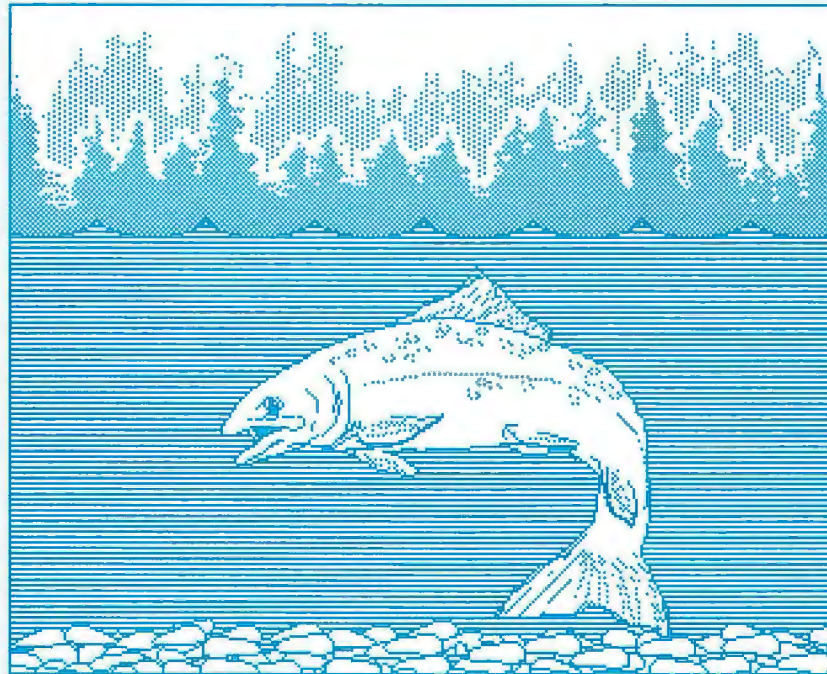




Fish Habitat Inventory & Information Program

STREAM SUMMARY CATALOGUE

SUBDISTRICT # 20
SOOKE



**Fish Habitat
Inventory & Information Program**

**STREAM SUMMARY
CATALOGUE**

**SUBDISTRICT # 20
Sooke**

**South Coast Division
Fisheries Branch
Department of Fisheries & Oceans**

October 1987

PREFACE

This catalogue contains a summary of information on fish and fish habitat for 22 streams in DFO Subdistrict #20, Sooke. The catalogue is organized as follows:

- 1.0 Map Indices;
- 2.0 User Guides;
- 3.0 Stream Information Summaries;
- 4.0 Escapement Records; and
- 5.0 Stream Information Summary maps.

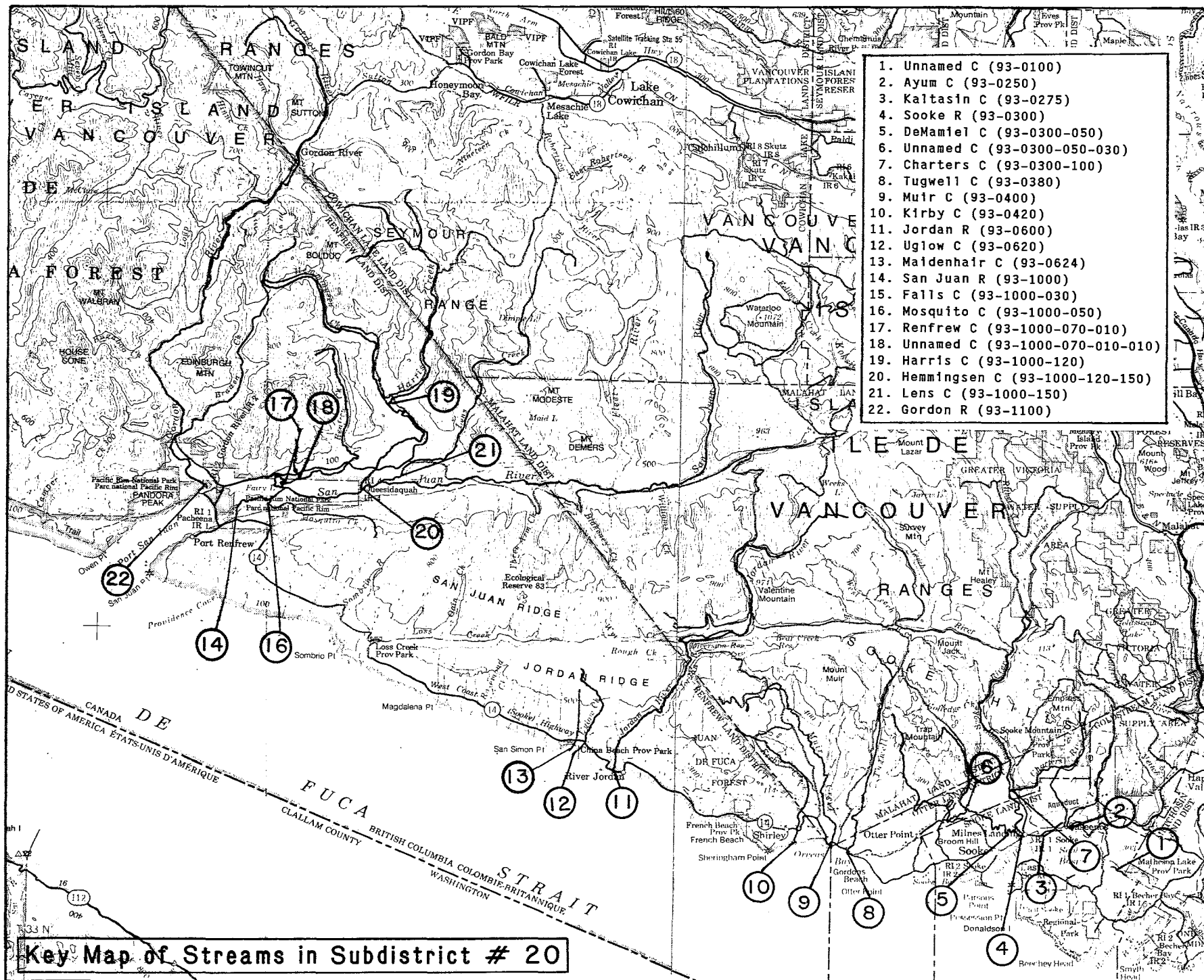
Stream Information Summaries and escapement records are arranged by watershed code. Cross indices of watershed codes and stream names are included in section 1.0 of this catalogue.

ACKNOWLEDGEMENTS

This catalogue was prepared by G. Kapahl under a contract managed by B. D. Tutty, South Coast Division. Catalogue production was coordinated by J.S. Mathers, Habitat Management Division. The assistance of Fishery Officers J. Stephen and R. Kehl in providing & verifying much of the information is greatly appreciated. Stream Information Summaries were produced by K. Pontus, Habitat Management Division, using the Stream Information Summary System (SISS). Escapement records were generated by G. Serbic and G. Hudson, Pacific Biological Station, Nanaimo, using the Salmon Escapement Data System (SEDS).

TABLE OF CONTENTS

- Acknowledgements
- Preface
- Table of Contents
- 1.0 Map Indices
 - Key map of streams in subdistrict
 - Watershed Code Listing of Stream Names
 - Alphabetic Listing of Stream Names & Watershed Codes
 - DFO Subdistrict Map
 - MOEP Region Map
 - 1:250,000 National Topographic Series Map Index
 - 1:50,000 National Topographic Series Map Index
 - 1:20,000 Planimetric Map Index
- 2.0 User Guides
 - 2.1 Stream Information Summary
 - 2.2 Escapement
 - 2.3 Stream Information Summary Map
- 3.0 Stream Information Summary
 - 3.1 Stream Information Summary (by Watershed Code)
 - 3.2 Subdistrict Bibliography
- 4.0 Escapement
- 5.0 Maps

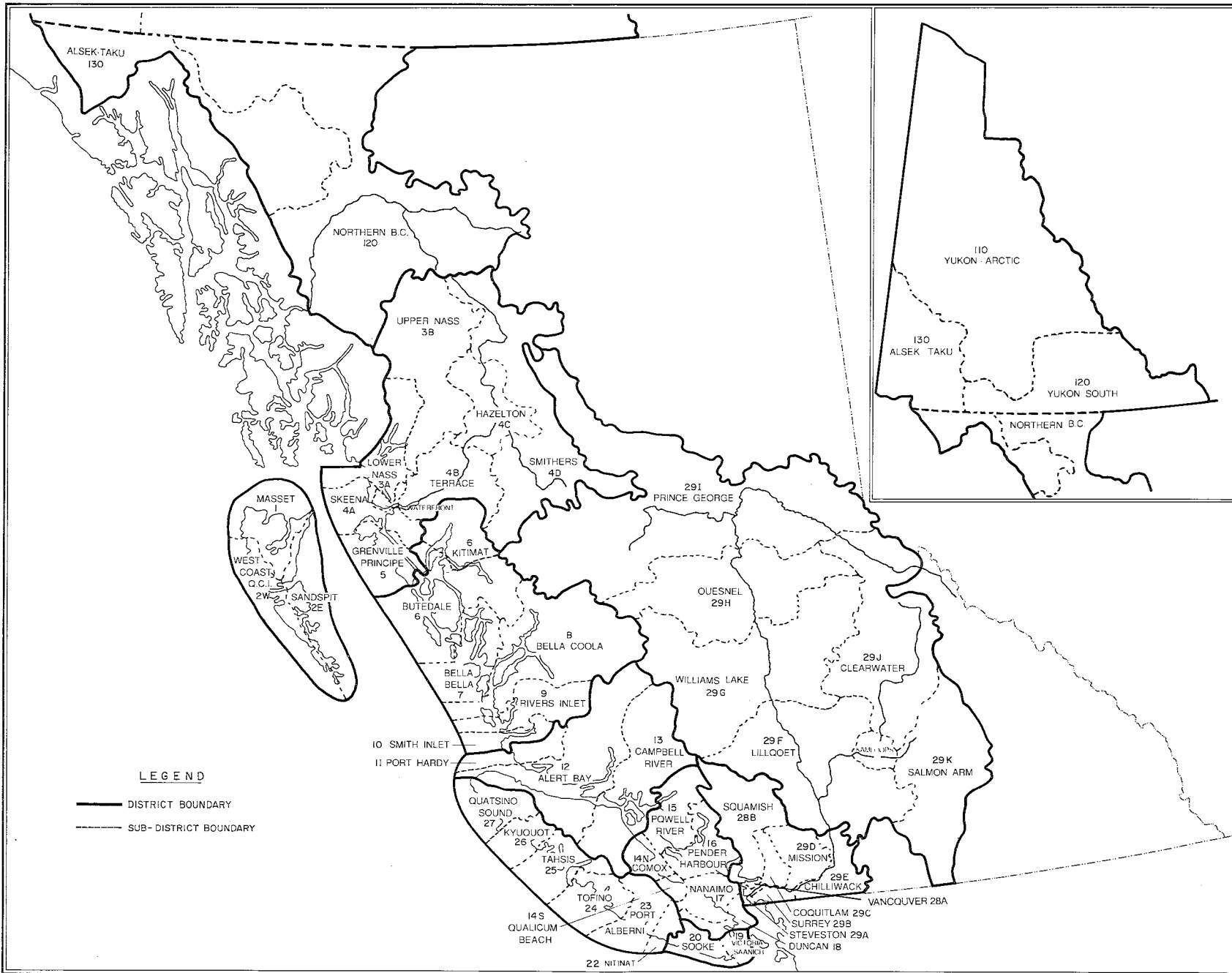


WATERSHED CODE LISTING OF STREAM NAMES

<u>WATERSHED CODE</u>	<u>STREAM NAME</u>
93-0100	Unnamed C
93-0250	Ayum C
93-0275	Kaltasin C
93-0300	Sooke R
93-0300-050	DeMamie1 C
93-0300-050-030	Unnamed C
93-0300-100	Charters C
93-0380	Tugwell C
93-0400	Muir C
93-0420	Kirby C
93-0600	Jordon R
93-0620	Ug1ow C
93-0624	Maidenhair C
93-1000	San Juan R
93-1000-030	Falls C
93-1000-050	Mosquito C
93-1000-070-010	Renfrew C
93-1000-070-010-010	Unnamed C
93-1000-120	Harris C
93-1000-120-150	Hemmingsen C
93-1000-150	Lens C
93-1100	Gordon R

ALPHABETIC LISTING OF STREAM NAMES AND WATERSHED CODES

<u>WATERSHED CODE</u>	<u>STREAM NAME</u>
93-0250	Ayum C
93-0300-100	Charters C
93-0300-050	DeMamiel C
93-1000-030	Falls C
93-1100	Gordon R
93-1000-120	Harris C
93-1000-120-150	Hemmingsen C
93-0600	Jordan R
93-0275	Kaltasin C
93-0420	Kirby C
93-1000-150	Lens C
93-0624	Maldenhair C
93-1000-050	Mosquito C
93-0400	Muir C
93-1000-070-010	Renfrew C
93-1000	San Juan R
93-0300	Sooke R
93-0380	Tugwell C
93-0620	Uglow C
93-0100	Unnamed C
93-0300-050-030	Unnamed C
93-1000-070-010-010	Unnamed C

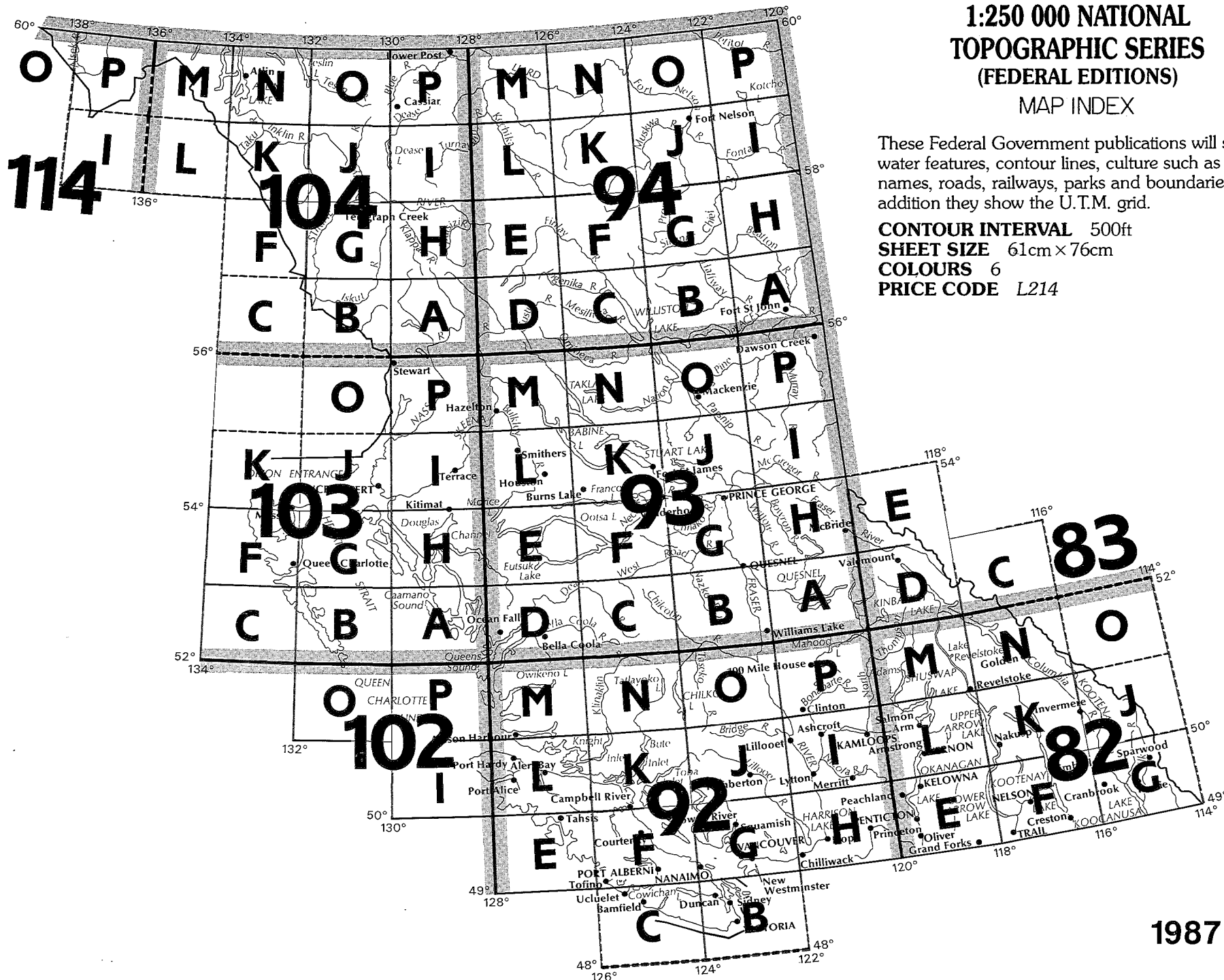


- DISTRICT #1 — KAMLOOPS**
 - Subdist 29F - Lillooet
 - Subdist 29G - Williams Lake
 - Subdist 29H - Quesnel
 - Subdist 29I - Prince George
 - Subdist 29J - Clearwater
 - Subdist 29K - Salmon Arm
- DISTRICT #2 — NEW WESTMINSTER**
 - Subdist 28A - Vancouver
 - Subdist 28B - Squamish
 - Subdist 29A - Steveston
 - Subdist 29B - Surrey
 - Subdist 29C - Coquitlam
 - Subdist 29D - Mission
 - Subdist 29E - Chilliwack
- DISTRICT #3 — NANAIMO**
 - Subdist 14S - Qualicum Beach
 - Subdist 14N - Comox
 - Subdist 15 - Powell River
 - Subdist 16 - Pender Harbour
 - Subdist 17 - Nanaimo/Ladysmith
 - Subdist 18 - Duncan
- DISTRICT #4 — PORT ALBERNI**
 - Subdist 22 - Nitinat
 - Subdist 23 - Port Alberni
 - Subdist 24 - Tofino
 - Subdist 25 - Tahsis
 - Subdist 26 - Kyuquot
 - Subdist 27 - Quatsino Sound
- DISTRICT #5 — CAMPBELL RIVER**
 - Subdist 11 - Port Hardy
 - Subdist 12 - Alert Bay
 - Subdist 13 - Campbell River
- DISTRICT #6 — VICTORIA**
 - Subdist 19 - Victoria/Saanich
 - Subdist 20 - Sooke
- DISTRICT #7 — CENTRAL COAST**
 - Subdist 6 - Kitimat/Butedale
 - Subdist 7 - Bella Bella
 - Subdist 8 - Bella Coola
 - Subdist 9 - Rivers Inlet
 - Subdist 10 - Smith Inlet
- DISTRICT #8 — PRINCE RUPERT**
 - Subdist 3A - Lower Nass
 - Subdist 3B - Upper Nass
 - Subdist 4A - Lower Skeena
 - Subdist 4B - Terrace
 - Subdist 4C - Hazelton
 - Subdist 4D - Smithers
 - Subdist 5 - Grenville Principe
- DISTRICT #9 — QUEEN CHARLOTTE ISLANDS**
 - Subdist 1 - Masset
 - Subdist 2W - West Coast Q.C.I.
 - Subdist 2E - Sandspit
- DISTRICT #10 — WHITEHORSE**
 - Subdist 110 - Yukon Arctic
 - Subdist 120 - Yukon — North B.C.
 - Subdist 130 - Aisek — Taku

DFO PACIFIC REGION SUBDISTRICTS AND DISTRICTS



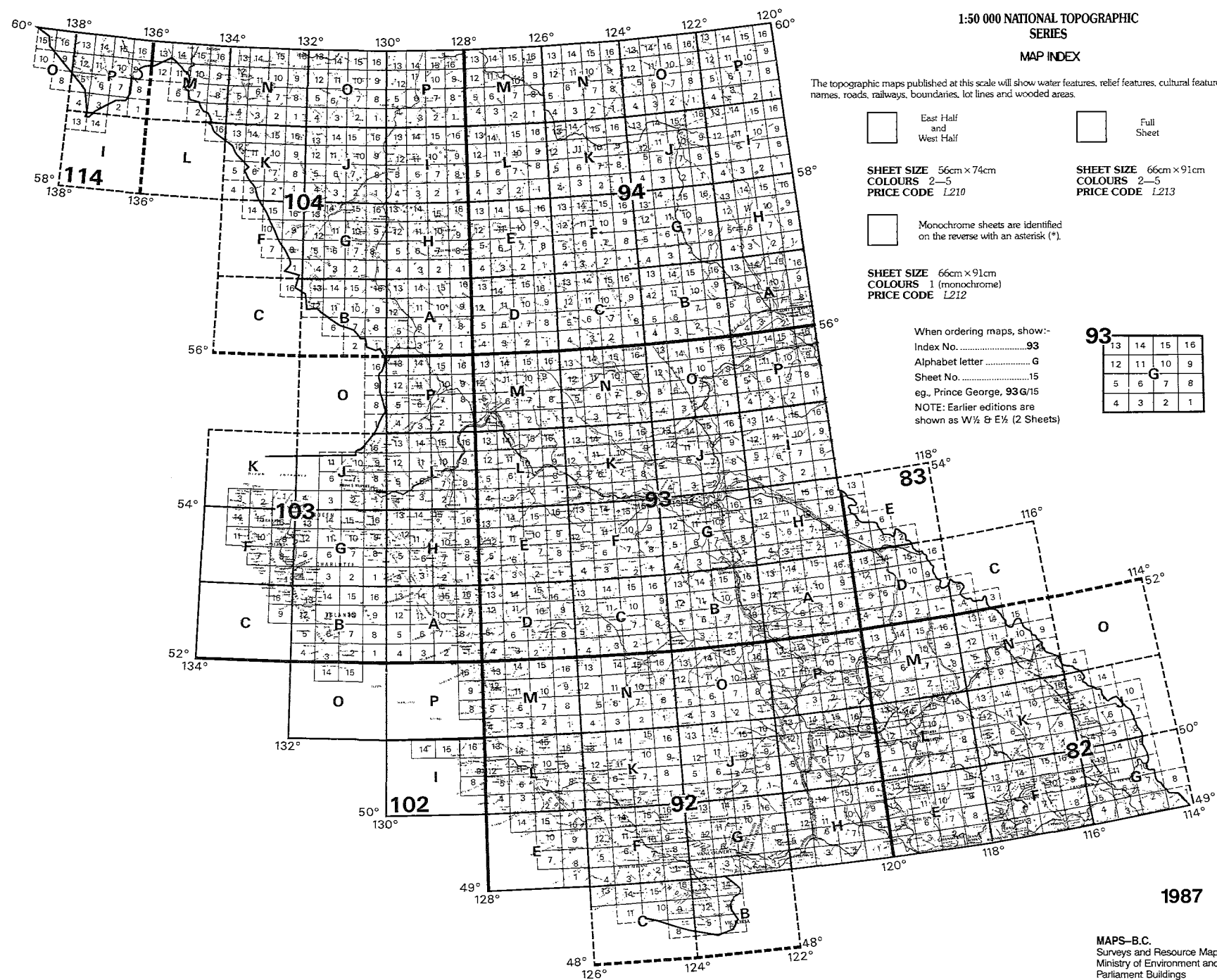
MOEP RESOURCE MANAGEMENT REGIONS



**1:250 000 NATIONAL
TOPOGRAPHIC SERIES
(FEDERAL EDITIONS)
MAP INDEX**

These Federal Government publications will show water features, contour lines, culture such as place names, roads, railways, parks and boundaries. In addition they show the U.T.M. grid.

CONTOUR INTERVAL 500ft
SHEET SIZE 61cm x 76cm
COLOURS 6
PRICE CODE L214



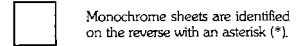
1:50 000 NATIONAL TOPOGRAPHIC SERIES
MAP INDEX

The topographic maps published at this scale will show water features, relief features, cultural features such as place names, roads, railways, boundaries, lot lines and wooded areas.



SHEET SIZE 56cm x 74cm
COLOURS 2-5
PRICE CODE L210

SHEET SIZE 66cm x 91cm
COLOURS 2-5
PRICE CODE L213



SHEET SIZE 66cm x 91cm
COLOURS 1 (monochrome)
PRICE CODE L212

When ordering maps, show:-
Index No.93
Alphabet letterG
Sheet No.15
eg., Prince George, 93 G/15
NOTE: Earlier editions are shown as W½ & E½ (2 Sheets)

13	14	15	16
12	11	10	9
5	6	7	8
4	3	2	1

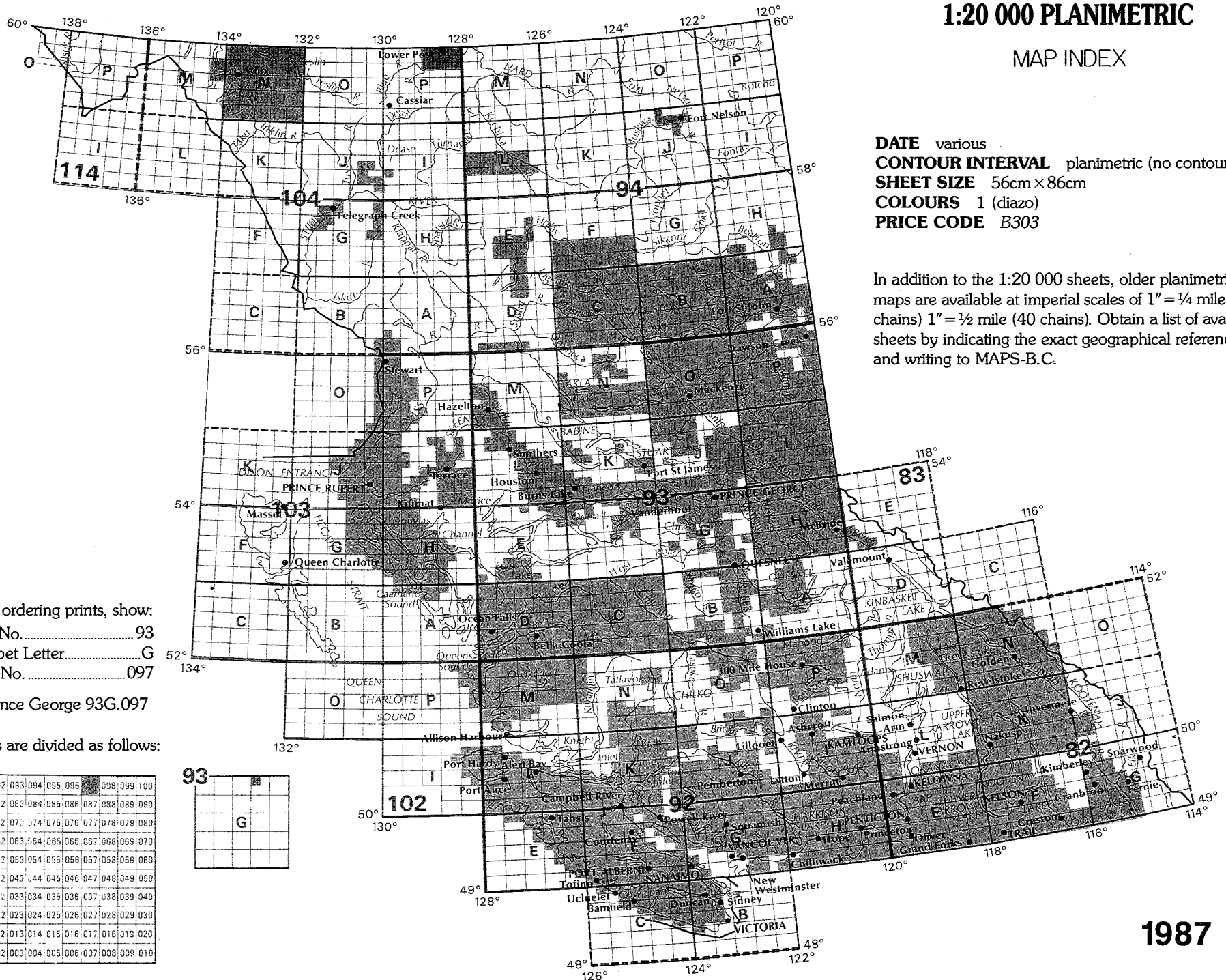
1987

1:20 000 PLANIMETRIC

MAP INDEX

DATE various
 CONTOUR INTERVAL planimetric (no contours)
 SHEET SIZE 56cm x 86cm
 COLOURS 1 (diaz)
 PRICE CODE B303

In addition to the 1:20 000 sheets, older planimetric maps are available at imperial scales of 1" = 1/4 mile (20 chains) 1" = 1/2 mile (40 chains). Obtain a list of available sheets by indicating the exact geographical reference and writing to MAPS-B.C.



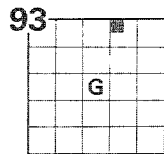
When ordering prints, show:

Index No. 93
 Alphabet Letter G
 Sheet No. 097

eg. Prince George 93G.097

Sheets are divided as follows:

091	092	093	094	095	096	097	098	099	100
081	082	083	084	085	086	087	088	089	090
071	072	073	074	075	076	077	078	079	080
061	062	063	064	065	066	067	068	069	070
051	052	053	054	055	056	057	058	059	060
041	042	043	044	045	046	047	048	049	050
031	032	033	034	035	036	037	038	039	040
021	022	023	024	025	026	027	028	029	030
011	012	013	014	015	016	017	018	019	020
001	002	003	004	005	006	007	008	009	010



2.0 USER GUIDES

2.1 STREAM INFORMATION SUMMARY (SIS)

The Stream Information Summary (SIS) form, designed by the Fish Habitat Inventory & Information Program, has been used by Departmental staff and contractors to compile existing information on a stream by stream basis. A companion computer database, the Stream Information Summary System (SISS), is designed for the input, storage and output of SIS information. The SISS "User's Manual" provides details on coding SIS forms and operation of the computer system. A number of codes are used during data entry to SISS. In all cases the equivalent of the code is printed on the SISS output. Notwithstanding, a complete list of codes is provided in Tables 1 and 2. Most information on the SIS form is linked to a reference number. The source of the information can, therefore, be determined from the reference list at the back of each SIS printout. In addition, an alphabetic listing of all references used is included at the back of Section 3.0. Although the preparation of Stream Information Summaries has been thorough, the focus has been on collecting key information rather than all information. The summaries will be updated using SISS as more information becomes available.

Stream Information Summaries, arranged by watershed code, are included in Section 3.0 of the catalogue. The following describes the content of each section in the SIS form and printout.

A. DESCRIPTION

A.1 Stream Name:

The official stream name listed in the "Gazetteer of Canada" is displayed here.

A.2 Local Name

Any local name(s) are listed.

A.3 Watershed Code:

The watershed code is a unique number which identifies a stream and the watershed that it is in. The hierarchical nature of the watershed coding system allows features associated with basins or channels to be aggregated or separated to the desired level of detail. A dictionary of watershed codes is available from the Water Management Branch, Ministry of Environment and Parks, Victoria.

A.4 Tributaries:

A list of tributaries to the stream is provided. The "code" when added to the stream's watershed code gives the tributary watershed code. Example:

Cowichan River watershed code	= 92-4800
Koksilah River code	= 020
Koksilah River watershed code	= 92-4800-020

A.5 DFO Division, District, Subdistrict & Statistical Subarea:

The DFO management areas in which the stream mouth is located are listed.

A.6 MOEP Region, Management Unit:

The MOEP management areas in which the stream mouth is located are listed.

A.7 Topographic (1:50K) Map, BCGS (1:20K) Map:

Codes of the National Topographic Series (NTS) map sheet and the British Columbia Geographic System (BCGS) map sheet that show the stream mouth are listed here.

A.8 U.T.M. Mouth:

The Universal Transverse Mercator (UTM) coordinates of the stream mouth are listed. UTM is a metric grid reference system displayed on most 1:50,000 scale NTS maps.

A.9 Lat./Long. Mouth:

The latitude and longitude (degrees, minutes and seconds) of the stream mouth are listed.

A.10 Mainstream Length:

The total mainstream length is provided in kilometres.

A.11 Watershed Area:

The area of the stream's watershed is given in square kilometers.

A.12 Location:

The general location of the stream is listed.

A.13 Gradient:

Location(s) given as a range of kilometers upstream from the mouth are provided for five gradient classes: 0-0.5%, 0.5-2%, 2-5%, 5-10%, 10+%. Any comments on gradient are also listed in this field.

B. OBSTRUCTIONS TO MIGRATION

This section lists barrier type, the height of the barrier (m) as appropriate, the barrier location in kilometers upstream from mouth, the species that are obstructed and any additional comments.

C. FLOW

This section indicates if there is flow control on the system (Y or N), if there is a Water Survey of Canada (WSC) Flow Gauge (Y or N), the station nos. and any comments on flow (eg. low flows, floods).

D. DISTRIBUTION SUMMARY

Species and watershed distribution including spawning, rearing, overwintering, holding, and migration areas are listed.

E. ESCAPEMENT SUMMARY

This section lists the species, mean escapement for a specified period of record, maximum recorded escapement for the same period, management target escapement and any comments on escapement.

F. LIFE HISTORY TIMING

Life history timing is provided by species for each one-half month period by the following activities: migration, spawning, incubation and rearing. The timing of these activities is indicated by an X and the peak by a P.

G. ENHANCEMENT/MANAGEMENT ACTIVITIES IN WATERSHED

Listed in this section are the type of activity, the species affected by the activity, location of the facility in kilometers upstream of the mouth, comments and period of operation.

H. LAND USE/WATER USE/WATER QUALITY

This section lists the type of activity and description of land use; water use or activities affecting water quality.

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

This section provides comments on fish production potential including habitat potential, constraints to production, opportunities for restoration or enhancement, watershed sensitivity, quality of information to assess the above and the need for inventory data collection.

J. FISHERY OFFICER NARRATIVE

This section indicates the date and person who may have prepared a Fishery Officer narrative on the stream.

K. SIS COMPLETED BY:

The name of the person(s) completing, checking or updating the information and date (year/month/day) are listed.

G. ENHANCEMENT/MANAGEMENT ACTIVITIES IN WATERSHED

Type of Activity	Species	Location (km U/S)	Comments	Period of Operation Start/Finish

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

--

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:
----------------------------	--------------

K. SIS COMPLETED BY

Completed by:	Date:
---------------	-------

TABLE 1. LIST OF CODES

Stream Name

R River
 C Creek
 S Slough
 B Brook
 G Gulch

Management Activities

MR Mark Recovery
 CC Creel Census
 CF Counting Fence
 FS Fish Sampling

Barrier Type

R Rock
 X Log Jam
 D Dam
 BD Beaver Dam
 CV Culvert
 C Cascade, Chute
 F Falls (type unknown)

Land Use/Water Use/Water Quality

FO Forestry
 UD Urban Development
 MI Mining
 DA Dams
 LD Linear Development
 IP Industrial Processing
 AG Agriculture
 WW Water Withdrawal
 PR Parks
 RE Reserves
 WQ Water Quality (ie. activities adversely affecting water quality)

Enhancement Activities

BX Incubation box
 CH Spawning channel
 CO Colonization from existing hatchery
 EI Estuary improvement
 FC Flow control
 FP Multiple fish production strategies
 FT Lake fertilization
 FW Fishway
 HC Combination channel/hatchery
 HX Multiple combination hatchery, channel, flow control
 HY Conventional hatchery
 JH Hatchery, primarily Japanese style technique
 LJ Log jam removal
 OR Obstruction removal
 SC Side channel
 SI Stream improvement
 TR Transplant
 TT Trap/truck over obstruction

TABLE 2. FISH SPECIES CODES

AGB	BROWN TROUT (ANAD)	GR	GRAYLING ARCTIC
AC	ARCTIC CHAR	GSG	GREEN STURGEON
ACT	CUTTHROAT TROUT (ANAD)	HW	HUMPBACKED WHITFISH
ADV	DOLLY VARDEN (ANAD)	IN	INCONNU
ACB	BROOK TROUT (ANAD)	KO	KOKANEE
AF	ALL FISH	L	LAMPREYS (GENERAL)
AL	ARCTIC LAMPREY	LDC	LEOPARD DACE
AO	ALL <u>ONCORHYNCHUS</u>	LKC	LAKE CHUB
AS	ATLANTIC SALMON	LMB	LARGEMOUTH BASS
ASM	ARCTIC SMELT	LNC	LONGNOSE DACE
BB	BURBOT	LSM	LONGFIN SMELT
BCB	BLACK CRAPPIE	LSU	LONGNOSE SUCKER
BH	CATFISH NERAL	LT	LAKE TROUT
BKH	BLACK BULLHEAD	LW	LAKE WHITEFISH
BL	WESTERN BROOK LAMPREY	MSU	NORTHERN MOUNTAIN SUCKER
BMC	BRASSY MINNOW	MW	ROCKY MOUNTAIN WHITEFISH
BNH	BROWN BULLHEAD	NP	NORTHERN PIKE
BS	BASS/SUNFISH (GENERAL)	NSC	NORTHERN SQUAWFISH
BSB	BROOK STICKLEBACK	P	PERCH (GENERAL)
BSU	BRIDGELIP SUCKER	PCC	PEAMOUTH CHUB
BW	BROAD WHITEFISH	PDC	NORTHERN PEARL DACE
C	MINNOWS (GENERAL)	PK	PINK SALMON
CA	ARCTIC CISCO	PL	PACIFIC LAMBREY
CAL	ALEUTIAN SCULPIN	PMB	PUMPKINSEED
CAS	PRICKLY SCULPIN	PW	PIGMY WHITEFISH
CBA	MOTTLED SCULPIN	RB	RAINBOW TROUT
CBC	CHUB (GENERAL)	RDC	NORTHERN REDBELLY DACE
CC	SCULPINS (GENERAL)	RL	RIVER LAMPREY
CCG	SLIMY SCULPIN	RSC	REDSIDED SHINER
CCN	SHORTHEAD SCULPIN	RW	ROUND WHITEFISH
CH	CHINOOK SALMON	SA	SALMON (GENERAL)
CL	LAKE HERRING/CISCO/TULIBEE	SB	STICKLEBACKS (GENERAL)
CLA	STAGHORN SCULPIN	SDC	SPECKLED DACE
CM	CHUM SALMON	SFL	STARRY FLOUNDER
CMC	CHISELMOUTH CHUB	SG	STURGEONS (GENERAL)
CO	COHO SALMON	SH	AMERICAN SHAD
CP	CARP	SK	SOCKEYE SALMON
CRH	TORRENT SCULPIN	SM	SMEELTS (GENERAL)
CRI	SPOONHEAD SCULPIN	SMB	SMALLMOUTH BASS
CS	LEAST CISCO	ST	STEELHEAD
CSU	LARGESCALE SUCKER	STC	SPOTTAIL SHINER
CT	CUTTHROAT TROUT	SU	SUCKERS (GENERAL)
DC	DACE	TC	TENCH
DV	DOLLY VARDEN	TP	TROUTPERCH
EB	BROOK TROUT	TR	TROUT (GENERAL)
ESC	EMERALD SHINER	TSB	THREESPINE STICKLEBACK
EU	EULACHON	WF	WHITEFISH (GENERAL)
FDC	FINESCALE DACE	WP	WALLEYE
FHC	FLATHEAD CHUB	WSG	WHITE STURGEON
GAM	MOSQUITOFISH	WSU	WHITE SUCKER
GB	BROWN TROUT	YCT	YELLOWSTONE CUTTHROAT
GC	GOLDFISH	YP	YELLOWPERCH
GE	GOLDEYE		

2.2 ESCAPEMENT

Annual escapement by species is provided, where available, in Section 4.0. Escapement and run time graphs were plotted only where at least five years of record were available. Graphs showing average escapement as a percentage of District and Divisional escapement were produced only when this percentage was greater than five. Steelhead data were not graphed as records are intermittent.

The escapement tables and graphics were generated by the Salmon Escapement Data System (SEDS) managed by the Pacific Biological Station, Nanaimo. Information in SEDS comes from the DFO Annual Report of Salmon Streams and Spawning Populations (BC16) completed by the Fishery Officer/Patrolman following stream inspections. In limited cases the officer's numbers have been revised where more accurate information is available (e.g. mark/recapture studies).

2.3 STREAM INFORMATION SUMMARY MAP

During the preparation of Stream Information Summary (SIS) forms, maps of fish distribution, major spawning areas, obstructions to migration and enhancement facilities were drafted on 1:50,000 National Topographic Series bases. Reduced copies of the maps are included in Section 5.0 of this report.

3.0 STREAM INFORMATION SUMMARY

This section of the catalogue contains Stream Information Summaries arranged in ascending order of watershed code. An index of watershed codes and stream names is found in Section 1.0. An alphabetic listing of all references used in preparing the Stream Information Summaries is included at the back of Section 3.0.

