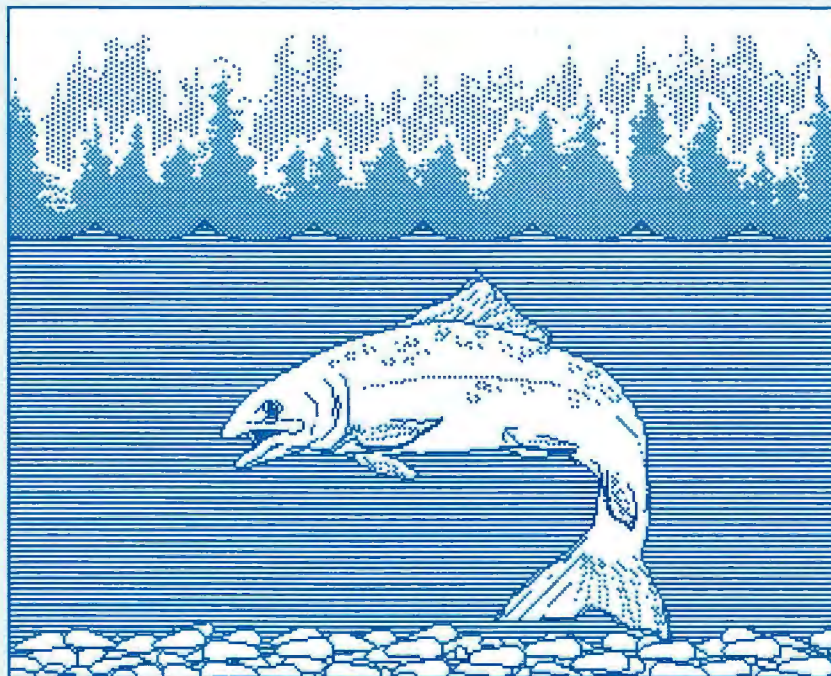


Fish Habitat Inventory & Information Program

STREAM SUMMARY CATALOGUE

SUBDISTRICT # 23
PORT ALBERNI



Fisheries
and Oceans



Ministry of Environment and Parks

Canada

Fish Habitat Inventory & Information Program

STREAM SUMMARY CATALOGUE

SUBDISTRICT # 23 PORT ALBERNI

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

May 1990

PREFACE

This catalogue contains a summary of information on fish and fish habitat for 55 streams in DFO Subdistrict 23, Port Alberni. The catalogue is organized as follows:

- 1.0 Map Indices;
- 2.0 User Guides;
- 3.0 Stream Summaries;
- 4.0 Bibliography; 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. Stream Information Summaries and maps will be updated as more information becomes available. Users are encouraged to contact Department of Fisheries and Oceans or B.C. Ministry of Environment habitat inventory staff if they have additional fish or fish habitat information or can correct inaccuracies in the existing data.

ACKNOWLEDGEMENTS

The Stream Information Summaries and maps included in this catalogue were originally prepared by G. Kapahi and subsequently updated by SHIP Environmental Consultants Ltd. under contract. The project was directed by B.D. Tutty, Department of Fisheries and Oceans (DFO), South Coast Division. Catalogue production was coordinated by B.J. Reid with the assistance of V. Komori, Habitat Management Division. The assistance of DFO District 4 staff, Subdistrict 23 Fishery Officer D. Girodat and B.C. Ministry of Environment (MOE) Region 1 staff in providing and verifying much of the information is greatly appreciated. Stream Information Summaries were produced by V. Komori, Habitat Management Division, using the Stream Information Summary System (SISS). Escapement graphics were developed by G. Serbic and data was compiled by L. Lapi, M. Holmes and G. Hudson, Pacific Biological Station, Nanaimo, using the Salmon Escapement Data System (SEDS).

Correct citation for this publication:

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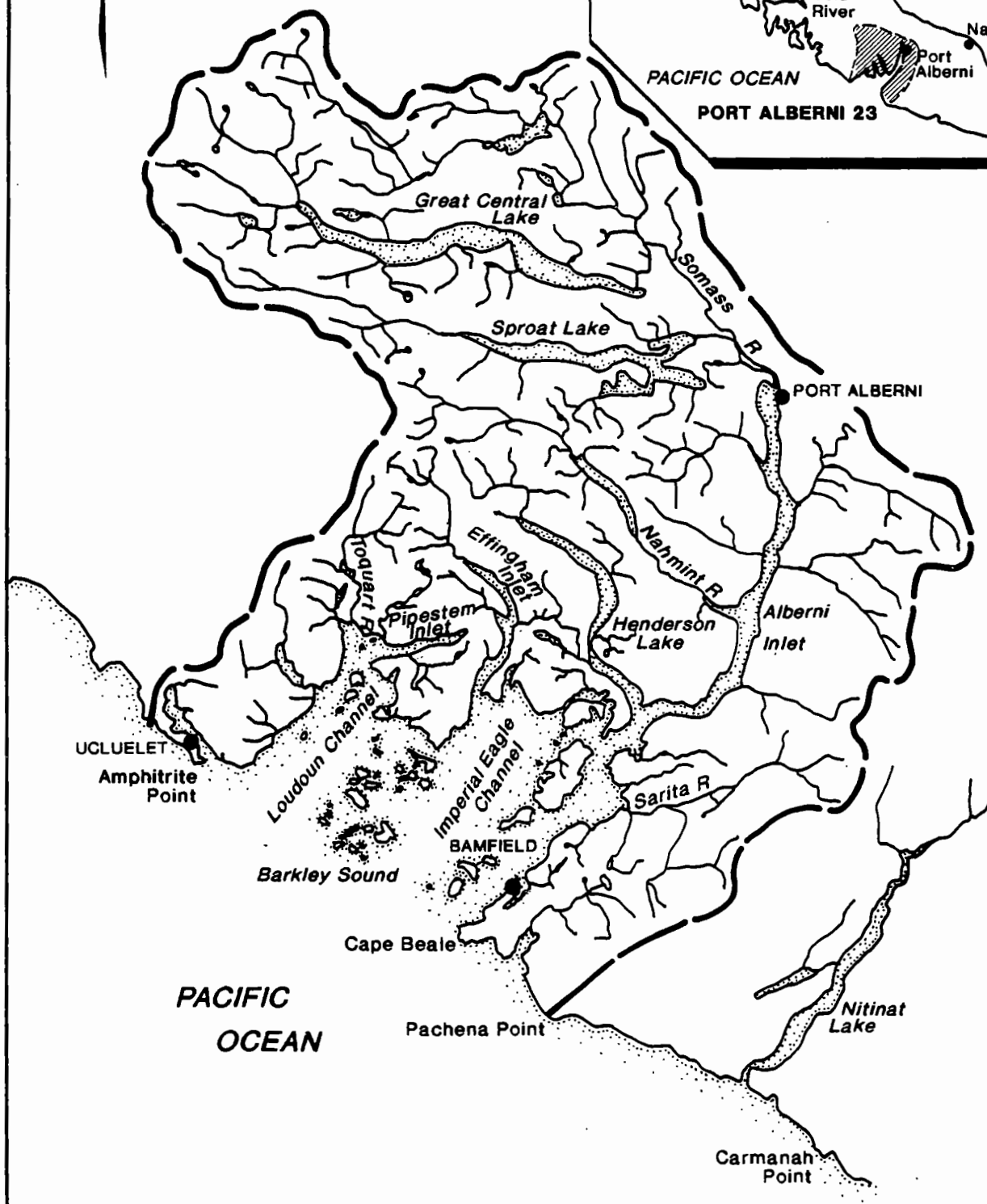
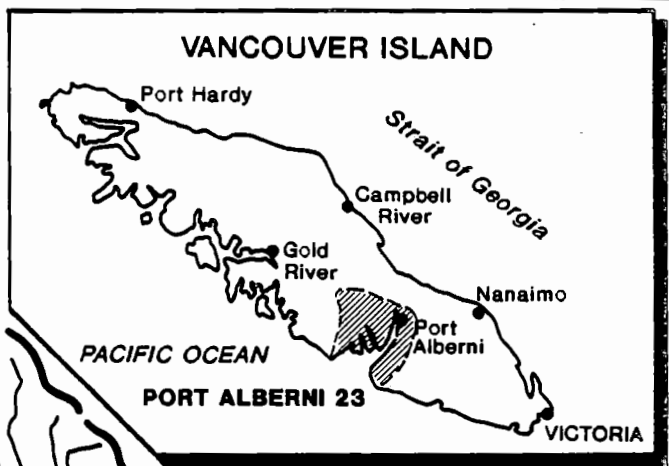
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 - Key maps of streams in subdistrict
 - Watershed Code Listing of Stream Names
 - Alphabetic Listing of Stream Names & Watershed Codes
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 - MOEP Region Map
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 - 1:50,000 National Topographic Series Map Index
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- 2.0 User Guides
 - 2.1 Stream Information Summary
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- 3.0 Stream Summary
 - Stream Information Summary (by Watershed Code)
 - Escapement
- 4.0 Bibliography
- 5.0 Maps

Stream Name (gaz.)										(local)										Access					Method																																																						
Watershed Code																				Reach No.					Length(km)																																																						
Location										Map#										Site No.					Lthaurv(m)																																																						
										U.T.M.										Fish Card					Y N C Field Hist.																																																						
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		Ave.Max.Riffle Depth (cm)																																																																													
		Ave.Max.Pool Depth (cm)																																																																													
		Gradient %																																																																													
		% Pool										Riffle										Run										Other																																															
		Side Chan.%										0 0-10 10-40 >40																																																																			
		Debris										Area%										0 0-5 5-15 >15																																																									
		Stable %																																																																													
		COVER: Total %																																																																													
		Comp. sum 100%										Dp Pool										L.O.D.										Boulder										In Veg										Over Veg										Cutbank																	
		Crown Closure %										C										Aspect																																																									
		D ₅₀ (cm)										C										Compaction										L M H																																															
		Bedrock (R)																																																																													
		Bars (%)																																																																													
		Water Temp.(°C)																																																																													
		Turb.(cm)																																																																													
		Cond.(25°C)																																																																													
		DISCHARGE																																																																													
		Parameter										Value										Method										Specific Data																																															
		Wetted Width (m)																																																																													
		Mean Depth (m)																																																																													
		Mean Velocity (m/s)																																																																													
		Discharge (m³/s)																																																																													
		REACH SYMBOL (Fish)																																																																													
		(Width,Valley;Channel,Slope)																																																																													
		(Bed Material)																																																																													

SS1 87

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Note: This attachment is a photocopy of the front and back sides of a DFO/MOELP Stream Survey Card. Mandatory parameters for completing the Stream Survey Card are shaded. Please add comments to this attachment to highlight your questionnaire answers.



**SUBDISTRICT 23
PORT ALBERNI**





LISTING OF STREAMS NUMERICALLY BY WATERSHED CODE
FOR SUBDISTRICT #23 - PORT ALBERNI

Watershed Code	Gazetted Name	Local Name
93-1800	PACHENA R	
93-1900	SUGSAW C	GRAPPLER C
93-1975	UNNAMED C	POETT NOOK C
93-2000	SARITA R	
93-2000-020	UNNAMED C	FREDERICK C
93-2030	CARNATION C	
93-2040	CONSINKA C	WOOD C
93-2100	COLEMAN C	
93-2200	FRANKLIN R	
93-2200-050	CORRIGAN C	
93-2240	CHINA C	
93-2300	SOMASS R	
93-2300-000-000-000-000-991	STAMP R	
93-2300-015	LUGRIN C	
93-2300-020	ROGERS C	ROGER C
93-2300-030	KITSUCKSUS C	KITSUCKSIS C
93-2300-100	SPROAT R	
93-2300-100-450	TAYLOR R	
93-2300-100-450-025	UNNAMED C	WEINER C; WEINTER C
93-2300-150	BEAVER C	TRUEMAN C
93-2300-200	SPAHT C	JOLLY C
93-2300-250	ASH R	
93-2300-350	FORESTRY CAMP C	BEAVER C; BEAVER DAM C
93-2330	COUS C	COUSE C
93-2370	MACTUSH C	MACTUSH C; MUCHTOOSH C
93-2400	NAHMINT R	
93-2495	UNNAMED C	SNUG BASIN C
93-2500	HENDERSON LAKE R	ANDERSON R; HENDERSON R
93-2500-300	CLEMENS C	
93-2510	UCHUCK C	SILVER C
93-2580-750	HOLFORD C	HALFORD C
93-2590	UNNAMED C	USELESS C; USELESS INLET C
93-2650	UNNAMED C	VERNON BAY C; VERNON C
93-2740	COEUR D'ALENE C	COUR CALENE C
93-2800	EFFINGHAM R	
93-2820	UNNAMED C	WALLACE C; WEST C
93-2880	UNNAMED C	CANOE PASS C; JULIA C;
		JULIA PASSAGE C
93-2895	UNNAMED C	SECHART C
93-2910	UNNAMED C	DUTCH HARBOUR EAST C; MAIN C
93-2920	UNNAMED C	DUTCH HARBOUR WEST C; SMALL C
93-3000	CATARACT C	
93-3030	UNNAMED C	PIPESTEAM C; PIPESTEM C
93-3080	LUCKY C	
93-3100	TOQUART R	MAIN R
93-3100-020	LITTLE TOQUART C	LEFT FORK TOQUART C
- 93-3200	MAGGIE R	
- 93-3200-900	DRAW C	
93-3200-900-400	REDFORD C	BEDFORD C
93-3205	UNNAMED C	LITTLE MAGGIE R
93-3225	UNNAMED C	TWIN RIVERS EAST R;
		TWO RIVERS EAST R
93-3230	UNNAMED C	TWIN RIVERS WEST C;
		TWO RIVERS WEST C
93-3260	ITATSOO C	SANDY C
93-3280	UNNAMED C	HILLIER C; MERCER C
93-3290	MERCANTILE C	MILL C
93-3310	SMITH C	SALMON C

LISTING OF STREAMS ALPHABETICALLY BY GAZETTED NAME
FOR SUBDISTRICT #23 - PORT ALBERNI

Watershed Code	Gazetted Name	Local Name
93-2300-250	ASH R	
93-2300-150	BEAVER C	TRUEMAN C
93-2030	CARNATION C	
93-3000	CATARACT C	
93-2240	CHINA C	
93-2500-300	CLEMENS C	
93-2740	COEUR D'ALENE C	COUR CALENE C
93-2100	COLEMAC	
93-2040	CONSINKA C	WOOD C
93-2200-050	CORRIGAN C	
93-2330	COUS C	COUSE C
93-3200-900	DRAW C	
93-2800	EFFINGHAM R	
93-2300-350	FORESTRY CAMP C	BEAVER C; BEAVER DAM C
93-2200	FRANKLIN R	
93-2500	HENDERSON LAKE R	ANDERSON R; HENDERSON R
93-2580-750	HOLFORD C	HALFORD C
93-3260	ITATSOO C	SANDY C
93-2300-030	KITSUCKSUS C	KITSUCKSIS C
93-3100-020	LITTLE TOQUART C	LEFT FORK TOQUART C
93-3080	LUCKY C	
93-2300-015	LUGRIN C	
93-2370	MACKTUSH C	MACTUSH C; MUCHTOOSH C
93-3200	MAGGIE R	
93-3290	MERCANTILE C	MILL C
93-2400	NAHMINT R	
93-1800	PACHENA R	
93-3200-900-400	REDFORD C	BEDFORD C
93-2300-020	ROGERS C	ROGER C
93-2000	SARITA R	
93-3310	SMITH C	SALMON C
93-2300	SOMASS R	
93-2300-200	SPAHT C	JOLLY C
93-2300-100	SPROAT R	
93-2300-000-000-000-000-991	STAMP R	
93-1900	SUGSAW C	GRAPPLER C
93-2300-100-450	TAYLOR R	
93-3100	TOQUART R	MAIN R
93-2510	UCHUCK C	SILVER C
93-2880	UNNAMED C	CANOE PASS C; JULIA C; JULIA PASSAGE C
93-2910	UNNAMED C	DUTCH HARBOUR EAST C; MAIN C
93-2920	UNNAMED C	DUTCH HARBOUR WEST C; SMALL C
93-2000-020	UNNAMED C	FREDERICK C
93-3280	UNNAMED C	HILLIER C; MERCER C
93-3205	UNNAMED C	LITTLE MAGGIE R
93-3030	UNNAMED C	PIPESTEAM C; PIPESTEM C
93-1975	UNNAMED C	POETT NOOK C
93-2895	UNNAMED C	SECHART C
93-2495	UNNAMED C	SNUG BASIN C
93-3225	UNNAMED C	TWIN RIVERS EAST R; TWO RIVERS EAST R
93-3230	UNNAMED C	TWIN RIVERS WEST C; TWO RIVERS WEST C
93-2590	UNNAMED C	USELESS C; USELESS INLET C
93-2650	UNNAMED C	VERNON BAY C; VERNON C
93-2820	UNNAMED C	WALLACE C; WEST C
93-2300-100-450-025	UNNAMED C	WEINER C; WEINTER C

DISTRICT/
Subdistrict

Address

DISTRICT #1

- Kamloops

1278 Dalhousie Dr. Kamloops, V2C 2E9
Salmon Arm (29K) Box 1160, Salmon Arm, V0E 2T0
Prince George (29I) 2392 Ospika Blvd., Prince George, V2N 3N5
Clearwater (29J) Box 610, Clearwater, V0E 1N0
Lillooet (29F) Box 315, Lillooet, V0K 1V0
Quesnel (29H) 1205 North Highway 97, Quesnel, V2J 2Y3
Williams Lake (29G) 260D N. Broadway, Williams Lake, V2G 2X9

DISTRICT #2

- New Westminster

301 - 80 6th St., New Westminster, V3L 5B3
Vancouver (28A) 301 - 80 6th St., New Westminster, V3L 5B3
Surrey (29B) 301 - 80 6th St., New Westminster, V3L 5B3
Coquitlam (29C) 301 - 80 6th St., New Westminster, V3L 5B3
Steveston (29A) 12551 No. 1 Road, Richmond, V7E 1T7
Squamish (28B) Box 85, Squamish, V0N 3G0
Mission (29D) Box 3308, Mission, V2V 4J5
Chilliwack (29E) 45742A Yale Rd. West, Chilliwack, V2P 2N4

DISTRICT #3

- Nanaimo

305 - 60 Front St., Nanaimo, V9R 5H7
Nanaimo/Ladysmith (17) 305 - 60 Front St., Nanaimo, V9R 5H7
Qualicum Beach (14S) Box 1270, Qualicum Beach, V0R 2T0
Comox (14N) 148 Port Augusta St., Comox, V9N 7Z4
Duncan (18) Box 241, Duncan, V9L 3X3
Powell River (15) 4488 Marine Ave., Powell River, V8A 2K2
Pender Harbour (16) Box 10, Madeira Park, V0N 2H0

DISTRICT #4

- Port Alberni

3019 Fourth Ave., Port Alberni, V9Y 2B8
Port Alberni (23) 3019 Fourth Ave., Port Alberni, V9Y 2B8
Nitinat (22) 3019 Fourth Ave., Port Alberni, V9Y 2B8
Quatsino Sound (27) Box 10, Port Hardy, V0N 2P0
Kyuquot (26) Box 549, Tahsis, V0P 1X0
Tahsis (25) Box 549, Tahsis, V0P 1X0
Tofino (24) Box 48, Tofino, V0R 2Z0

DISTRICT/
Subdistrict

Address

DISTRICT #5

- Campbell River

215 - 950 Alder St., Campbell River, V9W 2P8
Campbell River (13) 215 - 950 Alder St., Campbell River, V9W 2P8
Port Hardy (12B) Box 10, Port Hardy, V0N 2P0
Alert Bay (12A) Box 9, Alert Bay, V0N 1A0
Seymour Inlet (11) Box 10, Port Hardy, V0N 2P0

DISTRICT #6

- Victoria

423 - 1230 Government St., Victoria, V8W 1Y3
Victoria/Saanich (19) 423 - 1230 Government St., Victoria, V8W 1Y3
Sooke (20) Box 460, Sooke, V0S 1N0

DISTRICT #7

- Central Coast

222 - 417 2nd Ave. West, Prince Rupert, V8J 1G8
Kitimat (6N) 315 - 450 Federal Building, Kitimat, V8C 1T6
Butedale (6S) 222 - 417 2nd Ave. West, Prince Rupert, V8J 1G8
Bella Bella (7) Box 38, Bella Bella, V0T 1B0
Bella Coola (8) Box 130, Bella Coola, V0T 1C0
Rivers Inlet (9) Dawsons Landing P.O., Rivers Inlet, V0N 1M0
Smith Inlet (10) Dawsons Landing P.O., Rivers Inlet, V0N 1M0

DISTRICT #8

- Prince Rupert

109 - 417 2nd Ave. West, Prince Rupert, V8J 1G8
Waterfront 109 - 417 2nd Ave. West, Prince Rupert, V8J 1G8
Lower Skeena (4A) 109 - 417 2nd Ave. West, Prince Rupert, V8J 1G8
Grenville Prince (5) 109 - 417 2nd Ave. West, Prince Rupert, V8J 1G8
Lower Nass (3A) 109 - 417 2nd Ave. West, Prince Rupert, V8J 1G8
Upper Nass (3B) Box 29, Nass Camp, V0J 3J0
Hazelton (4C) Box 490, New Hazelton, V0J 2J0
Smithers (4D) Box 578, Smithers, V0J 2N0
Terrace (4B) 4721-B Lazelle Ave., Terrace, V8G 1R6

DISTRICT #9

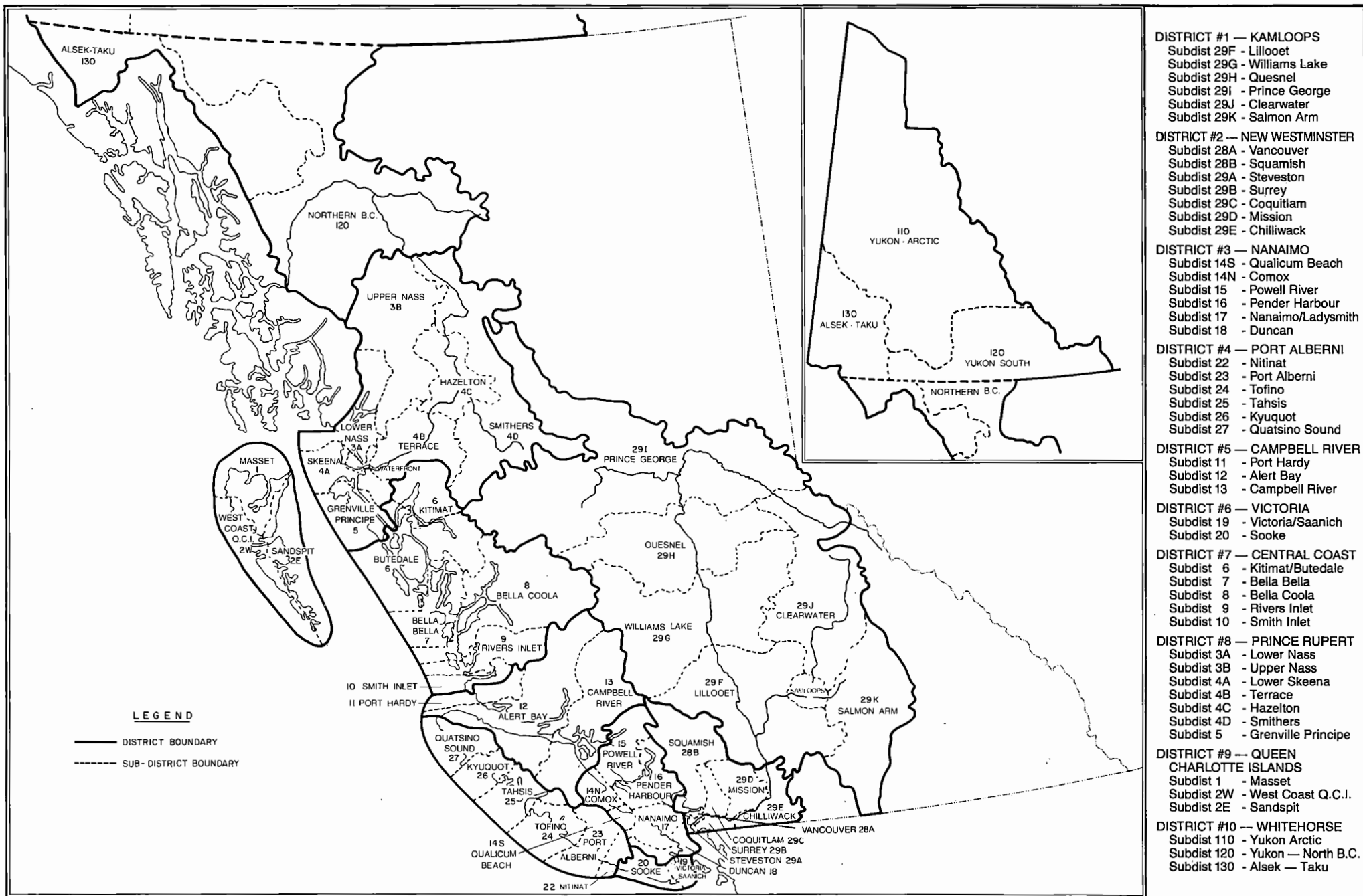
- Queen Charlotte Islands

Box 99, Queen Charlotte City, V0T 1S0
West Coast Q.C.I. (2W) Box 99, Queen Charlotte City, V0T 1S0
Masset (1) Box 99, Masset, V0T 1M0
Sandspit (2E) Box 222, Sandspit, V0T 1T0

DISTRICT #10

- Whitehorse

122 Industrial Rd., Whitehorse, Y.T., Y1A 2T9
Yukon-North B.C. (120) 122 Industrial Rd., Whitehorse, Y.T., Y1A 2T9
Yukon-Arctic (110) 122 Industrial Rd., Whitehorse, Y.T., Y1A 2T9
Aisek-Taku (130) Box 5341, Haines Junction, Y.T., Y0B 1L0



DFO PACIFIC REGION SUBDISTRICTS AND DISTRICTS

MINISTRY OF ENVIRONMENT & PARKS

Region 1: VANCOUVER ISLAND

Regional Headquarters: Nanaimo
2569 Kenworth Rd.,
Nanaimo, B.C.
V9T 4P7

Region 2: LOWER MAINLAND

Regional Headquarters: Surrey
10334-152A St.,
Surrey, B.C.
V3R 7P8

Region 3: SOUTHERN INTERIOR

Regional Headquarters: Kamloops
1259 Dalhousie Dr.,
Kamloops, B.C.
V2C 5Z5

Sub-Regional Office: Penticton
3547 Skaha Lake Rd.,
Penticton, B.C.
V2A 7K2

Sub-Regional Office: Williams Lake
540 Borland St.,
Williams Lake, B.C.
V2G 1R8

Region 4: KOOTENAY

Regional Headquarters: Nelson
310 Ward St.,
Nelson, B.C.
V1L 5S4

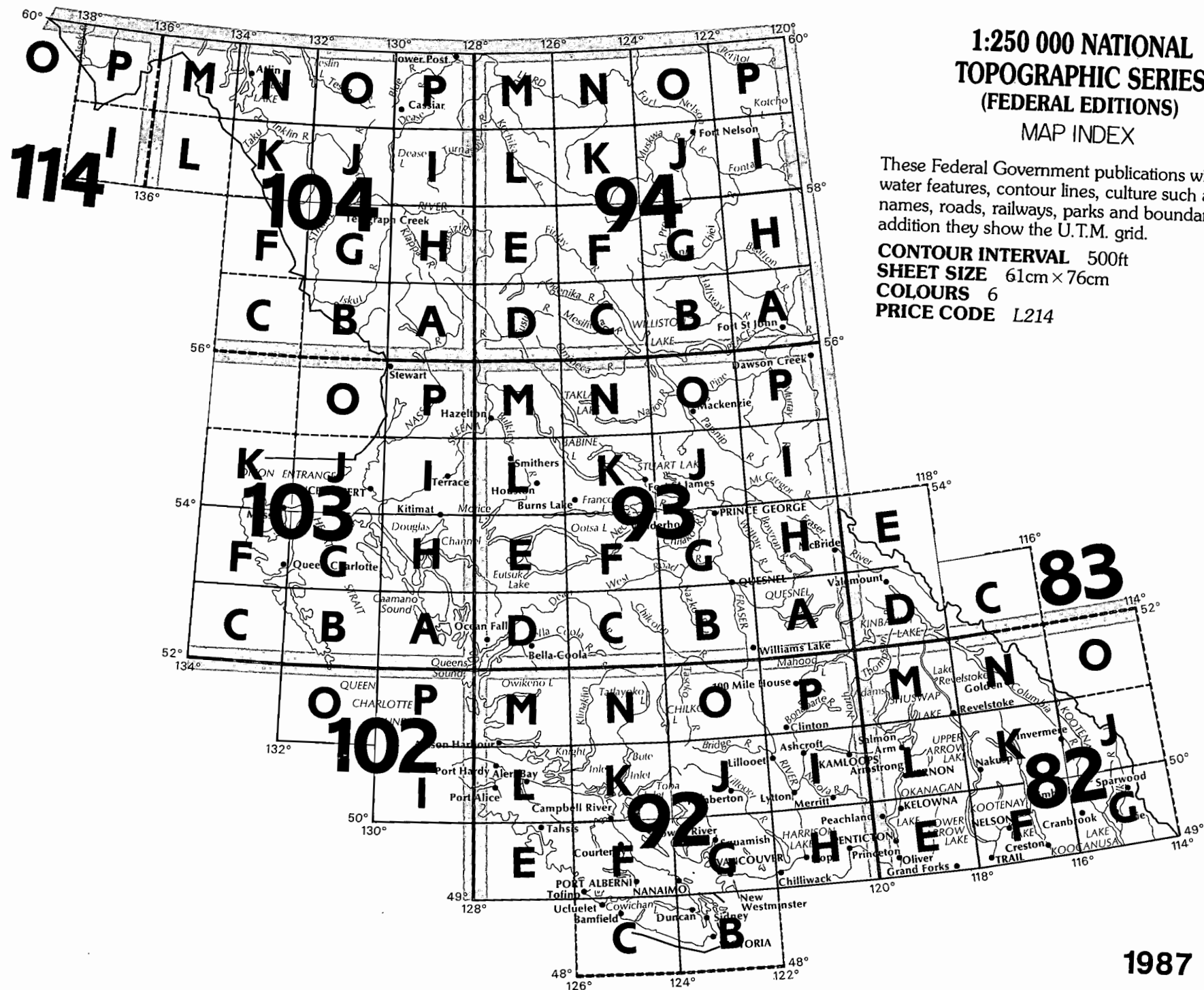
Cranbrook Office
106-5th Ave. S.,
Cranbrook, B.C.
V1C 2G2

Region 5: NORTHERN

Regional Headquarters: Prince George
1011-4th Ave.,
Prince George, B.C.
V2L 3H9

Sub-Regional Office: Smithers
3726 Alfred Ave.,
Bag 5000
Smithers, B.C.
V0J 2N0

Fort St. John Office
10142-101st Ave.,
Fort St. John, B.C.
V1J 2B3

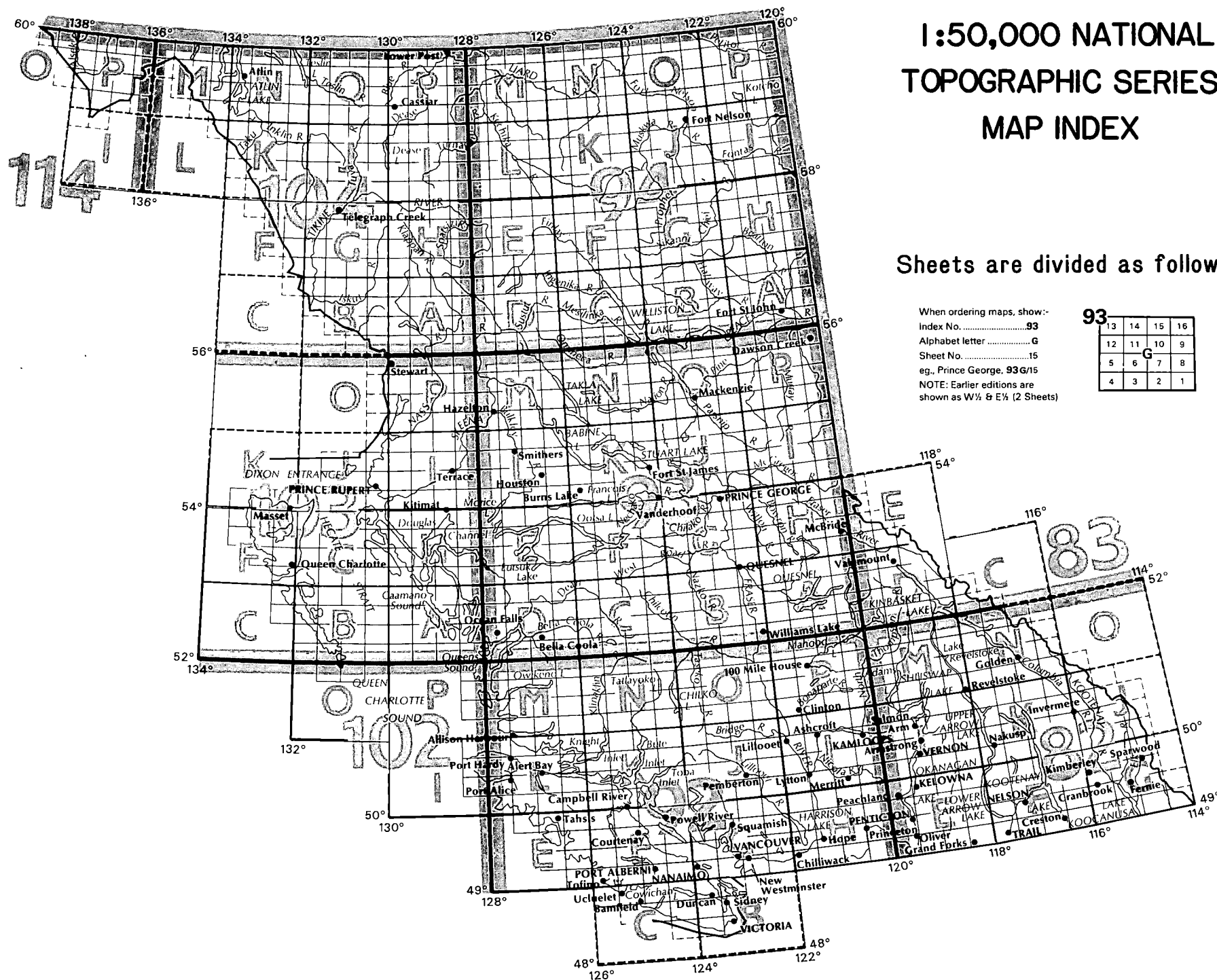


1:50,000 NATIONAL TOPOGRAPHIC SERIES MAP INDEX

Sheets are divided as follows:

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

93	13	14	15	16
	12	11	10	9
	5	6	7	8
	4	3	2	1



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" = ¼ mile (20 chains) 1" = ½ 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

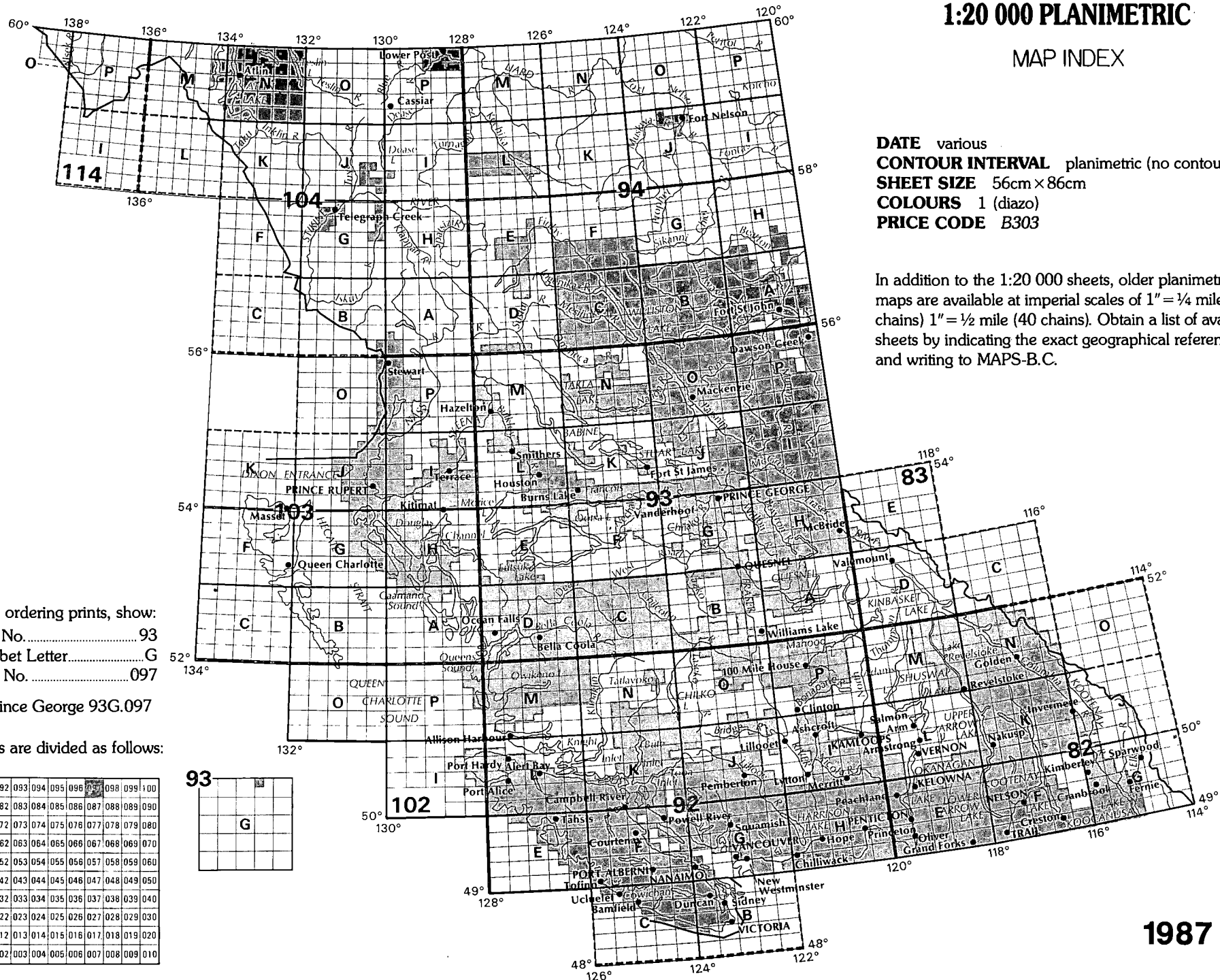
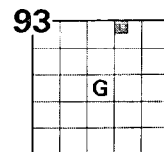
Alphabet Letter G

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. Although the preparation of Stream Information Summaries has been thorough, the focus has been on collecting key information rather than all information. The phrase "no information available" appears on the SIS printout when no information on that subject is contained in the database. The summaries will be updated using SISS as more information becomes available or as more detailed literature searches are undertaken.

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 (Fig. 2.1).

A. DESCRIPTION

A.1 Stream Name:

The official stream name listed in the "Gazetteer of Canada" or the primary alias is displayed here. The primary alias may be used if the gazetted name is unavailable.

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 may provide 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. "Updated by" indicates that some sections of the Stream Information Summary have been revised. These sections are indicated in the database.

TABLE 1. LIST OF CODESStream Name

R River
C Creek
S Slough
B Brook
G Gulch

Management Activities

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

Barrier Type

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

Land Use/Water Use/Water Quality

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

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 MOUTAIN 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	SMELTS (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	THREE SPINE 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	GO		

2.2 ESCAPEMENT

The last feature of a Stream Information Summary is the Escapement Profile (Fig. 2.2). Briefly this Escapement profile contains the following:

- Page A: The first page is a tabular summary of annual escapement by species from 1953 to the most current data year.
- Pages B & C: When five or more years of data are available, graphs and tables of species escapement and spawn timing are displayed.
- Page D: Two diagrams portray average watershed escapement by species, and escapement as a percentage of the Department of Fisheries and Oceans management units - Subdistrict / District / Division.

A detailed description of each page follows.

Escapement Profile: Detailed Description.

Page A:

The first page is a tabular summary of annual escapement by species from 1953 to the most current data year.

Pages B & C:

Pages B & C contain three rows of panels for the five species of salmon plus steelhead. When data are not available, the panel appears blank. The species are always arrayed from left to right in the following order:

sockeye, coho, pink, chum, chinook, steelhead..

The upper row of six panels contain the annual escapement by species for the past twenty years. The middle row of six panels display spawn timing for the same species and period. The vertical bar indicates the annual start and end of spawning, while the lateral connecting line indicates each year's peak of spawning. The lower row of six panels contain the annual escapement and spawn timing data presented in the upper and middle row of panels.

Page D:

This page contains two diagrams:

- The upper pie chart diagram portrays by species the ten year average watershed escapement and proportional species percentage. Pink even and odd year runs have been combined to provide a 10 year mean.
- The lower histogram illustrates the watershed's escapement as a proportion of the Department of Fisheries and Oceans management units (SUB=Subdistrict / DIS=District / DIV=Division).

The escapement information displayed in pages A,B&C, and D of the Escapement Profile was compiled from the Salmon Escapement Data System (SEDS) managed by Department of Fisheries and Oceans Pacific and Biological Station, Nanaimo. The escapement numbers in this system are from the DFO Annual Report of Salmon Streams and Spawning Populations (BC 16) completed by each subdistrict fishery officer/patrolman following annual stream inspections. Wherever possible SEDS data has been revised to incorporate more accurate information (eg. mark/recapture studies) and thereby provide the best escapement numbers available at the time of publishing. The design and layout of the Escapement Profile was cooperatively developed by the SIS Working Group and SEDS managers.

3 BIBLIOGRAPHY

Section 4.0 contains a bibliography of all references used in preparing the Stream Information Summaries. References are arranged both numerically and alphabetically by author. Each citation contains a **reference number**, **author**, **description** including title, date and publisher, **location** where the reference can be obtained and **keywords** describing the reference.

2.4 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 (11" x 17") black and white copies of 1:50,000 topographic maps are contained in Section 5.0 of this catalogue.

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

Watershed Code:
Stream Name:

Page: 1

Stream Name:	A.1	D.F.O. Division:	A.5
Local Name:	A.2	District:	
		Subdistrict:	
		Statistical Subarea:	
Watershed Code:	A.3	M.O.E.P. Region:	A.6
		Management Unit:	

Gradient Class/Location (km upstream from mouth)					Comments
0 - .5%	.5 - 2%	2 - 5%	5 - 10%	>10%	
A.13					

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments

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

Species	Watershed Distribution

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

Species	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

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:

Figure 2.2

Page "A"

ESCAPEMENT : EXAMPLE RIVER

WATERSHED-CODE : 93-1000

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	1500	0	750	400	400
1954	0	3500	1500	1500	400	400
1955	0	3500	0	400	200	750
1956	0	7500	1500	200	25	750
1957	0	7500	N/O	750	200	750
1958	0	15000	750	1500	200	750
1959	0	7500	N/O	750	200	750
1960	75	15000	400	1500	1500	400
1961	75	35000	N/O	400	400	750
1962	75	15000	400	1500	400	0
1963	25	7500	0	400	400	750
1964	25	75000	25	1500	1500	0
1965	1500	15000	0	1500	750	0
1966	1500	15000	0	400	1500	0
1967	1500	35000	750	750	400	0
1968	1500	15000	0	3500	750	0
1969	200	15000	0	200	400	400
1970	3500	75000	0	7500	7500	0
1971	25	7500	0	N/O	400	0
1972	1500	15000	0	3500	3500	0
1973	N/O	15000	0	200	3500	N/O
1974	75	7500	75	N/O	750	0
1975	75	1500	N/O	200	200	N/O
1976	75	750	75	N/O	75	0
1977	200	400	0	25	75	0
1978	200	2850	0	25	50	150
1979	0	3500	25	25	400	0
1980	0	3000	200	100	500	0
1981	N/O	3500	75	200	750	0
1982	400	8400	200	225	775	0
1983	400	7500	200	200	775	0
1984	0	9000	200	500	1200	0
1985	N/O	500	N/O	300	150	0
1986	100	16000	100	10500	487	0
1987	N/O	12000	N/O	2000	600	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

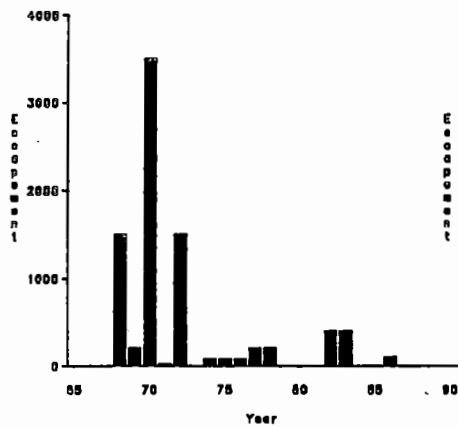
N/O = STREAM INSPECTED, NO FISH OBSERVED

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

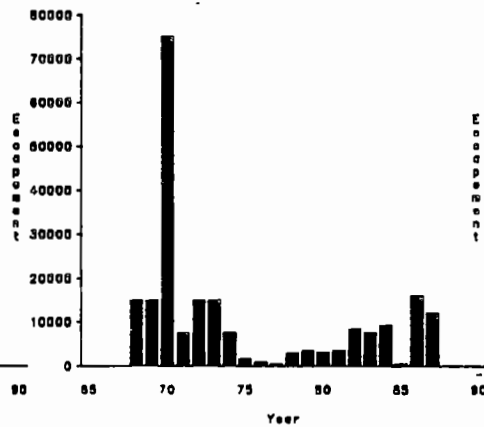
EXAMPLE RIVER (93-1000)

Escapement & Run Timing

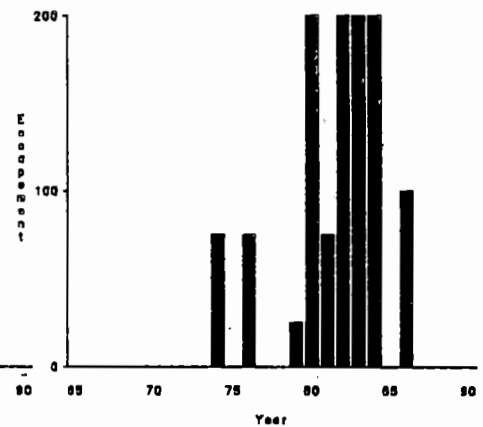
Sockeye (SK)



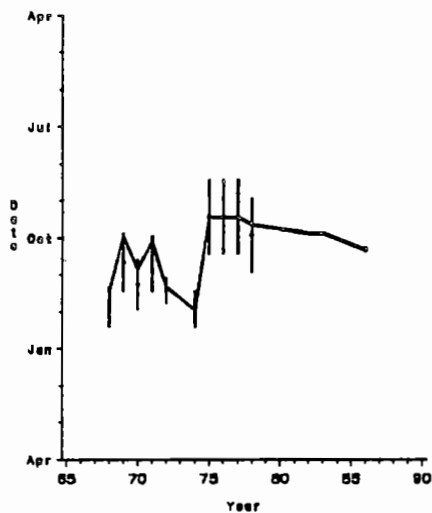
Coho (CO)



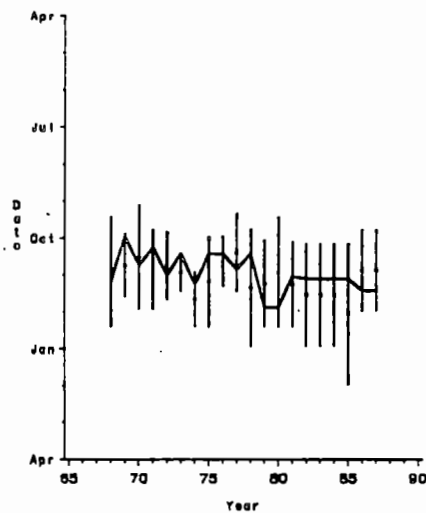
Pink (PK)



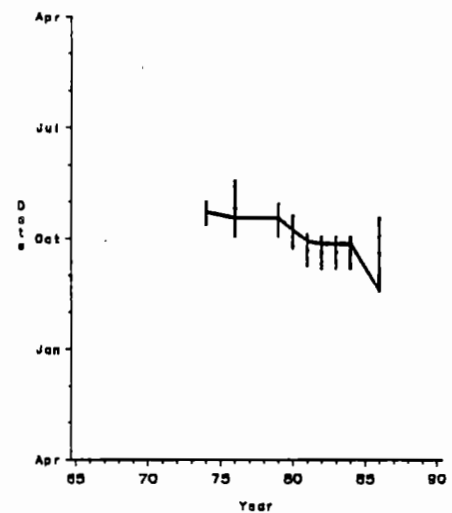
Sockeye



Coho



Pink



Sockeye

Year	Escapement	Start	Peak	End
1966	1,300	12NOV	18NOV	18DEC
1969	100	28SEP	30SEP	18NOV
1970	3,300	20OCT	28OCT	30NOV
1971	25	30SEP	05OCT	13NOV
1972	1,300	04NOV	12NOV	25NOV
1973	0	-	-	-
1974	78	18NOV	01DEC	15DEC
1976	78	18AUG	15SEP	18OCT
1979	73	19AUG	15SEP	19OCT
1977	200	18AUG	15SEP	19OCT
1978	200	30AUG	21SEP	30OCT
1979	0	-	-	-
1980	0	-	-	-
1981	0	-	-	-
1982	400	28SEP	28SEP	28SEP
1983	400	28SEP	28SEP	28SEP
1984	0	-	-	-
1985	0	-	-	-
1986	100	10OCT	12OCT	13OCT
1987	0	-	-	-

Coho

Year	Escapement	Start	Peak	End
1968	16,000	16SEP	07NOV	15DEC
1969	16,000	28SEP	30SEP	10NOV
1970	75,000	05SEP	25OCT	30NOV
1971	7,500	25SEP	18OCT	30NOV
1972	15,000	27SEP	02NOV	12NOV
1973	16,000	10OCT	18OCT	19NOV
1974	7,500	30OCT	10NOV	15DEC
1976	1,500	01OCT	15OCT	15DEC
1978	750	01OCT	13OCT	11NOV
1977	400	12SEP	28OCT	15NOV
1979	1,800	28SEP	15OCT	31DEC
1979	3,000	04OCT	29NOV	15DEC
1980	3,000	16SEP	29NOV	15DEC
1981	3,500	06OCT	03NOV	15DEC
1982	8,400	07OCT	03NOV	31DEC
1983	7,500	07OCT	03NOV	31DEC
1984	9,000	07OCT	03NOV	31DEC
1985	800	07OCT	03NOV	31JAN
1986	16,000	25SEP	15NOV	01DEC
1987	11,000	25SEP	16NOV	01DEC

Pink

Year	Escapement	Start	Peak	End
1968	0	-	-	-
1969	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	78	01SEP	10SEP	20SEP
1975	0	-	-	-
1976	78	19AUG	15SEP	30SEP
1977	0	-	-	-
1978	0	-	-	-
1979	20	03SEP	15SEP	30SEP
1980	200	13SEP	28SEP	10OCT
1981	78	28SEP	04OCT	25OCT
1982	200	30SEP	06OCT	27OCT
1983	200	30SEP	06OCT	27OCT
1984	200	30SEP	06OCT	27OCT
1985	0	-	-	-
1986	100	18SEP	15NOV	15NOV
1987	0	-	-	-

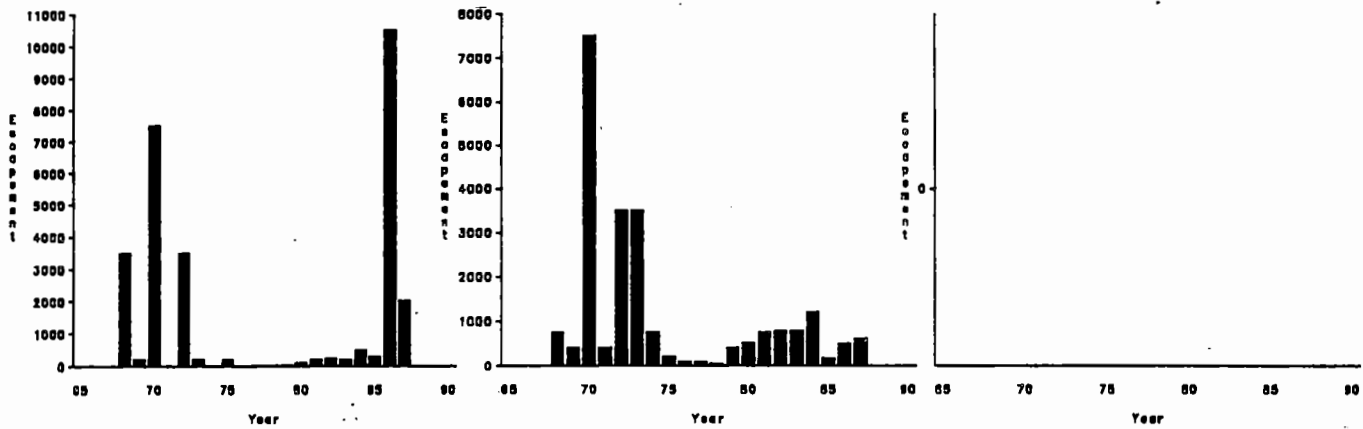
EXAMPLE RIVER (93-1000)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

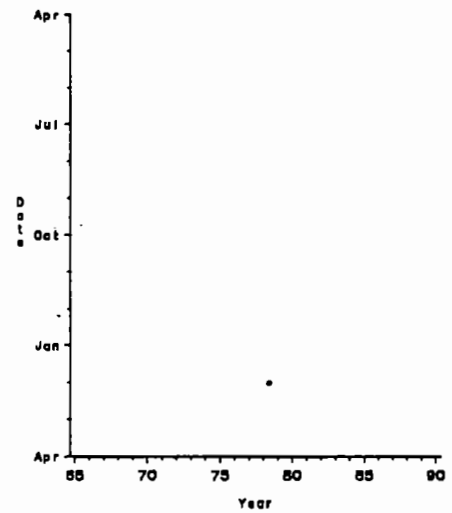
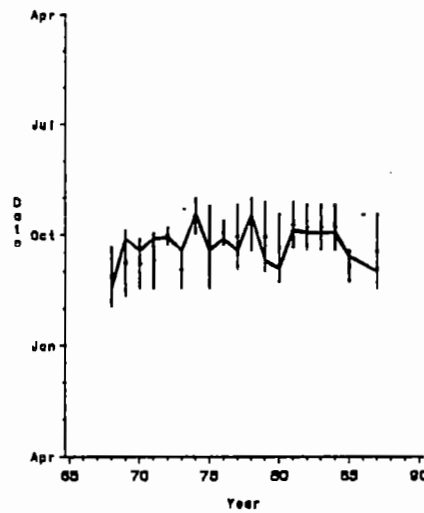
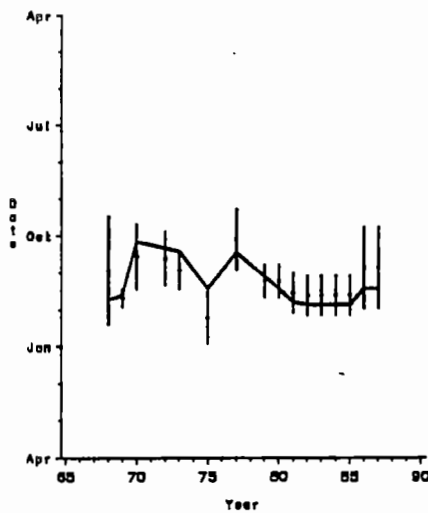
Steelhead (ST)



Chum

Chinook

Steelhead



Chum

Year	Escapement	Start	Peak	End
1966	3,800	18SEP	24NOV	10DEC
1969	200	18NOV	20NOV	30NOV
1970	7,300	22SEP	07OCT	18NOV
1971	0	-	-	-
1972	3,300	29SEP	-	12NOV
1973	200	18OCT	18OCT	18NOV
1974	0	-	-	-
1975	200	17NOV	15NOV	31DEC
1976	0	-	-	-
1977	25	10SEP	10OCT	30OCT
1978	25	-	-	-
1979	28	28OCT	08NOV	22NOV
1980	100	28OCT	15NOV	22NOV
1981	200	02NOV	25NOV	08DEC
1982	225	04NOV	28NOV	07DEC
1983	200	04NOV	28NOV	07DEC
1984	300	04NOV	28NOV	07DEC
1985	300	04NOV	28NOV	07DEC
1986	10,000	28SEP	15NOV	01DEC
1987	3,000	28SEP	15NOV	01DEC

Chinook

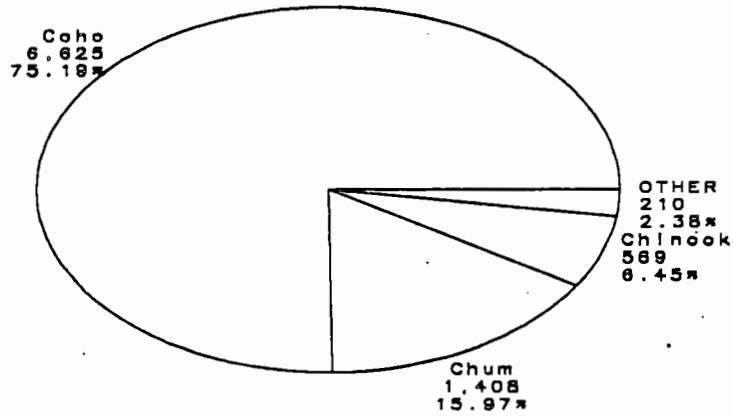
Year	Escapement	Start	Peak	End
1966	750	12OCT	15NOV	20NOV
1969	400	22SEP	08OCT	21NOV
1970	7,300	09OCT	15OCT	15NOV
1971	400	30SEP	03OCT	15NOV
1972	3,300	28SEP	04OCT	10OCT
1973	3,300	18OCT	15OCT	18NOV
1974	750	01SEP	18SEP	01OCT
1975	200	08SEP	18OCT	15NOV
1976	75	20SEP	08OCT	10OCT
1977	75	07SEP	19OCT	30OCT
1978	50	01SEP	15SEP	15OCT
1979	400	08SEP	23OCT	01NOV
1980	500	16SEP	30OCT	10NOV
1981	750	06SEP	28SEP	12OCT
1982	775	07SEP	30SEP	14OCT
1983	775	07SEP	30SEP	14OCT
1984	1,200	07SEP	30SEP	14OCT
1985	100	18OCT	20OCT	10NOV
1986	487	16SEP	-	-
1987	800	16SEP	01NOV	15NOV

Steelhead

Year	Escapement	Start	Peak	End
1966	-	-	-	-
1969	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

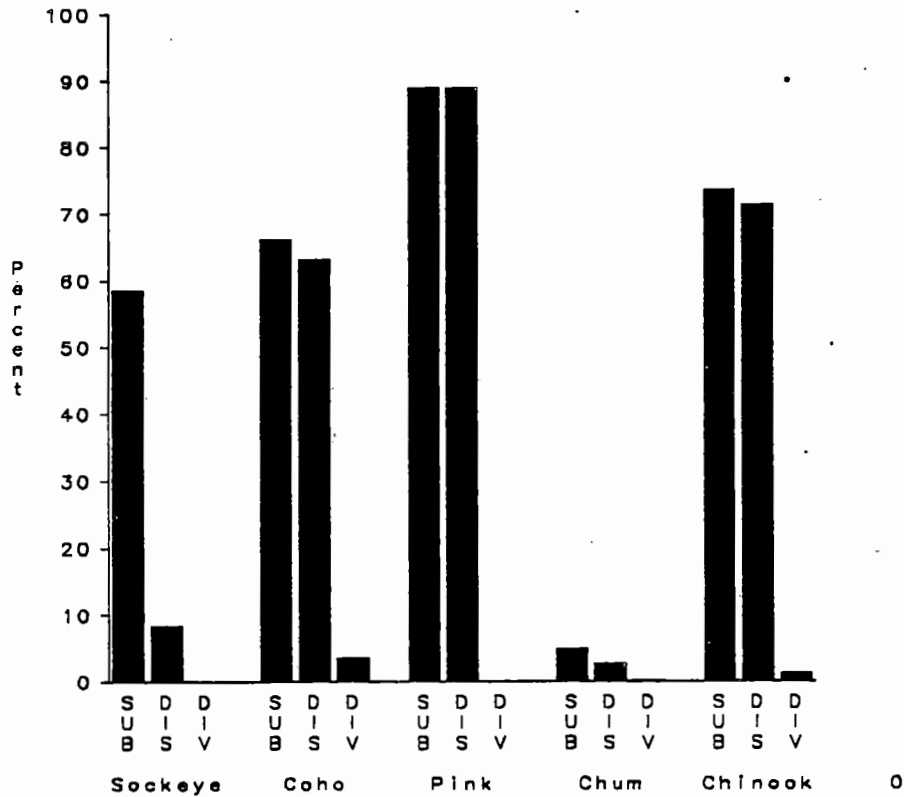
EXAMPLE RIVER (93-1000)

10-yr Mean Escapement
(1978-1987)



EXAMPLE RIVER : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



3.0 STREAM SUMMARY

This section of the catalogue contains Stream Information Summaries and Escapement Profiles arranged in ascending order of watershed code. An index of watershed codes and stream names is found in Section 1.0.

