	25		
63			25	25		
64			N/O	75		
65			25	75		
66			25	75		
67			25	75		
68			75	200		
69			75	750		
70			75	750		
71			25	25		
72			25	400		
73			75	750		
74			75	200		
75			25	75		
76			45	700		
77			50	685		
78			60	300		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			L. OCT	OCT	
START			L. OCT	OCT	
PEAK			NOV	L. OCT	
END			DEC	NOV	

REMARKS



NAME OF STREAM _____ (Vernon Creek)
 CONSERVATION DISTRICT _____ 4 _____ STATISTICAL AREA _____ 23 _____
 LOCATION OF MOUTH _____ Flows SW. into Vernon Bay, E. side of Effingham Inlet, _____
 Clayoquot Dist. _____ POSITION _____ 48 125 NE _____
 LENGTH _____ 0.8 _____ km WIDTH _____ 3.7 _____ m DRAINAGE _____ 7.8 _____ km²
 COMPOSITION: BEDROCK _____ 25% _____ BOULDER _____ 10% _____ COARSE _____ 30% _____ FINE _____ 20% _____
 SILT & SAND _____ 10% _____ UNCLASSIFIED _____ 5% _____

PERCENT GRADIENT

0.00 - 0.25	0 - 0.2 km
0.25 - 0.50	
0.50 - 0.75	0.2 - 0.5 km
0.75 - 1.00	
> 1.00	0.5 - 0.8 km

WETTED AREA _____ 2900 _____ m² SPAWNING AREA _____ 1400 _____ m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

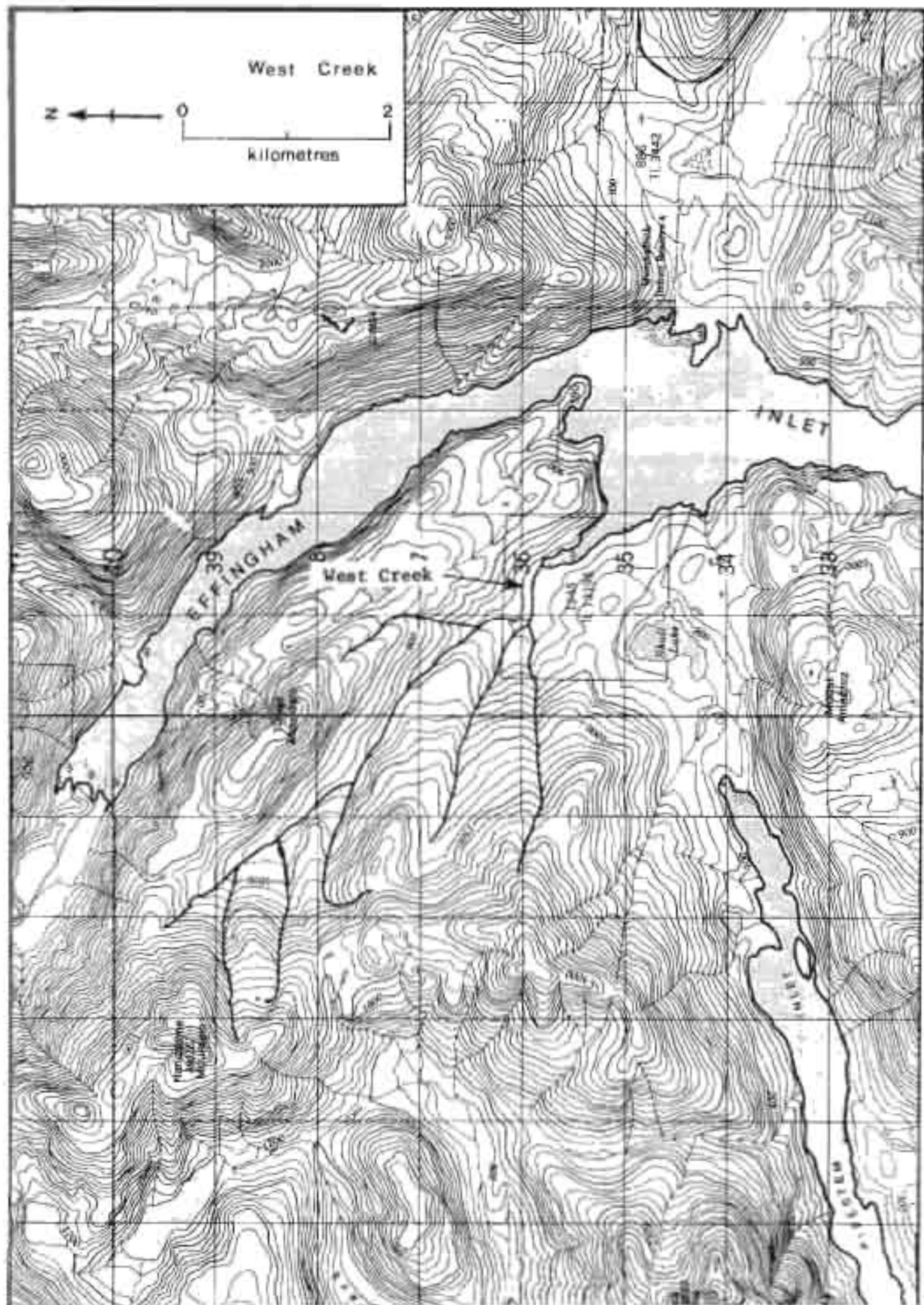
Impassable 1.8 m and 2.4 m falls at 0.8 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to falls at 0.8 km
CHUM	- to falls at 0.8 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS _____