A. DESCRIPTION

Stream Name: UNNAMED CREEK	D.F.O. Division: SOUTH COAST
Local Name: MATHESON CREEK, MATHESON LAKE CREEK	District: 6 VICTORIA
Watershed Code: 93-0100	Subdistrict: 20 SOOKE
	Statistical Subarea: 20-7
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit: 2

Tributaries	Code	Topographic (1:50k) Map: 92B/5
		B.C.G.S. (1:20k) Map:
		U.T.M. Mouth: 400575
		Lat./Long. Mouth: 48 DG. 22' 18'' 123 DG. 37' 23''
		Mainstem Length: Ref. No.:
		Watershed Area: Ref. No.:
Location: FLOWS INTO ROCHE COVE (SOOKE BASIN)		

Gradient Class/Location (km upstream from mouth)					Comments
0 - .5%	.5 - 2%	2 - 5%	5 - 10%	>10%	
					GRADIENT IS MODERATE TO FALLS, THEN SLIGHT TO ROCHE COVE. (REF. 20-4, REF. 20-6)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
D DAM				OLD ROCK DAM AT IMMEDIATE OUTLET HAS CRUMBLLED BUT MAY INHIBIT FRY MIGRATION TO LAKE. (REF. 20-4)
D DAM	1.0		CT CUTTHROAT TROUT	AT OUTLET OF MATHESON LAKE (REF. 20-5)
F FALLS			CO COHO SALMON	FALLS ARE A SERIES OF SMALL DROPS OVER GRADUALLY INCLINED BEDROCK, GREATEST VERTICAL DROP IS 0.7M AT LOW WATER, AND MIGRANT FISH COULD POSS. NAVIGATE THE OBSTRUCTION. (REF. 20-4)
F FALLS				FALLS ARE A SERIES OF SMALL DROPS OVER GRADUALLY INCLINED BEDROCK, GREATEST VERTICAL DROP IS 0.7M (REF. 20-4)
F FALLS			CO COHO SALMON	SMALL FALLS APPEARS TO LIMIT PRESENT COHO ACCESS (REF. 20-4)
F FALLS	3.0	0.9		(REF. 20-3)

C. FLOW

Flow Control:	Water Survey of Canada (WSC) Flow Gauge:
W.S.C. Station No. 1:	No. 2: No. 3: No. 4:
Comments: DISCHARGE INTERMITTENT (8/22/72); GRAVEL IS SPARSE, SUBSTRATE IS MAINLY BOULDERS AND STONES TO THE FALLS. (REF. 20-4)	
STREAM OFTEN BECOMES INTERMITTENT IN LATE SUMMER. (REF. 20-6)	

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
CO COHO SALMON	PRIOR TO 1979, NO COHO WERE NOTED IN MATHESON LAKE. (REF. 20-5)
CT CUTTHROAT TROUT	ANAD. CT FOUND IN THE SYSTEM. ASCEND THE STREAM TO MATHESON LAKE TO SPAWN, MAINLY IN THE FIRST 60M BELOW THE LAKE. CT APPARENTLY NAVIGATE THE FALLS. (REF. 20-3, REF. 20-5, REF. 20-6)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
NO INFORMATION AVAILABLE							

F. LIFE HISTORY TIMING

Species	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
NO INFORMATION AVAILABLE													

G. ENHANCEMENT/MANAGEMENT ACTIVITIES IN WATERSHED

Type of Activity	Species	Location (km U/S)	Comments	Period of Operation Start/Finish
EN ENHANCEMENT ACTS		0.0	SOOKE CONSERVATION SOCIETY SPREAD SPAWNING GRAVEL IN MATHESON C IN 1979. (REF. 20-7)	1979/
TR TRANSPLANT	CO COHO SALMON	0.0	FRY PLANTING 1980 - 1983; MINIMAL RETURNS. (REF. 20-38)	1980/1983

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	PAST LOGGING (REF. 20-2)
PR PARKS	RECREATIONAL LAKE. (REF. 20-38)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

DAM SHOULD BE MODIFIED TO PROVIDE FREE ACCESS OF MATHESON LAKE CUTTHROAT. (REF. 20-5)
HABITAT VARIETY IS EXCELLENT IN THIS STREAM BUT IT BECOMES INTERMITTENT IN DRY PERIODS. (REF. 20-5)
ONE INLET HAS SOME POTENTIAL BUT IS FLASHY AND DRIES COMPLETELY SOMETIME IN JUNE. (REF. 20-4)
OUTLET PRESENTLY PROVIDES LIMITED SPAWNING AND IS SUITABLE FOR MINOR IMPROVEMENT, CT PARR SCATTERED IN ISOLATED POOLS, NO COHO NOTED BELOW FALLS. (REF. 20-4)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:
--------------------	--------------

K. SIS COMPLETED BY

Completed by:	GITA KAPAH	Date:	1986/04/07
Checked by:	JOHN STEPHEN	Date:	1986/04/07
Last updated by:	GITA KAPAH	Date:	1987/09/22
Last checked by:	BRIAN TUTTY	Date:	1987/09/25

REFERENCE NO: 20- 2

AUTHOR: UNKNOWN 1983.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS ; MATHESON CREEK.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 3

AUTHOR:
DESCRIPTION: M.O.E. STREAM AND LAKE INVENTORY MAPS: MAP 92 B/5 E&W (1971)1:50,000.
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AF ALL SPECIES PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 4

AUTHOR: BURNS, J.E.
DESCRIPTION: LAKES OF THE VICTORIA AREA: A CURSORY EVALUATION WITH SOME MANAGEMENT RECOMMENDATIONS.
LOCATION: M MOE - FISHERIES BRANCH - VICTORIA
KEYWORDS: AF ALL SPECIES HS HABITAT SAMPLING PY PHYSICAL HABITAT

REFERENCE NO: 20- 5

AUTHOR: BURNS, TED & ROB FALLS ; 1977
DESCRIPTION: SEA RUN CUTTHROAT TROUT IN THE GREATER VICTORIA AREA - THEIR PRESENT STATUS AND OPPORTUNITIES FOR ENHANCEMENT.
LOCATION: M MOE - FISHERIES BRANCH - VICTORIA
KEYWORDS: CT CUTTHROAT TROUT EN ENHANCEMENT FS FISH SAMPLING
HS HABITAT SAMPLING

REFERENCE NO: 20- 6

AUTHOR: LANGFORD, R.W. & TED BURNS ; 1977
DESCRIPTION: LAKE AND STREAM INVENTORY OF THE CAPITAL REGIONAL DISTRICT
LOCATION: M MOE - FISHERIES BRANCH - VICTORIA
KEYWORDS: FS FISH SAMPLING HS HABITAT SAMPLING PY PHYSICAL HABITAT

REFERENCE NO: 20- 7

AUTHOR: ASSORTED DATES AND AUTHORS
DESCRIPTION: MATHESON LAKE FILE
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AF ALL SPECIES HS HABITAT SAMPLING PY PHYSICAL HABITAT

REFERENCE NO: 20- 38

AUTHOR: STEPHEN, JOHN. FISHERY OFFICER, SOOKE OFFICE.
DESCRIPTION: PERSONAL INFORMATION ABOUT STREAMS WITHIN STATISTICAL AREA 20.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

A. DESCRIPTION

Stream Name: AYUM CREEK	D.F.O. Division: SOUTH COAST
Local Name: STONEY CREEK	District: 6 VICTORIA
Watershed Code: 93-0250	Subdistrict: 20 SOOKE
	Statistical Subarea: 20-7
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit: 2

Tributaries	Code	Topographic (1:50k) Map: 92B/5
		B.C.G.S. (1:20k) Map: 452535
		U.T.M. Mouth: 48 DG. 23' 31'' 123 DG. 39' 23''
		Mainstem Length: Ref. No.:
		Watershed Area: Ref. No.:
Location: FLOWS S.E. & S.W. INTO COOPER COVE, N. SIDE OF SOOKE BASIN (REF.8) DRAINS THE AREA S.E. OF SOOKE MOUNTAIN PARK (REF.6)		

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	VERY STEEP GRADIENT INHOSPITABLE TO FISH OF ANY KIND 1KM UPSTREAM FROM MOUTH (REF. 20-38)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
D DAM				AT GLINZ LAKE. (REF. 20-38)
F FALLS	6.8	1.2		(REF. 20-8)

C. FLOW

Flow Control: Y	Water Survey of Canada (WSC) Flow Gauge:
W.S.C. Station No. 1:	No. 2: No. 3: No. 4:
Comments: EXTREME LOW DISCHARGE AND OVERWINTERING CAPABILITY COULD BE IMPROVED. (REF. 20-5)	
SECOND DAM ON WESTERLY TRIBUTARY (40FT HIGH) CEMENT DAM. BUILT BY SAWMILL AND MAINTAINED BY IT FOR FIREFIGHTING PURPOSES. (REF. 20-38)	
SUMMER FLOW IS LARGELY DEPENDENT ON A CONTROLLED MAKESHIFT DAM AT GLINZ LAKE CONSTRUCTED BY THE YM-YWCA CAMP (1962-70), SAWMILL AND HOUSES IN COOPER'S COVE DRAWS WATER FROM THIS CREEK. (1970) (REF. 20-1)	

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
CO COHO SALMON	A TRIBUTARY THAT PARALLELS HARBOUR VIEW ROAD FOR MUCH OF ITS LENGTH IS ACCESSIBLE FOR ABOUT 15-30M AND REARS LARGE NUMBERS OF CO IN THE SHORT STRETCH AT THE BASE OF A LONG SERIES OF FALLS (TOTAL DROP AT LEAST 30M ; DAM) (REF. 20-6, REF. 20-38)
CO COHO SALMON	HOLD IN GORGE FOR SPAWNING IMMEDIATELY BELOW (REF. 20-8)
CO COHO SALMON	IMMEDIATELY BELOW FALLS (REF. 20-6, REF. 20-38)
CM CHUM SALMON	SPAWN UP TO GORGE (REF. 20-8)
CM CHUM SALMON	THROUGHOUT (REF. 20-6, REF. 20-38)
ST STEELHEAD	NOT POSSIBLE FOR ST TO ASCEND THE DOUBLE FALLS, BUT AMOUNT OF ACCESSIBLE UPSTREAM WATER IS UNKNOWN. A FEW ST REAR IN THE SHORT STRETCH AT THE BASE OF A LONG SERIES OF FALLS (TOTAL DROP AT LEAST 30M; DAM). (REF. 20-6, REF. 20-38)

D. DISTRIBUTION SUMMARY CONTINUED

Species	Watershed Distribution
AO ALL SALMON	AMADROMOUS LENGTH 1.2KM (REF. 20-6)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	48	1971 - 1983	20-8	400	20-8		
CM CHUM SALMON	2242	1973 - 1985	20-8	4000	20-8		

F. LIFE HISTORY TIMING

Species	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CO COHO SALMON	Migration Spawning Incubation Rearing											X	X
CM CHUM SALMON	Migration Spawning Incubation Rearing										X	X X	

G. ENHANCEMENT/MANAGEMENT ACTIVITIES IN WATERSHED

Type of Activity	Species	Location (km U/S)	Comments	Period of Operation Start/Finish
NO INFORMATION AVAILABLE				

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
WW WATER WITHDRAWAL	WATER STORAGE AT YMCA CAMP FOR FIREFIGHTING. (REF. 20-1, REF. 20-38)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

ACCESS IS GOOD AND THERE ARE SOME GOOD FISH POOLS BLEW CN CROSSING AND IN CANYON BELOW FALLS (REF. 20-5)
THE ONLY PRACTICAL ENHANCEMENT OPPORTUNITY WOULD BE UTILIZATION OF AN EXISTING ESTUARINE EXCAVATED POND FOR BRACKISH WATER REARING. (REF. 20-5)

J. FISHERY OFFICER NARRATIVE

Date Prepared: 1987/05/01	Prepared By: J. STEPHEN / G. KAPAH
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K. SIS COMPLETED BY

Completed by: GITA KAPAH	Date: 1986/04/07
Checked by: JOHN STEPHEN	Date: 1986/04/07
Last updated by: GITA KAPAH	Date: 1987/09/22
Last checked by: BRIAN TUTTY	Date: 1987/09/25

REFERENCE NO: 20- 1

AUTHOR: MARSHALL, D.E.; ET AL
DESCRIPTION: PRELIMINARY CATALOGUE OF SALMON STREAMS AND SPAWNING ESCAPEMENTS OF STATISTICAL AREAS 19 & 20 (VICTORIA-SOOKE)
PAC/D-77-9
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AF ALL SPECIES PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 5

AUTHOR: BURNS, TED & ROB FALLS ; 1977
DESCRIPTION: SEA RUN CUTTHROAT TROUT IN THE GREATER VICTORIA AREA - THEIR PRESENT STATUS AND OPPORTUNITIES FOR ENHANCEMENT.
LOCATION: M MOE - FISHERIES BRANCH - VICTORIA
KEYWORDS: CT CUTTHROAT TROUT EN ENHANCEMENT FS FISH SAMPLING
HS HABITAT SAMPLING

REFERENCE NO: 20- 6

AUTHOR: LANGFORD, R.W. & TED BURNS ; 1977
DESCRIPTION: LAKE AND STREAM INVENTORY OF THE CAPITAL REGIONAL DISTRICT
LOCATION: M MOE - FISHERIES BRANCH - VICTORIA
KEYWORDS: FS FISH SAMPLING HS HABITAT SAMPLING PY PHYSICAL HABITAT

REFERENCE NO: 20- 8

AUTHOR: UNKNOWN. 1983.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS ; AYUM CREEK 1983 (SOOKE OFFICE)
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 38

AUTHOR: STEPHEN, JOHN. FISHERY OFFICER, SOOKE OFFICE.
DESCRIPTION: PERSONAL INFORMATION ABOUT STREAMS WITHIN STATISTICAL AREA 20.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

F. LIFE HISTORY TIMING CONTINUED

Species	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CM CHUM SALMON	Migration Spawning Incubation Rearing											X X	X
CT CUTTHROAT TROUT	Migration Spawning Incubation Rearing	X X											

Comments: POOR RETURN FROM THE 1900 CO FRY INTRODUCED IN 1981 (REF. 20-9)

G. ENHANCEMENT/MANAGEMENT ACTIVITIES IN WATERSHED

Type of Activity	Species	Location (km U/S)	Comments	Period of Operation Start/Finish
SI STREAM IMPROVEM'T		0.0	CLEARING OF SAND AND MUD FROM STREAM COURSE AND REPLACING IT WITH SPAWNING GRAVEL. ALSO SEVERAL REARING POOLS WERE DUG FROM THE HIGHWAY CULVERT TO THE POND. (REF. 20-9)	1982/1982

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
AG AGRICULTURE	(REF. 20-38)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

NO INFORMATION AVAILABLE

J. FISHERY OFFICER NARRATIVE

Date Prepared: 1987/05/01 Prepared By: J. STEPHEN/ G. KAPAHI

K. SIS COMPLETED BY

Completed by:	GITA KAPAHI	Date:	1986/04/07
Checked by:	JOHN STEPHEN	Date:	1986/04/07
Last updated by:	GITA KAPAHI	Date:	1987/09/22
Last checked by:	BRIAN TUTTY	Date:	1987/09/25

REFERENCE LIST
1987/09/28

Watershed Code: 93-0275
Stream Name: KALTASIN CREEK
Page: 1

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REFERENCE NO: 20- 3

AUTHOR:

DESCRIPTION: M.O.E. STREAM AND LAKE INVENTORY MAPS; MAP 92 B/5 E&W (1971)1:50,000.

LOCATION: 0 MOE - REGION 1 - NANAIMO

KEYWORDS: AF ALL SPECIES PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 9

AUTHOR:

UNKNOWN. 1980,1982,1983.

DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS; LANNON CREEK 1980,1982,1983.

LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)

KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 38

AUTHOR:

STEPHEN,JOHN. FISHERY OFFICER, SOOKE OFFICE.

DESCRIPTION: PERSONAL INFORMATION ABOUT STREAMS WITHIN STATISTICAL AREA 20.

LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)

KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

A. DESCRIPTION

Stream Name: SOOKE RIVER	D.F.O. Division: SOUTH COAST
Local Name:	District: 6 VICTORIA
Watershed Code: 93-0300	Subdistrict: 20 SOOKE
	Statistical Subarea: 20-6
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit: 2

Tributaries	Code	Topographic (1:50k) Map: 92B/5
DE MAMIEL CREEK	050	B.C.G.S. (1:20k) Map:
CHARTERS RIVER	100	U.T.M. Mouth: 485590
		Lat./Long. Mouth: 48 DG. 23' 8" 123 DG. 41' 50"
		Mainstem Length: 16.0 km Ref. No.: 20-1
		Watershed Area: 77.0 km² Ref. No.: 20-1
Location: FLows S. INTO SOOKE HARBOUR, SOOKE DISTRICT.		

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	UNIFORMLY LEVEL FROM POTHoles TO TIDAL INFLUENCE (REF. 20-38)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
F FALLS		9.7	AO ALL SALMON	(REF. 20-1)

C. FLOW

Flow Control: Y	Water Survey of Canada (WSC) Flow Gauge: Y		
W.S.C. Station No. 1: 08HA005	No. 2: 08HA006	No. 3: 08HA018	No. 4: 08HA029
Comments: 08HA005 ; LOCATED ON SOOKE RIVER NEAR SOOKE LAKE (REF. 20-39)			
08HA006 ; LOCATED ON SOOKE RIVER (VICTORIA WATER SUPPLY) (REF. 20-39)			
08HA018 ; LOCATED ON SOOKE RIVER ABOVE TODD C (REF. 20-39)			
08HA029 ; LOCATED ON SOOKE RIVER BELOW CHARTERS RIVER (REF. 20-39)			

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
SK SOCKEYE SALMON	OCCASIONAL (REF. 20-38)
CO COHO SALMON	THROUGHOUT (REF. 20-38)
CM CHUM SALMON	THROUGHOUT (REF. 20-1)
CH CHINOOK SALMON	SPRING SALMON NOW FOUND AS A RESULT OF ENHANCEMENT ACTIVITIES (IN PAST FEW YEARS) (REF. 20-38)
CH CHINOOK SALMON	THROUGHOUT (REF. 20-1)
ST STEELHEAD	PRESENT (REF. 20-38)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	122	1971 - 1983	20-11	400	20-11		
CM CHUM SALMON	20917	1971 - 1983	20-11	75000	20-11		
CH CHINOOK SALMON	437	1971 - 1983	20-11	3500	20-11		

F. LIFE HISTORY TIMING

Species	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CO COHO SALMON	Migration Spawning Incubation Rearing										X	X X	X X
CM CHUM SALMON	Migration Spawning Incubation Rearing									X	X X	X X	X
CH CHINOOK SALMON	Migration Spawning Incubation Rearing										X	X X	

G. ENHANCEMENT/MANAGEMENT ACTIVITIES IN WATERSHED

Type of Activity	Species	Location (km U/S)	Comments	Period of Operation Start/Finish
BX INCUBATION BOX	CO COHO SALMON	0.0	(REF. 20-38)	1972/
BX INCUBATION BOX	CH CHINOOK SALMON CO COHO SALMON ST STEELHEAD	0.0	ON ROCKY C, TRANSPLANTING CO,CH,AND ST TO SOOKE R. (REF. 20-38)	1979/

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	IN UPPER LEACH R (TRIB. TO UPPER SOOKE) (REF. 20-38)
MI MINING	UPSTREAM OF OBSTRUCTION ARE OCCASIONAL PLACER MINES (REF. 20-38)
RE RESERVES	HUGE RESERVOIR, SOOKE LAKE, SUPPLYS VICTORIA WITH WATER. (REF. 20-38)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

EXCELLENT HABITAT UPSTREAM OF OBSTRUCTION. WOULD LIKE TO SEE OBSTRUCTION REMOVED. (REF. 20-38)
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J. FISHERY OFFICER NARRATIVE

Date Prepared: 1987/05/01	Prepared By: J. STEPHEN/ G. KAPAH
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K. SIS COMPLETED BY

Completed by:	GITA KAPAHI	Date:	1986/04/07
Checked by:	JOHN STEPHEN	Date:	1986/04/07
Last updated by:	GITA KAPAHI	Date:	1987/09/22
Last checked by:	BRIAN TUTTY	Date:	1987/09/25

REFERENCE LIST
1987/09/28

Watershed Code: 93-0300
Stream Name: SOOKE RIVER
Page: 1

REFERENCE NO: 20- 1

AUTHOR: MARSHALL,D.E.;ET AL
DESCRIPTION: PRELIMINARY CATALOGUE OF SALMON STREAMS AND SPAWNING ESCAPEMENTS OF STATISTICAL AREAS 19 & 20 (VICTORIA-SOOKE)
PAC/D-77-9
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AF ALL SPECIES PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 11

AUTHOR: ASSORTED DATES AND AUTHORS
DESCRIPTION: SOOKE RIVER FILES
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AF ALL SPECIES PY PHYSICAL HABITAT

REFERENCE NO: 20- 38

AUTHOR: STEPHEN,JOHN. FISHERY OFFICER, SOOKE OFFICE.
DESCRIPTION: PERSONAL INFORMATION ABOUT STREAMS WITHIN STATISTICAL AREA 20.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AD ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 39

AUTHOR: INLAND WATERS DIRECTORATE, WATER RESOURCES BRANCH
DESCRIPTION: SURFACE WATER DATA, BRITISH COLUMBIA; 1984
LOCATION: CC WATER SURVEY CANADA - VANCOUVER
KEYWORDS: FL FLOW

D. DISTRIBUTION SUMMARY CONTINUED

Species	Watershed Distribution
CT CUTTHROAT TROUT	TO 14.0KM. (?; REF.38) (REF. 20-11)
RB RAINBOW TROUT	SOME RESIDENT RB'S MUST ALSO BE IN YOUNG LAKE SINCE ST MIGRATE THROUGH THE LAKE. (?; REF 38) (REF. 20-4)
SMB SMALLMOUTH BASS	IN YOUNG LAKE (REF. 20-4)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	1611	1971 - 1983	20-11	6400	20-11		
CM CHUM SALMON	8646	1971 - 1983	20-11	35000	20-11		
Comments: BASS FISHING IS SAID TO HAVE DECLINED SINCE CONSTRUCTION OF THE FISHERIES SERVICE DAM. (REF. 20-4)							
CM OVERSPAWN THROUGHOUT (1980) (REF. 20-10)							
CO AND ANADROMOUS CT ARE PARTICULARLY STRONG IN SYSTEM (REF. 20-5)							
DUE TO IMPASSABLE WATER LEVELS, MUCH OF DE MAMIEL CREEK CM STOCKS SPAWNED IN LOWER SOOKE RIVER (1974) (REF. 20-10)							
EXTREMELY IMPORTANT REGIONAL SALMONID PRODUCER (REF. 20-5)							
INLET TO YOUNG LAKE PROVIDES EXCELLENT SPAWNING FOR AT LEAST 3.2 KM UPSTREAM AND ALTHOUGH THE OUTLET IS DAMMED BELOW WHAT MIGHT HAVE BEEN A TRADITIONAL SPAWNING AREA, SOME SPAWNING MAY STILL OCCUR HERE. (REF. 20-4)							

F. LIFE HISTORY TIMING

Species	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CO COHO SALMON	Migration Spawning Incubation Rearing	X									X	X X	X X
CM CHUM SALMON	Migration Spawning Incubation Rearing										X X	X X	X
ST STEELHEAD	Migration Spawning Incubation Rearing	X X											X X
CT CUTTHROAT TROUT	Migration Spawning Incubation Rearing											X X	X X

G. ENHANCEMENT/MANAGEMENT ACTIVITIES IN WATERSHED

Type of Activity	Species	Location (km U/S)	Comments	Period of Operation Start/Finish
CF COUNTING FENCE	CO COHO SALMON	0.0	ADULT TRAPPING FENCE AT YOUNG LAKE WHICH SUPPLIES ROCKY C HATCHERY (REF. 20-38)	1977/
CO COLONIZATION		0.0	MOST OF FRY REINTRODUCED INTO DE MAMIEL (REF. 20-38)	/

G. ENHANCEMENT/MANAGEMENT ACTIVITIES IN WATERSHED CONTINUED

Type of Activity	Species	Location (km U/S)	Comments	Period of Operation Start/Finish
FS FISH SAMPLING		0.0	SMOLT TRAP AT BOTTOM END OF DE MAMIEL (REF. 20-38)	1984/
SI STREAM IMPROVEM'T		0.0	LOG JAMS REMOVED ANNUALLY BY WINTER WORK CREWS. FRY FED AND RESCUED ANNUALLY BY STUDENT CREWS. (REF. 20-38)	/

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	15 YEARS WATERSHED WAS LOGGED (1950) (REF. 20-10)
PR PARKS	YOUNG LAKE ALSO USED FOR RECREATION (REF. 20-38)
WW WATER WITHDRAWAL	USED EXTENSIVELY FOR DOMESTIC WATER SUPPLY (REF. 20-38)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

A LAMPREY FULL OF ROE WAS CAUGHT IN MAY 1984. (REF. 20-3B)
MYSTERY SINCE BEGAN SMOLT TRAP, SMOLT SURVIVAL FOR COHO IN 1984 WAS 2.5 %, IN 1985 IT WAS 11.5 % (REF. 20-38)
RECRUITMENT POTENTIAL FOR YOUNG LAKE IS VERY GOOD. (REF. 20-4)

J. FISHERY OFFICER NARRATIVE

Date Prepared: 1987/05/01	Prepared By: J. STEPHEN/ G. KAPAH
---------------------------	-----------------------------------

K. SIS COMPLETED BY

Completed by: GITA KAPAH	Date: 1986/04/07
Checked by: JOHN STEPHEN	Date: 1986/04/07
Last updated by: GITA KAPAH	Date: 1987/09/22
Last checked by: BRIAN TUTTY	Date: 1987/09/25

REFERENCE NO: 20- 1

AUTHOR: MARSHALL, D.E.; ET AL
DESCRIPTION: PRELIMINARY CATALOGUE OF SALMON STREAMS AND SPAWNING ESCAPEMENTS OF STATISTICAL AREAS 19 & 20 (VICTORIA-SOOKE)
PAC/D-77-9
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AF ALL SPECIES PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 4

AUTHOR: BURNS, J.E.
DESCRIPTION: LAKES OF THE VICTORIA AREA: A CURSORY EVALUATION WITH SOME MANAGEMENT RECOMMENDATIONS.
LOCATION: M MOE - FISHERIES BRANCH - VICTORIA
KEYWORDS: AF ALL SPECIES HS HABITAT SAMPLING PY PHYSICAL HABITAT

REFERENCE NO: 20- 5

AUTHOR: BURNS, TED & ROB FALLS ; 1977
DESCRIPTION: SEA RUN CUTTHROAT TROUT IN THE GREATER VICTORIA AREA - THEIR PRESENT STATUS AND OPPORTUNITIES FOR ENHANCEMENT.
LOCATION: M MOE - FISHERIES BRANCH - VICTORIA
KEYWORDS: CT CUTTHROAT TROUT EN ENHANCEMENT FS FISH SAMPLING
HS HABITAT SAMPLING

REFERENCE NO: 20- 10

AUTHOR: UNKNOWN. 1982, 1983.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS; DE MAMIEL CREEK. 1982, 1983.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 11

AUTHOR: ASSORTED DATES AND AUTHORS
DESCRIPTION: SOOKE RIVER FILES
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AF ALL SPECIES PY PHYSICAL HABITAT

REFERENCE NO: 20- 38

AUTHOR: STEPHEN, JOHN. FISHERY OFFICER, SOOKE OFFICE.
DESCRIPTION: PERSONAL INFORMATION ABOUT STREAMS WITHIN STATISTICAL AREA 20.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 39

AUTHOR: INLAND WATERS DIRECTORATE, WATER RESOURCES BRANCH
DESCRIPTION: SURFACE WATER DATA, BRITISH COLUMBIA; 1984
LOCATION: CC WATER SURVEY CANADA - VANCOUVER
KEYWORDS: FL FLOW

A. DESCRIPTION

Stream Name: UNNAMED CREEK	D.F.O. Division: SOUTH COAST
Local Name: ROCKY CREEK, STONEY CREEK	District: 6 VICTORIA
Watershed Code: 93-0300-050-030	Subdistrict: 20 SOOKE
	Statistical Subarea: 20-6
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit: 2

Tributaries	Code	Topographic (1:50k) Map: 92B/5
		B.C.G.S. (1:20k) Map:
		U.T.M. Mouth:
		Lat./Long. Mouth: 0 DG. 0' 0'' 0 DG. 0' 0''
		Mainstem Length: Ref. No.:
		Watershed Area: Ref. No.:
Location:		

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	MODERATE TO HATCHERY THEN STEEP UPSTREAM. (REF. 20-38)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
NO INFORMATION AVAILABLE				

C. FLOW

Flow Control:	Water Survey of Canada (WSC) Flow Gauge:
W.S.C. Station No. 1:	No. 2: No. 3: No. 4:
Comments: SUBJECT TO FURIOUS FLOODING. SUBJECT TO EXTREME DROUGHT IN SUMMER. (REF. 20-38)	

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
CO COHO SALMON	UP TO HATCHERY WATER INTAKE (1/4MI) (REF. 20-38)
CM CHUM SALMON	UP TO HATCHERY WATER INTAKE (REF. 20-38)
CH CHINOOK SALMON	UP TO HATCHERY WATER INTAKE (REF. 20-38)
ST STEELHEAD	UP TO HATCHERY WATER INTAKE (REF. 20-38)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
NO INFORMATION AVAILABLE							

F. LIFE HISTORY TIMING

Species	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CO COHO SALMON	Migration Spawning Incubation Rearing	X									X	X X	X X

F. LIFE HISTORY TIMING CONTINUED

Species	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CM CHUM SALMON	Migration Spawning Incubation Rearing										X X	X X	X
CH CHINOOK SALMON	Migration Spawning Incubation Rearing										X	X X	
ST STEELHEAD	Migration Spawning Incubation Rearing	X X											X X

G. ENHANCEMENT/MANAGEMENT ACTIVITIES IN WATERSHED

Type of Activity	Species	Location (km U/S)	Comments	Period of Operation Start/Finish
HY HATCHERY		0.0	LOCATED ON CREEK (REF. 20-38)	1981/
TR TRANSPLANT	CH CHINOOK SALMON CO COHO SALMON	0.0	FRY RESCUING AND FEEDING BY SUMMER STUDENTS (REF. 20-38)	1981/

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	CREEK ACTS AS A HUGE DITCH ALONG MAIN LOGGING ROAD, WATER OFTEN BECOMES QUITE TURBID (REF. 20-38)
FO FORESTRY	HEAVY LOGGING IN UPPER REACHES (REF. 20-38)
WW WATER WITHDRAWAL	HATCHERY WATER INTAKE 0.7 KM UPSTREAM FROM DE MAMIEL (REF. 20-38)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

DOWNSTREAM OF HATCHERY SHOULD BE EXCAVATED. TOO MUCH GRAVEL, NOT ENOUGH WATER. (REF. 20-38)

J. FISHERY OFFICER NARRATIVE

Date Prepared: 1987/05/01

Prepared By: J. STEPHEN/ G. KAPAHI

K. SIS COMPLETED BY

Completed by:	GITA KAPAHI	Date:	1986/04/07
Checked by:	JOHN STEPHEN	Date:	1986/04/07
Last updated by:	GITA KAPAHI	Date:	1987/09/22
Last checked by:	BRIAN TUTTY	Date:	1987/09/25

REFERENCE LIST
1987/09/28

Watershed Code: 93-0300-050-030
Stream Name: UNNAMED CREEK
Page: 1

REFERENCE NO: 20- 38

AUTHOR: STEPHEN, JOHN. FISHERY OFFICER, SOOKE OFFICE.
DESCRIPTION: PERSONAL INFORMATION ABOUT STREAMS WITHIN STATISTICAL AREA 20.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPawning

A. DESCRIPTION

Stream Name: CHARTERS RIVER	D.F.O. Division: SOUTH COAST
Local Name: CHARTERS (EAST BRANCH) RIVER	District: 6 VICTORIA
Watershed Code: 93-0300-100	Subdistrict: 20 SOOKE
	Statistical Subarea: 20-6
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit: 2

Tributaries	Code	Topographic (1:50k) Map: 92B/5
		B.C.G.S. (1:20k) Map: 475624
		U.T.M. Mouth: 48 DG. 24' 55'' 123 DG. 42' 38''
		Mainstem Length: Ref. No.:
		Watershed Area: Ref. No.:
Location: FLOWS INTO SOOKE RIVER		

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	EVEN, WIDE FLOW ABOUT 2/3 WAY UP FROM SOOKE R, THEN BOULDERY UP TO THE DAM (LAST 1/3) (REF. 20-38)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
D DAM				DAM IS UPWARD LIMIT TO MIGRATION (REF. 20-38)
D DAM		1.2		BUILT TO SUPPLY SOOKE AREA WATER NEEDS (REF. 20-5, REF. 20-12)
F FALLS	3.0	1.8		(REF. 20-3)

C. FLOW

Flow Control: Y	Water Survey of Canada (WSC) Flow Gauge:
W.S.C. Station No. 1:	No. 2: No. 3: No. 4:
Comments: FRY MAY GET WASHED OUT OF SYSTEM EVERY 5 YEARS WHEN DAM IS FLUSHED (REF. 20-38)	
MANY YOUNG SALMONIDS, ESPECIALLY COHO, DIE WHEN POOLS DRY DURING CRITICAL DISCHARGE PERIODS. (REF. 20-5)	

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
CO COHO SALMON	0.0 TO 0.6KM (REF. 20-11)
CM CHUM SALMON	0.0 TO 0.6KM (REF. 20-11, REF. 20-12)
CH CHINOOK SALMON	ALSO UTILIZE RIVER (REF. 20-5)
ST STEELHEAD	0.0 TO 0.6KM (REF. 20-11)
AO ALL SALMON	FROM 1.0 KM UPSTREAM FROM MOUTH TO 1.8KM IS INACCESSIBLE TO MIGRANT FISH (REF. 20-3, REF. 20-12)
CT CUTTHROAT TROUT	0.0 TO 5.3KM; 5.4KM TO 6.2KM (REF. 20-11)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	57	1983 -	20-12	57	20-12		
CM CHUM SALMON	1100	1983 -	20-12	1100	20-12		
Comments: MINOR PRODUCER (REF. 20-6)							
ONLY ONE YEAR OF ESCAPEMENT DATA AVAIL. (REF. 20-12)							

F. LIFE HISTORY TIMING

Species	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CO COHO SALMON	Migration Spawning Incubation Rearing											X	X
CM CHUM SALMON	Migration Spawning Incubation Rearing										X X	X X	

G. ENHANCEMENT/MANAGEMENT ACTIVITIES IN WATERSHED

Type of Activity	Species	Location (km U/S)	Comments	Period of Operation Start/Finish
SI STREAM IMPROVEM'T		0.0	MR. E. VANBEEN, STREAMSIDE RESIDENT, RIP-RAPPED AND CEMENTED THE SOUTH BANK AT THE MOUTH TO STABILIZE STREAM FLOW; WORK COMPLETED APR. 1982 AND HAS BEEN SUCCESSFUL. (REF. 20-12)	1982/1982

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	UPSTREAM LOGGING (REF. 20-38)
RE RESERVES	DRINKING WATER RESERVOIR FOR SOOKE ON CHARTERS RUN BY GVWD (REF. 20-38)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

SOME POTENTIAL HABITAT (REF. 20-3)
STREAM NEEDS MORE WATER, CONTROL OF UPSTREAM LAKES COULD PRODUCE ENOUGH WATER FOR CRITICAL PERIOD DISCHARGE. (REF. 20-5)
VERY LIMITED SPAWNING HABITAT PRESENT, REARING FAVORABLE, HOWEVER, WHICH MAY ATTRACT SOOKE RIVER JUVENILES, OVERWINTERING CAPABILITY IS LOW. (REF. 20-5)

J. FISHERY OFFICER NARRATIVE

Date Prepared: 1987/05/01	Prepared By: J. STEPHEN/ G. KAPAH
---------------------------	-----------------------------------

K. SIS COMPLETED BY

Completed by: GITA KAPAH	Date: 1986/04/07
Checked by: JOHN STEPHEN	Date: 1986/04/07
Last updated by: GITA KAPAH	Date: 1987/09/22
Last checked by: BRIAN TUTTY	Date: 1987/09/25

REFERENCE NO: 20- 3

AUTHOR:
DESCRIPTION: M.O.E. STREAM AND LAKE INVENTORY MAPS: MAP 92 B/5 E&W (1971)1:50,000.
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AF ALL SPECIES PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 5

AUTHOR: BURNS, TED & ROB FALLS ; 1977
DESCRIPTION: SEA RUN CUTTHROAT TROUT IN THE GREATER VICTORIA AREA - THEIR PRESENT STATUS AND OPPORTUNITIES FOR ENHANCEMENT.
LOCATION: M MOE - FISHERIES BRANCH - VICTORIA
KEYWORDS: CT CUTTHROAT TROUT EN ENHANCEMENT FS FISH SAMPLING
HS HABITAT SAMPLING

REFERENCE NO: 20- 6

AUTHOR: LANGFORD, R.W. & TED BURNS ; 1977
DESCRIPTION: LAKE AND STREAM INVENTORY OF THE CAPITAL REGIONAL DISTRICT
LOCATION: M MOE - FISHERIES BRANCH - VICTORIA
KEYWORDS: FS FISH SAMPLING HS HABITAT SAMPLING PY PHYSICAL HABITAT

REFERENCE NO: 20- 11

AUTHOR: ASSORTED DATES AND AUTHORS
DESCRIPTION: SOOKE RIVER FILES
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AF ALL SPECIES PY PHYSICAL HABITAT

REFERENCE NO: 20- 12

AUTHOR: UNKNOWN. 1981,1982,1983.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS; CHARTERS CREEK. 1981, 1982, 1983.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON FS FISH SAMPLING PY PHYSICAL HABITAT
S SPAWNING

REFERENCE NO: 20- 38

AUTHOR: STEPHEN,JOHN. FISHERY OFFICER, SOOKE OFFICE.
DESCRIPTION: PERSONAL INFORMATION ABOUT STREAMS WITHIN STATISTICAL AREA 20.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

A. DESCRIPTION

Stream Name: TUGWELL CREEK	D.F.O. Division: SOUTH COAST
Local Name:	District: 6 VICTORIA
Watershed Code: 93-0380	Subdistrict: 20 SOOKE
	Statistical Subarea: 20-5
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit: 2

Tributaries	Code	Topographic (1:50k) Map: 92B/5
		B.C.G.S. (1:20k) Map:
		U.T.M. Mouth: .370582
		Lat./Long. Mouth: 48 DG. 22' 33'' 123 DG. 50' 56''
		Mainstem Length: 7.0 km Ref. No.: 20-1
		Watershed Area: Ref. No.:
Location: FLOWS S. INTO ORVEAS BAY, N.W. OF OTTER PT., OTTER DIST.		

Gradient Class/Location (km upstream from mouth)					Comments
0 - .5%	.5 - 2%	2 - 5%	5 - 10%	>10%	LEVEL FROM THE OCEAN UNTIL ABOUT 2KM UPSTREAM, THEN BECOMES ROUGH AND ROCKY. (REF. 20-38)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
C CASCADE		2.0		(REF. 20-38)
C CASCADE		8.0	A0 ALL SALMON	EXTENSIVE EROSION THROUGHOUT CREATING EXCESSIVE GRAVEL MOVEMENT (REF. 20-13)
F FALLS		8.0	A0 ALL SALMON	(REF. 20-1)

C. FLOW

Flow Control:	Water Survey of Canada (WSC) Flow Gauge: Y
W.S.C. Station No. 1: 08HA031	No. 2: No. 3: No. 4:
Comments: GAUGE LOCATED AT THE MOUTH. (REF. 20-39)	

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
CO COHO SALMON	0.0 TO 4.8KM. SPARSELY SCATTERED THROUGHOUT SYSTEM BUT SPAWNING CONCENTRATED BELOW CASCADES. (REF. 20-1, REF. 20-13)
CM CHUM SALMON	LOWER 500M (REF. 20-1, REF. 20-13)
ST STEELHEAD	ALSO FOUND IN THIS SYSTEM (REF. 20-3)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	63	1971 - 1983	20-13	200	20-13		
CM CHUM SALMON	41	1971 - 1983	20-13	200	20-13		

F. LIFE HISTORY TIMING

Species	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CO COHO SALMON	Migration Spawning Incubation Rearing										X	X X	
CM CHUM SALMON	Migration Spawning Incubation Rearing											X X	X

Comments: A SANDBAR AT THE MOUTH OFTEN PREVENTS SMOLTS AND SPAWNED OUT ST FROM GETTING OUT TO SEA UNTIL SPRING FRESHET (REF. 20-38)

G. ENHANCEMENT/MANAGEMENT ACTIVITIES IN WATERSHED

Type of Activity	Species	Location (km U/S)	Comments	Period of Operation Start/Finish
TR TRANSPLANT	CO COHO SALMON	0.0	FRY DONATED TO TUGWELL C FROM ROCKY C HATCHERY SINCE 1979. NO APPARENT CORRESPONDING RETURN SO TERMINATED. (REF. 20-38)	1979/1984

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	EXTENSIVE LOGGING IN UPPER WATERSHED HAS CONTRIBUTED TO EXTENSIVE GRAVEL IN LOWER END. (REF. 20-38)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

CAPABLE OF SUPPORTING MANY MORE SALMON THAN IT PRESENTLY DOES. (REF. 20-13)
ESCAPEMENT AFFECTED BY HEAVY COMMERCIAL FISHING DURING MIGRATION, LOGGING AND CHEMICAL SPRAYING (1967) (REF. 20-13)
LARGE ACCUMULATION OF GRAVEL IN LOWER 1KM OF STREAM (REF. 20-38)
PHOTOS AVAILABLE (REF. 20-13)

J. FISHERY OFFICER NARRATIVE

Date Prepared: 1987/05/01	Prepared By: J. STEPHEN/ G. KAPAH
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K. SIS COMPLETED BY

Completed by: GITA KAPAH	Date: 1986/04/07
Checked by: JOHN STEPHEN	Date: 1986/04/07
Last updated by: GITA KAPAH	Date: 1987/09/22
Last checked by: BRIAN TUTTY	Date: 1987/09/25

REFERENCE NO: 20- 1

AUTHOR: MARSHALL, D.E.; ET AL
DESCRIPTION: PRELIMINARY CATALOGUE OF SALMON STREAMS AND SPAWNING ESCAPEMENTS OF STATISTICAL AREAS 19 & 20 (VICTORIA-SOOKE)
PAC/D-77-9
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AF ALL SPECIES PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 3

AUTHOR:
DESCRIPTION: M.O.E. STREAM AND LAKE INVENTORY MAPS; MAP 92 B/5 E&W (1971)1:50,000.
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AF ALL SPECIES PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 13

AUTHOR: UNKNOWN. 1980, 1982, 1983.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS; TUGWELL CREEK 1980, 1982, 1983.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 38

AUTHOR: STEPHEN, JOHN. FISHERY OFFICER, SOOKE OFFICE.
DESCRIPTION: PERSONAL INFORMATION ABOUT STREAMS WITHIN STATISTICAL AREA 20.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 39

AUTHOR: INLAND WATERS DIRECTORATE, WATER RESOURCES BRANCH
DESCRIPTION: SURFACE WATER DATA, BRITISH COLUMBIA; 1984
LOCATION: CC WATER SURVEY CANADA - VANCOUVER
KEYWORDS: FL FLOW

A. DESCRIPTION

Stream Name: MUIR CREEK	D.F.O. Division: SOUTH COAST
Local Name:	District: 6 VICTORIA
Watershed Code: 93-0400	Subdistrict: 20 SOOKE
	Statistical Subarea: 20-5
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit: 2

Tributaries	Code	Topographic (1:50k) Map: 92B/5
		B.C.G.S. (1:20k) Map:
		U.T.M. Mouth: 355613
		Lat./Long. Mouth: 48 DG. 24' 7'' 123 DG. 52' 22''
		Mainstem Length: 17.0 km Ref. No.: 20-1
		Watershed Area: Ref. No.:
Location: FLows S. INTO ORVEAS BAY, E. OF SHERINGHAM Pt., MALAHAT DIST.		

Gradient Class/Location (km upstream from mouth)					Comments
0 - .5%	.5 - 2%	2 - 5%	5 - 10%	>10%	
					VERY EVEN AND LEVEL FOR 2KM FROM SALT WATER THEN HITS A STEEP ROCKY CASCADE (REF. 20-38)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
F FALLS		8.0	A0 ALL SALMON	(REF. 20-1, REF. 20-14)

C. FLOW

Flow Control:	Water Survey of Canada (WSC) Flow Gauge:		
W.S.C. Station No. 1:	No. 2:	No. 3:	No. 4:
Comments: WATER LEVELS NORMAL (REF. 20-14)			

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
CO COHO SALMON	LOWER 4.8KM (REF. 20-1, REF. 20-14)
CM CHUM SALMON	LOWER 4.8KM (REF. 20-1, REF. 20-14)
ST STEELHEAD	PRESENT (REF. 20-38)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	43	1973 - 1983	20-14	100	20-14		
CM CHUM SALMON	954	1971 - 1983	20-14	8130	20-14		

F. LIFE HISTORY TIMING

Species	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CO COHO SALMON	Migration Spawning Incubation Rearing											X X	X
CM CHUM SALMON	Migration Spawning Incubation Rearing										X	X X	

G. ENHANCEMENT/MANAGEMENT ACTIVITIES IN WATERSHED

Type of Activity	Species	Location (km U/S)	Comments	Period of Operation Start/Finish
SI STREAM IMPROVEM'T	CO COHO SALMON	0.0	FROM ROCKY C DROPPED IN UPPER REACHES OF MUIR C WITH NO APPARENT EFFECT. PROGRAM TERMINATED. (REF. 20-38)	1979/1984

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	QUICK RUNOFF AND SILTING ARE CONTINUING PROBLEMS CAUSED FROM PREVIOUS LOGGING (REF. 20-14)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

NO INFORMATION AVAILABLE

J. FISHERY OFFICER NARRATIVE

Date Prepared: 1987/05/01 Prepared By: J. STEPHEN/ G. KAPAHI

K. SIS COMPLETED BY

Completed by:	GITA KAPAHI	Date:	1986/04/07
Checked by:	JOHN STEPHEN	Date:	1986/04/07
Last updated by:	GITA KAPAHI	Date:	1987/09/22
Last checked by:	BRIAN TUTTY	Date:	1987/09/25

REFERENCE NO: 20- 1

AUTHOR: MARSHALL, D.E.; ET AL
DESCRIPTION: PRELIMINARY CATALOGUE OF SALMON STREAMS AND SPAWNING ESCAPEMENTS OF STATISTICAL AREAS 19 & 20 (VICTORIA-SOOKE)
PAC/D-77-9
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AF ALL SPECIES PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 14

AUTHOR: UNKNOWN. 1983
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS; MUIR CREEK.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AD ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 38

AUTHOR: STEPHEN, JOHN. FISHERY OFFICER, SOOKE OFFICE.
DESCRIPTION: PERSONAL INFORMATION ABOUT STREAMS WITHIN STATISTICAL AREA 20.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AD ALL SALMON PY PHYSICAL HABITAT S SPAWNING

A. DESCRIPTION

Stream Name: KIRBY CREEK	D.F.O. Division: SOUTH COAST
Local Name: COAL CREEK	District: 6 VICTORIA
Watershed Code: 93-0420	Subdistrict: 20 SOOKE
	Statistical Subarea: 20-5
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit: 3

Tributaries	Code	Topographic (1:50k) Map: 92B/5
		B.C.G.S. (1:20k) Map:
		U.T.M. Mouth: 370589
		Lat./Long. Mouth: 48 DG. 22' 52'' 123 DG. 53' 54''
		Mainstem Length: Ref. No.:
		Watershed Area: Ref. No.:
Location: FLOWS S. INTO ORVEAS BAY, E. OF SHERINGHAM PT., RENFREW DIST.		