A. DESCRIPTION

Stream Name: KLANAWA RIVER	D.F.O. Division: SOUTH COAST
Local Name:	District: 4 PORT ALBERNI
Watershed Code: 93-1600	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: -
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92C/10 B.C.G.S. (1:20k) Map: 076 U.T.M. Mouth: Lat./Long. Mouth: 48 DG. 41' 59'' 124 DG. 56' 50'' Mainstem Length: 22.5 km Ref. No.: 23-1 Watershed Area: Ref. No.:
		Location: FLows S.W. AND S. INTO PACIFIC OCEAN, W. OF NITINAT LAKE

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	MODERATE GRADIENT (REF. 23-8)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
F FALLS		16.0	AF ALL SPECIES	VARIOUS IMPASSABLE FALLS, LOCATIONS UNKNOWN. (REF. 23-8)

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	THROUGHOUT (REF. 23-8)
CM CHUM SALMON	IN LOWER REACHES, LOWER 5KM (REF. 23-8)
CH CHINOOK SALMON	TO LATE 1970'S (REF. 23-8)
ST STEELHEAD	THROUGHOUT, WINTER RUN (REF. 23-8, REF. 23-13)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	45	1978 - 1987	28A-18	250	28A-18		
CM CHUM SALMON	5	1978 - 1987	28A-18	50	28A-18		
CH CHINOOK SALMON	3	1978 - 1987	28A-18	30	28A-18		

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
NO INFORMATION AVAILABLE				

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	INTENSIVE ONGOING LOGGING (REF. 23-8)
FO FORESTRY	APPROXIMATELY 3.5 KM HAS BEEN HARVESTED WITH OPENINGS IN 1932,42,60-68 AND NUMEROUS UNLOGGED SECTIONS (REF. 23-2)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

DON'T KNOW A LOT ABOUT THIS SYSTEM SINCE IT ONLY JUST BECAME ACCESSIBLE (REF. 23-8)
THERE IS APPROXIMATELY 5 KM OF GOOD REARING AREA ABOVE THE OBSTRUCTION ON THE NORTH FORK. (REF. 23-1)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:

K. SIS COMPLETED BY

Completed by:	GITA KAPAHU	Date:	1989/03/06
Last updated by:	VIOLET KOMORI	Date:	1990/03/28
Last checked by:	VIOLET KOMORI	Date:	1990/03/27

ESCAPEMENT: KLANAWA RIVER

WATERSHED-CODE: 93-1600

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	0	0	0	0	0
1954	0	400	0	3500	0	0
1955	0	0	0	0	0	0
1956	0	0	0	1500	0	0
1957	0	0	0	0	0	0
1958	0	0	0	0	0	0
1959	0	0	0	0	0	0
1960	0	0	0	200	0	0
1961	0	0	0	750	0	0
1962	0	0	0	400	0	0
1963	0	400	0	0	0	0
1964	0	750	0	400	0	200
1965	0	400	0	0	0	0
1966	0	750	0	400	0	0
1967	0	200	0	400	0	0
1968	0	750	0	400	0	0
1969	0	400	0	0	0	0
1970	0	200	0	0	0	0
1971	0	25	0	0	0	0
1972	0	25	0	0	0	0
1973	0	75	0	0	0	0
1974	0	200	0	0	0	0
1975	0	200	0	150	75	0
1976	0	125	0	45	0	0
1977	0	195	0	0	0	40
1978	0	250	0	0	30	0
1979	0	195	0	50	0	0
1980	0	0	0	0	0	0
1981	0	0	0	0	0	0
1982	0	0	0	0	0	0
1983	0	0	0	0	0	0
1984	0	0	0	0	0	0
1985	0	0	0	0	0	0
1986	0	0	0	0	0	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

A. DESCRIPTION

Stream Name: PACHENA RIVER	D.F.O. Division: SOUTH COAST
Local Name:	District: 4 PORT ALBERNI
Watershed Code: 93-1800	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-1
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92C/14
		B.C.G.S. (1:20k) Map: 085
		U.T.M. Mouth:
		Lat./Long. Mouth: 48 DG. 48' 28" 125 DG. 06' 45"
		Mainstem Length: 8.9 km Ref. No.: 23-1
		Watershed Area: 31.0 km ² Ref. No.: 23-1
Location: FLOWS S.W. INTO PACHENA BAY, S.E. OF BARKLEY SOUND, BARCLAY DIST.		

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	LOW GRADIENT (REF. 23-8, REF. 23-13)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
X LOG JAMS				LOG JAMS THROUGHOUT (REF. 23-8)
F FALLS				THROUGHOUT SYSTEM ON TRIBUTARIES (REF. 23-8)
F FALLS		8.9		(REF. 23-8)

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	THROUGHOUT TO FALLS (REF. 23-8, REF. 23-11)
CM CHUM SALMON	LOWER MAINSTEM (REF. 23-8)
ST STEELHEAD	THROUGHOUT TO FALLS (REF. 23-8, REF. 23-11)
CT CUTTHROAT TROUT	THROUGHOUT TO FALLS AND IN LAKE (REF. 23-8, REF. 23-11)
RB RAINBOW TROUT	THROUGHOUT TO FALLS AND IN LAKE (REF. 23-8, REF. 23-11)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	400	1978 - 1987	28A-18	900	28A-18		

E. ESCAPEMENT SUMMARY CONTINUED

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CH CHUM SALMON	197	1978 - 1987	28A-18	500	28A-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 X	X
CH 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
BX INCUBATION BOX	CO COHO SALMON	0.0	ON SOUTH PACHENA RIVER (P.I.P.) (REF. 23-8)	1983/1984
BX INCUBATION BOX	CO COHO SALMON	0.0	INSTALLED BY A LOCAL BAWFIELD GROUP (REF. 23-1)	1977/1977

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FD FORESTRY	INTENSIVE LOGGING THROUGHOUT WATERSHED (ONGOING) (REF. 23-2, REF. 23-8)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

HEAVY POACHING ON MOUTH OF RIVER (REF. 23-8)
THIS WATERSHED HAS MANY INACCESSIBLE TRIBUTARIES AND SWAMPY AREAS (REF. 23-1)
NOT A MAJOR STEELHEAD PRODUCER (REF. 23-13)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:

K. SIS COMPLETED BY

Completed by: GITA KAPAH	Date: 1989/03/08
Last checked by: VIOLET KOMORI	Date: 1990/03/29

ESCAPEMENT: PACHENA RIVER

WATERSHED-CODE: 93-1800

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	400	0	750	0	200
1954	0	1500	0	1500	0	200
1955	0	1500	0	400	0	200
1956	0	200	0	400	0	0
1957	0	1500	0	1500	0	200
1958	0	750	0	750	0	UNK
1959	0	400	0	400	0	200
1960	0	200	0	75	0	200
1961	0	750	0	400	0	200
1962	0	200	0	200	0	200
1963	0	75	0	200	0	200
1964	0	750	0	200	0	200
1965	0	200	0	200	0	0
1966	0	200	0	750	0	0
1967	0	200	0	1500	0	0
1968	0	750	0	750	0	0
1969	0	400	0	75	0	0
1970	0	750	0	75	0	200
1971	0	400	0	N/O	0	75
1972	0	400	0	200	0	0
1973	0	400	0	200	0	0
1974	0	400	0	200	0	0
1975	0	200	0	75	0	0
1976	0	250	0	400	0	0
1977	0	750	0	150	0	0
1978	0	900	0	500	0	0
1979	0	300	0	90	0	0
1980	UNK	UNK	UNK	UNK	UNK	UNK
1981	UNK	UNK	UNK	UNK	UNK	UNK
1982	UNK	UNK	UNK	UNK	UNK	UNK
1983	0	UNK	0	UNK	0	0
1984	0	UNK	0	UNK	0	0
1985	UNK	UNK	UNK	UNK	UNK	0
1986	0	UNK	0	UNK	0	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

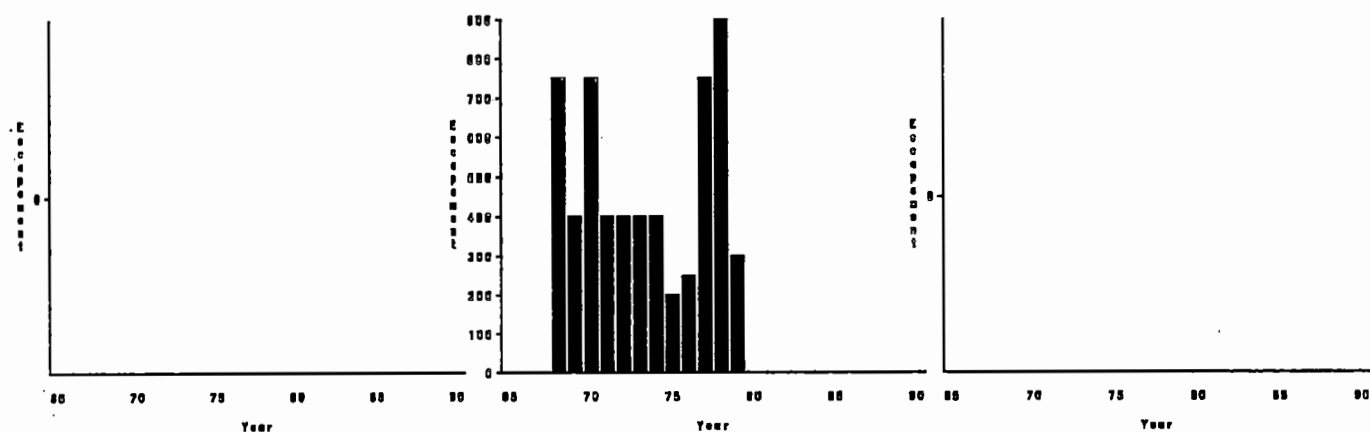
PACHENA RIVER (93-1800)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

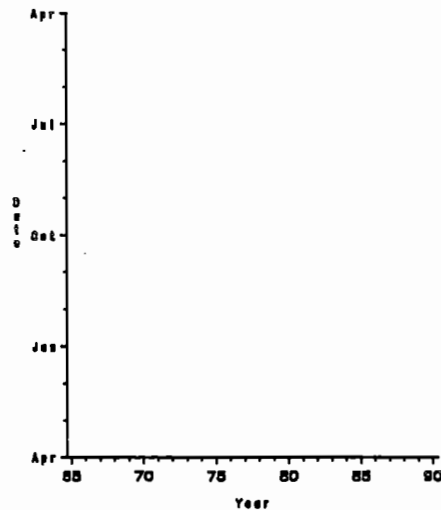
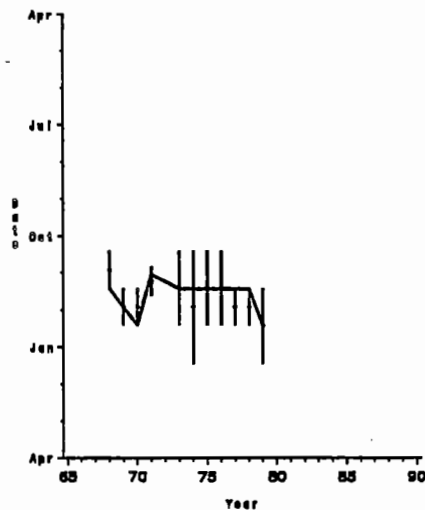
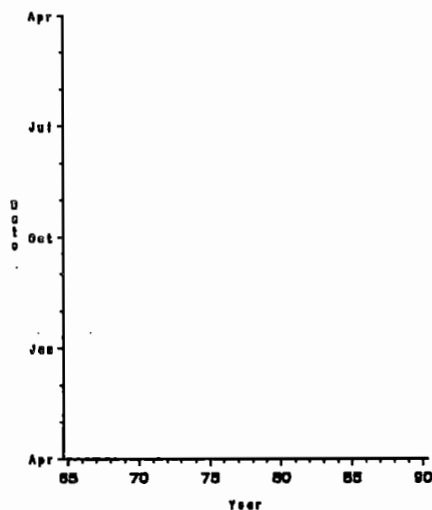
Pink (PK)



Sockeye

Coho

Pink



Sockeye				
Year	Escapement	Start	Peak	End
1965	0	-	-	-
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	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Coho				
Year	Escapement	Start	Peak	End
1965	750	196CT	196NOV	196NOV
1966	420	196NOV	196NOV	196DEC
1967	750	196NOV	196DEC	196DEC
1968	400	196CT	196NOV	196NOV
1969	400	-	-	-
1970	400	196CT	196NOV	196DEC
1971	400	196CT	196NOV	196DEC
1972	400	196CT	196NOV	196DEC
1973	400	196CT	196NOV	196DEC
1974	400	196CT	196NOV	196DEC
1975	300	196CT	196NOV	196DEC
1976	250	196CT	196NOV	196DEC
1977	750	196NOV	196NOV	196DEC
1978	800	196NOV	196NOV	196DEC
1979	300	196NOV	196DEC	196JAN
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Pink				
Year	Escapement	Start	Peak	End
1965	0	-	-	-
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	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

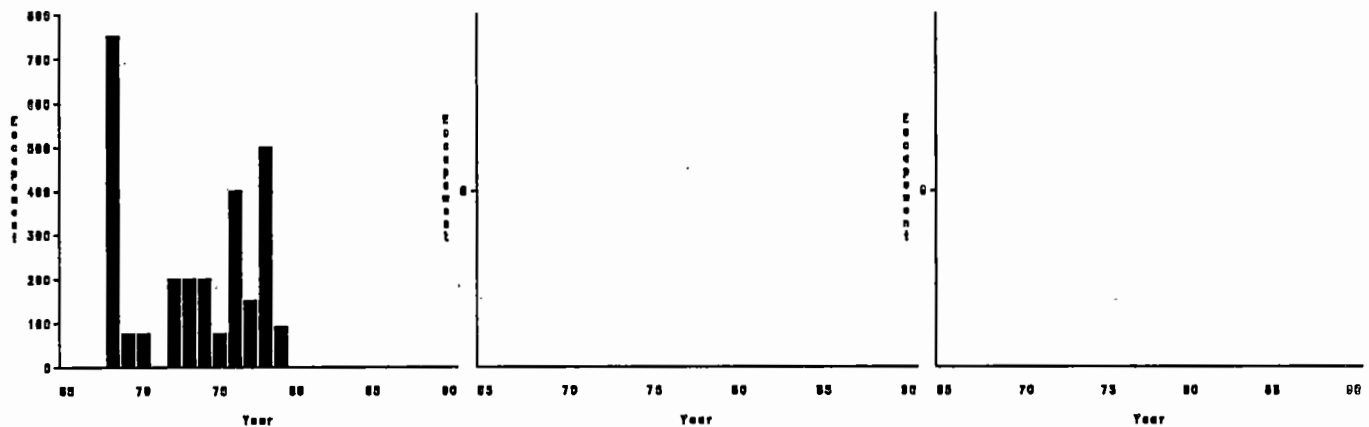
PACHENA RIVER (93-1800)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

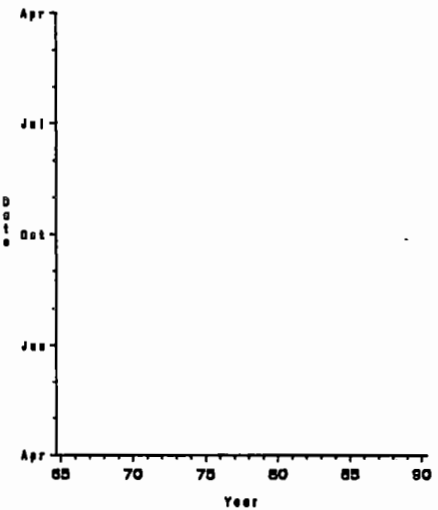
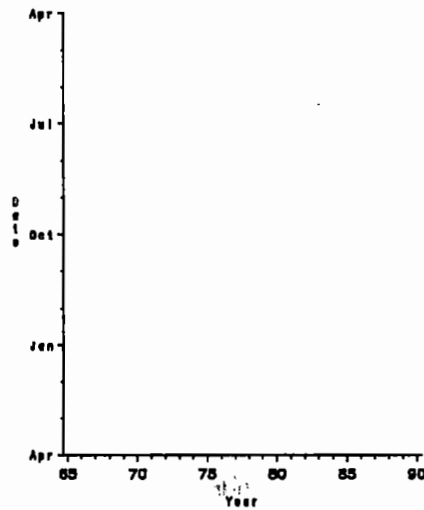
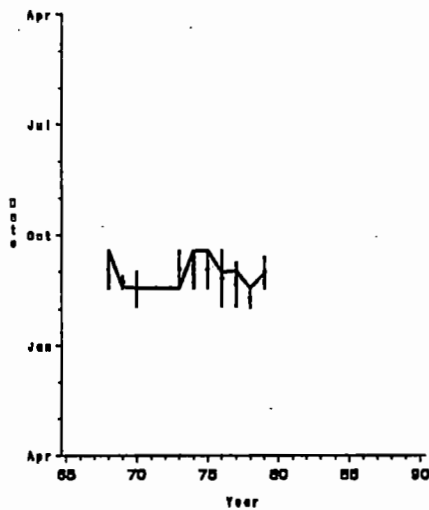
Steelhead (ST)



Chum

Chinook

Steelhead



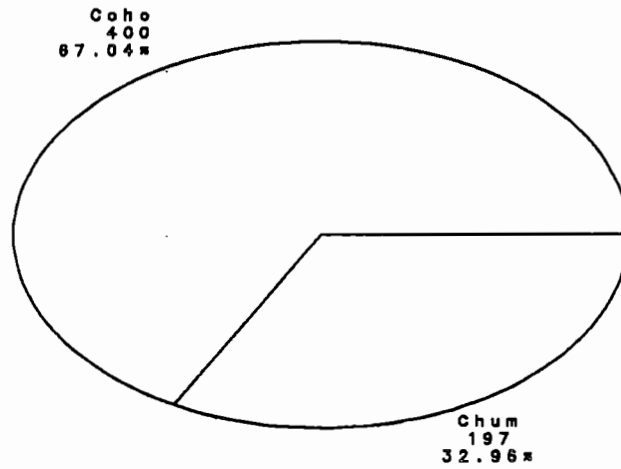
Chum				
Year	Escapement	Start	Peak	End
1966	750	12OCT	18OCT	18NOV
1968	78	02NOV	14NOV	18NOV
1970	78	01NOV	15NOV	30NOV
1971	0	-	-	-
1972	200	-	-	-
1973	200	18OCT	18NOV	13NOV
1974	200	18OCT	18OCT	18NOV
1975	70	18OCT	18OCT	18NOV
1976	400	18OCT	02NOV	30NOV
1977	150	23OCT	01NOV	30NOV
1978	300	18NOV	19NOV	01DEC
1979	90	20OCT	03NOV	18NOV
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Chinook				
Year	Escapement	Start	Peak	End
1966	0	-	-	-
1968	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Steelhead				
Year	Escapement	Start	Peak	End
1966	-	-	-	-
1968	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

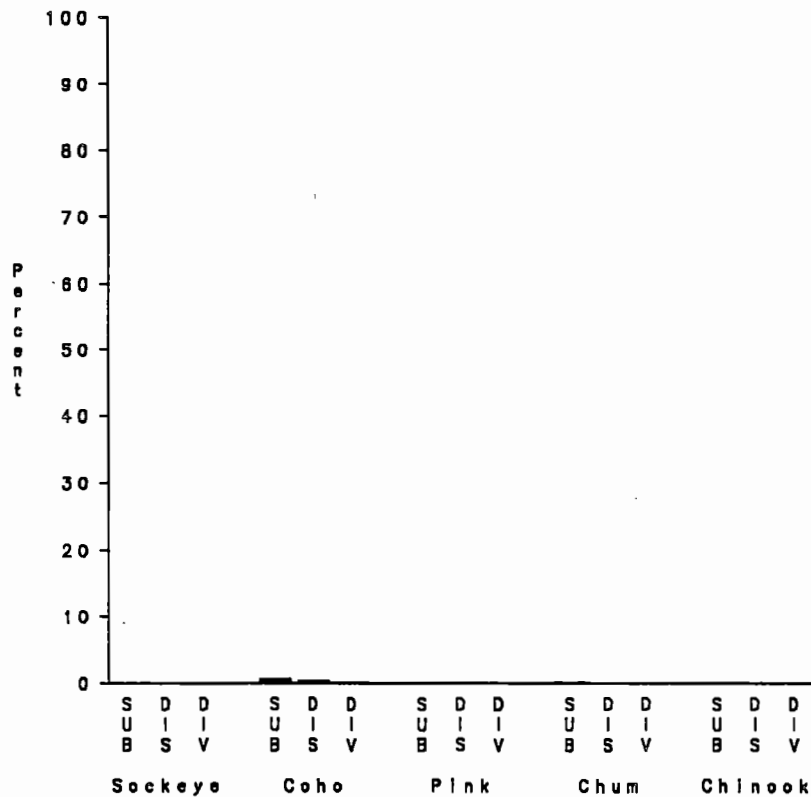
PACHENA RIVER. (93-1800)

10-yr Mean Escapement
(1978-1987)



PACHENA RIVER : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(1e Subdistrict, District & Division)



Stream Name: SUSSAM CREEK	D.F.O. Division: SOUTH COAST
Local Name: GRAPPLER CREEK	District: 4 PORT ALBERNI
	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-4
Watershed Code: 93-1900	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit: .

Tributaries	Code	Topographic (1:50k) Map: 92C/14 B.C.G.S. (1:20k) Map: 085 U.T.M. Mouth: Lat./Long. Mouth: 48 06. 50' 17'' 125 06. 06' 20'' 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%	

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
F FALLS	9.0	0.6	AF ALL SPECIES	(REF. 23-8)

Flow Control:	Water Survey of Canada (WSC) Flow Gauge: Y		
W.S.C. Station No. 1: 08HB076	No. 2:	No. 3:	No. 4:

Species	Watershed Distribution
CO COHO SALMON	PRESENCE NOTED. (REF. 23-1)
CM CHUM SALMON	TO FALLS (REF. 23-8)
ST STEELHEAD	HISTORICAL PRESENCE NOTED (REF. 28A-18)

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	54	1978 - 1987	28A-18	140	28A-18		
CH CHUM SALMON	4838	1978 - 1987	28A-18	14000	28A-18		

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

F. LIFE HISTORY TIMING CONTINUED

Species	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CHUM 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
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 KAPAHI	Date: 1989/03/08
Last checked by: VIOLET KOMORI	Date: 1990/03/29

ESCAPEMENT: SUGSAW CREEK

WATERSHED-CODE: 93-1900

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	0	0	3500	0	0
1954	0	25	0	3500	0	25
1955	0	25	0	7500	0	25
1956	0	25	0	3500	0	25
1957	0	25	0	3500	0	25
1958	0	25	0	3500	0	25
1959	0	25	0	3500	0	25
1960	0	25	0	1500	0	25
1961	0	25	0	1500	0	25
1962	0	25	0	1500	0	0
1963	0	25	0	1500	0	25
1964	0	25	0	1500	0	25
1965	0	25	0	750	0	0
1966	0	25	0	1500	0	0
1967	0	75	0	750	0	0
1968	0	200	0	1500	0	0
1969	0	75	N/O	3500	0	0
1970	0	75	0	400	0	0
1971	0	75	0	1500	0	0
1972	0	25	0	750	0	0
1973	0	200	0	1500	0	0
1974	0	75	0	4000	0	0
1975	0	40	0	4000	0	0
1976	0	50	0	400	0	0
1977	0	160	0	6000	0	0
1978	0	140	0	14000	0	0
1979	0	75	0	2000	0	0
1980	0	N/O	0	11000	0	0
1981	0	UNK	0	7000	0	0
1982	0	UNK	0	3200	0	0
1983	0	UNK	0	UNK	0	0
1984	0	UNK	0	UNK	0	0
1985	UNK	UNK	UNK	500	UNK	0
1986	0	UNK	UNK	1000	UNK	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

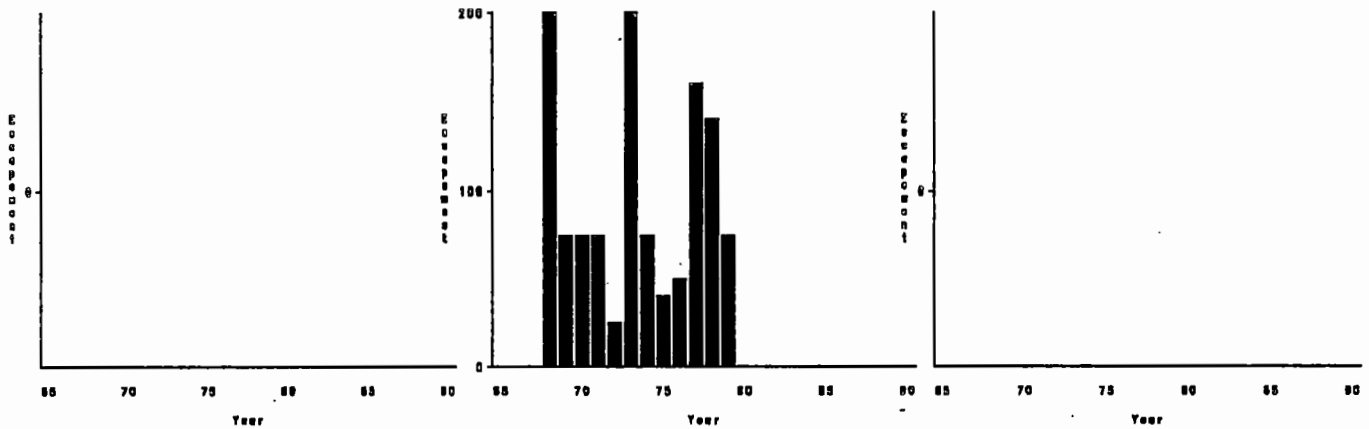
SUGSAW CREEK (93-1900)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

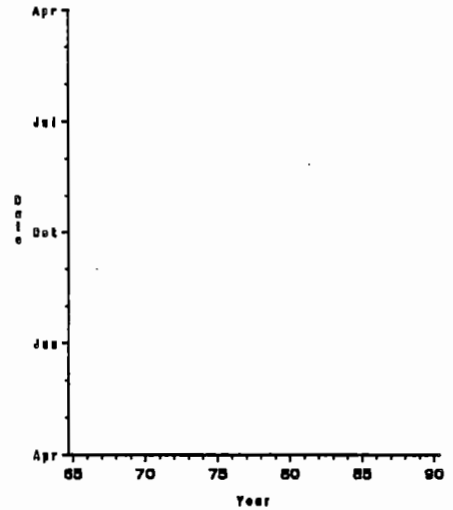
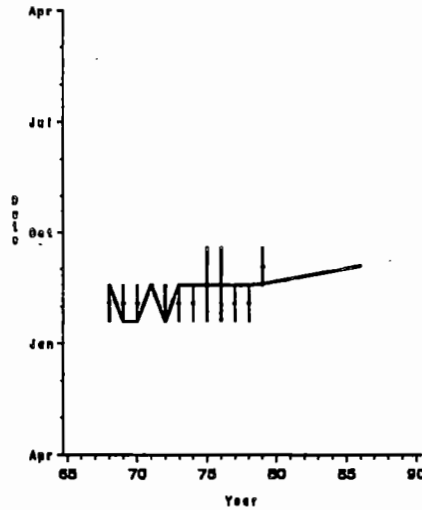
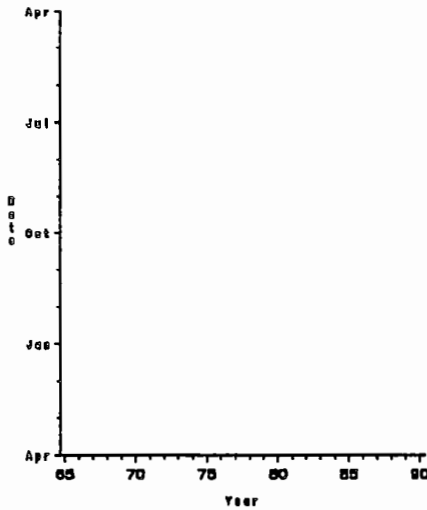
Pink (PK)



Sockeye

Coho

Pink



Sockeye				
Year	Escapement	Start	Peak	End
1965	0	-	-	-
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	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Coho				
Year	Escapement	Start	Peak	End
1965	200	18NOV	18NOV	18DEC
1966	70	18NOV	18DEC	18DEC
1967	70	18NOV	18DEC	18DEC
1968	70	18NOV	18NOV	18NOV
1969	200	18NOV	18DEC	18DEC
1970	200	18NOV	18NOV	18DEC
1971	70	18NOV	18NOV	18DEC
1972	20	18NOV	18DEC	18DEC
1973	200	18NOV	18NOV	18DEC
1974	70	18NOV	18NOV	18DEC
1975	40	18NOV	18NOV	18DEC
1976	50	18NOV	18NOV	18DEC
1977	180	18NOV	18NOV	18DEC
1978	140	18NOV	18NOV	18DEC
1979	70	18NOV	18NOV	18NOV
1980	0	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	30OCT	-
1987	0	-	-	-

Pink				
Year	Escapement	Start	Peak	End
1965	0	-	-	-
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	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

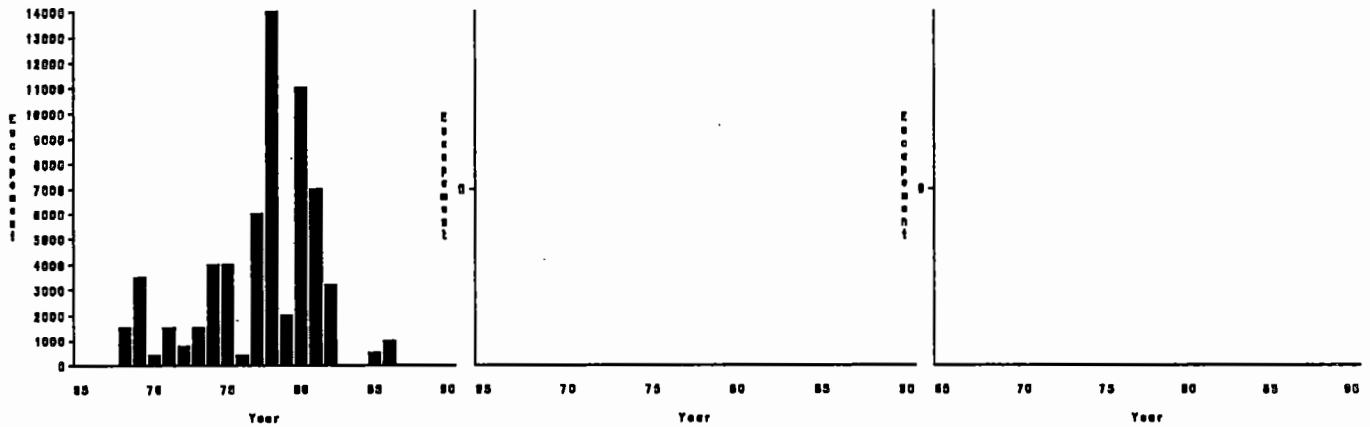
SUGSAW CREEK (93-1900)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

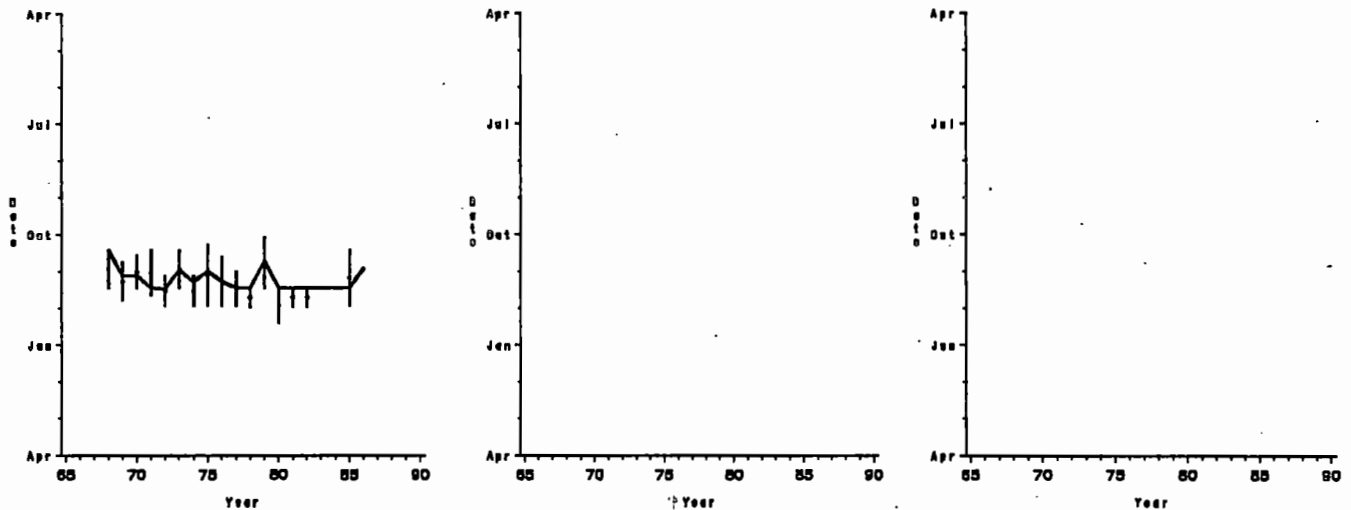
Steelhead (ST)



Chum

Chinook

Steelhead



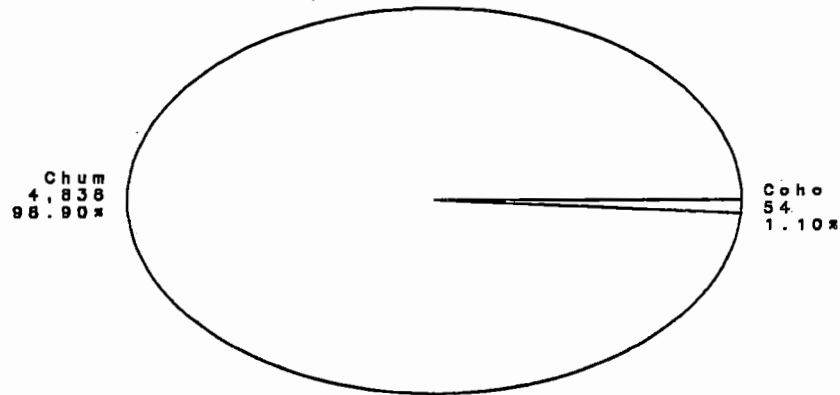
Chum				
Year	Escapement	Start	Peak	End
1966	1,000	18OCT	18OCT	18NOV
1968	3,000	28OCT	28NOV	28NOV
1970	400	18OCT	18NOV	18NOV
1971	1,000	18OCT	18NOV	21NOV
1972	750	01NOV	10NOV	30NOV
1973	1,000	18OCT	31OCT	18NOV
1974	4,000	08NOV	18NOV	30NOV
1976	4,000	18OCT	01NOV	30NOV
1978	400	28OCT	18NOV	30NOV
1977	6,000	01NOV	15NOV	30NOV
1978	14,000	18NOV	15NOV	01DEC
1979	3,000	04OCT	24OCT	18NOV
1980	11,000	18NOV	15NOV	12DEC
1981	7,000	18NOV	18NOV	01DEC
1982	3,200	18NOV	15NOV	01DEC
1983	-	-	-	-
1984	-	-	-	-
1985	500	18OCT	15NOV	30NOV
1986	1,000	-	30OCT	-
1987	0	-	-	-

Chinook				
Year	Escapement	Start	Peak	End
1966	0	-	-	-
1968	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1976	0	-	-	-
1978	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	0	-	-	-
1981	0	-	-	-
1982	0	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Steelhead				
Year	Escapement	Start	Peak	End
1966	-	-	-	-
1968	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1976	-	-	-	-
1978	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

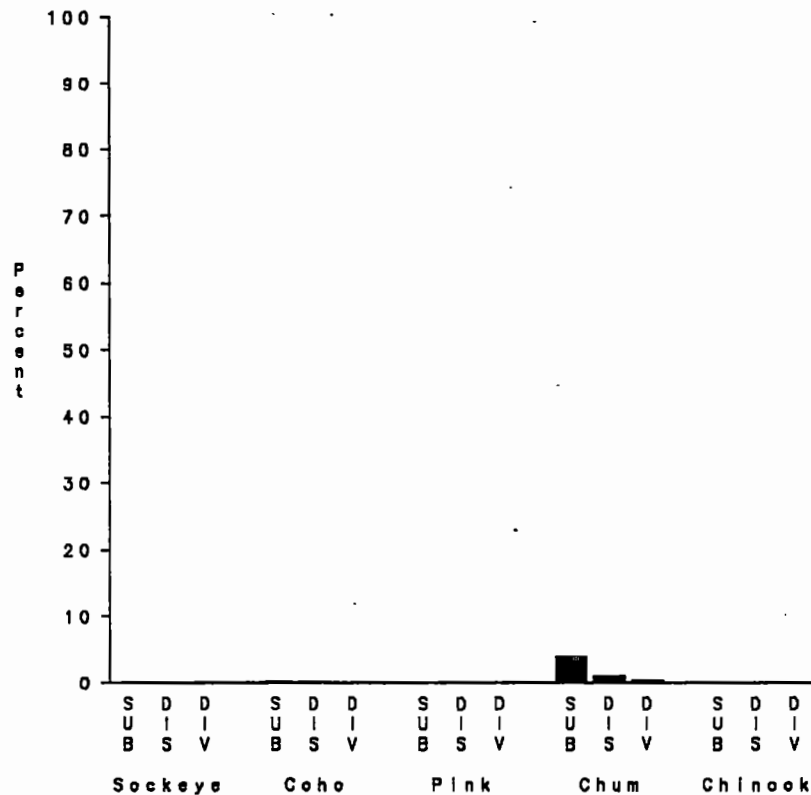
SUGSAW CREEK (93-1900)

10-yr Mean Escapement
(1978-1987)



SUGSAW CREEK : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



Stream Name:	UNNAMED CREEK	D.F.O. Division:	SOUTH COAST
Local Name:	POETT NOOK CREEK	District:	4 PORT ALBERNI
		Subdistrict:	23 PORT ALBERNI
		Statistical Subarea:	23-4
Watershed Code:	93-1975	M.O.E.P. Region:	1 VANCOUVER ISLAND
		Management Unit:	

Tributaries	Code	Topographic (1:50k) Map: 92C/14 B.C.G.S. (1:20k) Map: 085 U.T.M. Mouth: Lat./Long. Mouth: 48 DG. 52' 31'' 125 DG. 00' 08'' Mainstem Length: 2.4 km Ref. No.: 23-1 Watershed Area: 6.5 km2 Ref. No.: 23-1
		Location: FLOWS N.E. INTO POETT NOOK, SOUTH OF CHRISTIE BAY, BARKLEY DIST.

Gradient Class/Location (km upstream from mouth)						Comments
0 - .5%	.5 - 2%	2 - 5%	5 - 10%	>10%		LOW GRADIENT, BECOMES STEEP (REF. 23-8)

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

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

Species	Watershed Distribution
CO COHO SALMON	THROUGHOUT (REF. 23-8)
CM CHUM SALMON	LOWER 1.3 KM (REF. 23-8)

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	33	1978 - 1987	28A-18	100	28A-18		
CN CHUM SALMON	386	1978 - 1987	28A-18	1000	28A-18		

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

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	

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	ONGOING LOGGING (REF. 23-2, REF. 23-8)
WQ WATER QUALITY	MARINA CAMPGROUND AT MOUTH AFFECTS SYSTEM (REF. 23-8)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

HEAVY BEAR AND WOLF PREDATION (REF. 23-8)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:

K. SIS COMPLETED BY

Completed by: GITA KAPAH	Date: 1989/03/08
Last checked by: VIOLET KOWORI	Date: 1990/03/29

ESCAPEMENT: POETT NOOK CREEK

WATERSHED-CODE: 93-1975

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	TEELHEAD
1953	0	200	0	200	0	0
1954	0	75	0	400	0	0
1955	0	75	0	200	0	0
1956	0	25	0	750	0	0
1957	0	25	0	400	0	0
1958	0	75	0	750	0	0
1959	0	25	0	400	0	0
1960	0	25	0	200	0	0
1961	0	25	0	75	0	0
1962	0	25	0	400	0	0
1963	0	25	0	25	0	0
1964	0	75	0	200	0	0
1965	0	25	0	75	0	0
1966	0	25	0	400	0	0
1967	0	200	0	200	0	0
1968	0	200	0	750	0	0
1969	0	75	0	400	0	0
1970	0	200	0	750	0	0
1971	0	75	0	750	0	0
1972	0	25	0	750	0	0
1973	0	200	0	400	0	0
1974	0	75	0	1000	0	0
1975	0	40	0	650	0	0
1976	0	90	0	600	0	0
1977	0	110	0	520	0	0
1978	0	100	0	1000	0	0
1979	0	80	0	100	0	0
1980	UNK	UNK	UNK	UNK	UNK	UNK
1981	0	0	0	500	0	0
1982	0	20	0	800	0	0
1983	0	0	0	UNK	0	0
1984	0	UNK	0	50	0	0
1985	UNK	UNK	UNK	255	UNK	0
1986	0	UNK	0	UNK	0	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

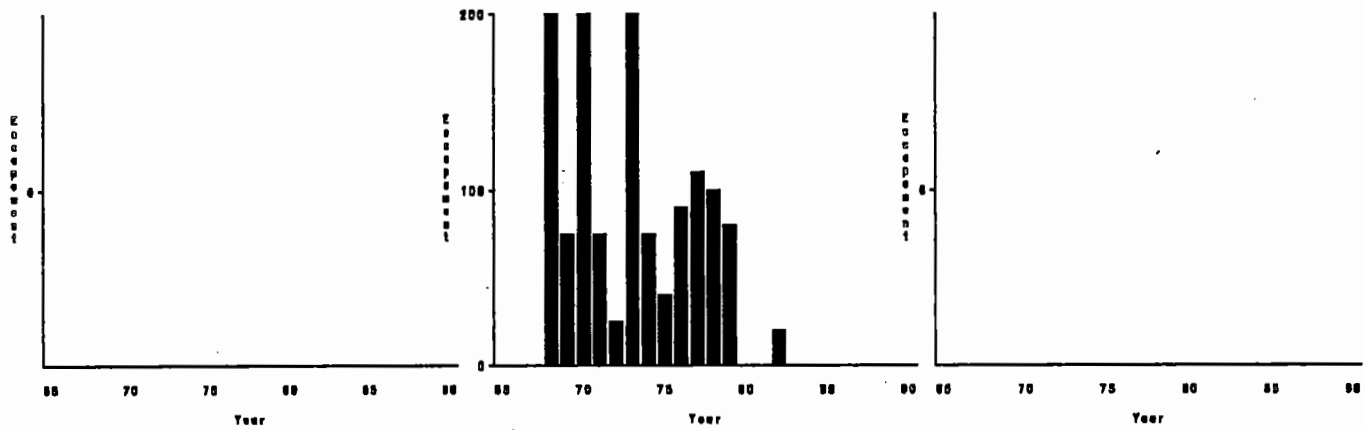
UNNAMED C (93-1975)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

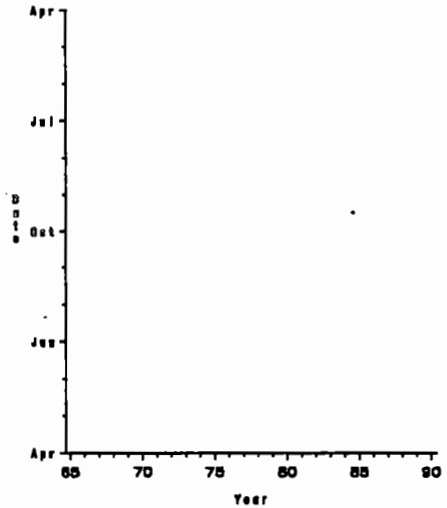
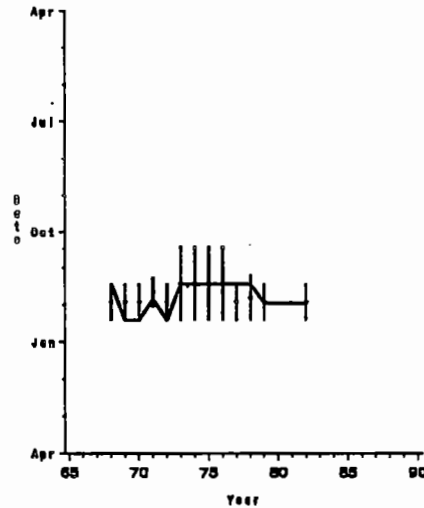
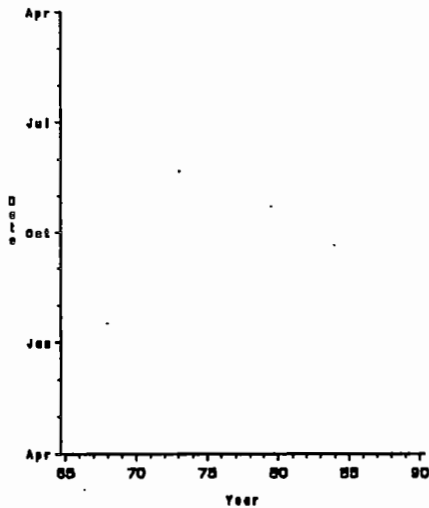
Pink (PK)



Sockeye

Coho

Pink



Sockeye				
Year	Escapement	Start	Peak	End
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	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Coho				
Year	Escapement	Start	Peak	End
1968	200	18NOV	18NOV	18DEC
1969	70	18NOV	18DEC	18DEC
1970	200	18NOV	18DEC	18DEC
1971	70	18NOV	20NOV	03DEC
1972	35	18NOV	18DEC	18DEC
1973	200	18OCT	18NOV	18DEC
1974	75	18OCT	18NOV	18DEC
1975	40	18OCT	18NOV	18DEC
1976	60	18OCT	18NOV	18DEC
1977	110	18NOV	18NOV	18DEC
1978	100	08NOV	18NOV	18DEC
1979	90	18NOV	01DEC	18DEC
1980	-	-	-	-
1981	0	-	-	-
1982	20	18NOV	01DEC	18DEC
1983	0	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Pink				
Year	Escapement	Start	Peak	End
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	-	-	-
1986	0	-	-	-
1987	0	-	-	-

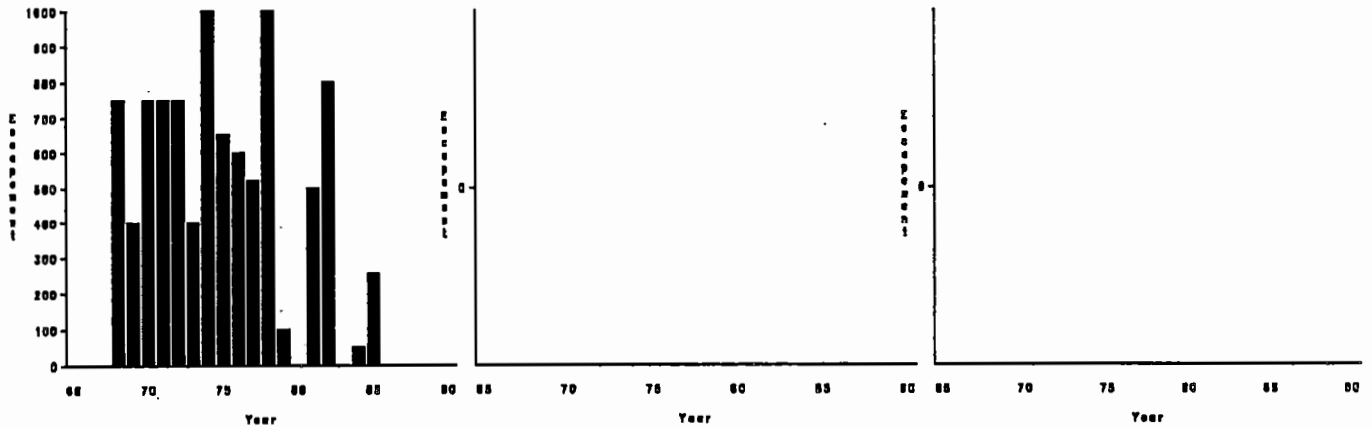
UNNAMED C (93-1975)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

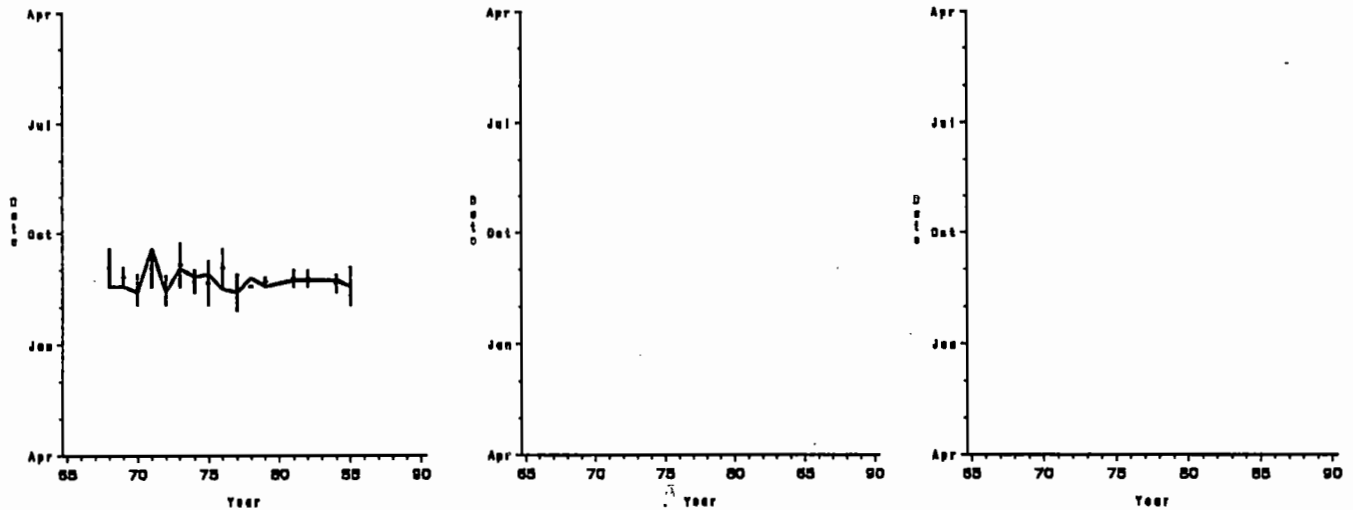
Steelhead (ST)



Chum

Chinook

Steelhead



Chum

Chinook

Steelhead

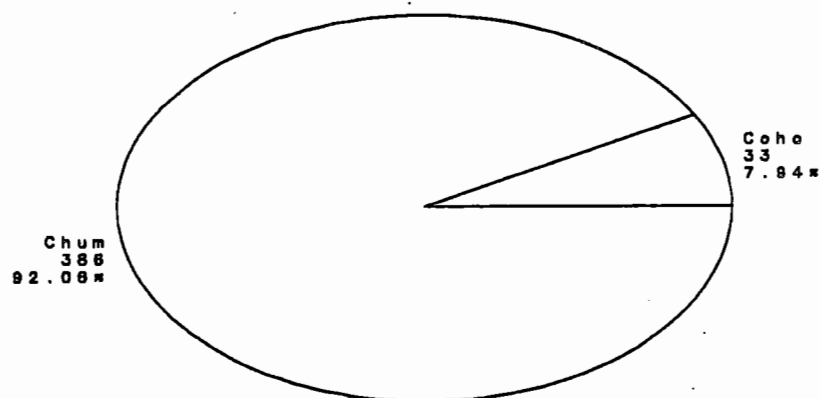
Year	Escapement	Start	Peak	End
1966	700	12OCT	18NOV	18NOV
1966	400	30OCT	10NOV	18NOV
1970	750	05NOV	20NOV	30NOV
1971	750	12OCT	15OCT	18NOV
1972	750	08NOV	20NOV	30NOV
1973	400	10OCT	21OCT	18NOV
1974	1,000	01NOV	07NOV	20NOV
1975	850	20OCT	08NOV	30NOV
1976	600	13OCT	17NOV	18NOV
1977	320	05NOV	20NOV	05DEC
1978	1,400	18NOV	08NOV	18NOV
1979	100	07NOV	18NOV	18NOV
1980	-	-	-	-
1981	200	01NOV	10NOV	18NOV
1982	300	01NOV	10NOV	18NOV
1983	-	-	-	-
1984	50	05NOV	18NOV	20NOV
1985	200	20OCT	18NOV	30NOV
1986	-	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1966	0	-	-	-
1966	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	-	-	-	-
1981	0	-	-	-
1982	0	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1966	-	-	-	-
1966	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

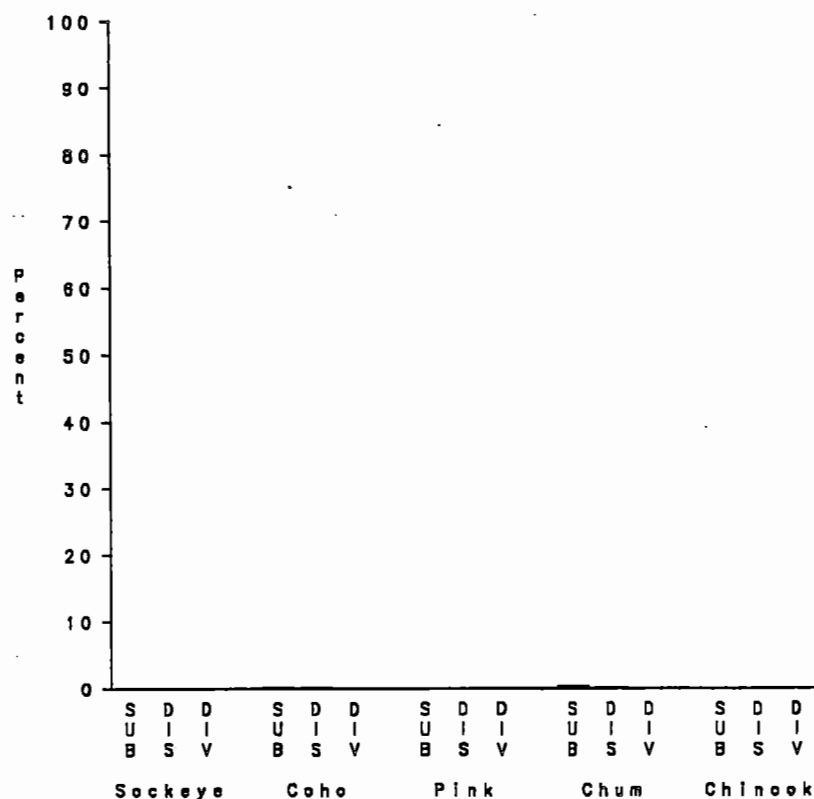
UNNAMED C (93-1975)

10-yr Mean Escapement
(1978-1987)



UNNAMED C : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



Stream Name: SARITA RIVER	D.F.O. Division: SOUTH COAST
Local Name:	District: 4 PORT ALBERNI
	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-4
Watershed Code: 93-2000	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92C/14 B.C.G.S. (1:20k) Map: 085
UNNAMED CREEK	020	U.T.M. Mouth: Lat./Long. Mouth: 48 DG. 53' 53" 125 DG. 00' 05" Mainstem Length: 9.7 km Ref. No.: 23-1 Watershed Area: 160.6 km2 Ref. No.: 23-1
		Location: FLOWS S.W AND N.W. INTO NAMUKAMIS BAY, E. OFF TZARTUS ISLAND., BARKLEY DIST.