NAME OF STREAM _____ (West Creek) _____
 CONSERVATION DISTRICT _____ 4 _____ STATISTICAL AREA _____ 23 _____
 LOCATION OF MOUTH _____ Flows SE. into Effingham Inlet, N. of Pipestem Inlet, _____
 Clayoquot Dist. _____ POSITION _____ 49 125 SE _____
 LENGTH _____ 1.6 _____ km WIDTH _____ 9.1 _____ m DRAINAGE _____ 10.2 _____ km² _____
 COMPOSITION: BEDROCK _____ 5% _____ BOULDER _____ 20% _____ COARSE _____ 40% _____ FINE _____ 20% _____
 SILT & SAND _____ 10% _____ UNCLASSIFIED _____ 5% _____

PERCENT GRADIENT

0.00 - 0.25	0 - 0.5 km
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
>1.00	0.5 - 1.6 km

WETTED AREA _____ 14600 _____ m² _____ SPAWNING AREA _____ 8700 _____ m² _____

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

Impassable series of three 4.6 m falls at 1.6 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to falls at 1.6 km
CHUM	- to falls at 1.6 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS

- 1960. This stream was damaged severely by a logging operator yarding logs down the creek bed with a caterpillar.

METRIC EQUIVALENTS

<u>Length</u>		<u>Area</u>	
centimeter (cm)	= 0.394 in	square centimeter (in ²)	= 0.155 in ²
meter (m)	= 3.280 ft	square meter (m ²)	= 10.760 ft ²
meter (m)	= 1.094 yd	square meter (m ²)	= 1.196 yd ²
kilometer (km)	= 0.621 mi	square kilometer (km ²)	= 0.386 mi ²
		hectare (ha)	= 2.470 a
inch (in)	= 2.540 cm	square inch (in ²)	= 6.451 cm ²
foot (ft)	= 0.305 m	square foot (ft ²)	= 0.093 m ²
yard (yd)	= 0.914 m	square yard (yd ²)	= 0.836 m ²
mile (mi)	= 1.609 km	square mile (mi ²)	= 2.590 km ²
		acre (a)	= 0.405 ha

<u>Volume</u>		<u>Weight</u>	
cubic centimeter (cm ³)	= 0.061 in ³	gram (gm)	= 0.035 oz
liter (L)	= 61.023 in ³	kilogram (kg)	= 2.205 lb
liter (L)	= 0.035 ft ³	kilogram (kg)	= 0.001 ton (short)
liter (L)	= 0.264 U.S. gal	tonne (t)	= 1.103 ton (short)
	= 0.220 Imp. gal		
cubic meter (m ³)	= 35.315 ft ³	ounce (oz)	= 31.103 gm
cubic meter (m ³)	= 1.308 yd ³	pound (lb)	= 0.373 kg
		ton (short)	= 907.180 kg
cubic inch (in ³)	= 16.387 cm ³	ton (short)	= 0.907 t
cubic inch (in ³)	= 0.016 L		
cubic foot (ft ³)	= 0.028 m ³		
cubic foot (ft ³)	= 28.320 L		
cubic yard (yd ³)	= 0.765 m ³		
U.S. gallon (gal)	= 3.785 L		
Imp. gallon (gal)	= 4.546 L		

Velocity

meter per second (m/s)	= 3.280 ft/s
feet per second (ft/s)	= 0.305 m/s

Discharge

cubic meter per second (m ³ /s)	= 35.315 ft ³ /s
cubic foot per second (ft ³ /s)	= 0.028 m ³ /s
cubic meter per second (m ³ /s)	= 15350.879 U.S. gal/min
	= 13198.628 Imp. gal/min

Temperature

Degrees Centigrade (°C)	= 5/9 (Degrees Fahrenheit - 32)
Degrees Fahrenheit (°F)	= 9/5 (Degrees Centigrade) + 32