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	LOW AND MEANDERING GRADE ON S. SIDE OF HWY BRIDGE, THEN STREAM BECOMES STEEPER UNTIL 2KM UPSTREAM OF HWY BRIDGE, THEN DEVELOPS INTO SMALL CATARACTS BEYOND FISH HABITAT. (REF. 20-38)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
F FALLS		2.4		NARROW ROCK GORGE PASSABLE AT HIGH WATER. (REF. 20-15)
F FALLS		6.4	AF ALL SPECIES	(REF. 20-1, REF. 20-15)

C. FLOW

Flow Control:	Water Survey of Canada (WSC) Flow Gauge:		
W.S.C. Station No. 1:	No. 2:	No. 3:	No. 4:
Comments: HAS STABLE FLOWS (REF. 20-15)			

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
CO COHO SALMON	FOUND FROM LOWEST A-FRAME ON FARM TO GORGE. (REF. 20-15)
CM CHUM SALMON	FROM TIDAL WATERS TO AND INCLUDING WEST BRANCH (REF. 20-15)
CM CHUM SALMON	IN THE LOWER 0.8KM (REF. 20-1, REF. 20-15)
ST STEELHEAD	SHOWN ON M.O.E. MAP (REF. 20-3)
AO ALL SALMON	M.O.E. MAP SHOWS ANADROMOUS LIMIT AT 5KM (REF. 20-3, REF. 20-15)
CT CUTTHROAT TROUT	SHOWN ON M.O.E. MAP. (REF. 20-3)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	63	1971 - 1983	20-15	25	20-15		

E. ESCAPEMENT SUMMARY CONTINUED

Species	Escapement			Maximum Recorded Escapement	[Ref. No.]	Management Target Escapement	[Ref. No.]
	Mean	Period of Record	[Ref. No.]				
CM CHUM SALMON	70	1971 - 1983	20-15	204	20-15		
Comments: HAS GOOD GRAVEL AND SHOULD SUPPORT LARGER RUNS (1974) (REF. 20-15)							

F. LIFE HISTORY TIMING

Species	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CO COHO SALMON	Migration Spawning Incubation Rearing											X X	X
CM CHUM SALMON	Migration Spawning Incubation Rearing										X	X X	X

G. ENHANCEMENT/MANAGEMENT ACTIVITIES IN WATERSHED

Type of Activity	Species	Location (km U/S)	Comments	Period of Operation Start/Finish
BX INCUBATION BOX	CM CHUM SALMON	0.0	HAS BEEN SET UP (REF. 20-15)	1979/1979

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
AG AGRICULTURE	BELOW HIGHWAY BRIDGE (REF. 20-38)
FO FORESTRY	LOGGING IN EXTREME UPPER REACHES, NO APPARENT AFFECT ON STREAM FLOW. (REF. 20-38)
LD LINEAR DEVELOPMENT	NEW HIGHWAY BRIDGE ABUTMENTS CONSTRUCTED IN 1983, COMPLETED 1985. (REF. 20-15)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

NO INFORMATION AVAILABLE

J. FISHERY OFFICER NARRATIVE

Date Prepared: 1987/05/01	Prepared By: J. STEPHEN/ G. KAPAHI
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K. SIS COMPLETED BY

Completed by: GITA KAPAHI	Date: 1986/04/07
Checked by: JOHN STEPHEN	Date: 1986/04/07
Last updated by: GITA KAPAHI	Date: 1987/09/22
Last checked by: BRIAN TUTTY	Date: 1987/09/25

REFERENCE NO: 20- 1

AUTHOR: MARSHALL, D.E.; ET AL
DESCRIPTION: PRELIMINARY CATALOGUE OF SALMON STREAMS AND SPAWNING ESCAPEMENTS OF STATISTICAL AREAS 19 & 20 (VICTORIA-SOOKE)
PAC/D-77-9
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AF ALL SPECIES PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 3

AUTHOR:
DESCRIPTION: M.O.E. STREAM AND LAKE INVENTORY MAPS: MAP 92 B/5 E&W (1971)1:50,000.
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AF ALL SPECIES PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 15

AUTHOR: UNKNOWN. 1981, 1982, 1983.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS; KIRBY CREEK. 1981, 1982, 1983
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 38

AUTHOR: STEPHEN, JOHN. FISHERY OFFICER, SOOKE OFFICE.
DESCRIPTION: PERSONAL INFORMATION ABOUT STREAMS WITHIN STATISTICAL AREA 20.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

A. DESCRIPTION

Stream Name: JORDAN RIVER	D.F.O. Division: SOUTH COAST
Local Name:	District: 6 VICTORIA
Watershed Code: 93-0600	Subdistrict: 20 SOOKE
	Statistical Subarea: 20-4
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit: 3

Tributaries	Code	Topographic (1:50k) Map: 92B/5
		B.C.G.S. (1:20k) Map:
		U.T.M. Mouth:
		Lat./Long. Mouth: 48 DG. 25' 20'' 124 DG. 03' 20''
		Mainstem Length: Ref. No.:
		Watershed Area: Ref. No.:
Location: FLOWS S.W. INTO JUAN DE FUCA STRAIGHT, S.E. SIDE OF SAN SIMEON PT., RENFREW DIST.		

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	
NO INFORMATION AVAILABLE	

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
F FALLS		2.4	AO ALL SALMON	(REF. 20-1, REF. 20-16)

C. FLOW

Flow Control: Y	Water Survey of Canada (WSC) Flow Gauge:
W.S.C. Station No. 1:	No. 2: No. 3: No. 4:
Comments: A THIRD DAM (ELLIOT DAM) AND A NEW POWERHOUSE WERE COMPLETED IN 1971, THIS RENDERED THE RIVER USELESS FOR SALMON PRODUCTION. (CONFIRMED 1984, SOOKE F/O) (REF. 20-16)	
BC HYDRO HAS USED JORDAN R. SINCE ABOUT 1912; 2 STORAGE DAMS, A POWERHOUSE NEAR TIDEWATER AND A DIVERSION FLUME AND PIPELINE TO THE POWERHOUSE. HYDRO AGREED TO PROVIDE 0.98CMS (ENOUGH FOR SPAWNING PURPOSES) (REF. 20-16)	
HYDRO'S RELEASE MECHANISM IS NOT GEARED TO PARTIAL, CONTINUOUS FLOW. (REF. 20-17)	
POOL BELOW DAM MAY BE TRAPPING FISH DUE TO BUILDUP OF GRAVEL AND ONCE DAM IS SHUT OFF, PERCOLATION OF WATER THROUGH GRAVEL MAY STRAND FISH ANYWAY. (REF. 20-17)	

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
NO INFORMATION AVAILABLE	

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
NO INFORMATION AVAILABLE							

F. LIFE HISTORY TIMING

Species	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CO COHO SALMON	Migration Spawning Incubation Rearing										X X	X X	
CM CHUM SALMON	Migration Spawning Incubation Rearing								X	X X	X		

G. ENHANCEMENT/MANAGEMENT ACTIVITIES IN WATERSHED

Type of Activity	Species	Location (km U/S)	Comments	Period of Operation Start/Finish
NO INFORMATION AVAILABLE				

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	EXTENSIVE LOGGING IN WATERSHED. (REF. 20-38)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

NO INFORMATION AVAILABLE

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:
--------------------	--------------

K. SIS COMPLETED BY

Completed by:	GITA KAPAHI	Date:	1986/04/07
Checked by:	JOHN STEPHEN	Date:	1986/04/07
Last updated by:	GITA KAPAHI	Date:	1987/09/22
Last checked by:	BRIAN TUTTY	Date:	1987/09/25

REFERENCE LIST
1987/09/28

Watershed Code: 93-0600
Stream Name: JORDAN RIVER
Page: 1

REFERENCE NO: 20- 1

AUTHOR: MARSHALL, D.E.; ET AL
DESCRIPTION: PRELIMINARY CATALOGUE OF SALMON STREAMS AND SPAWNING ESCAPEMENTS OF STATISTICAL AREAS 19 & 20 (VICTORIA-SOOKE)
PAC/D-77-9
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AF ALL SPECIES PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 16

AUTHOR: UNKNOWN.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS; JORDAN RIVER. VARIOUS YEARS.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 17

AUTHOR: ASSORTED DATES AND AUTHORS
DESCRIPTION: JORDAN RIVER FILE
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AF ALL SPECIES PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 38

AUTHOR: STEPHEN, JOHN. FISHERY OFFICER, SOOKE OFFICE.
DESCRIPTION: PERSONAL INFORMATION ABOUT STREAMS WITHIN STATISTICAL AREA 20.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

A. DESCRIPTION

Stream Name: UGLOW CREEK	D.F.O. Division: SOUTH COAST
Local Name:	District: 6 VICTORIA
Watershed Code: 93-0620	Subdistrict: 20 SOOKE
	Statistical Subarea: 20-4
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit: 3

Tributaries	Code	Topographic (1:50k) Map: 92C/8
		B.C.G.S. (1:20k) Map:
		U.T.M. Mouth:
		Lat./Long. Mouth: 48 DG. 25' 50'' 124 DG. 05' 25''
		Mainstem Length: Ref. No.:
		Watershed Area: Ref. No.:
Location: FLows INTO JUAN DE FUCA STRAIT		

Gradient Class/Location (km upstream from mouth)					Comments
0 - .5%	.5 - 2%	2 - 5%	5 - 10%	>10%	
					EVEN, FLAT FOR 1/2 MI. (REF. 20-38)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
X LOG JAMS		1.7		LOG AND GRAVEL JAM (REF. 20-18)

C. FLOW

Flow Control:	Water Survey of Canada (WSC) Flow Gauge:
W.S.C. Station No. 1:	No. 2: No. 3: No. 4:
NO INFORMATION AVAILABLE	

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
CO COHO SALMON	PRESENT (REF. 20-18)
ST STEELHEAD	PRESENT (REF. 20-18)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
Comments: NO FISH REPORTED IN 1983 SPAWNING RECORD. (REF. 20-18)							

F. LIFE HISTORY TIMING

Species	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CO COHO SALMON	Migration Spawning Incubation Rearing											X X	

REFERENCE LIST
1987/09/28

Watershed Code: 93-0620
Stream Name: UGLOW CREEK
Page: 1

REFERENCE NO: 20- 18

AUTHOR: UNKNOWN. 1981,1982,1983.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS; UGLOW CREEK. 1981, 1982, 1983
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 38

AUTHOR: STEPHEN,JOHN. FISHERY OFFICER, SOOKE OFFICE.
DESCRIPTION: PERSONAL INFORMATION ABOUT STREAMS WITHIN STATISTICAL AREA 20.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

G. ENHANCEMENT/MANAGEMENT ACTIVITIES IN WATERSHED

Type of Activity	Species	Location (km U/S)	Comments	Period of Operation Start/Finish
NO INFORMATION AVAILABLE				

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
NO INFORMATION AVAILABLE	

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

NO INFORMATION AVAILABLE

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:
----------------------------	--------------

K. SIS COMPLETED BY

Completed by:	GITA KAPAH	Date:	1986/04/07
Checked by:	JOHN STEPHEN	Date:	1986/04/07
Last updated by:	GITA KAPAH	Date:	1987/09/22
Last checked by:	BRIAN TUTTY	Date:	1987/09/25

REFERENCE LIST
1987/09/28

Watershed Code: 93-0624
Stream Name: MAIDENHAIR CREEK
Page: 1

REFERENCE NO: 20- 19

AUTHOR: UNKNOWN. 1983
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS ; MAIDENHAIR CREEK.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON S SPAWNING

D. DISTRIBUTION SUMMARY CONTINUED

Species	Watershed Distribution
PK PINK SALMON	SPAWN IN LOWER 8KM. (REF. 20-23)
CH CHINOOK SALMON	IN MAINSTREAM (REF. 20-1)
ST STEELHEAD	ALSO PRESENT IN RIVER. (REF. 20-22, REF. 20-26)
CT CUTTHROAT TROUT	EXCELLENT REARING AND TRANSITIONAL AREA FOR SMOLTS. (REF. 20-24)
RB RAINBOW TROUT	(SECTION #3)- LOW NUMBERS OF JUV. IN ALL POOLS ABOVE SHORT CANYON SECTION. (REF. 20-22)
RB RAINBOW TROUT	JUV. APPEARED BELOW 12M FALLS, START DROPPING AS GRADIENT DECREASES AND POOL/RIFFLE RATIO INCREASES. (COHO FRY SHOW UP IN THIS SECTION OF RIVER) (REF. 20-27)
RB RAINBOW TROUT	PARR AND FRY THROUGHOUT SECTION #1; PARR AT HEAD OF POOLS BELOW RIFFLE SECTIONS; FRY IN RIFFLES MODERATE TO POOR. (REF. 20-23)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
SK SOCKEYE SALMON	246	1971 - 1983	20-23	1500	20-23		
CO COHO SALMON	6367	1971 - 1983	20-23	15000	20-23		
PK PINK SALMON	121	1971 - 1983	20-23	200	20-23		
CM CHUM SALMON	388	1971 - 1983	20-23	3500	20-23		
CH CHINOOK SALMON	979	1971 - 1983	20-23	3500	20-23		

Comments: NOTE- PINK ESCAPEMENT IS AVE. OF 6 RECORDS. (REF. 20-23)

F. LIFE HISTORY TIMING

Species	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
SK SOCKEYE SALMON	Migration Spawning Incubation Rearing						X X	X X	X X	X X	X X		
CO COHO SALMON	Migration Spawning Incubation Rearing	X								X	X X	X X	X X
CM CHUM SALMON	Migration Spawning Incubation Rearing										X	X X	
CH CHINOOK SALMON	Migration Spawning Incubation Rearing									X	X X	X X	

Comments: POSSIBLE SUMMER AND WINTER RUNS (REF. 20-23)

G. ENHANCEMENT/MANAGEMENT ACTIVITIES IN WATERSHED

Type of Activity	Species	Location (km U/S)	Comments	Period of Operation Start/Finish
HY HATCHERY	AD ALL SALMON	0.0	4 MILE CREEK HATCHERY CAPTURES BROODSTOCK IN SAN JUAN RIVER WITH SEINE NET. CAN PRODUCE 1.8 MILLION COHO/YEAR. (REF. 20-38)	1978/

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	EXTENSIVE LOGGING THROUGHOUT (REF. 20-38)
MI MINING	SOME PLACER MINING UPSTREAM. (REF. 20-38)

I. FISH PRODUCTION POTENTIAL/COMSTRAINTS/GENERAL COMMENTS

10 KM OF NON-UTILIZED STREAM ABOVE MAIN FALLS MIGHT PROVIDE OPPORTUNITY FOR STOCKING PROGRAM (REF. 20-22)
4 KM OF POTENTIAL HABITAT ABOVE MAIN FALLS (REF. 20-28)
AT LEAST 9.6KM OF FAIR SPAWNING GROUNDS ABOVE FALLS. (REF. 20-23)
COHO FRY DISTRIBUTION HAS BEEN RECOMMENDED FOR THE MAINSTEM BETWEEN FAIRY LAKE AND WILLIAMS CREEK. (REF. 20-29)
FOR PAST 10 - 20 YEARS (1972), SPAWNING GROUNDS BELOW FALLS HAVE NOT BEEN FULLY UTILIZED (REF. 20-23)
PASSABLE FALLS SHOULD BE REMOVED (19.2KM) (1983) (REF. 20-23)
PIXIE LAKE HAS BEEN STOCKED SINCE 1983 WITH UP TO 80,000 FRY FROM 4 MILE CREEK HATCHERY (WITH COHO). FED BY SUMMER STUDENT CREWS AND HAVE BEEN SMOLT TRAPPED ON WAY OUT AT MOUTH OF PIXIE LAKE. (REF. 20-38)
SAN JUAN RIVER COULD ACCOMODATE APPROXIMATELY 100,000 FISH (REF. 20-28)

J. FISHERY OFFICER NARRATIVE

Date Prepared: 1987/05/01	Prepared By: J. STEPHEN/ G. KAPAHI
---------------------------	------------------------------------

K. SIS COMPLETED BY

Completed by: GITA KAPAHI	Date: 1986/04/07
Checked by: JOHN STEPHEN	Date: 1986/04/07
Last updated by: GITA KAPAHI	Date: 1987/09/22
Last checked by: BRIAN TUTTY	Date: 1987/09/25

REFERENCE NO: 20- 1

AUTHOR: MARSHALL, D.E.; ET AL
DESCRIPTION: PRELIMINARY CATALOGUE OF SALMON STREAMS AND SPAWNING ESCAPEMENTS OF STATISTICAL AREAS 19 & 20 (VICTORIA-SOOKE)
PAC/D-77-9
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AF ALL SPECIES PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 21

AUTHOR:
DESCRIPTION: M.O.E. STREAM AND LAKE INVENTORY MAPS ; MAP NO. 92C/9 E & W. 1971
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 22

AUTHOR: WITT & CLOZZA
DESCRIPTION: SAN JUAN WATERSHED, SUMMER STEELHEAD SURVEY REPORT.
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: PY PHYSICAL HABITAT ST STEELHEAD

REFERENCE NO: 20- 23

AUTHOR: UNKNOWN. 1983.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS; SAN JUAN RIVER.
LOCATION: G DFO - SOUTH COAST DIVISION - NANAIMO
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 24

AUTHOR: ASSORTED DATES AND AUTHORS
DESCRIPTION: SAANICH INLET FILE
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 25

AUTHOR: UNKNOWN. 1982, 1983.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS ; SAN JUAN RIVER.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON S SPAWNING

REFERENCE NO: 20- 26

AUTHOR: STEPHEN, JOHN 1982.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS. SAN JUAN RIVER.
LOCATION: J DFO - PACIFIC BIOLOGICAL STATION - NANAIMO
KEYWORDS: AO ALL SALMON S SPAWNING

REFERENCE NO: 20- 27

AUTHOR: ASSORTED DATES AND AUTHORS
DESCRIPTION: SAN JUAN RIVER FILES
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AO ALL SALMON S SPAWNING

REFERENCE NO: 20- 28

AUTHOR:
DESCRIPTION: M.O.E. STREAM AND LAKE INVENTORY MAPS. MAP NO. 92B/12 E & W. 1971
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AO ALL SALMON S SPAWNING

REFERENCE NO: 20- 29

AUTHOR: DUKE, L.B.
DESCRIPTION: LETTER TO JOHN STEPHEN, F/O SOOKE, B.C. FROM L.B. DUKE, DISTRICT SUPERVISOR, VICTORIA, B.C. "COHO FRY DISTRIBUTION -
SAN JUAN RIVER SYSTEM" APRIL 12, 1983.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: CO COHO

REFERENCE NO: 20- 38

AUTHOR: STEPHEN, JOHN. FISHERY OFFICER, SOOKE OFFICE.
DESCRIPTION: PERSONAL INFORMATION ABOUT STREAMS WITHIN STATISTICAL AREA 20.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE LIST
1987/09/28

Watershed Code: 93-1000
Stream Name: SAN JUAN RIVER
Page: 2

REFERENCE NO: 20- 39

AUTHOR: INLAND WATERS DIRECTORATE, WATER RESOURCES BRANCH
DESCRIPTION: SURFACE WATER DATA, BRITISH COLUMBIA; 1984
LOCATION: CC WATER SURVEY CANADA - VANCOUVER
KEYWORDS: FL FLOW

A. DESCRIPTION

Stream Name: FALLS CREEK	D.F.O. Division: SOUTH COAST
Local Name: FALL CREEK, FALLER CREEK, FALSE CREEK	District: 6 VICTORIA
Watershed Code: 93-1000-030	Subdistrict: 20 SOOKE
	Statistical Subarea: 20-2
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit: 3

Tributaries	Code	Topographic (1:50k) Map: 92C/9
		B.C.G.S. (1:20k) Map:
		U.T.M. Mouth: 960803
		Lat./Long. Mouth: 48 DG. 34' 5'' 124 DG. 21' 33''
		Mainstem Length: Ref. No.:
		Watershed Area: Ref. No.:
Location: FLows INTO SAN JUAN RIVER.		

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	LEVEL TO ROAD, THEN BECOMES STEEP AND GENERALLY UNUSABLE FOR FISH. (REF. 20-38)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
X LOG JAMS		3.2		PASSABLE AT HIGH WATERS (REF. 20-20)
F FALLS	7.6	3.4	AO ALL SALMON	VERTICAL FALLS (REF. 20-21)

C. FLOW

Flow Control: W.S.C. Station No. 1:	Water Survey of Canada (WSC) Flow Gauge: No. 2:	No. 3:	No. 4:
Comments: SUBJECT TO VIOLENT FLASH FLOODS. (REF. 20-38)			

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
CO COHO SALMON	SPAWNING DISTRIBUTION WIDESPREAD UP TO FALLS. (REF. 20-20)
CT CUTTHROAT TROUT	ANADROMOUS CUTTHROAT INDICATED. (REF. 20-21)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
Comments: VERY STABLE SPAWNING BEDS. (REF. 20-20)							

F. LIFE HISTORY TIMING

Species	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CO COHO SALMON	Migration Spawning Incubation Rearing											X	X X

G. ENHANCEMENT/MANAGEMENT ACTIVITIES IN WATERSHED

Type of Activity	Species	Location (km U/S)	Comments	Period of Operation Start/Finish
EN ENHANCEMENT ACTS		0.0	MINOR LOG JAM REMOVAL. (REF. 20-38)	1977/1984

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	LOGGING IN UPPER REACHES. (REF. 20-38)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

SILTATION OF STREAM 4%. (REF. 20-20)
STREAM CLEANING SHOULD BE DONE ANNUALLY. (REF. 20-20)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:
--------------------	--------------

K. SIS COMPLETED BY

Completed by: GITA KAPAH	Date: 1986/04/07
Checked by: JOHN STEPHEN	Date: 1986/04/07
Last updated by:	Date: / /
Last checked by:	Date: / /

REFERENCE LIST
1987/09/28

Watershed Code: 93-1000-030
Stream Name: FALLS CREEK
Page: 1

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REFERENCE NO: 20- 20

AUTHOR: UNKNOWN. 1981,1982,1983.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS; FALLS CREEK. 1981,1982,1983
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON S SPAWNING

REFERENCE NO: 20- 21

AUTHOR:
DESCRIPTION: M.O.E. STREAM AND LAKE INVENTORY MAPS ; MAP NO. 92C/9 E & W. 1971
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 38

AUTHOR: STEPHEN,JOHN. FISHERY OFFICER, SOOKE OFFICE.
DESCRIPTION: PERSONAL INFORMATION ABOUT STREAMS WITHIN STATISTICAL AREA 20.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

A. DESCRIPTION

Stream Name: MOSQUITO CREEK	D.F.O. Division: SOUTH COAST
Local Name: DAVIS CREEK	District: 6 VICTORIA
Watershed Code: 93-1000-050	Subdistrict: 20 SOOKE
	Statistical Subarea: 20-2
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit: 3

Tributaries	Code	Topographic (1:50k) Map: 92C/9
		B.C.G.S. (1:20k) Map:
		U.T.M. Mouth: 010810
		Lat./Long. Mouth: 48 DG. 34' 28'' 124 DG. 21' 6''
		Mainstem Length: Ref. No.:
		Watershed Area: Ref. No.:
Location: TRIBUTARY TO SAN JUAN RIVER.		

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	STEEP BEYOND THE ROAD. FROM ROAD TO RIVER, VERY EVEN, LOW FLOWS. (REF. 20-38)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
X LOG JAMS				STREAM COURSE DOESN'T CHANGE IN UPPER PART, BUT LOWER PART IS PLUGGED WITH LOGS. (REF. 20-30)
F FALLS	12.7	3.0		(REF. 20-21)
X LOG JAMS		4.8		PASSABLE IN HIGH WATER ONLY. (REF. 20-31)

C. FLOW

Flow Control: W.S.C. Station No. 1:	Water Survey of Canada (WSC) Flow Gauge: No. 2:	No. 3:	No. 4:
Comments: SUBJECT TO FLASH FLOODING. (REF. 20-38)			
WATER LEVEL HIGH (REF. 20-30)			

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
CO COHO SALMON	TO LOG JAM BELOW FALLS. (REF. 20-38)
ST STEELHEAD	PRESENT (REF. 20-21)
AO ALL SALMON	ANADROMOUS FISH ARE LIMITED TO THE FIRST 3 KM (REF. 20-21)
CT CUTTHROAT TROUT	PRESENT (REF. 20-21)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
NO INFORMATION AVAILABLE							

F. LIFE HISTORY TIMING

Species	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CO COHO SALMON	Migration Spawning Incubation Rearing											X	X X

G. ENHANCEMENT/MANAGEMENT ACTIVITIES IN WATERSHED

Type of Activity	Species	Location (km U/S)	Comments	Period of Operation Start/Finish
EN ENHANCEMENT ACTS		0.0	LOG JAM REMOVAL (REF. 20-38)	1977/1984

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	LOGGING IN UPPER REACHES (REF. 20-38)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

COHO FRY DISTRIBUTION HAS BEEN RECOMMENDED. (REF. 20-29)
EROSION SILTATION OF STREAM 5% (REF. 20-30)
LOG JAMS SHOULD BE REMOVED ON A YEARLY BASIS. THIS IS CAUSED BY BAD LOGGING PRACTICES IN THE HEADWATER OF THE SYSTEM. (REF. 20-1, REF. 20-30, REF. 20-31)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:
--------------------	--------------

K. SIS COMPLETED BY

Completed by: GITA KAPAHI	Date: 1986/04/07
Checked by: JOHN STEPHEN	Date: 1986/04/07
Last updated by:	Date: / /
Last checked by:	Date: / /

REFERENCE LIST
1987/09/28

Watershed Code: 93-1000-050
Stream Name: MOSQUITO CREEK
Page: 1

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REFERENCE NO: 20- 1

AUTHOR: MARSHALL,D.E.;ET AL
DESCRIPTION: PRELIMINARY CATALOGUE OF SALMON STREAMS AND SPAWNING ESCAPEMENTS OF STATISTICAL AREAS 19 & 20 (VICTORIA-SOOKE)
PAC/D-77-9
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AF ALL SPECIES PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 21

AUTHOR:
DESCRIPTION: M.O.E. STREAM AND LAKE INVENTORY MAPS ; MAP NO. 92C/9 E & W. 1971
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 29

AUTHOR: DUKE,L.B.
DESCRIPTION: LETTER TO JOHN STEPHEN, F/O SOOKE, B.C. FROM L.B.DUKE, DISTRICT SUPERVISOR, VICTORIA, B.C. "COHO FRY DISTRIBUTION -
SAN JUAN RIVER SYSTEM" APRIL 12, 1983.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: CO COHO

REFERENCE NO: 20- 30

AUTHOR: UNKNOWN 1981,1983
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS; MOSQUITO CREEK. (FILE FROM THE VICTORIA OFFICE).
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON S SPAWNING

REFERENCE NO: 20- 31

AUTHOR: UNKNOWN 1982,1983.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS; MOSQUITO CREEK. 1982, 1983 (SOOKE OFFICE)
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON S SPAWNING

REFERENCE NO: 20- 38

AUTHOR: STEPHEN,JOHN. FISHERY OFFICER, SOOKE OFFICE.
DESCRIPTION: PERSONAL INFORMATION ABOUT STREAMS WITHIN STATISTICAL AREA 20.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

F. LIFE HISTORY TIMING

Species	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
SK SOCKEYE SALMON	Migration Spawning Incubation Rearing						X	X X	X X	X X	X X		
CO COHO SALMON	Migration Spawning Incubation Rearing	X										X	X X
CM CHUM SALMON	Migration Spawning Incubation Rearing										X	X X	X

G. ENHANCEMENT/MANAGEMENT ACTIVITIES IN WATERSHED

Type of Activity	Species	Location (km U/S)	Comments	Period of Operation Start/Finish
HY HATCHERY		0.0	FOUR MILE CREEK HATCHERY IS LOCATED ON THIS DRAINAGE. (REF. 20-32)	/

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	EXTENSIVE LOGGING THROUGHOUT UPPER WATERSHED. OCCASIONALLY CAUSES WATER CLARITY DIFFICULTIES. (REF. 20-38)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

COHO FRY DISTRIBUTION HAS BEEN RECOMMENDED (REF. 20-29)
EVIDENCE OF SILTATION 12% (REF. 20-24, REF. 20-34)
POTENTIAL HABITAT SHOWN (REF. 20-21)
STEEPENS ABOVE FALLS BUT REASONABLE HABITAT (REF. 20-24)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:
--------------------	--------------

K. SIS COMPLETED BY

Completed by: GITA KAPAH	Date: 1986/04/07
Checked by: JOHN STEPHEN	Date: 1986/04/07
Last updated by: GITA KAPAH	Date: 1987/09/22
Last checked by: BRIAN TUTTY	Date: 1987/09/25

REFERENCE LIST
1987/09/28

Watershed Code: 93-1000-070-010
Stream Name: REMFREW CREEK
Page: 1

REFERENCE NO: 20- 21

AUTHOR:
DESCRIPTION: M.O.E. STREAM AND LAKE INVENTORY MAPS ; MAP NO. 92C/9 E & W. 1971
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 24

AUTHOR: ASSORTED DATES AND AUTHORS
DESCRIPTION: SAANICH INLET FILE
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 29

AUTHOR: DUKE, L.B.
DESCRIPTION: LETTER TO JOHN STEPHEN, F/O SOOKE, B.C. FROM L.B. DUKE, DISTRICT SUPERVISOR, VICTORIA, B.C. "COHO FRY DISTRIBUTION -
SAN JUAN RIVER SYSTEM" APRIL 12, 1983.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: CO COHO

REFERENCE NO: 20- 32

AUTHOR: (DFO FILES, WITINAT LAKE & TRIBS.; PY. ALBERNI OFFICE
DESCRIPTION: T.F.L. FISHERIES DISTRIBUTION STUDY - B.C. FOREST PRODUCTS LTD. RESOURCE PLANNING GROUP, CROFTON, B.C.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON S SPAWNING

REFERENCE NO: 20- 33

AUTHOR: UNKNOWN. 1982, 1983.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS; GRANITE CREEK 1982, 1983
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON S SPAWNING

REFERENCE NO: 20- 34

AUTHOR: UNKNOWN. 1981.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS; GRANITE CREEK 1981. (VICTORIA FILES)
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON S SPAWNING

REFERENCE NO: 20- 38

AUTHOR: STEPHEN, JOHN. FISHERY OFFICER, SOOKE OFFICE.
DESCRIPTION: PERSONAL INFORMATION ABOUT STREAMS WITHIN STATISTICAL AREA 20.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

G. ENHANCEMENT/MANAGEMENT ACTIVITIES IN WATERSHED

Type of Activity	Species	Location (km U/S)	Comments	Period of Operation Start/Finish
EN ENHANCEMENT ACTS		0,0	STREAM CLEARED (MADE INTO A PARK); FRY ARE FED IN SUMMER BY STUDENT CREWS. (REF. 20-38)	/

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	LOGGING IN UPPER REACHES. (REF. 20-38)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

EXCELLENT FOR REARING. (REF. 20-38)
POTENTIAL HABITAT INDICATED. (REF. 20-21)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:
--------------------	--------------

K. SIS COMPLETED BY

Completed by: GITA KAPAHI	Date: 1986/04/07
Checked by: JOHN STEPHEN	Date: 1986/04/07
Last updated by:	Date: / /
Last checked by:	Date: / /

REFERENCE LIST
1987/09/28

Watershed Code: 93-1000-070-010-010
Stream Name: UNNAMED CREEK
Page: 1

REFERENCE NO: 20- 21

AUTHOR:
DESCRIPTION: M.O.E. STREAM AND LAKE INVENTORY MAPS ; MAP NO. 92C/9 E & W. 1971
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 35

AUTHOR: UNKNOWN. 1983.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS; 5 MILE CREEK 1983
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON S SPAWNING

REFERENCE NO: 20- 38

AUTHOR: STEPHEN, JOHN. FISHERY OFFICER, SOOKE OFFICE.
DESCRIPTION: PERSONAL INFORMATION ABOUT STREAMS WITHIN STATISTICAL AREA 20.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

A. DESCRIPTION

Stream Name: HARRIS CREEK	D.F.O. Division: SOUTH COAST
Local Name:	District: 6 VICTORIA
Watershed Code: 93-1000-120	Subdistrict: 20 SOOKE
	Statistical Subarea: 20-2
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit: 3

Tributaries	Code	Topographic (1:50k) Map: 92C/9
HEMMINGSEN CREEK	150	B.C.G.S. (1:20k) Map:
		U.T.M. Mouth: 590814
		Lat./Long. Mouth: 48 DG. 34' 40'' 124 DG. 16' 23''
		Mainstem Length: 28.0 km Ref. No.: 20-1
		Watershed Area: Ref. No.:
Location: TRIBUTARY TO THE SAN JUAN RIVER		

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	GRADIENT A) 2% ; B) 1% (REF. 20-22) GRADIENT STEEP NEAR SOURCE THEN SLIGHT TO MODERATE TO TOP CANYON, THEN MODERATE TO STEEP TO START OF BOTTOM CANYON, THEN SLIGHT TO MODERATE TO MOUTH. (REF. 20-27)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
C CASCADE		28.8		AREAS OF CASCADES AND SMALL FALLS, THEN LOG JAMS AND FALLS NEAR 28.8 KM. (REF. 20-22)

C. FLOW

Flow Control:	Water Survey of Canada (WSC) Flow Gauge:		
W.S.C. Station No. 1:	No. 2:	No. 3:	No. 4:
Comments: ESTIMATED DISCHARGE RATE: ABOVE HEMMINGSEN 0.056 - 56 CMS; BELOW HEMMINGSEN - 0.56 - 224 CMS. (REF. 20-27)			

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
CO COHO SALMON	PRESENT; UTILIZE THE LOWER 9KM FOR REARING. STILL FOUND IN SIDE STREAMS (1984, F/O SOOKE CONFIRM.) ABOVE CONFLUENCE WITH HEMMINGSEN, CREEK HAS SOME EXCELLENT TROUT REARING HABITAT. (REF. 20-27, REF. 20-32)
CM CHUM SALMON	IN LOWER REACHES (REF. 20-38)
ST STEELHEAD	PRESENT. ENOUGH ADULTS PASS IN MOST YEARS TO SEED UPPER STREAM SECTIONS; CREEK IS NOTED FOR SUMMER STEELHEAD. 20KM OF EXCELLENT REARING HABITAT; CREEK IS IMPORTANT WINTER AND SUMMER RUN ST STREAM. (REF. 20-27, REF. 20-32)
AF ALL SPECIES	ACCESSIBLE LENGTH 16.5 KM. 12.1 KM INACCESSIBLE (REF. 20-22)
CT CUTTHROAT TROUT	PRESENT; UP TO 3KM (REF. 20-21, REF. 20-27)
RB RAINBOW TROUT	PRESENT (REF. 20-27)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
NO INFORMATION AVAILABLE							

F. LIFE HISTORY TIMING

Species	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
SK SOCKEYE SALMON	Migration Spawning Incubation Rearing									X X			
CO COHO SALMON	Migration Spawning Incubation Rearing	X										X	X X
CM CHUM SALMON	Migration Spawning Incubation Rearing										X	X X	X
ST STEELHEAD	Migration Spawning Incubation Rearing	X X	X X	X X	X X	X							

G. ENHANCEMENT/MANAGEMENT ACTIVITIES IN WATERSHED

Type of Activity	Species	Location (km U/S)	Comments	Period of Operation Start/Finish
NO INFORMATION AVAILABLE				

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	EXTENSIVE LOGGING (REF. 20-38)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

DETAILED STANDING CROP, CARRYING CAPACITY AND FISH SAMPLE DATA IS AVAILABLE IN THIS REPORT FOR HARRIS CREEK. (REF. 20-37)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / / Prepared By:

K. SIS COMPLETED BY

Completed by:	GITA KAPAHI	Date:	1986/04/07
Checked by:	JOHN STEPHEN	Date:	1986/04/07
Last updated by:	KATHY PONTUS	Date:	1987/07/23
Last checked by:	BRIAN TUTTY	Date:	1987/09/25

REFERENCE NO: 20- 1

AUTHOR: MARSHALL, D.E.; ET AL
DESCRIPTION: PRELIMINARY CATALOGUE OF SALMON STREAMS AND SPAWNING ESCAPEMENTS OF STATISTICAL AREAS 19 & 20 (VICTORIA-SOOKE)
PAC/D-77-9
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AF ALL SPECIES PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 21

AUTHOR:
DESCRIPTION: M.O.E. STREAM AND LAKE INVENTORY MAPS ; MAP NO. 92C/9 E & W. 1971
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 22

AUTHOR: WITT & CLOZZA
DESCRIPTION: SAN JUAN WATERSHED, SUMMER STEELHEAD SURVEY REPORT.
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: PY PHYSICAL HABITAT ST STEELHEAD

REFERENCE NO: 20- 27

AUTHOR: ASSORTED DATES AND AUTHORS
DESCRIPTION: SAN JUAN RIVER FILES
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AO ALL SALMON S SPAWNING

REFERENCE NO: 20- 32

AUTHOR: (DFO FILES, NITINAT LAKE & TRIBS.; PT. ALBERNI OFFICE
DESCRIPTION: T.F.L. FISHERIES DISTRIBUTION STUDY - B.C. FOREST PRODUCTS LTD. RESOURCE PLANNING GROUP, CROFTON, B.C.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON S SPAWNING

REFERENCE NO: 20- 37

AUTHOR: SHIP ENVIRONMENTAL CONSULTANTS, LTD. JAN. 1986
DESCRIPTION: ASSESSMENT OF HABITAT, SALMONID BIOMASS AND POTENTIAL CARRYING CAPACITY OF THE SAN JUAN AND GORDON RIVER SYSTEMS,
VANC. IS., B.C. FOR S.E.P. SPECIAL PROJECTS, DFO, 1090 W. PENDER ST, VAN.
LOCATION: C DFO - SALMONID ENHANCEMENT PROGRAM - VANCOUVER
KEYWORDS: AO ALL SALMON

REFERENCE NO: 20- 38

AUTHOR: STEPHEN, JOHN. FISHERY OFFICER, SOOKE OFFICE.
DESCRIPTION: PERSONAL INFORMATION ABOUT STREAMS WITHIN STATISTICAL AREA 20.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

A. DESCRIPTION

Stream Name: HEMMINGSEN CREEK Local Name: Watershed Code: 93-1000-120-150	D.F.O. Division: SOUTH COAST District: 6 VICTORIA Subdistrict: 20 SOOKE Statistical Subarea: 20-2 M.O.E.P. Region: 1 VANCOUVER ISLAND Management Unit: 3
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Tributaries	Code	Topographic (1:50k) Map: 92C/9 B.C.G.S. (1:20k) Map: U.T.M. Mouth: 770871 Lat./Long. Mouth: 48 DG. 38' 5'' 124 DG. 15' 19'' Mainstem Length: Ref. No.: Watershed Area: Ref. No.:
		Location: TRIBUTARY TO HARRIS C, SAN JUAN RIVER SYSTEM.

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	MODERATE TO BARRIER, THEN ROCKY, BOULDERY WITH LARGE COBBLES ALL THE WAY UP. (REF. 20-38)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
NO INFORMATION AVAILABLE				

C. FLOW

Flow Control: W.S.C. Station No. 1:	Water Survey of Canada (WSC) Flow Gauge: No. 2:	No. 3:	No. 4:
Comments: VERY STABLE (REF. 20-38)			

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
CO COHO SALMON	PRESENT (REF. 20-38)
ST STEELHEAD	PRESENT (REF. 20-38)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
NO INFORMATION AVAILABLE							

F. LIFE HISTORY TIMING

Species	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CO COHO SALMON	Migration Spawning Incubation Rearing											X	X X
ST STEELHEAD	Migration Spawning Incubation Rearing	X X	X X	X X	X X	X							

G. ENHANCEMENT/MANAGEMENT ACTIVITIES IN WATERSHED

Type of Activity	Species	Location (km U/S)	Comments	Period of Operation Start/Finish
NO INFORMATION AVAILABLE				

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	EXTENSIVE LOGGING (REF. 20-38)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

NO INFORMATION AVAILABLE

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:
--------------------	--------------

K. SIS COMPLETED BY

Completed by: GITA KAPAHI	Date: 1986/04/07
Checked by: JOHN STEPHEN	Date: 1986/04/07
Last updated by:	Date: / /
Last checked by:	Date: / /

REFERENCE LIST
1987/09/28

Watershed Code: 93-1000-120-150
Stream Name: HEMMINGSEN CREEK
Page: 1

REFERENCE NO: 20- 38

AUTHOR: STEPHEN,JOHN. FISHERY OFFICER, SOOKE OFFICE.
DESCRIPTION: PERSONAL INFORMATION ABOUT STREAMS WITHIN STATISTICAL AREA 20.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

A. DESCRIPTION

Stream Name: LENS CREEK	D.F.O. Division: SOUTH COAST
Local Name:	District: 6 VICTORIA
Watershed Code: 93-1000-150	Subdistrict: 20 SOOKE
	Statistical Subarea: 20-2
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit: 3

Tributaries	Code	Topographic (1:50k) Map: 92C/9
		B.C.G.S. (1:20k) Map:
		U.T.M. Mouth: 730820
		Lat./Long. Mouth: 48 DG. 35' 21'' 124 DG. 15' 22''
		Mainstem Length: Ref. No.:
		Watershed Area: Ref. No.:
Location:		

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	VERY EVEN UNTIL FALLS, THEN CASCADES, THEN EVEN AGAIN, STABLE AND FLAT ABOVE FALLS. (REF. 20-38)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
BD BEAVER DAM				IN FAR UPPER REACHES (REF. 20-38)
F FALLS	6.0	5.0	A0 ALL SALMON	(REF. 20-38)

C. FLOW

Flow Control:	Water Survey of Canada (WSC) Flow Gauge:			
W.S.C. Station No. 1:	No. 2:	No. 3:	No. 4:	
Comments: VERY EVEN, THE LEAST AFFECTED BY FLOODING. (REF. 20-38)				

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
CO COHO SALMON	TO FALLS (REF. 20-38)
ST STEELHEAD	TO FALLS (REF. 20-38)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
NO INFORMATION AVAILABLE							

F. LIFE HISTORY TIMING

Species	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CO COHO SALMON	Migration Spawning Incubation Rearing											X	X

F. LIFE HISTORY TIMING CONTINUED

Species	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
ST STEELHEAD	Migration Spawning Incubation Rearing	X X	X X	X X	X X	X							

G. ENHANCEMENT/MANAGEMENT ACTIVITIES IN WATERSHED

Type of Activity	Species	Location (km U/S)	Comments	Period of Operation Start/Finish
TR TRANSPLANT	CO COHO SALMON	0.0	HEAVY FRY PLANTS IN UPPER REACHES, ESPECIALLY IN 1983. (REF. 20-38)	1983/

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	EXTENSIVE LOGGING (REF. 20-38)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

GOOD SYSTEM FOR REARING IN UPPER REACHES BECAUSE OF FLAT GRADIENT. (REF. 20-38)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / / Prepared By:

K. SIS COMPLETED BY

Completed by:	GITA KAPAH	Date:	1986/04/07
Checked by:	JOHN STEPHEN	Date:	1986/04/07
Last updated by:		Date:	/ /
Last checked by:		Date:	/ /

REFERENCE LIST
1987/09/28

Watershed Code: 93-1000-150
Stream Name: LENS CREEK
Page: 1

REFERENCE NO: 20- 38

AUTHOR: STEPHEN, JOHN. FISHERY OFFICER, SOOKE OFFICE.
DESCRIPTION: PERSONAL INFORMATION ABOUT STREAMS WITHIN STATISTICAL AREA 20.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AD ALL SALMON PY PHYSICAL HABITAT S SPAWNING

A. DESCRIPTION

Stream Name: GORDON RIVER	D.F.O. Division: SOUTH COAST
Local Name:	District: 6 VICTORIA
Watershed Code: 93-1100	Subdistrict: 20 SOOKE
	Statistical Subarea: 20-2
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit: 3

Tributaries	Code	Topographic (1:50k) Map: 92C/9
		B.C.G.S. (1:20k) Map:
		U.T.M. Mouth: 610814
		Lat./Long. Mouth: 48 DG. 34' 43'' 124 DG. 24' 22''
		Mainstem Length: Ref. No.:
		Watershed Area: Ref. No.:
Location: FLWS S.W. & S. INTO PORT SAN JUAN, RENFREW DIST.		