Gradient Class/Location (km upstream from mouth)						Comments
0 - .5%	.5 - 2%	2 - 5%	5 - 10%	>10%	LOW GRADIENT (REF. 23-8)	

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
F FALLS	15.0	9.7	AF ALL SPECIES	(REF. 23-8)
F FALLS	3.0	12.3	AF ALL SPECIES	SOUTH SARITA (REF. 23-13)

Flow Control:	Water Survey of Canada (WSC) Flow Gauge: Y		
W.S.C. Station No. 1: 08HB014	No. 2:	No. 3:	No. 4:
Comments: USED TO BE AFLASHY SYSTEM, BUT IT IS STARTING TO STABILIZE (REF. 23-8)			

Species	Watershed Distribution
SK SOCKEYE SALMON	PRESENT (REF. 28A-18)
CO COHO SALMON	THROUGHOUT TO BARRIER (REF. 23-8)
PK PINK SALMON	PRESENT (REF. 23-2)
CM CHUM SALMON	THROUGHOUT MAINSTEM AND LOWER REACHES OF SOUTH FORK (REF. 23-8)
CH CHINOOK SALMON	MAINSTEM (REF. 23-8)
ST STEELHEAD	THROUGHOUT TO BARRIER (REF. 23-8)
CT CUTTHROAT TROUT	PRESENT (REF. 23-8, REF. 23-13)
RB RAINBOW TROUT	IN LAKE (REF. 23-13)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
SK SOCKEYE SALMON	21	1978 - 1987	28A-18	150	28A-18		
CO COHO SALMON	262	1978 - 1987	28A-18	750	28A-18		
PK PINK SALMON	17	1978 - 1987	28A-18	50	28A-18		
CH CHUM SALMON	28567	1978 - 1987	28A-18	67000	28A-18		
CH CHINOOK SALMON	211	1978 - 1987	28A-18	400	28A-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									X	X X	X X
PK PINK SALMON	Migration Spawning Incubation Rearing									X	X X		
CH CHUM SALMON	Migration Spawning Incubation Rearing										X X	X X	X
CH CHINOOK SALMON	Migration Spawning Incubation Rearing									X	X X	X X	
ST STEELHEAD	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
EN ENHANCEMENT ACTS	CH CHINOOK SALMON	0.0	PILOTING OUT OF NITINAT HATCHERY (ONGOING) (REF. 23-8)	1984/

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	ONGOING INTENSIVE LOGGING THROUGHOUT WATERSHED (REF. 23-8)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

HEAVY NATIVE FISHERY ON RIVER. LARGE ESTUARY WITHIN INDIAN RESERVE LANDS (REF. 23-2)
SNORKEL SURVEYS 1972-1979 (REF. 23-13)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /

Prepared By:

K. SIS COMPLETED BY

Completed by: **GITA KAPAHI**
Last checked by: **VIOLET KOMORI**

Date: **1989/03/08**
Date: **1990/03/29**

ESCAPEMENT: SARITA RIVER

WATERSHED-CODE: 93-2000

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	400	0	15000	750	0
1954	0	400	25	75000	750	400
1955	0	400	0	15000	200	N/O
1956	0	400	400	35000	200	400
1957	0	200	N/O	35000	200	400
1958	0	750	750	35000	200	400
1959	0	400	25	15000	200	400
1960	0	200	200	15000	200	400
1961	0	750	0	7500	400	400
1962	0	400	25	15000	200	400
1963	0	200	0	7500	750	400
1964	0	750	0	35000	400	750
1965	0	400	0	15000	750	0
1966	0	400	0	35000	750	0
1967	0	1500	0	40000	400	N/O
1968	0	1500	0	75000	750	0
1969	0	750	0	65000	400	0
1970	0	1500	0	35000	400	750
1971	25	1500	0	50000	750	400
1972	0	400	0	70000	400	0
1973	0	1500	0	50000	75	0
1974	0	750	100	55000	700	0
1975	0	1500	0	40000	400	0
1976	0	450	250	72000	475	0
1977	0	650	N/O	38000	390	0
1978	0	750	40	67000	25	0
1979	0	500	50	17000	400	0
1980	0	N/O	N/O	40000	300	0
1981	N/O	6	N/O	16600	160	5
1982	N/O	260	0	35000	145	1
1983	25	300	0	14500	127	0
1984	UNK	UNK	UNK	1000	90	UNK
1985	150	UNK	50	46000	300	0
1986	15	20	12	20000	350	0
1987	0	UNK	0	UNK	UNK	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

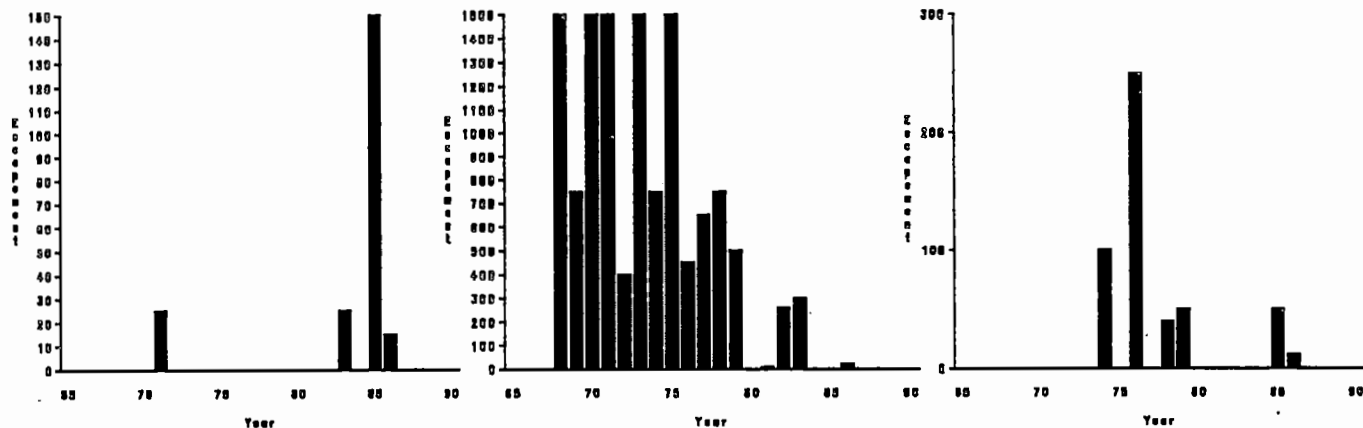
SARITA RIVER (93-2000)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

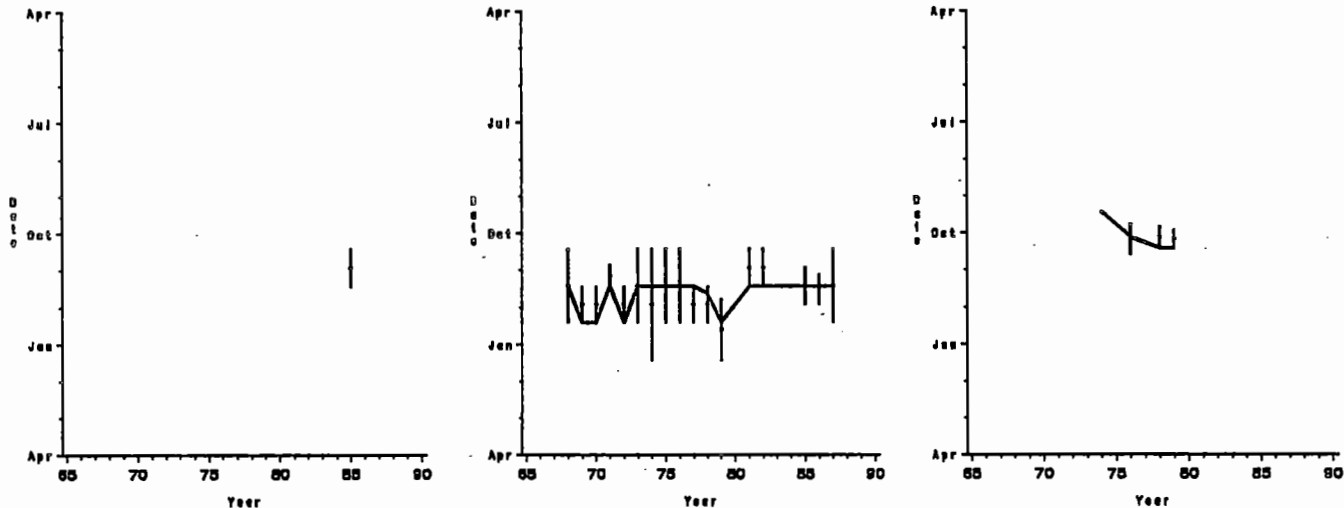
Pink (PK)



Sockeye

Coho

Pink



Sockeye

Coho

Pink

Year	Escapement	Start	Peak	End
1965	0	-	-	-
1966	0	-	-	-
1967	0	-	-	-
1968	0	-	-	-
1969	25	-	-	-
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	25	-	-	-
1984	-	-	-	-
1985	150	18OCT	30OCT	18NOV
1986	15	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1965	1,500	15OCT	18NOV	18DEC
1966	750	18NOV	18DEC	18DEC
1967	1,500	18NOV	18DEC	18DEC
1968	1,500	20OCT	18NOV	18NOV
1969	400	18NOV	18DEC	18DEC
1970	1,500	18OCT	18NOV	18DEC
1971	750	18OCT	18NOV	18JAN
1972	1,500	18OCT	18NOV	18DEC
1973	450	18OCT	18NOV	18DEC
1974	850	18NOV	18NOV	18DEC
1975	750	18NOV	21NOV	18DEC
1976	500	20NOV	18DEC	18JAN
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	0	-	-	-
1981	0	-	-	-
1982	250	18OCT	18NOV	18NOV
1983	300	-	-	-
1984	-	-	-	-
1985	-	30OCT	18NOV	20NOV
1986	10	18NOV	18NOV	30NOV
1987	-	18OCT	18NOV	18DEC

Year	Escapement	Start	Peak	End
1965	0	-	-	-
1966	0	-	-	-
1967	0	-	-	-
1968	0	-	-	-
1969	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	150	15SEP	15SEP	15SEP
1975	0	-	-	-
1976	250	25SEP	08OCT	28OCT
1977	0	-	-	-
1978	40	27SEP	13OCT	19OCT
1979	50	30SEP	18OCT	18OCT
1980	0	-	-	-
1981	0	-	-	-
1982	0	-	-	-
1983	0	-	-	-
1984	-	-	-	-
1985	10	-	-	-
1986	12	-	-	-
1987	0	-	-	-

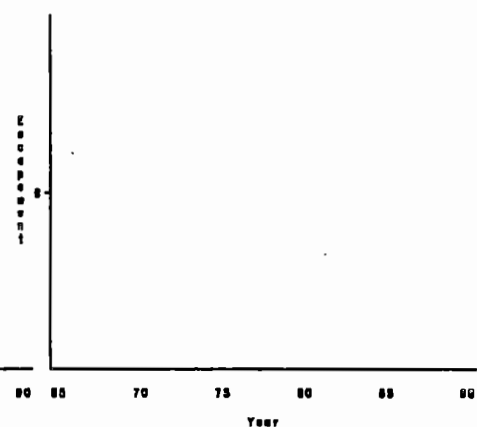
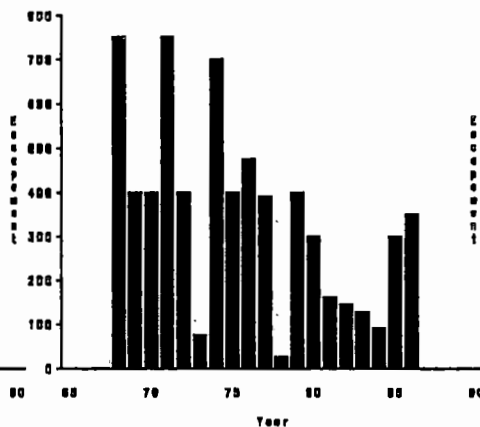
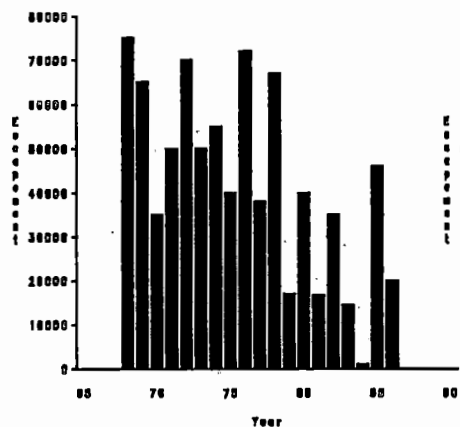
SARITA RIVER (93-2000)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

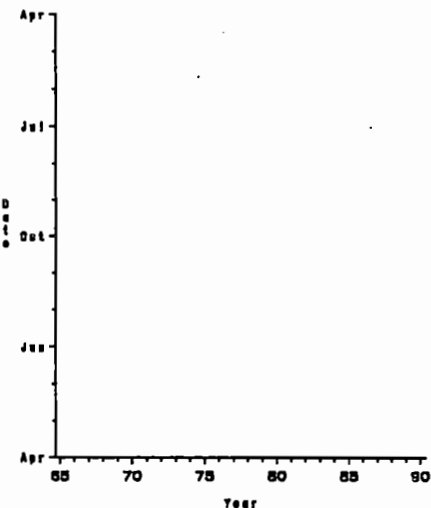
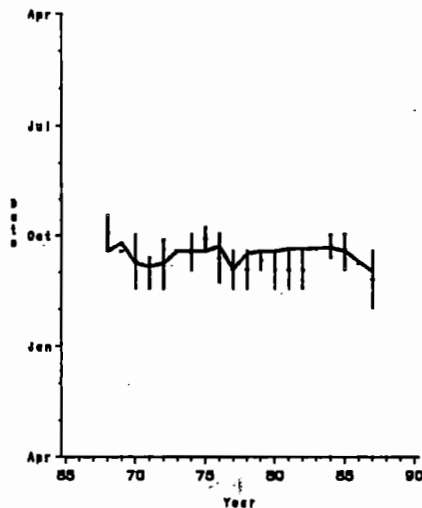
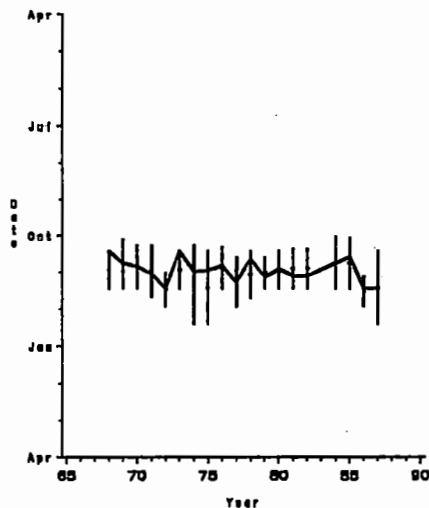
Steelhead (ST)



Chum

Chinook

Steelhead



Chum

Chinook

Steelhead

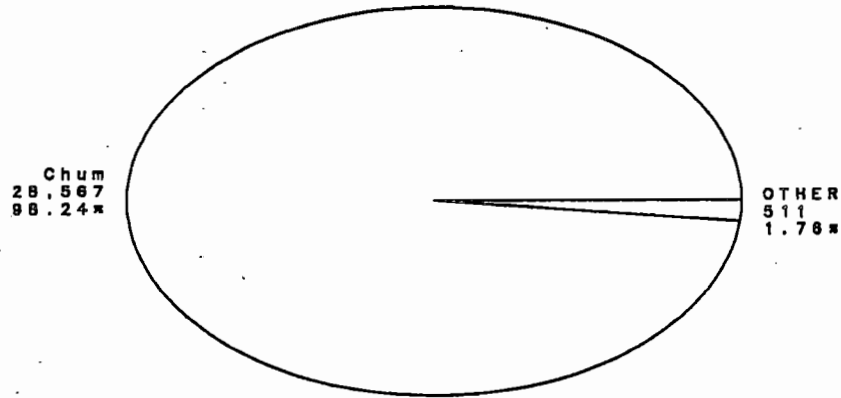
Year	Escapement	Start	Peak	End
1966	78,000	10OCT	10OCT	10NOV
1967	68,000	09OCT	20OCT	10NOV
1968	38,000	10OCT	20OCT	10NOV
1969	50,000	10OCT	03NOV	22NOV
1970	70,000	02NOV	15NOV	20NOV
1971	50,000	10OCT	10OCT	10NOV
1972	50,000	10OCT	01NOV	10DEC
1973	40,000	10OCT	21OCT	10DEC
1974	72,000	11OCT	27OCT	10NOV
1975	30,000	20OCT	10NOV	30NOV
1976	67,000	10OCT	21OCT	23NOV
1977	17,000	20OCT	08NOV	10NOV
1978	40,000	10OCT	30OCT	10NOV
1979	10,000	10OCT	08NOV	10NOV
1980	35,000	13OCT	05NOV	10NOV
1981	14,300	-	-	-
1982	1,000	02OCT	23OCT	10NOV
1983	40,000	04OCT	20OCT	10NOV
1984	20,000	08NOV	18NOV	30NOV
1985	-	10OCT	10NOV	10DEC

Year	Escapement	Start	Peak	End
1966	700	10OCT	10OCT	10OCT
1967	400	10OCT	08OCT	10OCT
1968	400	01OCT	20OCT	10NOV
1969	700	20OCT	20OCT	10NOV
1970	400	08OCT	20OCT	10NOV
1971	70	10OCT	10OCT	10OCT
1972	700	01OCT	10OCT	21OCT
1973	400	20SEP	10OCT	10OCT
1974	475	30SEP	11OCT	10NOV
1975	300	10OCT	30OCT	10NOV
1976	15	15OCT	17OCT	10NOV
1977	400	10OCT	10OCT	20OCT
1978	300	10OCT	10OCT	10NOV
1979	100	10OCT	10OCT	10NOV
1980	145	15OCT	10OCT	10NOV
1981	137	-	-	-
1982	0	01OCT	12OCT	20OCT
1983	300	30SEP	10OCT	30OCT
1984	350	20OCT	-	-
1985	-	10OCT	01NOV	10DEC

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	-	-	-	-
1986	-	-	-	-

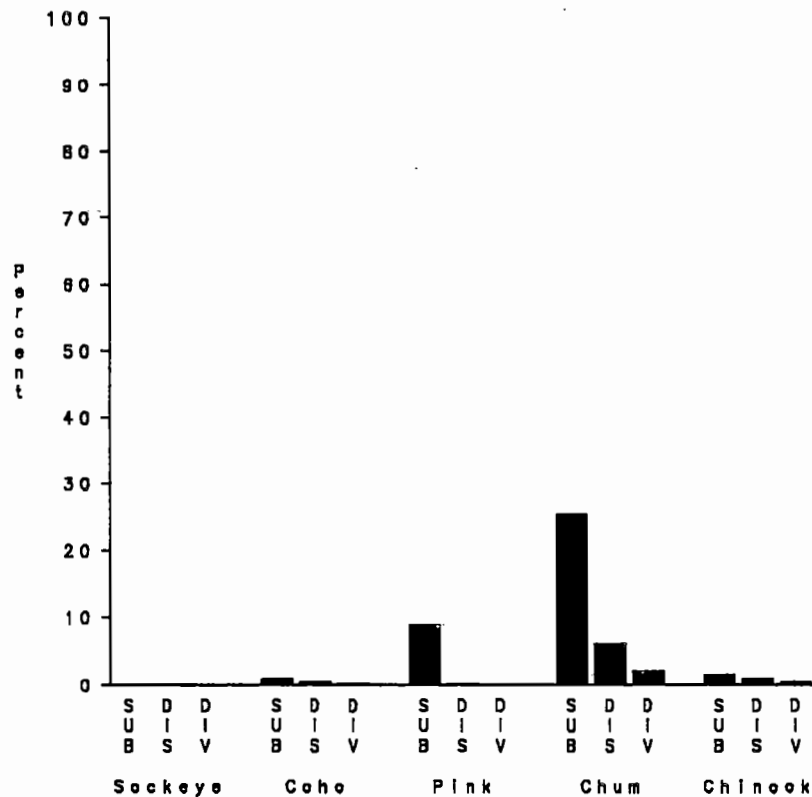
SARITA RIVER (93-2000)

10-yr Mean Escapement
(1978-1987)



SARITA RIVER : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



A. DESCRIPTION

Stream Name: UNNAMED CREEK	D.F.O. Division: SOUTH COAST
Local Name: FREDERICK CREEK	District: 4 PORT ALBERNI
Watershed Code: 93-2000-020	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: -
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92C/15 B.C.G.S. (1:20k) Map: 085 U.T.M. Mouth: Lat./Long. Mouth: 48 06. 53' 44'' 124 06. 59' 51'' Mainstem Length: 4.0 km Ref. No.: 23-1 Watershed Area: 10.4 km2 Ref. No.: 23-1
		Location: TRIBUTARY TO SARITA RIVER. FLOWS N. INTO MOUTH OF SARITA R., NUNAKAMIS BAY, BARCLAY 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	6.0		AF ALL SPECIES	JUST AT OUTLET OF FREDERICK L. (REF. 23-8)

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
SK SOCKEYE SALMON	PRESENCE NOTED (REF. 28A-18)
CO COHO SALMON	TO FALLS (REF. 23-8, REF. 23-11)
CH CHUM SALMON	TO FALLS (REF. 23-8)
ST STEELHEAD	TO FALLS (REF. 23-8)
CT CUTTHROAT TROUT	PRESENT IN FREDERICK LAKE. (REF. 23-13)
RB RAINBOW TROUT	PRESENT IN FREDERICK LAKE. (REF. 23-13)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	77	1978 - 1987	28A-18	180	28A-18		
CH CHUM SALMON	4686	1978 - 1987	28A-18	10800	28A-18		

E. ESCAPEMENT SUMMARY CONTINUED

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
Comments: SOCKEYE (N=6) RECORDED IN 1985 (REF. 28A-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	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	INTENSIVE ONGOING LOGGING (REF. 23-8)
WW WATER WITHDRAWAL	USED TO BE WATER INTAKE FOR LOGGING CAMP (REF. 23-8)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

HEAVY BEAR PREDATION (REF. 23-8)
NUMEROUS SWAMPS AND BEAVER PONDS THROUGHOUT (REF. 23-2)
PACHEMA LAKE (0.38 SQ.KM.) IS NOT ACCESSIBLE TO ANADROMOUS FISH. THERE IS AN INDIAN FOOD FISHERY AT THE MOUTH OF THE CREEK AND IN SARITA RIVER. (REF. 23-2)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:

K. SIS COMPLETED BY

Completed by: GITA KAPAH	Date: 1989/03/02
Last checked by: VIOLET KOMORI	Date: 1990/03/29

ESCAPEMENT: FREDERICK CREEK

WATERSHED-CODE: 93-2000-020

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	200	0	200	0	0
1954	0	200	0	400	0	0
1955	0	75	0	400	0	0
1956	0	75	0	25	0	0
1957	0	200	0	200	0	0
1958	0	75	0	200	0	0
1959	0	75	0	200	0	0
1960	0	25	0	25	0	0
1961	0	200	0	200	0	0
1962	0	75	0	75	0	0
1963	0	25	0	25	0	0
1964	0	200	0	25	0	0
1965	0	75	0	200	0	0
1966	0	75	0	200	0	0
1967	0	200	0	3500	0	0
1968	0	200	0	3500	0	0
1969	0	25	0	3500	0	0
1970	0	200	0	400	0	0
1971	0	75	0	750	0	0
1972	0	25	0	750	0	0
1973	0	200	0	1500	0	0
1974	0	150	0	1000	0	0
1975	0	75	0	750	0	0
1976	0	70	0	2500	0	0
1977	0	90	0	2500	0	0
1978	0	120	0	10800	0	0
1979	0	100	0	1500	0	0
1980	0	100	0	700	0	0
1981	0	25	0	6000	0	0
1982	0	180	0	6000	0	0
1983	0	UNK	0	UNK	0	0
1984	UNK	UNK	UNK	UNK	UNK	UNK
1985	6	12	UNK	7800	UNK	0
1986	0	UNK	0	UNK	0	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

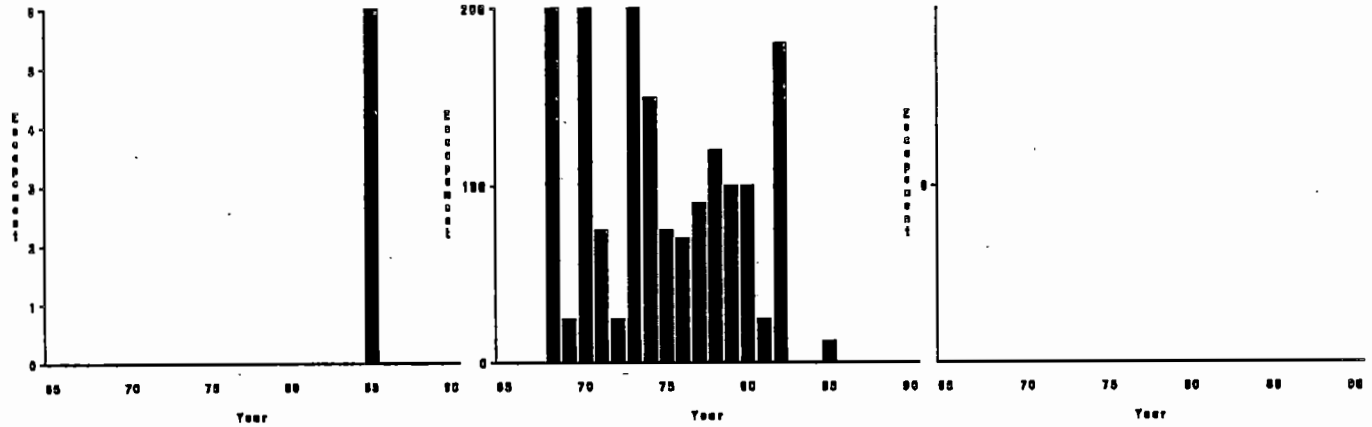
UNNAMED C (93-2000-020)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

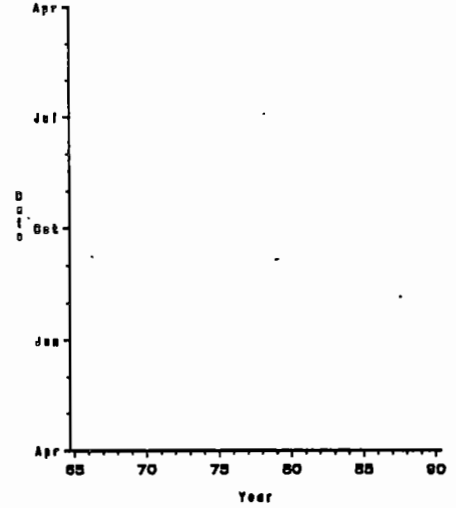
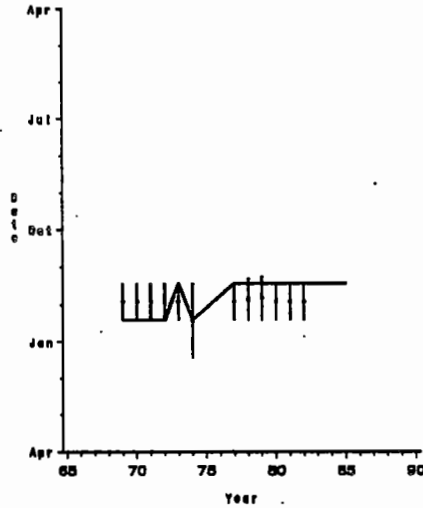
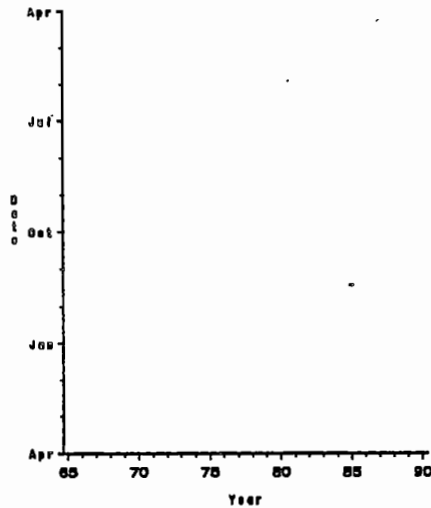
Pink (PK)



Sockeye

Coho

Pink



Sockeye

Year	Escapement	Start	Peak	End
1966	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	-	-	-	-
1985	0	-	-	15NOV
1986	0	-	-	-
1987	0	-	-	-

Coho

Year	Escapement	Start	Peak	End
1966	200	-	-	-
1969	20	15NOV	15DEC	15DEC
1970	200	15NOV	15DEC	15DEC
1971	70	15NOV	15DEC	15DEC
1972	20	15NOV	15DEC	15DEC
1973	200	15NOV	15NOV	15DEC
1974	100	15NOV	15DEC	15JAN
1975	70	-	-	-
1976	70	-	-	-
1977	60	15NOV	15NOV	15DEC
1978	120	15NOV	15NOV	15DEC
1979	100	15NOV	15NOV	15DEC
1980	100	15NOV	15NOV	15DEC
1981	20	15NOV	15NOV	15DEC
1982	100	15NOV	15NOV	15DEC
1983	-	-	-	-
1984	-	-	-	-
1985	12	-	15NOV	-
1986	-	-	-	-
1987	0	-	-	-

Pink

Year	Escapement	Start	Peak	End
1966	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	-	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

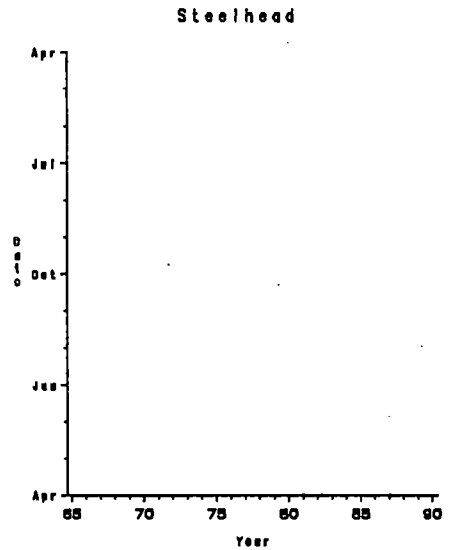
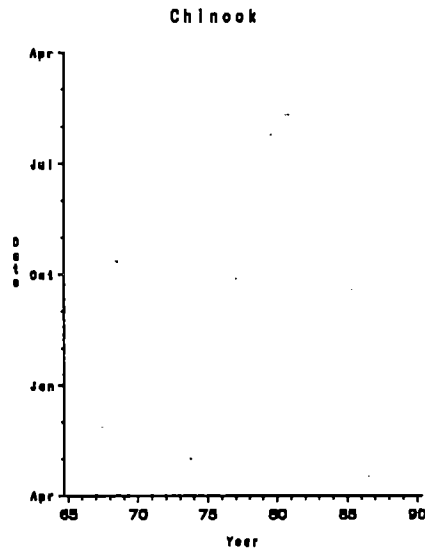
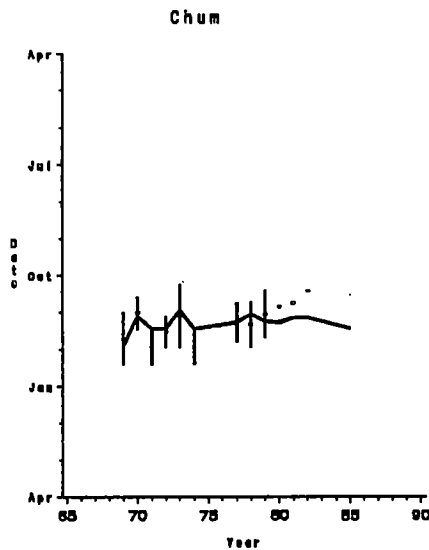
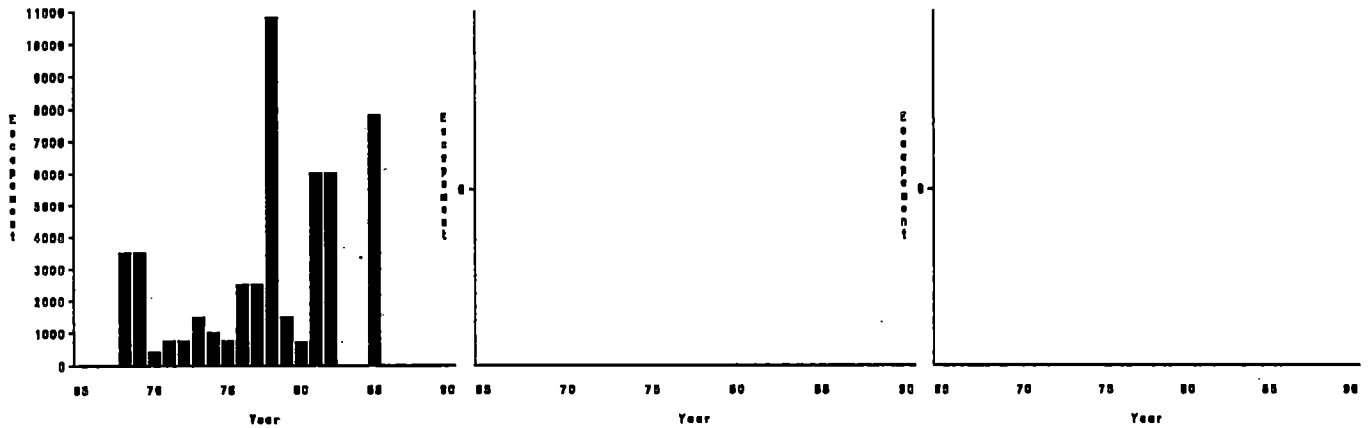
UNNAMED C (93-2000-020)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

Steelhead (ST)



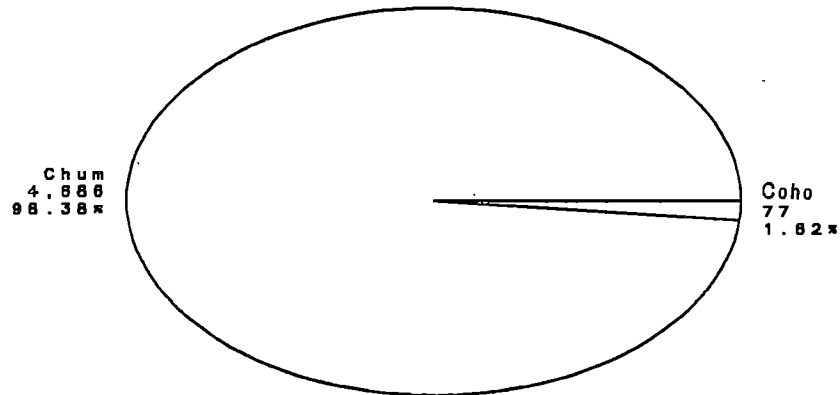
Chum				
Year	Escapement	Start	Peak	End
1966	1,200	-	-	-
1968	2,200	02NOV	20NOV	10DEC
1970	400	20OCT	02NOV	10NOV
1971	700	12NOV	15NOV	10DEC
1972	700	08NOV	12NOV	30NOV
1973	1,200	10OCT	21OCT	30NOV
1974	1,600	12NOV	12NOV	10DEC
1975	700	-	-	-
1976	1,300	-	-	-
1977	2,200	23OCT	10NOV	25NOV
1978	10,000	24OCT	03NOV	30NOV
1979	1,800	12OCT	08NOV	22NOV
1980	700	20OCT	10NOV	-
1981	6,000	21OCT	04NOV	-
1982	6,000	15OCT	09NOV	-
1983	-	-	-	-
1984	-	-	-	-
1985	7,000	-	12NOV	-
1986	-	-	-	-
1987	0	-	-	-

Chinook				
Year	Escapement	Start	Peak	End
1966	0	-	-	-
1968	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	-	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Steelhead				
Year	Escapement	Start	Peak	End
1966	-	-	-	-
1968	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

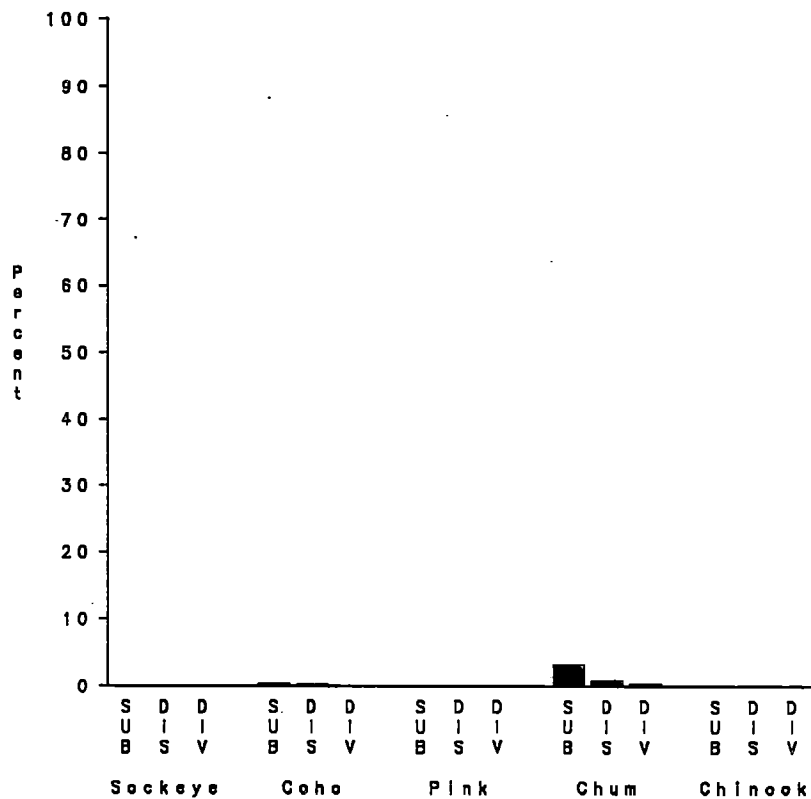
UNNAMED C (93-2000-020)

10-yr Mean Escapement
(1978-1987)



UNNAMED C : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



A. DESCRIPTION

Stream Name: CARNATION CREEK	D.F.O. Division: SOUTH COAST
Local Name:	District: 4 PORT ALBERNI
Watershed Code: 93-2030	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-4
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit: 3

Tributaries	Code	Topographic (1:50k) Map: 92C/14
		B.C.G.S. (1:20k) Map:
		U.T.M. Mouth:
		Lat./Long. Mouth: 48 DG. 54' 49" 125 DG. 00' 08"
		Mainstem Length: 4.8 km Ref. No.: 23-1
		Watershed Area: 10.0 km ² Ref. No.: 23-1
		Location: FLOWS S.W. INTO HUMUKAMIS BAY, E. OF TZARTUS ISLAND, BARCLAY DIST.

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	FAIRLY LOW GRADIENT (REF. 23-8)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
F FALLS			AF ALL SPECIES	(REF. 6N-28)

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	THROUGHOUT, MAINLY 0.8 - 4.0 KM (REF. 23-1)
PK PINK SALMON	PRESENCE NOTED (REF. 28A-18)
CM CHUM SALMON	FROM TIDAL AREA TO COUNTING FENCE AT 0.64KM (REF. 23-1)
CH CHITNOOK SALMON	PRESENCE NOTED (REF. 28A-18)
ST STEELHEAD	PRESENT IN LOW NUMBERS (REF. 23-13)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	217	1978 - 1987	28A-18	423	28A-18		
PK PINK SALMON	5	1978 - 1987	28A-18	40	28A-18		
CM CHUM SALMON	1200	1978 - 1987	28A-18	3000	28A-18		

E. ESCAPEMENT SUMMARY CONTINUED

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
Comments: ESCAPEMENTS ARE DETERMINED FROM A COUNTING FENCE LOCATED AT 0.7M MONITORED BY P.B.S. CHINOOK ESCAPEMENT; 6 FISH RECORDED IN 1982 (REF. 23-1, REF. 23-7, REF. 28A-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 X	X X	X
PK PINK SALMON	Migration Spawning Incubation Rearing										X	X	
CN CHUM 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
NO INFORMATION AVAILABLE				

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	HEAVILY LOGGED. PRE AND POST LOGGING DATA AVAILABLE (REF. 23-8)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

INTENSIVELY STUDIED SYSTEM, MONITORED BEFORE, DURING AND AFTER LOGGING ACTIVITY. CONSIDERABLE NUMBER OF REPORTS AVAILABLE. SEE BIBLIOGRAPHIES FOR DETAILS (REF. 23-2, REF. 23-5, REF. 23-11)
THIS IS THE SITE OF AN ONGOING FORESTRY/FISHERIES STUDY, "THE CARNATION CREEK WATERSHED PROJECT", WHICH WAS INITIATED IN 1970. STUDY IS WELL DOCUMENTED IN LITERATURE AND IN WORKSHOP PROCEEDINGS. (REF. 23-2, REF. 23-5, REF. 23-6)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:

K. SIS COMPLETED BY

Completed by: GITA KAPAH	Date: 1989/02/28
Last checked by: VIOLET KOMORI	Date: 1990/03/29

ESCAPEMENT: CARNATION CREEK

WATERSHED-CODE: 93-2030

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	400	0	1500	0	0
1954	0	75	75	1500	0	25
1955	0	25	N/O	400	0	25
1956	0	25	25	200	0	25
1957	0	25	N/O	1500	0	25
1958	0	25	200	1500	0	25
1959	0	25	0	400	0	25
1960	0	25	75	200	0	25
1961	0	25	0	750	0	25
1962	0	25	25	400	0	25
1963	0	25	0	200	0	25
1964	0	75	0	1500	0	25
1965	0	75	0	750	0	0
1966	0	75	0	750	0	0
1967	0	200	0	1500	0	0
1968	0	200	25	1500	0	0
1969	0	75	N/O	3500	0	0
1970	0	400	0	3500	0	0
1971	0	200	0	1500	0	25
1972	0	200	0	3500	0	25
1973	0	192	0	4168	0	10
1974	0	160	0	2870	0	0
1975	0	250	0	1200	0	0
1976	0	200	0	1500	0	UNK
1977	0	200	0	1100	0	0
1978	0	350	0	1200	0	0
1979	0	423	0	400	0	0
1980	0	290	40	3000	0	0
1981	N/O	119	1	2300	N/O	0
1982	3	244	N/O	1600	6	0
1983	0	240	0	1100	0	0
1984	0	70	0	0	0	0
1985	UNK	UNK	UNK	UNK	UNK	0
1986	0	UNK	UNK	UNK	UNK	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

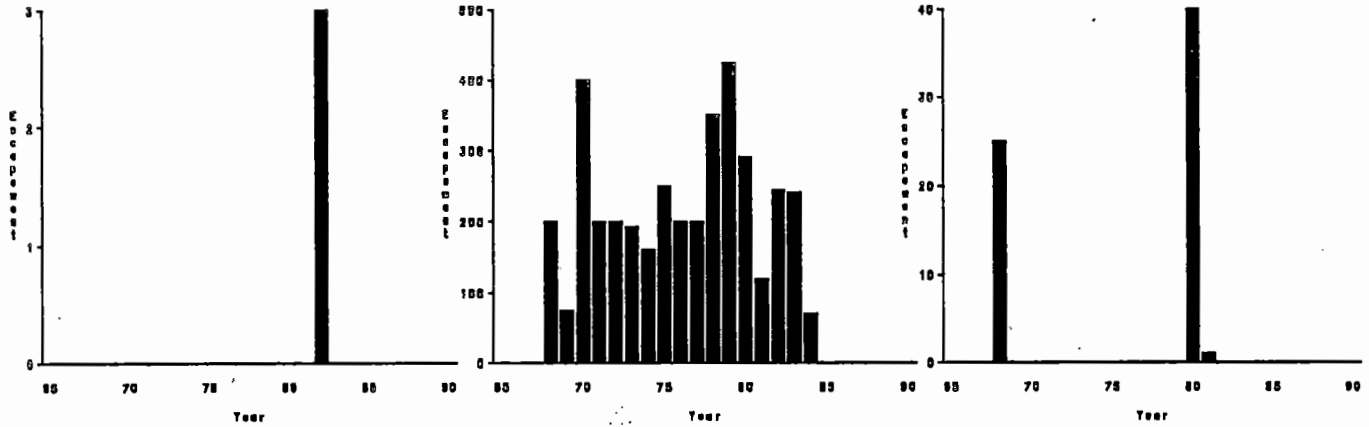
UNNAMED C (93-2030)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

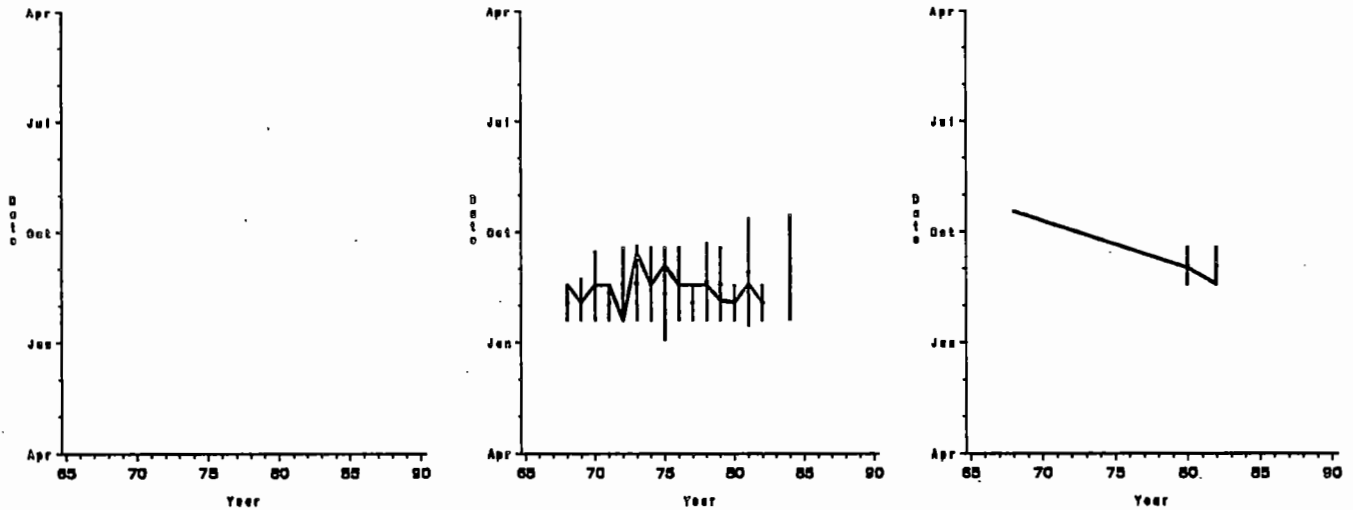
Pink (PK)



Sockeye

Coho

Pink



Sockeye

Coho

Pink

Year	Escapement	Start	Peak	End
1966	0	-	-	-
1968	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1976	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	0	-	-	-
1981	0	-	-	-
1982	3	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1966	200	10NOV	10NOV	10DEC
1968	70	10NOV	30NOV	10DEC
1970	400	10OCT	10NOV	10DEC
1971	200	10NOV	10NOV	10DEC
1972	200	10OCT	10DEC	10DEC
1973	102	10OCT	10OCT	10DEC
1974	100	10OCT	10NOV	10DEC
1976	200	10OCT	30OCT	31DEC
1978	200	10OCT	10NOV	10DEC
1979	200	10NOV	10NOV	10DEC
1980	330	10OCT	10NOV	10DEC
1981	433	10OCT	20NOV	10DEC
1982	200	10NOV	30NOV	10DEC
1983	110	21SEP	14NOV	10DEC
1984	246	15NOV	30NOV	10DEC
1985	240	-	-	-
1986	70	10SEP	-	14DEC
1987	-	-	-	-
1988	-	-	-	-
1989	-	-	-	-
1990	0	-	-	-

Year	Escapement	Start	Peak	End
1966	30	-	15SEP	-
1968	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1976	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	40	15OCT	01NOV	15NOV
1981	1	-	-	-
1982	0	15OCT	15NOV	15NOV
1983	0	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