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2%* 2 - 5% 5 - 10% >10%	MEANDERING UNTIL LOGGING BRIDGE, FROM THERE TO BUGABOO, LARGE COBBLES, EVEN GRADIENT. BUGABOO TO LOUP C, CANYONS, BEDROCK, NO REAR-ING OR SPANNING. UPSTREAM, EVEN FLAT GRADIENT, STABLE WATER THROUGHOUT HEADWATER (REF. 20-38)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
F FALLS		13.0		AT LOUP C. (ACTUALLY FROM 12.8 - 16 KM UPSTREAM FROM MOUTH) (REF. 20-1, REF. 20-38)

C. FLOW

Flow Control:	Water Survey of Canada (WSC) Flow Gauge:		
W.S.C. Station No. 1:	No. 2:	No. 3:	No. 4:
Comments: SUBJECT TO SEVERE HIGH WATER LEVELS (REF. 20-38)			

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
CO COHO SALMON	TO BUGABOO; HAVE GONE TO LOUP C IN SOME YEARS. IN 1966 GOT UP TO HAUK C AND WINNIE C. (REF. 20-38)
CM CHUM SALMON	TO LOGGING BRIDGE (REF. 20-38)
CH CHINOOK SALMON	TO BRADEN C (REF. 20-38)
ST STEELHEAD	UP TO AND INTO LOUP C, AND GET ABOVE LOUP C FALLS TO HEADWATER OF GORDON (REF. 20-38)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	831	1971 - 1983	20-1	3500	20-1		
CM CHUM SALMON	160	1971 - 1983	20-1	750	20-1		
CH CHINOOK SALMON	437	1971 - 1983	20-1	3500	20-1		

F. LIFE HISTORY TIMING

Species	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CO COHO SALMON	Migration Spawning Incubation Rearing	X								X	X X	X X	X X
CM CHUM SALMON	Migration Spawning Incubation Rearing										X	X X	X
CH CHITNOOK SALMON	Migration Spawning Incubation Rearing									X	X X	X X	

G. ENHANCEMENT/MANAGEMENT ACTIVITIES IN WATERSHED

Type of Activity	Species	Location (km U/S)	Comments	Period of Operation Start/Finish
TR TRANSPLANT	CO COHO SALMON	0.0	FRY PLANTING IN UPPER REACHES (REF. 20-38)	1983/1983

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	HEAVY LOGGING THROUGHOUT (REF. 20-38)
MI MINING	SOME PLACER MINING (REF. 20-38)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

FALLS AT LOUP C SHOULD BE BYPASSED (FISH LADDER, ETC.) TO PROVIDE UPSTREAM PASSAGE TO COHO. (REF. 20-38)

J. FISHERY OFFICER NARRATIVE

Date Prepared: 1987/05/01 Prepared By: J. STEPHEN/ G. KAPAHI

K. SIS COMPLETED BY

Completed by:	GITA KAPAHI	Date:	1986/04/07
Checked by:	JOHN STEPHEN	Date:	1986/04/07
Last updated by:	GITA KAPAHI	Date:	1987/09/22
Last checked by:	BRIAN TUTTY	Date:	1987/09/25

REFERENCE LIST
1987/09/28

Watershed Code: 93-1100
Stream Name: GORDON RIVER
Page: 1

REFERENCE NO: 20- 1

AUTHOR: MARSHALL,D.E.;ET AL
DESCRIPTION: PRELIMINARY CATALOGUE OF SALMON STREAMS AND SPAWNING ESCAPEMENTS OF STATISTICAL AREAS 19 & 20 (VICTORIA-SOOKE)
PAC/D-77-9
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AF ALL SPECIES PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 38

AUTHOR: STEPHEN,JOHN. FISHERY OFFICER, SOOKE OFFICE.
DESCRIPTION: PERSONAL INFORMATION ABOUT STREAMS WITHIN STATISTICAL AREA 20.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

3.2 SUBDISTRICT BIBLIOGRAPHY

REFERENCE LIST
1987/09/29

Page: 1

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REFERENCE NO: 20- 3

AUTHOR:
DESCRIPTION: M.O.E. STREAM AND LAKE INVENTORY MAPS: MAP 92 B/5 E&W (1971)1:50,000.
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AF ALL SPECIES PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 21

AUTHOR:
DESCRIPTION: M.O.E. STREAM AND LAKE INVENTORY MAPS ; MAP NO. 92C/9 E & W. 1971
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 28

AUTHOR:
DESCRIPTION: M.O.E. STREAM AND LAKE INVENTORY MAPS. MAP NO. 92B/12 E & W. 1971
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AO ALL SALMON S SPAWNING

REFERENCE NO: 20- 32

AUTHOR: (DFO FILES, MITINAT LAKE & TRIBS.; PT. ALBERNI OFFICE
DESCRIPTION: T.F.L. FISHERIES DISTRIBUTION STUDY - B.C. FOREST PRODUCTS LTD. RESOURCE PLANNING GROUP, CROFTON, B.C.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON S SPAWNING

REFERENCE NO: 20- 7

AUTHOR: ASSORTED DATES AND AUTHORS
DESCRIPTION: MATHESON LAKE FILE
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AF ALL SPECIES HS HABITAT SAMPLING PY PHYSICAL HABITAT

REFERENCE NO: 20- 11

AUTHOR: ASSORTED DATES AND AUTHORS
DESCRIPTION: SOOKE RIVER FILES
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AF ALL SPECIES PY PHYSICAL HABITAT

REFERENCE NO: 20- 17

AUTHOR: ASSORTED DATES AND AUTHORS
DESCRIPTION: JORDAN RIVER FILE
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AF ALL SPECIES PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 24

AUTHOR: ASSORTED DATES AND AUTHORS
DESCRIPTION: SAANICH INLET FILE
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 27

AUTHOR: ASSORTED DATES AND AUTHORS
DESCRIPTION: SAN JUAN RIVER FILES
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AO ALL SALMON S SPAWNING

REFERENCE NO: 20- 4

AUTHOR: BURNS, J.E.
DESCRIPTION: LAKES OF THE VICTORIA AREA: A CURSORY EVALUATION WITH SOME MANAGEMENT RECOMMENDATIONS.
LOCATION: M MOE - FISHERIES BRANCH - VICTORIA
KEYWORDS: AF ALL SPECIES HS HABITAT SAMPLING PY PHYSICAL HABITAT

REFERENCE NO: 20- 5

AUTHOR: BURNS, TED & ROB FALLS ; 1977
DESCRIPTION: SEA RUN CUTTHROAT TROUT IN THE GREATER VICTORIA AREA - THEIR PRESENT STATUS AND OPPORTUNITIES FOR ENHANCEMENT.
LOCATION: M MOE - FISHERIES BRANCH - VICTORIA
KEYWORDS: CT CUTTHROAT TROUT EN ENHANCEMENT FS FISH SAMPLING
HS HABITAT SAMPLING

REFERENCE NO: 20- 29

AUTHOR: DUKE, L.B.
DESCRIPTION: LETTER TO JOHN STEPHEN, F/O SOOKE, B.C. FROM L.B. DUKE, DISTRICT SUPERVISOR, VICTORIA, B.C. "COHO FRY DISTRIBUTION -
SAN JUAN RIVER SYSTEM" APRIL 12, 1983.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: CO COHO

REFERENCE NO: 20- 39

AUTHOR: INLAND WATERS DIRECTORATE, WATER RESOURCES BRANCH
DESCRIPTION: SURFACE WATER DATA, BRITISH COLUMBIA; 1984
LOCATION: CC WATER SURVEY CANADA - VANCOUVER
KEYWORDS: FL FLOW

REFERENCE NO: 20- 6

AUTHOR: LANGFORD, R.W. & TED BURNS ; 1977
DESCRIPTION: LAKE AND STREAM INVENTORY OF THE CAPITAL REGIONAL DISTRICT
LOCATION: M MOE - FISHERIES BRANCH - VICTORIA
KEYWORDS: FS FISH SAMPLING HS HABITAT SAMPLING PY PHYSICAL HABITAT

REFERENCE NO: 20- 1

AUTHOR: MARSHALL, D.E.; ET AL
DESCRIPTION: PRELIMINARY CATALOGUE OF SALMON STREAMS AND SPAWNING ESCAPEMENTS OF STATISTICAL AREAS 19 & 20 (VICTORIA-SOOKE)
PAC/D-77-9
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AF ALL SPECIES PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 37

AUTHOR: SHIP ENVIRONMENTAL CONSULTANTS, LTD. JAN. 1986
DESCRIPTION: ASSESSMENT OF HABITAT, SALMONID BIOMASS AND POTENTIAL CARRYING CAPACITY OF THE SAN JUAN AND GORDON RIVER SYSTEMS,
VANC. IS., B.C. FOR S.E.P. SPECIAL PROJECTS, DFO, 1090 W. PENDER ST, VAN.
LOCATION: C DFO - SALMONID ENHANCEMENT PROGRAM - VANCOUVER
KEYWORDS: AO ALL SALMON

REFERENCE NO: 20- 26

AUTHOR: STEPHEN, JOHN 1982.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS. SAN JUAN RIVER.
LOCATION: J DFO - PACIFIC BIOLOGICAL STATION - NANAIMO
KEYWORDS: AO ALL SALMON S SPAWNING

REFERENCE NO: 20- 38

AUTHOR: STEPHEN, JOHN. FISHERY OFFICER, SOOKE OFFICE.
DESCRIPTION: PERSONAL INFORMATION ABOUT STREAMS WITHIN STATISTICAL AREA 20.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 30

AUTHOR: UNKNOWN 1981, 1983
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS; MOSQUITO CREEK. (FILE FROM THE VICTORIA OFFICE).
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON S SPAWNING

REFERENCE NO: 20- 31

AUTHOR: UNKNOWN 1982, 1983.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS; MOSQUITO CREEK, 1982, 1983 (SOOKE OFFICE)
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON S SPAWNING

REFERENCE NO: 20- 2

AUTHOR: UNKNOWN 1983.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS ; MATHESON CREEK.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 16

AUTHOR: UNKNOWN.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS; JORDAN RIVER. VARIOUS YEARS.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 15

AUTHOR: UNKNOWN. 1981,1982,1983.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS; KIRBY CREEK. 1981, 1982, 1983
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 9

AUTHOR: UNKNOWN. 1980,1982,1983.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS; LANNON CREEK 1980,1982,1983.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 8

AUTHOR: UNKNOWN. 1983.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS ; AYUM CREEK 1983 (Sooke Office)
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 10

AUTHOR: UNKNOWN. 1982,1983.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS; DE MAMIEL CREEK. 1982, 1983.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 14

AUTHOR: UNKNOWN. 1983
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS; MUIR CREEK.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 12

AUTHOR: UNKNOWN. 1981,1982,1983.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS; CHARTERS CREEK. 1981, 1982, 1983.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON FS FISH SAMPLING PY PHYSICAL HABITAT
S SPAWNING

REFERENCE NO: 20- 20

AUTHOR: UNKNOWN. 1981,1982,1983.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS; FALLS CREEK. 1981,1982,1983
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON S SPAWNING

REFERENCE NO: 20- 23

AUTHOR: UNKNOWN. 1983.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS; SAN JUAN RIVER.
LOCATION: G DFO - SOUTH COAST DIVISION - NANAIMO
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 13

AUTHOR: UNKNOWN. 1980,1982,1983.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS; TUGWELL CREEK 1980, 1982, 1983.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 18

AUTHOR: UNKNOWN. 1981,1982,1983.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS; UGLOW CREEK. 1981, 1982, 1983
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 20- 34

AUTHOR: UNKNOWN. 1981.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS; GRANITE CREEK 1981. (VICTORIA FILES)
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON S SPAWNING

REFERENCE NO: 20- 19

AUTHOR: UNKNOWN. 1983
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS ; MAIDENHAIR CREEK.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON S SPAWNING

REFERENCE NO: 20- 35

AUTHOR: UNKNOWN. 1983.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS; 5 MILE CREEK 1983
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON S SPAWNING

REFERENCE NO: 20- 25

AUTHOR: UNKNOWN. 1982,1983.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS ; SAN JUAN RIVER.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON S SPAWNING

REFERENCE NO: 20- 33

AUTHOR: UNKNOWN. 1982,1983.
DESCRIPTION: ANNUAL REPORT OF SALMON STREAM AND SPAWNING GROUNDS; GRANITE CREEK 1982, 1983
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON S SPAWNING

REFERENCE NO: 20- 22

AUTHOR: WITT & CLOZZA
DESCRIPTION: SAN JUAN WATERSHED, SUMMER STEELHEAD SURVEY REPORT.
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: PY PHYSICAL HABITAT ST STEELHEAD

4.0 ESCAPEMENT

This section contains escapement information for the following streams:

<u>WATERSHED CODE</u>	<u>STREAM NAME</u>
93-0100	Unnamed C (Matheson C)
93-0250	Ayum C
93-0275	Kaltasin C
93-0300	Sooke R
93-0300-050	DeMamiel C
93-0300-050-030	Unnamed C (Rocky C)
93-0300-100	Charters C
93-0380	Tugwell C
93-0400	Muir C
93-0420	Kirby C
93-0600	Jordon R
93-0620	Uglow C
93-0624	Maidenhair C
93-1000	San Juan R
93-1000-030	Falls C
93-1000-050	Mosquito C
93-1000-070-010	Renfrew C
93-1000-120	Harris C
93-1000-120-150	Hemmingsen C
93-1000-150	Lens C
93-1100	Gordon R

ESCAPEMENT : MATHESON CREEK

WATERSHED-CODE : 93-0100

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
53	UNK	UNK	UNK	UNK	UNK	UNK
54	UNK	UNK	UNK	UNK	UNK	UNK
55	UNK	UNK	UNK	UNK	UNK	UNK
56	UNK	UNK	UNK	UNK	UNK	UNK
57	UNK	UNK	UNK	UNK	UNK	UNK
58	UNK	UNK	UNK	UNK	UNK	UNK
59	UNK	UNK	UNK	UNK	UNK	UNK
60	UNK	UNK	UNK	UNK	UNK	UNK
61	UNK	UNK	UNK	UNK	UNK	UNK
62	UNK	UNK	UNK	UNK	UNK	UNK
63	UNK	UNK	UNK	UNK	UNK	UNK
64	UNK	UNK	UNK	UNK	UNK	UNK
65	UNK	UNK	UNK	UNK	UNK	UNK
66	UNK	UNK	UNK	UNK	UNK	UNK
67	UNK	UNK	UNK	UNK	UNK	UNK
68	UNK	UNK	UNK	UNK	UNK	UNK
69	UNK	UNK	UNK	UNK	UNK	UNK
70	UNK	UNK	UNK	UNK	UNK	UNK
71	UNK	UNK	UNK	UNK	UNK	UNK
72	UNK	UNK	UNK	UNK	UNK	UNK
73	UNK	UNK	UNK	UNK	UNK	UNK
74	UNK	UNK	UNK	UNK	UNK	UNK
75	UNK	UNK	UNK	UNK	UNK	UNK
76	UNK	UNK	UNK	UNK	UNK	UNK
77	UNK	UNK	UNK	UNK	UNK	UNK
78	UNK	UNK	UNK	UNK	UNK	UNK
79	UNK	UNK	UNK	UNK	UNK	UNK
80	0	16	0	0	0	0
81	0	7	0	0	0	0
82	0	4	0	0	0	0
83	0	N/O	0	0	0	0
84	0	0	0	0	0	0
85	N/O	0	N/O	N/O	N/O	0
86						
87						
88						
89						
90						
91						
92						
93						
94						
95						

N/O = STREAM INSPECTED, NO FISH OBSERVED

UNK = STREAM NOT INSPECTED OR NOT INSPECTED FOR SPECIES INDICATED OR SPECIES PRESENT BUT NO ESTIMATE MADE

ESCAPEMENT : AYUM CREEK

WATERSHED-CODE : 93-0250

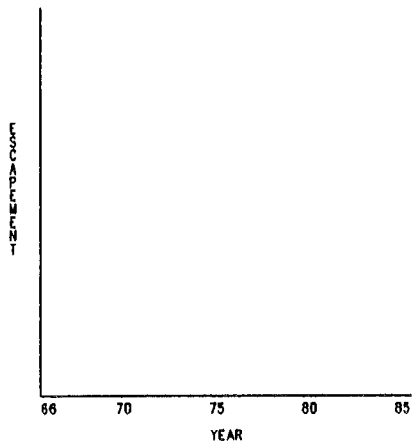
YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
53	0	75	0	3500	0	0
54	0	25	0	3500	0	0
55	0	25	0	3500	0	0
56	0	0	0	150	0	0
57	0	N/O	0	750	0	0
58	0	75	0	3500	0	25
59	0	0	0	200	0	UNK
60	0	0	N/O	25	0	0
61	0	25	0	25	0	0
62	0	25	0	750	0	0
63	0	N/O	0	25	0	0
64	0	0	0	75	0	0
65	0	N/O	0	750	0	0
66	0	0	0	30	0	0
67	0	N/O	0	750	0	0
68	0	0	0	3500	0	0
69	0	N/O	0	750	0	0
70	0	0	0	3500	0	0
71	0	0	0	3500	0	0
72	0	0	0	3500	0	0
73	0	0	0	3500	0	0
74	0	N/O	N/O	1500	0	0
75	0	25	0	400	0	0
76	0	N/O	0	400	0	0
77	0	25	0	3500	N/O	0
78	0	40	0	1500	0	0
79	0	0	0	1200	0	0
80	0	25	0	2000	0	0
81	0	6	0	4000	0	0
82	0	0	0	1000	0	0
83	0	8	0	1500	0	0
84	0	6	0	1000	0	0
85	N/O	N/O	N/O	1500	N/O	0
86						
87						
88						
89						
90						
91						
92						
93						
94						
95						

N/O = STREAM INSPECTED, NO FISH OBSERVED

UNK = STREAM NOT INSPECTED, OR NOT INSPECTED FOR SPECIES INDICATED,
OR SPECIES PRESENT BUT NO ESTIMATE MADE.

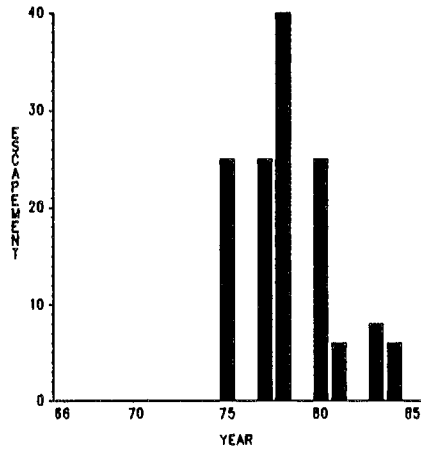
AYUM CREEK (93-0250)
ESCAPEMENT AND RUN TIMING

SOCKEYE (SK)



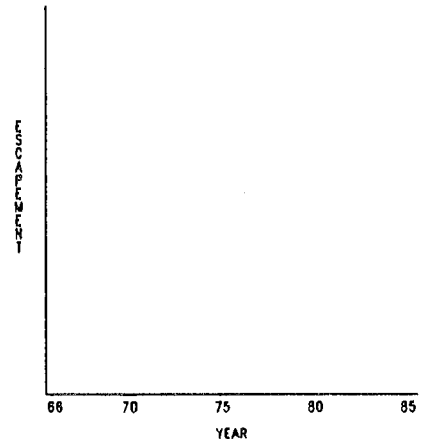
SOCKEYE

COHO (CO)

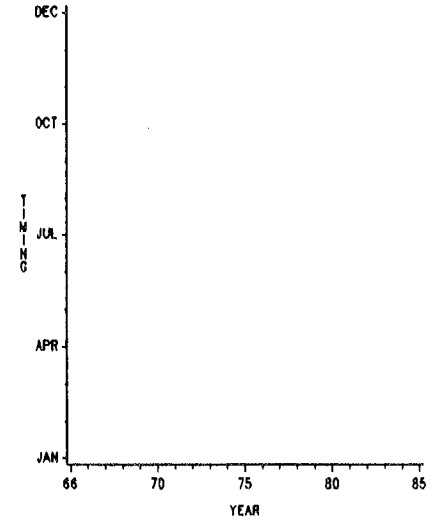
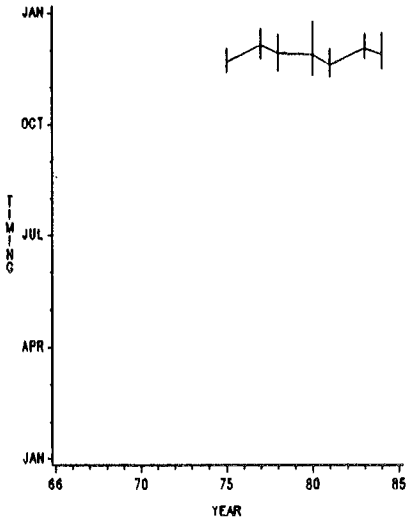
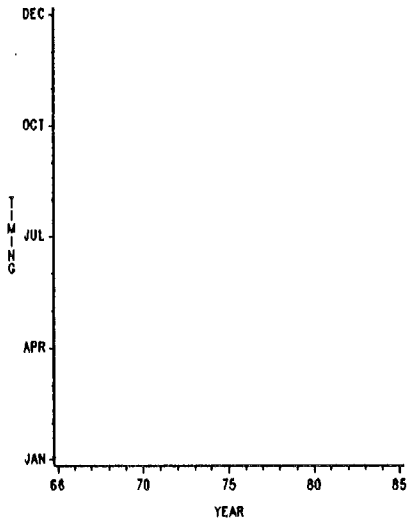


COHO

PINK (PK)



PINK



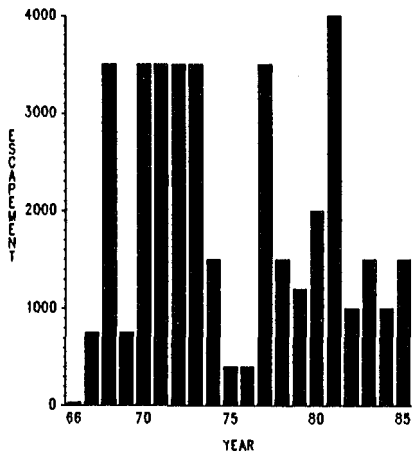
YEAR	ESCAPEMENT	START	PEAK	END
1966	-	-	-	-
1967	-	-	-	-
1968	-	-	-	-
1969	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	25	NOV 10	NOV 15	NOV 30
1976	-	-	-	-
1977	25	NOV 20	DEC 01	DEC 15
1978	40	NOV 10	NOV 25	DEC 10
1979	-	-	-	-
1980	25	NOV 05	NOV 13	DEC 20
1981	6	NOV 04	NOV 12	NOV 27
1982	-	-	-	-
1983	8	NOV 20	NOV 25	DEC 10
1984	6	NOV 10	NOV 15	DEC 10
1985	-	-	-	-

YEAR	ESCAPEMENT	START	PEAK	END
1966	-	-	-	-
1967	-	-	-	-
1968	-	-	-	-
1969	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	25	NOV 10	NOV 15	NOV 30
1976	-	-	-	-
1977	25	NOV 20	DEC 01	DEC 15
1978	40	NOV 10	NOV 25	DEC 10
1979	-	-	-	-
1980	25	NOV 05	NOV 13	DEC 20
1981	6	NOV 04	NOV 12	NOV 27
1982	-	-	-	-
1983	8	NOV 20	NOV 25	DEC 10
1984	6	NOV 10	NOV 15	DEC 10
1985	-	-	-	-

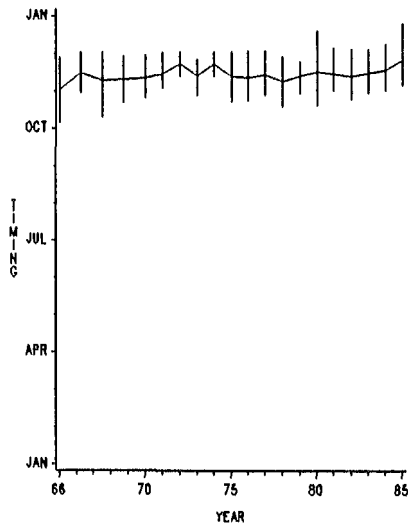
YEAR	ESCAPEMENT	START	PEAK	END
1966	-	-	-	-
1967	-	-	-	-
1968	-	-	-	-
1969	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	25	NOV 10	NOV 15	NOV 30
1976	-	-	-	-
1977	25	NOV 20	DEC 01	DEC 15
1978	40	NOV 10	NOV 25	DEC 10
1979	-	-	-	-
1980	25	NOV 05	NOV 13	DEC 20
1981	6	NOV 04	NOV 12	NOV 27
1982	-	-	-	-
1983	8	NOV 20	NOV 25	DEC 10
1984	6	NOV 10	NOV 15	DEC 10
1985	-	-	-	-

AYUM CREEK (93-0250) ESCAPEMENT AND RUN TIMING

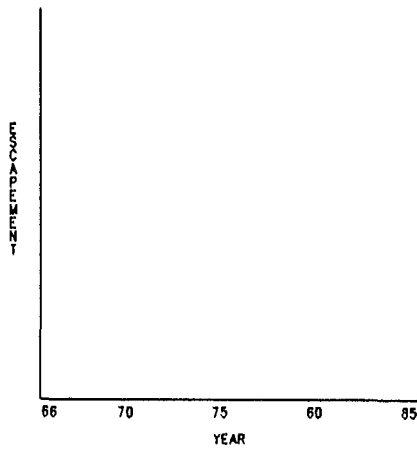
CHUM (CM)



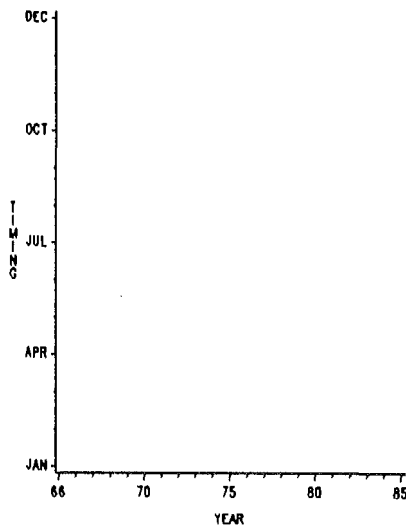
CHUM



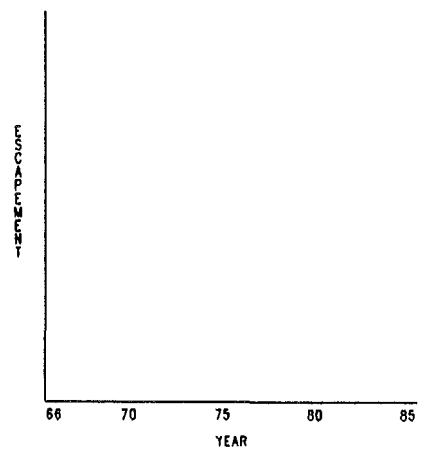
CHINOOK (CH)



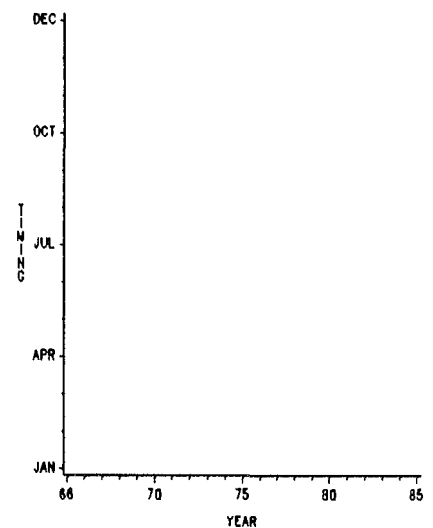
CHINOOK



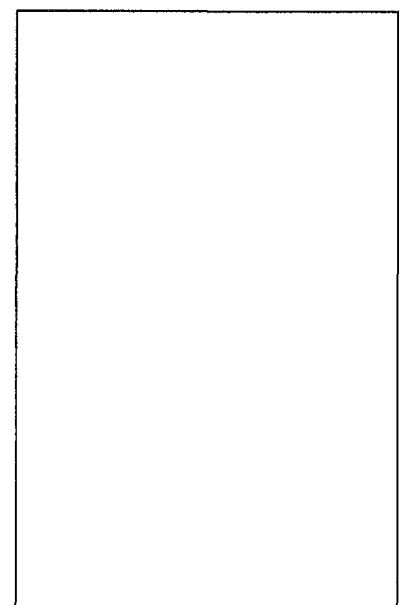
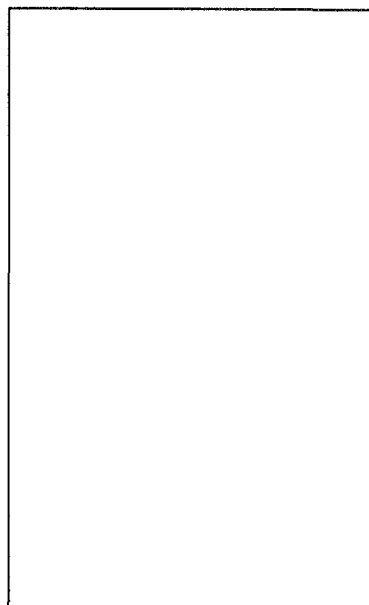
STEELHEAD (ST)



STEELHEAD

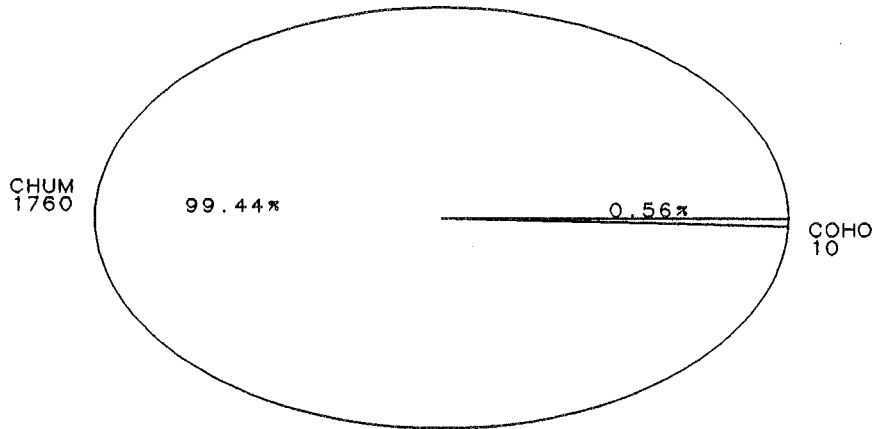


YEAR	ESCAPEMENT	START	PEAK	END
1966	30	-	OCT 05	NOV 27
1967	750	OCT 29	NOV 15	DEC 01
1968	3500	OCT 08	NOV 15	NOV 30
1969	750	OCT 20	NOV 09	NOV 27
1970	3500	OCT 24	NOV 08	NOV 28
1971	3500	NOV 01	NOV 08	NOV 30
1972	3500	-	NOV 10	NOV 30
1973	3500	OCT 25	NOV 14	NOV 24
1974	1500	NOV 10	NOV 20	NOV 30
1975	400	OCT 20	NOV 10	NOV 30
1976	400	OCT 20	NOV 05	NOV 30
1977	3500	OCT 24	NOV 08	NOV 30
1978	1500	OCT 15	NOV 05	NOV 25
1979	1200	OCT 26	NOV 12	NOV 21
1980	2000	OCT 15	NOV 05	DEC 15
1981	4000	OCT 27	NOV 04	DEC 01
1982	1000	OCT 20	NOV 04	NOV 30
1983	1500	OCT 25	NOV 08	NOV 30
1984	1000	OCT 28	NOV 10	DEC 03
1985	1500	OCT 30	NOV 13	DEC 20

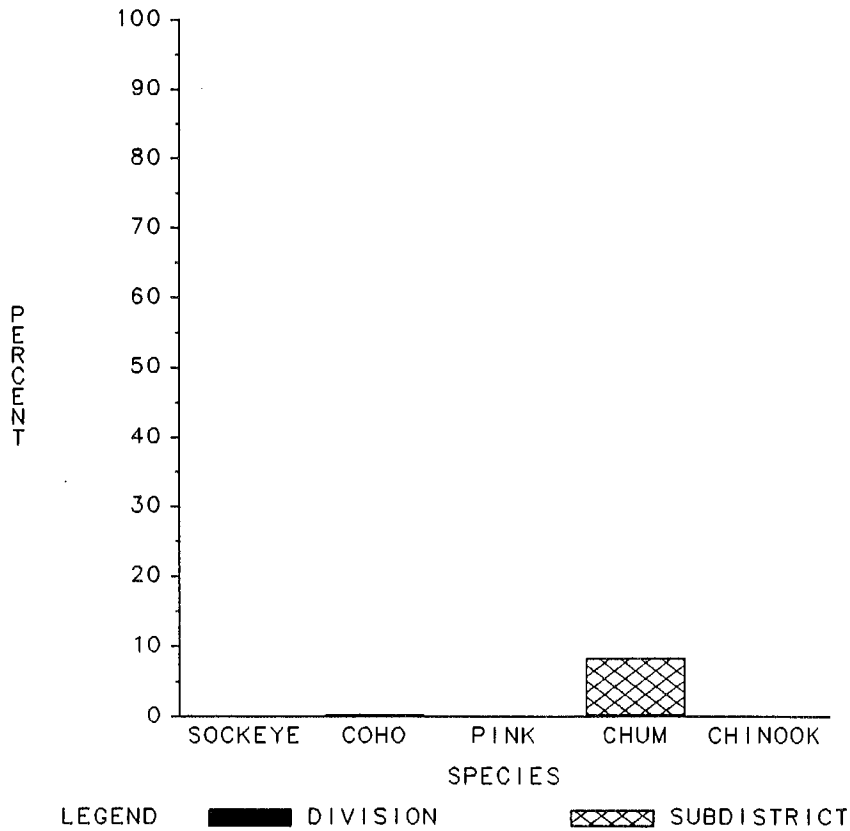


AYUM CREEK

10 YR. AVG. ESCAPEMENT (1976-1985)



AYUM CREEK AVG. ESCAPEMENT (1976-1985)
(EXPRESSED AS A PERCENTAGE OF
SUBDISTRICT AND DIVISION AVERAGE ESCAPEMENT)



ESCAPEMENT : KALTASIN CREEK

WATERSHED-CODE : 93-0275

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
53	UNK	UNK	UNK	UNK	UNK	UNK
54	UNK	UNK	UNK	UNK	UNK	UNK
55	UNK	UNK	UNK	UNK	UNK	UNK
56	UNK	UNK	UNK	UNK	UNK	UNK
57	UNK	UNK	UNK	UNK	UNK	UNK
58	UNK	UNK	UNK	UNK	UNK	UNK
59	UNK	UNK	UNK	UNK	UNK	UNK
60	UNK	UNK	UNK	UNK	UNK	UNK
61	UNK	UNK	UNK	UNK	UNK	UNK
62	UNK	UNK	UNK	UNK	UNK	UNK
63	UNK	UNK	UNK	UNK	UNK	UNK
64	UNK	UNK	UNK	UNK	UNK	UNK
65	UNK	UNK	UNK	UNK	UNK	UNK
66	UNK	UNK	UNK	UNK	UNK	UNK
67	UNK	UNK	UNK	UNK	UNK	UNK
68	UNK	UNK	UNK	UNK	UNK	UNK
69	UNK	UNK	UNK	UNK	UNK	UNK
70	UNK	UNK	UNK	UNK	UNK	UNK
71	UNK	UNK	UNK	UNK	UNK	UNK
72	UNK	UNK	UNK	UNK	UNK	UNK
73	UNK	UNK	UNK	UNK	UNK	UNK
74	UNK	UNK	UNK	UNK	UNK	UNK
75	UNK	UNK	UNK	UNK	UNK	UNK
76	UNK	UNK	UNK	UNK	UNK	UNK
77	UNK	UNK	UNK	UNK	UNK	UNK
78	UNK	UNK	UNK	UNK	UNK	UNK
79	UNK	UNK	UNK	UNK	UNK	UNK
80	0	11	0	0	0	0
81	0	2	0	0	0	0
82	0	4	0	0	0	0
83	0	12	0	0	0	0
84	0	6	0	2	0	0
85	N/O	N/O	N/O	N/O	N/O	0
86						
87						
88						
89						
90						
91						
92						
93						
94						
95						

N/O = STREAM INSPECTED, NO FISH OBSERVED

UNK = STREAM NOT INSPECTED, OR NOT INSPECTED FOR SPECIES INDICATED,
OR SPECIES PRESENT BUT NO ESTIMATE MADE.

ESCAPEMENT : SOOKE RIVER

WATERSHED-CODE : 93-0300

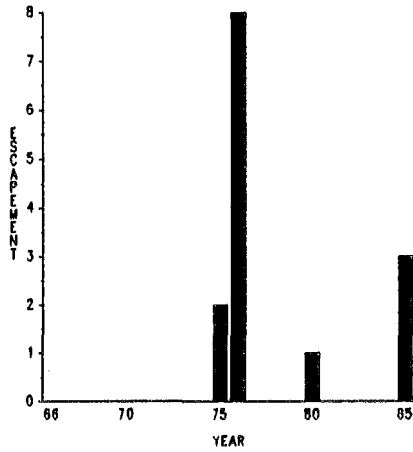
YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
53	0	400	0	35000	0	25
54	0	200	0	35000	75	25
55	0	75	0	35000	25	25
56	0	25	0	15000	0	N/O
57	0	200	0	15000	25	25
58	0	200	0	35000	200	25
59	0	200	0	15000	200	UNK
60	0	200	0	3500	400	UNK
61	0	200	0	3500	200	0
62	0	400	0	3500	750	0
63	0	200	0	7500	1500	0
64	0	75	0	35000	750	UNK
65	0	25	0	7500	400	0
66	0	25	0	7500	750	0
67	0	25	0	35000	1500	0
68	0	75	0	35000	3500	0
69	0	0	0	35000	1500	400
70	0	25	0	35000	1500	0
71	0	75	0	15000	750	0
72	0	200	0	75000	200	0
73	0	400	0	75000	3500	0
74	0	75	N/O	15000	200	UNK
75	2	200	0	3500	400	0
76	8	25	0	3500	30	UNK
77	N/O	75	0	7500	25	0
78	0	100	0	9500	6	6
79	0	40	0	4500	45	0
80	1	5	0	14500	36	0
81	0	0	0	11000	30	0
82	0	6	0	8000	3	0
83	0	0	0	9000	18	0
84	0	120	0	12000	400	0
85	3	9	N/O	35000	400	0
86						
87						
88						
89						
90						
91						
92						
93						
94						
95						

N/O = STREAM INSPECTED, NO FISH OBSERVED

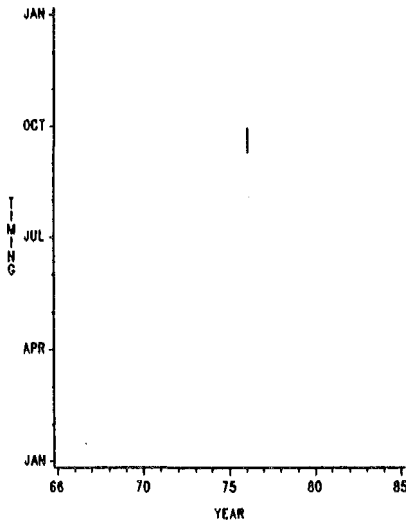
UNK = STREAM NOT INSPECTED, OR NOT INSPECTED FOR SPECIES INDICATED,
OR SPECIES PRESENT BUT NO ESTIMATE MADE.

Sooke River (93-0300) Escapement and Run Timing

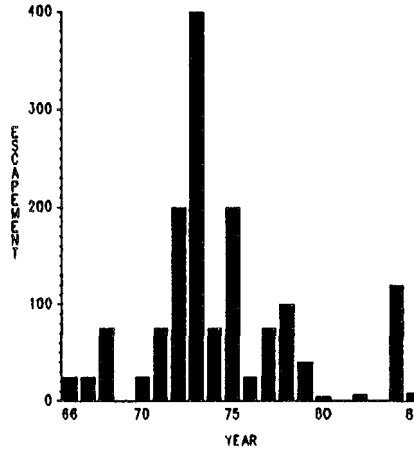
Sockeye (SK)



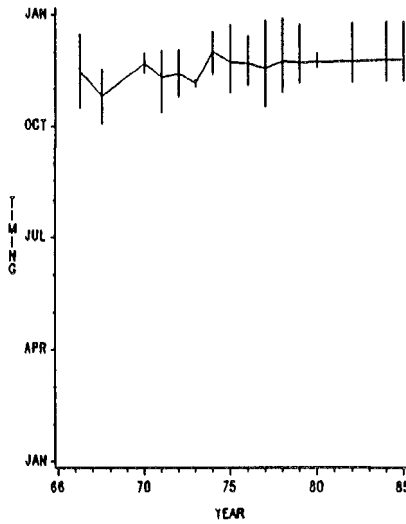
SOCKEYE



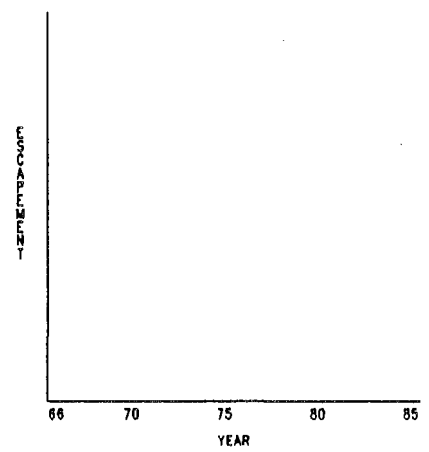
Coho (CO)



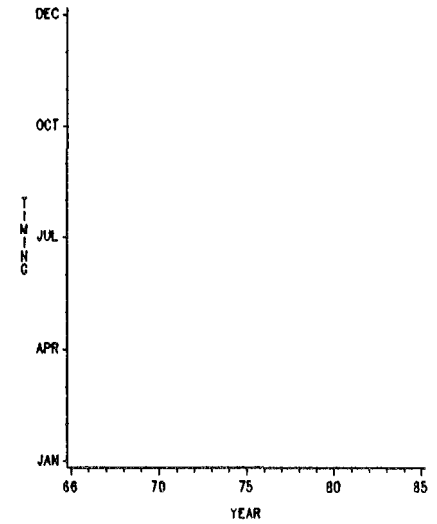
COHO



Pink (PK)



PINK



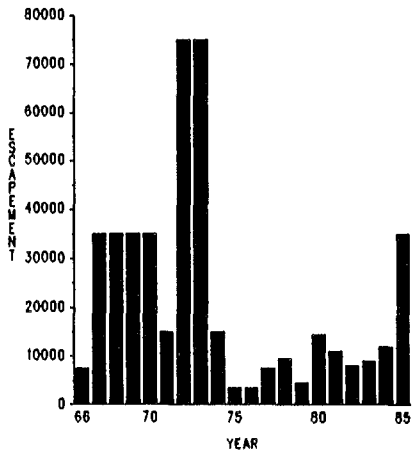
SOCKEYE				
YEAR	ESCAPEMENT	START	PEAK	END
1966	-	-	-	-
1967	-	-	-	-
1968	-	-	-	-
1969	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	2	-	-	-
1976	8	SEP 05	SEP 15	SEP 25
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	1	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	3	-	-	-

COHO				
YEAR	ESCAPEMENT	START	PEAK	END
1966	25	-	-	-
1967	25	OCT 15	NOV 12	DEC 15
1968	75	OCT 01	NOV 15	DEC 31
1969	-	-	-	-
1970	25	NOV 12	-	NOV 28
1971	75	OCT 10	NOV 15	NOV 30
1972	200	OCT 22	-	NOV 30
1973	400	OCT 30	NOV 05	-
1974	75	NOV 10	DEC 01	DEC 15
1975	200	OCT 25	NOV 15	DEC 20
1976	25	OCT 30	NOV 15	DEC 10
1977	75	OCT 13	NOV 06	DEC 23
1978	100	OCT 25	NOV 10	DEC 25
1979	40	NOV 01	NOV 05	DEC 20
1980	5	NOV 14	NOV 18	NOV 25
1981	-	-	-	-
1982	6	NOV 01	NOV 05	DEC 20
1983	-	-	-	-
1984	120	NOV 01	NOV 05	DEC 20
1985	9	NOV 01	NOV 05	DEC 20

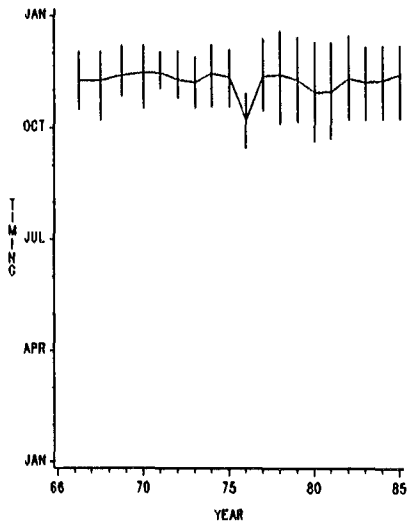
PINK				
YEAR	ESCAPEMENT	START	PEAK	END
1966-1985	0	-	-	-

SOOKE RIVER (93-0300) ESCAPEMENT AND RUN TIMING

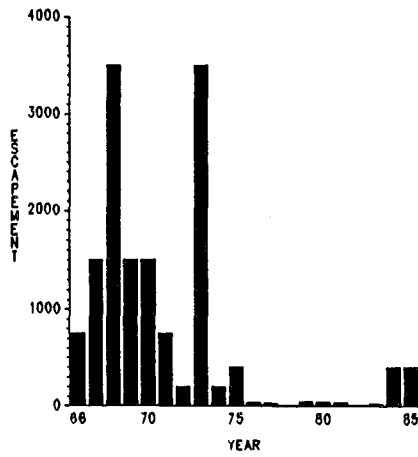
CHUM (CM)



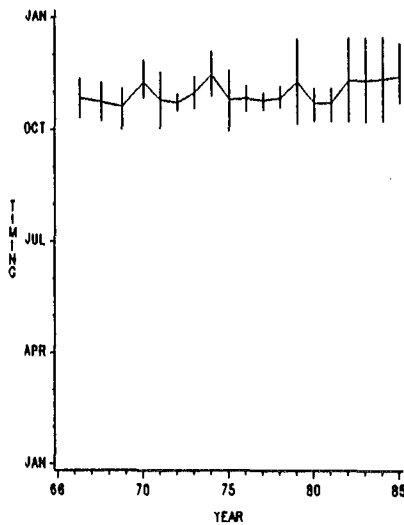
CHUM



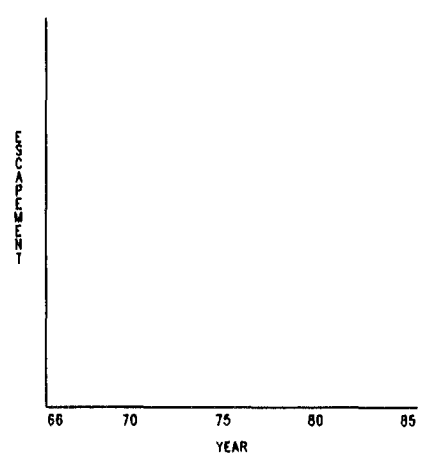
CHINOOK (CH)



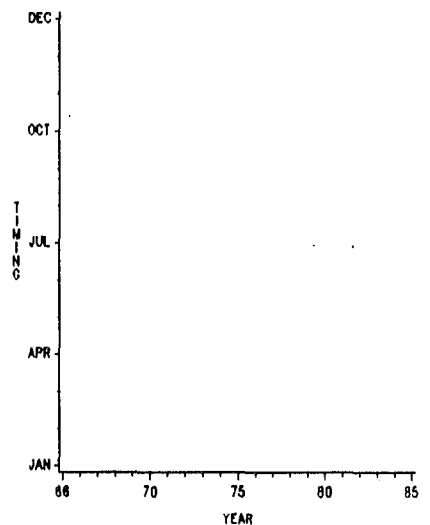
CHINOOK



STEELHEAD (ST)



STEELHEAD

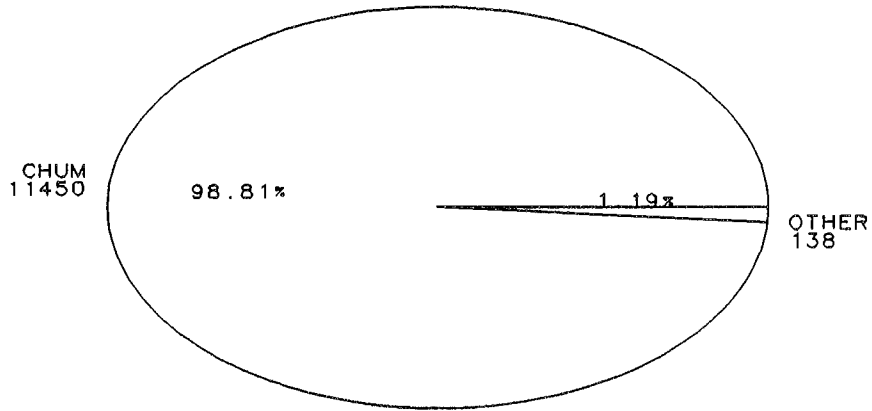


YEAR	ESCAPEMENT	START	PEAK	END
1966	7500	-	-	-
1967	35000	OCT 15	NOV 08	DEC 01
1968	35000	OCT 05	NOV 15	NOV 30
1969	35000	OCT 25	NOV 04	DEC 05
1970	35000	OCT 15	NOV 20	DEC 05
1971	15000	OCT 31	NOV 09	NOV 30
1972	75000	OCT 22	OCT 28	NOV 30
1973	75000	OCT 14	NOV 03	NOV 25
1974	15000	OCT 15	NOV 15	DEC 05
1975	3500	OCT 15	NOV 10	DEC 01
1976	3500	SEP 10	OCT 25	-
1977	7500	OCT 11	NOV 06	DEC 09
1978	9500	SEP 30	NOV 15	DEC 15
1979	4500	OCT 02	NOV 05	DEC 10
1980	14500	SEP 15	OCT 24	DEC 05
1981	11000	SEP 17	OCT 24	DEC 05
1982	8000	OCT 02	NOV 05	DEC 10
1983	9000	OCT 02	NOV 05	DEC 01
1984	12000	OCT 02	NOV 05	DEC 01
1985	35000	OCT 02	NOV 20	DEC 01

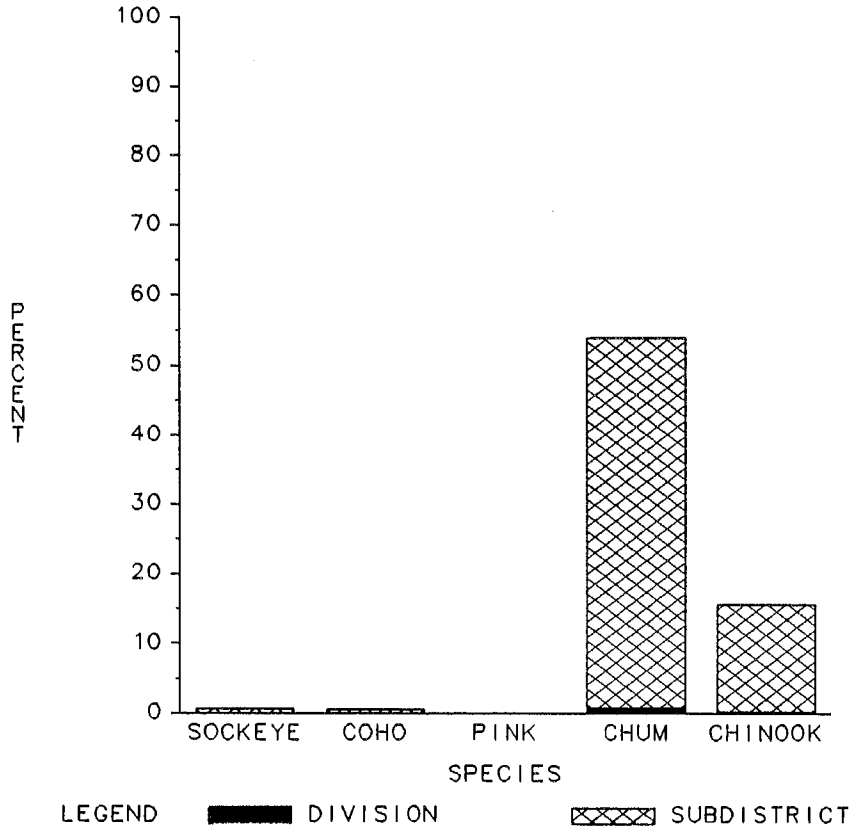
YEAR	ESCAPEMENT	START	PEAK	END
1966	750	-	-	-
1967	1500	OCT 09	OCT 26	NOV 10
1968	3500	OCT 06	OCT 21	NOV 06
1969	1500	SEP 29	OCT 22	NOV 01
1970	1500	OCT 25	NOV 01	NOV 25
1971	750	SEP 30	OCT 23	NOV 15
1972	200	OCT 13	OCT 20	OCT 27
1973	3500	OCT 15	OCT 28	NOV 10
1974	200	OCT 25	NOV 10	DEC 01
1975	400	SEP 27	OCT 25	NOV 15
1976	30	OCT 12	OCT 25	NOV 01
1977	25	OCT 13	OCT 22	OCT 27
1978	6	OCT 15	OCT 20	NOV 01
1979	45	OCT 02	NOV 05	DEC 10
1980	36	OCT 03	OCT 20	OCT 30
1981	30	OCT 03	OCT 20	OCT 30
1982	3	OCT 02	NOV 05	DEC 10
1983	18	OCT 02	NOV 05	DEC 10
1984	400	OCT 02	NOV 05	DEC 10
1985	400	OCT 17	NOV 01	DEC 05

YEAR	ESCAPEMENT	START	PEAK	END
1966	0	-	-	-
1967	0	-	-	-
1968	0	-	-	-
1969	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	0	-	-	-
1981	0	-	-	-
1982	0	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	0	-	-	-

SOOKE RIVER 10 YR. AVG. ESCAPEMENT (1976-1985)



SOOKE RIVER AVG. ESCAPEMENT (1976-1985) (EXPRESSED AS A PERCENTAGE OF SUBDISTRICT AND DIVISION AVERAGE ESCAPEMENT)



ESCAPEMENT : DE MAMIEL CREEK

WATERSHED-CODE : 93-0300-050

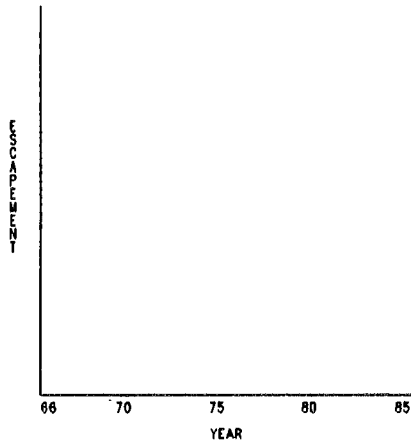
YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
53	0	400	0	15000	0	25
54	0	1500	0	7500	0	25
55	0	75	0	15000	0	25
56	0	400	0	7500	0	0
57	0	400	0	7500	0	25
58	0	3500	0	35000	0	25
59	0	750	0	7500	0	25
60	0	200	0	3500	0	0
61	0	3500	0	3500	0	0
62	0	3500	0	3500	0	0
63	0	3500	0	3500	0	UNK
64	0	1500	0	15000	0	0
65	0	3500	0	7500	0	0
66	0	7500	0	7500	0	0
67	0	750	0	7500	0	0
68	0	3500	0	35000	0	0
69	0	750	0	15000	0	0
70	0	3500	0	15000	0	200
71	0	1500	0	7500	0	0
72	0	3500	0	15000	0	0
73	0	6400	0	35000	0	0
74	0	1500	0	3500	2	0
75	0	750	0	3500	N/O	0
76	0	400	0	1500	0	0
77	0	750	0	3500	25	0
78	0	800	0	8000	15	0
79	0	1200	0	800	12	0
80	0	800	0	9000	N/O	0
81	0	800	0	6000	0	0
82	0	700	0	2500	0	0
83	0	230	0	8000	0	0
84	0	365	0	8000	0	0
85	0	700	0	11000	4	0
86						
87						
88						
89						
90						
91						
92						
93						
94						
95						

N/O = STREAM INSPECTED, NO FISH OBSERVED

UNK = STREAM NOT INSPECTED, OR NOT INSPECTED FOR SPECIES INDICATED,
OR SPECIES PRESENT BUT NO ESTIMATE MADE.

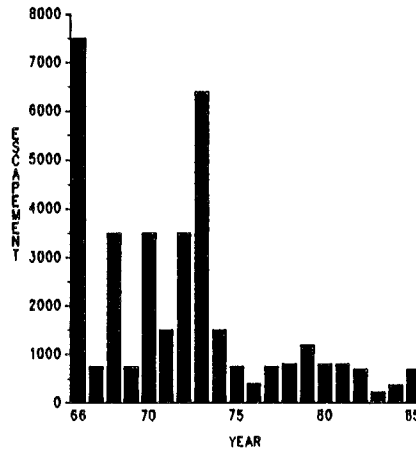
DEMAMIEL CREEK (93-0300-050)
ESCAPEMENT AND RUN TIMING

SOCKEYE (SK)



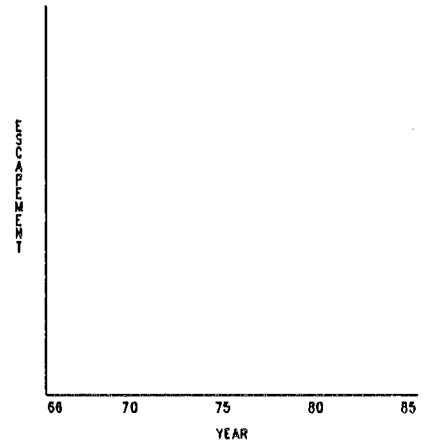
SOCKEYE

COHO (CO)

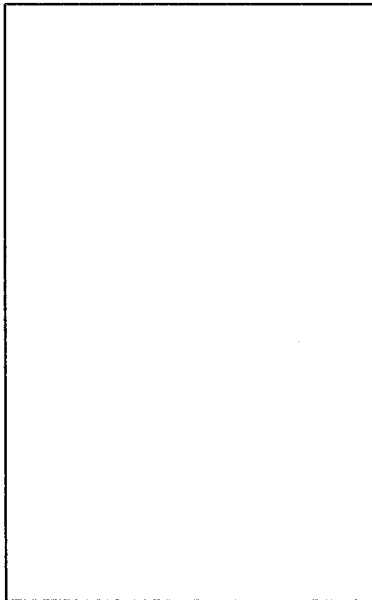
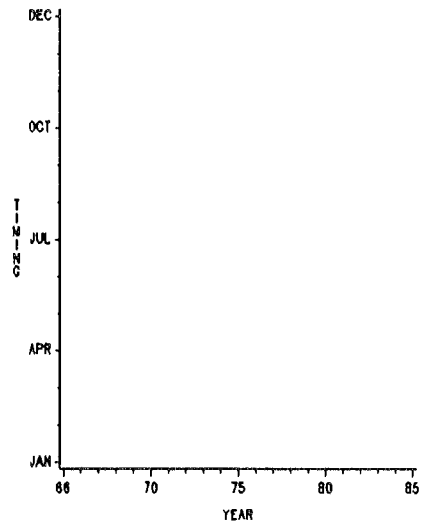
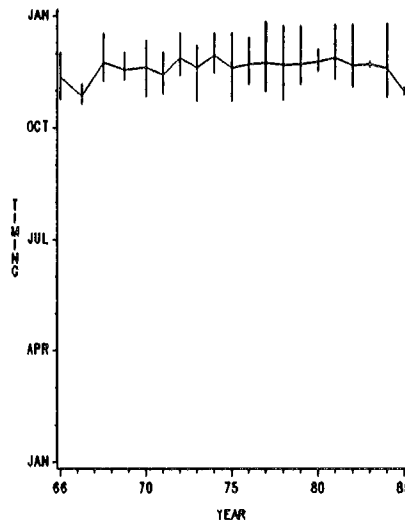
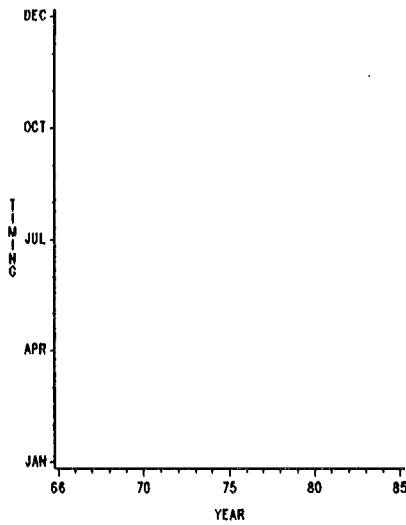


COHO

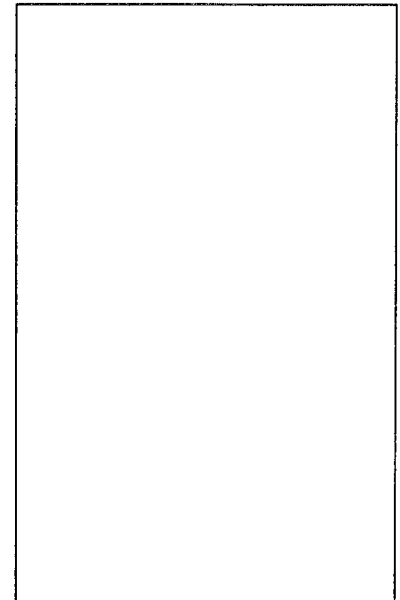
PINK (PK)



PINK

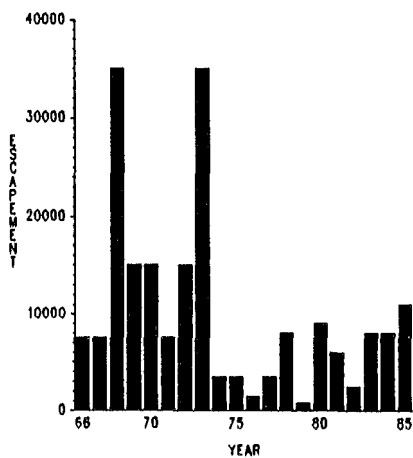


COHO				
YEAR	ESCAPEMENT	START	PEAK	END
1966	7500	OCT 23	NOV 10	DEC 01
1967	750	OCT 19	OCT 23	NOV 05
1968	3500	NOV 06	NOV 15	DEC 15
1969	750	NOV 07	NOV 10	NOV 30
1970	3500	OCT 25	NOV 20	DEC 10
1971	1500	OCT 27	NOV 08	NOV 30
1972	3500	NOV 10	NOV 20	DEC 15
1973	6400	OCT 20	NOV 25	DEC 05
1974	1500	NOV 12	NOV 25	DEC 15
1975	750	OCT 20	NOV 15	DEC 15
1976	400	NOV 01	NOV 15	DEC 10
1977	750	OCT 27	NOV 10	DEC 23
1978	800	OCT 20	NOV 15	DEC 20
1979	1200	NOV 01	NOV 05	DEC 20
1980	800	NOV 12	NOV 18	NOV 30
1981	800	NOV 05	NOV 13	DEC 20
1982	700	OCT 29	NOV 01	DEC 20
1983	230	NOV 15	NOV 20	DEC 31
1984	365	OCT 20	NOV 01	DEC 20
1985	700	OCT 22	OCT 28	DEC 27

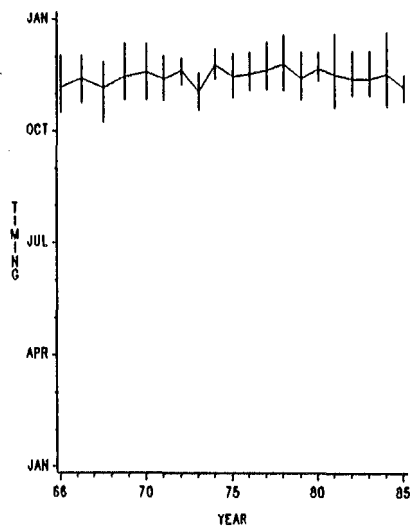


DEMAMIEL CREEK (93-0300-050)
ESCAPEMENT AND RUN TIMING

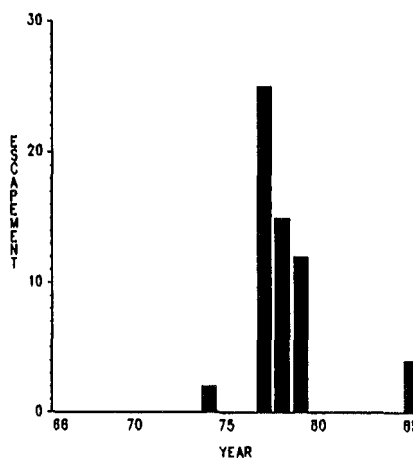
CHUM (CM)



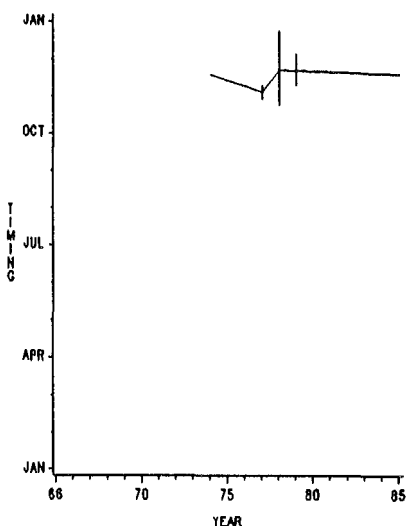
CHUM



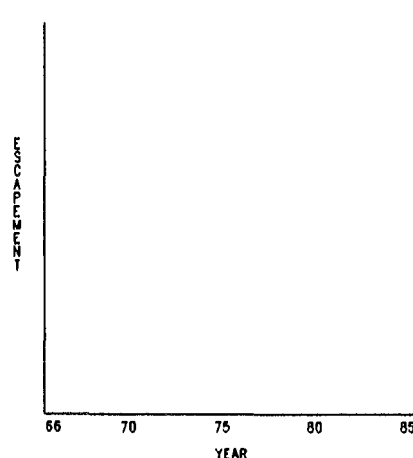
CHINOOK (CH)



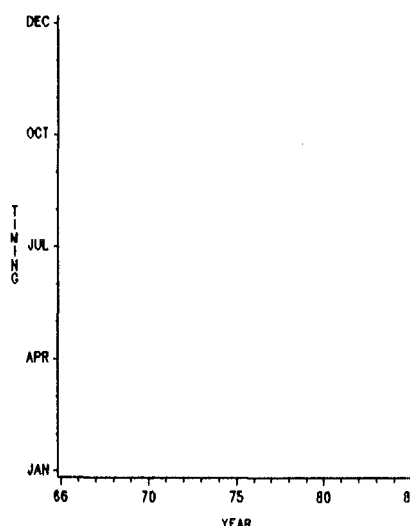
CHINOOK



STEELHEAD (ST)



STEELHEAD

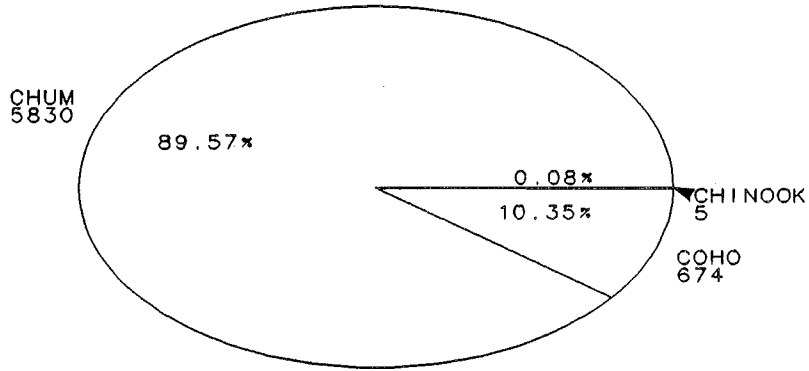


YEAR	ESCAPEMENT	START	PEAK	END
1966	7500	OCT 15	OCT 31	DEC 01
1967	7500	OCT 23	NOV 15	DEC 01
1968	35000	OCT 06	NOV 10	NOV 25
1969	15000	OCT 24	NOV 07	DEC 10
1970	15000	OCT 24	NOV 18	DEC 10
1971	7500	OCT 24	NOV 09	NOV 30
1972	15000	NOV 05	NOV 20	NOV 27
1973	35000	OCT 15	NOV 15	-
1974	3500	NOV 10	NOV 20	DEC 05
1975	3500	OCT 25	NOV 10	DEC 01
1976	1500	OCT 30	NOV 10	DEC 01
1977	3500	OCT 31	NOV 10	DEC 09
1978	8000	OCT 30	NOV 20	DEC 15
1979	800	OCT 23	NOV 05	DEC 01
1980	9000	NOV 06	NOV 14	NOV 30
1981	6000	OCT 15	NOV 05	DEC 15
1982	2500	OCT 25	OCT 29	DEC 01
1983	8000	OCT 25	OCT 29	DEC 01
1984	8000	OCT 15	NOV 05	DEC 15
1985	11000	OCT 19	NOV 10	DEC 30

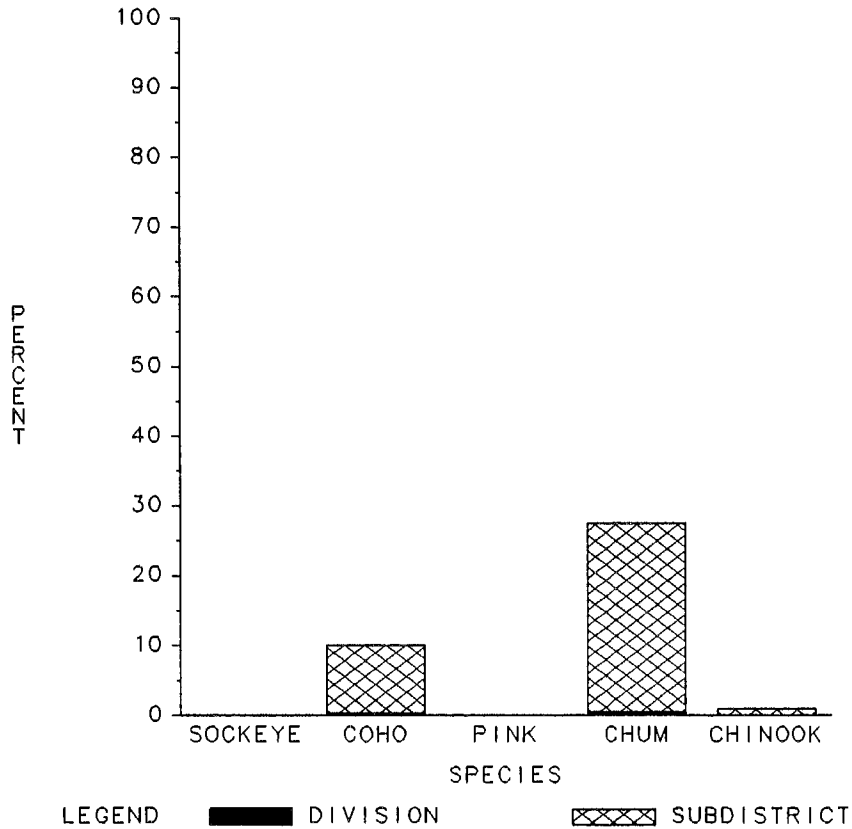
YEAR	ESCAPEMENT	START	PEAK	END
1966	-	-	-	-
1967	-	-	-	-
1968	-	-	-	-
1969	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	2	-	NOV 15	-
1975	-	-	-	-
1976	-	-	-	-
1977	25	OCT 25	OCT 31	NOV 05
1978	15	OCT 20	NOV 15	DEC 20
1979	12	NOV 05	NOV 17	DEC 01
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	4	-	NOV 13	-

YEAR	ESCAPEMENT	START	PEAK	END
1966	-	-	-	-
1967	-	-	-	-
1968	-	-	-	-
1969	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-

DEMAMIEL CREEK 10 YR. AVG. ESCAPEMENT (1976-1985)



DEMAMIEL CREEK AVG. ESCAPEMENT (1976-1985)
(EXPRESSED AS A PERCENTAGE OF
SUBDISTRICT AND DIVISION AVERAGE ESCAPEMENT)



ESCAPEMENT : ROCKY CREEK

WATERSHED-CODE : 93-0300-050-030

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
53	UNK	UNK	UNK	UNK	UNK	UNK
54	UNK	UNK	UNK	UNK	UNK	UNK
55	UNK	UNK	UNK	UNK	UNK	UNK
56	UNK	UNK	UNK	UNK	UNK	UNK
57	UNK	UNK	UNK	UNK	UNK	UNK
58	UNK	UNK	UNK	UNK	UNK	UNK
59	UNK	UNK	UNK	UNK	UNK	UNK
60	UNK	UNK	UNK	UNK	UNK	UNK
61	UNK	UNK	UNK	UNK	UNK	UNK
62	UNK	UNK	UNK	UNK	UNK	UNK
63	UNK	UNK	UNK	UNK	UNK	UNK
64	UNK	UNK	UNK	UNK	UNK	UNK
65	UNK	UNK	UNK	UNK	UNK	UNK
66	UNK	UNK	UNK	UNK	UNK	UNK
67	UNK	UNK	UNK	UNK	UNK	UNK
68	UNK	UNK	UNK	UNK	UNK	UNK
69	UNK	UNK	UNK	UNK	UNK	UNK
70	UNK	UNK	UNK	UNK	UNK	UNK
71	UNK	UNK	UNK	UNK	UNK	UNK
72	UNK	UNK	UNK	UNK	UNK	UNK
73	UNK	UNK	UNK	UNK	UNK	UNK
74	UNK	UNK	UNK	UNK	UNK	UNK
75	UNK	UNK	UNK	UNK	UNK	UNK
76	UNK	UNK	UNK	UNK	UNK	UNK
77	UNK	UNK	UNK	UNK	UNK	UNK
78	UNK	UNK	UNK	UNK	UNK	UNK
79	UNK	UNK	UNK	UNK	UNK	UNK
80	UNK	UNK	UNK	UNK	UNK	UNK
81	0	6	0	110	0	0
82	0	28	0	0	0	0
83	0	18	0	50	0	0
84	0	77	0	600	0	0
85	N/O	20	N/O	600	5	0
86						
87						
88						
89						
90						
91						
92						
93						
94						
95						

N/O = STREAM INSPECTED,NO FISH OBSERVED

UNK = STREAM NOT INSPECTED,OR NOT INSPECTED FOR SPECIES INDICATED,
OR SPECIES PRESENT BUT NO ESTIMATE MADE.

ESCAPEMENT : CHARTERS RIVER

WATERSHED-CODE : 93-0300-100

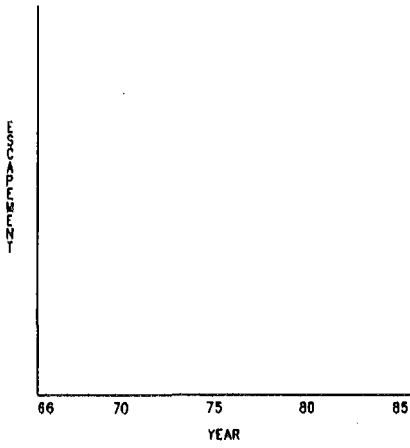
YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
53	UNK	UNK	UNK	UNK	UNK	UNK
54	UNK	UNK	UNK	UNK	UNK	UNK
55	UNK	UNK	UNK	UNK	UNK	UNK
56	UNK	UNK	UNK	UNK	UNK	UNK
57	UNK	UNK	UNK	UNK	UNK	UNK
58	UNK	UNK	UNK	UNK	UNK	UNK
59	UNK	UNK	UNK	UNK	UNK	UNK
60	UNK	UNK	UNK	UNK	UNK	UNK
61	UNK	UNK	UNK	UNK	UNK	UNK
62	UNK	UNK	UNK	UNK	UNK	UNK
63	UNK	UNK	UNK	UNK	UNK	UNK
64	UNK	UNK	UNK	UNK	UNK	UNK
65	UNK	UNK	UNK	UNK	UNK	UNK
66	UNK	UNK	UNK	UNK	UNK	UNK
67	UNK	UNK	UNK	UNK	UNK	UNK
68	UNK	UNK	UNK	UNK	UNK	UNK
69	UNK	UNK	UNK	UNK	UNK	UNK
70	UNK	UNK	UNK	UNK	UNK	UNK
71	UNK	UNK	UNK	UNK	UNK	UNK
72	UNK	UNK	UNK	UNK	UNK	UNK
73	UNK	UNK	UNK	UNK	UNK	UNK
74	UNK	UNK	UNK	UNK	UNK	UNK
75	UNK	UNK	UNK	UNK	UNK	UNK
76	UNK	UNK	UNK	UNK	UNK	UNK
77	UNK	UNK	UNK	UNK	UNK	UNK
78	UNK	UNK	UNK	UNK	UNK	UNK
79	UNK	UNK	UNK	UNK	UNK	UNK
80	0	57	0	2300	0	1
81	0	N/O	0	1400	0	0
82	0	13	0	1300	0	0
83	0	N/O	0	1100	0	0
84	0	8	0	670	0	0
85	N/O	4	N/O	900	3	0
86						
87						
88						
89						
90						
91						
92						
93						
94						
95						

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OR SPECIES PRESENT BUT NO ESTIMATE MADE.

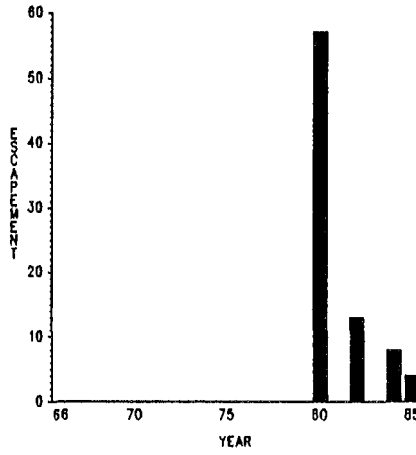
CHARTERS RIVER (93-0300-100)
ESCAPEMENT AND RUN TIMING

SOCKEYE (SK)



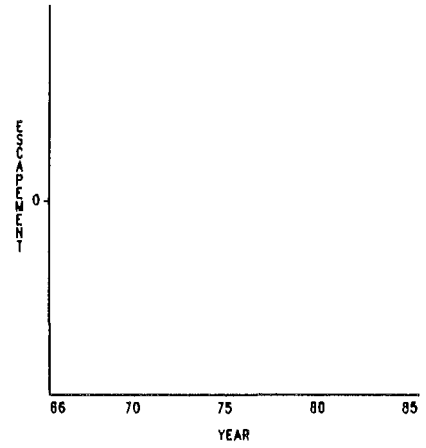
SOCKEYE

COHO (CO)

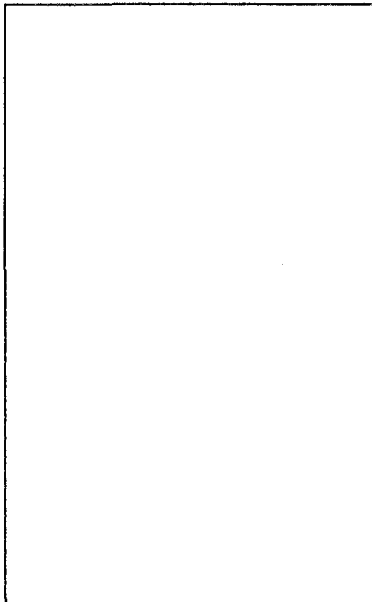
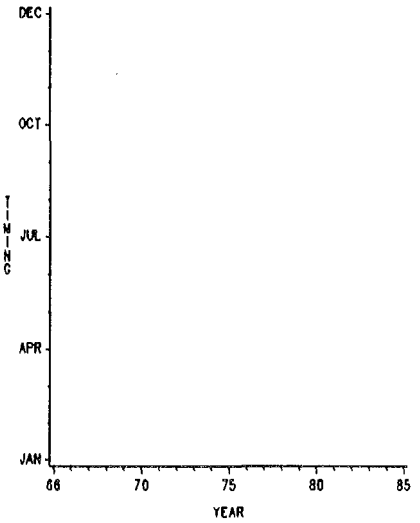
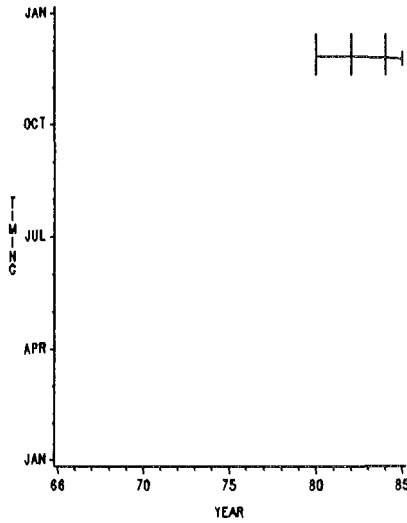
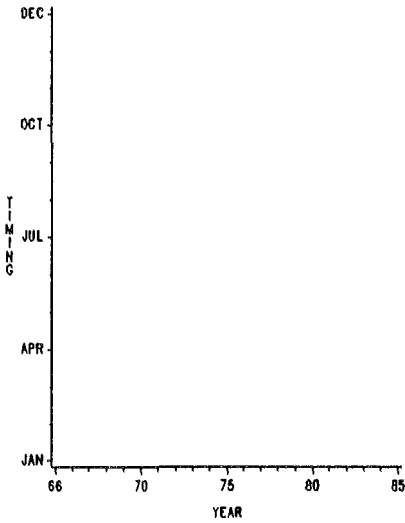


COHO

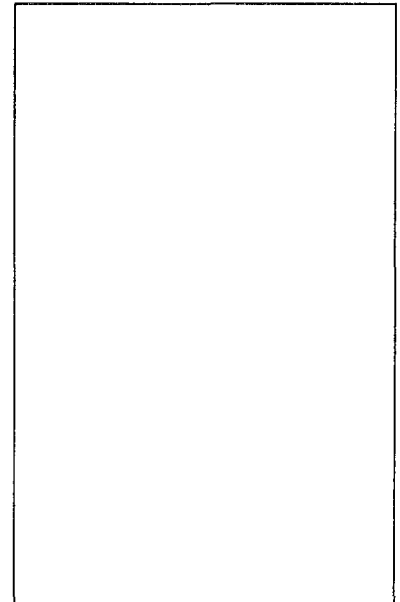
PINK (PK)



PINK

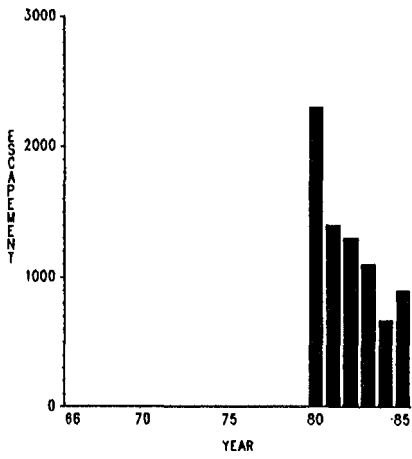


COHO				
YEAR	ESCAPEMENT	START	PEAK	END
1966	-	-	-	-
1967	-	-	-	-
1968	-	-	-	-
1969	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	57	NOV 06	NOV 20	DEC 10
1981	-	-	-	-
1982	13	NOV 06	NOV 20	DEC 10
1983	-	-	-	-
1984	8	NOV 06	NOV 14	DEC 10
1985	4	NOV 14	NOV 25	DEC 30

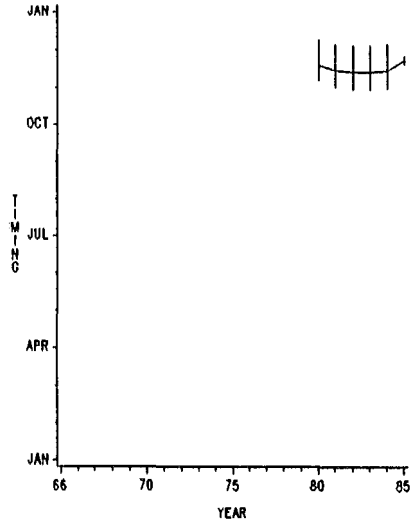


CHARTERS RIVER (93-0300-100)
ESCAPEMENT AND RUN TIMING

CHUM (CM)

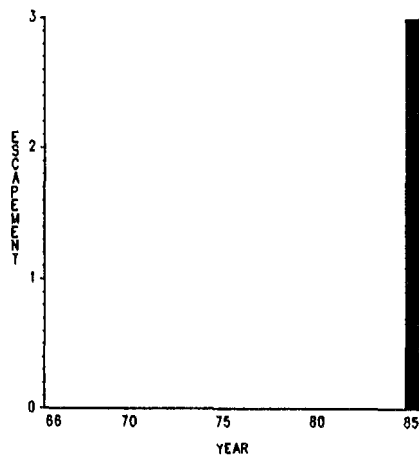


CHUM

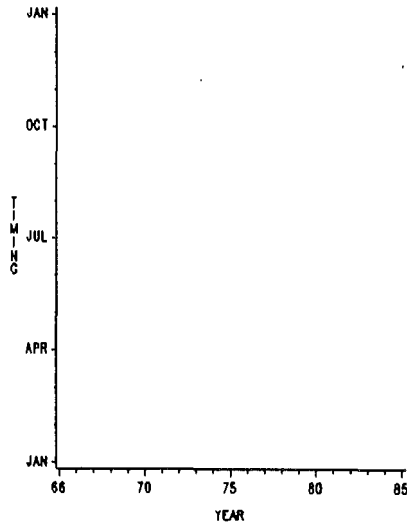


CHUM				
YEAR	ESCAPEMENT	START	PEAK	END
1966	-	-	-	-
1967	-	-	-	-
1968	-	-	-	-
1969	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	2300	NOV 02	NOV 06	DEC 05
1981	1400	OCT 27	NOV 04	DEC 01
1982	1300	OCT 25	NOV 01	NOV 30
1983	1100	OCT 25	NOV 01	NOV 30
1984	670	OCT 25	NOV 01	NOV 30
1985	900	NOV 14	NOV 20	DEC 30

CHINOOK (CH)

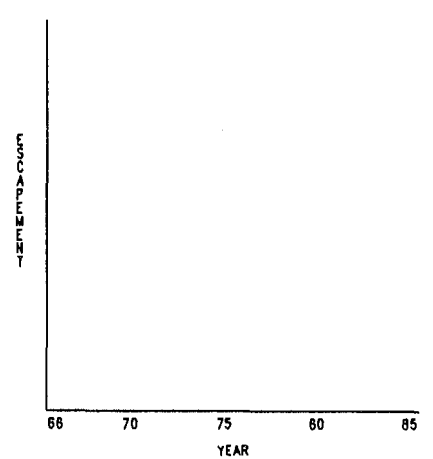


CHINOOK

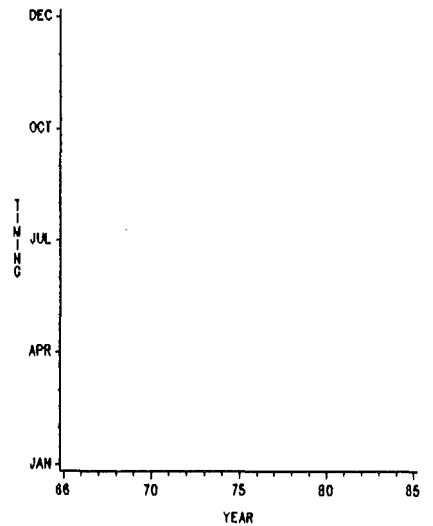


CHINOOK				
YEAR	ESCAPEMENT	START	PEAK	END
1966	-	-	-	-
1967	-	-	-	-
1968	-	-	-	-
1969	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	3	NOV 14	NOV 15	NOV 15

STEELHEAD (ST)

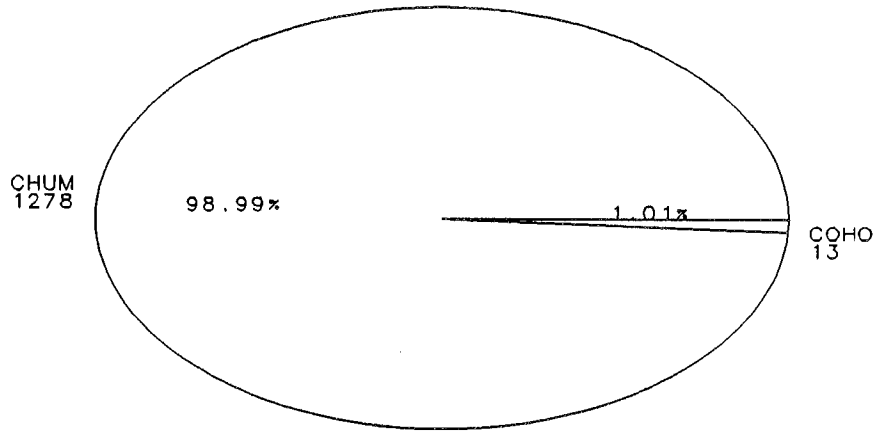


STEELHEAD

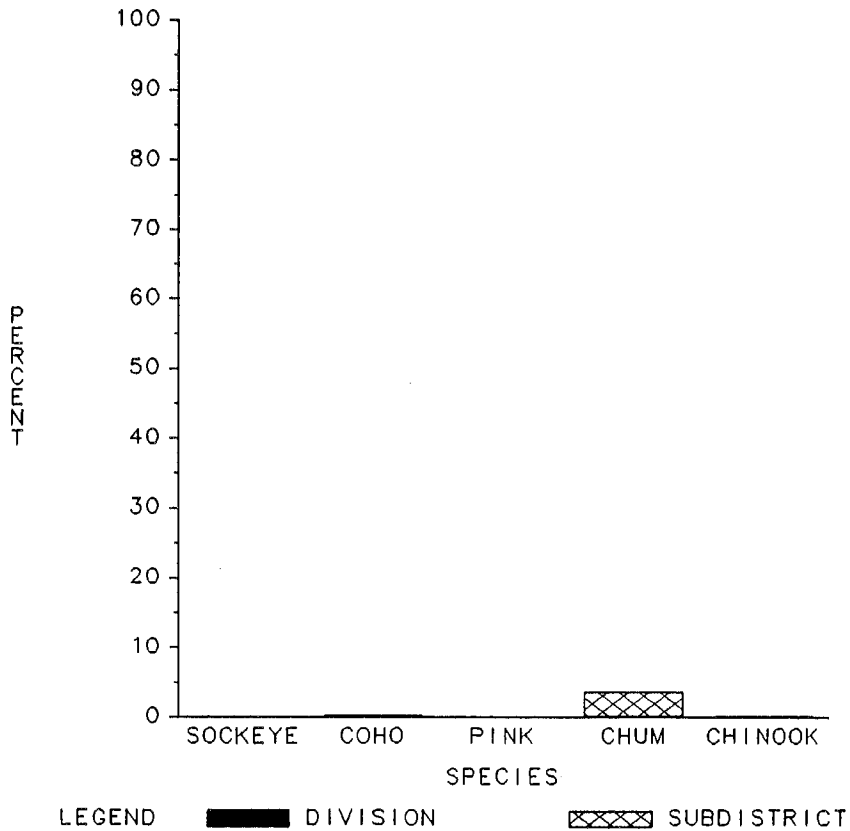


STEELHEAD				
YEAR	ESCAPEMENT	START	PEAK	END
1966	-	-	-	-
1967	-	-	-	-
1968	-	-	-	-
1969	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-

CHARTERS RIVER 10 YR. AVG. ESCAPEMENT (1976-1985)



CHARTERS RIVER AVG. ESCAPEMENT (1976-1985)
(EXPRESSED AS A PERCENTAGE OF
SUBDISTRICT AND DIVISION AVERAGE ESCAPEMENT)



ESCAPEMENT : TUGWELL CREEK

WATERSHED-CODE : 93-0380

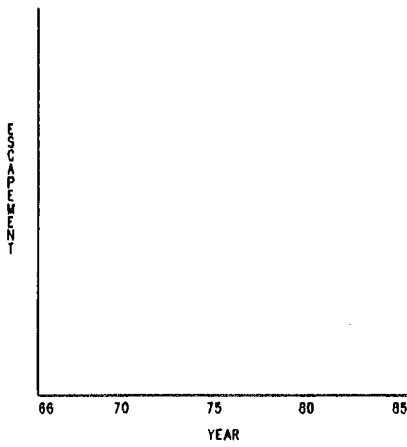
YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
53	0	200	0	3500	0	25
54	0	200	0	1500	0	25
55	0	25	0	750	0	25
56	0	25	0	25	0	N/O
57	0	25	0	25	0	25
58	0	200	0	750	0	25
59	0	25	0	3500	0	UNK
60	0	25	0	25	0	0
61	0	25	0	25	0	0
62	0	75	0	750	N/O	25
63	0	25	0	25	0	0
64	0	25	0	200	0	0
65	0	25	0	25	0	0
66	0	25	0	25	0	0
67	0	25	0	75	0	0
68	0	25	0	75	0	0
69	0	N/O	0	25	0	0
70	0	25	0	25	0	0
71	0	N/O	0	25	0	0
72	0	25	0	25	0	0
73	0	35	0	25	0	0
74	0	200	0	N/O	0	0
75	0	75	0	25	0	0
76	0	N/O	0	25	0	0
77	0	25	0	25	0	0
78	0	200	0	20	0	0
79	0	70	0	N/O	0	0
80	0	50	0	100	0	0
81	0	16	0	200	0	0
82	0	22	0	2	0	0
83	0	40	0	20	0	0
84	0	20	0	50	0	0
85	N/O	26	N/O	50	N/O	0
86						
87						
88						
89						
90						
91						
92						
93						
94						
95						

N/O = STREAM INSPECTED, NO FISH OBSERVED

UNK = STREAM NOT INSPECTED, OR NOT INSPECTED FOR SPECIES INDICATED,
OR SPECIES PRESENT BUT NO ESTIMATE MADE.