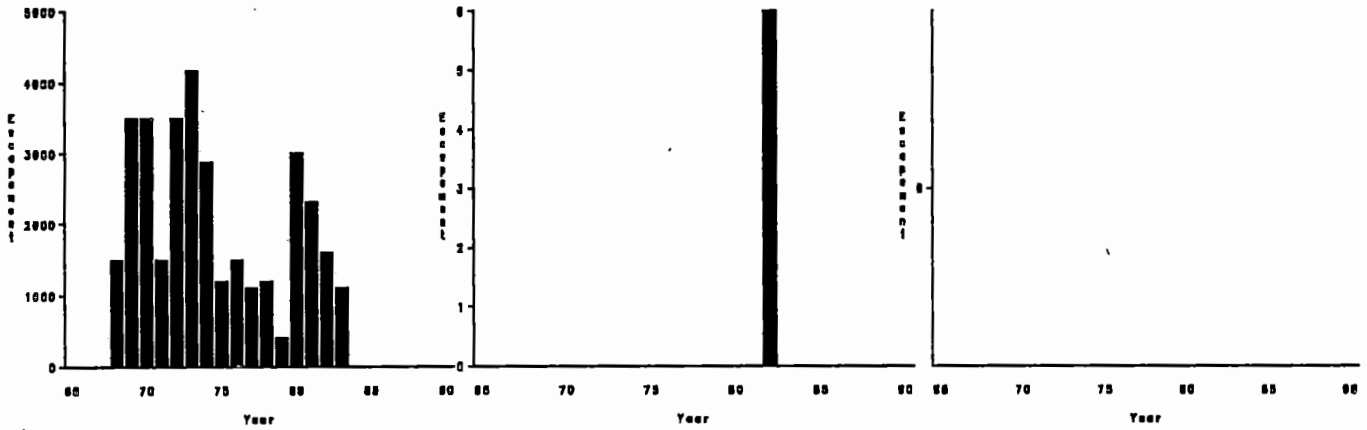
UNNAMED C (93-2030)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

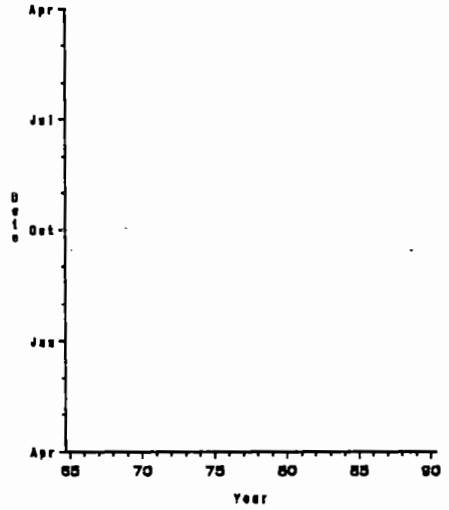
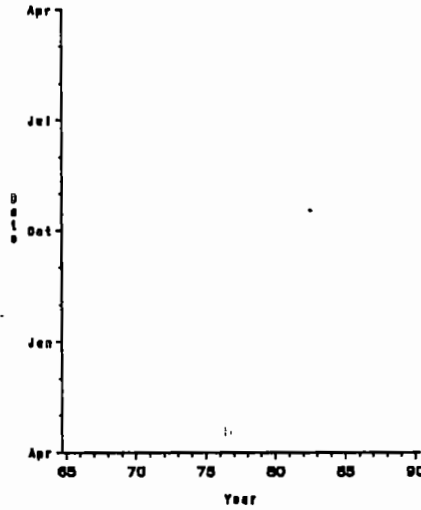
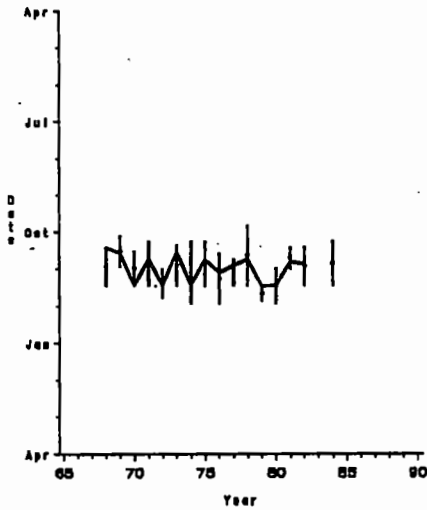
Steelhead (ST)



Chum

Chinook

Steelhead



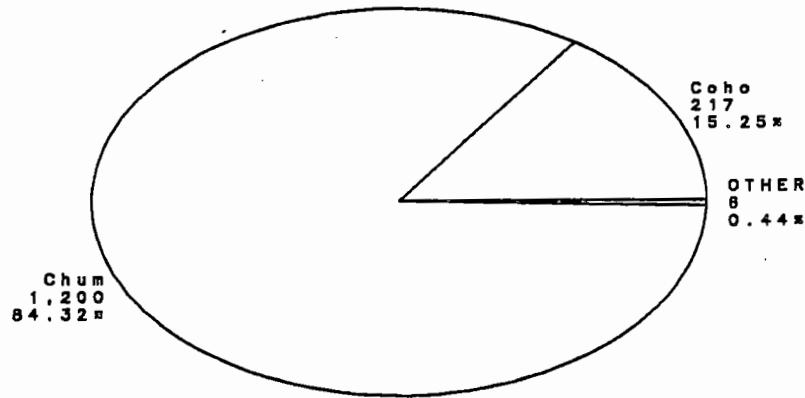
Year	Escapement	Start	Peak	End
1966	1,500	18OCT	15OCT	18NOV
1968	2,500	08OCT	20OCT	31OCT
1970	2,500	18OCT	15NOV	15NOV
1971	1,500	14OCT	25OCT	12NOV
1972	2,500	02NOV	13NOV	23NOV
1973	4,100	12OCT	10OCT	18NOV
1974	2,070	18OCT	18NOV	30NOV
1976	1,200	14OCT	20OCT	18NOV
1978	1,500	20OCT	05NOV	30NOV
1977	1,100	25OCT	30OCT	18NOV
1979	1,500	27SEP	25OCT	18NOV
1979	400	18NOV	14NOV	20NOV
1980	2,000	01NOV	15NOV	30NOV
1981	2,200	18OCT	27OCT	01NOV
1982	1,000	18OCT	20OCT	15NOV
1983	1,100	-	-	-
1984	0	18OCT	-	12NOV
1986	-	-	-	-
1988	-	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1966	0	-	-	-
1968	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	-	-	-
1986	-	-	-	-
1988	-	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1966	-	-	-	-
1968	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1986	-	-	-	-
1988	-	-	-	-
1987	-	-	-	-

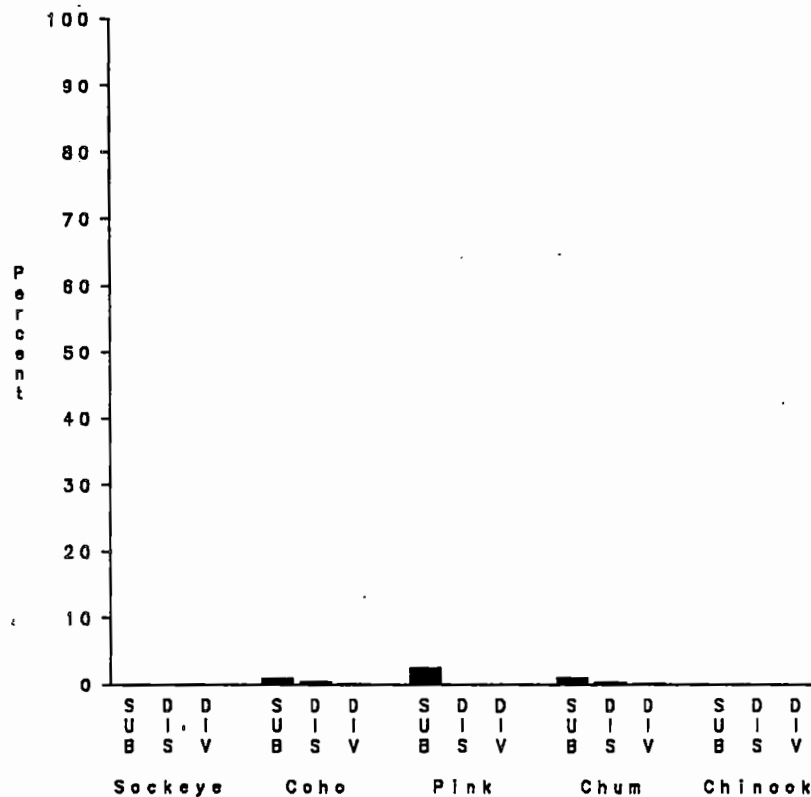
UNNAMED C (93-2030)

10-yr Mean Escapement
(1978-1987)



UNNAMED C : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



A. DESCRIPTION

Stream Name: CONSINKA CREEK	D.F.O. Division: SOUTH COAST
Local Name: WOOD CREEK	District: 4 PORT ALBERNI
Watershed Code: 93-2040	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-4
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92C/15
		B.C.G.S. (1:20k) Map: 096
		U.T.M. Mouth:
		Lat./Long. Mouth: 48 DG. 56' 07'' 124 DG. 58' 55''
		Mainstem Length: 0.4 km Ref. No.: 23-1
		Watershed Area: Ref. No.:
Location: FLows W. INTO SAN MATEO BAY, BARCLAY DIST.		

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	MOSTLY STEEP (REF. 23-8)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
F FALLS	3.0	0.4	AF ALL SPECIES	SERIES OF FALLS (REF. 23-1, REF. 23-8)

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	IN UPPER PART TO THE FALLS (REF. 23-8)
CH CHUM SALMON	MOSTLY IN LOWER REACHES TO THE FALLS (REF. 23-8)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	26	1978 - 1987	28A-18	80	28A-18		
CH CHUM SALMON	364	1978 - 1987	28A-18	1000	28A-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 A	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

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	HEAVILY LOGGED (REF. 23-8)
WQ WATER QUALITY	FISH FARMS, NET PEN SITES IN SAN MATEO BAY ARE THOUGHT TO HAVE AN IMPACT ON THE VIABILITY OF FRY. (REF. 23-8)

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: 1989/03/02
Last checked by: VIOLET KOMORI	Date: 1990/03/29

ESCAPEMENT: CONSINKA CREEK

WATERSHED-CODE: 93-2040

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	25	0	750	0	75
1954	0	25	0	1500	0	25
1955	0	25	0	750	0	25
1956	0	25	0	400	0	25
1957	0	25	0	200	0	25
1958	0	25	0	200	0	25
1959	0	25	0	750	0	25
1960	0	25	0	200	0	25
1961	0	25	0	200	0	25
1962	0	25	0	200	0	25
1963	0	N/O	0	200	0	25
1964	0	25	0	75	0	N/O
1965	0	25	0	200	0	25
1966	0	25	0	400	0	0
1967	0	25	0	200	0	0
1968	0	25	0	750	0	0
1969	0	25	0	400	0	0
1970	0	75	0	750	0	0
1971	0	25	0	400	0	0
1972	0	25	0	750	0	0
1973	0	200	0	500	0	0
1974	0	75	0	750	0	0
1975	0	40	0	400	0	0
1976	0	75	0	500	0	0
1977	0	120	0	900	0	0
1978	0	80	0	1000	0	0
1979	0	50	0	200	0	0
1980	UNK	UNK	UNK	UNK	UNK	UNK
1981	0	N/O	0	N/O	0	0
1982	0	N/O	0	550	0	0
1983	UNK	UNK	UNK	UNK	UNK	UNK
1984	0	UNK	0	UNK	0	0
1985	UNK	UNK	UNK	700	UNK	0
1986	0	UNK	UNK	100	UNK	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

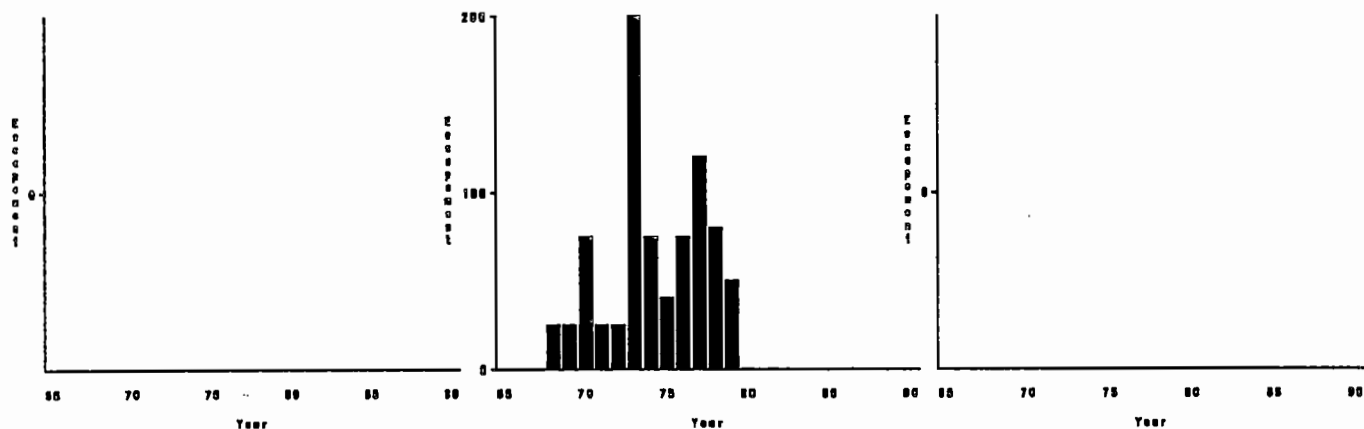
CONSINKA CREEK (93-2040)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

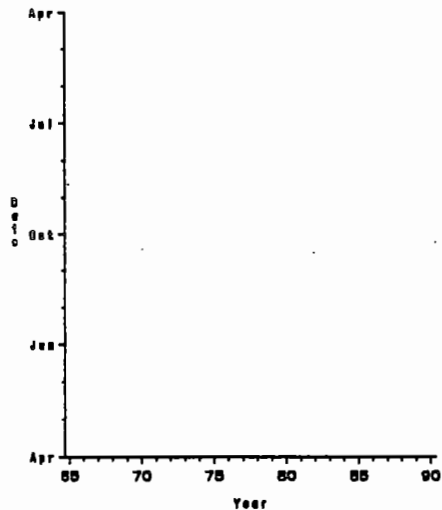
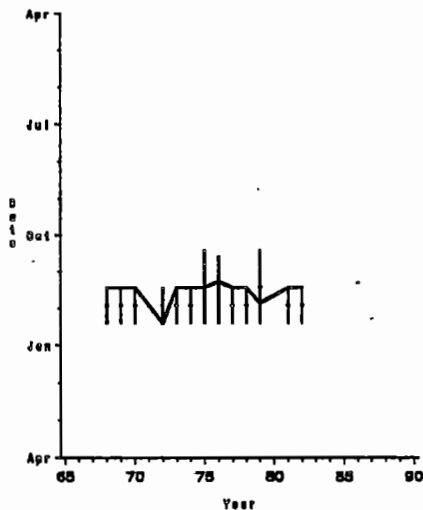
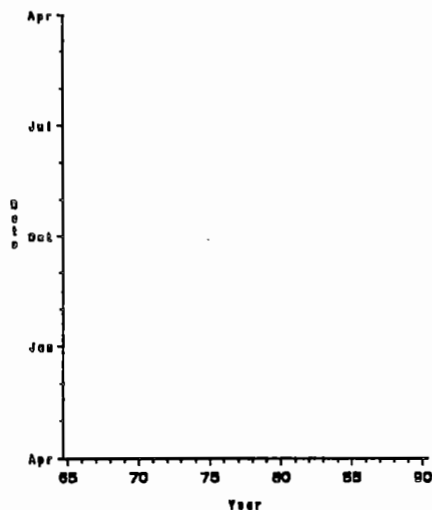
Pink (PK)



Sockeye

Coho

Pink



Sockeye

Coho

Pink

Year	Escapement	Start	Peak	End
1965	0	-	-	-
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	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1965	20	15NOV	15NOV	15DEC
1966	20	15NOV	15NOV	15DEC
1967	70	15NOV	15NOV	15DEC
1968	20	-	-	-
1969	20	15NOV	15DEC	15DEC
1970	200	15NOV	15NOV	15DEC
1971	70	15NOV	15NOV	15DEC
1972	40	15NOV	15NOV	15DEC
1973	200	15NOV	15NOV	15DEC
1974	70	15NOV	15NOV	15DEC
1975	40	15NOV	15NOV	15DEC
1976	70	20NOV	15NOV	15DEC
1977	120	15NOV	15NOV	15DEC
1978	50	15NOV	15NOV	15DEC
1979	50	15NOV	25NOV	15DEC
1980	-	-	-	-
1981	0	15NOV	15NOV	15DEC
1982	0	15NOV	15NOV	15DEC
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	15NOV
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1965	0	-	-	-
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	-	-	-	-
1981	0	-	-	-
1982	0	-	-	-
1983	-	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

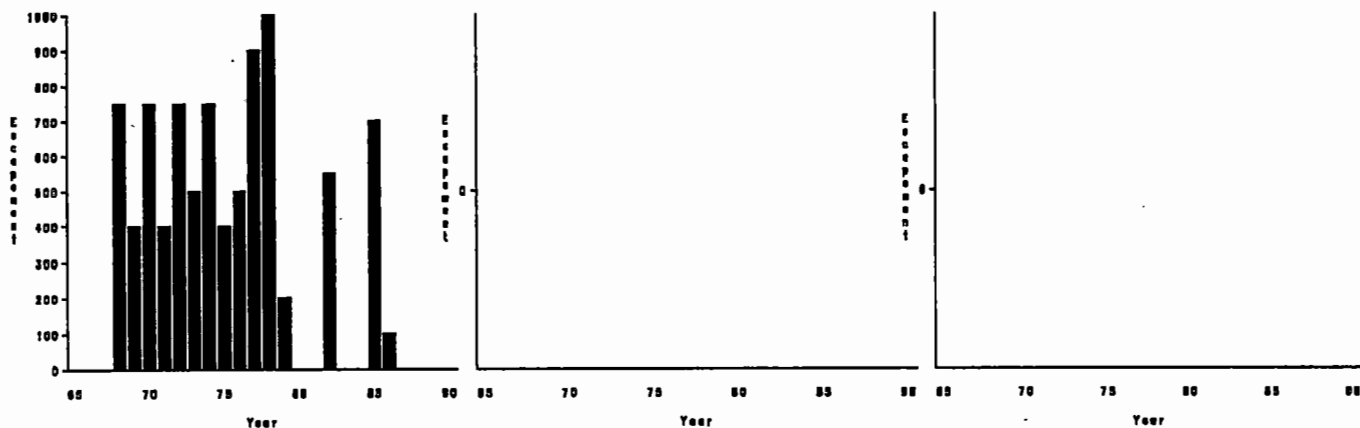
CONSINKA CREEK (93-2040)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

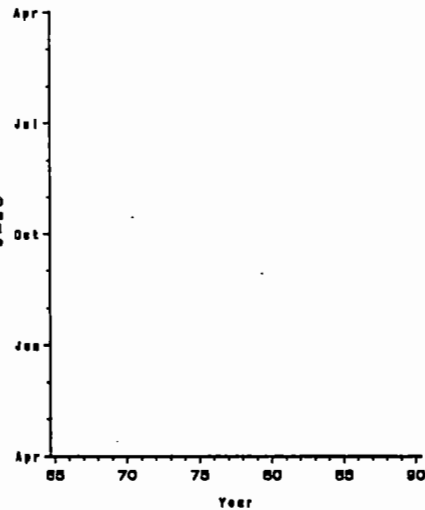
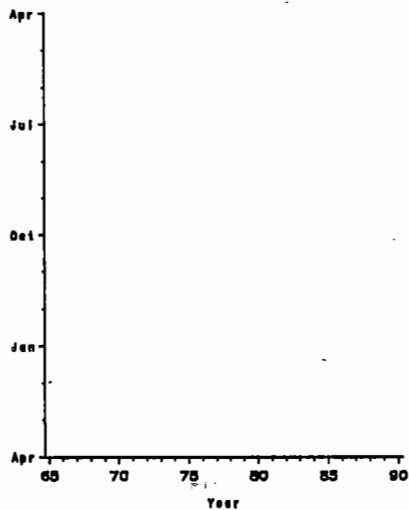
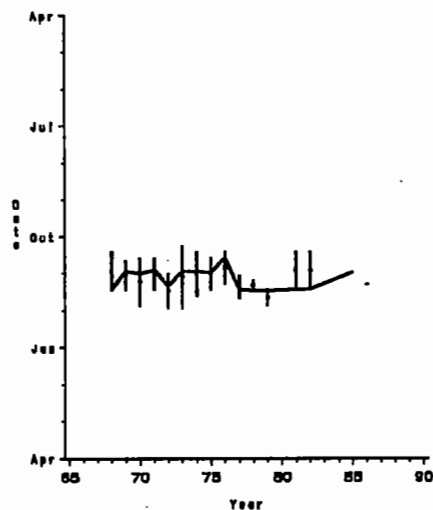
Steelhead (ST)



Chum

Chinook

Steelhead



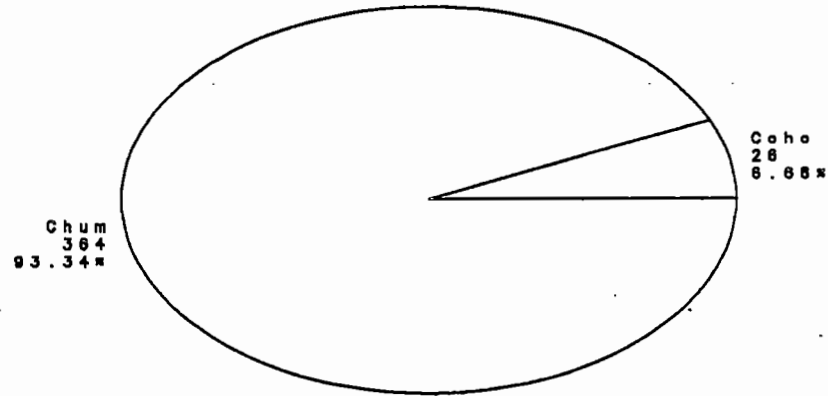
Chum				
Year	Escapement	Start	Peak	End
1965	750	12OCT	18NOV	18NOV
1966	400	22OCT	31OCT	18NOV
1967	750	20OCT	02NOV	20NOV
1971	400	20OCT	30OCT	12NOV
1972	750	02NOV	12NOV	30NOV
1973	800	10OCT	31OCT	30NOV
1974	750	12OCT	31OCT	20NOV
1975	400	20OCT	01NOV	10NOV
1976	500	13OCT	20OCT	10NOV
1977	100	04NOV	13NOV	22NOV
1978	1,000	08NOV	14NOV	13NOV
1979	300	10NOV	10NOV	20NOV
1980	-	-	-	-
1981	0	18OCT	10NOV	10NOV
1982	350	13OCT	15NOV	15NOV
1983	-	-	-	-
1984	-	-	-	-
1985	700	-	01NOV	-
1986	100	-	-	11NOV
1987	0	-	-	-

Chinook				
Year	Escapement	Start	Peak	End
1965	0	-	-	-
1966	0	-	-	-
1967	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	-	-	-	-
1981	0	-	-	-
1982	0	-	-	-
1983	-	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Steelhead				
Year	Escapement	Start	Peak	End
1965	-	-	-	-
1966	-	-	-	-
1967	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

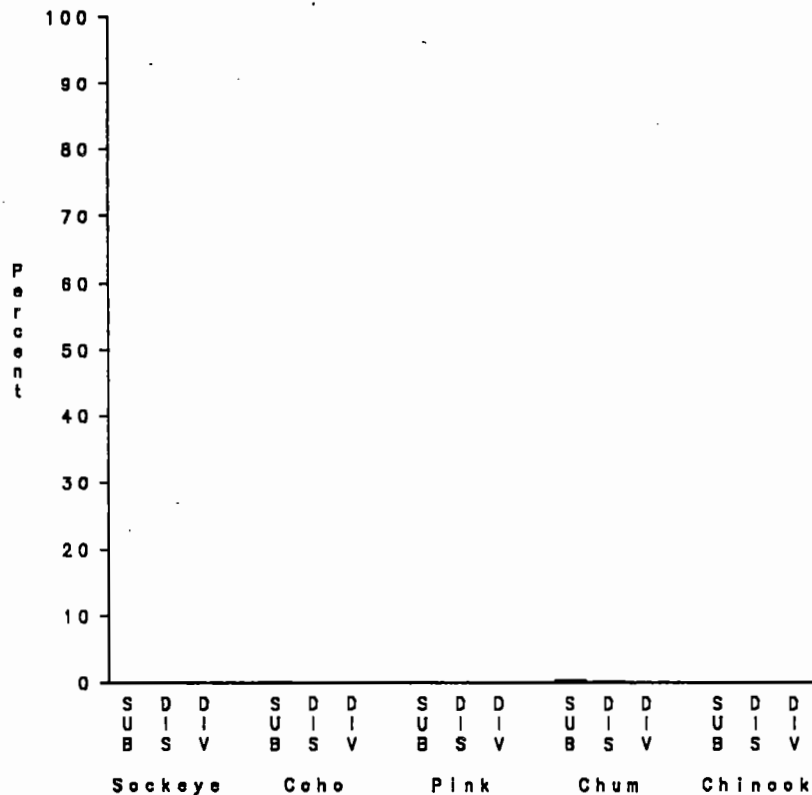
CONSINKA CREEK (93-2040)

10-yr Mean Escapement
(1978-1987)



CONSINKA CREEK : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



A. DESCRIPTION

Stream Name: COLEMAN CREEK	D.F.O. Division: SOUTH COAST
Local Name:	District: 4 PORT ALBERNI
Watershed Code: 93-2100	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-3
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit: 7

Tributaries	Code	Topographic (1:50k) Map: 92F/2 B.C.G.S. (1:20k) Map: 006 U.T.M. Mouth: Lat./Long. Mouth: 49 06. 00' 22'' 124 06. 51' 20'' Mainstem Length: 9.7 km Ref. No.: 23-1 Watershed Area: 51.8 km2 Ref. No.: 23-1
PARSONS CREEK	050	
Location: FLows N.W. INTO ALBERNI INLET, BARCLAY DIST.		

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	VERY STEEP WITH CANYONS THROUGHOUT (REF. 23-8)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
F FALLS	6.1	9.7	AF ALL SPECIES	(REF. 23-1)

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 HEAVY FRESHETS (REF. 23-1)			

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
CO COHO SALMON	TO 3 KM, AND IN PARSONS C (REF. 23-1, REF. 23-8)
CH CHUM SALMON	TO PARSONS C (REF. 23-1, REF. 23-8)
ST STEELHEAD	TO 8 KM (REF. 23-1, REF. 23-8)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	47	1978 - 1987	28A-18	150	28A-18		
CH CHUM SALMON	2	1978 - 1987	28A-18	10	28A-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 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	

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	HEAVY ONGOING LOGGING THROUGHOUT WATERSHED (REF. 23-8)
UD URBAN DEVELOPMENT	MAJOR LOGGING CAMP TO 1985, CAUSED SEWAGE TREATMENT PROBLEMS AT ABOUT 11 KM (REF. 23-8)
FO FORESTRY	LOG DUMP IN THE ESTUARY (REF. 23-2)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

TOTALLY INACCESSIBLE FOR INSPECTION PURPOSES (REF. 23-8)

J. FISHERY OFFICER NARRATIVE.

Date Prepared: / /

Prepared By:

K. SIS COMPLETED BY

Completed by: GITA KAPAHI
Last checked by: VIOLET KOMORI

Date: 1989/03/02
Date: 1990/03/29

ESCAPEMENT: COLEMAN CREEK

WATERSHED-CODE: 93-2100

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	25	0	25	0	0
1954	0	25	0	25	0	0
1955	0	25	0	25	0	0
1956	0	25	0	25	0	0
1957	0	25	0	25	0	75
1958	0	25	0	25	0	75
1959	0	25	0	25	0	75
1960	0	25	0	25	0	75
1961	0	25	0	25	0	75
1962	0	25	0	25	0	75
1963	0	25	0	25	0	UNK
1964	0	75	0	25	0	75
1965	0	25	0	25	0	0
1966	0	25	0	400	0	0
1967	0	25	0	75	0	0
1968	0	200	0	400	25	0
1969	0	75	0	75	N/O	0
1970	0	200	0	200	0	200
1971	0	25	0	25	0	200
1972	0	75	0	1500	N/O	400
1973	0	200	0	N/O	0	0
1974	0	25	0	N/O	0	0
1975	0	75	0	10	0	0
1976	0	45	0	40	0	0
1977	0	60	0	30	0	0
1978	0	150	0	N/O	0	0
1979	0	50	0	N/O	0	0
1980	UNK	UNK	UNK	UNK	UNK	UNK
1981	0	N/O	0	N/O	0	0
1982	0	36	0	10	0	0
1983	UNK	UNK	UNK	UNK	UNK	UNK
1984	0	UNK	0	UNK	0	UNK
1985	UNK	UNK	UNK	UNK	UNK	0
1986	0	UNK	0	UNK	0	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

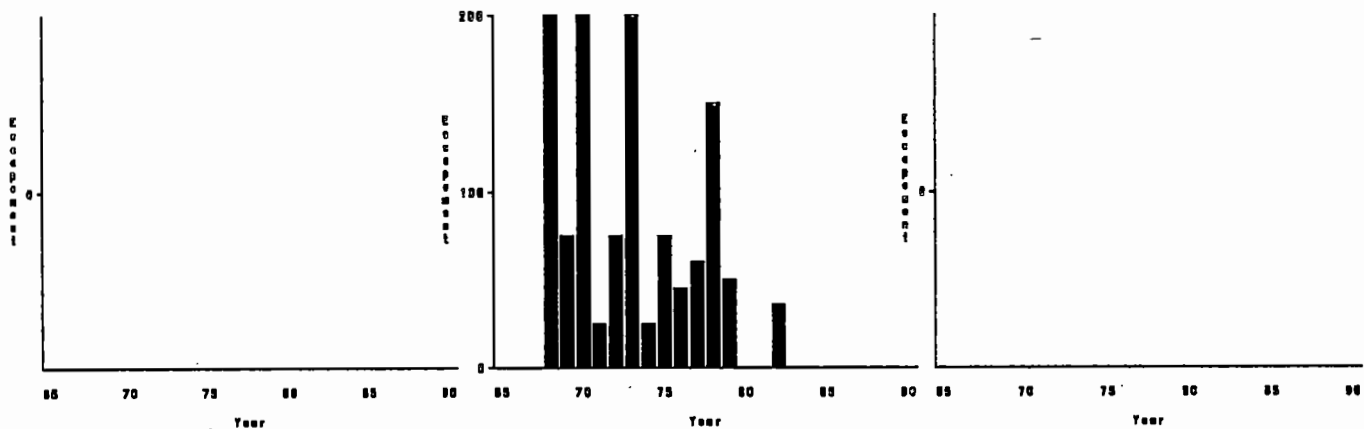
COLEMAN CREEK (93-2100)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

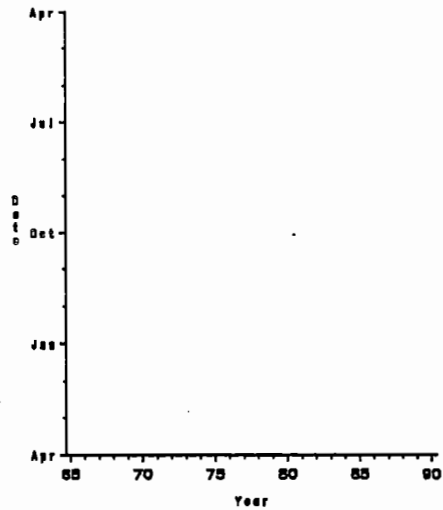
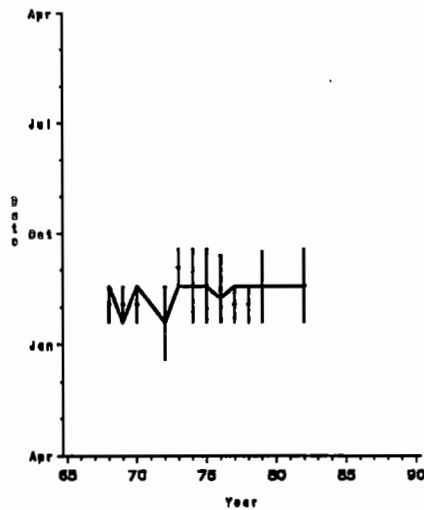
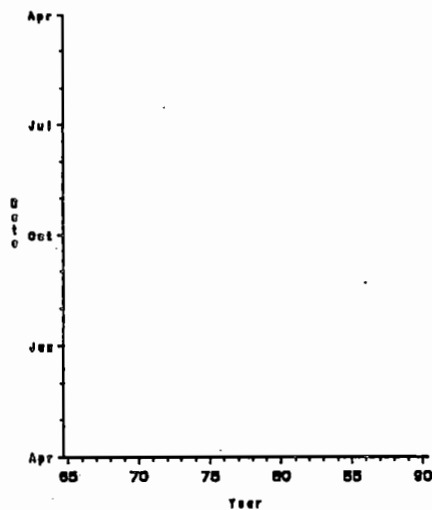
Pink (PK)



Sockeye

Coho

Pink



Sockeye

Coho

Pink

Year	Escapement	Start	Peak	End
1966	0	-	-	-
1968	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	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1968	200	10NOV	10NOV	10DEC
1969	70	10NOV	10DEC	10DEC
1970	200	10NOV	10NOV	10DEC
1971	20	-	-	-
1972	70	10NOV	10DEC	14JAN
1973	200	10OCT	10NOV	10NOV
1974	20	10OCT	10NOV	10DEC
1975	70	10OCT	10NOV	10DEC
1976	40	20OCT	20NOV	10DEC
1977	60	10NOV	10NOV	10DEC
1978	150	10NOV	10NOV	10DEC
1979	50	17OCT	10NOV	10DEC
1980	-	-	-	-
1981	0	-	-	-
1982	30	10OCT	10NOV	10DEC
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
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	-	-	-	-
1981	0	-	-	-
1982	0	-	-	-
1983	-	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

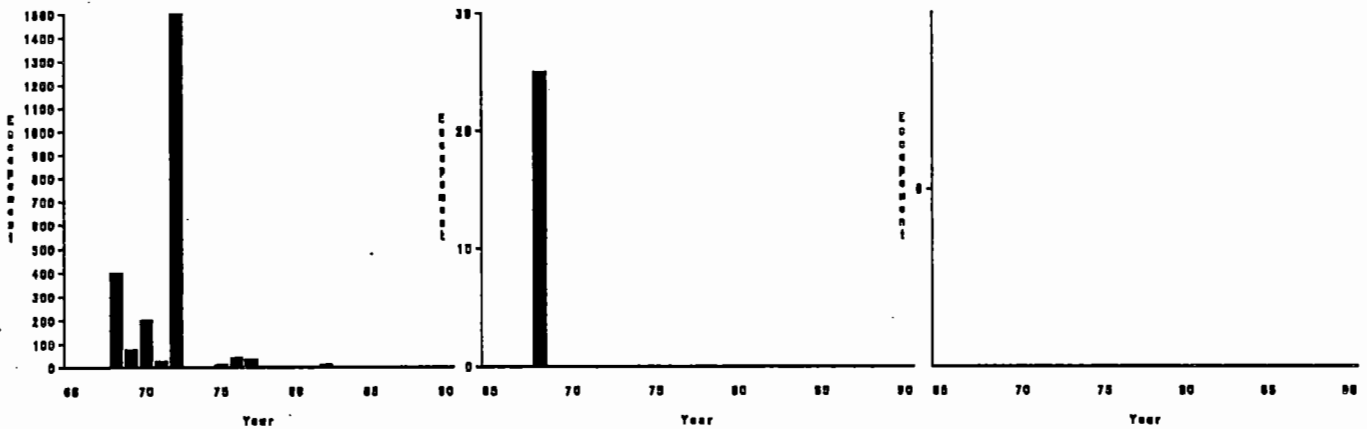
COLEMAN CREEK (93-2100)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

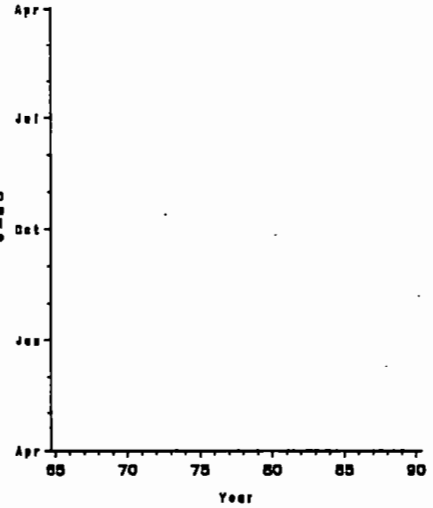
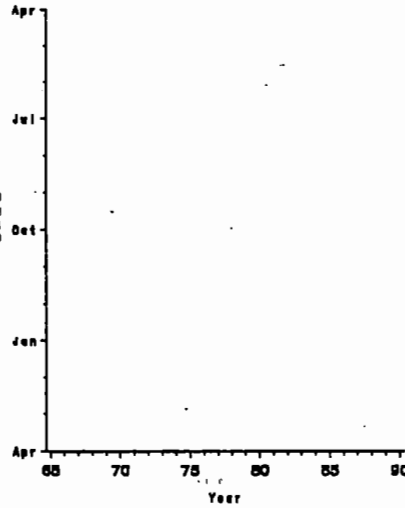
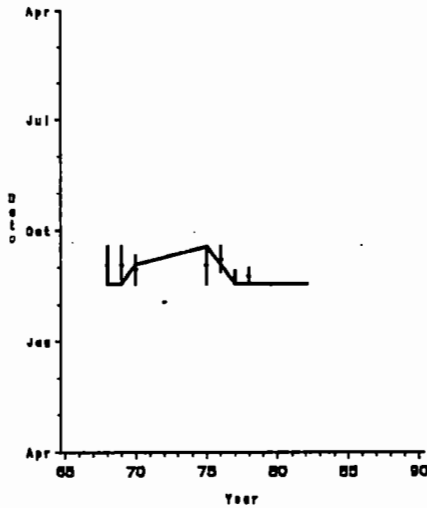
Steelhead (ST)



Chum

Chinook

Steelhead



Chum

Chinook

Steelhead

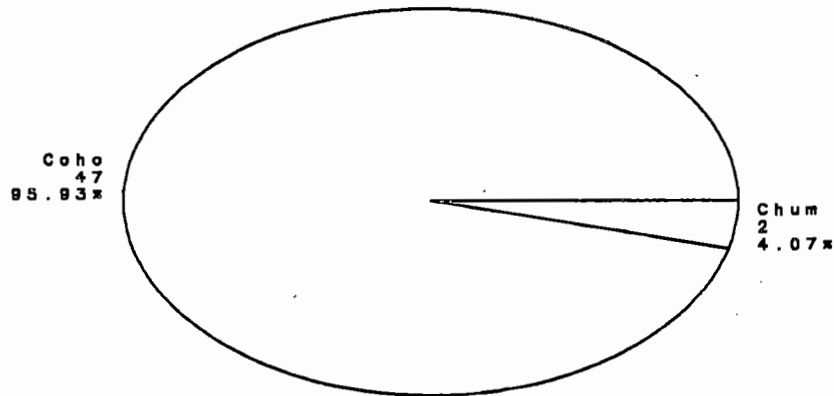
Year	Escapement	Start	Peak	End
1966	400	10 OCT	12 NOV	13 NOV
1967	78	10 OCT	11 NOV	11 NOV
1968	200	22 OCT	23 OCT	13 NOV
1969	20	-	-	-
1970	20	-	-	-
1971	1,500	-	-	30 NOV
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1975	10	10 OCT	10 OCT	10 NOV
1976	40	10 OCT	30 OCT	03 NOV
1977	30	04 NOV	15 NOV	15 NOV
1978	0	02 NOV	15 NOV	15 NOV
1979	0	-	-	-
1980	0	-	-	-
1981	0	-	-	-
1982	10	15 NOV	15 NOV	15 NOV
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1966	25	-	10 OCT	-
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	-	-	-	-
1981	0	-	-	-
1982	0	-	-	-
1983	-	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

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	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

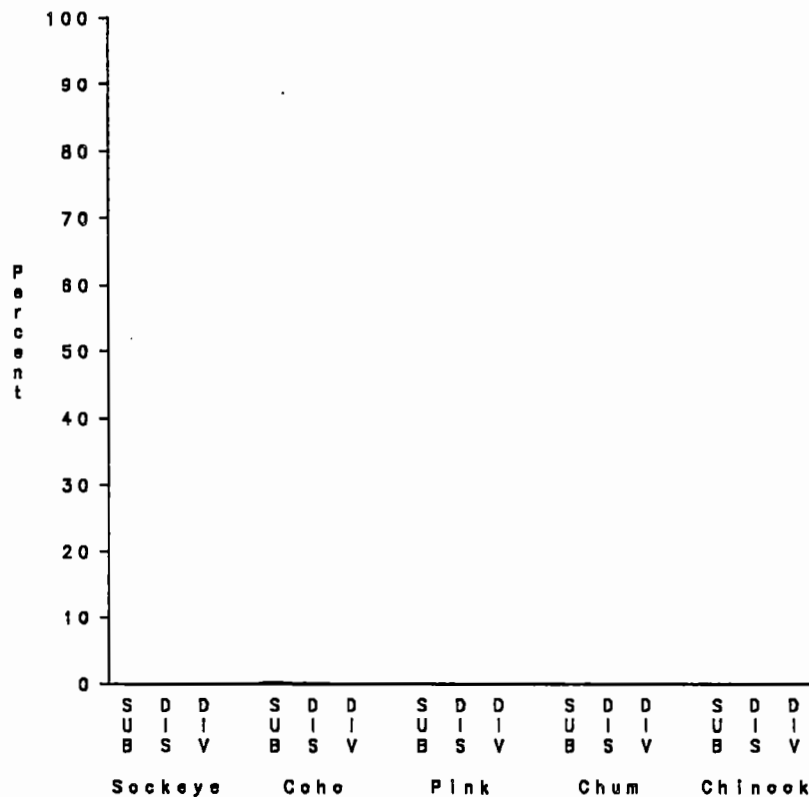
COLEMAN CREEK (93-2100)

10-yr Mean Escapement
(1978-1987)



COLEMAN CREEK : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



A. DESCRIPTION

Stream Name: FRANKLIN RIVER	D.F.O. Division: SOUTH COAST
Local Name:	District: 4 PORT ALBERNI
Watershed Code: 93-2200	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-2
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92F/2
CORRIGAN CREEK	050	B.C.G.S. (1:20k) Map: 006
		U.T.M. Mouth:
		Lat./Long. Mouth: 49 06. 06' 01'' 124 06. 48' 38''
		Mainstem Length: 2.8 km Ref. No.: 23-1
		Watershed Area: 77.7 km ² Ref. No.: 23-1
		Location: FLOWS W. INTO SPROAT NARROWS, ALBERNI INLET, BARCLAY 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			AF ALL SPECIES	NEAR THE CONFLUENCE OF CORRIGAN C AND FRANKLIN R. (REF. 23-8)

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
SK SOCKEYE SALMON	PRESENT (REF. 28A-18)
CO COHO SALMON	TO FALLS (REF. 23-8)
CH CHUM SALMON	LOWER 0.5 KM TO LOGGING BRIDGE (REF. 23-8)
CH CHINOOK SALMON	HISTORICAL PRESENCE (REF. 23-8)
ST STEELHEAD	WINTER RUN PRESENT (REF. 23-8, REF. 23-13)
CT CUTTHROAT TROUT	PRESENT (REF. 23-8)
RB RAINBOW TROUT	PRESENT (REF. 23-8)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
SK SOCKEYE SALMON	13	1978 - 1987	28A-18	80	28A-18		

E. ESCAPEMENT SUMMARY CONTINUED

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	61	1978 - 1987	28A-18	100	28A-18		
CM CHUM SALMON	17	1978 - 1987	28A-18	50	28A-18		
CH CHINOOK SALMON	1	1978 - 1987	28A-18	4	28A-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 X	X X
CM CHUM SALMON	Migration Spawning Incubation Rearing										X X	X X	X
CH CHINOOK 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	EXTREMELY HEAVILY LOGGED. THE EARLIEST CUTS ARE AT THE MOUTH OF THIS RIVER (1863-1918). LOGGING CAMP ORIGINALLY PLACED AT THE MOUTH OF THE RIVER. (REF. 23-2, REF. 23-8)
MI MINING	IN THE UPPER REACHES (HISTORICALLY) (REF. 23-2)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

LIMITED SUITABLE GRAVEL FOR PRODUCTION POTENTIAL (REF. 23-8)
LOGGING HAS HAD SEVERE EFFECTS ON THIS SYSTEM (REF. 23-8)
UPPER LAKES AT HIGHER ELEVATION IS AN UNDISTURBED M.O.F. PARK FATHER AND SON LAKE IS THE ONLY LAKE AT HEADWATERS. (REF. 17-68, REF. 23-2)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:

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

Watershed Code: 93-2200
Stream Name: FRANKLIN RIVER
Page: 3

K. SIS COMPLETED BY

Completed by: GITA KAPAH
Last checked by: VIOLET KOMORI

Date: 1989/03/02
Date: 1990/03/29

ESCAPEMENT: FRANKLIN RIVER

WATERSHED-CODE: 93-2200

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	200	0	200	0	400
1954	0	25	0	200	0	400
1955	0	200	0	75	0	75
1956	0	25	0	200	25	75
1957	0	75	0	75	25	400
1958	0	75	0	200	25	400
1959	0	200	0	25	UNK	400
1960	0	25	0	25	N/O	200
1961	0	25	25	25	25	400
1962	0	25	N/O	75	25	400
1963	0	25	0	25	N/O	200
1964	0	25	0	400	0	200
1965	0	75	0	200	0	200
1966	0	400	0	1500	0	0
1967	0	400	0	750	0	0
1968	0	400	0	750	25	0
1969	0	75	0	75	N/O	0
1970	0	200	0	75	25	75
1971	0	25	0	25	25	75
1972	0	75	0	200	25	0
1973	0	200	0	75	75	75
1974	0	150	30	150	40	0
1975	0	75	20	75	40	0
1976	0	125	80	250	90	0
1977	0	100	N/O	100	50	0
1978	0	100	N/O	N/O	N/O	0
1979	0	100	N/O	30	N/O	0
1980	UNK	UNK	UNK	UNK	UNK	UNK
1981	UNK	UNK	UNK	UNK	UNK	UNK
1982	0	45	0	5	4	0
1983	UNK	UNK	UNK	UNK	UNK	UNK
1984	0	UNK	0	UNK	UNK	0
1985	80	UNK	UNK	50	2	0
1986	UNK	UNK	0	UNK	UNK	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

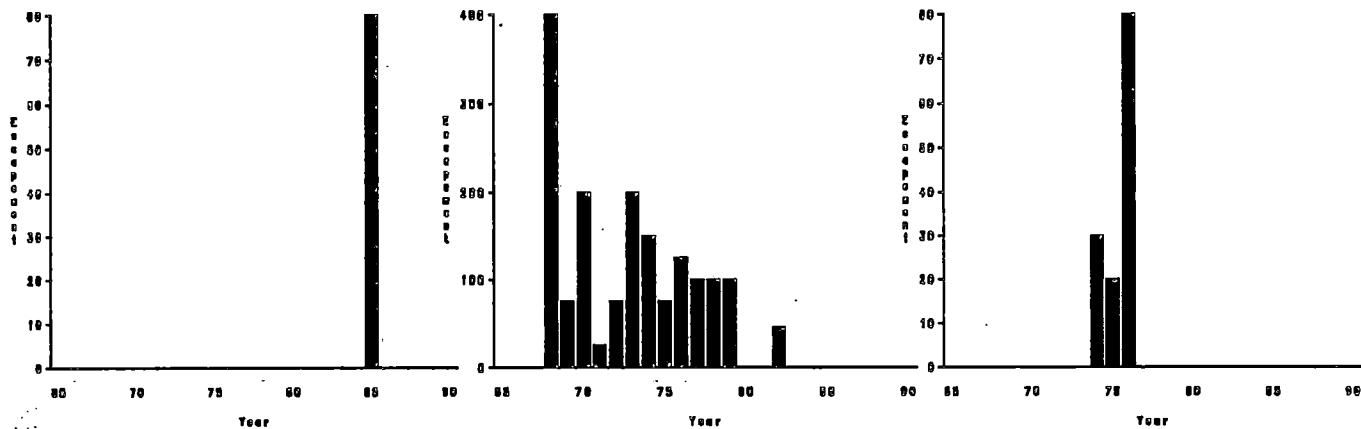
FRANKLIN RIVER (93-2200)

Escapement & Run Timing

Socketeye (SK)

Coho (CO)

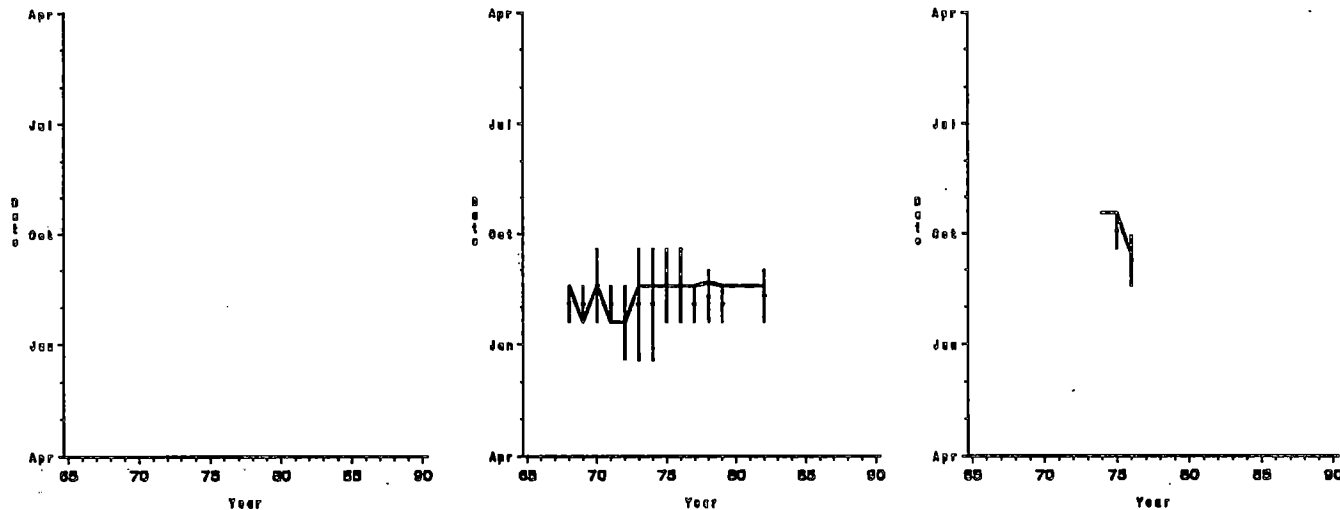
Pink (PK)



Sockeye

Coho

Pink



Sockeye				
Year	Escapement	Start	Peak	End
1965	0	-	-	-
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	80	-	20OCT	-
1986	0	-	-	-
1987	0	-	-	-

Coho				
Year	Escapement	Start	Peak	End
1965	400	10NOV	10NOV	10DEC
1966	70	10NOV	10DEC	10DEC
1967	200	10NOV	10NOV	10DEC
1968	20	10NOV	10DEC	10DEC
1969	75	10NOV	10DEC	14JAN
1970	200	10OCT	10NOV	10JAN
1971	100	10OCT	10NOV	10JAN
1972	75	10OCT	10NOV	10DEC
1973	125	10OCT	10NOV	10DEC
1974	100	10NOV	10NOV	10DEC
1975	100	10NOV	10NOV	10DEC
1976	100	10NOV	10NOV	10DEC
1977	100	10NOV	10NOV	10DEC
1978	100	10NOV	10NOV	10DEC
1979	100	10NOV	10NOV	10DEC
1980	-	-	-	-
1981	-	-	-	-
1982	45	10NOV	10NOV	10DEC
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Pink				
Year	Escapement	Start	Peak	End
1965	0	-	-	-
1966	0	-	-	-
1967	0	-	-	-
1968	0	-	-	-
1969	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	30	15SEP	15SEP	15SEP
1975	20	15SEP	15SEP	15OCT
1976	80	14OCT	20OCT	15NOV
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	0	-	-	-
1983	-	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

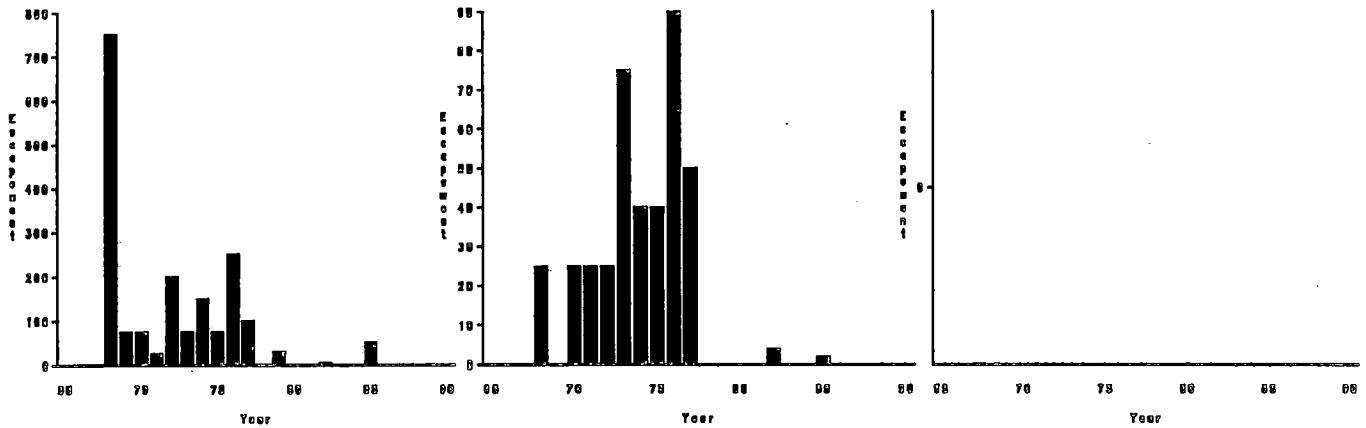
FRANKLIN RIVER (93-2200)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

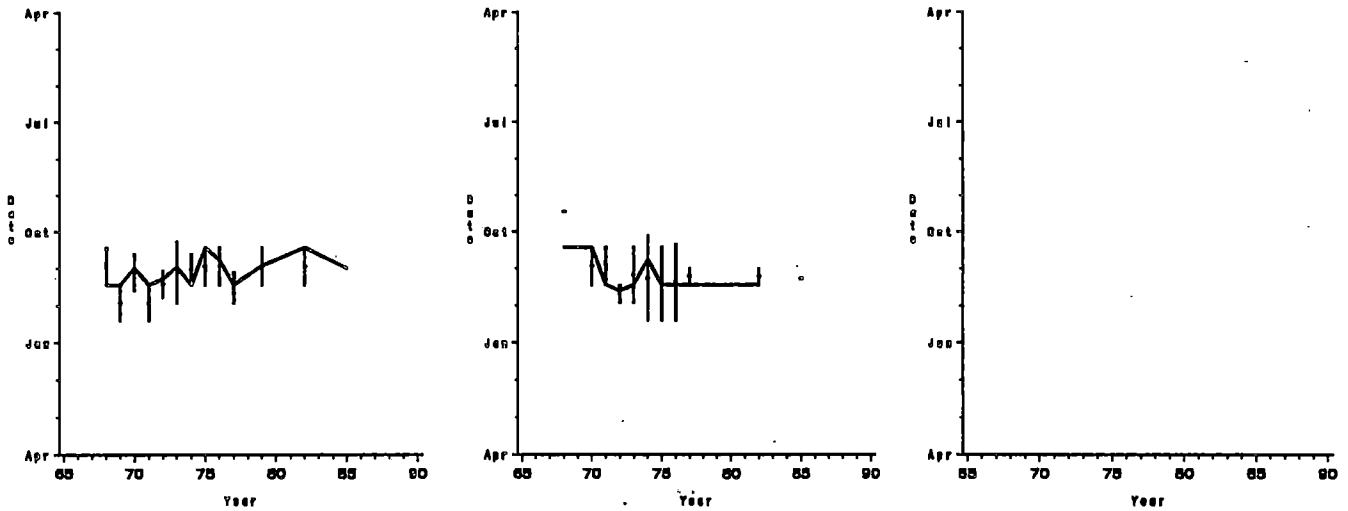
Steelhead (ST)



Chum

Chinook

Steelhead



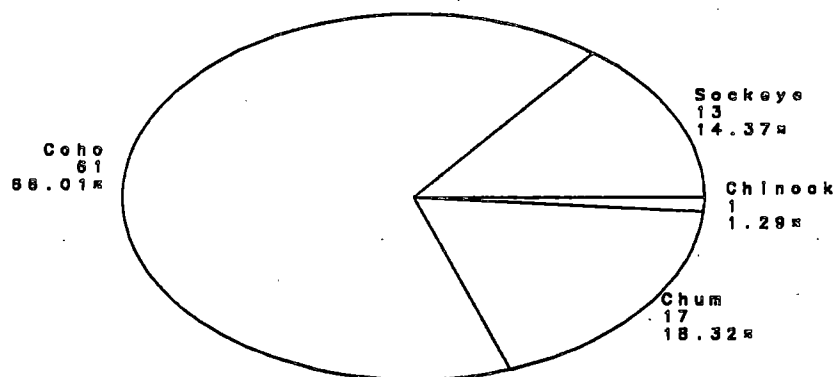
Chum				
Year	Escapement	Start	Peak	End
1965	0			
1966	800	18OCT	18NOV	18NOV
1967	100	18NOV	18NOV	18DEC
1968	100	28OCT	61NOV	28NOV
1969	200	18NOV	18NOV	18DEC
1970	200	02NOV	10NOV	28NOV
1971	70	18OCT	21OCT	30NOV
1972	100	28OCT	18NOV	18NOV
1973	70	18OCT	18OCT	18NOV
1974	100	18OCT	25OCT	18NOV
1975	70	18OCT	18OCT	18NOV
1976	250	18OCT	25OCT	18NOV
1977	100	04NOV	18NOV	30NOV
1978	0			
1979	30	18OCT	30OCT	18NOV
1980	-			
1981	-			
1982	5	13OCT	15OCT	18NOV
1983	-			
1984	-			
1985	50		61NOV	
1986	-			
1987	0			

Chinook				
Year	Escapement	Start	Peak	End
1965	10	18SEP	18OCT	-
1966	0			
1967	10	18OCT	18OCT	18NOV
1968	10	18OCT	18NOV	18NOV
1969	10	18NOV	28NOV	30NOV
1970	25	18OCT	18NOV	18NOV
1971	25	18OCT	18NOV	18NOV
1972	25	18NOV	28NOV	30NOV
1973	70	18OCT	18NOV	30NOV
1974	40	18OCT	25OCT	18DEC
1975	40	18OCT	18NOV	18DEC
1976	10	18OCT	18NOV	18DEC
1977	50	01NOV	18NOV	18NOV
1978	0			
1979	0			
1980	-			
1981	-			
1982	4	01NOV	18NOV	18NOV
1983	-			
1984	-			
1985	2			18NOV
1986	-			
1987	0			

Steelhead				
Year	Escapement	Start	Peak	End
1965	-			
1966	-			
1967	-			
1968	-			
1969	-			
1970	-			
1971	-			
1972	-			
1973	-			
1974	-			
1975	-			
1976	-			
1977	-			
1978	-			
1979	-			
1980	-			
1981	-			
1982	-			
1983	-			
1984	-			
1985	-			
1986	-			
1987	-			

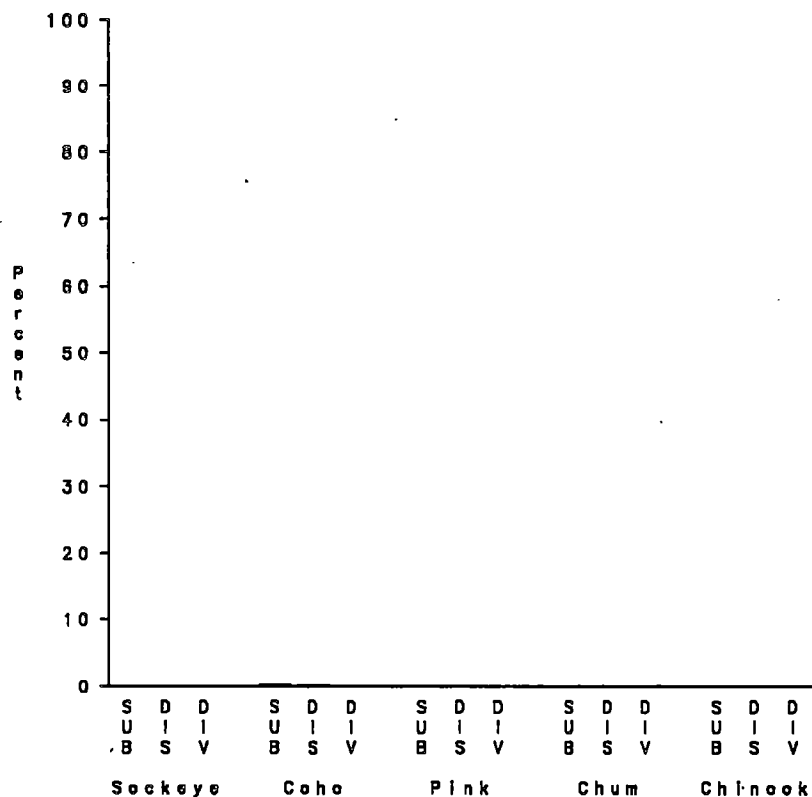
FRANKLIN RIVER (93-2200)

10-yr Mean Escapement
(1978-1987)



FRANKLIN RIVER : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



A. DESCRIPTION

Stream Name: CORRIGAN CREEK	D.F.O. Division: SOUTH COAST
Local Name:	District: 4 PORT ALBERNI
Watershed Code: 93-2200-050	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-2
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92F/2
		B.C.G.S. (1:20k) Map: 007
		U.T.M. Mouth:
		Lat./Long. Mouth: 49 06. 05' 58'' 124 06. 46' 35''
		Mainstem Length: Ref. No.:
		Watershed Area: Ref. No.:
Location: TRIBUTARY TO FRANKLIN R.		