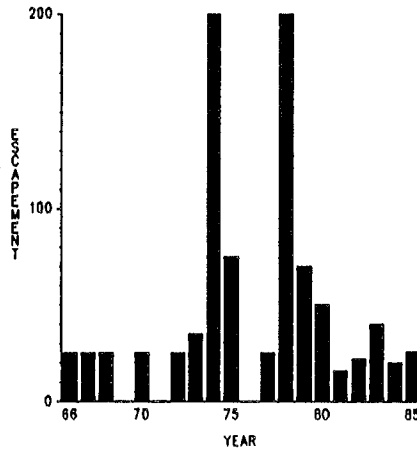
TUGWELL CREEK (93-0360) ESCAPEMENT AND RUN TIMING

SOCKEYE (SK)



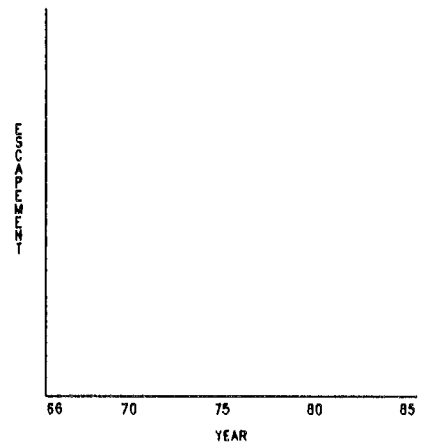
SOCKEYE

COHO (CO)

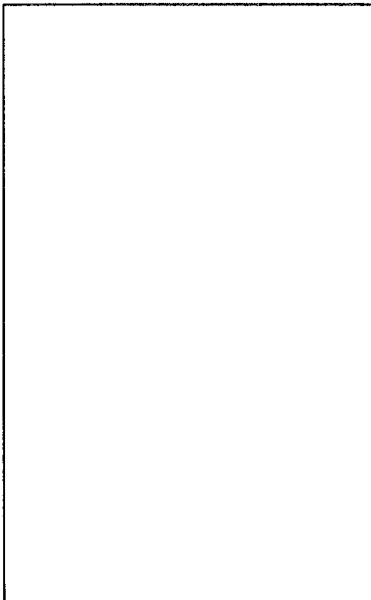
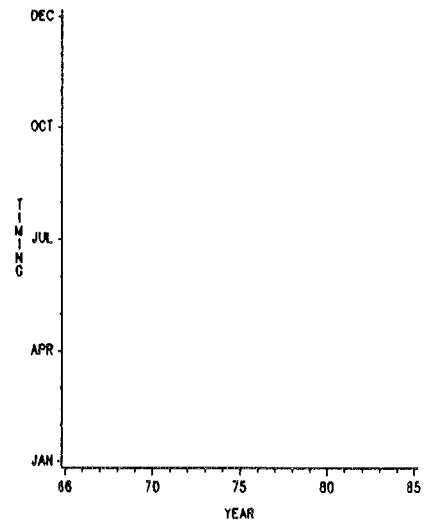
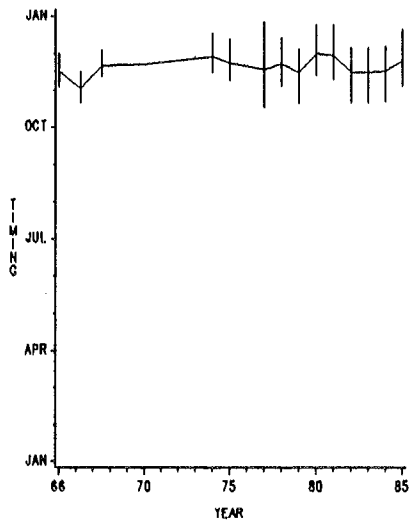
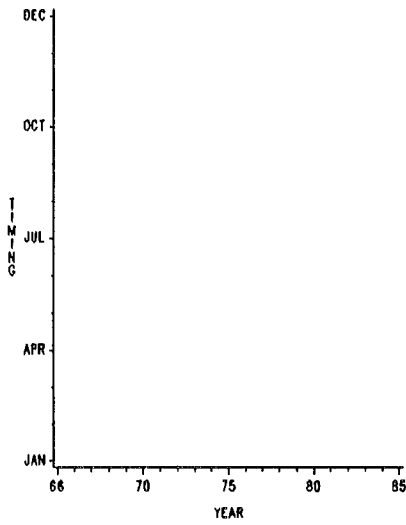


COHO

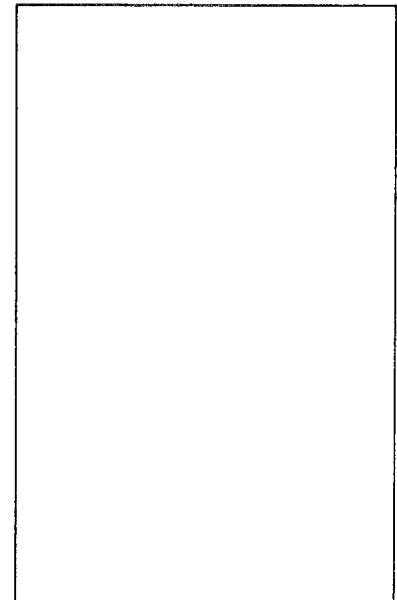
PINK (PK)



PINK

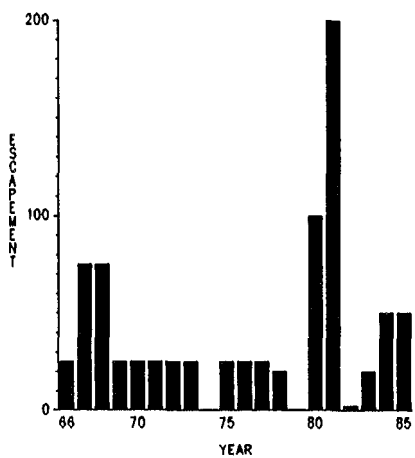


COHO				
YEAR	ESCAPEMENT	START	PEAK	END
1966	25	NOV 02	NOV 14	NOV 30
1967	25	OCT 20	OCT 28	NOV 15
1968	25	NOV 10	NOV 15	DEC 02
1969	-	-	-	-
1970	25	NOV 20	-	-
1971	-	-	-	-
1972	25	-	-	-
1973	35	-	-	-
1974	200	NOV 12	NOV 20	DEC 15
1975	75	NOV 05	NOV 15	DEC 10
1976	-	-	-	-
1977	25	OCT 13	NOV 06	DEC 23
1978	200	OCT 31	NOV 15	DEC 10
1979	70	OCT 16	NOV 16	DEC 01
1980	50	NOV 08	NOV 20	DEC 20
1981	16	NOV 04	NOV 20	DEC 20
1982	22	OCT 16	NOV 16	DEC 01
1983	40	OCT 16	NOV 16	DEC 01
1984	20	OCT 16	NOV 16	DEC 01
1985	26	OCT 29	NOV 15	DEC 15

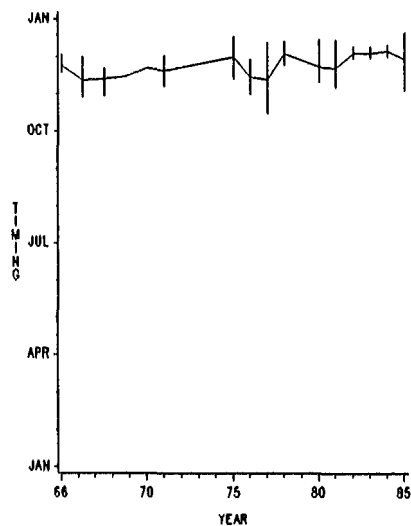


TUGWELL CREEK (93-0360)
ESCAPEMENT AND RUN TIMING

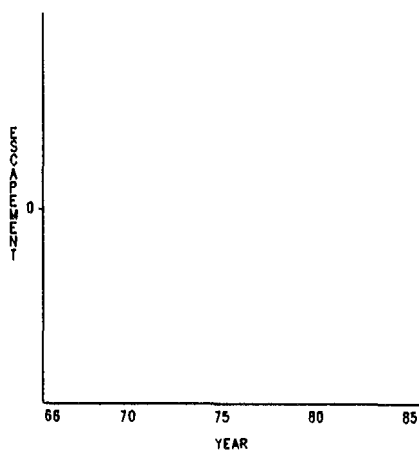
CHUM (CM)



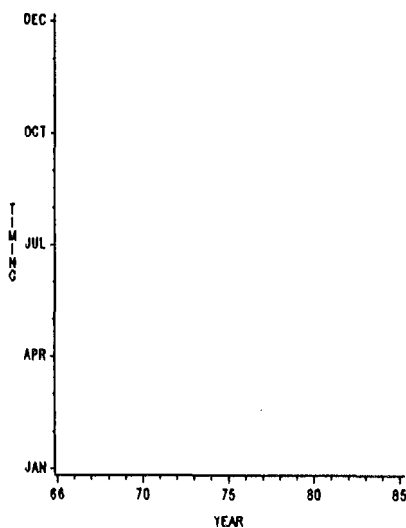
CHUM



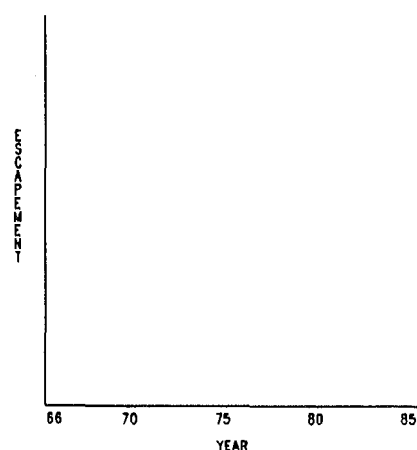
CHINOOK (CH)



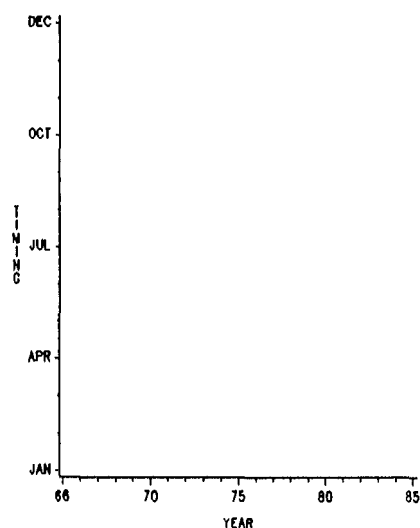
CHINOOK



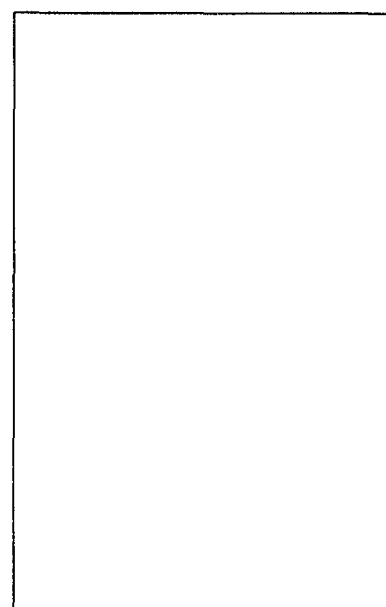
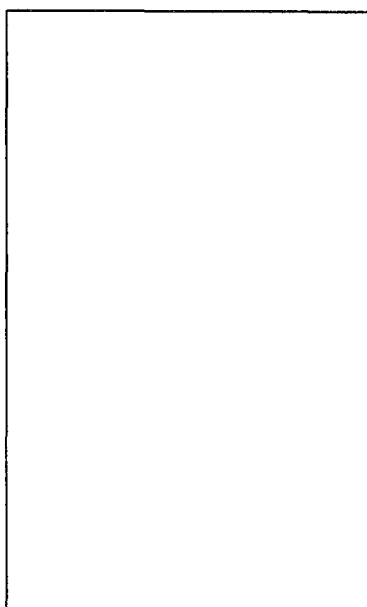
STEELHEAD (ST)



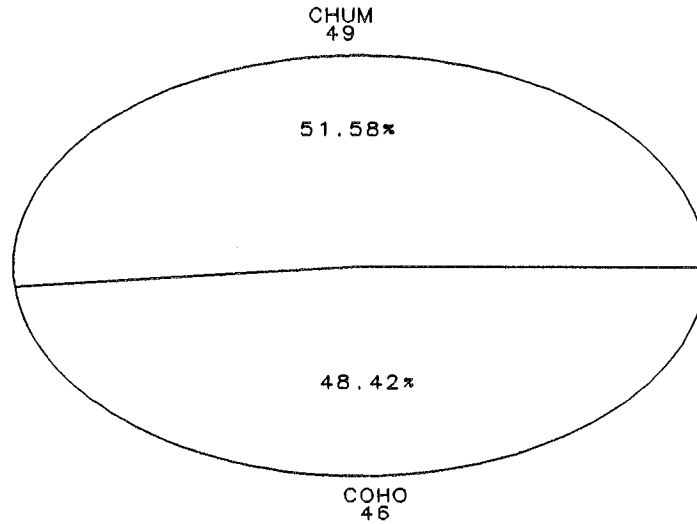
STEELHEAD



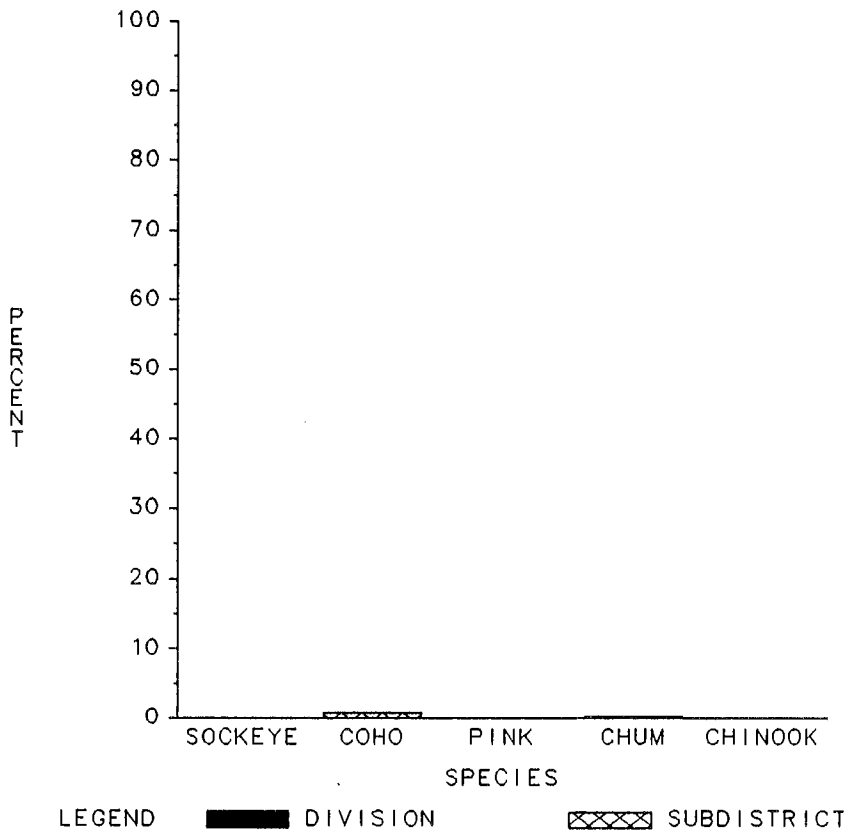
YEAR	ESCAPEMENT	START	PEAK	END
1966	25	NOV 17	NOV 20	DEC 02
1967	75	OCT 28	NOV 06	NOV 30
1968	75	OCT 28	NOV 15	NOV 20
1969	25	NOV 13	-	-
1970	25	NOV 20	-	-
1971	25	NOV 05	NOV 30	-
1972	25	-	-	-
1973	25	-	-	-
1974	-	-	-	-
1975	25	NOV 10	NOV 30	DEC 15
1976	25	OCT 27	NOV 10	NOV 25
1977	25	OCT 11	NOV 06	DEC 09
1978	20	NOV 20	NOV 31	DEC 10
1979	-	-	-	-
1980	100	NOV 05	NOV 10	DEC 10
1981	200	NOV 01	NOV 10	DEC 10
1982	2	NOV 25	NOV 29	DEC 05
1983	20	NOV 25	NOV 29	DEC 05
1984	50	NOV 25	NOV 29	DEC 05
1985	50	OCT 29	NOV 28	DEC 15



TUGWELL CREEK 10 YR. AVG. ESCAPEMENT (1976-1985)



TUGWELL CREEK AVG. ESCAPEMENT (1976-1985) (EXPRESSED AS A PERCENTAGE OF SUBDISTRICT AND DIVISION AVERAGE ESCAPEMENT)



ESCAPEMENT : MUIR CREEK

WATERSHED-CODE : 93-0400

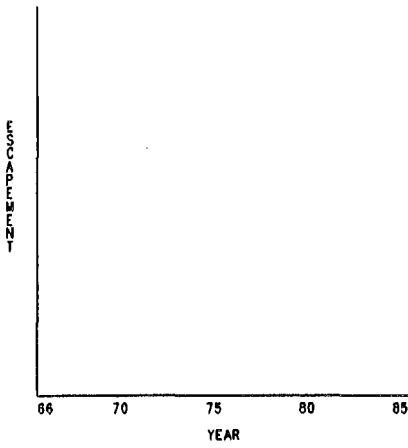
YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
53	0	200	0	3500	0	25
54	0	200	0	3500	0	25
55	0	25	0	400	0	25
56	0	25	0	25	0	0
57	0	25	0	25	0	25
58	0	200	0	400	0	25
59	0	25	0	400	0	UNK
60	0	25	0	25	0	0
61	0	25	0	75	0	0
62	0	25	0	200	0	0
63	0	25	0	200	0	0
64	0	200	0	750	0	0
65	0	75	0	3500	0	0
66	0	25	0	25	0	0
67	0	25	0	400	0	0
68	0	25	0	750	0	0
69	0	N/O	0	750	0	0
70	0	24	0	25	0	0
71	0	N/O	0	75	0	0
72	0	N/O	0	200	0	0
73	0	25	0	750	0	0
74	0	25	0	400	0	0
75	0	75	0	200	0	0
76	0	75	0	400	0	0
77	0	75	0	200	0	0
78	0	100	0	350	0	0
79	0	30	0	80	0	0
80	0	15	0	1830	0	0
81	0	6	0	200	0	0
82	0	10	0	420	0	0
83	0	N/O	0	40	0	0
84	0	0	0	150	0	0
85	N/O	N/O	N/O	2000	N/O	0
86						
87						
88						
89						
90						
91						
92						
93						
94						
95						

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UNK = STREAM NOT INSPECTED, OR NOT INSPECTED FOR SPECIES INDICATED,
OR SPECIES PRESENT BUT NO ESTIMATE MADE.

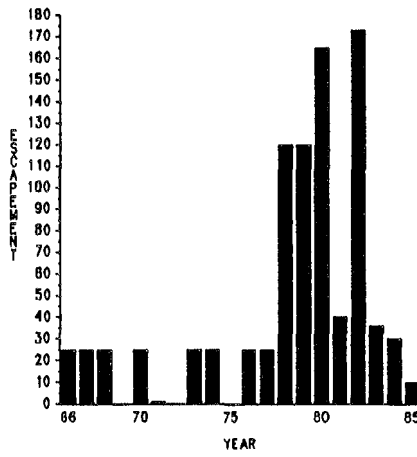
MUIR CREEK (93-0400) ESCAPEMENT AND RUN TIMING

SOCKEYE (SK)



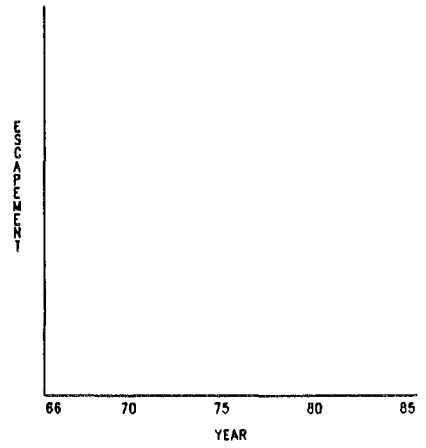
SOCKEYE

COHO (CO)

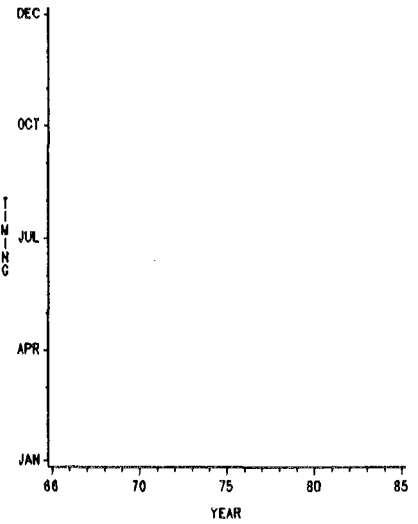
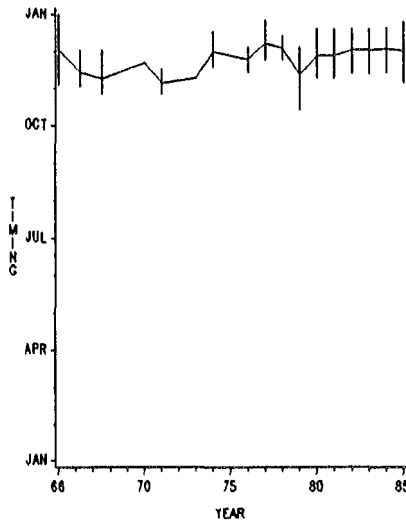
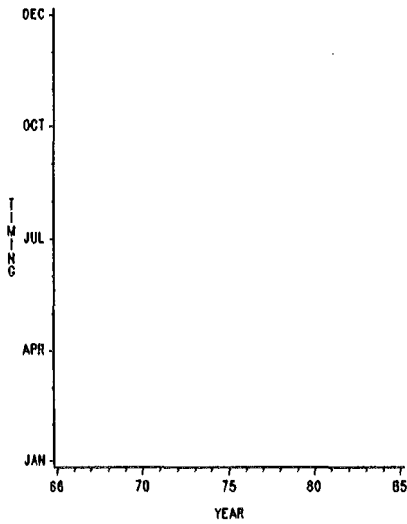


COHO

PINK (PK)



PINK



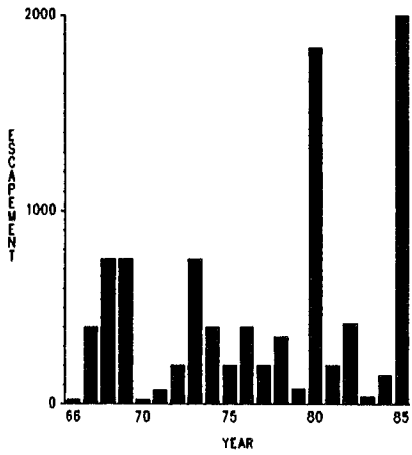
YEAR	ESCAPEMENT	START	PEAK	END
1966	25	NOV 02	DEC 02	DEC 31
1967	25	NOV 01	NOV 07	DEC 01
1968	25	OCT 25	OCT 27	NOV 30
1969	-	-	-	-
1970	25	NOV 20	-	-
1971	1	OCT 25	OCT 30	NOV 15
1972	-	-	-	-
1973	25	NOV 06	-	-
1974	25	NOV 15	NOV 25	DEC 15
1975	-	-	-	-
1976	25	NOV 10	NOV 20	DEC 01
1977	25	NOV 20	NOV 30	DEC 23
1978	120	NOV 20	DEC 10	DEC 30
1979	120	OCT 10	NOV 14	DEC 01
1980	165	NOV 04	NOV 20	DEC 15
1981	40	NOV 04	NOV 20	DEC 15
1982	173	NOV 08	NOV 30	DEC 15
1983	36	NOV 08	NOV 30	DEC 15
1984	30	NOV 08	NOV 30	DEC 15
1985	10	OCT 30	NOV 30	DEC 20

YEAR	ESCAPEMENT	START	PEAK	END
1966	25	NOV 02	DEC 02	DEC 31
1967	25	NOV 01	NOV 07	DEC 01
1968	25	OCT 25	OCT 27	NOV 30
1969	-	-	-	-
1970	25	NOV 20	-	-
1971	1	OCT 25	OCT 30	NOV 15
1972	-	-	-	-
1973	25	NOV 06	-	-
1974	25	NOV 15	NOV 25	DEC 15
1975	-	-	-	-
1976	25	NOV 10	NOV 20	DEC 01
1977	25	NOV 20	NOV 30	DEC 23
1978	120	NOV 20	DEC 10	DEC 30
1979	120	OCT 10	NOV 14	DEC 01
1980	165	NOV 04	NOV 20	DEC 15
1981	40	NOV 04	NOV 20	DEC 15
1982	173	NOV 08	NOV 30	DEC 15
1983	36	NOV 08	NOV 30	DEC 15
1984	30	NOV 08	NOV 30	DEC 15
1985	10	OCT 30	NOV 30	DEC 20

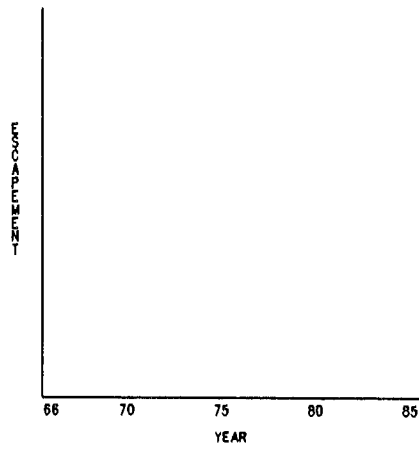
YEAR	ESCAPEMENT	START	PEAK	END
1966	25	NOV 02	DEC 02	DEC 31
1967	25	NOV 01	NOV 07	DEC 01
1968	25	OCT 25	OCT 27	NOV 30
1969	-	-	-	-
1970	25	NOV 20	-	-
1971	1	OCT 25	OCT 30	NOV 15
1972	-	-	-	-
1973	25	NOV 06	-	-
1974	25	NOV 15	NOV 25	DEC 15
1975	-	-	-	-
1976	25	NOV 10	NOV 20	DEC 01
1977	25	NOV 20	NOV 30	DEC 23
1978	120	NOV 20	DEC 10	DEC 30
1979	120	OCT 10	NOV 14	DEC 01
1980	165	NOV 04	NOV 20	DEC 15
1981	40	NOV 04	NOV 20	DEC 15
1982	173	NOV 08	NOV 30	DEC 15
1983	36	NOV 08	NOV 30	DEC 15
1984	30	NOV 08	NOV 30	DEC 15
1985	10	OCT 30	NOV 30	DEC 20

MUIR CREEK (93-0400) ESCAPEMENT AND RUN TIMING

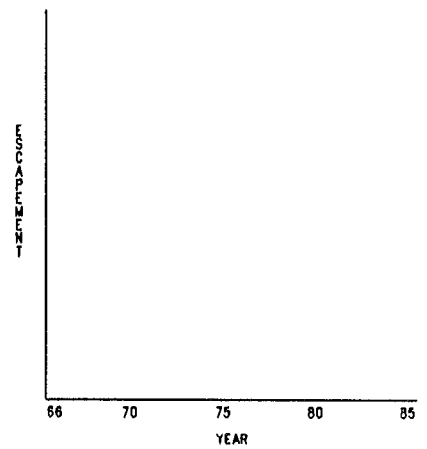
CHUM (CM)



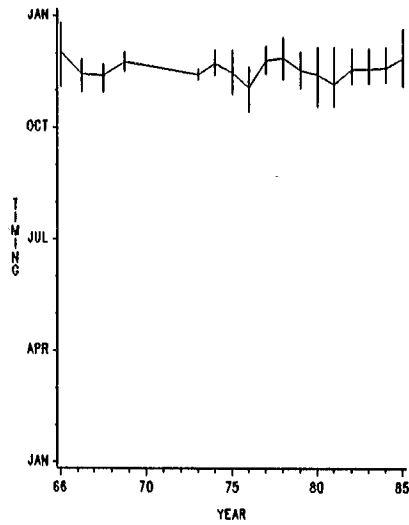
CHINOOK (CH)



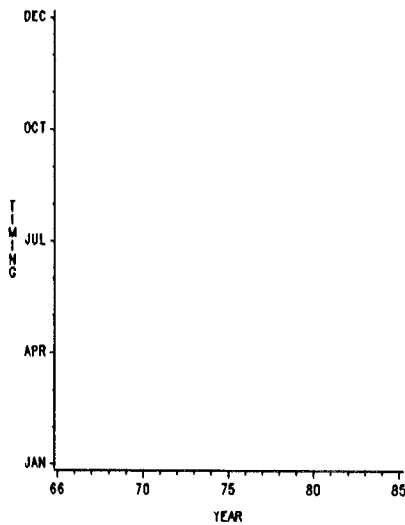
STEELHEAD (ST)



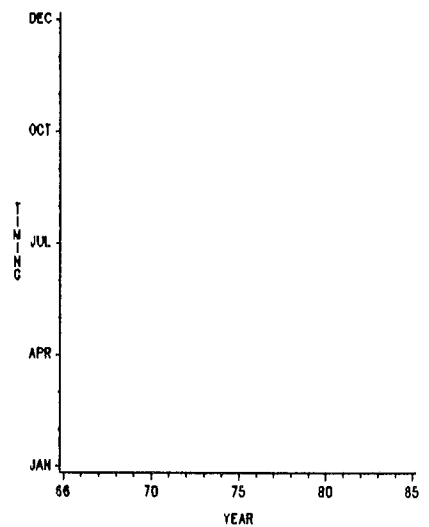
CHUM



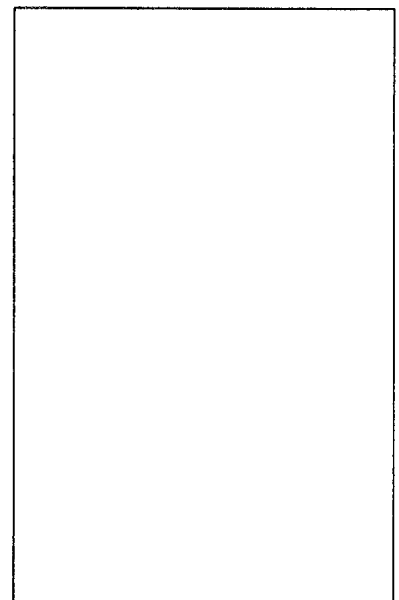
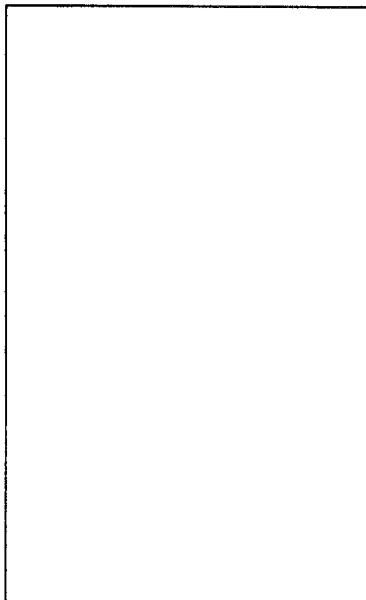
CHINOOK



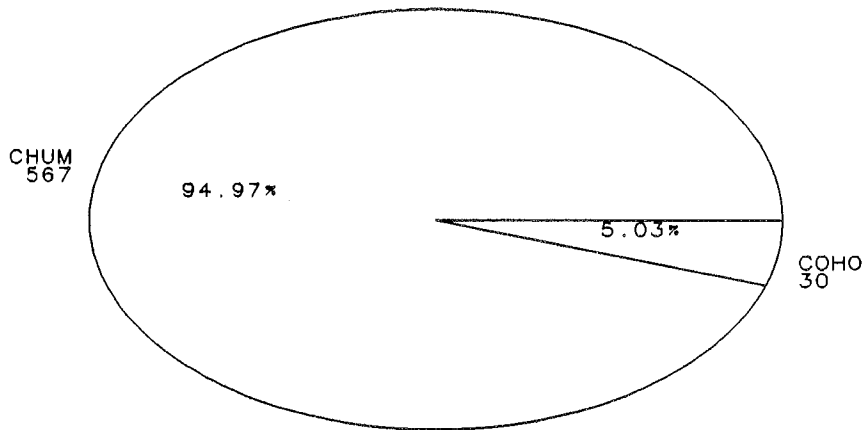
STEELHEAD



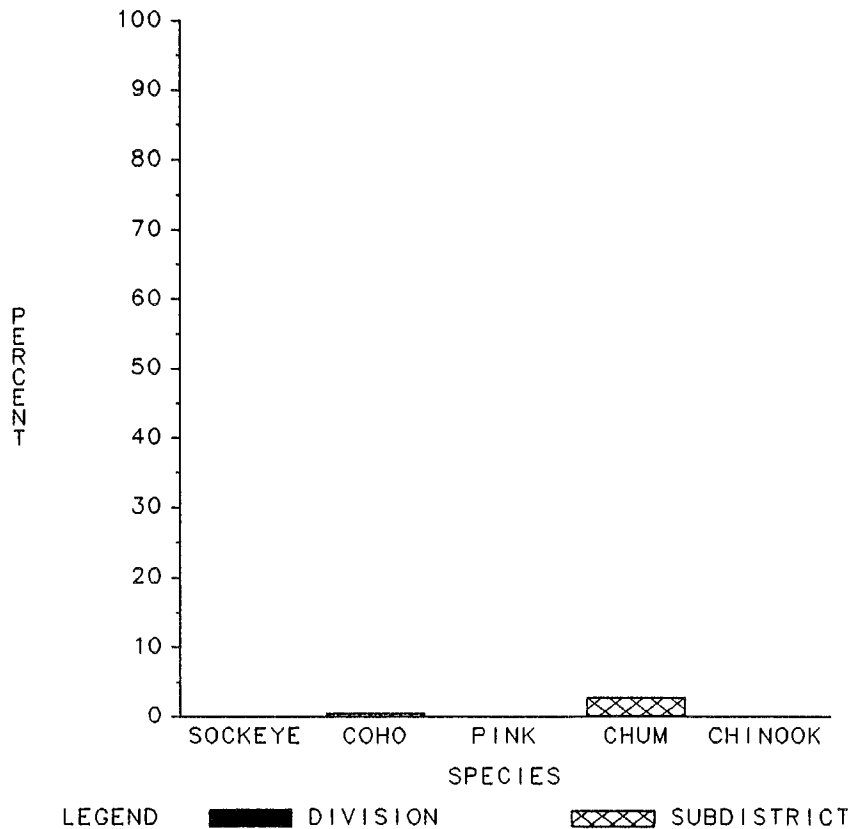
YEAR	ESCAPEMENT	START	PEAK	END
1966	25	NOV 02	DEC 08	DEC 25
1967	400	OCT 29	NOV 16	NOV 25
1968	750	OCT 28	NOV 15	NOV 20
1969	750	NOV 14	-	NOV 30
1970	25	-	-	-
1971	75	-	NOV 17	-
1972	200	-	-	-
1973	750	NOV 08	NOV 15	-
1974	400	NOV 10	NOV 20	DEC 01
1975	200	OCT 25	NOV 10	DEC 01
1976	400	OCT 10	NOV 01	NOV 16
1977	200	NOV 10	NOV 21	DEC 03
1978	350	NOV 05	NOV 25	DEC 10
1979	80	OCT 29	NOV 14	NOV 28
1980	1830	OCT 13	NOV 12	DEC 01
1981	200	OCT 13	OCT 19	DEC 01
1982	420	NOV 01	NOV 09	NOV 30
1983	40	NOV 01	NOV 09	NOV 30
1984	150	NOV 01	NOV 09	NOV 30
1985	2000	OCT 29	NOV 20	DEC 15



MUIR CREEK 10 YR. AVG. ESCAPEMENT (1976-1985)



MUIR CREEK AVG. ESCAPEMENT (1976-1985) (EXPRESSED AS A PERCENTAGE OF SUBDISTRICT AND DIVISION AVERAGE ESCAPEMENT)



ESCAPEMENT : KIRBY CREEK

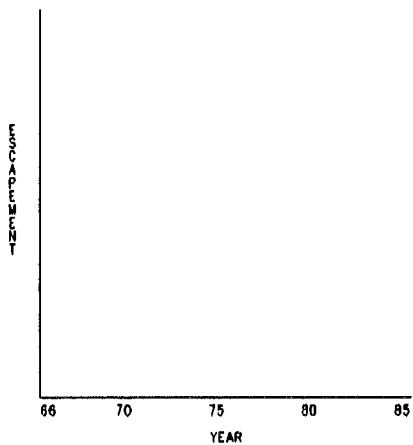
WATERSHED-CODE : 93-0420

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
53	0	200	0	1500	0	25
54	0	25	0	1500	0	25
55	0	25	0	25	0	25
56	0	25	0	25	0	N/O
57	0	25	0	75	0	25
58	0	200	0	1500	0	25
59	0	25	0	1500	0	0
60	0	25	0	25	0	0
61	0	75	0	200	0	0
62	0	N/O	0	75	0	0
63	0	200	0	25	0	0
64	0	200	0	25	0	0
65	0	200	0	75	0	0
66	0	25	0	25	0	0
67	0	25	0	750	0	0
68	0	25	0	25	0	0
69	0	N/O	0	25	0	0
70	0	25	0	25	0	0
71	0	1	0	25	0	0
72	0	N/O	0	N/O	0	0
73	0	25	0	N/O	0	0
74	0	25	0	25	0	0
75	0	N/O	0	25	0	0
76	0	25	0	200	0	0
77	0	25	0	75	0	0
78	0	120	0	10	0	0
79	0	120	0	35	0	0
80	0	165	0	204	0	0
81	0	40	0	150	0	0
82	0	173	0	0	0	0
83	0	36	0	86	0	0
84	0	30	0	120	0	0
85	N/O	10	N/O	550	N/O	0
86						
87						
88						
89						
90						
91						
92						
93						
94						
95						

N/O = STREAM INSPECTED, NO FISH OBSERVED
 UNK = STREAM NOT INSPECTED, OR NOT INSPECTED FOR SPECIES INDICATED,
 OR SPECIES PRESENT BUT NO ESTIMATE MADE.

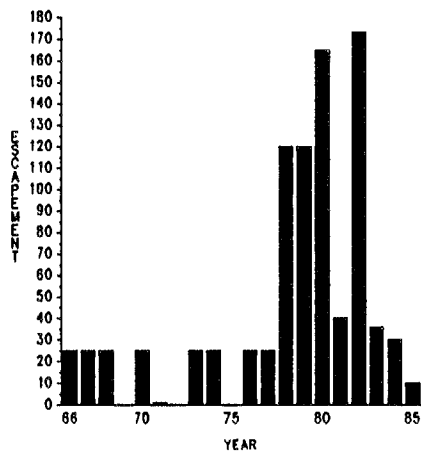
KIRBY CREEK (93-0420) ESCAPEMENT AND RUN TIMING

SOCKEYE (SK)



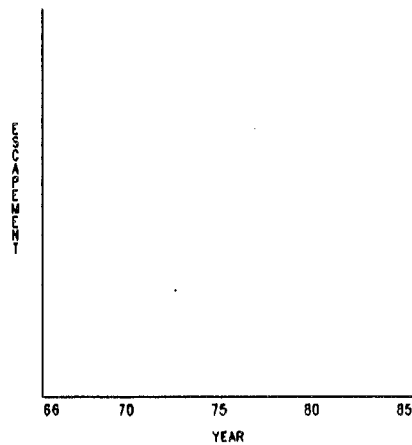
SOCKEYE

COHO (CO)

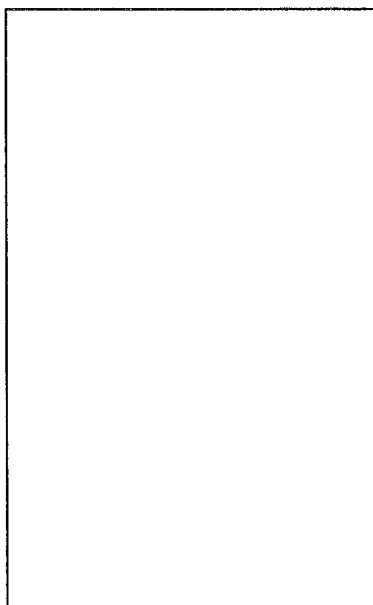
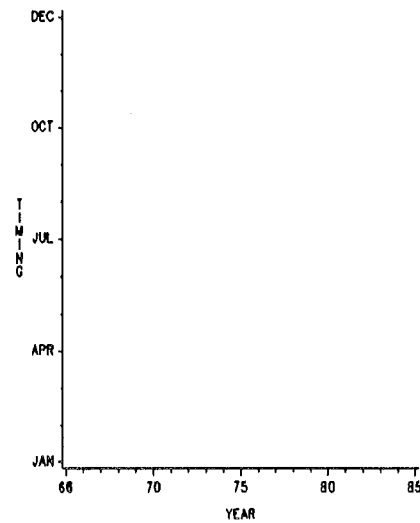
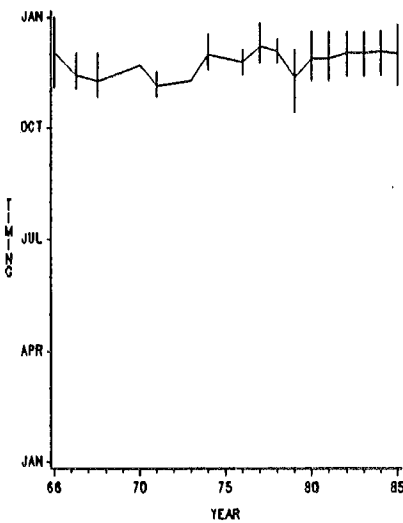
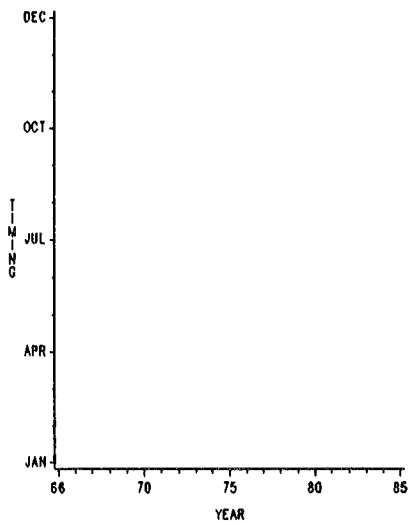


COHO

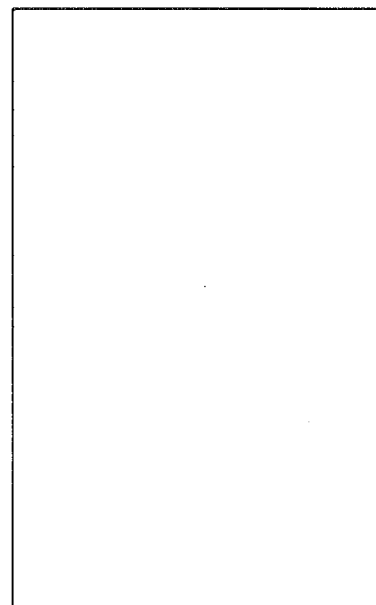
PINK (PK)



PINK

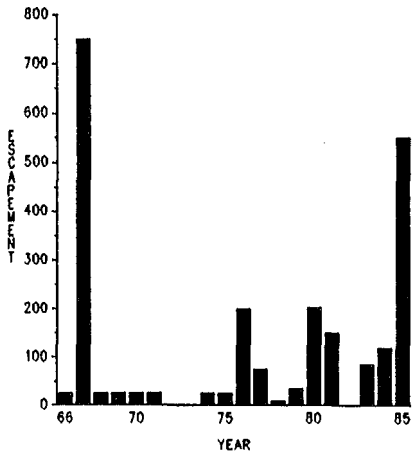


COHO				
YEAR	ESCAPEMENT	START	PEAK	END
1966	25	NOV 02	DEC 02	DEC 31
1967	25	NOV 01	NOV 07	DEC 01
1968	25	OCT 25	OCT 27	NOV 30
1969	-	-	-	-
1970	25	NOV 20	-	-
1971	1	OCT 25	OCT 30	NOV 15
1972	-	-	-	-
1973	25	NOV 08	-	-
1974	25	NOV 15	NOV 25	DEC 15
1975	-	-	-	-
1976	25	NOV 10	NOV 20	DEC 01
1977	25	NOV 20	NOV 30	DEC 23
1978	120	NOV 20	DEC 10	DEC 30
1979	120	OCT 10	NOV 14	DEC 01
1980	165	NOV 04	NOV 20	DEC 15
1981	40	NOV 04	NOV 20	DEC 15
1982	173	NOV 08	NOV 30	DEC 15
1983	36	NOV 08	NOV 30	DEC 15
1984	30	NOV 08	NOV 30	DEC 15
1985	10	OCT 30	NOV 30	DEC 20

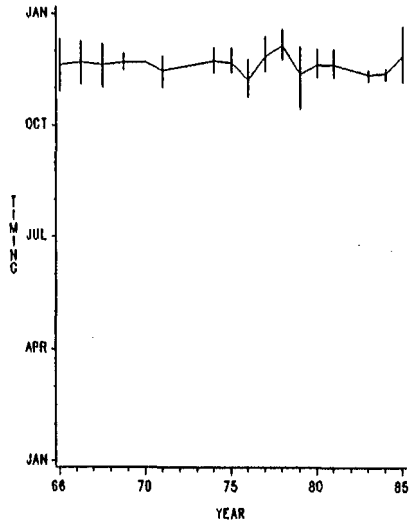


KIRBY CREEK (93-0420) ESCAPEMENT AND RUN TIMING

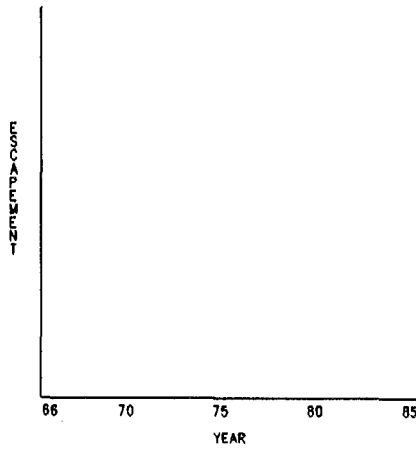
CHUM (CM)



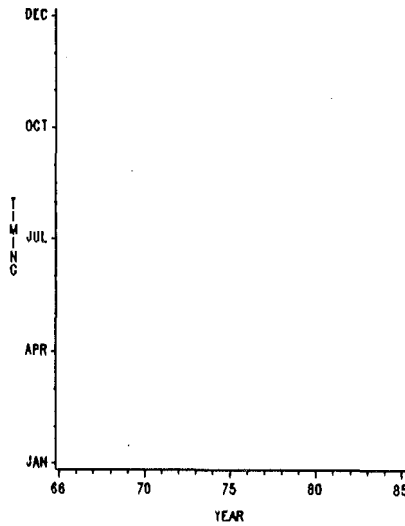
CHUM



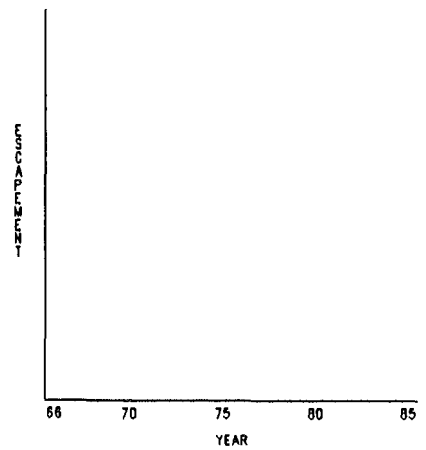
CHINOOK (CH)



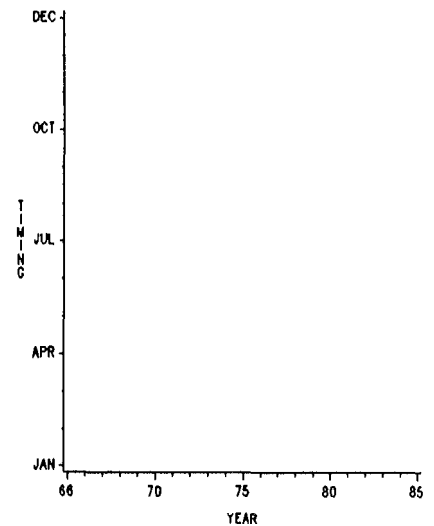
CHINOOK



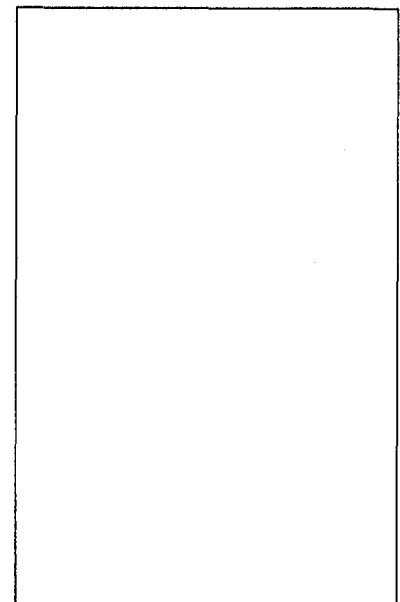
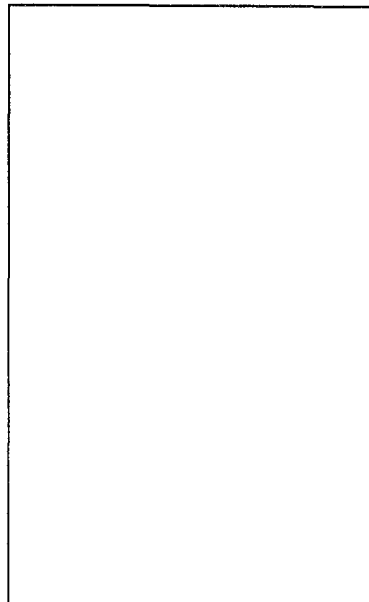
STEELHEAD (ST)



STEELHEAD

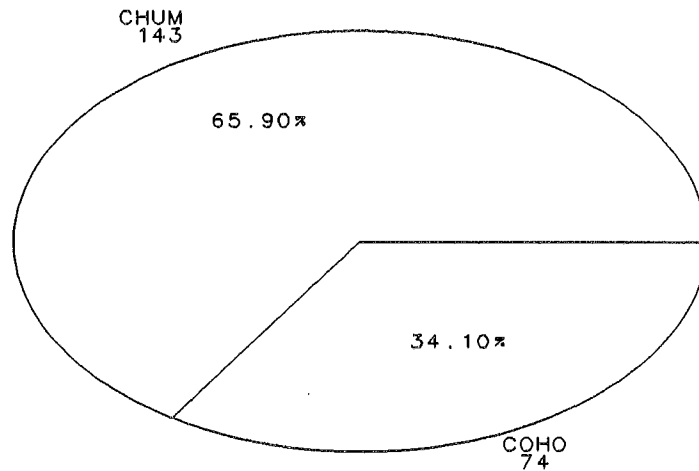


CHUM				
YEAR	ESCAPEMENT	START	PEAK	END
1966	25	OCT 28	NOV 20	DEC 10
1967	750	NOV 02	NOV 23	DEC 08
1968	25	OCT 30	NOV 20	DEC 05
1969	25	NOV 13	-	NOV 27
1970	25	NOV 20	-	-
1971	25	OCT 30	NOV 15	NOV 25
1972	-	-	-	-
1973	-	-	-	-
1974	25	NOV 10	NOV 20	DEC 01
1975	25	NOV 10	NOV 15	DEC 01
1976	200	OCT 20	NOV 01	NOV 20
1977	75	NOV 10	NOV 20	DEC 09
1978	10	NOV 20	NOV 30	DEC 15
1979	35	OCT 10	NOV 14	DEC 01
1980	204	NOV 04	NOV 12	NOV 28
1981	150	NOV 04	NOV 12	NOV 28
1982	-	-	-	-
1983	86	NOV 01	NOV 08	NOV 10
1984	120	NOV 01	NOV 08	NOV 10
1985	550	OCT 30	NOV 20	DEC 15

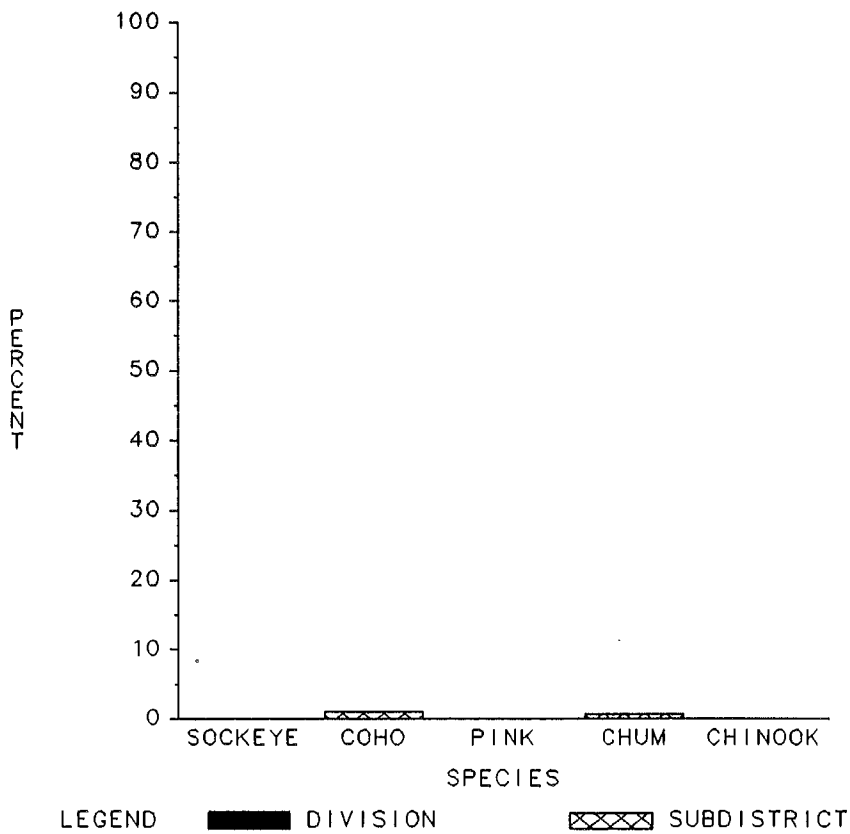


KIRBY CREEK

10 YR. AVG. ESCAPEMENT (1976-1985)



KIRBY CREEK AVG. ESCAPEMENT (1976-1985)
(EXPRESSED AS A PERCENTAGE OF
SUBDISTRICT AND DIVISION AVERAGE ESCAPEMENT)



ESCAPEMENT : JORDAN RIVER

WATERSHED-CODE : 93-0600

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
53	0	200	0	750	0	25
54	0	25	0	200	0	25
55	0	25	0	25	0	25
56	0	25	0	0	0	0
57	0	25	0	400	0	25
58	0	0	400	0	0	0
59	0	0	N/O	0	0	0
60	0	25	1500	0	0	0
61	0	25	0	N/O	0	0
62	0	75	7500	N/O	0	0
63	UNK	UNK	UNK	UNK	UNK	UNK
64	0	25	3500	0	0	UNK
65	0	25	0	0	0	UNK
66	0	0	5000	0	0	0
67	0	N/O	0	0	0	0
68	0	0	400	0	0	0
69	UNK	UNK	UNK	UNK	UNK	UNK
70	0	0	1500	0	0	0
71	0	N/O	0	0	0	0
72	0	N/O	N/O	N/O	0	0
73	0	0	0	4	0	0
74	UNK	UNK	UNK	UNK	UNK	UNK
75	0	N/O	N/O	N/O	N/O	N/O
76	0	UNK	0	0	0	0
77	0	0	N/O	0	0	0
78	0	N/O	0	0	0	0
79	0	N/O	0	0	0	0
80	UNK	UNK	UNK	UNK	UNK	UNK
81	UNK	UNK	UNK	UNK	UNK	UNK
82	UNK	UNK	UNK	UNK	UNK	UNK
83	UNK	UNK	UNK	UNK	UNK	UNK
84	0	0	0	0	0	0
85	UNK	UNK	UNK	UNK	UNK	UNK
86						
87						
88						
89						
90						
91						
92						
93						
94						
95						

N/O = STREAM INSPECTED, NO FISH OBSERVED

UNK = STREAM NOT INSPECTED, OR NOT INSPECTED FOR SPECIES INDICATED,
OR SPECIES PRESENT BUT NO ESTIMATE MADE.

ESCAPEMENT : UGLOW CREEK

WATERSHED-CODE : 93-0620

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
53	UNK	UNK	UNK	UNK	UNK	UNK
54	UNK	UNK	UNK	UNK	UNK	UNK
55	UNK	UNK	UNK	UNK	UNK	UNK
56	UNK	UNK	UNK	UNK	UNK	UNK
57	UNK	UNK	UNK	UNK	UNK	UNK
58	UNK	UNK	UNK	UNK	UNK	UNK
59	UNK	UNK	UNK	UNK	UNK	UNK
60	UNK	UNK	UNK	UNK	UNK	UNK
61	UNK	UNK	UNK	UNK	UNK	UNK
62	UNK	UNK	UNK	UNK	UNK	UNK
63	UNK	UNK	UNK	UNK	UNK	UNK
64	UNK	UNK	UNK	UNK	UNK	UNK
65	UNK	UNK	UNK	UNK	UNK	UNK
66	UNK	UNK	UNK	UNK	UNK	UNK
67	UNK	UNK	UNK	UNK	UNK	UNK
68	UNK	UNK	UNK	UNK	UNK	UNK
69	UNK	UNK	UNK	UNK	UNK	UNK
70	UNK	UNK	UNK	UNK	UNK	UNK
71	UNK	UNK	UNK	UNK	UNK	UNK
72	UNK	UNK	UNK	UNK	UNK	UNK
73	UNK	UNK	UNK	UNK	UNK	UNK
74	UNK	UNK	UNK	UNK	UNK	UNK
75	UNK	UNK	UNK	UNK	UNK	UNK
76	UNK	UNK	UNK	UNK	UNK	UNK
77	UNK	UNK	UNK	UNK	UNK	UNK
78	UNK	UNK	UNK	UNK	UNK	UNK
79	UNK	UNK	UNK	UNK	UNK	UNK
80	0	6	0	0	0	0
81	0	7	0	0	0	0
82	UNK	UNK	UNK	UNK	UNK	UNK
83	0	N/O	0	0	0	0
84	0	0	0	0	0	0
85	UNK	UNK	UNK	UNK	UNK	UNK
86						
87						
88						
89						
90						
91						
92						
93						
94						
95						

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OR SPECIES PRESENT BUT NO ESTIMATE MADE.

ESCAPEMENT : MAIDENHAIR CREEK

WATERSHED-CODE : 93-0624

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
53	UNK	UNK	UNK	UNK	UNK	UNK
54	UNK	UNK	UNK	UNK	UNK	UNK
55	UNK	UNK	UNK	UNK	UNK	UNK
56	UNK	UNK	UNK	UNK	UNK	UNK
57	UNK	UNK	UNK	UNK	UNK	UNK
58	UNK	UNK	UNK	UNK	UNK	UNK
59	UNK	UNK	UNK	UNK	UNK	UNK
60	UNK	UNK	UNK	UNK	UNK	UNK
61	UNK	UNK	UNK	UNK	UNK	UNK
62	UNK	UNK	UNK	UNK	UNK	UNK
63	UNK	UNK	UNK	UNK	UNK	UNK
64	UNK	UNK	UNK	UNK	UNK	UNK
65	UNK	UNK	UNK	UNK	UNK	UNK
66	UNK	UNK	UNK	UNK	UNK	UNK
67	UNK	UNK	UNK	UNK	UNK	UNK
68	UNK	UNK	UNK	UNK	UNK	UNK
69	UNK	UNK	UNK	UNK	UNK	UNK
70	UNK	UNK	UNK	UNK	UNK	UNK
71	UNK	UNK	UNK	UNK	UNK	UNK
72	UNK	UNK	UNK	UNK	UNK	UNK
73	UNK	UNK	UNK	UNK	UNK	UNK
74	UNK	UNK	UNK	UNK	UNK	UNK
75	UNK	UNK	UNK	UNK	UNK	UNK
76	UNK	UNK	UNK	UNK	UNK	UNK
77	UNK	UNK	UNK	UNK	UNK	UNK
78	UNK	UNK	UNK	UNK	UNK	UNK
79	UNK	UNK	UNK	UNK	UNK	UNK
80	0	2	0	0	0	0
81	0	9	0	0	0	0
82	0	2	0	0	0	0
83	0	N/O	0	0	0	0
84	0	0	0	0	0	0
85	UNK	UNK	UNK	UNK	UNK	UNK
86						
87						
88						
89						
90						
91						
92						
93						
94						
95						

N/O = STREAM INSPECTED, NO FISH OBSERVED

UNK = STREAM NOT INSPECTED, OR NOT INSPECTED FOR SPECIES INDICATED,
OR SPECIES PRESENT BUT NO ESTIMATE MADE.

ESCAPEMENT : SAN JUAN RIVER

WATERSHED-CODE : 93-1000

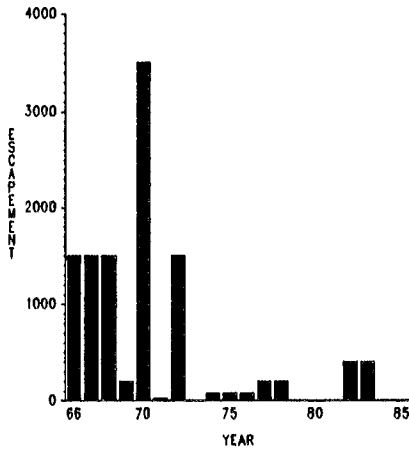
YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
53	0	1500	0	750	400	400
54	0	3500	1500	1500	400	400
55	0	3500	0	400	200	750
56	0	7500	1500	200	25	750
57	0	7500	N/O	750	200	750
58	0	15000	750	1500	200	750
59	0	7500	N/O	750	200	750
60	75	15000	400	1500	1500	400
61	75	35000	N/O	400	400	750
62	75	15000	400	1500	400	0
63	25	7500	0	400	400	750
64	25	75000	25	1500	1500	0
65	1500	15000	0	1500	750	0
66	1500	15000	0	400	1500	0
67	1500	35000	750	750	400	0
68	1500	15000	0	3500	750	0
69	200	15000	0	200	400	400
70	3500	75000	0	7500	7500	0
71	25	7500	0	N/O	400	0
72	1500	15000	0	3500	3500	0
73	N/O	15000	0	200	3500	N/O
74	75	7500	75	N/O	750	0
75	75	1500	N/O	200	200	N/O
76	75	750	75	N/O	75	0
77	200	400	0	25	75	0
78	200	2850	0	25	50	150
79	0	3500	25	25	400	0
80	0	3000	200	100	500	0
81	N/O	3500	75	200	750	0
82	400	8400	200	225	775	0
83	400	7500	200	200	775	0
84	0	9000	200	500	1200	0
85	N/O	500	N/O	300	150	0
86						
87						
88						
89						
90						
91						
92						
93						
94						
95						

N/O = STREAM INSPECTED, NO FISH OBSERVED

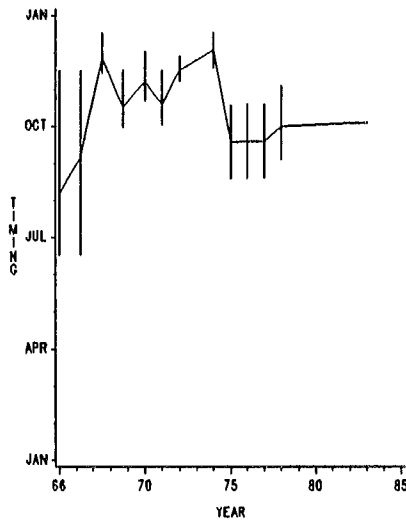
UNK = STREAM NOT INSPECTED, OR NOT INSPECTED FOR SPECIES INDICATED,
OR SPECIES PRESENT BUT NO ESTIMATE MADE.

SAN JUAN RIVER (93-1000) ESCAPEMENT AND RUN TIMING

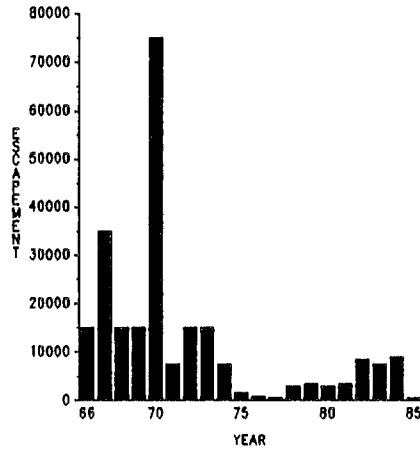
SOCKEYE (SK)



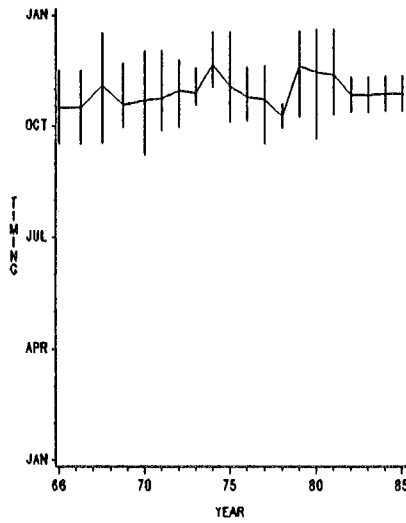
SOCKEYE



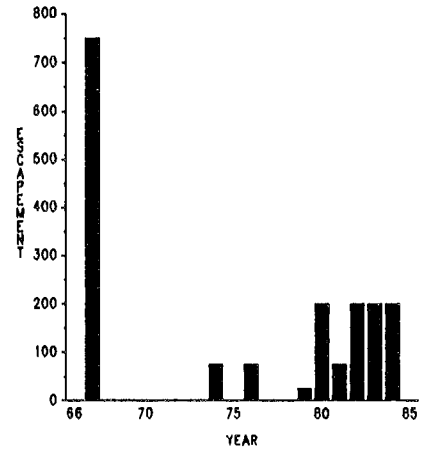
COHO (CO)



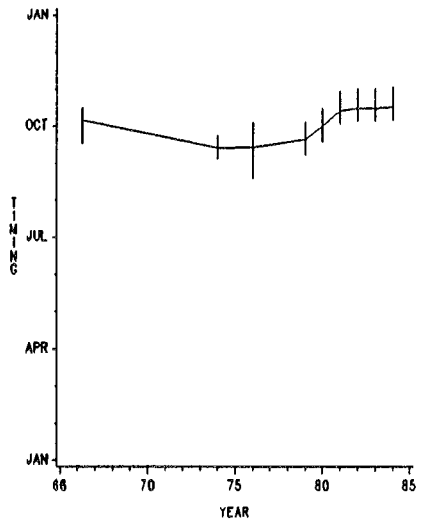
COHO



PINK (PK)



PINK



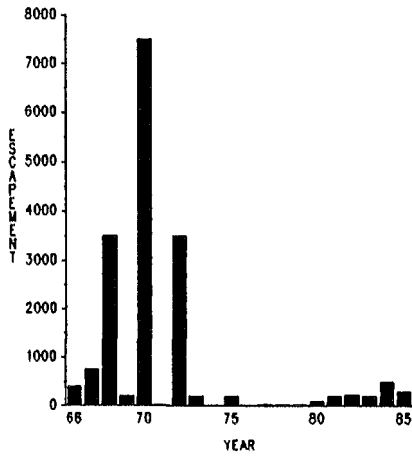
SOCKEYE					
YEAR	ESCAPEMENT	START	PEAK	END	
1966	1500	JUN 15	JUN 15	NOV 15	
1967	1500	JUN 15	SEP 15	NOV 15	
1968	1500	NOV 12	NOV 16	DEC 15	
1969	200	SEP 28	SEP 30	NOV 15	
1970	3500	OCT 20	OCT 28	NOV 30	
1971	25	SEP 30	OCT 05	NOV 15	
1972	1500	NOV 04	NOV 12	NOV 25	
1973	-	-	-	-	-
1974	75	NOV 15	DEC 01	DEC 15	
1975	75	AUG 15	SEP 15	OCT 15	
1976	75	AUG 15	SEP 15	OCT 15	
1977	200	AUG 15	SEP 15	OCT 15	
1978	200	AUG 30	SEP 21	OCT 30	
1979	-	-	-	-	-
1980	-	-	-	-	-
1981	-	-	-	-	-
1982	400	SEP 28	SEP 28	SEP 29	
1983	400	SEP 28	SEP 28	SEP 29	
1984	-	-	-	-	-
1985	-	-	-	-	-

COHO					
YEAR	ESCAPEMENT	START	PEAK	END	
1966	15000	SEP 15	OCT 15	NOV 15	
1967	35000	SEP 15	OCT 15	NOV 15	
1968	15000	SEP 15	NOV 07	DEC 15	
1969	15000	SEP 28	SEP 30	NOV 20	
1970	75000	SEP 05	OCT 25	NOV 30	
1971	7500	SEP 25	OCT 10	NOV 30	
1972	15000	SEP 27	NOV 02	NOV 22	
1973	15000	OCT 15	OCT 15	NOV 15	
1974	7500	OCT 30	NOV 10	DEC 15	
1975	1500	OCT 01	OCT 15	DEC 15	
1976	750	OCT 01	OCT 15	NOV 15	
1977	400	SEP 12	OCT 28	NOV 16	
1978	2850	SEP 25	OCT 15	DEC 31	
1979	3500	OCT 04	NOV 29	DEC 15	
1980	3000	SEP 15	NOV 29	DEC 15	
1981	3500	OCT 05	NOV 03	DEC 15	
1982	8400	OCT 07	NOV 05	DEC 31	
1983	7500	OCT 07	NOV 05	DEC 31	
1984	9000	OCT 07	NOV 05	DEC 31	
1985	500	OCT 07	NOV 05	DEC 31	

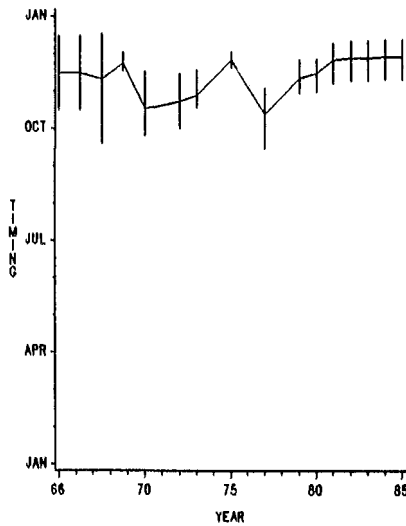
PINK					
YEAR	ESCAPEMENT	START	PEAK	END	
1966	-	-	-	-	-
1967	750	SEP 15	OCT 15	OCT 15	
1968	-	-	-	-	-
1969	-	-	-	-	-
1970	-	-	-	-	-
1971	-	-	-	-	-
1972	-	-	-	-	-
1973	-	-	-	-	-
1974	75	SEP 01	SEP 10	SEP 20	
1975	-	-	-	-	-
1976	75	AUG 15	SEP 15	SEP 30	
1977	-	-	-	-	-
1978	-	-	-	-	-
1979	25	SEP 03	SEP 15	SEP 30	
1980	200	SEP 13	SEP 25	OCT 10	
1981	75	SEP 28	OCT 04	OCT 25	
1982	200	SEP 30	OCT 06	OCT 27	
1983	200	SEP 30	OCT 06	OCT 27	
1984	200	SEP 30	OCT 06	OCT 27	
1985	-	-	-	-	-

SAN JUAN RIVER (93-1000) ESCAPEMENT AND RUN TIMING

CHUM (CM)

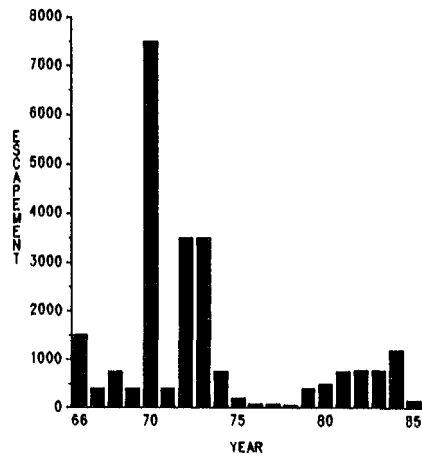


CHUM

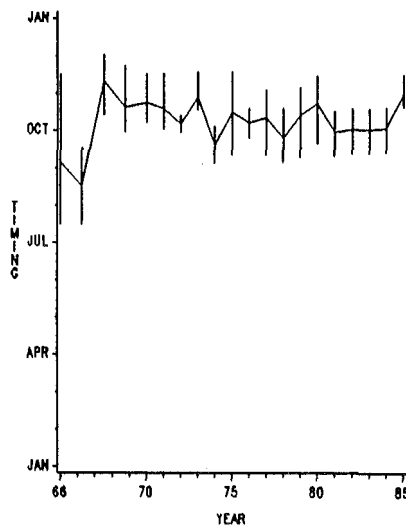


YEAR	ESCAPEMENT	START	PEAK	END
1966	400	OCT 15	NOV 15	DEC 15
1967	750	OCT 15	NOV 15	DEC 15
1968	3500	SEP 16	NOV 24	DEC 15
1969	200	NOV 15	NOV 20	NOV 30
1970	7500	SEP 22	OCT 07	NOV 15
1971	-	-	-	-
1972	3500	SEP 28	-	NOV 12
1973	200	OCT 15	OCT 15	NOV 15
1974	-	-	-	-
1975	200	NOV 17	NOV 30	DEC 31
1976	-	-	-	-
1977	25	SEP 10	OCT 16	OCT 30
1978	25	-	-	-
1979	25	OCT 26	NOV 05	NOV 22
1980	100	OCT 26	NOV 15	NOV 22
1981	200	NOV 02	NOV 26	DEC 05
1982	225	NOV 04	NOV 28	DEC 07
1983	200	NOV 04	NOV 28	DEC 07
1984	500	NOV 04	NOV 28	DEC 07
1985	300	NOV 04	NOV 28	DEC 07

CHINOOK (CH)

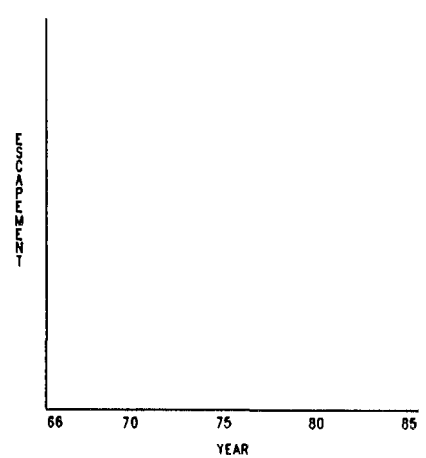


CHINOOK

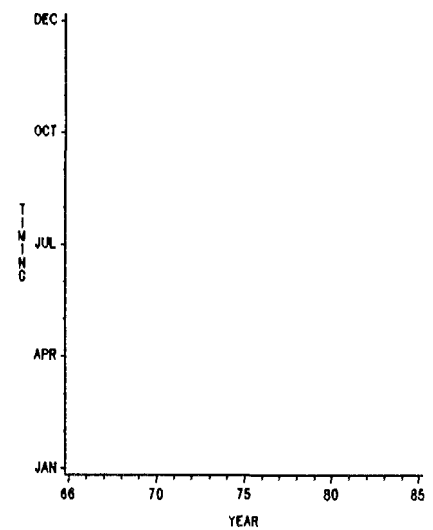


YEAR	ESCAPEMENT	START	PEAK	END
1966	1500	JUL 15	AUG 15	NOV 15
1967	400	JUL 15	AUG 15	SEP 15
1968	750	OCT 12	NOV 15	NOV 30
1969	400	SEP 28	OCT 05	NOV 21
1970	7500	OCT 05	OCT 15	NOV 15
1971	400	SEP 30	OCT 05	NOV 15
1972	3500	SEP 26	OCT 04	OCT 10
1973	3500	OCT 15	OCT 15	NOV 15
1974	750	SEP 01	SEP 15	OCT 01
1975	200	SEP 08	OCT 15	NOV 15
1976	75	SEP 20	OCT 05	OCT 15
1977	75	SEP 07	OCT 15	OCT 30
1978	50	SEP 01	SEP 15	OCT 15
1979	400	SEP 05	OCT 23	NOV 01
1980	500	SEP 15	OCT 30	NOV 10
1981	750	SEP 05	SEP 28	OCT 12
1982	775	SEP 07	SEP 30	OCT 14
1983	775	SEP 07	SEP 30	OCT 14
1984	1200	SEP 07	SEP 30	OCT 14
1985	150	OCT 15	OCT 20	NOV 10

STEELHEAD (ST)

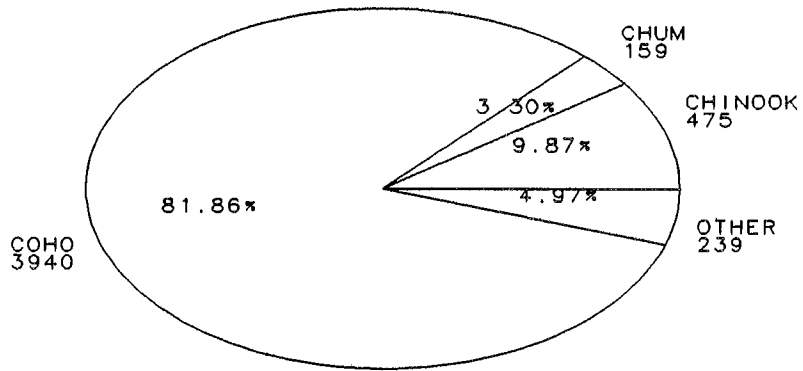


STEELHEAD

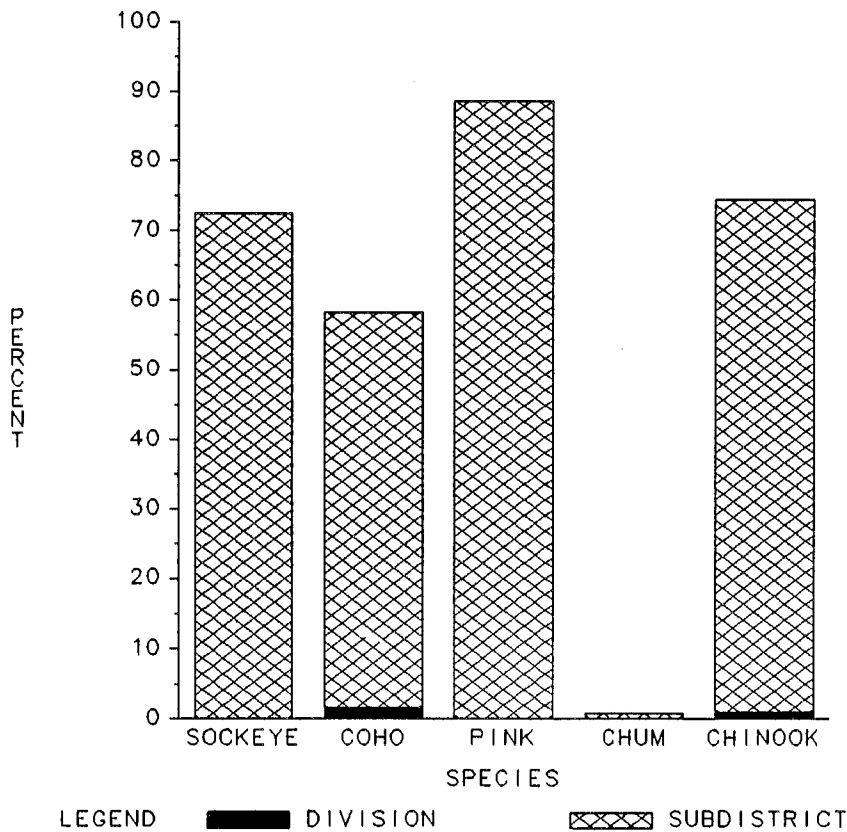


YEAR	ESCAPEMENT	START	PEAK	END
1966	0	-	-	-
1967	0	-	-	-
1968	0	-	-	-
1969	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	0	-	-	-
1981	0	-	-	-
1982	0	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	0	-	-	-

SAN JUAN RIVER 10 YR. AVG. ESCAPEMENT (1976-1985)



SAN JUAN RIVER AVG. ESCAPEMENT (1976-1985) (EXPRESSED AS A PERCENTAGE OF SUBDISTRICT AND DIVISION AVERAGE ESCAPEMENT)



ESCAPEMENT : FALLS CREEK

WATERSHED-CODE : 93-1000-030

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
53	UNK	UNK	UNK	UNK	UNK	UNK
54	UNK	UNK	UNK	UNK	UNK	UNK
55	UNK	UNK	UNK	UNK	UNK	UNK
56	UNK	UNK	UNK	UNK	UNK	UNK
57	UNK	UNK	UNK	UNK	UNK	UNK
58	UNK	UNK	UNK	UNK	UNK	UNK
59	UNK	UNK	UNK	UNK	UNK	UNK
60	UNK	UNK	UNK	UNK	UNK	UNK
61	UNK	UNK	UNK	UNK	UNK	UNK
62	UNK	UNK	UNK	UNK	UNK	UNK
63	UNK	UNK	UNK	UNK	UNK	UNK
64	UNK	UNK	UNK	UNK	UNK	UNK
65	UNK	UNK	UNK	UNK	UNK	UNK
66	UNK	UNK	UNK	UNK	UNK	UNK
67	UNK	UNK	UNK	UNK	UNK	UNK
68	UNK	UNK	UNK	UNK	UNK	UNK
69	UNK	UNK	UNK	UNK	UNK	UNK
70	UNK	UNK	UNK	UNK	UNK	UNK
71	UNK	UNK	UNK	UNK	UNK	UNK
72	UNK	UNK	UNK	UNK	UNK	UNK
73	UNK	UNK	UNK	UNK	UNK	UNK
74	UNK	UNK	UNK	UNK	UNK	UNK
75	UNK	UNK	UNK	UNK	UNK	UNK
76	UNK	UNK	UNK	UNK	UNK	UNK
77	UNK	UNK	UNK	UNK	UNK	UNK
78	UNK	UNK	UNK	UNK	UNK	UNK
79	UNK	UNK	UNK	UNK	UNK	UNK
80	UNK	UNK	UNK	UNK	UNK	UNK
81	0	25	0	0	0	0
82	UNK	UNK	UNK	UNK	UNK	UNK
83	UNK	UNK	UNK	UNK	UNK	UNK
84	0	0	0	0	0	0
85	UNK	UNK	UNK	UNK	UNK	UNK
86						
87						
88						
89						
90						
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93						
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95						

N/O = STREAM INSPECTED, NO FISH OBSERVED

UNK = STREAM NOT INSPECTED, OR NOT INSPECTED FOR SPECIES INDICATED,
OR SPECIES PRESENT BUT NO ESTIMATE MADE.