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		0.5	AF ALL SPECIES	(REF. 23-2, REF. 23-8)

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	TO FALLS (REF. 23-8)
ST STEELHEAD	TO FALLS; WINTER STEELHEAD ONLY (REF. 23-8, REF. 23-13)
CT CUTTHROAT TROUT	THROUGHOUT (REF. 23-8)
RB RAINBOW TROUT	THROUGHOUT (REF. 23-8)

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
NO INFORMATION AVAILABLE				

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	HEAVY LOGGING ONGOING SINCE 1927 (REF. 23-2, REF. 23-8)
MI MINING	HEAVY MINING ACTIVITY TO 1986. APPROXIMATELY 0.5 SQ.KM. OF MINERAL LEASES IN THE UPPER SECTION (REF. 23-2, REF. 23-8)
FO FORESTRY	GOOD SECOND GROWTH NOW PRESENT THROUGHOUT (REF. 23-2)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

STEELHEAD FISHERY DATA AVAILABLE (REF. 23-13)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /

Prepared By:

K. SIS COMPLETED BY

Completed by: GITA KAPAH
Last checked by: VIOLET KOMORI

Date: 1989/03/02
Date: 1990/03/27

A. DESCRIPTION

Stream Name: CHINA CREEK	D.F.O. Division: SOUTH COAST
Local Name:	District: 4 PORT ALBERNI
Watershed Code: 93-2240	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-1
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit: 7

Tributaries	Code	Topographic (1:50k) Map: 92F/2
		B.C.G.S. (1:20k) Map: 017
		U.T.M. Mouth:
		Lat./Long. Mouth: 49 DG. 09' 09" 124 DG. 47' 38"
		Mainstem Length: 4.8 km Ref. No.: 23-1
		Watershed Area: 72.5 km2 Ref. No.: 23-1
		Location: FLOWS S.W. INTO ALBERNI INLET, ALBERNI DIST.

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	MOSTLY LOW GRADIENT IN LOWER REACHES (REF. 23-8)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
C CASCADE	2.1	1.6		THROUGHOUT (REF. 23-1, REF. 23-8)
F FALLS		4.8	AF ALL SPECIES	(REF. 23-1, REF. 23-8)
D DAM		4.8	AF ALL SPECIES	2 DAMS, OLD AND NEW (REF. 23-1, REF. 23-8)

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: SOURCE OF WATER FOR CITY OF PORT ALBERNI (REF. 23-7)	

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
CO COHO SALMON	THROUGHOUT AND IN TRIBUTARIES (REF. 23-8)
PK PINK SALMON	PRESENCE NOTED IN 1982 ONLY (REF. 28A-18)
CH CHINOOK SALMON	IN LOWER 1KM (REF. 23-8)
ST STEELHEAD	THROUGHOUT TO FALLS AT 4.8KM AND TRIBUTARIES (REF. 23-8, REF. 23-13)
ST STEELHEAD	SUMMER AND WINTER RUNS. WINTER RUN IS PREDOMINANT (REF. 23-13)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	45	1978 - 1987	28A-18	90	28A-18		
PK PINK SALMON	4	1978 - 1986	28A-18	20	28A-18		

E. ESCAPEMENT SUMMARY CONTINUED

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CH CHINOOK SALMON	2	1977 - 1987	28A-18	100	28A-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 X	X
CH CHUM SALMON	Migration Spawning Incubation Rearing										X	X X	X
CH CHINOOK 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
TR TRANSPLANT	CH CHINOOK SALMON CO COHO SALMON	0.0	FRY OUTPLANTS (ROBERTSON CREEK FACILITY). ONGOING (REF. 23-8)	1985/
TR TRANSPLANT	ST STEELHEAD	0.0	F & W OUTPLANTS (REF. 23-8)	1985/

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	BLOEDEL BOOMING GROUNDS ARE ADJACENT TO WHAT WAS THE ESTUARY (REF. 23-1)
FO FORESTRY	LOGGING HAS TAKEN PLACE FROM 1878 TO 1984. MOST AVAILABLE TIMBER HAS BEEN REMOVED. LARGE OPENINGS WERE MADE IN EARLY 1930'S. MAY BE USEFUL IN EXAMINATION OF EARLY LOGGING EFFECTS AND POTENTIAL EFFECTS OF SECOND GROWTH HARVEST. (REF. 23-2)
UD URBAN DEVELOPMENT	MARINA ON ESTUARY (1976). BOOMING GROUNDS ADJACENT. GRAVEL PIT AND HOG FUEL DUMP IN WATERSHED. (REF. 23-7)
WQ WATER QUALITY	SILTATION IN LOWER RIVER DUE TO DRAINAGE VIA CITY GRAVEL PIT. (1982) (REF. 23-7)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

WATER QUALITY AND PRODUCTIVITY ARE INCREASING. GRAVEL PITS NO LONGER ACTIVE; HOG FUEL DUMPS REMOVED (EARLY 1980'S) (REF. 23-8)
SNORKEL SURVEYS 1972-79 (REF. 23-13)
IS AN IMPORTANT PRODUCER, DESIGNATED A WILD STREAM. TAKES THE OVERFLOW OF FISH FROM STAMP/SOMASS (REF. 23-13)

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

Watershed Code: 93-2240
Stream Name: CHINA CREEK
Page: 3

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /

Prepared By:

K. SIS COMPLETED BY

Completed by: GITA KAPAHI
Last checked by: VIOLET KOMORI

Date: 1989/02/28
Date: 1990/03/29

ESCAPEMENT: CHINA CREEK

WATERSHED-CODE: 93-2240

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	75	0	75	0	400
1954	0	25	0	200	0	400
1955	0	UNK	0	200	0	400
1956	0	25	0	25	0	400
1957	0	75	0	25	0	400
1958	0	75	0	75	0	400
1959	0	25	0	75	0	400
1960	0	25	0	25	0	0
1961	0	200	0	75	75	400
1962	0	25	0	25	0	400
1963	0	75	0	25	25	400
1964	0	200	0	25	25	400
1965	0	75	0	25	25	0
1966	0	750	0	25	25	0
1967	0	200	0	200	N/O	0
1968	0	750	0	200	75	0
1969	0	75	0	25	N/O	0
1970	0	75	0	N/O	N/O	400
1971	0	75	0	N/O	N/O	200
1972	0	200	0	25	N/O	200
1973	0	75	0	75	25	0
1974	0	75	0	75	N/O	0
1975	0	150	0	N/O	10	0
1976	0	70	0	20	15	0
1977	0	50	0	N/O	15	0
1978	0	90	0	N/O	N/O	0
1979	0	90	0	N/O	N/O	0
1980	0	0	0	0	0	0
1981	0	90	0	N/O	10	0
1982	0	0	20	UNK	N/O	0
1983	UNK	UNK	UNK	UNK	UNK	UNK
1984	0	UNK	0	UNK	UNK	UNK
1985	UNK	UNK	UNK	UNK	UNK	0
1986	0	UNK	0	UNK	UNK	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

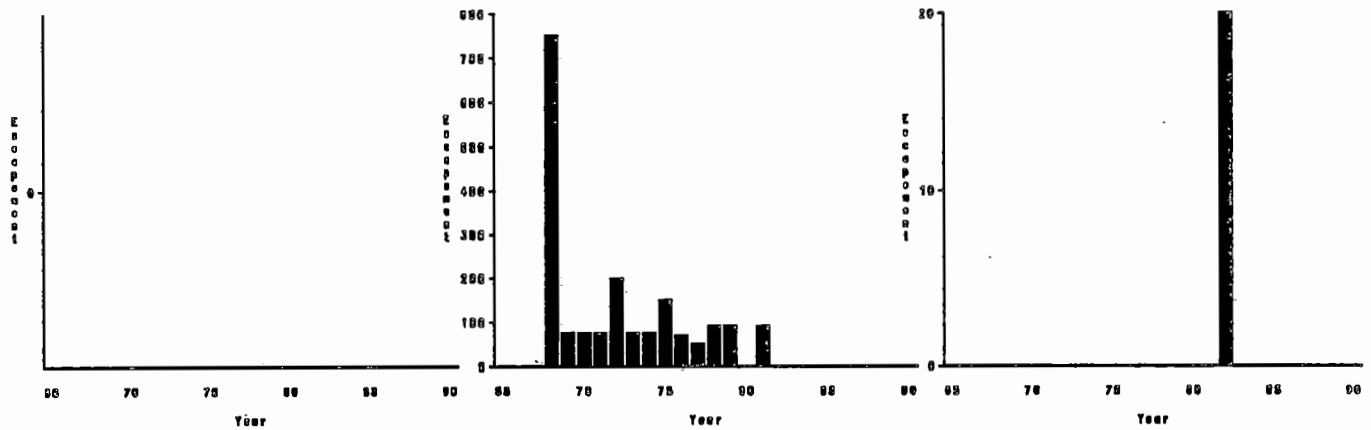
CHINA CREEK (93-2240)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

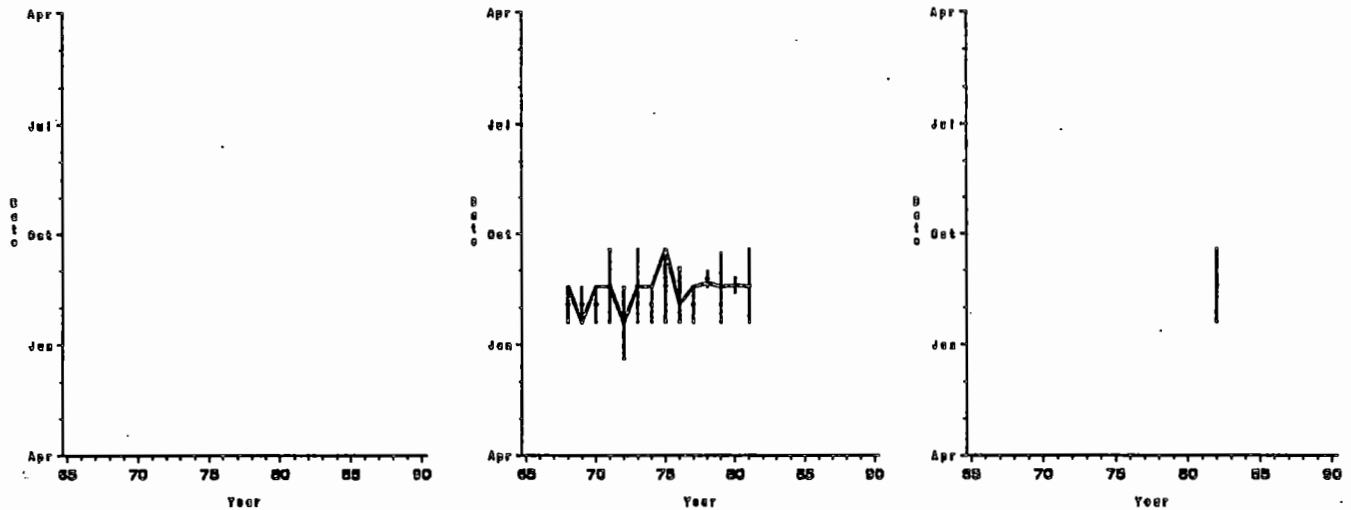
Pink (PK)



Sockeye

Coho

Pink



Sockeye

Coho

Pink

Year	Escapement	Start	Peak	End
1965	0	-	-	-
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	-	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1965	750	15NOV	15NOV	15DEC
1966	70	15NOV	15DEC	15DEC
1967	75	15NOV	15NOV	15DEC
1968	70	15OCT	15NOV	15DEC
1969	200	15NOV	15DEC	15JAN
1970	70	15OCT	15NOV	15DEC
1971	70	15NOV	15NOV	15DEC
1972	70	15NOV	15NOV	15DEC
1973	70	15NOV	15NOV	15DEC
1974	70	15NOV	15NOV	15DEC
1975	100	15OCT	15OCT	15DEC
1976	70	30OCT	30NOV	15DEC
1977	50	15NOV	15NOV	15DEC
1978	10	02NOV	12NOV	15OCT
1979	10	15OCT	15NOV	15DEC
1980	0	02NOV	14NOV	20OCT
1981	10	15OCT	15NOV	15DEC
1982	0	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1965	0	-	-	-
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	10	15OCT	15NOV	15DEC
1983	-	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

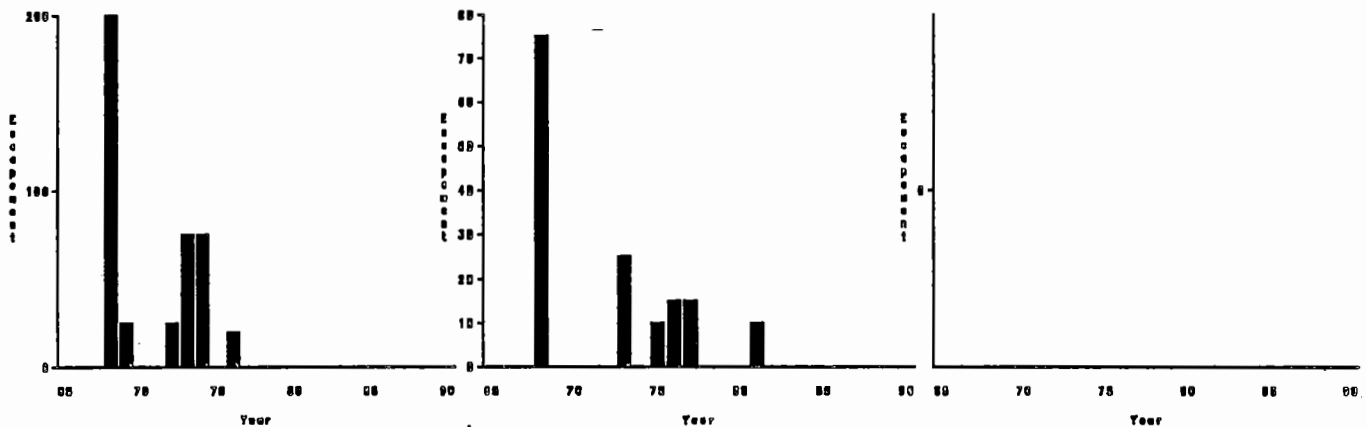
CHINA CREEK (93-2240)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

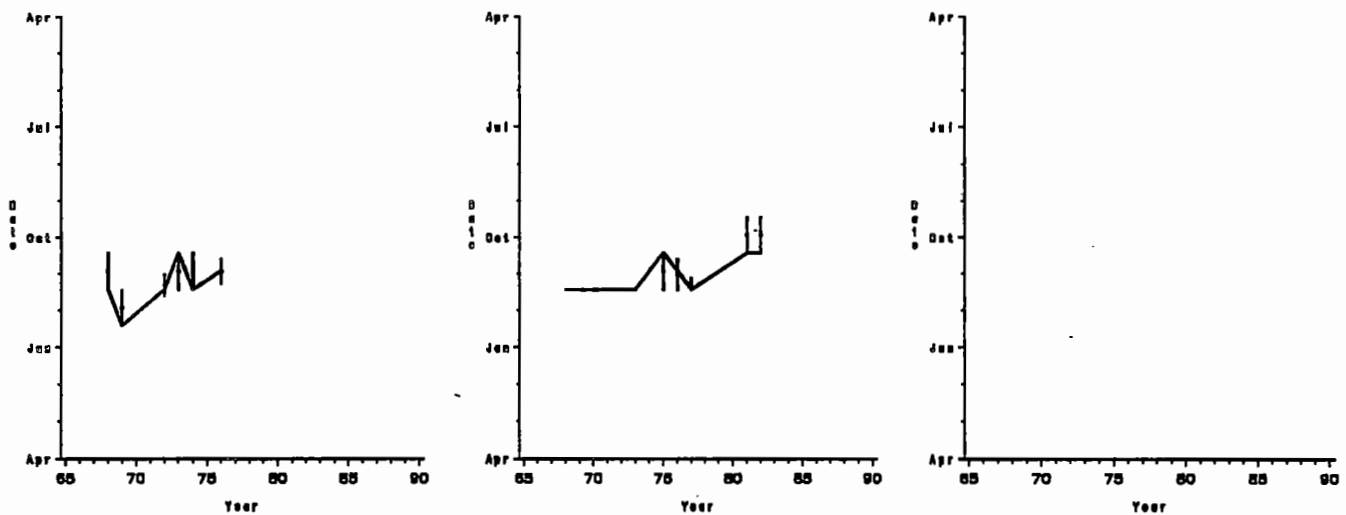
Steelhead (ST)



Chum

Chinook

Steelhead



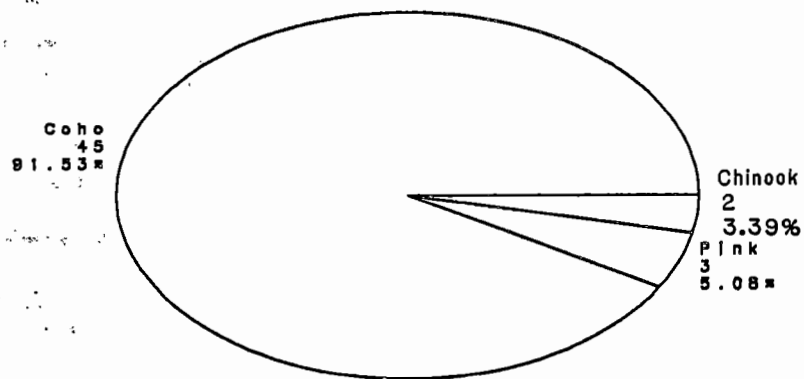
Chum				
Year	Escapement	Start	Peak	End
1965	200	19OCT	19NOV	19NOV
1966	20	19NOV	19DEC	19DEC
1967	0	-	-	-
1968	0	-	-	-
1969	20	02NOV	13NOV	24NOV
1970	70	18OCT	18OCT	18NOV
1971	70	18OCT	18NOV	18NOV
1972	0	-	-	-
1973	20	20OCT	30OCT	18NOV
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	0	-	-	-
1981	0	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Chinook				
Year	Escapement	Start	Peak	End
1965	75	-	18NOV	-
1966	0	-	-	-
1967	0	-	-	-
1968	0	-	-	-
1969	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	25	18NOV	18NOV	18NOV
1974	0	-	-	-
1975	10	18OCT	18OCT	18NOV
1976	15	20OCT	30OCT	18NOV
1977	15	05NOV	18NOV	18NOV
1978	0	-	-	-
1979	0	-	-	-
1980	0	-	-	-
1981	10	18OCT	18OCT	18OCT
1982	0	18SEP	18OCT	18OCT
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Steelhead				
Year	Escapement	Start	Peak	End
1965	-	-	-	-
1966	-	-	-	-
1967	-	-	-	-
1968	-	-	-	-
1969	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

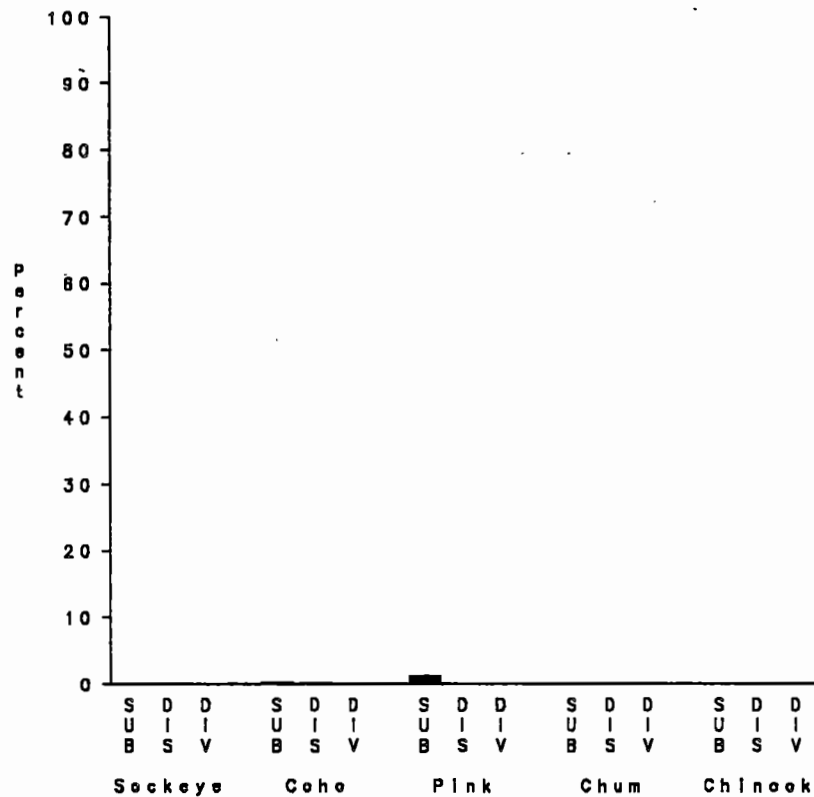
CHINA CREEK (93-2240)

10-yr Mean Escapement
(1978-1987)



CHINA CREEK : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



A. DESCRIPTION

Stream Name: SOMASS RIVER		D.F.O. Division: SOUTH COAST
Local Name:		District: 4 PORT ALBERNI
Watershed Code: 93-2300		Subdistrict: 23 PORT ALBERNI
		Statistical Subarea: 23-1
		M.O.E.P. Region: 1 VANCOUVER ISLAND
		Management Unit: 7

Tributaries	Code	Topographic (1:50k) Map: 92F/2
LUGRIM CREEK	015	B.C.G.S. (1:20k) Map: 026
ROGERS CREEK	020	U.T.M. Mouth:
KITSUCKSUS CREEK	030	Lat./Long. Mouth: 49 DG. 14' 45'' 124 DG. 49' 09''
SPROAT RIVER	100	Mainstem Length: Ref. No.:
BEAVER CREEK	150	Watershed Area: 1284.0 km2 Ref. No.: 23-1
SPAHT CREEK	200	Location: FLows S.E. AND S. THROUGH ALBERNI INTO ALBERNI INLET, ALBERNI DIST. THE SOMASS R BECOMES THE STAMP R (93-2300-000-000-000-991) AT THE SPROAT R CONFLUENCE, 7.2 KM UPSTREAM OF THE MOUTH OF THE SOMASS. SEE 93-2300-000-000-000-991 FOR INFORMATION ON THE STAMP R
ASH RIVER	250	
FORESTRY CAMP CREEK	350	

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	LOW GRADIENT (REF. 23-8)

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: Y
W.S.C. Station No. 1: 08H8017	No. 2: No. 3: No. 4:
Comments: MAX FLOW 40,600 CFS JAN.15,1961. MIN FLOW 764 CFS (REF. 23-12)	

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
SK SOCKEYE SALMON	THROUGHOUT (REF. 23-8)
CO COHO SALMON	PRESENT (REF. 23-8)
PK PINK SALMON	A FEW SEEN (REF. 23-8)
CM CHUM SALMON	LOWER NON-TIDAL SECTION (REF. 23-8)
CH CHINOOK SALMON	PRESENT (REF. 23-8)
ST STEELHEAD	PRESENT (REF. 23-8)
CT CUTTHROAT TROUT	PRESENT (REF. 23-8)
DV DOLLY VARDEN	PRESENT (REF. 23-14)
RB RAINBOW TROUT	PRESENT (REF. 23-14)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
SK SOCKEYE SALMON	340426	1978 - 1987	28A-18	600000	28A-18		
CO COHO SALMON	23807	1978 - 1987	28A-18	44000	28A-18		
CH CHUM SALMON	609	1978 - 1987	28A-18	2000	28A-18		
CH CHINOOK SALMON	14953	1978 - 1987	28A-18	54500	28A-18		
Comments: FOR PERIOD OF RECORD (1978-1987); PINK: 2 FISH RECORDED IN 1983. (REF. 28A-18)							

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 X	X
CO COHO SALMON	Migration Spawning Incubation Rearing	X									X	X X	X X
CH CHUM SALMON	Migration Spawning Incubation Rearing										X	X X	X
CH CHINOOK SALMON	Migration Spawning Incubation Rearing									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
FT LAKE FERTILIZAT'N		0.0	(REF. 23-2)	/

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
UD URBAN DEVELOPMENT	HEAVILY INDUSTRIALIZED ON THE ESTUARY (REF. 23-8)
WQ WATER QUALITY	DIRECT DISCHARGE OF PULPMILL EFFLUENT INTO ESTUARY (REF. 23-2, REF. 23-8)
WW WATER WITHDRAWAL	WATER IS WITHDRAWN FROM SYSTEM BY INDUSTRY (REF. 23-2)
WQ WATER QUALITY	AT LEAST 2 MAJOR SPILLS OF PETROLEUM PRODUCTS HAVE OCCURED WITHIN THE RIVER (1976-78) (REF. 23-2)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

THE SOMASS RIVER SYSTEM INCLUDES THE SOMASS RIVER, THE SPROAT LAKE AND RIVER SYSTEM AND THE GREAT CENTRAL LAKE-STAMP RIVER SYSTEM. THE MAINSTEM SOMASS IS 7.2 KM LONG AND BRANCHES TO FORM THE SPROAT AND STAMP RIVERS. (REF. 23-1)
DETAILED ESTUARY/RIVER INFORMATION AVAILABLE. ALSO INCLUDES DETAILED BIBLIOGRAPHY TO 1980. (REF. 23-12)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS CONTINUED

ACTIVE NATIVE FOOD FISHERY ON SYSTEM (REF. 23-8)
RANKS IN THE TOP 3 FOR B.C. SPORT FISHERY FOR STEELHEAD WITH APPROXIMATELY 12000 ANGLER DAYS. (REF. 23-13)
LARGEST PRODUCTION FACILITY FOR HATCHERY STEELHEAD. MAIN FACILITY FOR EVALUATION OF HATCHERY PRODUCTION OF STEELHEAD. INFORMATION FOR STAMP/SOMASS/SPROAT ARE ALL INCLUDED WITH SOMASS FOR STEELHEAD (REF. 23-13)
SNORKEL SURVEYS ON SYSTEM, 1976-1987 (REF. 23-13)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:

K. SIS COMPLETED BY

Completed by:	GITA KAPAHU	Date:	1989/03/08
Last updated by:	BRUCE REID	Date:	1990/04/04
Last checked by:	VIOLET KOMORI	Date:	1990/03/30

ESCAPEMENT: SOMASS RIVER

WATERSHED-CODE: 93-2300

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	35000	35000	0	7500	7500	1500
1954	35000	35000	0	7500	7500	3500
1955	35000	35000	0	3500	7500	3500
1956	7500	35000	75	1500	15000	3500
1957	145000	15000	0	7500	7500	3500
1958	40000	35000	400	7500	15000	3500
1959	35000	35000	N/O	3500	7500	3500
1960	35000	15000	400	1500	7500	3500
1961	35000	35000	75	3500	7500	3500
1962	35000	35000	750	3500	7500	3500
1963	35000	35000	3500	1500	7500	3500
1964	35000	35000	75	750	15000	3500
1965	35000	35000	3500	1500	7500	3500
1966	75000	75000	1500	1500	7500	0
1967	75000	75000	200	1500	15000	N/O
1968	99000	60000	400	3500	12500	0
1969	115000	35000	25	2500	13000	0
1970	36000	120000	100	3000	8500	1500
1971	67000	85000	200	1500	13500	1500
1972	137000	30000	400	4000	9000	0
1973	261000	130000	0	7000	11000	0
1974	93000	125000	400	3500	12500	0
1975	191000	40000	100	750	15000	0
1976	148322	35000	500	4500	13000	UNK
1977	293000	31200	N/O	500	12300	0
1978	151900	32000	N/O	300	9000	0
1979	340441	35000	N/O	350	10200	UNK
1980	297976	N/O	0	UNK	4000	0
1981	389837	UNK	0	1000	7500	0
1982	414196	8035	0	N/O	8474	N/O
1983	600000	UNK	2	1	11000	3550
1984	222402	UNK	UNK	UNK	UNK 6500	UNK
1985	274719	44000	UNK	2000	54500	0
1986	311361	UNK	UNK	UNK	UNK	0
1987	401431	406,969 UNK	0	UNK	UNK	0
1988	420,694				76,310	
1989	338,270				76,271	
1990	380,000				130,000	
1991	648,500				100,000 '91	
1992	377,100				124,290 '92	
1993						
1994						
1995						

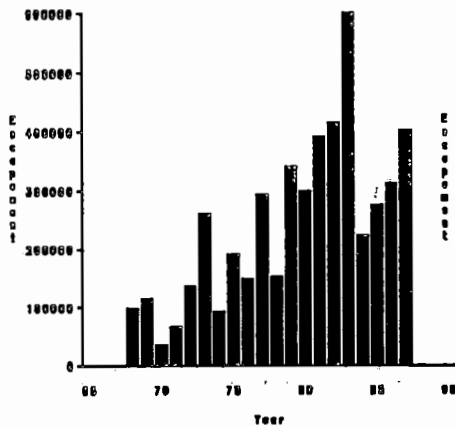
N/O = STREAM INSPECTED, NO FISH OBSERVED

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

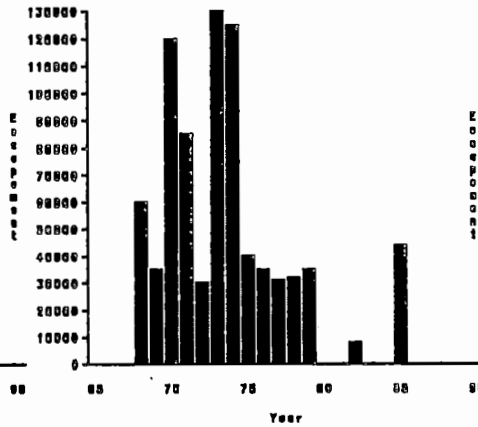
SOMASS RIVER (93-2300)

Escapement & Run Timing

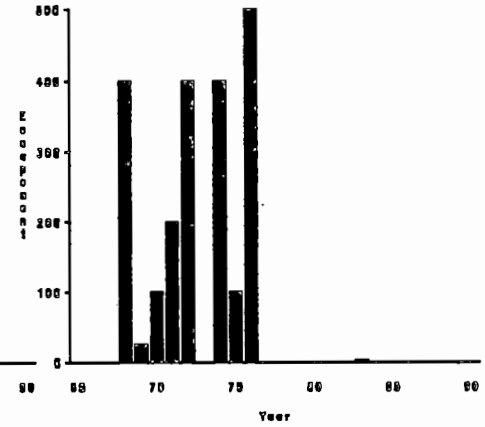
Sockeye (SK)



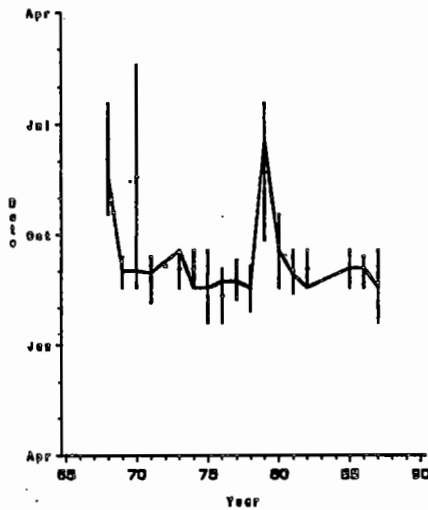
Coho (CO)



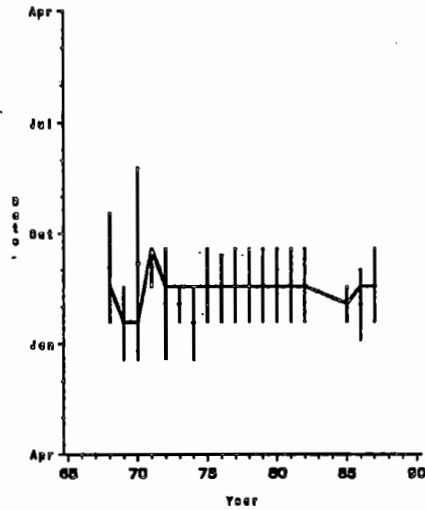
Pink (PK)



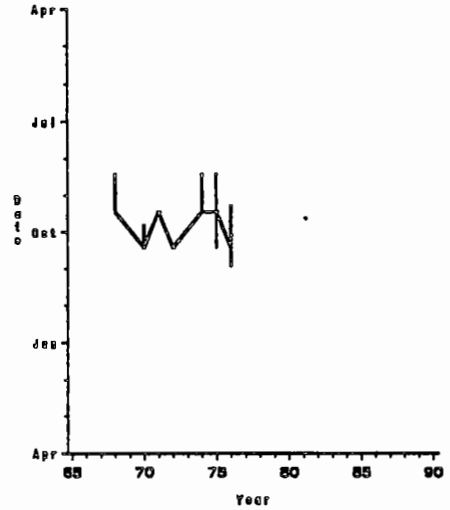
Sockeye



Coho



Pink



Sockeye

Year	Escapement	Start	Peak	End
1966	88,400	18JUN	18AUG	18SEP
1967	110,400	20OCT	01NOV	18NOV
1968	38,000	18MAY	01JUN	18NOV
1969	67,000	20OCT	03NOV	28NOV
1970	137,000	20OCT	-	-
1971	201,000	18OCT	18NOV	18NOV
1972	82,000	18OCT	18NOV	18NOV
1973	101,000	18OCT	18NOV	18DEC
1974	140,322	30OCT	18NOV	18DEC
1975	293,000	22OCT	18NOV	28NOV
1976	101,000	20OCT	18NOV	08DEC
1977	340,141	18JUN	10JUL	07OCT
1978	207,070	18SEP	18OCT	18NOV
1979	200,237	18OCT	04NOV	24NOV
1980	414,100	18OCT	15NOV	15NOV
1981	600,000	-	-	-
1982	223,402	-	-	-
1983	274,719	18OCT	20OCT	18NOV
1984	311,301	20OCT	20OCT	18NOV
1985	401,431	18OCT	18NOV	18DEC

Coho

Year	Escapement	Start	Peak	End
1966	60,000	18SEP	18NOV	18DEC
1967	25,000	18OCT	18DEC	18JAN
1968	120,000	08NOV	18DEC	18JAN
1969	80,000	15OCT	18OCT	18NOV
1970	30,000	18OCT	18NOV	14JAN
1971	130,000	18NOV	18NOV	18DEC
1972	120,000	18NOV	18NOV	18DEC
1973	40,000	18OCT	18NOV	18DEC
1974	40,000	18OCT	18NOV	18DEC
1975	35,000	20OCT	18NOV	18DEC
1976	31,200	18OCT	18NOV	18DEC
1977	32,000	18OCT	18NOV	18DEC
1978	32,000	18OCT	18NOV	18DEC
1979	0	18OCT	18NOV	18DEC
1980	0	18OCT	18NOV	18DEC
1981	0	18OCT	18NOV	18DEC
1982	0,000	18OCT	18NOV	18DEC
1983	-	-	-	-
1984	-	-	-	-
1985	54,000	18NOV	20OCT	18DEC
1986	-	18NOV	18NOV	20DEC
1987	-	18OCT	18NOV	18DEC

Pink

Year	Escapement	Start	Peak	End
1966	400	18NOV	18SEP	18SEP
1967	20	-	-	-
1968	100	20SEP	18OCT	18OCT
1969	200	18SEP	18SEP	18SEP
1970	400	18OCT	18OCT	18OCT
1971	0	-	-	-
1972	400	15NOV	18SEP	18SEP
1973	100	15NOV	18SEP	18OCT
1974	500	10SEP	13OCT	20OCT
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	0	-	-	-
1981	0	-	-	-
1982	0	-	-	-
1983	2	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

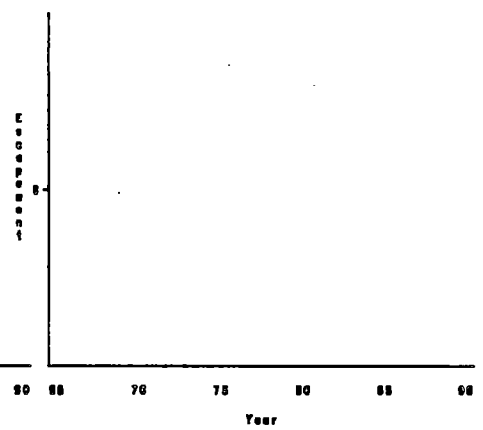
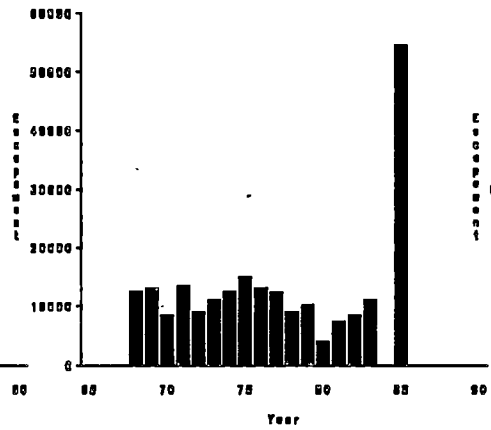
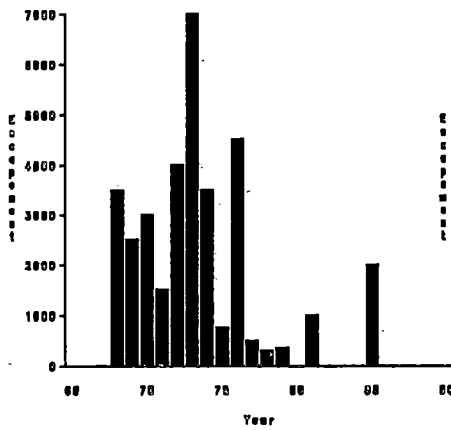
SOMASS RIVER (93-2300)

Escapement & Run Timing

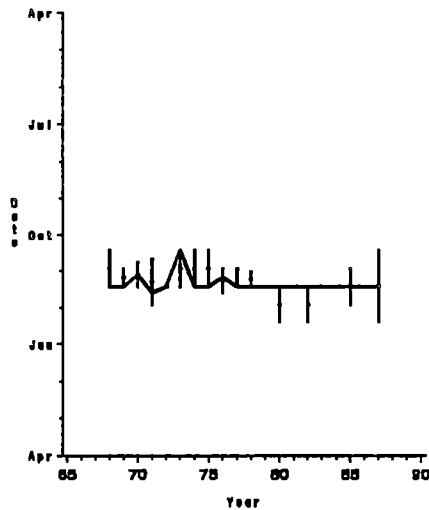
Chum (CM)

Chinook (CH)

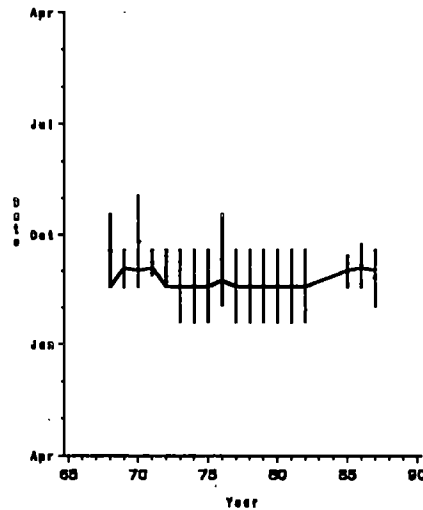
Steelhead (ST)



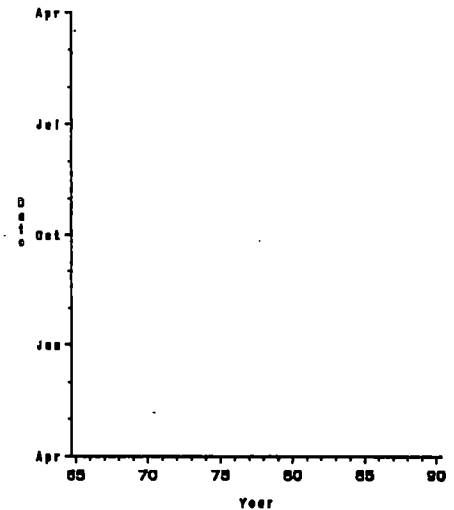
Chum



Chinook



Steelhead



Chum

Year	Escapement	Start	Peak	End
1966	2,000	19OCT	19NOV	19NOV
1967	2,000	21OCT	19NOV	19NOV
1968	2,000	21OCT	05NOV	19NOV
1969	1,000	21OCT	20NOV	30NOV
1970	4,000	19NOV	19NOV	19NOV
1971	7,000	19OCT	19NOV	19NOV
1972	2,000	19OCT	19NOV	19NOV
1973	700	19OCT	19NOV	19NOV
1974	4,200	30OCT	07NOV	20NOV
1975	800	30OCT	19NOV	19NOV
1976	300	01NOV	19NOV	19NOV
1977	300	19NOV	19NOV	19NOV
1978	-	19NOV	19NOV	19NOV
1979	1,000	-	-	-
1980	0	19NOV	19NOV	19NOV
1981	1	-	-	-
1982	2,000	30OCT	19NOV	30NOV
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

Chinook

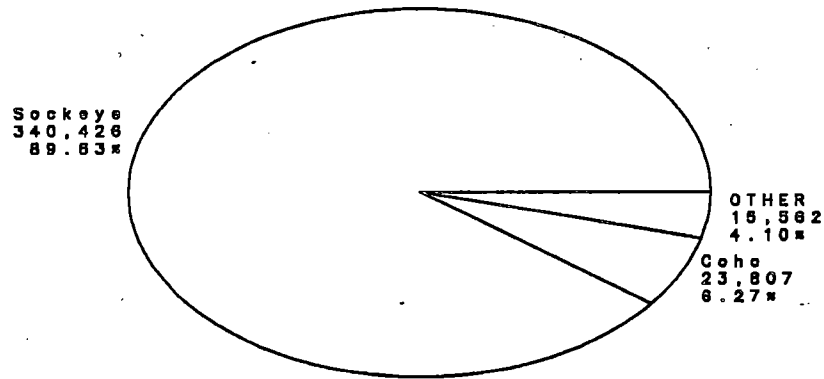
Year	Escapement	Start	Peak	End
1966	12,000	16SEP	19NOV	19NOV
1967	12,000	16OCT	20OCT	19NOV
1968	8,500	30AUG	01NOV	19NOV
1969	12,500	19OCT	30OCT	09NOV
1970	8,000	19OCT	19NOV	19NOV
1971	11,000	19OCT	19NOV	19NOV
1972	12,000	19OCT	19NOV	19NOV
1973	12,000	19OCT	19NOV	19NOV
1974	12,000	19OCT	19NOV	19NOV
1975	12,000	19OCT	19NOV	19NOV
1976	12,000	19OCT	19NOV	19NOV
1977	12,300	19OCT	19NOV	19NOV
1978	8,000	19OCT	19NOV	19NOV
1979	10,200	19OCT	19NOV	19NOV
1980	4,000	19OCT	19NOV	19NOV
1981	7,500	19OCT	19NOV	19NOV
1982	8,474	19OCT	19NOV	19NOV
1983	11,000	-	-	-
1984	-	-	-	-
1985	24,500	20OCT	01NOV	10NOV
1986	-	19OCT	30OCT	19NOV
1987	-	19OCT	01NOV	01NOV

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	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

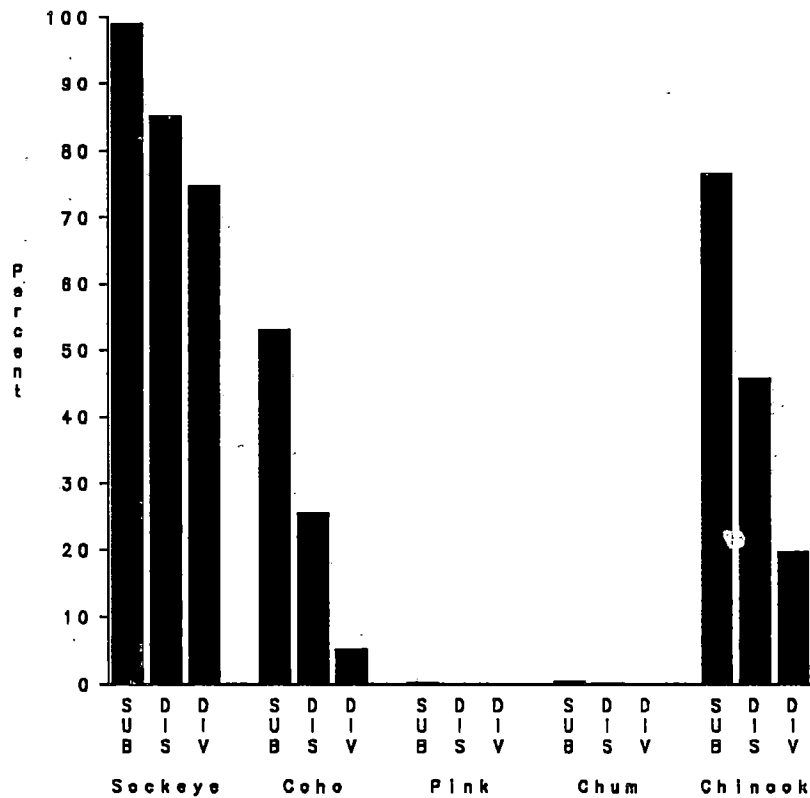
SOMASS RIVER (93-2300)

10-yr Mean Escapement
(1978-1987)



SOMASS RIVER : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



A. DESCRIPTION

Stream Name: STAMP RIVER	D.F.O. Division: SOUTH COAST
Local Name:	District: 4 PORT ALBERNI
Watershed Code: 93-2300-000-000-000-991	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-1
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit: 7

Tributaries	Code	Topographic (1:50k) Map: 92F/7
		B.C.G.S. (1:20k) Map: 036
		U.T.M. Mouth:
		Lat./Long. Mouth: 49 DG. 17' 38'' 124 DG. 52' 53''
		Mainstem Length: Ref. No.:
		Watershed Area: Ref. No.:
		Location: PART OF THE SOMASS/STAMP RIVER SYSTEM. THE SOMASS R TURNS INTO THE STAMP R UPSTREAM OF THE SPROAT R (93-2300-100) CONFLUENCE. IT'S TRIBUTARIES INCLUDE 93-2300-150 TO 93-2300-350.

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	MODERATE (REF. 23-8)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
F FALLS				MADE PASSABLE BY A FISHWAY (REF. 23-8)
D DAM				AT OUTLET OF GREAT CENTRAL LAKE (REF. 23-8)

C. FLOW.

Flow Control: Y	Water Survey of Canada (WSC) Flow Gauge: Y
W.S.C. Station No. 1: 08HB009	No. 2: No. 3: No. 4:
Comments: M & B HAVE MAINTAINED FLOW CONTROL AT DAM (REF. 23-8)	

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
SK SOCKEYE SALMON	THROUGHOUT (REF. 23-8)
CO COHO SALMON	THROUGHOUT (REF. 23-8)
CH CHINOOK SALMON	THROUGHOUT (REF. 23-8)
ST STEELHEAD	THROUGHOUT (REF. 23-8)
CT CUTTHROAT TROUT	THROUGHOUT (REF. 23-8)
OV DOLLY VARDEN	PRESENT (REF. 23-14)
RB RAINBOW TROUT	THROUGHOUT (REF. 23-8)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
Comments: ESCAPEMENT RECORDS FOR THE STAMP R INCLUDED WITH SOMASS R (93-2300) (REF. 28A-18)							

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
FT LAKE FERTILIZAT'N	CH CHINOOK SALMON CO COHO SALMON ST STEELHEAD	0.0	LAKE FERTILIZATION PROGRAM, S.E.P. FACILITY (REF. 23-8)	1960/
FT LAKE FERTILIZAT'N	SK SOCKEYE SALMON	0.0	LAKE FERTILIZATION PROGRAM, S.E.P. (REF. 23-8)	1971/

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	ONGOING INTENSIVE LOGGING THROUGHOUT WATERSHED (REF. 23-8)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

FISHWAY CONSTRUCTED TO ALLOW SALMON TO PASS (REF. 23-2)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:

K. SIS COMPLETED BY

Completed by: GITA KAPANI	Date: 1989/03/08
Last updated by: BRUCE REID	Date: 1990/04/04
Last checked by: VIOLET KOMORI	Date: 1990/03/27

Stream Name: LUGRIN CREEK	D.F.O. Division: SOUTH COAST
Local Name:	District: 4 PORT ALBERNI
Watershed Code: 93-2300-015	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: -
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92F/7 B.C.G.S. (1:20k) Map: U.T.M. Mouth: 10.3677.54582 Lat./Long. Mouth: 06. ' ' 06. ' ' Mainstem Length: Watershed Area:
		Ref. No.: Ref. No.: Location:

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

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

Flow Control:	Water Survey of Canada (WSC) Flow Gauge: Y
W.S.C. Station No. 1: 08H8062	No. 2: No. 3: No. 4:
Comments: FLOW CONTROL WORK DONE IN WATERSHED (REF. 23-8)	

Species	Watershed Distribution
CO COHO SALMON	PRESENT (REF. 23-8)
ST STEELHEAD	PRESENT (REF. 23-8)

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

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
TR TRANSPLANT	CO COHO SALMON	0.0	TRANSPLANTED FROM ROBERTSON CREEK (REF. 23-8)	/

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
AG AGRICULTURE	ACTIVITY IN UPPER WATERSHED (REF. 23-8)
UD URBAN DEVELOPMENT	FLOOD/FLOW CONTROL WORK DONE IN WATERSHED (REF. 23-8)

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
Last checked by: VIOLET KOMORI

Date: 1989/03/09
Date: 1990/03/27

Stream Name: ROGERS CREEK	D.F.O. Division: SOUTH COAST
Local Name: ROGER CREEK	District: 4 PORT ALBERNI
	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-1
Watershed Code: 93-2300-020	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92F/7 B.C.G.S. (1:20k) Map: 027
		U.T.M. Mouth: Lat./Long. Mouth: 49 DG. 15' 18'' 124 DG. 48' 35'' Mainstem Length: Ref. No.: Watershed Area: Ref. No.:
		Location: FLOWS SW INTO SOMASS R, IN PORT ALBERNI HARBOUR.