ESCAPEMENT : MOSQUITO CREEK

WATERSHED-CODE : 93-1000-050

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
53	UNK	UNK	UNK	UNK	UNK	UNK
54	UNK	UNK	UNK	UNK	UNK	UNK
55	UNK	UNK	UNK	UNK	UNK	UNK
56	UNK	UNK	UNK	UNK	UNK	UNK
57	UNK	UNK	UNK	UNK	UNK	UNK
58	UNK	UNK	UNK	UNK	UNK	UNK
59	UNK	UNK	UNK	UNK	UNK	UNK
60	UNK	UNK	UNK	UNK	UNK	UNK
61	UNK	UNK	UNK	UNK	UNK	UNK
62	UNK	UNK	UNK	UNK	UNK	UNK
63	UNK	UNK	UNK	UNK	UNK	UNK
64	UNK	UNK	UNK	UNK	UNK	UNK
65	UNK	UNK	UNK	UNK	UNK	UNK
66	UNK	UNK	UNK	UNK	UNK	UNK
67	UNK	UNK	UNK	UNK	UNK	UNK
68	UNK	UNK	UNK	UNK	UNK	UNK
69	UNK	UNK	UNK	UNK	UNK	UNK
70	UNK	UNK	UNK	UNK	UNK	UNK
71	UNK	UNK	UNK	UNK	UNK	UNK
72	UNK	UNK	UNK	UNK	UNK	UNK
73	UNK	UNK	UNK	UNK	UNK	UNK
74	UNK	UNK	UNK	UNK	UNK	UNK
75	UNK	UNK	UNK	UNK	UNK	UNK
76	UNK	UNK	UNK	UNK	UNK	UNK
77	UNK	UNK	UNK	UNK	UNK	UNK
78	UNK	UNK	UNK	UNK	UNK	UNK
79	UNK	UNK	UNK	UNK	UNK	UNK
80	UNK	UNK	UNK	UNK	UNK	UNK
81	0	75	0	0	0	0
82	UNK	UNK	UNK	UNK	UNK	UNK
83	UNK	UNK	UNK	UNK	UNK	UNK
84	0	0	0	0	0	0
85	UNK	UNK	UNK	UNK	UNK	UNK
86						
87						
88						
89						
90						
91						
92						
93						
94						
95						

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OR SPECIES PRESENT BUT NO ESTIMATE MADE.

ESCAPEMENT : RENFREW CREEK

WATERSHED-CODE : 93-1000-070-001

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
53	UNK	UNK	UNK	UNK	UNK	UNK
54	UNK	UNK	UNK	UNK	UNK	UNK
55	UNK	UNK	UNK	UNK	UNK	UNK
56	UNK	UNK	UNK	UNK	UNK	UNK
57	UNK	UNK	UNK	UNK	UNK	UNK
58	UNK	UNK	UNK	UNK	UNK	UNK
59	UNK	UNK	UNK	UNK	UNK	UNK
60	UNK	UNK	UNK	UNK	UNK	UNK
61	UNK	UNK	UNK	UNK	UNK	UNK
62	UNK	UNK	UNK	UNK	UNK	UNK
63	UNK	UNK	UNK	UNK	UNK	UNK
64	UNK	UNK	UNK	UNK	UNK	UNK
65	UNK	UNK	UNK	UNK	UNK	UNK
66	UNK	UNK	UNK	UNK	UNK	UNK
67	UNK	UNK	UNK	UNK	UNK	UNK
68	UNK	UNK	UNK	UNK	UNK	UNK
69	UNK	UNK	UNK	UNK	UNK	UNK
70	UNK	UNK	UNK	UNK	UNK	UNK
71	UNK	UNK	UNK	UNK	UNK	UNK
72	UNK	UNK	UNK	UNK	UNK	UNK
73	UNK	UNK	UNK	UNK	UNK	UNK
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75	UNK	UNK	UNK	UNK	UNK	UNK
76	UNK	UNK	UNK	UNK	UNK	UNK
77	UNK	UNK	UNK	UNK	UNK	UNK
78	UNK	UNK	UNK	UNK	UNK	UNK
79	UNK	UNK	UNK	UNK	UNK	UNK
80	200	50	0	50	0	0
81	75	75	0	25	0	0
82	UNK	UNK	UNK	UNK	UNK	UNK
83	UNK	UNK	UNK	UNK	UNK	UNK
84	200	300	0	150	0	0
85	UNK	UNK	UNK	UNK	UNK	UNK
86						
87						
88						
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OR SPECIES PRESENT BUT NO ESTIMATE MADE.

ESCAPEMENT : HARRIS CREEK

WATERSHED-CODE : 93-1000-120

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
53	UNK	UNK	UNK	UNK	UNK	UNK
54	UNK	UNK	UNK	UNK	UNK	UNK
55	UNK	UNK	UNK	UNK	UNK	UNK
56	UNK	UNK	UNK	UNK	UNK	UNK
57	UNK	UNK	UNK	UNK	UNK	UNK
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62	UNK	UNK	UNK	UNK	UNK	UNK
63	UNK	UNK	UNK	UNK	UNK	UNK
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65	UNK	UNK	UNK	UNK	UNK	UNK
66	UNK	UNK	UNK	UNK	UNK	UNK
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68	UNK	UNK	UNK	UNK	UNK	UNK
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70	UNK	UNK	UNK	UNK	UNK	UNK
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74	UNK	UNK	UNK	UNK	UNK	UNK
75	UNK	UNK	UNK	UNK	UNK	UNK
76	UNK	UNK	UNK	UNK	UNK	UNK
77	UNK	UNK	UNK	UNK	UNK	UNK
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79	UNK	UNK	UNK	UNK	UNK	UNK
80	0	800	0	0	20	0
81	0	750	0	0	25	0
82	UNK	UNK	UNK	UNK	UNK	UNK
83	UNK	UNK	UNK	UNK	UNK	UNK
84	0	8000	0	0	100	0
85	UNK	UNK	UNK	UNK	UNK	UNK
86						
87						
88						
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90						
91						
92						
93						
94						
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ESCAPEMENT : HEMMINGSEN CREEK

WATERSHED-CODE : 93-1000-120-015

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
53	UNK	UNK	UNK	UNK	UNK	UNK
54	UNK	UNK	UNK	UNK	UNK	UNK
55	UNK	UNK	UNK	UNK	UNK	UNK
56	UNK	UNK	UNK	UNK	UNK	UNK
57	UNK	UNK	UNK	UNK	UNK	UNK
58	UNK	UNK	UNK	UNK	UNK	UNK
59	UNK	UNK	UNK	UNK	UNK	UNK
60	UNK	UNK	UNK	UNK	UNK	UNK
61	UNK	UNK	UNK	UNK	UNK	UNK
62	UNK	UNK	UNK	UNK	UNK	UNK
63	UNK	UNK	UNK	UNK	UNK	UNK
64	UNK	UNK	UNK	UNK	UNK	UNK
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71	UNK	UNK	UNK	UNK	UNK	UNK
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77	UNK	UNK	UNK	UNK	UNK	UNK
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79	UNK	UNK	UNK	UNK	UNK	UNK
80	0	1200	0	0	0	16
81	0	3500	0	0	0	0
82	UNK	UNK	UNK	UNK	UNK	UNK
83	UNK	UNK	UNK	UNK	UNK	UNK
84	0	2000	0	0	0	0
85	UNK	UNK	UNK	UNK	UNK	UNK
86						
87						
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OR SPECIES PRESENT BUT NO ESTIMATE MADE.

ESCAPEMENT : LENS CREEK

WATERSHED-CODE : 93-1000-150

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
53	UNK	UNK	UNK	UNK	UNK	UNK
54	UNK	UNK	UNK	UNK	UNK	UNK
55	UNK	UNK	UNK	UNK	UNK	UNK
56	UNK	UNK	UNK	UNK	UNK	UNK
57	UNK	UNK	UNK	UNK	UNK	UNK
58	UNK	UNK	UNK	UNK	UNK	UNK
59	UNK	UNK	UNK	UNK	UNK	UNK
60	UNK	UNK	UNK	UNK	UNK	UNK
61	UNK	UNK	UNK	UNK	UNK	UNK
62	UNK	UNK	UNK	UNK	UNK	UNK
63	UNK	UNK	UNK	UNK	UNK	UNK
64	UNK	UNK	UNK	UNK	UNK	UNK
65	UNK	UNK	UNK	UNK	UNK	UNK
66	UNK	UNK	UNK	UNK	UNK	UNK
67	UNK	UNK	UNK	UNK	UNK	UNK
68	UNK	UNK	UNK	UNK	UNK	UNK
69	UNK	UNK	UNK	UNK	UNK	UNK
70	UNK	UNK	UNK	UNK	UNK	UNK
71	UNK	UNK	UNK	UNK	UNK	UNK
72	UNK	UNK	UNK	UNK	UNK	UNK
73	UNK	UNK	UNK	UNK	UNK	UNK
74	UNK	UNK	UNK	UNK	UNK	UNK
75	UNK	UNK	UNK	UNK	UNK	UNK
76	UNK	UNK	UNK	UNK	UNK	UNK
77	UNK	UNK	UNK	UNK	UNK	UNK
78	UNK	UNK	UNK	UNK	UNK	UNK
79	UNK	UNK	UNK	UNK	UNK	UNK
80	UNK	UNK	UNK	UNK	UNK	UNK
81	0	400	0	0	0	0
82	UNK	UNK	UNK	UNK	UNK	UNK
83	UNK	UNK	UNK	UNK	UNK	UNK
84	0	0	0	0	0	0
85	UNK	UNK	UNK	UNK	UNK	UNK
86						
87						
88						
89						
90						
91						
92						
93						
94						
95						

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UNK = STREAM NOT INSPECTED, OR NOT INSPECTED FOR SPECIES INDICATED,
OR SPECIES PRESENT BUT NO ESTIMATE MADE.

ESCAPEMENT : GORDON RIVER

WATERSHED-CODE : 93-1100

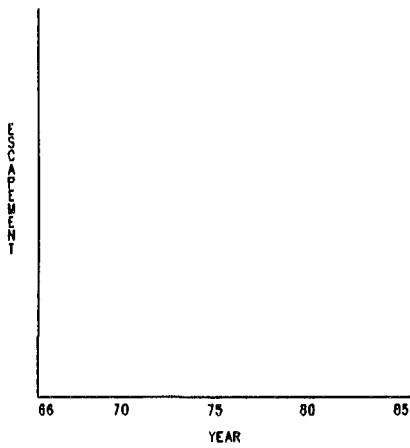
YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
53	0	750	0	75	200	N/O
54	0	1500	1500	1500	200	400
55	0	400	75	75	75	75
56	0	7500	1500	200	25	400
57	0	750	0	75	25	750
58	0	1500	750	1500	200	750
59	0	750	N/O	750	75	750
60	0	7500	750	1500	200	UNK
61	0	1500	0	1500	75	0
62	1	3500	750	3500	200	0
63	UNK	3500	0	750	750	3500
64	0	3500	25	200	200	1500
65	0	7500	0	1500	200	0
66	0	1500	UNK	750	75	0
67	0	1500	400	0	750	75
68	0	750	0	1500	400	0
69	0	400	0	200	200	0
70	0	3500	0	1500	750	0
71	0	750	0	N/O	750	0
72	0	1500	0	N/O	3500	0
73	0	3500	0	75	400	N/O
74	0	1500	0	750	200	0
75	UNK	25	UNK	200	25	UNK
76	0	75	N/O	200	N/O	0
77	0	200	0	200	25	0
78	0	300	0	150	50	0
79	N/O	25	25	75	25	0
80	0	1000	100	50	20	0
81	0	750	0	75	75	0
82	0	200	0	75	75	0
83	0	200	0	75	75	0
84	0	1000	0	200	150	0
85	N/O	12	N/O	3500	8	0
86						
87						
88						
89						
90						
91						
92						
93						
94						
95						

N/O = STREAM INSPECTED, NO FISH OBSERVED

UNK = STREAM NOT INSPECTED, OR NOT INSPECTED FOR SPECIES INDICATED,
OR SPECIES PRESENT BUT NO ESTIMATE MADE.

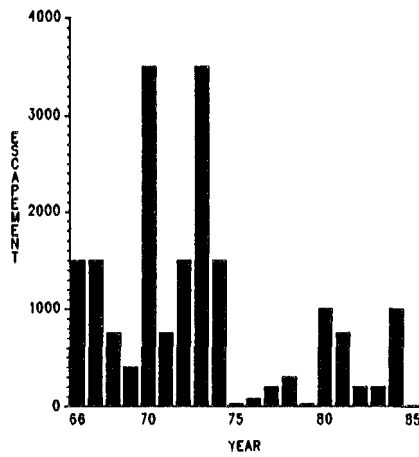
GORDON RIVER (93-1100) ESCAPEMENT AND RUN TIMING

SOCKEYE (SK)



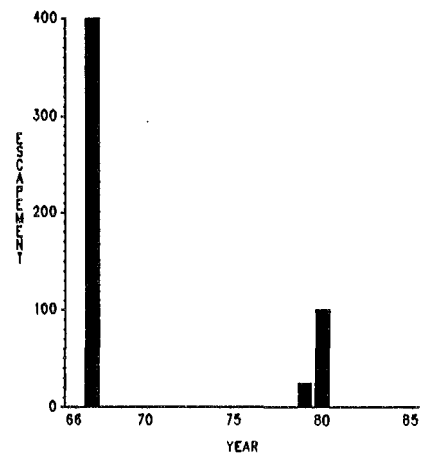
SOCKEYE

COHO (CO)

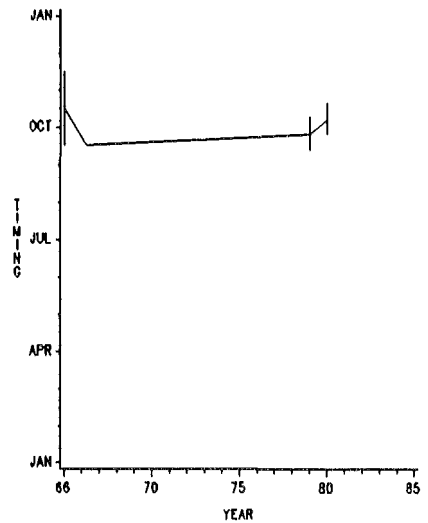
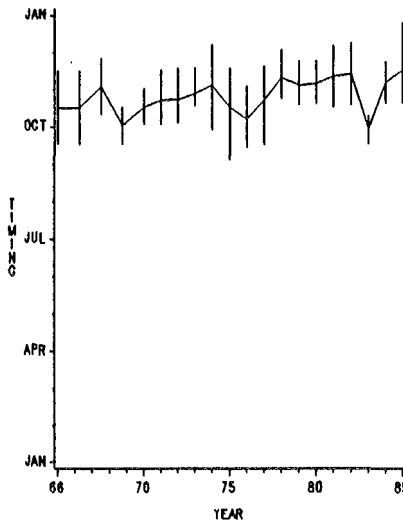
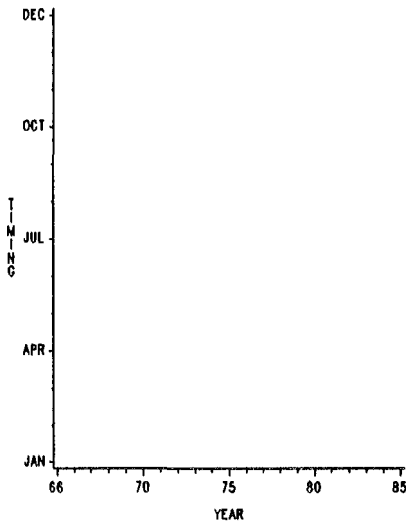


COHO

PINK (PK)



PINK



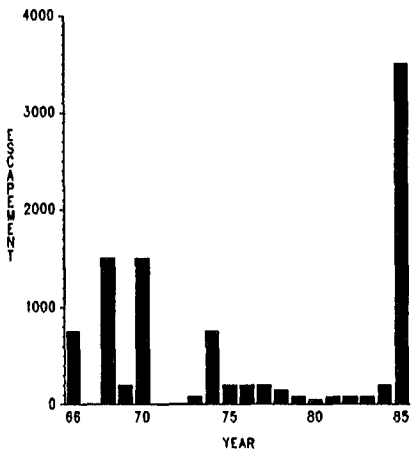
YEAR	ESCAPEMENT	START	PEAK	END
1966	1500	SEP 15	OCT 15	NOV 15
1967	1500	SEP 15	OCT 15	NOV 15
1968	750	OCT 09	NOV 24	DEC 31
1969	400	SEP 15	SEP 30	OCT 15
1970	3500	OCT 01	OCT 15	OCT 30
1971	750	OCT 01	OCT 15	NOV 15
1972	1500	OCT 01	OCT 15	NOV 15
1973	3500	OCT 15	OCT 15	NOV 15
1974	1500	SEP 25	NOV 05	DEC 05
1975	25	SEP 01	OCT 25	NOV 15
1976	75	SEP 10	OCT 01	OCT 30
1977	200	SEP 12	OCT 28	NOV 16
1978	300	OCT 20	NOV 01	NOV 30
1979	25	OCT 15	OCT 28	NOV 20
1980	1000	OCT 15	OCT 30	NOV 20
1981	750	OCT 12	NOV 08	DEC 02
1982	200	OCT 14	NOV 10	DEC 04
1983	200	SEP 12	SEP 24	OCT 05
1984	1000	OCT 15	OCT 31	NOV 18
1985	12	OCT 15	OCT 31	DEC 20

YEAR	ESCAPEMENT	START	PEAK	END
1966	-	SEP 15	OCT 15	NOV 15
1967	400	-	-	SEP 15
1968	-	-	-	-
1969	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	25	SEP 08	SEP 20	OCT 05
1980	100	SEP 20	SEP 30	OCT 15
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-

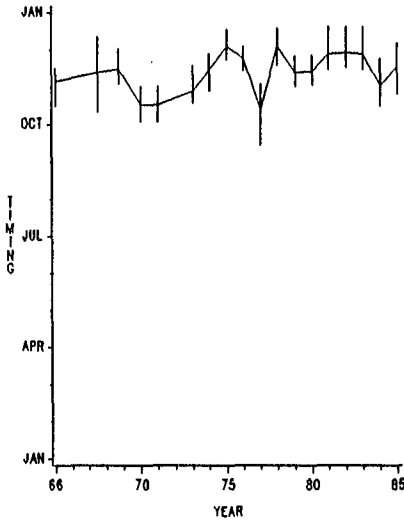
YEAR	ESCAPEMENT	START	PEAK	END
1966	-	SEP 15	OCT 15	NOV 15
1967	400	-	-	SEP 15
1968	-	-	-	-
1969	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	25	SEP 08	SEP 20	OCT 05
1980	100	SEP 20	SEP 30	OCT 15
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-

GORDON RIVER (93-1100) ESCAPEMENT AND RUN TIMING

CHUM (CM)

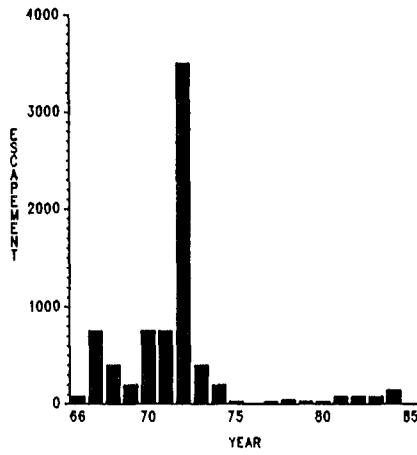


CHUM

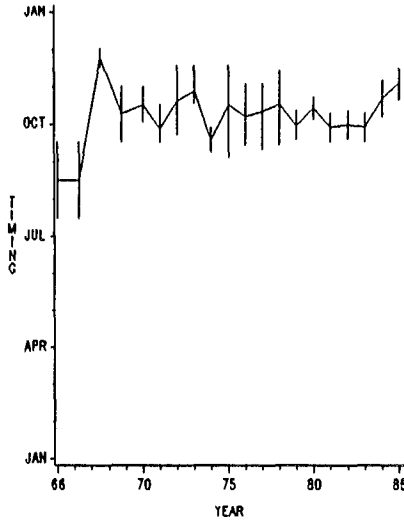


CHUM				
YEAR	ESCAPEMENT	START	PEAK	END
1966	750	OCT 15	NOV 15	NOV 15
1967	-	-	-	-
1968	1500	OCT 09	NOV 14	DEC 10
1969	200	NOV 01	NOV 10	NOV 30
1970	1500	OCT 01	OCT 15	OCT 30
1971	-	OCT 01	OCT 15	OCT 30
1972	-	-	-	-
1973	75	OCT 15	OCT 15	NOV 15
1974	750	OCT 25	NOV 15	NOV 25
1975	200	NOV 20	NOV 30	DEC 15
1976	200	NOV 10	NOV 20	NOV 30
1977	200	SEP 10	OCT 16	OCT 30
1978	150	NOV 15	DEC 01	DEC 15
1979	75	OCT 28	NOV 07	NOV 22
1980	50	OCT 28	NOV 07	NOV 22
1981	75	NOV 10	NOV 15	DEC 15
1982	75	NOV 12	NOV 15	DEC 15
1983	75	NOV 10	NOV 15	DEC 15
1984	200	OCT 10	OCT 20	NOV 18
1985	3500	OCT 20	NOV 15	DEC 01

CHINOOK (CH)

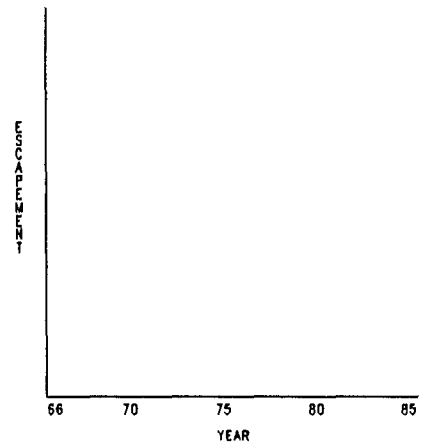


CHINOOK

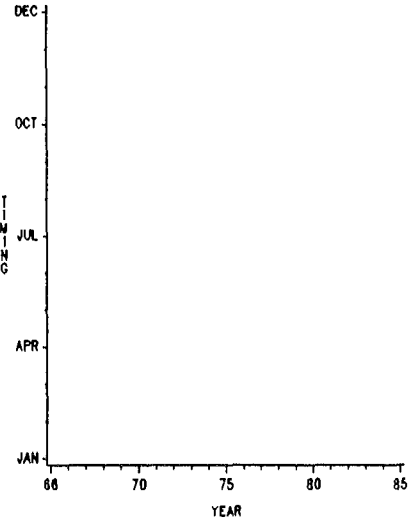


CHINOOK				
YEAR	ESCAPEMENT	START	PEAK	END
1966	75	JUL 15	AUG 15	SEP 15
1967	750	JUL 15	AUG 15	SEP 15
1968	400	NOV 15	NOV 30	DEC 31
1969	200	SEP 15	OCT 07	OCT 30
1970	750	OCT 01	OCT 15	OCT 30
1971	750	SEP 15	SEP 15	OCT 15
1972	3500	SEP 20	OCT 15	NOV 15
1973	400	OCT 15	OCT 15	NOV 15
1974	200	SEP 05	SEP 15	SEP 25
1975	25	SEP 01	OCT 25	NOV 15
1976	-	SEP 10	OCT 01	OCT 30
1977	25	SEP 07	OCT 15	OCT 30
1978	50	SEP 10	OCT 20	NOV 10
1979	25	SEP 15	SEP 25	OCT 08
1980	20	SEP 30	OCT 10	OCT 18
1981	75	SEP 12	SEP 24	OCT 05
1982	75	SEP 14	SEP 26	OCT 07
1983	75	SEP 12	SEP 24	OCT 05
1984	150	OCT 01	OCT 15	OCT 31
1985	8	OCT 15	NOV 01	NOV 10

STEELHEAD (ST)

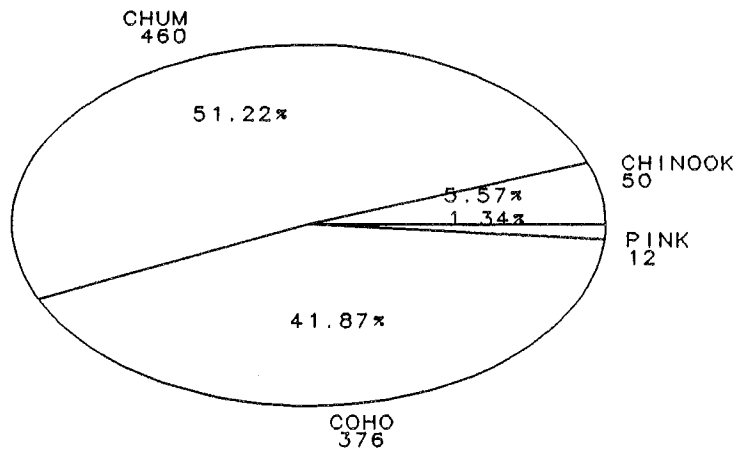


STEELHEAD

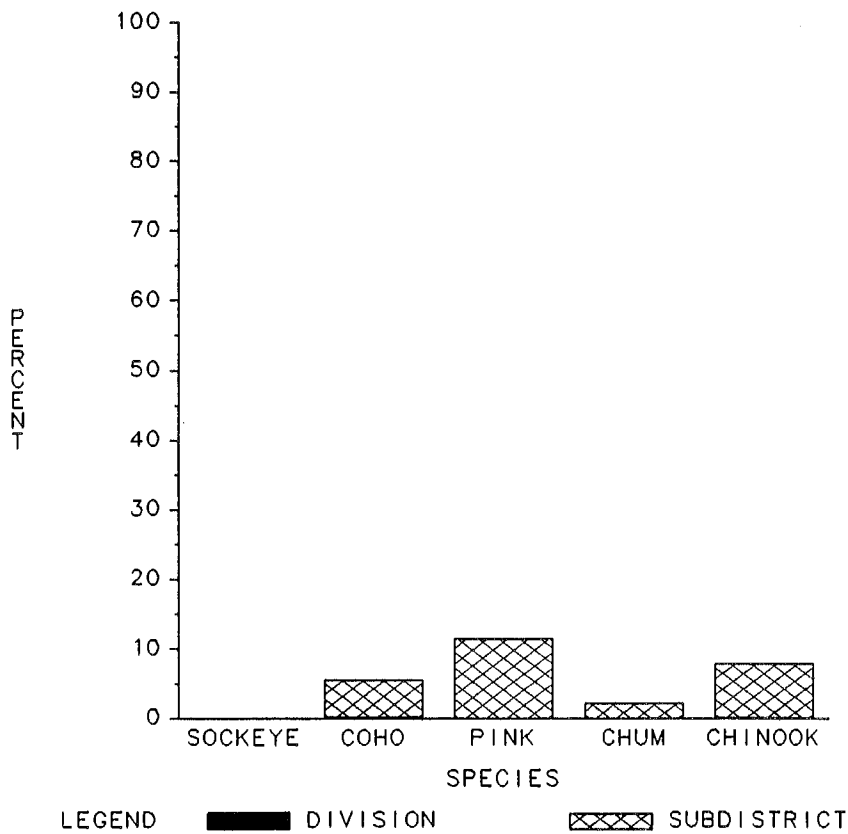


STEELHEAD				
YEAR	ESCAPEMENT	START	PEAK	END
1966	0			
1967	0			
1968	0			
1969	0			
1970	0			
1971	0			
1972	0			
1973	0			
1974	0			
1975	0			
1976	0			
1977	0			
1978	0			
1979	0			
1980	0			
1981	0			
1982	0			
1983	0			
1984	0			
1985	0			

GORDON RIVER 10 YR. AVG. ESCAPEMENT (1976-1985)



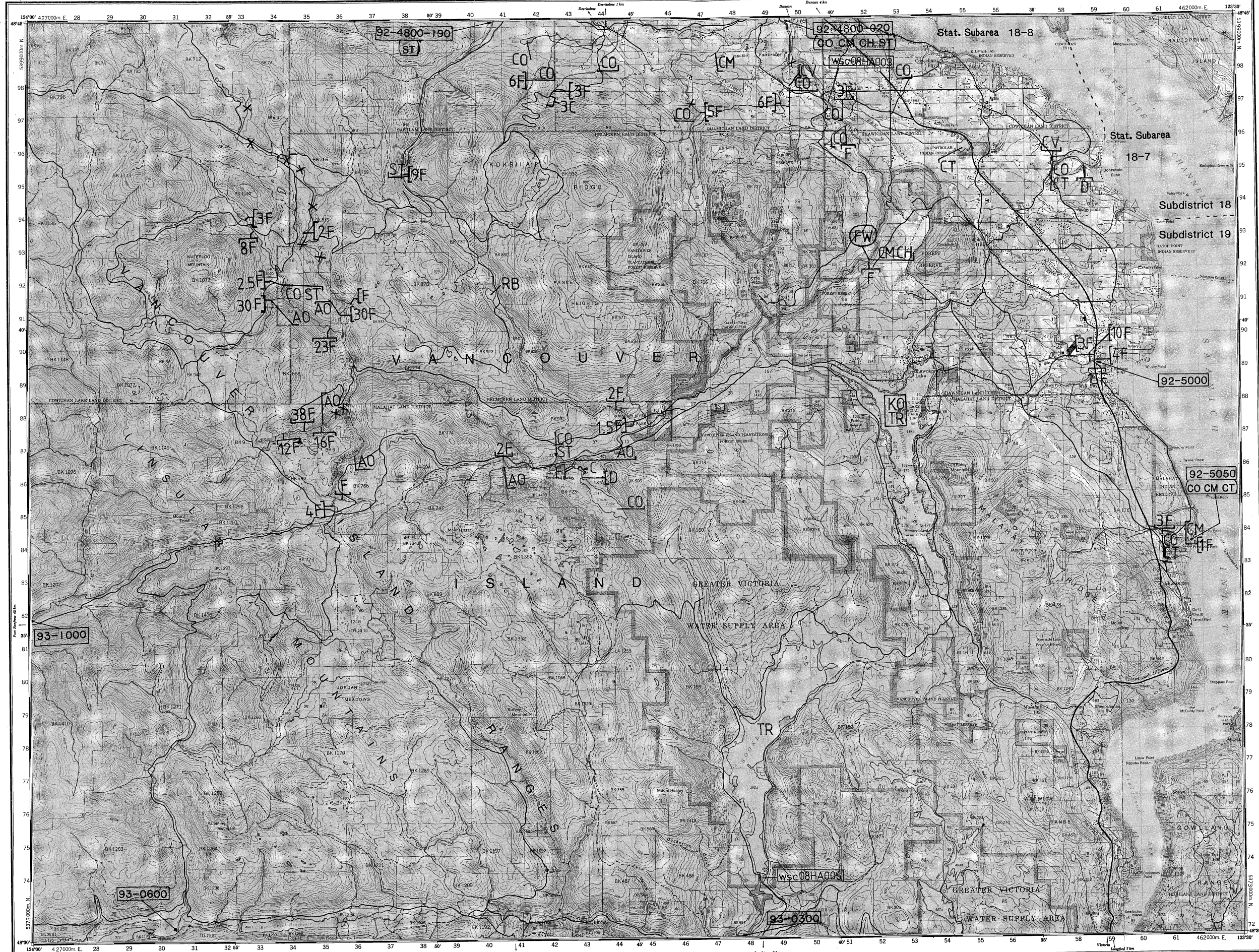
GORDON RIVER AVG. ESCAPEMENT (1976-1985) (EXPRESSED AS A PERCENTAGE OF SUBDISTRICT AND DIVISION AVERAGE ESCAPEMENT)



5.0 MAPS

This section contains the following Stream Information Summary Maps:

92B/5 Sooke
92B/12 Shawnigan Lake
92C/8 River Jordan
92C/9 Port Renfrew
92C/10 Carmanah Creek
92C/16 Cowichan Lake



Military users refer to this map as: **SERIES A 721 SERIE**
 Références de cette carte pour usage militaire: **MAP 92 B/12 CARTE**
 ÉDITION 4 M.C.E. ÉDITION

GLOSSARY GLOSSAIRE

Amfield	Terminus d'aval
Area	Zone
City limits	Limites de ville
Customs	Douane
Ditch	Fossé
Dugout	Déversoir
Dune	Dune
Filtration Plant	Usine de filtration
Gate	Écluse
Gravel Course	Terrain de gravier
Gravel Trail	Traverse
Kill	Faît
Labelled	Étiqueté
Minor Route	Voie secondaire
Oil Wells	Puits de pétrole
Park	Parc
Rail	Voie ferrée
Radio Station Home	Station de radio
Sh. Area	Zone de service
String Bag	Sac à provisions
Survey Line	Ligne de bornage
Tank	Réservoir
Water	Eau
Water Road	Chemin d'eau

For a complete glossary see reverse side
 Pour un glossaire complet voir le verso

DFO/MOEP FISH HABITAT INVENTORY AND INFORMATION PROGRAM
STREAM INFORMATION SUMMARY

91-2900 Watershed Code and Species Summary

SPECIES INFORMATION

SK CO PK CM CH species present
 CO ST lower limit of distribution
 CO ST upper limit of distribution
 PK* specific site of spawning

SK* major spawning zone
 CO* upper limit of spawning

OBSTRUCTIONS (measurements included where known)

X log jam (persistent)
 D = dam
 F = falls (3m high)
 CV = culvert
 BD = beaver dam
 2C100 cascade, chute or canyon (height = 2m, length = 100m)

ENHANCEMENT / MANAGEMENT ACTIVITIES

HY = hatchery
 FW = fishway
 SC = side channel
 CH = spawning channel

WSC08FA003 Water Survey of Canada Gauging Station
 300 CO tributary watershed code

SPECIES ABBREVIATION LIST

SK - Sockeye	BS - Bass (general)
CO - Coho	CT - Cutthroat
PK - Pink	DV - Dolly Varden
CM - Chum	KO - Kokanee
CH - Chinook	LT - Lake trout
ST - Steelhead	LW - Lake whitefish
AF - All fish	MW - Mountain whitefish
AO - All salmon	RB - Rainbow
	TR - Trout (general)

This Stream Information Summary map complements a companion Stream Summary Catalogue, organized by DFO Subdistrict. Maps and files are organized by watershed code.

TABLAU D'INDEXATION DU SYSTÈME NATIONAL DE RÉFÉRENCE CARTOGRAPHIQUE

92 C10	92 B13	92 B14
92 C8	92 B12	92 B11
92 C5	92 B5	92 B6

INDEX TO ADDRESS MAPS OF THE NATIONAL TOPOGRAPHIC SYSTEM

SEPT. 1987
 SHAWNIGAN LAKE
 92 B/12
 EDITION 4

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 Copies may be obtained from the Canada Map Office, Department of Energy, Mines and Resources, Ottawa, if not reserved first sale.
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roads	Roads	chemin	route
hard surface, all weather	route, toute saison	chemin	route
hard surface, all weather	route, toute saison	chemin	route
loose or stabilized surface, all weather	gravier, aggloméré, toute saison	chemin	route
loose surface, dry weather	de gravier, temps sec	chemin	route
unconsolidated gravel	route hors saison	chemin	route
cart track	de terre	chemin	route
trail, cut line or portage	sentier, percée ou portage	chemin	route
non complete reference see reverse side	pour une liste complète des symboles voir au verso		

SHAWNIGAN LAKE
BRITISH COLUMBIA
 Scale 1:50000 Échelle

CONVERSION TABLE FOR ELEVATIONS
 ÉCHELLE DE CONVERSION DES ALTITUDES

Metres	30	100	200	300	400	500	600	700	800	900	1000
Feet	100	300	600	900	1200	1500	1800	2100	2400	2700	3000

CONVERSION TABLE IN METERS
 ÉCHELLE DE CONVERSION DES ALTITUDES

Feet	100	200	300	400	500	600	700	800	900	1000
Metres	30	60	90	120	150	180	210	240	270	300

Projection: Transverse Mercator Projection
 Système de référence géodésique: Nord américain, 1927
 Projection: Transverse de Mercator

Échelle par la DIRECTION DES LÉVELS ET DE LA CARTOGRAPHIE, MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES, à l'échelle de 1:50000. Les données de terrain ont été prises en 1976. Vérification des sondages en 1978 et 1980.
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Military users refer to this map as: Références de cette carte pour usage militaire: SERIES A 721 SÉRIE MAP 92 C/10 CARTE ÉDITION 4 NOSE DATUM

GLOSSARY GLOSSAIRE

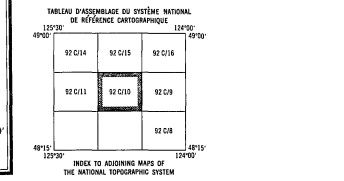
- Arctic Slope Terrain d'inclinaison
Arctic Arrière
City Limits Limites de ville
Coastline Côte
Contour Contour
Creek Crue
Dam Barrage
Ditch Déversoir
Drainage Drainage
Elevation Point Point de levure
Gas Gaz
Garb Course Terrain de golf
Junk Yard Décharge
Junk Débris
Lakes Lacs
Lockup Dépôt
Mud Waste Débris de mine
Oil Wells Puits de pétrole
Park Parc
Rocks Rochers
Sewer Collection Line Collecteur
Ski Run Piste
Strong Bed Fond de lit
Submerged Line Ligne écartée
Trench Fosse
Water Eau
Water Road Chemin d'eau

DFO/MOEP FISH HABITAT INVENTORY AND INFORMATION PROGRAM STREAM INFORMATION SUMMARY

91-2900 Watershed Code and Species Summary
CO CM ST
SPECIES INFORMATION
SK CO PK CM CH species present
CO ST lower limit of distribution
CO ST upper limit of distribution
PK* specific site of spawning
SK* major spawning zone
CO CO
CM* upper limit of spawning
OBSTRUCTIONS (measurements included where known)
log jam (persistent)
D = dam
F = falls (3m high)
CV = culvert
BD = beaver dam
2C100 cascade, chute or canyon (height = 2m, length = 100m)
ENHANCEMENT/MANAGEMENT ACTIVITIES
HY hatchery
FW fishway
SC side channel
CH spawning channel
WSC08FB003 Water Survey of Canada Gauging Station
300 CO tributary watershed code

SPECIES ABBREVIATION LIST
SK - Sockeye BS - Bass (general)
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AF - All fish MW - Mountain whitefish
AO - All salmon RB - Rainbow
TR - Trout (general)

This Stream Information Summary map complements a companion Stream Summary Catalogue, organized by DFO Subdistrict. Maps and files are organized by watershed code.



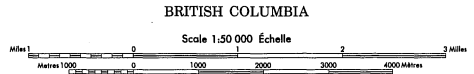
SEPT. 1987
CARMANAH CREEK
92 C/10
EDITION 4



Produced by the SURVEYS AND MAPPING BRANCH, DEPARTMENT OF ENERGY, MINES AND RESOURCES. From aerial photographs taken in 1976. Culture check 1978. Published in 1982.

Interim corrections 1982.

Roads: loose or stabilized surface, all weather, gravel, aggregate, tarmac, etc. / loose surface, dry weather / unclassified streets / cart track / trail, cut line or passage



Information concerning location and precise elevation of bench marks can be obtained by writing to the Survey, Survey and Mapping Branch, Ottawa.

On peut obtenir des renseignements sur la localité et l'altitude exacte des repères de nivellement en écrivant au Bureau des Cartes du Canada, Ministère de l'Énergie, des Mines et des Ressources, Ottawa.

Corrections provisoires 1982.

Établie par la DIRECTION DES LEVÉS ET DE LA CARTOGRAPHIE, MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES. À partir de photographies aériennes prises en 1976. Vérification des contours en 1978. Publié en 1982.



Military users refer to this map as: SÉRIE A721 SÉRIE MAP 92 C/16 OMBRE
 Références de cette carte: ÉDITION 2 ÉDITION pour usage militaire.

GLOSSARY GLOSSAIRE

Arrière	Terrain d'aval
Ancien	Ancien
City Limits	Limites de ville
Canal	Canal
Ditch	Fossé
Dugout	Déversoir
Shore	Rive
Water Power	Chute de débit
Can	Can
Call Course	Terrain de golf
Leak Head	Faillite
Kite	Faît
Laundrette	Défilé de mine
Mine Waste	Produit de mine
Oil Wells	Puits de pétrole
Park	Parc
Road	Pavement
Shore Concrete Home	Loge de bois sur pilotis
Sk Area	Station de ski
Strong Ring	Fondations d'éléments
Survey Line	Ligne opposée
Tank	Réservoir
Water	Eau
Water Road	Chemin d'eau

For a complete glossary see reverse side
 Pour un glossaire complet, voir le verso

DFO/MOEP FISH HABITAT INVENTORY AND INFORMATION PROGRAM STREAM INFORMATION SUMMARY

91-2900 Watershed Code and Species Summary
CO CM ST

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CO ST lower limit of distribution
CO ST upper limit of distribution
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CO*
CO*
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OBSTRUCTIONS (measurements included where known)

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BD = beaver dam

2C100 cascade, chute or canyon (height = 2m, length = 100m)

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CH = spawning channel

[WSC08FB003] Water Survey of Canada Gauging Station

[300 CO] tributary watershed code

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TABLEAU D'ADRESSAGE DU SYSTÈME NATIONAL DE RÉFÉRENCE CARTOGRAPHIQUE

92 F12	92 F13	92 G14
92 C15	92 C16	92 B13
92 D10	92 D11	92 B12

INDEX TO GRIDING MAPS OF THE NATIONAL TOPOGRAPHIC SYSTEM

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Roads

hard surface, all weather	pavée, toute saison	autoroute
hard surface, all weather	pavée, toute saison	route
loose or stabilized surface, all weather	gravier, aggloméré, toute saison	route
loose surface, dry weather	de gravier, temps sec	route
unclassified streets	rues hors classe	
cart track	de terre	
trail, cut line or portage	sentier, percée ou portage	

FOR COMPLETE REFERENCE SEE REVERSE SIDE POUR UNE LISTE COMPLÈTE DES SIGNES, VOIR AU VERSO

COWICHAN LAKE BRITISH COLUMBIA

Scale 1:50 000 Échelle

CONVERSION SCALE FOR ELEVATIONS
 Metres 0 20 40 60 80 100 120 140 160 180 200
 Feet 100 200 300 400 500 600 700 800 900 1000

ÉCHELLE DE CONVERSION DES ALTITUDES
 Mètres 0 20 40 60 80 100 120 140 160 180 200
 Pieds 100 200 300 400 500 600 700 800 900 1000

CONVERSION TABLE FOR METERS
 Elevation in Meters above Mean Sea Level
 North American Datum 1987
 Transverse Mercator Projection

CONVERSION TABLE FOR METERS
 Élévation en mètres
 Système de référence géodésique nord-américain, 1987
 Projection Transverse de Mercator

Information concerning location and precise altitudes of bench marks can be obtained by writing to the Geodetic Survey, Surveys and Mapping Branch, Ottawa.

On peut obtenir ces renseignements sur le lieu et l'altitude exacte des bornes en écrivant au Bureau des Cartes de Canada, Division de l'élevage, des bornes et des relevés, Ottawa.

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Échelle par la DIRECTION DES LEVÉS ET DE LA CARTOGRAPHIE, MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES TECHNOLOGIES, à l'échelle de 1:50 000, en mètres au-dessus du niveau de la mer, au Canada, en 1976. Culture class 1978. Modification de la carte en 1980.
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