Gradient Class/Location (km upstream from mouth)						Comments
0 - .5%	.5 - 2%	2 - 5%	5 - 10%	>10%	MODERATE GRADIENT (REF. 23-8)	

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
F FALLS	5.0	10.0	AF ALL SPECIES	(REF. 23-8)

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

Species	Watershed Distribution
CO COHO SALMON	THROUGHOUT TO FALLS BELDW CONFLUENCE OF STOKES C (REF. 23-8)
CM CHUM SALMON	OCCASIONALLY IN LOW TIDAL SECTION (REF. 23-8)
CH CHINOOK SALMON	OCCASIONALLY IN LOW TIDAL SECTION (REF. 23-8)
ST STEELHEAD	THROUGHOUT (REF. 23-8)

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

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
TR TRANSPLANT	CO COHO SALMON	0.0	OUTPLANTS FROM ROBERTSON CREEK (TO THE PRESENT) (REF. 23-8)	1983/

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
UD URBAN DEVELOPMENT	IN LOWER PARTS (REF. 23-8)
FO FORESTRY	ONGOING LOGGING IN UPPER WATERSHED (REF. 23-8)
WW WATER WITHDRAWAL	SOME WATER WITHDRAWAL FOR SAHARA HEIGHTS WATER WORKS AREA (REF. 23-8)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

FISHERY IS LIMITED TO A KIDS-ONLY FISHERY BY REGULATION (REF. 23-8)

FOUR ELECTROSHOCKING SITES (REF. 23-15)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /

Prepared By:

K. SIS COMPLETED BY

Completed by: GITA KAPAHI
Last checked by: VIOLET KOKORI

Date: 1989/03/08
Date: 1990/03/27

ESCAPEMENT: ROGERS CREEK

WATERSHED-CODE: 93-2300-020

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	UNK	UNK	UNK	UNK	UNK	UNK
1954	UNK	UNK	UNK	UNK	UNK	UNK
1955	UNK	UNK	UNK	UNK	UNK	UNK
1956	UNK	UNK	UNK	UNK	UNK	UNK
1957	UNK	UNK	UNK	UNK	UNK	UNK
1958	UNK	UNK	UNK	UNK	UNK	UNK
1959	UNK	UNK	UNK	UNK	UNK	UNK
1960	UNK	UNK	UNK	UNK	UNK	UNK
1961	UNK	UNK	UNK	UNK	UNK	UNK
1962	UNK	UNK	UNK	UNK	UNK	UNK
1963	UNK	UNK	UNK	UNK	UNK	UNK
1964	UNK	UNK	UNK	UNK	UNK	UNK
1965	UNK	UNK	UNK	UNK	UNK	UNK
1966	UNK	UNK	UNK	UNK	UNK	UNK
1967	UNK	UNK	UNK	UNK	UNK	UNK
1968	UNK	UNK	UNK	UNK	UNK	UNK
1969	UNK	UNK	UNK	UNK	UNK	UNK
1970	UNK	UNK	UNK	UNK	UNK	UNK
1971	UNK	UNK	UNK	UNK	UNK	UNK
1972	UNK	UNK	UNK	UNK	UNK	UNK
1973	UNK	UNK	UNK	UNK	UNK	UNK
1974	UNK	UNK	UNK	UNK	UNK	UNK
1975	UNK	UNK	UNK	UNK	UNK	UNK
1976	UNK	UNK	UNK	UNK	UNK	UNK
1977	UNK	UNK	UNK	UNK	UNK	UNK
1978	UNK	UNK	UNK	UNK	UNK	UNK
1979	UNK	UNK	UNK	UNK	UNK	UNK
1980	UNK	UNK	UNK	UNK	UNK	UNK
1981	UNK	UNK	UNK	UNK	UNK	UNK
1982	UNK	UNK	UNK	UNK	UNK	UNK
1983	UNK	UNK	UNK	UNK	UNK	UNK
1984	0	UNK	0	0	UNK	UNK
1985	UNK	UNK	UNK	UNK	UNK	UNK
1986	UNK	UNK	UNK	UNK	UNK	UNK
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

Stream Name:	KITSUCKSUS CREEK	D.F.O. Division:	SOUTH COAST
Local Name:	KITSUCKSIS CREEK	District:	4 PORT ALBERNI
		Subdistrict:	23 PORT ALBERNI
		Statistical Subarea:	23-1
Watershed Code:	93-2300-030	M.O.E.P. Region:	1 VANCOUVER ISLAND
		Management Unit:	

Gradient Class/Location (km upstream from mouth)						Comments
0 - .5%	.5 - 2%	2 - 5%	5 - 10%	>10%		VERY LOW GRADIENT (REF. 23-8)

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
D DAM	5.0			BYPASSED BY FISHWAY. IS AN OLD LOGGING DAM (REF. 23-8)

Flow Control:	Water Survey of Canada (WSC) Flow Gauge: Y
W.S.C. Station No. 1: 08HB063	No. 2: No. 3: No. 4:

Species	Watershed Distribution
CO COHO SALMON	TO JUST ABOVE RAILWAY TRACKS (9KM) (REF. 23-8)
CH CHUM SALMON	FROM BRIDGE DOWN IN LOWER SECTION (REF. 23-8)
ST STEELHEAD	TO JUST ABOVE ESQUIMALT AND NANAIMO RAILWAY TRACKS (9KM) (REF. 23-8)
RB RAINBOW TROUT	PRESENT (REF. 23-14)

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

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
NO INFORMATION AVAILABLE				

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
UD URBAN DEVELOPMENT	FLows THROUGH URBAN AREAS (REF. 23-8)
AG AGRICULTURE	FLows THROUGH AGRICULTURAL AREAS (REF. 23-8)
WQ WATER QUALITY	HAS BEEN OIL SPILLS AND SILTATION PROBLEMS (REF. 23-8)
WQ WATER QUALITY	HABITAT DISTURBANCES FROM CONSTRUCTION (REF. 23-8)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

A GOOD COHO AND STEELHEAD PRODUCER (REF. 23-8)
ELECTROSHOCKING AND BIOPHYSICAL SAMPLING DATA AVAILABLE (REF. 23-15)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:

K. SIS COMPLETED BY

Completed by: GITA KAPANI	Date: 1989/03/06
Last checked by: VIOLET KOHORI	Date: 1990/03/27

ESCAPEMENT: KITSUCKSUS CREEK

WATERSHED-CODE: 93-2300-030

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	UNK	UNK	UNK	UNK	UNK	UNK
1954	UNK	UNK	UNK	UNK	UNK	UNK
1955	UNK	UNK	UNK	UNK	UNK	UNK
1956	UNK	UNK	UNK	UNK	UNK	UNK
1957	UNK	UNK	UNK	UNK	UNK	UNK
1958	UNK	UNK	UNK	UNK	UNK	UNK
1959	UNK	UNK	UNK	UNK	UNK	UNK
1960	UNK	UNK	UNK	UNK	UNK	UNK
1961	UNK	UNK	UNK	UNK	UNK	UNK
1962	UNK	UNK	UNK	UNK	UNK	UNK
1963	UNK	UNK	UNK	UNK	UNK	UNK
1964	UNK	UNK	UNK	UNK	UNK	UNK
1965	UNK	UNK	UNK	UNK	UNK	UNK
1966	UNK	UNK	UNK	UNK	UNK	UNK
1967	UNK	UNK	UNK	UNK	UNK	UNK
1968	UNK	UNK	UNK	UNK	UNK	UNK
1969	UNK	UNK	UNK	UNK	UNK	UNK
1970	UNK	UNK	UNK	UNK	UNK	UNK
1971	UNK	UNK	UNK	UNK	UNK	UNK
1972	UNK	UNK	UNK	UNK	UNK	UNK
1973	UNK	UNK	UNK	UNK	UNK	UNK
1974	UNK	UNK	UNK	UNK	UNK	UNK
1975	UNK	UNK	UNK	UNK	UNK	UNK
1976	UNK	UNK	UNK	UNK	UNK	UNK
1977	UNK	UNK	UNK	UNK	UNK	UNK
1978	UNK	UNK	UNK	UNK	UNK	UNK
1979	UNK	UNK	UNK	UNK	UNK	UNK
1980	UNK	UNK	UNK	UNK	UNK	UNK
1981	UNK	UNK	UNK	UNK	UNK	UNK
1982	UNK	UNK	UNK	UNK	UNK	UNK
1983	UNK	UNK	UNK	UNK	UNK	UNK
1984	0	UNK	0	0	UNK	UNK
1985	UNK	UNK	UNK	UNK	UNK	UNK
1986	UNK	UNK	UNK	UNK	UNK	UNK
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

A. DESCRIPTION

Stream Name: SPROAT RIVER	D.F.O. Division: SOUTH COAST
Local Name:	District: 4 PORT ALBERNI
Watershed Code: 93-2300-100	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-1
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit: 7

Tributaries	Code	Topographic (1:50k) Map: 92F/7
TAYLOR RIVER	450	B.C.G.S. (1:20k) Map: 026
		U.T.M. Mouth: 10.3630.54616
		Lat./Long. Mouth: 49 DG. 17' 30" 124 DG. 52' 57"
		Mainstem Length: Ref. No.:
		Watershed Area: Ref. No.:
Location: HEADWATERS AT MOUTH OF TAYLOR R.		

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	MODERATE GRADIENT (REF. 23-8)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
F FALLS		1.7		SERIES OF FALLS MADE PASSABLE BY A FISHWAY (REF. 23-8)
D DAM		2.7		AT OUTLET OF LAKE (REF. 23-2, REF. 23-8)

C. FLOW

Flow Control: Y	Water Survey of Canada (WSC) Flow Gauge: Y
W.S.C. Station No. 1: 08HB008	No. 2: 08HB015 No. 3: No. 4:
Comments: FLOW CONTROL WEIR AT OUTLET OF SPROAT LAKE (REF. 23-8)	
WSC GAUGE 08HB015 LOCATED ON LAKE NEAR ALBERNI (REF. 23-2)	

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
SK SOCKEYE SALMON	THROUGHOUT (REF. 23-8)
CO COHO SALMON	PRESENT (REF. 23-8)
CH CHINOOK SALMON	IN LOWER PORTION (REF. 23-8)
ST STEELHEAD	PRESENT (REF. 23-8)
CT CUTTHROAT TROUT	PRESENT (REF. 23-8)
DV DOLLY VARDEN	PRESENT (REF. 23-14)
RB RAINBOW TROUT	PRESENT (REF. 23-14)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
Comments: FOR PERIOD OF RECORD (1978-1987); SOCKEYE ESCAPEMENT: 87616 FISH RECORDED IN 1984 ONLY. MAJORITY OF HISTORICAL ESCAPEMENT FOR ALL SPECIES IS RECORDED AS "UNKNOWN". (REF. 28A-18)							

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
FT LAKE FERTILIZATION	SK SOCKEYE SALMON	0.0	(REF. 23-2)	/

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	INTENSIVE LOGGING IN WATERSHED (REF. 23-2, REF. 23-8)
UD URBAN DEVELOPMENT	ON LOWER END OF SPROAT LAKE WITH ASSOCIATED SEPTIC FIELD LEACHING INTO LAKE (REF. 23-8)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

SPROAT LAKE HAS AN AREA OF APPROXIMATELY 44 SQ. KM. IT'S MAIN TRIBUTARY IS THE TAYLOR RIVER. WITH THE AID OF A FISHWAY, THE SPROAT RIVER SYSTEM IS ACCESSIBLE FOR 48KM (REF. 23-1)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:

K. SIS COMPLETED BY

Completed by: GITA KAPAH	Date: 1988/03/08
Last checked by: VIOLET KOMORI	Date: 1990/03/27

ESCAPEMENT: SPROAT RIVER

WATERSHED-CODE : 93-2300-100

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	UNK	UNK	UNK	UNK	UNK	UNK
1954	UNK	UNK	UNK	UNK	UNK	UNK
1955	UNK	UNK	UNK	UNK	UNK	UNK
1956	UNK	UNK	UNK	UNK	UNK	UNK
1957	UNK	UNK	UNK	UNK	UNK	UNK
1958	UNK	UNK	UNK	UNK	UNK	UNK
1959	UNK	UNK	UNK	UNK	UNK	UNK
1960	UNK	UNK	UNK	UNK	UNK	UNK
1961	UNK	UNK	UNK	UNK	UNK	UNK
1962	UNK	UNK	UNK	UNK	UNK	UNK
1963	UNK	UNK	UNK	UNK	UNK	UNK
1964	UNK	UNK	UNK	UNK	UNK	UNK
1965	UNK	UNK	UNK	UNK	UNK	UNK
1966	UNK	UNK	UNK	UNK	UNK	UNK
1967	UNK	UNK	UNK	UNK	UNK	UNK
1968	UNK	UNK	UNK	UNK	UNK	UNK
1969	UNK	UNK	UNK	UNK	UNK	UNK
1970	UNK	UNK	UNK	UNK	UNK	UNK
1971	UNK	UNK	UNK	UNK	UNK	UNK
1972	UNK	UNK	UNK	UNK	UNK	UNK
1973	UNK	UNK	UNK	UNK	UNK	UNK
1974	UNK	UNK	UNK	UNK	UNK	UNK
1975	UNK	UNK	UNK	UNK	UNK	UNK
1976	UNK	UNK	UNK	UNK	UNK	UNK
1977	UNK	UNK	UNK	UNK	UNK	UNK
1978	UNK	UNK	UNK	UNK	UNK	UNK
1979	UNK	UNK	UNK	UNK	UNK	UNK
1980	UNK	UNK	UNK	UNK	UNK	UNK
1981	UNK	UNK	UNK	UNK	UNK	UNK
1982	UNK	UNK	UNK	UNK	UNK	UNK
1983	UNK	UNK	UNK	UNK	UNK	UNK
1984	87616	UNK	0	0	UNK	UNK
1985	UNK	UNK	UNK	UNK	UNK	UNK
1986	UNK	UNK	UNK	UNK	UNK	UNK
1987	UNK	UNK	UNK	UNK	UNK	UNK
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

Stream Name: TAYLOR RIVER	D.F.O. Division: SOUTH COAST
Local Name:	District: 4 PORT ALBERNI
	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-1
Watershed Code: 93-2300-100-450	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Gradient Class/Location (km upstream from mouth)						Comments
0 - .5%	.5 - 2%	2 - 5%	5 - 10%	>10%	LOW TO HIGH GRADIENT (REF. 23-8)	

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
C CASCADE			AF ALL SPECIES	SERIES OF CATARACTS 1.5KM ABOVE HIGHWAY BRIDGE (REF. 23-8)

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

Species	Watershed Distribution
SK SOCKEYE SALMON	IN LOWER 2 KM (REF. 23-8)
CO COHO SALMON	THROUGHOUT (REF. 23-8)
ST STEELHEAD	PRESENT IN LOW NUMBERS, GENERALLY AT LAKE OUTLET (REF. 23-8, REF. 23-13)
CT CUTTHROAT TROUT	PRESENT. A SIGNIFICANT CUTTHROAT RIVER. GENERALLY IN LOWER WATERSHED. (REF. 23-8, REF. 23-13)

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

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
NO INFORMATION AVAILABLE				

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	INTENSIVE ONGOING LOGGING ACTIVITY (REF. 23-8)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

HAS A UNIQUE RUN OF LARGE CUTTHROAT NUMBERING APPROXIMATELY 500 FISH (REF. 23-13)
SNORKEL SURVEYS FROM 1970- PRESENT (REF. 23-13)
DETAILED BIOPHYSICAL DATA AVAILABLE RE: PRESENCE/ABSENCE (REF. 23-15)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:

K. SIS COMPLETED BY

Completed by: GITA KAPAHI	Date: 1989/03/08
Last checked by: VIOLET KOMORI	Date: 1990/03/27

ESCAPEMENT: TAYLOR RIVER

WATERSHED-CODE: 93-2300-100-450

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	UNK	UNK	UNK	UNK	UNK	UNK
1954	UNK	UNK	UNK	UNK	UNK	UNK
1955	UNK	UNK	UNK	UNK	UNK	UNK
1956	UNK	UNK	UNK	UNK	UNK	UNK
1957	UNK	UNK	UNK	UNK	UNK	UNK
1958	UNK	UNK	UNK	UNK	UNK	UNK
1959	UNK	UNK	UNK	UNK	UNK	UNK
1960	UNK	UNK	UNK	UNK	UNK	UNK
1961	UNK	UNK	UNK	UNK	UNK	UNK
1962	UNK	UNK	UNK	UNK	UNK	UNK
1963	UNK	UNK	UNK	UNK	UNK	UNK
1964	UNK	UNK	UNK	UNK	UNK	UNK
1965	UNK	UNK	UNK	UNK	UNK	UNK
1966	UNK	UNK	UNK	UNK	UNK	UNK
1967	UNK	UNK	UNK	UNK	UNK	UNK
1968	UNK	UNK	UNK	UNK	UNK	UNK
1969	UNK	UNK	UNK	UNK	UNK	UNK
1970	UNK	UNK	UNK	UNK	UNK	UNK
1971	UNK	UNK	UNK	UNK	UNK	UNK
1972	UNK	UNK	UNK	UNK	UNK	UNK
1973	UNK	UNK	UNK	UNK	UNK	UNK
1974	UNK	UNK	UNK	UNK	UNK	UNK
1975	UNK	UNK	UNK	UNK	UNK	UNK
1976	UNK	UNK	UNK	UNK	UNK	UNK
1977	UNK	UNK	UNK	UNK	UNK	UNK
1978	UNK	UNK	UNK	UNK	UNK	UNK
1979	UNK	UNK	UNK	UNK	UNK	UNK
1980	UNK	UNK	UNK	UNK	UNK	UNK
1981	UNK	UNK	UNK	UNK	UNK	UNK
1982	UNK	UNK	UNK	UNK	UNK	UNK
1983	UNK	UNK	UNK	UNK	UNK	UNK
1984	UNK	UNK	0	0	N/O	UNK
1985	UNK	UNK	UNK	UNK	UNK	UNK
1986	UNK	UNK	UNK	UNK	UNK	UNK
1987	UNK	UNK	UNK	UNK	UNK	UNK
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

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
NO INFORMATION AVAILABLE				

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
UD URBAN DEVELOPMENT	LOWER WATERSHED (REF. 23-8)
FO FORESTRY	UPPER WATERSHED (REF. 23-8)

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
Last checked by: VIOLET KOMORI

Date: 1989/03/09
Date: 1990/03/27

ESCAPEMENT: WEINER CREEK

WATERSHED-CODE: 93-2300-100-450-025

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	UNK	UNK	UNK	UNK	UNK	UNK
1954	UNK	UNK	UNK	UNK	UNK	UNK
1955	UNK	UNK	UNK	UNK	UNK	UNK
1956	UNK	UNK	UNK	UNK	UNK	UNK
1957	UNK	UNK	UNK	UNK	UNK	UNK
1958	UNK	UNK	UNK	UNK	UNK	UNK
1959	UNK	UNK	UNK	UNK	UNK	UNK
1960	UNK	UNK	UNK	UNK	UNK	UNK
1961	UNK	UNK	UNK	UNK	UNK	UNK
1962	UNK	UNK	UNK	UNK	UNK	UNK
1963	UNK	UNK	UNK	UNK	UNK	UNK
1964	UNK	UNK	UNK	UNK	UNK	UNK
1965	UNK	UNK	UNK	UNK	UNK	UNK
1966	UNK	UNK	UNK	UNK	UNK	UNK
1967	UNK	UNK	UNK	UNK	UNK	UNK
1968	UNK	UNK	UNK	UNK	UNK	UNK
1969	UNK	UNK	UNK	UNK	UNK	UNK
1970	UNK	UNK	UNK	UNK	UNK	UNK
1971	UNK	UNK	UNK	UNK	UNK	UNK
1972	UNK	UNK	UNK	UNK	UNK	UNK
1973	UNK	UNK	UNK	UNK	UNK	UNK
1974	UNK	UNK	UNK	UNK	UNK	UNK
1975	UNK	UNK	UNK	UNK	UNK	UNK
1976	UNK	UNK	UNK	UNK	UNK	UNK
1977	UNK	UNK	UNK	UNK	UNK	UNK
1978	UNK	UNK	UNK	UNK	UNK	UNK
1979	UNK	UNK	UNK	UNK	UNK	UNK
1980	UNK	UNK	UNK	UNK	UNK	UNK
1981	UNK	UNK	UNK	UNK	UNK	UNK
1982	UNK	UNK	UNK	UNK	UNK	UNK
1983	UNK	UNK	UNK	UNK	UNK	UNK
1984	UNK	UNK	0	0	0	0
1985	UNK	UNK	UNK	UNK	UNK	UNK
1986	UNK	UNK	UNK	UNK	UNK	UNK
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

A. DESCRIPTION

Stream Name: BEAVER CREEK	D.F.O. Division: SOUTH COAST
Local Name: TRUEMAN CREEK	District: 4 PORT ALBERNI
Watershed Code: 93-2300-150	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-1
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit: 7

Tributaries	Code	Topographic (1:50k) Map: 92F/7
		B.C.G.S. (1:20k) Map: 036
		U.T.M. Mouth: 10.3621.54640
		Lat./Long. Mouth: 49 06. 18' 51'' 124 06. 53' 50''
		Mainstem Length: Ref. No.:
		Watershed Area: Ref. No.:
		Location: FLows SW INTO STAMP R.

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	FAIRLY STEEP IN LOWER SECTION (REF. 23-8)

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: LOW FLOWS IN THE SUMMER (REF. 23-8)			

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
CO COHO SALMON	TO THE HEADWATERS (REF. 23-8)
ST STEELHEAD	TO UPPER REACHES (REF. 23-8)
TR TROUT	PRESENT (REF. 23-14)

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

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	CLASSROOM INCUBATION PROJECT BY BEAVER CREEK SCHOOL (REF. 23-8)	1982/1986

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
AG AGRICULTURE	PRIMARILY FARMLAND. SOME AGRICULTURAL EFFLUENT PROBLEMS (REF. 23-8)

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: 1989/02/28
Last checked by: VIOLET KOMORI	Date: 1990/03/27

ESCAPEMENT: BEAVER CREEK

WATERSHED-CODE: 93-2300-150

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	UNK	UNK	UNK	UNK	UNK	UNK
1954	UNK	UNK	UNK	UNK	UNK	UNK
1955	UNK	UNK	UNK	UNK	UNK	UNK
1956	UNK	UNK	UNK	UNK	UNK	UNK
1957	UNK	UNK	UNK	UNK	UNK	UNK
1958	UNK	UNK	UNK	UNK	UNK	UNK
1959	UNK	UNK	UNK	UNK	UNK	UNK
1960	UNK	UNK	UNK	UNK	UNK	UNK
1961	UNK	UNK	UNK	UNK	UNK	UNK
1962	UNK	UNK	UNK	UNK	UNK	UNK
1963	UNK	UNK	UNK	UNK	UNK	UNK
1964	UNK	UNK	UNK	UNK	UNK	UNK
1965	UNK	UNK	UNK	UNK	UNK	UNK
1966	UNK	UNK	UNK	UNK	UNK	UNK
1967	UNK	UNK	UNK	UNK	UNK	UNK
1968	UNK	UNK	UNK	UNK	UNK	UNK
1969	UNK	UNK	UNK	UNK	UNK	UNK
1970	UNK	UNK	UNK	UNK	UNK	UNK
1971	UNK	UNK	UNK	UNK	UNK	UNK
1972	UNK	UNK	UNK	UNK	UNK	UNK
1973	UNK	UNK	UNK	UNK	UNK	UNK
1974	UNK	UNK	UNK	UNK	UNK	UNK
1975	UNK	UNK	UNK	UNK	UNK	UNK
1976	UNK	UNK	UNK	UNK	UNK	UNK
1977	UNK	UNK	UNK	UNK	UNK	UNK
1978	UNK	UNK	UNK	UNK	UNK	UNK
1979	UNK	UNK	UNK	UNK	UNK	UNK
1980	UNK	UNK	UNK	UNK	UNK	UNK
1981	UNK	UNK	UNK	UNK	UNK	UNK
1982	UNK	UNK	UNK	UNK	UNK	UNK
1983	UNK	UNK	UNK	UNK	UNK	UNK
1984	0	UNK	0	0	0	0
1985	UNK	UNK	UNK	UNK	UNK	UNK
1986	UNK	UNK	UNK	UNK	UNK	UNK
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

A. DESCRIPTION

Stream Name: SPAHT CREEK	D.F.O. Division: SOUTH COAST
Local Name: JOLLY CREEK	District: 4 PORT ALBERNI
Watershed Code: 93-2300-200	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: -
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92F/7
		B.C.G.S. (1:20k) Map: 036
		U.T.M. Mouth:
		Lat./Long. Mouth: 49 06. 20' 52'' 124 06. 56' 36''
		Mainstem Length: Ref. No.:
		Watershed Area: Ref. No.:
		Location: TRIBUTARY TO STAMP RIVER

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	VERY LOW GRADIENT (REF. 23-8)

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: Y
W.S.C. Station No. 1: 08HB043	No. 2: No. 3: No. 4:

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
CO COHO SALMON	TO UPPER REACHES (ABOUT 6KM) (REF. 23-8)

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
NO INFORMATION AVAILABLE				

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
AG AGRICULTURE	FLows THROUGH MODERATE-HEAVY AGRICULTURAL AREA (REF. 23-8)
WM WATER WITHDRAWAL	FULLY SUBSCRIBED TO WATER LICENCES (REF. 23-8)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

LOTS OF COHO, CLOSE TO CAPACITY OF STREAM (REF. 23-8)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /

Prepared By:

K. SIS COMPLETED BY

Completed by:	GITA KAPAHI	Date:	1989/03/08
Last checked by:	VIOLET KOMORI	Date:	1990/03/27

ESCAPEMENT: SPAHT CREEK

WATERSHED-CODE: 93-2300-200

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	UNK	UNK	UNK	UNK	UNK	UNK
1954	UNK	UNK	UNK	UNK	UNK	UNK
1955	UNK	UNK	UNK	UNK	UNK	UNK
1956	UNK	UNK	UNK	UNK	UNK	UNK
1957	UNK	UNK	UNK	UNK	UNK	UNK
1958	UNK	UNK	UNK	UNK	UNK	UNK
1959	UNK	UNK	UNK	UNK	UNK	UNK
1960	UNK	UNK	UNK	UNK	UNK	UNK
1961	UNK	UNK	UNK	UNK	UNK	UNK
1962	UNK	UNK	UNK	UNK	UNK	UNK
1963	UNK	UNK	UNK	UNK	UNK	UNK
1964	UNK	UNK	UNK	UNK	UNK	UNK
1965	UNK	UNK	UNK	UNK	UNK	UNK
1966	UNK	UNK	UNK	UNK	UNK	UNK
1967	UNK	UNK	UNK	UNK	UNK	UNK
1968	UNK	UNK	UNK	UNK	UNK	UNK
1969	UNK	UNK	UNK	UNK	UNK	UNK
1970	UNK	UNK	UNK	UNK	UNK	UNK
1971	UNK	UNK	UNK	UNK	UNK	UNK
1972	UNK	UNK	UNK	UNK	UNK	UNK
1973	UNK	UNK	UNK	UNK	UNK	UNK
1974	UNK	UNK	UNK	UNK	UNK	UNK
1975	UNK	UNK	UNK	UNK	UNK	UNK
1976	UNK	UNK	UNK	UNK	UNK	UNK
1977	UNK	UNK	UNK	UNK	UNK	UNK
1978	UNK	UNK	UNK	UNK	UNK	UNK
1979	UNK	UNK	UNK	UNK	UNK	UNK
1980	UNK	UNK	UNK	UNK	UNK	UNK
1981	UNK	UNK	UNK	UNK	UNK	UNK
1982	UNK	UNK	UNK	UNK	UNK	UNK
1983	UNK	UNK	UNK	UNK	UNK	UNK
1984	0	UNK	0	0	UNK	0
1985	UNK	UNK	UNK	UNK	UNK	UNK
1986	UNK	UNK	UNK	UNK	UNK	UNK
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

A. DESCRIPTION

Stream Name: ASH RIVER	D.F.O. Division: SOUTH COAST
Local Name:	District: 4 PORT ALBERNI
Watershed Code: 93-2300-250	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-1
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit: 7

Tributaries	Code	Topographic (1:50k) Map: 92F/7 B.C.G.S. (1:20k) Map: 045 U.T.M. Mouth: Lat./Long. Mouth: 49 06. 21' 50'' 124 06. 58' 28'' Mainstem Length: Watershed Area: Ref. No.: Ref. No.:
		Location:

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			CH CHINOOK SALMON CO COHO SALMON	DICKSON FALLS JUST BELOW DICKSON LAKE. SERIES OF RAPIDS THROUGHOUT (REF. 23-8)
D DAM				AT ELSIE LAKE (REF. 23-8)
F FALLS				LANTERMAN FALLS JUST ABOVE LANTERMAN CREEK. ST, CO CAN PASS (REF. 23-13)

C. FLOW

Flow Control: Y	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	TO FALLS AND IN LANTERMAN CREEK (REF. 23-8)
CH CHINOOK SALMON	TO FALLS (REF. 23-8)
ST STEELHEAD	ABOVE FALLS TO ASH LAKE (REF. 23-8)
ST STEELHEAD	UPPER REACHES AND ELSIE LAKE STOCKED WITH ST FRY AND STEELHEAD ADULTS (REF. 23-13)
CT CUTTHROAT TROUT	ABOVE FALLS TO ASH LAKE (REF. 23-8)
RB RAINBOW TROUT	ABOVE FALLS TO ASH LAKE (REF. 23-8)

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
EM ENHANCEMENT ACTS	ST STEELHEAD	0.0	F&W DIS REMEDIAL WORK ON DIXON FALLS SO ST COULD PASS (REF. 23-8, REF. 23-13)	1977/1978
TR TRANSPLANT	CO COHO SALMON	0.0	FROM ROBERTSON CREEK (REF. 23-8)	1979/1979
TR TRANSPLANT	ST STEELHEAD	0.0	STOCKED IN UPPER REACHES (REF. 23-13)	1979/1979
TR TRANSPLANT	ST STEELHEAD	0.0	STOCKED IN UPPER REACHES (REF. 23-13)	1988/1988
TR TRANSPLANT	CO COHO SALMON	0.0	FRY TRANSPLANTS TO LANTERMAN CREEK FOR LAST 5 YEARS (REF. 23-8)	1983/1985

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	PAST AND PRESENT LOGGING (REF. 23-8)
MI MINING	SOME MINING EXPLORATION (EARLY 1980'S TO CURRENT) (REF. 23-8)
WW WATER WITHDRAWAL	HYDROELECTRIC DEVELOPMENT ON ELSIE LAKE (REF. 23-8)
FO FORESTRY	DETAILED CUT HISTORY INFORMATION AVAILABLE (REF. 23-2)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

COHO MAY NOW GO ABOVE FALLS SINCE THE F & W FISHWAY ENHANCEMENT. HOWEVER THERE HAS BEEN NO EVIDENCE SO FAR. (REF. 23-8)
MODERATE ANGLING PRESSURE TO STEELHEAD (REF. 23-8)
DICKSON LOG JAM REMOVED 1979/80 BY F & W (REF. 23-13)
ELSIE LAKE STOCKED 1983 AND 1988 (REF. 23-13)
INVENTORY SNORKEL SURVEYS AVAILABLE FOR 1973 TO 1979 (INCLUDING RUN TIMING) (REF. 23-13)
LANTERMAN CREEK IS MOSTLY COHO WITH SOME STEELHEAD (REF. 23-13)
DETAILED BIOPHYSICAL INFORMATION AVAILABLE (REF. 23-15, REF. 23-16)
PRODUCTION CAPABILITY IS ESTIMATED TO BE 5000 STEELHEAD SMOLTS AND 700 ADULTS (REF. 23-13)
1000 ANGLER DAYS PRE-1970, 129 ANGLER DAYS IS THE 1988 AVERAGE. (REF. 23-13)
PROBABLY THE MOST IMPORTANT SUMMER STEELHEAD STREAM FOR THE WHOLE SYSTEM. (REF. 23-13)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:

K. SIS COMPLETED BY

Completed by: GITA KAPAHI	Date: 1989/02/28
Last checked by: VIOLET KOMORI	Date: 1990/03/27

ESCAPEMENT: ASH RIVER

WATERSHED-CODE: 93-2300-250

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	UNK	UNK	UNK	UNK	UNK	UNK
1954	UNK	UNK	UNK	UNK	UNK	UNK
1955	UNK	UNK	UNK	UNK	UNK	UNK
1956	UNK	UNK	UNK	UNK	UNK	UNK
1957	UNK	UNK	UNK	UNK	UNK	UNK
1958	UNK	UNK	UNK	UNK	UNK	UNK
1959	UNK	UNK	UNK	UNK	UNK	UNK
1960	UNK	UNK	UNK	UNK	UNK	UNK
1961	UNK	UNK	UNK	UNK	UNK	UNK
1962	UNK	UNK	UNK	UNK	UNK	UNK
1963	UNK	UNK	UNK	UNK	UNK	UNK
1964	UNK	UNK	UNK	UNK	UNK	UNK
1965	UNK	UNK	UNK	UNK	UNK	UNK
1966	UNK	UNK	UNK	UNK	UNK	UNK
1967	UNK	UNK	UNK	UNK	UNK	UNK
1968	UNK	UNK	UNK	UNK	UNK	UNK
1969	UNK	UNK	UNK	UNK	UNK	UNK
1970	UNK	UNK	UNK	UNK	UNK	UNK
1971	UNK	UNK	UNK	UNK	UNK	UNK
1972	UNK	UNK	UNK	UNK	UNK	UNK
1973	UNK	UNK	UNK	UNK	UNK	UNK
1974	UNK	UNK	UNK	UNK	UNK	UNK
1975	UNK	UNK	UNK	UNK	UNK	UNK
1976	UNK	UNK	UNK	UNK	UNK	UNK
1977	UNK	UNK	UNK	UNK	UNK	UNK
1978	UNK	UNK	UNK	UNK	UNK	UNK
1979	UNK	UNK	UNK	UNK	UNK	UNK
1980	UNK	UNK	UNK	UNK	UNK	UNK
1981	UNK	UNK	UNK	UNK	UNK	UNK
1982	UNK	UNK	UNK	UNK	UNK	UNK
1983	UNK	UNK	UNK	UNK	UNK	UNK
1984	0	UNK	0	0	UNK	UNK
1985	UNK	UNK	UNK	UNK	UNK	UNK
1986	UNK	UNK	UNK	UNK	UNK	UNK
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

Stream Name:	FORESTRY CAMP CREEK	D.F.O. Division:	SOUTH COAST
Local Name:	BEAVER CREEK, BEAVER DAM CREEK	District:	4 PORT ALBERNI
		Subdistrict:	23 PORT ALBERNI
		Statistical Subarea:	23-1
Watershed Code:	93-2300-350	M.O.E.P. Region:	1 VANCOUVER ISLAND
		Management Unit:	

Tributaries	Code	Topographic (1:50k) Map: 92F/6 B.C.G.S. (1:20k) Map: 035 U.T.M. Mouth: Lat./Long. Mouth: 49 06. 20' 12'' 125 06. 07' 09'' 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 STEEP FOR THE MAJORITY OF THE CREEK (REF. 23-8)

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
D DAM		0.8	AF ALL SPECIES	REMNANTS OF AN OLD DAM RELATED TO 1920'S HATCHERY (REF. 23-8)

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

Species	Watershed Distribution
SK SOCKEYE SALMON	TO THE DAM (REF. 23-8)
CO COHO SALMON	TO THE DAM (REF. 23-8)

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

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
FT LAKE FERTILIZAT'N	SK SOCKEYE SALMON	0.0	ONGOING LAKE FERTILIZATION PROGRAM D.F.O.. P.B.S. LAKE ENRICHMENT SECTION (REF. 23-8)	1971/

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	HEAVY LOGGING ONGOING (REF. 23-8)
UD URBAN DEVELOPMENT	PROPOSAL FOR A PRIVATE AQUACULTURE HATCHERY TO BE BUILT (REF. 23-8)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

THIS STREAM IS AN OLD HATCHERY SITE FOR SOCKEYE TRANSPLANTS (1920'S) (REF. 23-8)
SPAWNING OCCURS AT THE MOUTH (REF. 23-8)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:

K. SIS COMPLETED BY

Completed by: GITA KAPAHU	Date: 1989/03/02
Last checked by: VIOLET KOMORI	Date: 1990/03/27

ESCAPEMENT: FORESTRY CAMP CREEK

WATERSHED-CODE: 93-2300-350

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	UNK	UNK	UNK	UNK	UNK	UNK
1954	UNK	UNK	UNK	UNK	UNK	UNK
1955	UNK	UNK	UNK	UNK	UNK	UNK
1956	UNK	UNK	UNK	UNK	UNK	UNK
1957	UNK	UNK	UNK	UNK	UNK	UNK
1958	UNK	UNK	UNK	UNK	UNK	UNK
1959	UNK	UNK	UNK	UNK	UNK	UNK
1960	UNK	UNK	UNK	UNK	UNK	UNK
1961	UNK	UNK	UNK	UNK	UNK	UNK
1962	UNK	UNK	UNK	UNK	UNK	UNK
1963	UNK	UNK	UNK	UNK	UNK	UNK
1964	UNK	UNK	UNK	UNK	UNK	UNK
1965	UNK	UNK	UNK	UNK	UNK	UNK
1966	UNK	UNK	UNK	UNK	UNK	UNK
1967	UNK	UNK	UNK	UNK	UNK	UNK
1968	UNK	UNK	UNK	UNK	UNK	UNK
1969	UNK	UNK	UNK	UNK	UNK	UNK
1970	UNK	UNK	UNK	UNK	UNK	UNK
1971	UNK	UNK	UNK	UNK	UNK	UNK
1972	UNK	UNK	UNK	UNK	UNK	UNK
1973	UNK	UNK	UNK	UNK	UNK	UNK
1974	UNK	UNK	UNK	UNK	UNK	UNK
1975	UNK	UNK	UNK	UNK	UNK	UNK
1976	UNK	UNK	UNK	UNK	UNK	UNK
1977	UNK	UNK	UNK	UNK	UNK	UNK
1978	UNK	UNK	UNK	UNK	UNK	UNK
1979	UNK	UNK	UNK	UNK	UNK	UNK
1980	UNK	UNK	UNK	UNK	UNK	UNK
1981	UNK	UNK	UNK	UNK	UNK	UNK
1982	UNK	UNK	UNK	UNK	UNK	UNK
1983	UNK	UNK	UNK	UNK	UNK	UNK
1984	UNK	UNK	UNK	UNK	UNK	UNK
1985	UNK	UNK	UNK	UNK	UNK	UNK
1986	UNK	UNK	UNK	UNK	UNK	UNK
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

A. DESCRIPTION

Stream Name: COUS CREEK	D.F.O. Division: SOUTH COAST
Local Name: COUSE CREEK	District: 4 PORT ALBERNI
Watershed Code: 93-2330	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-1
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92F/2
		B.C.G.S. (1:20k) Map: 016
		U.T.M. Mouth:
		Lat./Long. Mouth: 49 DG. 11' 03" 124 DG. 49' 38"
		Mainstem Length: 11.3 km Ref. No.: 23-1
		Watershed Area: Ref. No.:
		Location: FLOWS S.E. INTO STAMP NARROWS, ALBERNI INLET, ALBERNI DIST.

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	RELATIVELY MODERATE GRADIENT (REF. 23-8)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
F FALLS				SMALL CATARACTS THROUGHOUT (REF. 23-8)
F FALLS	3.0	1.0		(REF. 23-13)
F FALLS	3.0	3.8		(REF. 23-13)
F FALLS	4.0	8.0		(REF. 23-13)
F FALLS		11.3	AF ALL SPECIES	(REF. 23-13)

C. FLOW

Flow Control:	Water Survey of Canada (WSC) Flow Gauge:
W.S.C. Station No. 1:	No. 2: No. 3: No. 4:
Comments: WAS SUBJECT TO FLASH FLOODING, IS NOW STARTING TO STABILIZE. WITH FLUCTUATIONS NOT AS DRASTIC. (REF. 23-8)	

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
SK SOCKEYE SALMON	PRESENCE NOTED IN 1985 ONLY (REF. 28A-18)
CO COHO SALMON	TO JUST BELOW THE BRIDGE AT 6KM (REF. 23-8)
CM CHUM SALMON	TO 1KM (REF. 23-8)
CH CHINOOK SALMON	TO JUST BELOW THE BRIDGE AT 6KM (REF. 23-8)
ST STEELHEAD	TO 11.3KM (REF. 23-8)
ST STEELHEAD	THIS STREAM HAS A RUN OF SUMMER STEELHEAD (REF. 23-2, REF. 23-13)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
SK SOCKEYE SALMON	11	1978 - 1987	28A-18	100	28A-18		
CO COHO SALMON	42	1978 - 1987	28A-18	70	28A-18		
CH CHUM SALMON	222	1978 - 1987	28A-18	700	28A-18		
CH CHINOOK SALMON	3	1978 - 1987	28A-18	25	28A-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 X	X X
CH CHUM SALMON	Migration Spawning Incubation Rearing										X	X X	
CH CHINOOK 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	CO COHO SALMON	0.0	NATIVE P.I.P. PROJECT WHICH WAS NOT SUCCESSFUL (REF. 23-8)	1983/1983

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	ENTIRE WATERSHED IS HEAVILY LOGGED. LOGGING IS ONGOING (REF. 23-8)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

ESTIMATES FOR COHO MAY BE HIGHLY UNDERESTIMATED. LOTS OF SMALL SWAMPS, DEBRIS JAMS AND DEEP PONDS. FISH HARVEST WAS CONSTANT AND STEADY FROM 1957 TO 1980. (REF. 23-2)

AN IMPORTANT STEELHEAD PRODUCER (REF. 23-13)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:

K. SIS COMPLETED BY

Completed by: GITA KAPAHI	Date: 1989/03/02
Last checked by: VIOLET KOMORI	Date: 1990/03/29

ESCAPEMENT: COUS CREEK

WATERSHED-CODE: 93-2330

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	75	0	200	0	0
1954	0	75	0	750	0	75
1955	0	UNK	0	UNK	0	75
1956	0	75	0	200	0	75
1957	0	25	0	200	0	75
1958	0	25	0	750	0	75
1959	0	75	0	200	0	75
1960	0	75	0	75	0	200
1961	0	75	0	200	0	200
1962	0	200	0	200	0	200
1963	0	75	0	75	0	200
1964	0	75	0	25	25	200
1965	0	200	0	200	25	0
1966	0	750	0	400	25	0
1967	0	200	0	200	25	0
1968	0	400	0	400	UNK	0
1969	0	400	0	3500	25	0
1970	0	200	0	750	N/O	575
1971	0	75	0	200	25	750
1972	0	75	0	1500	25	0
1973	0	200	0	750	25	750
1974	0	75	0	350	25	0
1975	0	75	0	400	25	0
1976	0	85	0	550	15	0
1977	0	90	0	380	20	0
1978	0	70	0	100	N/O	0
1979	0	50	0	120	N/O	UNK
1980	UNK	UNK	UNK	UNK	UNK	UNK
1981	0	N/O	0	N/O	0	0
1982	0	60	0	36	0	0
1983	0	70	0	700	UNK	0
1984	0	UNK	UNK	UNK	0	UNK
1985	100	UNK	UNK	600	25	0
1986	0	UNK	0	UNK	0	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

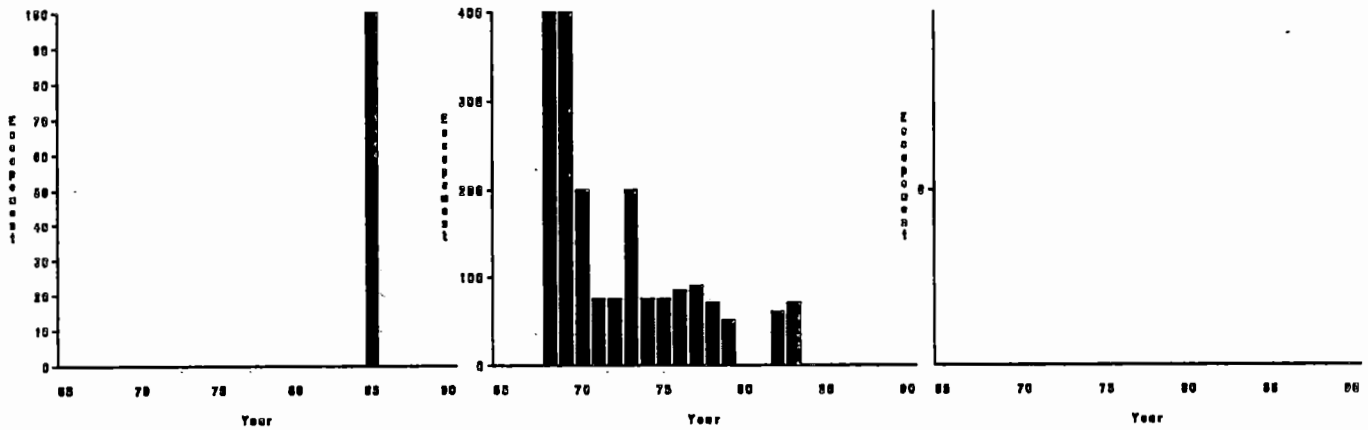
COUS CREEK (93-2330)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

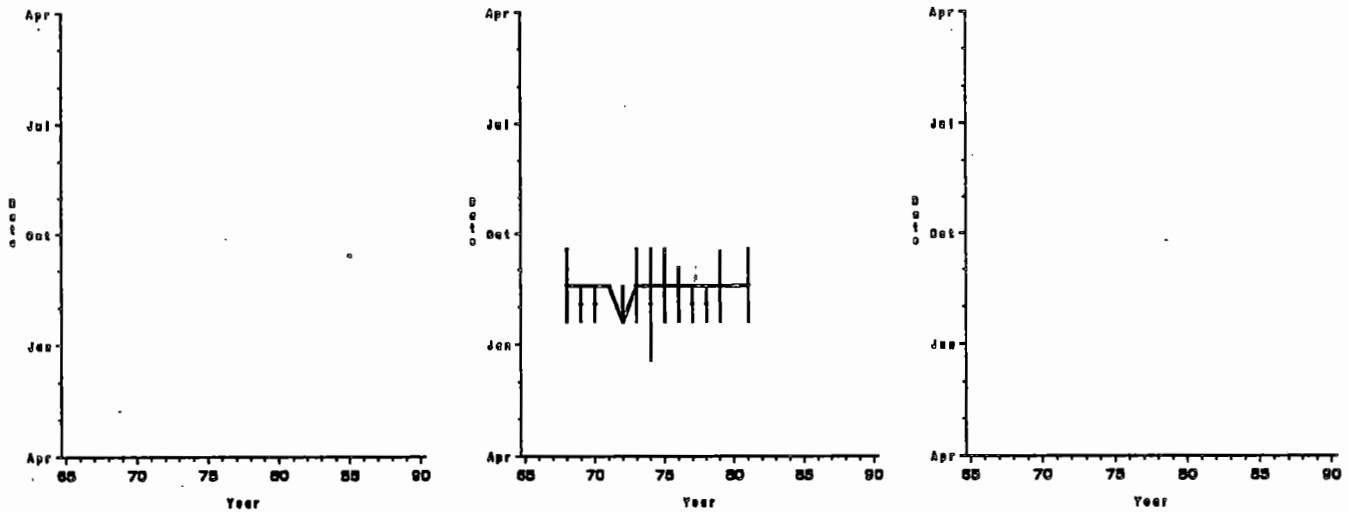
Pink (PK)



Sockeye

Coho

Pink



Sockeye				
Year	Escapement	Start	Peak	End
1965	0	-	-	-
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	100	28OCT	-	-
1986	0	-	-	-
1987	0	-	-	-

Coho				
Year	Escapement	Start	Peak	End
1965	400	15OCT	15NOV	15DEC
1966	400	15OCT	15NOV	15DEC
1967	200	15OCT	15NOV	15DEC
1968	70	15OCT	15NOV	15DEC
1969	70	15OCT	15DEC	15DEC
1970	200	15OCT	15NOV	15DEC
1971	70	15OCT	15NOV	15DEC
1972	70	15OCT	15NOV	15DEC
1973	200	15OCT	15NOV	15DEC
1974	70	15OCT	15NOV	15JAN
1975	70	15OCT	15NOV	15DEC
1976	85	30OCT	15NOV	15DEC
1977	80	15OCT	15NOV	15DEC
1978	70	15OCT	15NOV	15DEC
1979	80	17OCT	15NOV	15DEC
1980	-	-	-	-
1981	0	15OCT	15NOV	15DEC
1982	80	-	-	-
1983	70	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Pink				
Year	Escapement	Start	Peak	End
1965	0	-	-	-
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	-	-	-	-
1981	0	-	-	-
1982	0	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

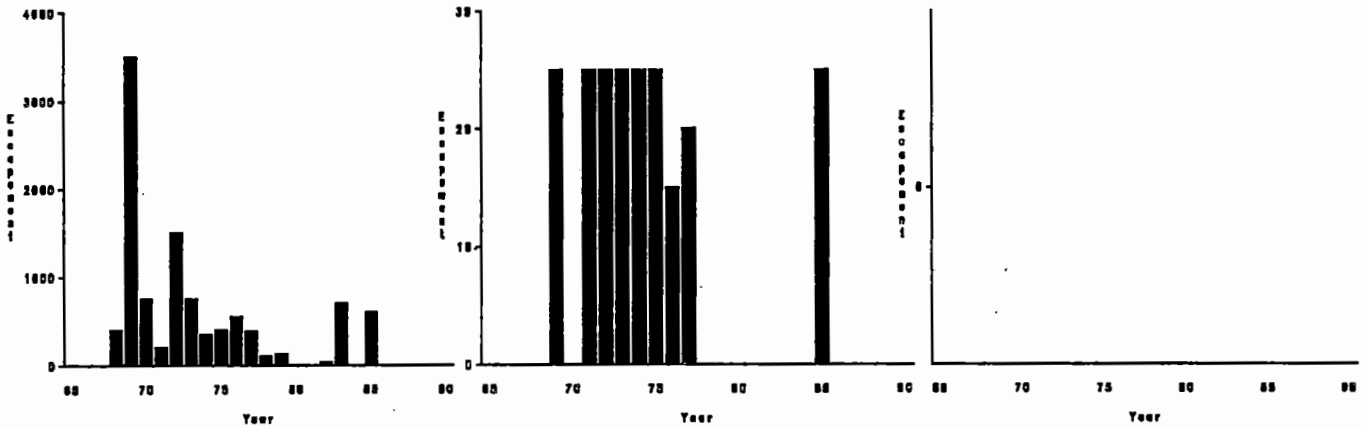
COUS CREEK (93-2330)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

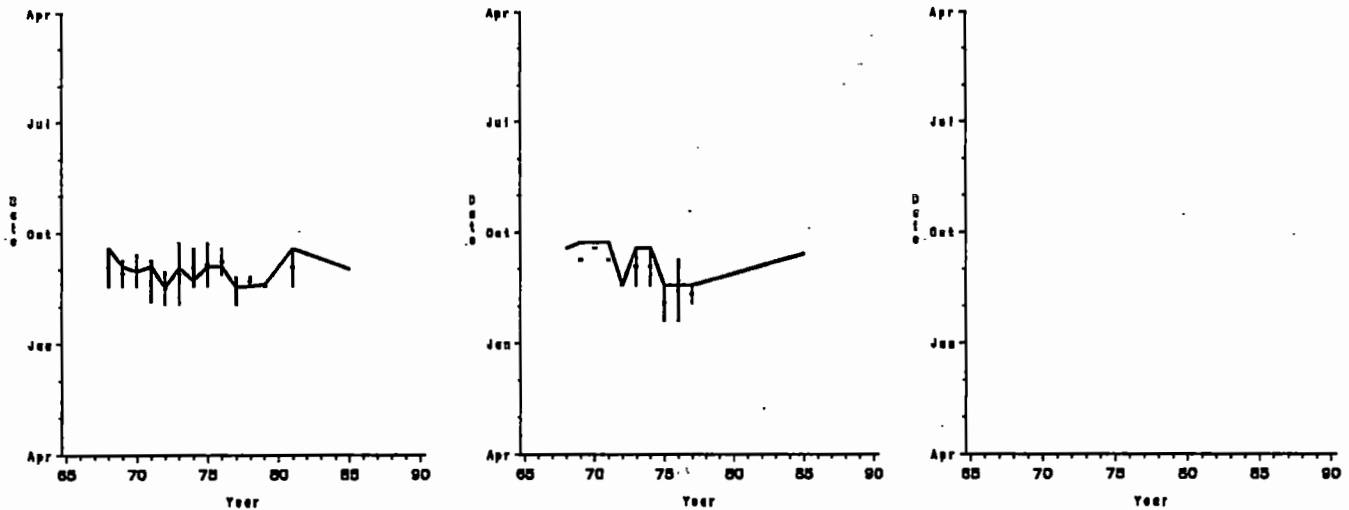
Steelhead (ST)



Chum

Chinook

Steelhead



Chum

Chinook

Steelhead

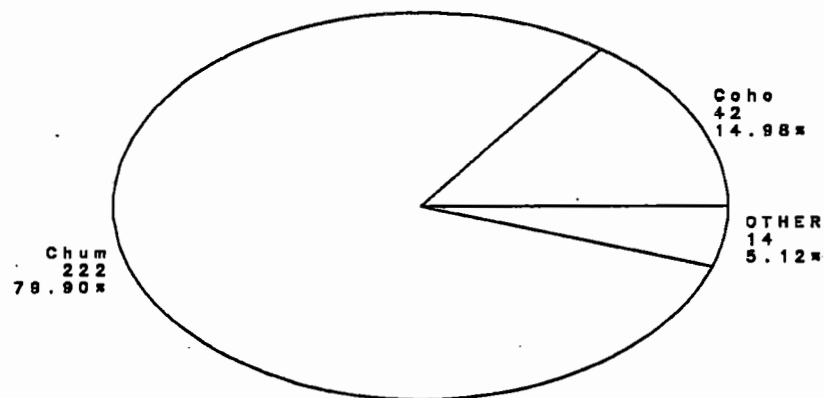
Year	Escapement	Start	Peak	End
1965	400	10 OCT	10 OCT	10 NOV
1966	3,500	20 OCT	20 OCT	10 NOV
1967	750	20 OCT	03 NOV	10 NOV
1968	200	20 OCT	20 OCT	20 NOV
1969	1,500	03 NOV	10 NOV	30 NOV
1970	750	10 OCT	31 OCT	30 NOV
1971	200	10 OCT	10 OCT	10 NOV
1972	400	10 OCT	20 OCT	10 NOV
1973	550	10 OCT	20 OCT	05 NOV
1974	300	05 NOV	10 NOV	30 NOV
1975	100	07 NOV	10 NOV	10 NOV
1976	120	10 NOV	10 NOV	10 NOV
1977	-	-	-	-
1978	0	10 OCT	10 OCT	10 NOV
1979	30	-	-	-
1980	700	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	600	-	01 NOV	-
1986	-	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1965	-	-	10 OCT	-
1966	25	-	10 OCT	20 OCT
1967	0	10 OCT	-	-
1968	10	-	10 OCT	20 OCT
1969	10	10 NOV	10 NOV	10 NOV
1970	10	10 OCT	10 OCT	10 NOV
1971	10	10 OCT	10 OCT	10 NOV
1972	10	10 OCT	10 OCT	10 NOV
1973	10	10 OCT	10 OCT	10 NOV
1974	10	10 OCT	10 OCT	10 NOV
1975	10	10 OCT	10 OCT	10 NOV
1976	10	10 OCT	10 OCT	10 NOV
1977	10	10 OCT	10 OCT	10 NOV
1978	0	-	-	-
1979	0	-	-	-
1980	-	-	-	-
1981	0	-	-	-
1982	0	-	-	-
1983	-	-	-	-
1984	0	-	-	-
1985	10	-	20 OCT	-
1986	0	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1965	-	-	-	-
1966	-	-	-	-
1967	-	-	-	-
1968	-	-	-	-
1969	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

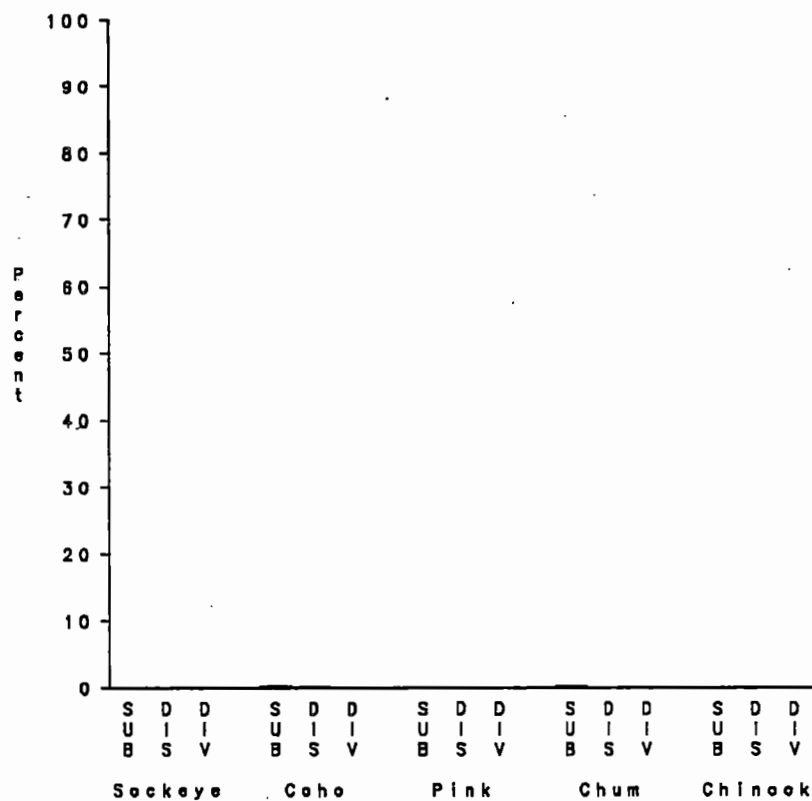
COUS CREEK (93-2330)

10-yr Mean Escapement
(1978-1987)



COUS CREEK : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



A. DESCRIPTION

Stream Name: MACKTUSH CREEK	D.F.O. Division: SOUTH COAST
Local Name: MACKTUSH CREEK, MUCHTOOSH CREEK	District: 4 PORT ALBERNI
Watershed Code: 93-2370	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-2
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92F/2
		B.C.G.S. (1:20k) Map: 016
		U.T.M. Mouth:
		Lat./Long. Mouth: 49 06. 06' 44'' 124 06. 49' 36''
		Mainstem Length: 8.0 km Ref. No.: 23-1
		Watershed Area: 23.3 km2 Ref. No.: 23-1
		Location: FLows E. INTO SPROAT NARROWS, ALBERNI INLET, CLAYOQUOT DIST.

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	HIGH GRADIENT THAT GETS TOO STEEP (REF. 23-8)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
C CASCADE		2.4	AF ALL SPECIES	(REF. 23-8, REF. 23-13)
F FALLS	30.0	8.5		(REF. 23-8)

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	TO CASCADES (REF. 23-8)
CN CHUM SALMON	TO CASCADES (REF. 23-8)
ST STEELHEAD	TO CASCADES (REF. 23-8)
ST STEELHEAD	MAY PASS CANYON, REQUIRES FURTHER INVESTIGATION (REF. 23-13, REF. 23-21)
RB RAINBOW TROUT	IN TRIBUTARIES ABOVE CANYON (REF. 23-13)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	25	1978 - 1987	28A-18	40	28A-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 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	HEAVY ONGOING LOGGING ACTIVITY (REF. 23-8)
FO FORESTRY	LOGGING BEGAN IN WATERSHED IN 1974 (REF. 23-1, REF. 23-2)
MI MINING	SOME MINING EXPLORATION. (REF. 23-8)
WQ WATER QUALITY	1975. SILTING OF STREAM DUE TO POOR ROAD CONSTRUCTION (REF. 23-1, REF. 23-2)

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: 1989/03/06
Last checked by: VIOLET KOMORI	Date: 1990/03/29

ESCAPEMENT: MACKTUSH CREEK

WATERSHED-CODE: 93-2370

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	25	0	750	0	0
1954	0	25	0	200	0	0
1955	0	25	0	25	0	0
1956	0	25	0	25	0	0
1957	0	25	0	25	0	0
1958	0	25	0	25	0	0
1959	0	25	0	25	0	0
1960	0	25	0	25	0	0
1961	0	25	0	25	0	0
1962	0	25	0	25	0	0
1963	0	25	0	25	0	0
1964	0	25	0	25	25	0
1965	0	25	0	25	0	0
1966	0	25	0	200	0	0
1967	0	75	0	25	0	0
1968	0	200	0	400	0	0
1969	0	200	0	N/O	0	UNK
1970	0	75	0	25	0	0
1971	0	25	0	N/O	0	0
1972	0	N/O	0	25	0	0
1973	0	200	0	N/O	0	0
1974	0	25	0	25	0	0
1975	0	40	0	N/O	0	0
1976	0	45	0	N/O	0	0
1977	0	20	0	0	0	0
1978	0	40	0	N/O	0	0
1979	0	35	0	0	0	0
1980	UNK	UNK	UNK	UNK	UNK	UNK
1981	UNK	UNK	UNK	UNK	UNK	UNK
1982	UNK	UNK	UNK	UNK	UNK	UNK
1983	0	UNK	0	UNK	0	0
1984	0	UNK	0	UNK	0	0
1985	UNK	UNK	UNK	UNK	UNK	0
1986	0	UNK	0	UNK	0	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

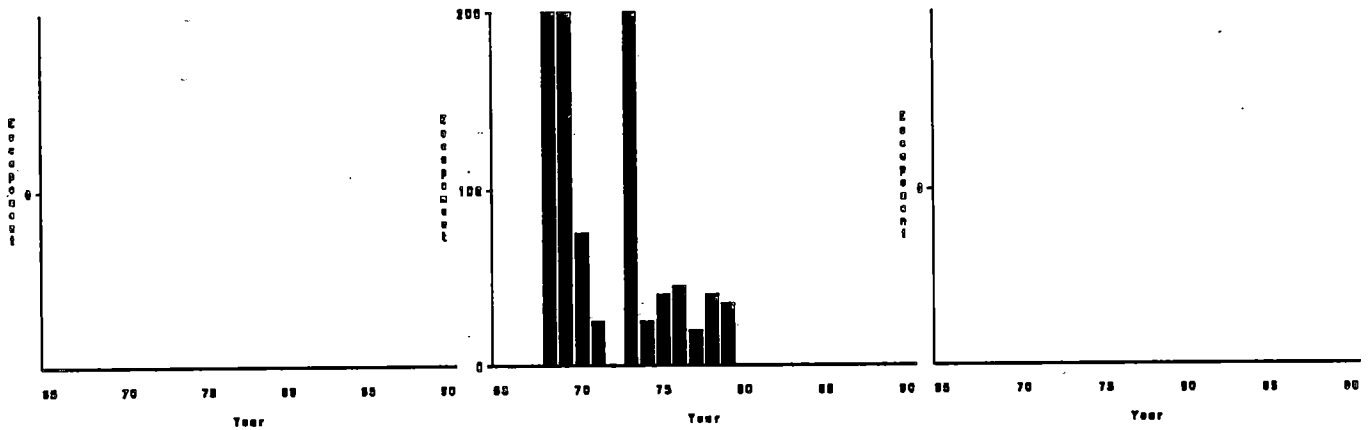
MACKTUSH CREEK (93-2370)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

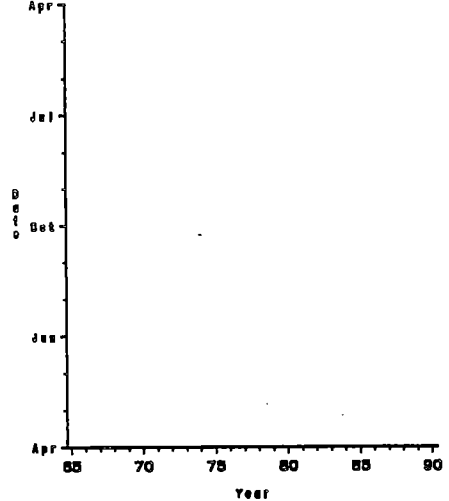
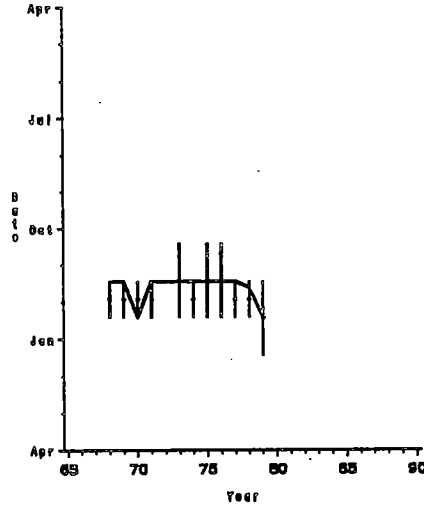
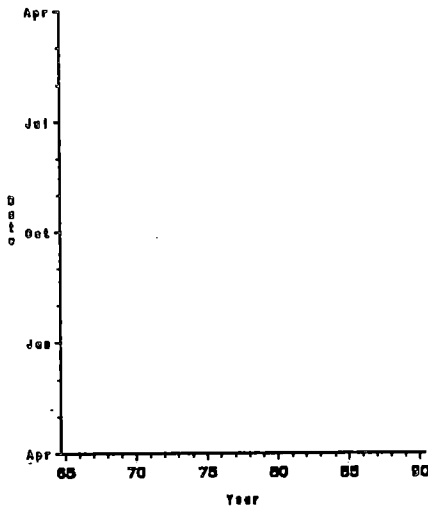
Pink (PK)



Sockeye

Coho

Pink



Year	Escapement	Start	Peak	End
1966	0	-	-	-
1968	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1976	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1966	200	15NOV	15NOV	15DEC
1968	200	15NOV	15NOV	15DEC
1970	75	15NOV	15DEC	15DEC
1971	35	15NOV	15NOV	15DEC
1972	0	-	-	-
1973	200	15NOV	15NOV	15DEC
1974	30	15NOV	15NOV	15DEC
1976	40	15NOV	15NOV	15DEC
1978	45	15NOV	15NOV	15DEC
1977	30	15NOV	15NOV	15DEC
1978	40	15NOV	20NOV	15DEC
1979	30	15NOV	15DEC	15JAN
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1966	0	-	-	-
1968	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1976	0	-	-	-
1978	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

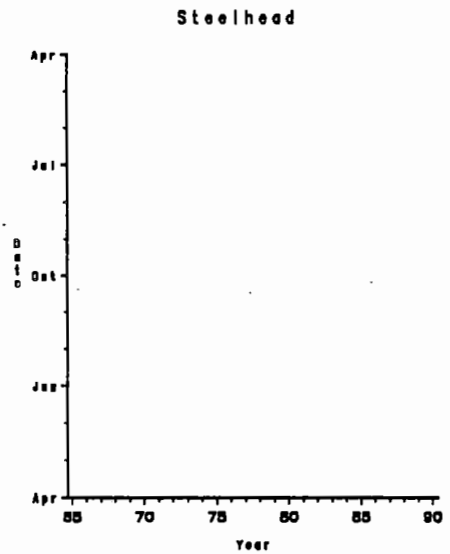
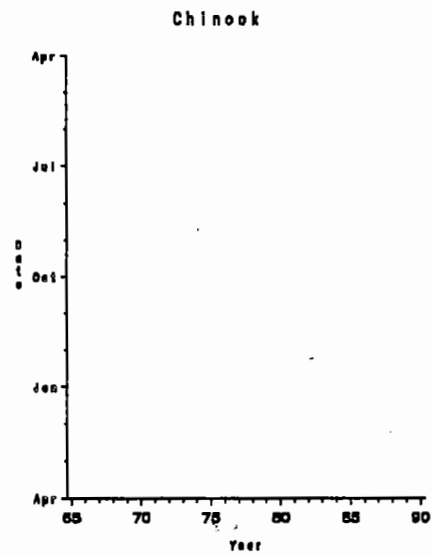
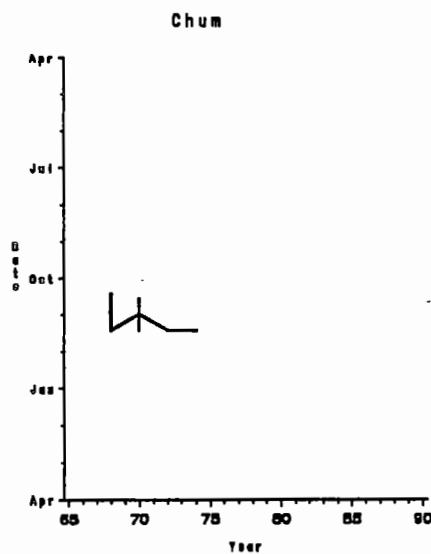
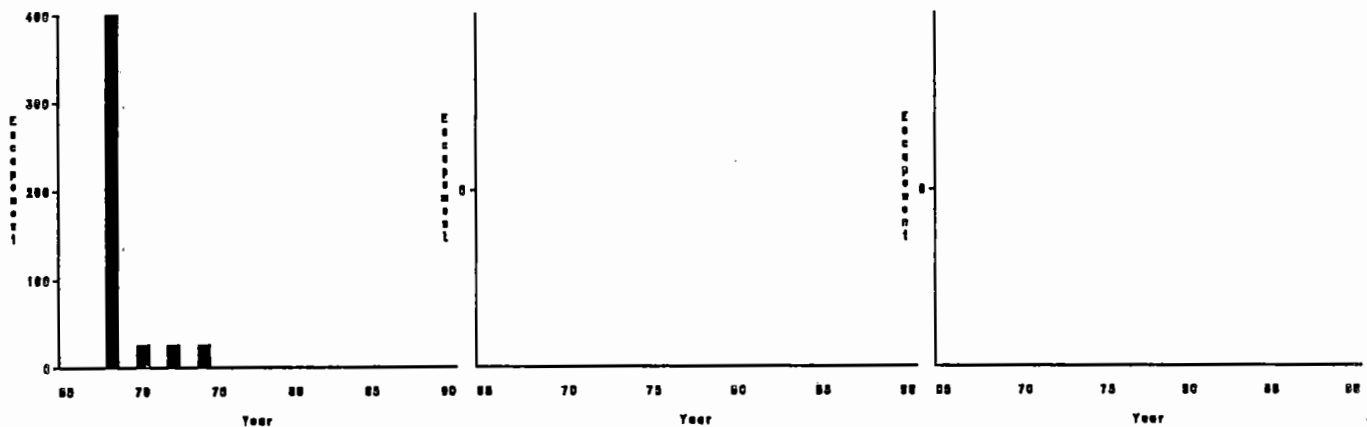
MACKTUSH CREEK (93-2370)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

Steelhead (ST)



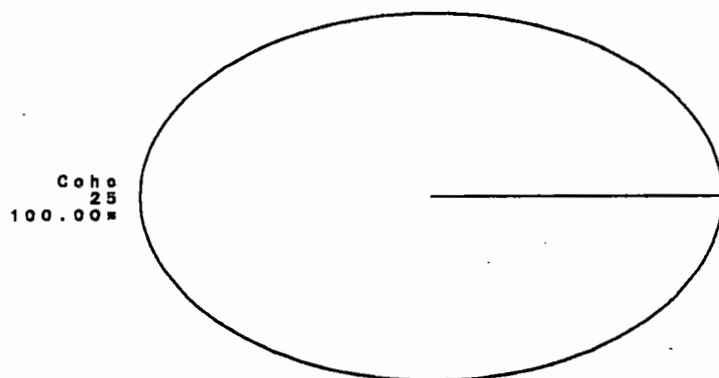
Chum				
Year	Escapement	Start	Peak	End
1965	400	10OCT	10NOV	10NOV
1966	0	-	-	-
1967	20	10OCT	01NOV	10NOV
1968	0	-	-	-
1969	20	10NOV	10NOV	10NOV
1970	0	-	-	-
1971	20	10NOV	10NOV	10NOV
1972	0	-	-	-
1973	20	10NOV	10NOV	10NOV
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	0	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Chinook				
Year	Escapement	Start	Peak	End
1965	0	-	-	-
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	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Steelhead				
Year	Escapement	Start	Peak	End
1965	-	-	-	-
1966	-	-	-	-
1967	-	-	-	-
1968	-	-	-	-
1969	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

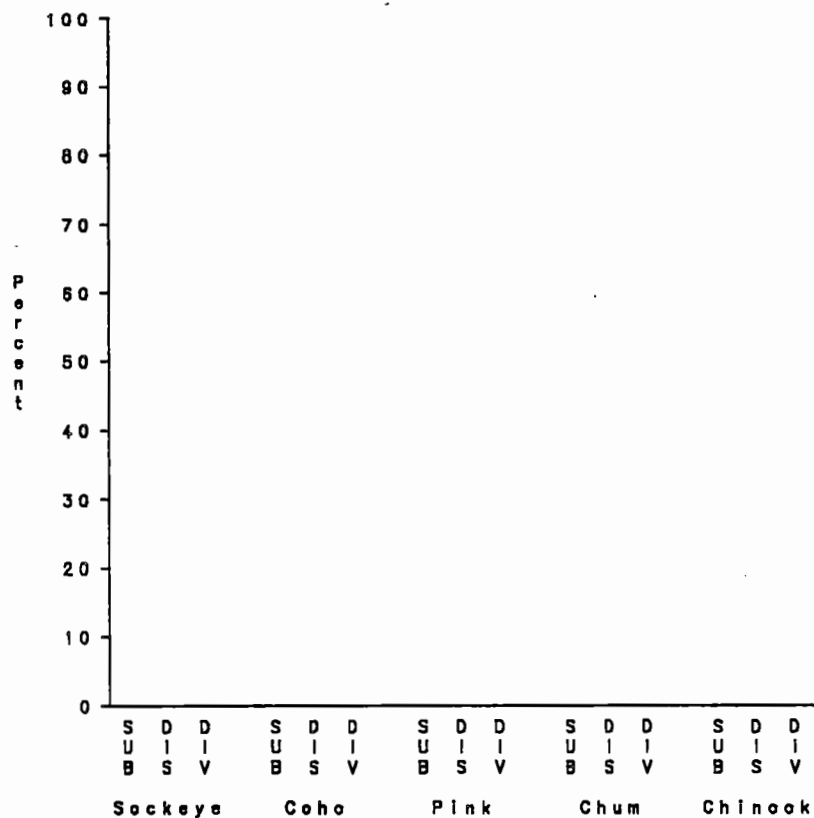
MACKTUSH CREEK (93-2370)

10-yr Mean Escapement
(1978-1987)



MACKTUSH CREEK : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



A. DESCRIPTION

Stream Name: NAHMINT RIVER	D.F.O. Division: SOUTH COAST
Local Name:	District: 4 PORT ALBERNI
Watershed Code: 93-2400	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-2
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92F/2
		B.C.G.S. (1:20k) Map: 006
		U.T.M. Mouth:
		Lat./Long. Mouth: 49 06. 03' 45'' 124 06. 53' 09''
		Mainstem Length: 4.8 km Ref. No.: 23-1
		Watershed Area: 198.0 km2 Ref. No.: 23-1
		Location: FLOWS S.E. THROUGH NAHMINT LAKE, INTO ALBERNI INLET, ALBERNI DIST.

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	GENERALLY LOW GRADIENT SYSTEM (REF. 23-8)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
F FALLS	4.0	4.8	CH CHINOOK SALMON CM CHUM SALMON CO COHO SALMON PK PINK SALMON SK SOCKEYE SALMON	SET OF 3 CASCADES IN A CANYON. PASSABLE TO STEELHEAD, SOME COHO AT CERTAIN WATER LEVELS (REF. 23-8, REF. 23-13)
F FALLS	3.0	11.3	AD ALL SALMON	AT OUTLET OF NAHMINT LAKE (REF. 23-8)

C. FLOW

Flow Control:	Water Survey of Canada (WSC) Flow Gauge: Y
W.S.C. Station No. 1: 08HB060	No. 2: 08HB012 No. 3: No. 4:

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
SK SOCKEYE SALMON	TO CANYON (REF. 23-8)
CO COHO SALMON	POSSIBLY CAN PASS CASCADES/CANYON (REF. 23-8)
PK PINK SALMON	TO CANYON (REF. 23-8)
CM CHUM SALMON	TO CANYON (REF. 23-8)
CH CHINOOK SALMON	TO CANYON (REF. 23-8)
ST STEELHEAD	4.8 KM ABOVE LAKE (REF. 23-8)
ST STEELHEAD	GOOD SUMMER STEELHEAD PRODUCER (REF. 23-2, REF. 23-13)
CT CUTTHROAT TROUT	THROUGHOUT (REF. 23-8)
DV DOLLY VARDEN	IN LAKE (REF. 23-8)
KD KOKanee	IN THE LAKE AND MAY USE UPPER SECTIONS OF THE RIVER (REF. 23-2)

D. DISTRIBUTION SUMMARY CONTINUED

Species	Watershed Distribution
RB RAINBOW TROUT	THROUGHOUT (REF. 23-8)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
SK SOCKEYE SALMON	279	1978 - 1987	28A-18	700	28A-18		
CO COHO SALMON	280	1978 - 1987	28A-18	500	28A-18		
PK PINK SALMON	6	1978 - 1986	28A-18	30	28A-18		
CN CHUM SALMON	21361	1978 - 1987	28A-18	44000	28A-18		
CH CHINOOK SALMON	226	1978 - 1987	28A-18	425	28A-18		
Comments: EVEN YEAR PINK ESCAPEMENT RECORDED FOR PERIOD OF RECORD (1978-1987) (REF. 28A-18)							

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	X X
CN CHUM SALMON	Migration Spawning Incubation Rearing										X X	X X	X
CH CHINOOK 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
EN ENHANCEMENT ACTS	CH CHINOOK SALMON	0.0	PILOT PROJECT THROUGH ROBERTSON CREEK HATCHERY ONGOING EGG TAKE, FRY RELEASE. (REF. 23-8)	1982/

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	INTENSIVE LOGGING THROUGHOUT WATERSHED (BEGAN 1974) (REF. 23-8)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

POTENTIAL TO MAKE CANYON PASSABLE, HOWEVER FISH AND WILDLIFE OBJECT DUE TO NEGATIVE IMPACTS ON STEELHEAD (REF. 23-8)

SNORKEL SURVEYS 1977-87 (REF. 23-13)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /

Prepared By:

K. SIS COMPLETED BY

Completed by: GITA KAPAHI
Last checked by: VIOLET KOMORI

Date: 1989/03/06
Date: 1990/03/29

ESCAPEMENT: NAHMINT RIVER

WATERSHED-CODE: 93-2400

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	1500	N/O	100000	3500	400
1954	0	75	200	75000	3500	400
1955	0	75	1500	3500	3500	400
1956	0	200	200	7500	750	400
1957	0	200	0	20000	400	400
1958	0	200	75	35000	400	0
1959	0	400	25	15000	1500	400
1960	0	75	75	7500	750	400
1961	0	200	200	7500	1500	750
1962	0	200	25	15000	400	750
1963	0	200	N/O	15000	1500	400
1964	0	200	0	10000	400	400
1965	0	200	N/O	35000	400	0
1966	0	400	N/O	15000	750	0
1967	0	200	N/O	35000	400	0
1968	0	400	0	75000	400	0
1969	0	200	0	35000	750	0
1970	0	200	0	35000	750	750
1971	0	400	0	12000	1200	N/O
1972	0	200	0	35000	900	0
1973	0	650	0	35000	750	0
1974	0	400	0	15000	600	0
1975	0	400	0	20000	750	0
1976	0	250	150	40000	550	0
1977	80	450	0	25000	450	0
1978	0	500	0	25000	300	0
1979	50	400	0	4000	200	0
1980	135	300	0	30000	175	0
1981	400	UNK	N/O	16600	250	UNK
1982	300	100	N/O	37500	425	10
1983	700	UNK	UNK	15000	100	UNK
1984	552	100	1	150	35	UNK
1985	600	UNK	N/O	44000	250	0
1986	50	UNK	30	20000	300	0
1987	0	UNK	0	UNK	UNK	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

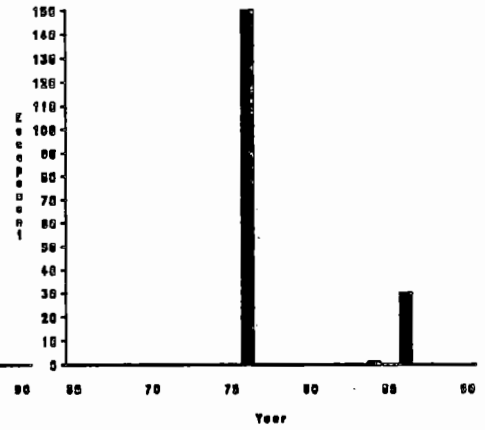
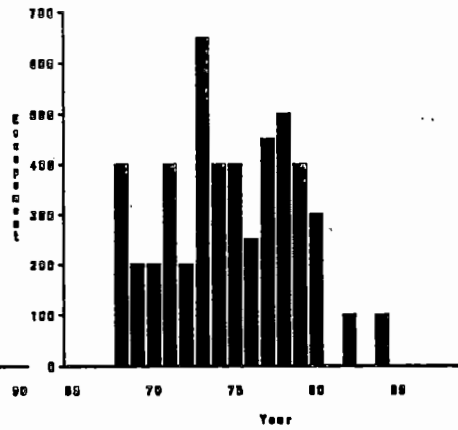
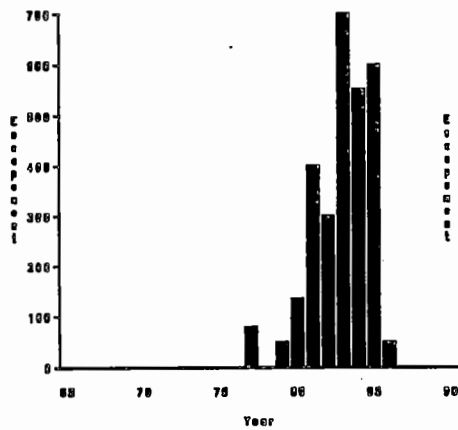
NAHMINT RIVER (93-2400)

Escapement & Run Timing

Socketeye (SK)

Coho (CO)

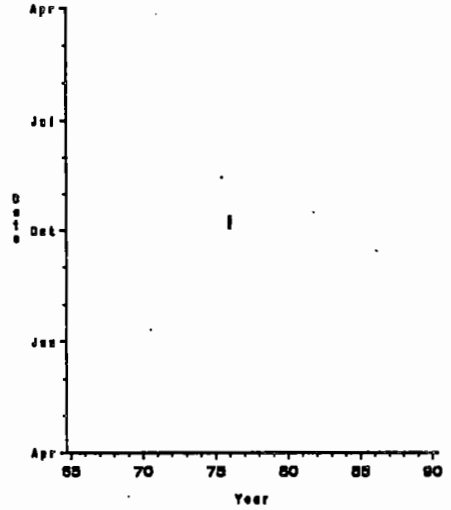
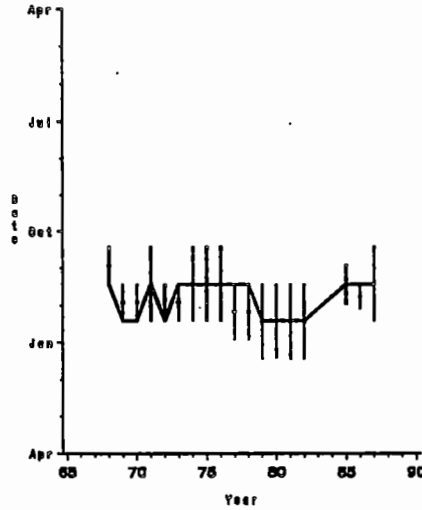
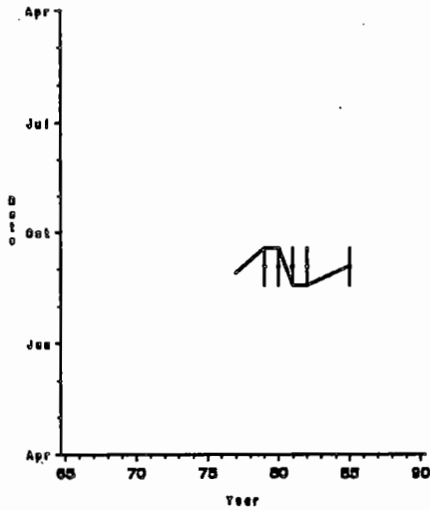
Pink (PK)



Sockeye

Coho

Pink



Year	Escapement	Start	Peak	End
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	-	-	-
1986	0	-	-	-
1987	0	-	-	-
1988	0	-	-	-
1989	0	-	-	-
1990	0	-	-	-

Year	Escapement	Start	Peak	End
1968	400	19OCT	19NOV	19NOV
1969	200	19NOV	19DEC	19DEC
1970	200	19NOV	19DEC	19DEC
1971	400	19OCT	19NOV	19DEC
1972	300	19NOV	19DEC	19DEC
1973	300	19NOV	19NOV	19DEC
1974	400	19OCT	19NOV	19DEC
1975	400	19OCT	19NOV	19DEC
1976	300	19OCT	19NOV	19DEC
1977	400	19NOV	19NOV	30DEC
1978	300	19NOV	19NOV	30DEC
1979	400	19NOV	19DEC	10JAN
1980	300	19NOV	19DEC	14JAN
1981	-	19NOV	19DEC	10JAN
1982	100	19NOV	19DEC	10JAN
1983	-	-	-	-
1984	100	-	-	-
1985	-	30OCT	19NOV	01DEC
1986	-	19NOV	-	00DEC
1987	-	19OCT	19NOV	19DEC

Year	Escapement	Start	Peak	End
1968	0	-	-	-
1969	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1975	0	-	-	-
1976	150	20SEP	25SEP	30SEP
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	0	-	-	-
1981	0	-	-	-
1982	0	-	-	-
1983	-	-	-	-
1984	1	-	-	-
1985	0	-	-	-
1986	30	-	-	-
1987	0	-	-	-

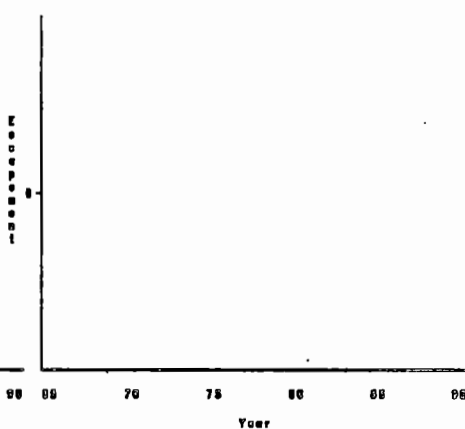
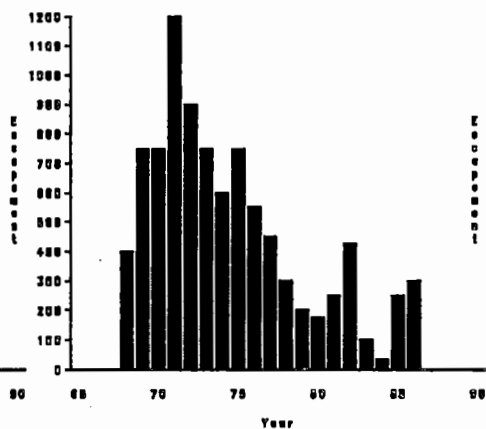
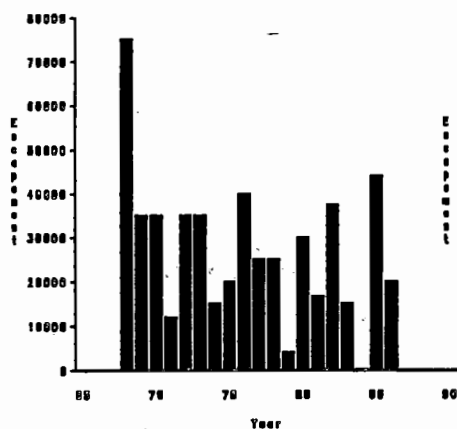
NAHMINT RIVER (93-2400)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

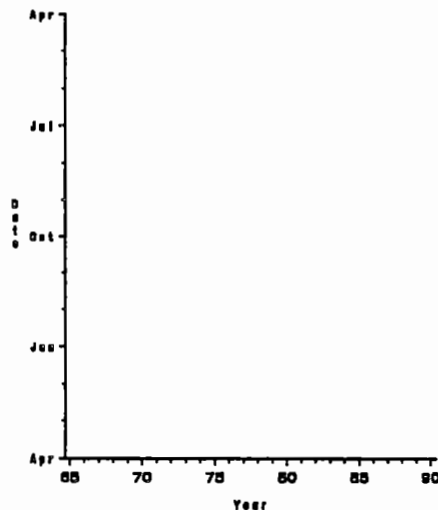
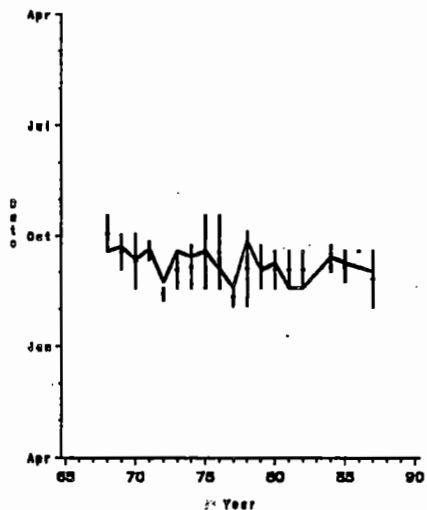
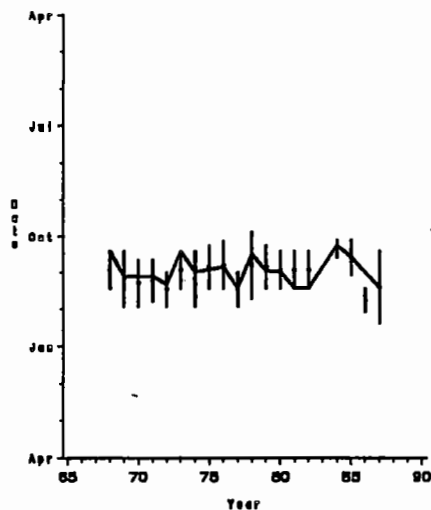
Steelhead (ST)



Chum

Chinook

Steelhead



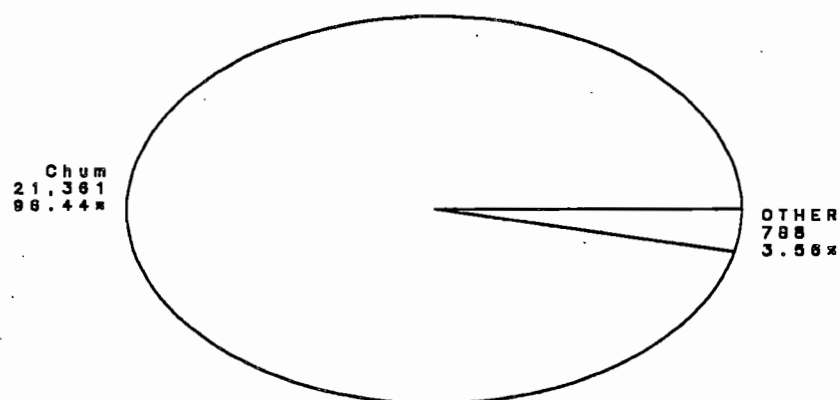
Chum				
Year	Escapement	Start	Peak	End
1965	75,000	10OCT	10OCT	10NOV
1966	35,000	10OCT	09NOV	30NOV
1967	35,000	22OCT	08NOV	30NOV
1968	12,000	22OCT	08NOV	20NOV
1969	35,000	01NOV	12NOV	30NOV
1970	35,000	10OCT	10OCT	10NOV
1971	15,000	10OCT	01NOV	30NOV
1972	20,000	10OCT	20OCT	10NOV
1973	40,000	09OCT	20OCT	10NOV
1974	25,000	01NOV	15NOV	30NOV
1975	25,000	20OCT	17OCT	20NOV
1976	4,000	10OCT	31OCT	10NOV
1977	30,000	10OCT	01NOV	10NOV
1978	10,000	10OCT	10NOV	10NOV
1979	37,500	15OCT	15NOV	15NOV
1980	15,000	-	-	-
1981	150	09OCT	10OCT	20OCT
1982	44,000	09OCT	20OCT	04NOV
1983	20,000	10NOV	-	05DEC
1984	-	10OCT	10NOV	10DEC

Chinook				
Year	Escapement	Start	Peak	End
1965	400	10SEP	10OCT	10OCT
1966	750	01OCT	11OCT	30OCT
1967	750	20SEP	22OCT	10NOV
1968	1,200	07OCT	13OCT	22OCT
1969	900	15NOV	10NOV	25NOV
1970	750	10OCT	10OCT	10NOV
1971	600	10OCT	20OCT	10NOV
1972	750	10SEP	10OCT	10NOV
1973	300	20SEP	08OCT	30NOV
1974	200	10OCT	31OCT	10NOV
1975	175	10OCT	20OCT	10NOV
1976	200	10OCT	10NOV	10NOV
1977	425	15OCT	10NOV	15NOV
1978	190	-	-	-
1979	35	10OCT	20OCT	01NOV
1980	250	10OCT	20OCT	10NOV
1981	350	10OCT	-	-
1982	-	10OCT	01NOV	01DEC

Steelhead				
Year	Escapement	Start	Peak	End
1965	-	-	-	-
1966	-	-	-	-
1967	-	-	-	-
1968	-	-	-	-
1969	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

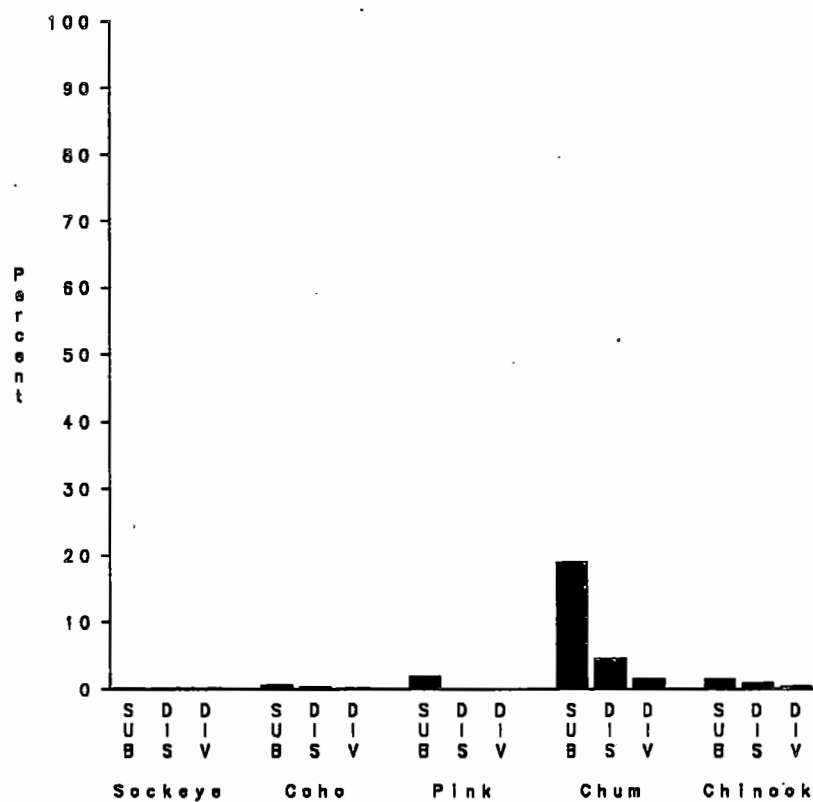
NAHMINT RIVER (93-2400)

10-yr Mean Escapement
(1978-1987)



NAHMINT RIVER : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



Stream Name: UNNAMED CREEK		D.F.O. Division: SOUTH COAST
Local Name: SNUG BASIN CREEK		District: 4 PORT ALBERNI
Watershed Code: 93-2495		Subdistrict: 23 PORT ALBERNI
		Statistical Subarea: 23-4
		M.O.E.P. Region: 1 VANCOUVER ISLAND
		Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92F/3 B.C.G.S. (1:20k) Map: 005 U.T.M. Mouth: Lat./Long. Mouth: 49 DG. 01' 30'' 125 DG. 01' 22'' Mainstem Length: 1.6 km Ref. No.: 23-1 Watershed Area: 5.2 km2 Ref. No.: 23-1
		Location: FLOWS S: INTO SNUG BASIN, HEAD OF UCHUCKLESIT INLET.

Gradient Class/Location (km upstream from mouth)						Comments
0 - .5%	.5 - 2%	2 - 5%	5 - 10%	>10%		GENERALLY VERY STEEP (REF. 23-8)

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
F FALLS	7.6	1.5	AF ALL SPECIES	(REF. 23-8)

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

Species	Watershed Distribution
CO COHO SALMON	TO FALLS (REF. 23-2, REF. 23-8)
CN CHUM SALMON	TO FALLS (REF. 23-2, REF. 23-8)

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	32	1978 - 1987	28A-18	80	28A-18		
CN CHUM SALMON	686	1978 - 1987	28A-18	2000	28A-18		

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

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

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	INTENSIVE ONGOING LOGGING (1954 - PRESENT) (REF. 23-8)

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 KAPANI	Date: 1989/03/08
Last checked by: VIOLET KOMORI	Date: 1990/03/29

ESCAPEMENT: SNUG BASIN CREEK

WATERSHED-CODE: 93-2495

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	25	0	1500	0	0
1954	0	25	0	3500	0	25
1955	0	75	0	750	0	25
1956	0	25	0	400	0	25
1957	0	25	0	1500	0	0
1958	0	75	0	1500	0	25
1959	0	25	0	200	0	25
1960	0	25	0	200	0	25
1961	0	25	0	75	0	25
1962	0	25	0	75	0	0
1963	0	25	0	25	0	25
1964	0	25	0	75	0	25
1965	0	25	0	25	0	0
1966	0	25	0	400	0	0
1967	0	25	0	200	0	0
1968	0	75	0	1500	0	0
1969	0	25	0	750	0	0
1970	0	75	0	750	0	0
1971	0	25	0	200	0	0
1972	0	25	0	1500	0	0
1973	0	200	0	1500	0	0
1974	0	150	0	2500	0	0
1975	0	25	0	900	0	0
1976	0	40	0	1700	0	0
1977	0	60	0	550	0	0
1978	0	80	0	750	0	0
1979	0	50	0	200	0	0
1980	0	N/O	0	2000	0	0
1981	0	50	0	400	0	0
1982	0	14	0	1050	0	0
1983	0	UNK	0	UNK	0	0
1984	0	UNK	0	UNK	0	0
1985	UNK	UNK	UNK	400	UNK	0
1986	0	UNK	0	UNK	0	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

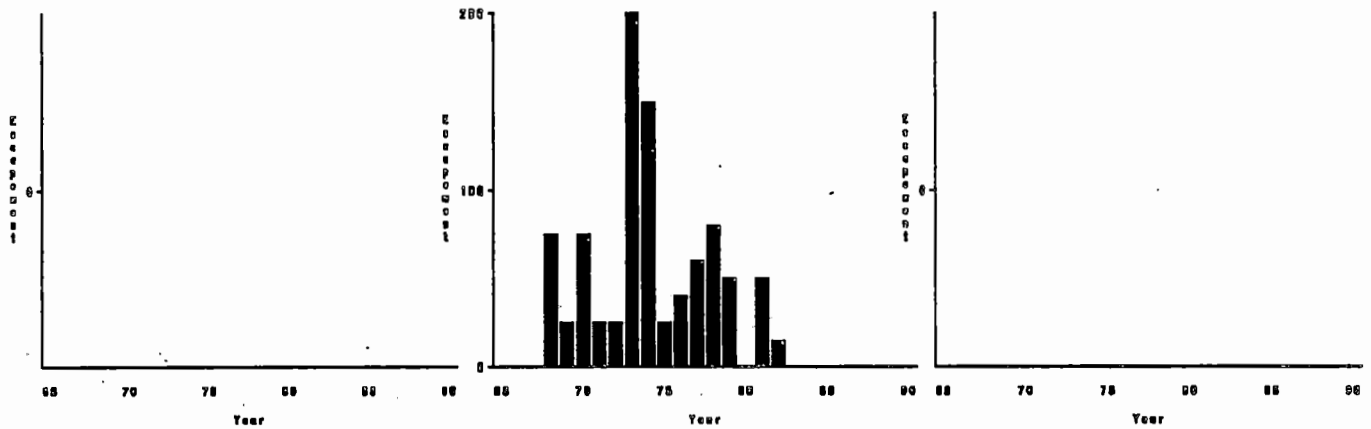
UNK = STREAM NOT INSPECTED OR NOT INSPECTED FOR SPECIES INDICATED OR SPECIES PRESENT BUT NO ESTIMATE MADE

UNNAMED C (93-2495) Escapement & Run Timing

Sockeye (SK)

Coho (CO)

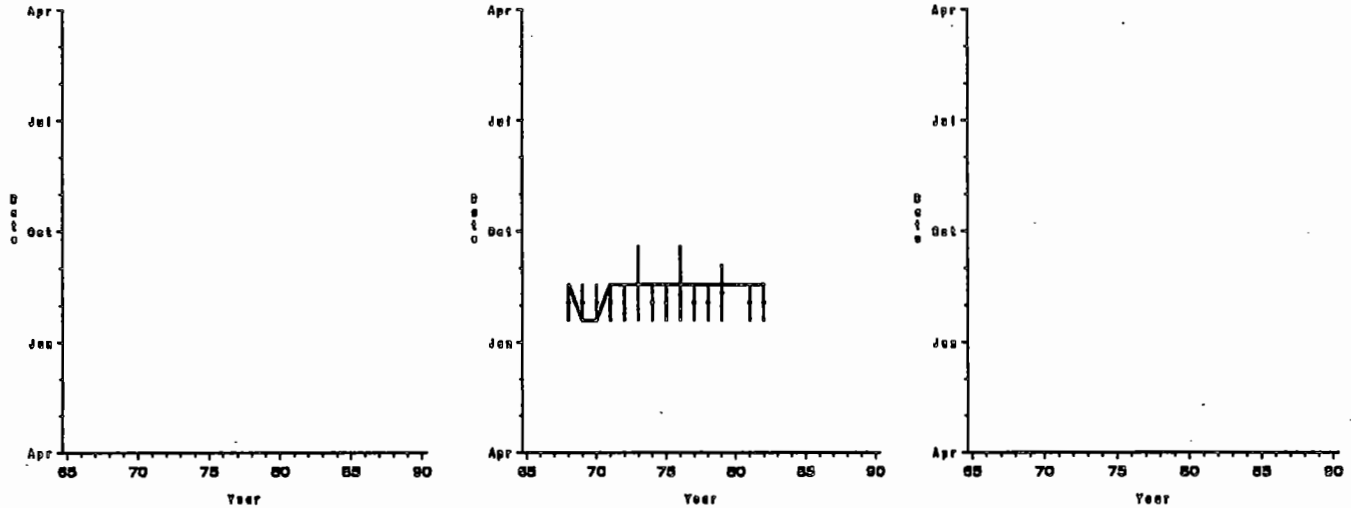
Pink (PK)



Sockeye

Coho

Pink



Year	Escapement	Start	Peak	End
1965	0	-	-	-
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	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1965	70	15NOV	15NOV	15DEC
1966	20	15NOV	15DEC	15DEC
1967	75	15NOV	15DEC	15DEC
1968	35	15NOV	15NOV	15DEC
1969	35	15NOV	15NOV	15DEC
1970	200	15OCT	15NOV	15DEC
1971	150	15NOV	15NOV	15DEC
1972	20	15NOV	15NOV	15DEC
1973	40	15OCT	15NOV	15DEC
1974	80	15NOV	15NOV	15DEC
1975	30	15NOV	15NOV	15DEC
1976	40	15OCT	15NOV	15DEC
1977	30	15NOV	15NOV	15DEC
1978	30	15NOV	15NOV	15DEC
1979	30	15OCT	15NOV	15DEC
1980	0	-	-	-
1981	30	15NOV	15NOV	15DEC
1982	14	15NOV	15NOV	15DEC
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1965	0	-	-	-
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	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

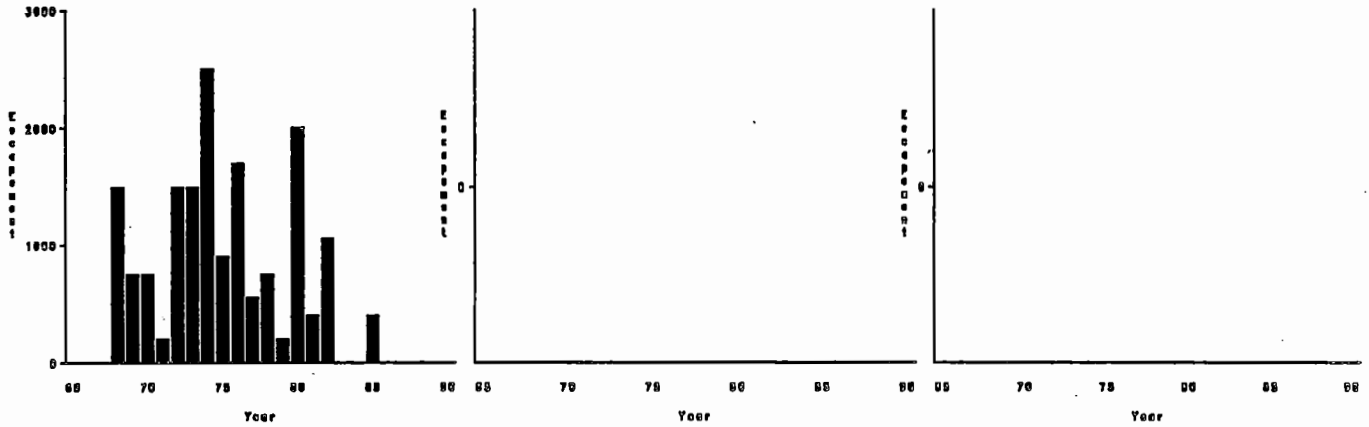
UNNAMED C (93-2495)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

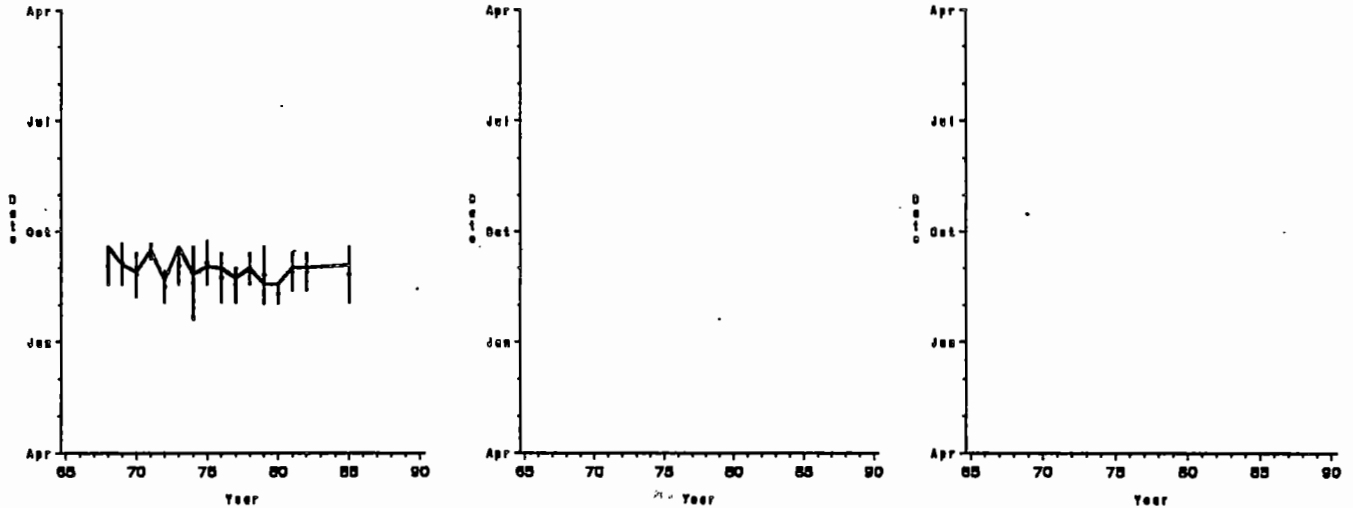
Steelhead (ST)



Chum

Chinook

Steelhead



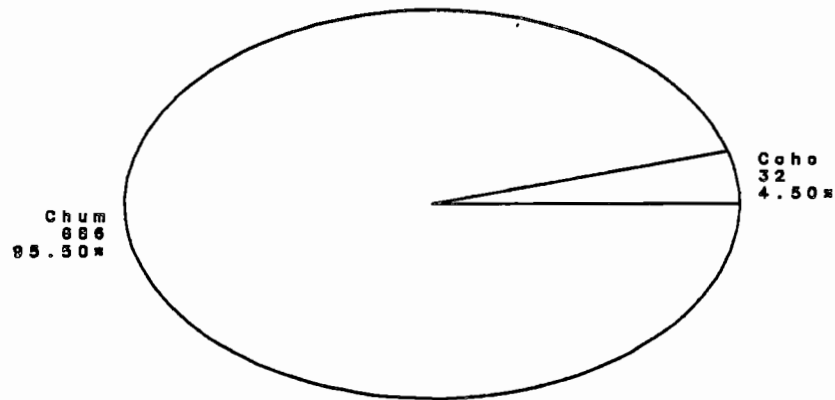
Chum				
Year	Escapement	Start	Peak	End
1966	1,200	12OCT	12OCT	12NOV
1967	700	12OCT	12OCT	12NOV
1968	700	12OCT	12OCT	12NOV
1969	200	12OCT	12OCT	12NOV
1970	200	12OCT	12OCT	12NOV
1971	1,000	04NOV	12NOV	30NOV
1972	1,000	12OCT	12OCT	12NOV
1973	2,000	12OCT	12OCT	12NOV
1974	100	12OCT	12OCT	12NOV
1975	1,700	12OCT	12OCT	12NOV
1976	200	12OCT	12OCT	12NOV
1977	200	12OCT	12OCT	12NOV
1978	200	12OCT	12OCT	12NOV
1979	200	12OCT	12OCT	12NOV
1980	200	12OCT	12OCT	12NOV
1981	200	12OCT	12OCT	12NOV
1982	200	12OCT	12OCT	12NOV
1983	200	12OCT	12OCT	12NOV
1984	200	12OCT	12OCT	12NOV
1985	200	12OCT	12OCT	12NOV
1986	200	12OCT	12OCT	12NOV
1987	200	12OCT	12OCT	12NOV
1988	200	12OCT	12OCT	12NOV
1989	200	12OCT	12OCT	12NOV
1990	200	12OCT	12OCT	12NOV

Chinook				
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	-	-	-
1986	0	-	-	-
1987	0	-	-	-
1988	0	-	-	-
1989	0	-	-	-
1990	0	-	-	-

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	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-
1988	-	-	-	-
1989	-	-	-	-
1990	-	-	-	-

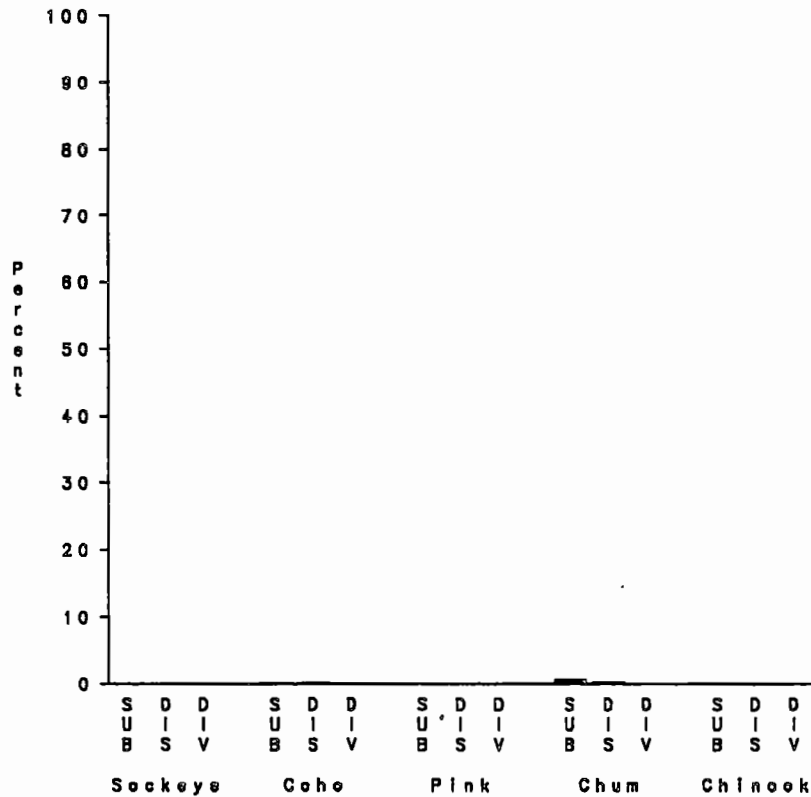
UNNAMED C (93-2495)

10-yr Mean Escapement
(1978-1987)



UNNAMED C : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



A. DESCRIPTION

Stream Name: HENDERSON LAKE RIVER	D.F.O. Division: SOUTH COAST
Local Name: ANDERSON RIVER, HENDERSON RIVER	District: 4 PORT ALBERNI
Watershed Code: 93-2500	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-4
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92F/3
CLEMENS CREEK	300	B.C.G.S. (1:20k) Map: 005
		U.T.M. Mouth:
		Lat./Long. Mouth: 49 06. 01' 15'' 125 06. 02' 28''
		Mainstem Length: 1.0 km Ref. No.: 23-1
		Watershed Area: 142.5 km2 Ref. No.: 23-1
		Location: FLOWS S.E. INTO UCHUCKLESIT INLET, N.E. OF BARKLEY SD.

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
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:
NO INFORMATION AVAILABLE	

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
SK SOCKEYE SALMON	TO CLEMENS CREEK AND TRIBUTARIES OF LAKE (REF. 23-8)
CO COHO SALMON	TO CLEMENS CREEK AND TRIBUTARIES OF LAKE (REF. 23-8)
PK PINK SALMON	PRESENCE NOTED (REF. 28A-18)
CM CHUM SALMON	SPAWN BETWEEN LAKE AND OUTLET (THE ODD CM GET TO THE LAKE) (REF. 23-8)
CH CHINOOK SALMON	SPAWN BETWEEN LAKE AND OUTLET (REF. 23-8)
ST STEELHEAD	TO CLEMENS CREEK AND TRIBUTARIES OF LAKE (REF. 23-8)
CT CUTTHROAT TROUT	TO CLEMENS CREEK AND TRIBUTARIES OF LAKE (REF. 23-8)
DV DOLLY VARDEN	TO CLEMENS CREEK AND TRIBUTARIES OF LAKE (REF. 23-8)

E. ESCAPEMENT SUMMARY

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

E. ESCAPEMENT SUMMARY CONTINUED

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
SK SOCKEYE SALMON	26188	1978 - 1987	28A-18	57500	28A-18		
CO COHO SALMON	292	1978 - 1987	28A-18	500	28A-18		
PK PINK SALMON	23	1978 - 1987	28A-18	90	28A-18		
CM CHUM SALMON	1200	1978 - 1987	28A-18	4000	28A-18		
CH CHINOOK SALMON	82	1978 - 1987	28A-18	250	28A-18		

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
CO COHO SALMON	Migration Spawning Incubation Rearing										X X	X X	X X
PK PINK SALMON	Migration Spawning Incubation Rearing										X	X	
CM CHUM SALMON	Migration Spawning Incubation Rearing										X	X X	X X
CH CHINOOK SALMON	Migration Spawning Incubation Rearing										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
FT LAKE FERTILIZAT'N	SK SOCKEYE SALMON	0.0	ONGOING LAKE FERTILIZATION PROGRAM (REF. 23-8)	1976/

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FD FORESTRY	INTENSIVE LOGGING THROUGHOUT WATERSHED (ONGOING) (REF. 23-8)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

MAJOR SOCKEYE HATCHERY ON THIS SYSTEM IN THE 1920'S (REF. 23-8)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /

Prepared By:

K. SIS COMPLETED BY

Completed by: GITA KAPAHI
Last checked by: VIOLET KOMORI

Date: 1989/03/06
Date: 1990/03/29

ESCAPEMENT: HENDERSON LAKE RIVER

WATERSHED-CODE: 93-2500

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	15000	3500	0	35000	1500	400
1954	35000	750	0	7500	400	400
1955	15000	3500	0	1500	750	400
1956	7500	3500	0	3500	750	400
1957	7500	750	0	7500	750	400
1958	15000	1500	0	7500	1500	400
1959	15000	1500	0	3500	750	400
1960	7500	750	0	3500	400	400
1961	15000	3500	0	3500	1500	400
1962	35000	1500	0	1500	750	400
1963	15000	1500	0	750	400	400
1964	35000	3500	0	3500	400	0
1965	15000	1500	0	3500	750	0
1966	75000	1500	0	3500	750	0
1967	75000	750	0	3500	400	0
1968	35000	1500	0	7500	400	0
1969	15000	400	0	3500	200	UNK
1970	9000	400	0	3500	200	UNK
1971	7500	400	0	750	750	0
1972	3500	200	400	3500	400	0
1973	40000	500	0	750	250	0
1974	6000	400	N/O	3500	150	0
1975	10000	400	0	750	400	0
1976	3500	250	0	4200	320	0
1977	4800	325	0	850	210	0
1978	7000	500	90	1000	150	0
1979	20000	375	50	600	250	0
1980	20000	0	0	4000	0	0
1981	35000	UNK	0	400	10	0
1982	57500	UNK	UNK	N/O	UNK	0
1983	UNK	UNK	UNK	UNK	UNK	UNK
1984	45000	UNK	0	UNK	0	0
1985	25000	UNK	UNK	UNK	UNK	0
1986	0	UNK	UNK	UNK	UNK	0
1987	UNK	UNK	0	UNK	UNK	0
1988	27,000				UNK	
1989	UNK				UNK	
1990	100,000				UNK	
1991	51,400				UNK	
1992	27,000				50	
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

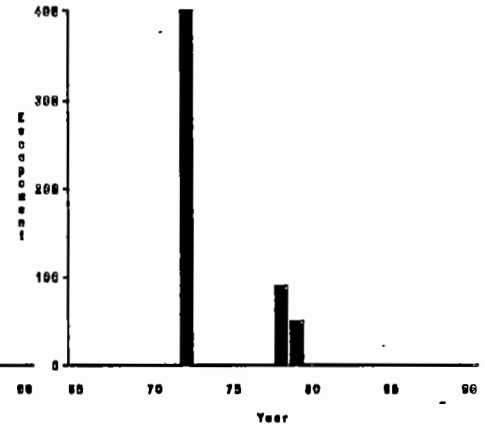
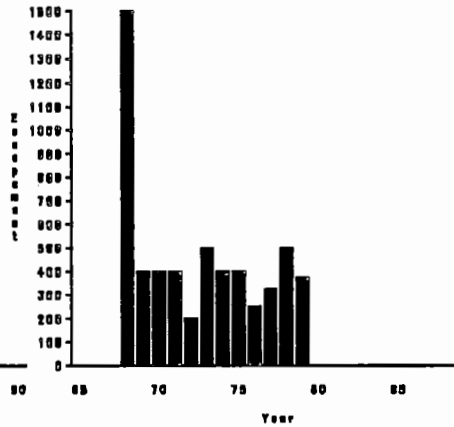
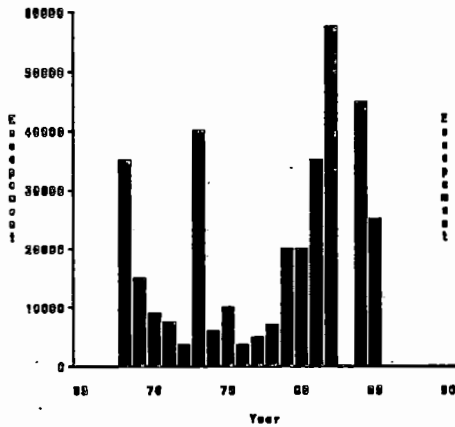
HENDERSON LAKE (93-2500)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

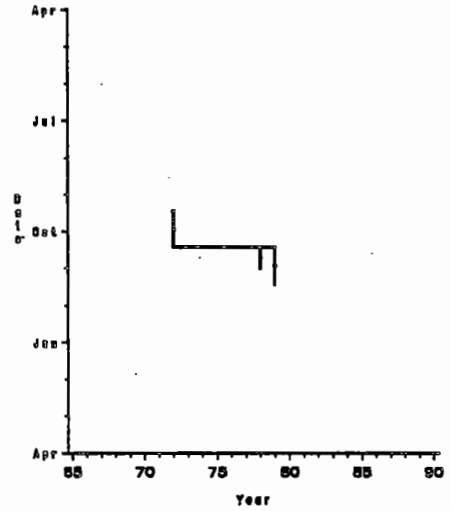
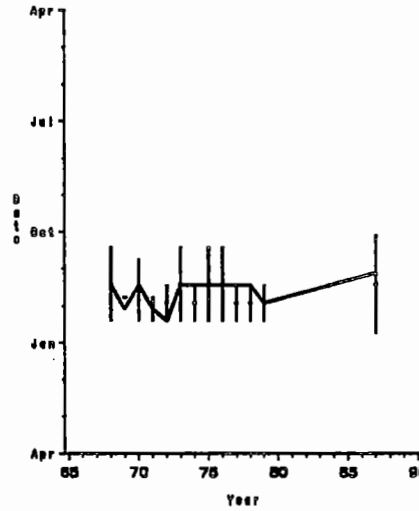
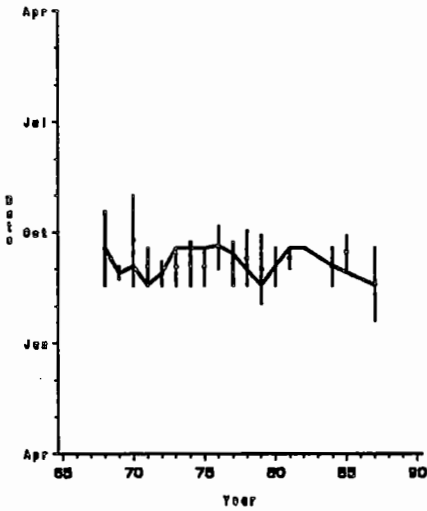
Pink (PK)



Sockeye

Coho

Pink



Sockeye

Coho

Pink

Year	Escapement	Start	Peak	End
1965	35,000	10SEP	10OCT	10NOV
1966	15,000	30OCT	08NOV	10NOV
1967	5,000	01SEP	30OCT	10NOV
1968	7,300	10OCT	10NOV	10NOV
1969	3,300	20OCT	08NOV	10NOV
1970	40,000	10OCT	10OCT	10NOV
1971	8,000	10OCT	10OCT	10NOV
1972	10,000	10OCT	10OCT	10NOV
1973	3,300	27SEP	13OCT	01NOV
1974	4,000	10OCT	20OCT	10NOV
1975	7,000	01OCT	08OCT	10NOV
1976	20,000	04OCT	10OCT	30NOV
1977	20,000	10OCT	20OCT	10NOV
1978	35,000	10OCT	10OCT	01NOV
1979	37,500	10OCT	10OCT	10OCT
1980	-	-	-	-
1981	45,000	10OCT	20OCT	10NOV
1982	20,000	08OCT	-	01NOV
1983	0	-	-	-
1984	-	10OCT	10NOV	10DEC

Year	Escapement	Start	Peak	End
1965	1,000	10OCT	10NOV	10DEC
1966	400	20NOV	10DEC	-
1967	400	20OCT	10NOV	10DEC
1968	400	20NOV	05DEC	10DEC
1969	200	15NOV	10DEC	10DEC
1970	800	10OCT	10NOV	10DEC
1971	400	10NOV	10NOV	10DEC
1972	400	10OCT	10NOV	10DEC
1973	200	15OCT	10NOV	10DEC
1974	325	15NOV	10NOV	10DEC
1975	300	10NOV	10NOV	10DEC
1976	375	10NOV	30NOV	10DEC
1977	0	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	08OCT	05NOV	20DEC

Year	Escapement	Start	Peak	End
1965	0	-	-	-
1966	0	-	-	-
1967	0	-	-	-
1968	0	-	-	-
1969	400	10SEP	10OCT	10OCT
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	10	10OCT	10OCT	01NOV
1979	50	10OCT	10OCT	10NOV
1980	0	-	-	-
1981	0	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

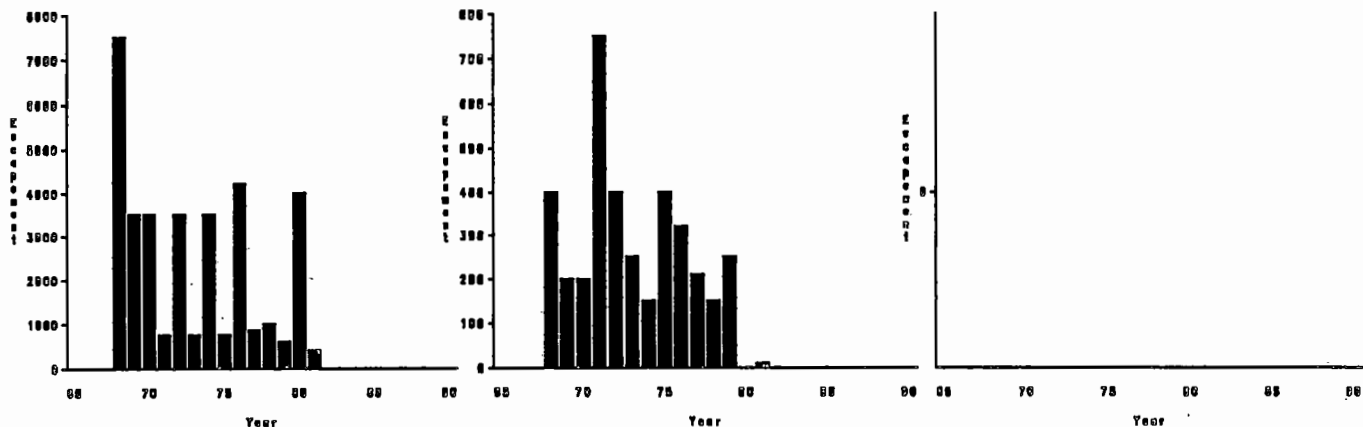
HENDERSON LAKE (93-2500)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

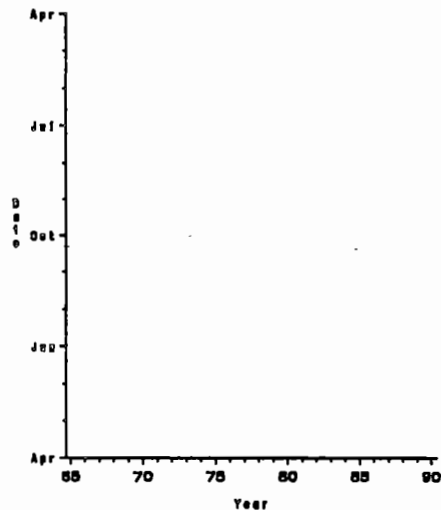
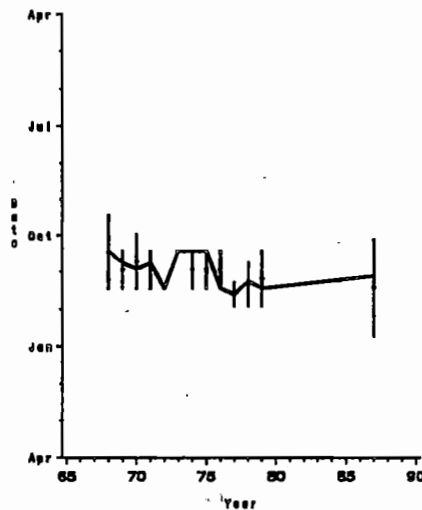
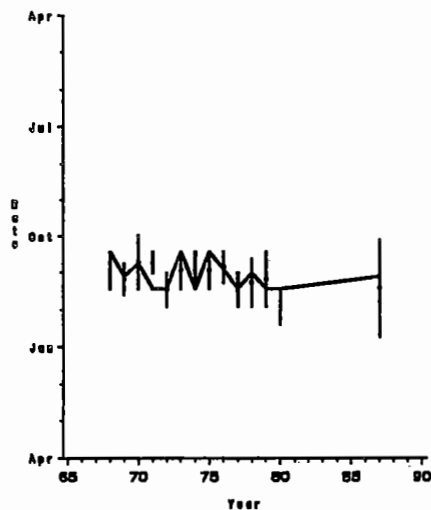
Steelhead (ST)



Chum

Chinook

Steelhead



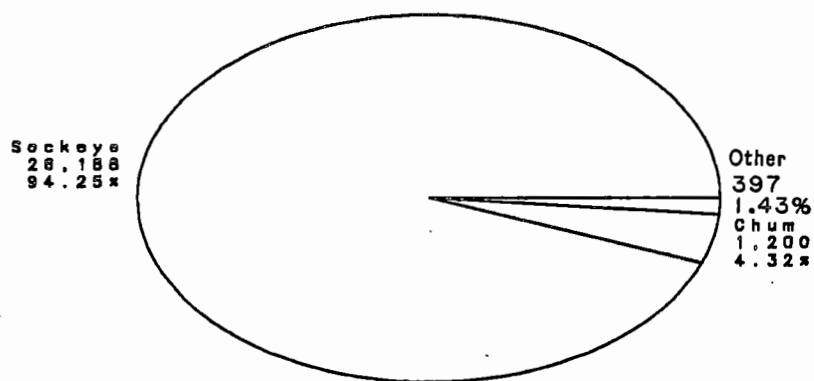
Year	Escapement	Start	Peak	End
1966	7,500	18OCT	18OCT	15NOV
1967	3,500	28OCT	08NOV	26NOV
1970	3,500	01OCT	25OCT	13NOV
1971	700	15OCT	13NOV	02NOV
1972	3,500	02NOV	13NOV	30NOV
1973	750	18OCT	18OCT	18NOV
1974	2,500	18OCT	15NOV	18NOV
1975	750	18OCT	18OCT	12NOV
1976	4,200	13OCT	30OCT	10NOV
1977	850	02NOV	15NOV	30NOV
1978	1,000	21OCT	02NOV	30NOV
1979	600	13OCT	18NOV	30NOV
1980	4,000	12NOV	12NOV	12DEC
1981	400	-	-	-
1982	0	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	01OCT	08NOV	28DEC

Year	Escapement	Start	Peak	End
1966	600	18SEP	18OCT	18NOV
1967	200	18OCT	26OCT	15NOV
1970	200	01OCT	30OCT	15NOV
1971	750	15OCT	23OCT	15NOV
1972	400	15NOV	15NOV	15NOV
1973	200	18OCT	18OCT	15NOV
1974	100	18OCT	18OCT	18NOV
1975	400	18OCT	18OCT	18NOV
1976	320	15OCT	15NOV	15NOV
1977	210	10NOV	20NOV	20NOV
1978	150	24OCT	08NOV	30NOV
1979	250	18OCT	18NOV	20NOV
1980	0	-	-	-
1981	10	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	08OCT	08NOV	28DEC

Year	Escapement	Start	Peak	End
1966	-	-	-	-
1967	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

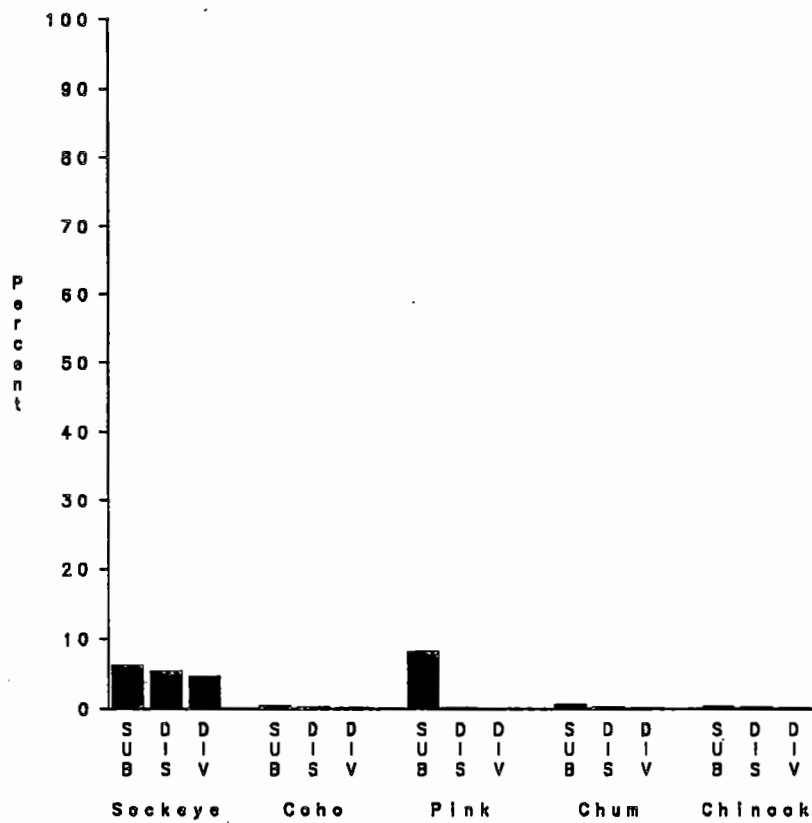
HENDERSON LAKE (93-2500)

10-yr Mean Escapement
(1978-1987)



HENDERSON LAKE : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



Stream Name: CLEMENS CREEK	D.F.O. Division: SOUTH COAST
Local Name:	District: 4 PORT ALBERNI
	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-4
Watershed Code: 93-2500-300	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit: 7

Tributaries	Code	Topographic (1:50k) Map: 92F/3
		B.C.G.S. (1:20k) Map: 015
		U.T.M. Mouth: 10.3442.54446
		Lat./Long. Mouth: 49 06. 08' 13'' 125 06. 08' 06''
		Mainstem Length: 5.6 km Ref. No.: 23-1
		Watershed Area: 29.3 km2 Ref. No.: 23-1
		Location: FLOWS SW INTO THE TOP END OF HENDERSON LAKE.

Gradient Class/Location (km upstream from mouth)						Comments
0 - .5%	.5 - 2%	2 - 5%	5 - 10%	>10%		FAIRLY LOW GRADIENT SYSTEM (REF. 23-8)

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

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

Species	Watershed Distribution
SK SOCKEYE SALMON	PRIMARY SPAWNING AREA FOR HENDERSON LAKE SYSTEM (5.5 KM UPSTREAM) (REF. 23-8)
CO COHO SALMON	PRESENT (REF. 23-8)
ST STEELHEAD	PRESENT (REF. 23-8)

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

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
FT LAKE FERTILIZAT'N	SK SOCKEYE SALMON	0.0	FERTILIZATION PROGRAM ONGOING (REF. 23-8)	1976/

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	EXTREMELY HEAVY LOGGING HAS HAD A MAJOR IMPACT (REF. 23-8)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

UPPER TRIBS HAVE BEEN IMPACTED BY NUMEROUS ROCK SLIDES AND POSSIBLE DEBRIS TORRENTS (NATURAL). SMALL LAKE (0.5 HA) MAY BE OF INTEREST AS ITS PERIMETER IS PROJECTED TO BE LOGGED IN 1991. (REF. 23-2)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:

K. SIS COMPLETED BY

Completed by: GITA KAPAH	Date: 1989/02/28
Last checked by: VIOLET KOMORI	Date: 1990/03/27

A. DESCRIPTION

Stream Name: UCHUCK CREEK	D.F.O. Division: SOUTH COAST
Local Name: SILVER CREEK	District: 4 PORT ALBERNI
Watershed Code: 93-2510	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-4
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92F/3
		B.C.G.S. (1:20k) Map: 005
		U.T.M. Mouth:
		Lat./Long. Mouth: 49 DG. 00' 49" 125 DG. 02' 53"
		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%	LOW GRADIENT (REF. 23-8)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
F FALLS	3.7	1.2	AF ALL SPECIES	(REF. 23-8)

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	OCCASIONALLY SEEN (REF. 23-8)
CN CHUM SALMON	TO FALLS (REF. 23-8)
CH CHINOOK SALMON	HISTORICAL PRESENCE (REF. 28A-18)
CT CUTTHROAT TROUT	IN LAKE AND IN UPPER PART OF CREEK (REF. 23-8)
RB RAINBOW TROUT	IN LAKE AND UPPER PART OF CREEK (REF. 23-8)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	215	1978 - 1987	28A-18	500	28A-18		
CN CHUM SALMON	1714	1978 - 1987	28A-18	5000	28A-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	X X	X
CN CHUM 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
NO INFORMATION AVAILABLE				

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	HEAVY ONGOING LOGGING (REF. 23-8)

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
 Last checked by: VIOLET KOWORI

Date: 1989/03/08
 Date: 1990/03/29

ESCAPEMENT: UCHUCK CREEK

WATERSHED-CODE: 93-2510

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	3500	0	3500	25	75
1954	0	750	0	7500	0	25
1955	0	400	0	3500	0	25
1956	0	75	0	3500	0	25
1957	0	25	0	7500	25	25
1958	0	200	0	7500	0	25
1959	0	75	0	3500	0	75
1960	0	25	0	1500	0	75
1961	0	200	0	1500	0	75
1962	0	200	0	3500	0	75
1963	0	25	0	750	0	200
1964	0	25	0	1500	0	75
1965	0	75	0	1500	0	75
1966	0	25	0	3500	0	0
1967	0	25	0	1500	0	0
1968	0	200	0	3500	0	0
1969	0	400	0	7500	0	UNK
1970	0	400	0	7500	0	75
1971	0	400	0	7500	0	0
1972	0	200	0	3500	0	0
1973	0	400	0	5500	0	0
1974	0	400	0	10000	0	0
1975	0	200	0	6000	0	0
1976	0	325	0	4400	0	0
1977	0	390	0	3500	0	0
1978	0	500	0	2500	0	0
1979	0	360	0	500	0	0
1980	0	0	0	5000	0	0
1981	0	UNK	0	1000	0	0
1982	0	UNK	0	2700	0	0
1983	0	UNK	0	UNK	0	0
1984	0	UNK	0	1010	0	0
1985	UNK	UNK	UNK	1000	UNK	0
1986	0	UNK	0	UNK	0	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

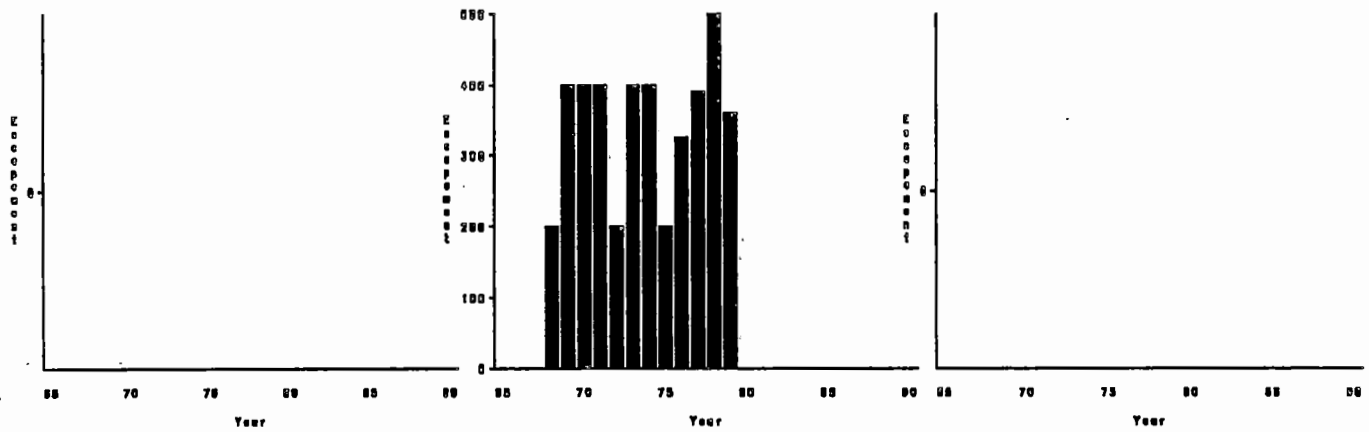
UCHUCK CREEK (93-2510)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

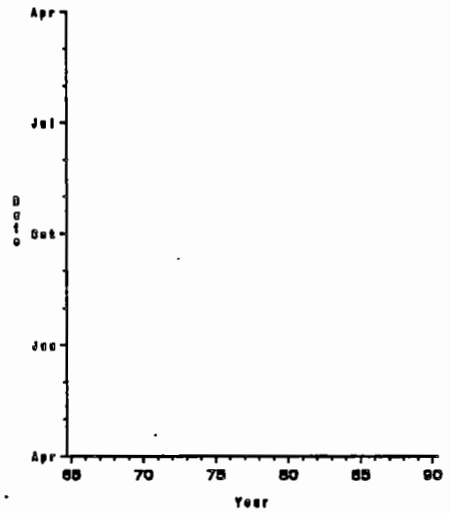
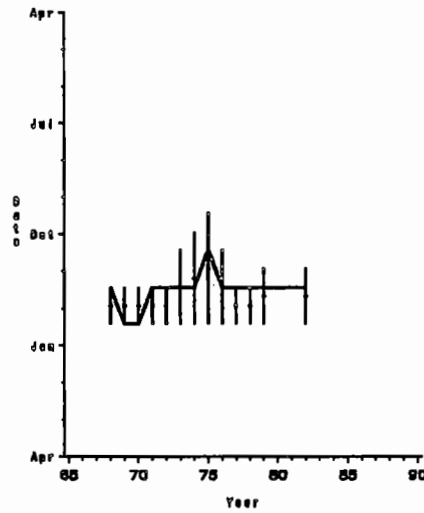
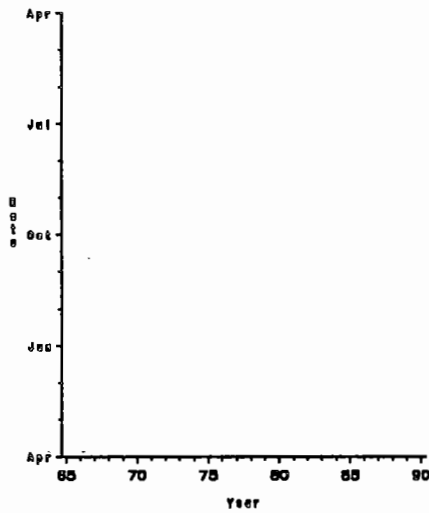
Pink (PK)



Sockeye

Coho

Pink



Year	Escapement	Start	Peak	End
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	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1969	200	15NOV	15NOV	15DEC
1970	400	15NOV	15DEC	15DEC
1971	400	15NOV	15DEC	15DEC
1972	400	15NOV	15NOV	15DEC
1973	200	15NOV	15NOV	15DEC
1974	400	15OCT	15NOV	15DEC
1975	400	15OCT	15NOV	15DEC
1976	200	15SEP	15OCT	15DEC
1977	320	15OCT	15NOV	15DEC
1978	300	15NOV	15NOV	15DEC
1979	300	30OCT	15NOV	15DEC
1980	0	-	-	-
1981	-	-	-	-
1982	-	30OCT	15NOV	15DEC
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
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	-	-	-
1986	0	-	-	-
1987	0	-	-	-

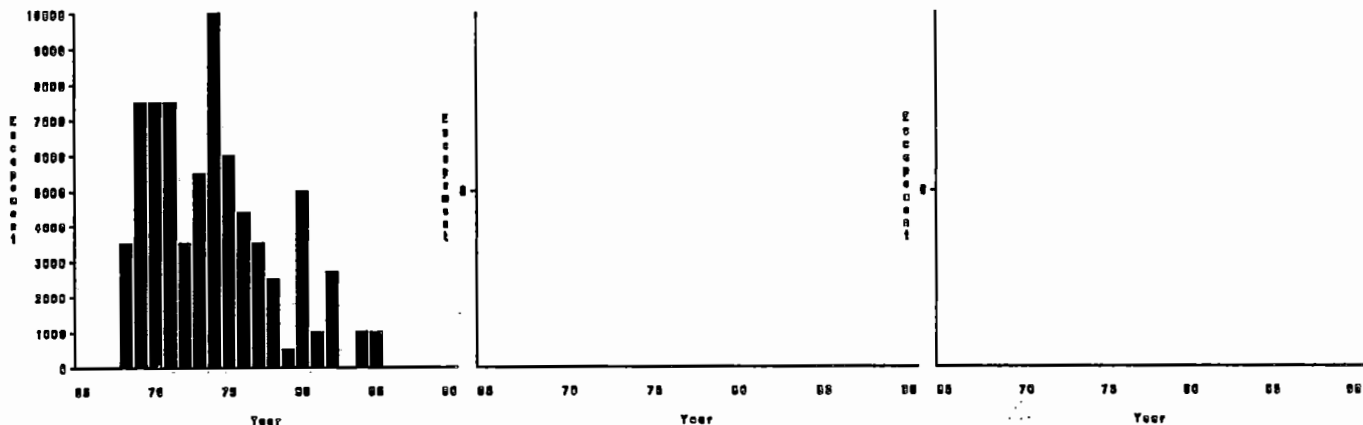
UCHUCK CREEK (93-2510)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

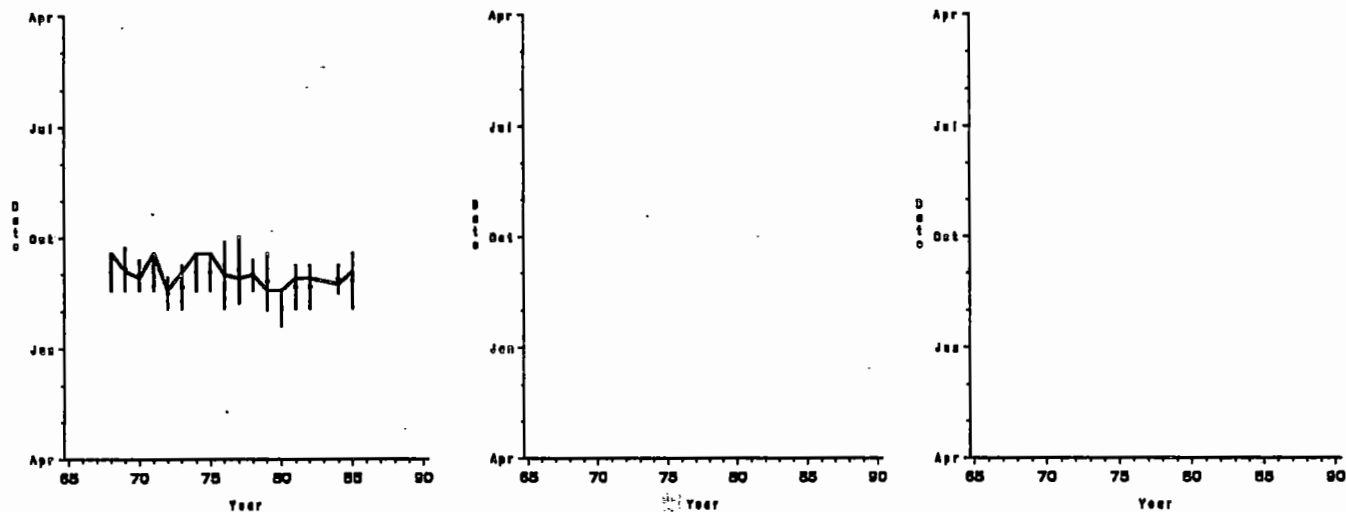
Steelhead (ST)



Chum

Chinook

Steelhead



Chum

Chinook

Steelhead

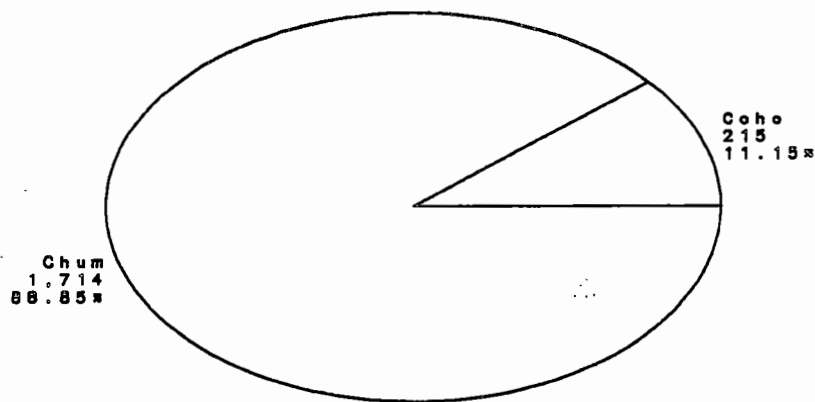
Year	Escapement	Start	Peak	End
1965	3,200	10OCT	10OCT	10NOV
1966	7,500	10OCT	20OCT	10NOV
1967	7,500	20OCT	02NOV	10NOV
1968	7,500	10OCT	10OCT	10NOV
1969	2,000	04NOV	10NOV	30NOV
1970	8,500	20OCT	31OCT	30NOV
1971	10,000	10OCT	10OCT	10NOV
1972	8,500	10OCT	10OCT	10NOV
1973	4,400	08OCT	02NOV	30NOV
1974	2,000	01OCT	02NOV	20NOV
1975	2,000	20OCT	02NOV	10NOV
1976	200	10OCT	10NOV	01DEC
1977	2,500	10NOV	10NOV	10DEC
1978	1,000	20OCT	02NOV	30NOV
1979	2,700	20OCT	02NOV	30NOV
1980	-	-	-	-
1981	1,010	20OCT	10NOV	17NOV
1982	1,000	10OCT	20OCT	30NOV
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1965	0	-	-	-
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	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1965	-	-	-	-
1966	-	-	-	-
1967	-	-	-	-
1968	-	-	-	-
1969	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

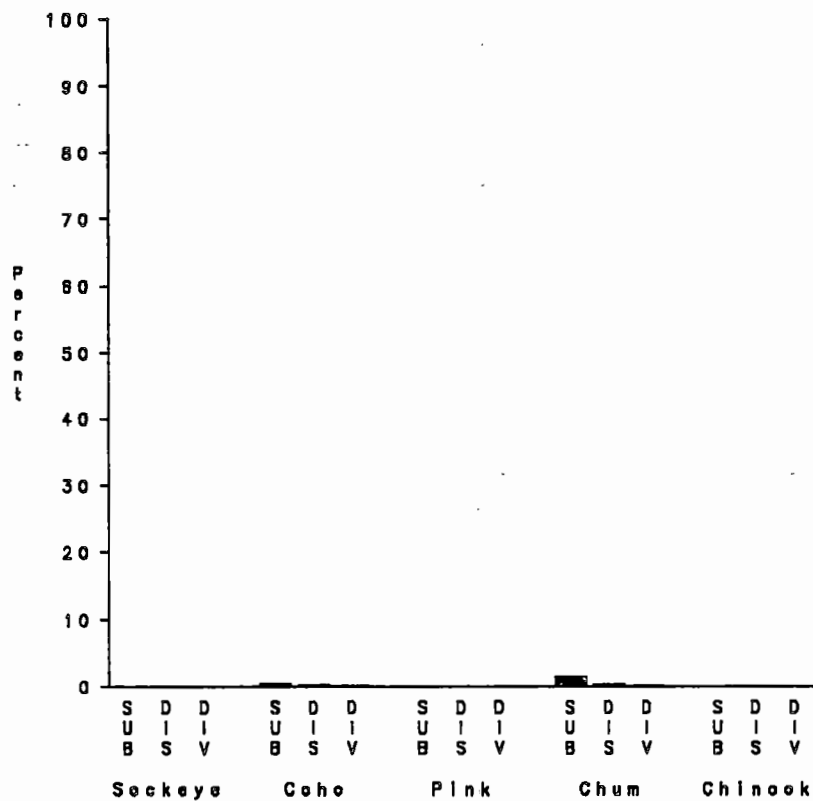
UCHUCK CREEK (93-2510)

10-yr Mean Escapement
(1978-1987)



UCHUCK CREEK : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



A. DESCRIPTION

Stream Name: HOLFORD CREEK	D.F.O. Division: SOUTH COAST
Local Name: HALFORD CREEK	District: 4 PORT ALBERNI
Watershed Code: 93-2580-750	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-5
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92C/14
		B.C.G.S. (1:20k) Map: 095
		U.T.M. Mouth:
		Lat./Long. Mouth: 48 DG. 56' 16'' 125 DG. 05' 02''
		Mainstem Length: 0.4 km Ref. No.: 23-1
		Watershed Area: 3.9 km2 Ref. No.: 23-1
		Location: FLWS N.W. INTO HOLFORD BAY, TZARTUS IS., BARCLAY DIST.

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	VERY STEEP (REF. 23-8)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
F FALLS		0.4	AF ALL SPECIES	(REF. 23-8)

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	TO FALLS AT 0.4 KM (REF. 23-1)
CM CHUM SALMON	TO FALLS AT 0.4 KM (REF. 23-8)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	13	1978 - 1987	28A-18	30	28A-18		
CM CHUM SALMON	921	1978 - 1987	28A-18	2200	28A-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 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	

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	PAST LOGGING (REF. 23-8)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

SUBSTRATE CONSISTS OF SOLID ROCK FOR AT LEAST 100M OF ITS ACCESSIBLE LENGTH (REF. 23-2)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:

K. SIS COMPLETED BY

Completed by: GITA KAPAHU	Date: 1989/03/06
Last checked by: VIOLET KOMORI	Date: 1990/03/29

ESCAPEMENT: HOLFORD CREEK

WATERSHED-CODE: 93-2580-750

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	0	0	750	0	0
1954	0	0	0	1500	0	0
1955	0	0	0	1500	0	0
1956	0	0	0	400	0	0
1957	0	0	0	750	0	0
1958	0	0	0	750	0	0
1959	0	0	0	400	0	0
1960	0	0	0	750	0	0
1961	0	0	0	750	0	0
1962	0	0	0	200	0	0
1963	0	0	0	400	0	0
1964	0	0	0	750	0	0
1965	0	0	0	750	0	0
1966	0	0	0	750	0	0
1967	0	0	0	1500	0	0
1968	0	0	0	750	0	0
1969	0	75	0	3500	0	0
1970	0	75	0	400	0	0
1971	0	25	0	200	0	0
1972	0	25	0	750	0	0
1973	0	75	0	1000	0	0
1974	0	25	0	750	0	0
1975	0	25	0	900	0	0
1976	0	40	0	800	0	0
1977	0	20	0	1150	0	0
1978	0	25	0	2200	0	0
1979	0	30	0	1000	0	0
1980	0	25	0	2000	0	0
1981	UNK	UNK	UNK	UNK	UNK	UNK
1982	0	N/O	0	700	0	0
1983	0	N/O	0	95	0	0
1984	0	UNK	0	UNK	0	0
1985	UNK	UNK	UNK	450	UNK	0
1986	0	UNK	0	UNK	0	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

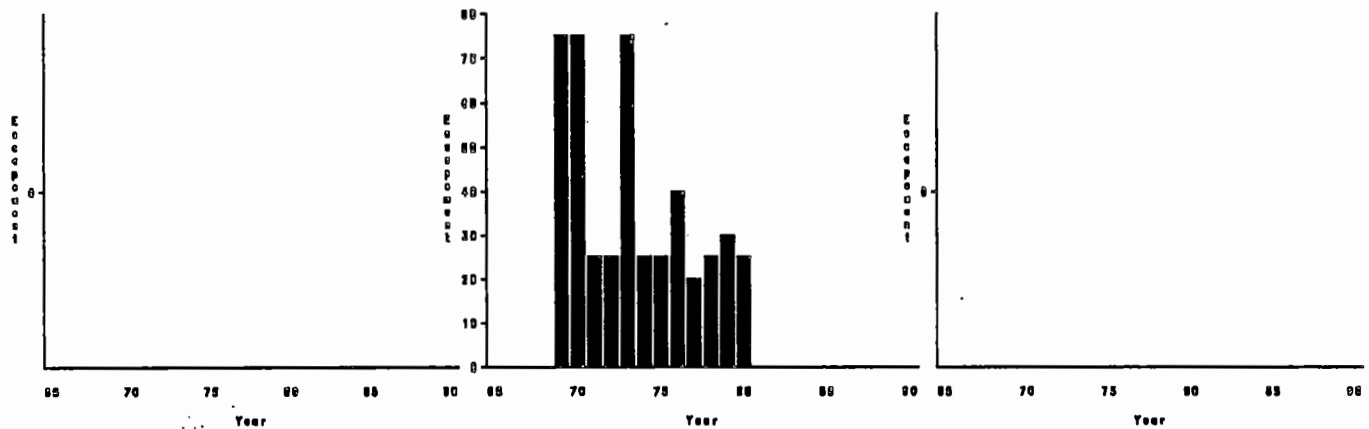
HOLFORD CREEK (93-2580-750)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

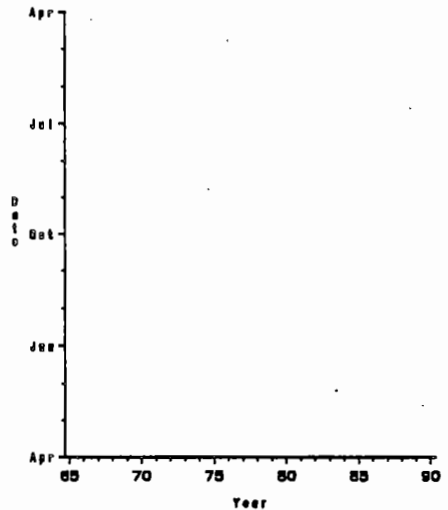
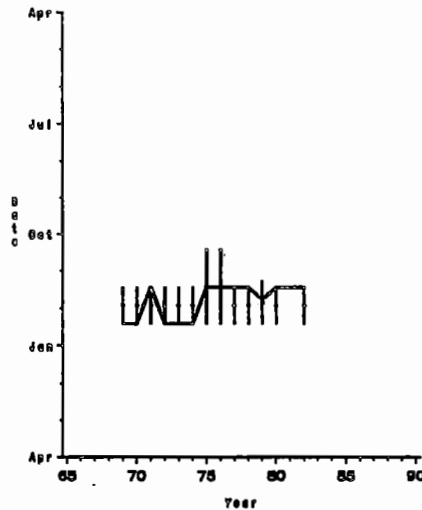
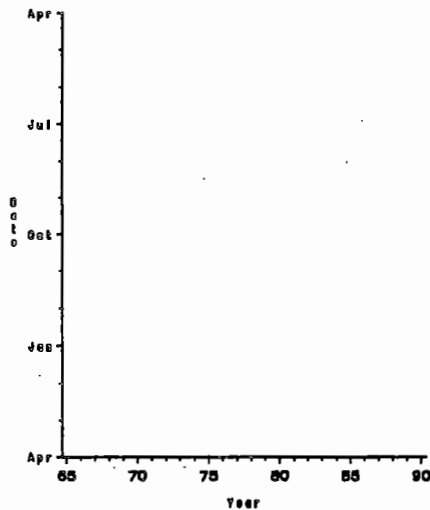
Pink (PK)



Sockeye

Coho

Pink



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	-	-	-	-
1982	0	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	-	-	-	-

Year	Escapement	Start	Peak	End
1966	0	-	-	-
1967	75	15NOV	15DEC	15DEC
1968	75	15NOV	15DEC	15DEC
1969	25	15NOV	15NOV	15DEC
1970	25	15NOV	15DEC	15DEC
1971	25	15NOV	15DEC	15DEC
1972	25	15NOV	15DEC	15DEC
1973	75	15NOV	15DEC	15DEC
1974	25	15NOV	15DEC	15DEC
1975	25	15NOV	15NOV	15DEC
1976	40	15NOV	15NOV	15DEC
1977	30	15NOV	15NOV	15DEC
1978	25	15NOV	15NOV	15DEC
1979	30	15NOV	25NOV	15DEC
1980	25	15NOV	15NOV	15DEC
1981	-	-	-	-
1982	0	15NOV	15NOV	15DEC
1983	0	-	-	-
1984	-	-	-	-
1985	-	-	-	-

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	-	-	-	-
1982	0	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	-	-	-	-

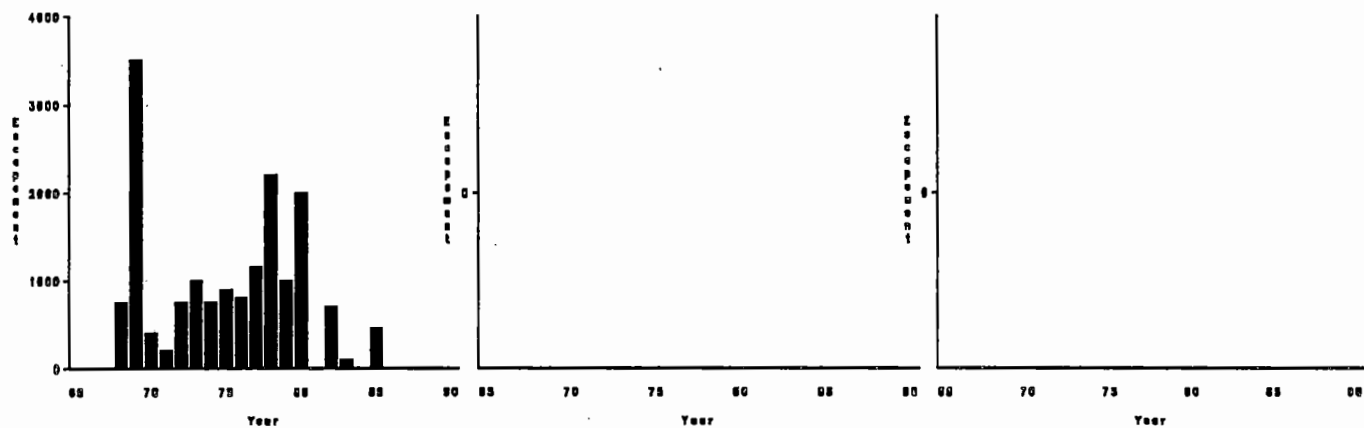
HOLFORD CREEK (93-2580-750)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

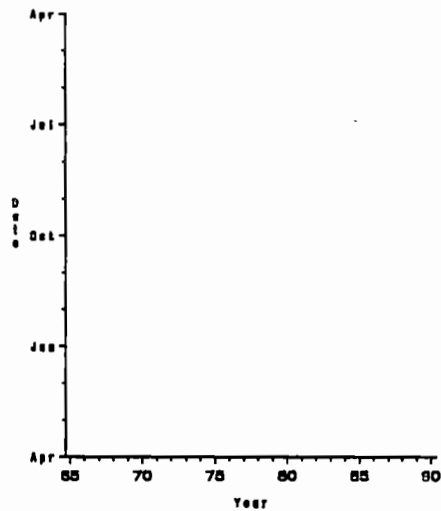
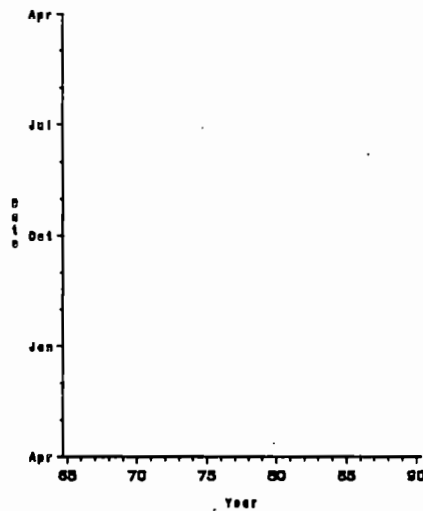
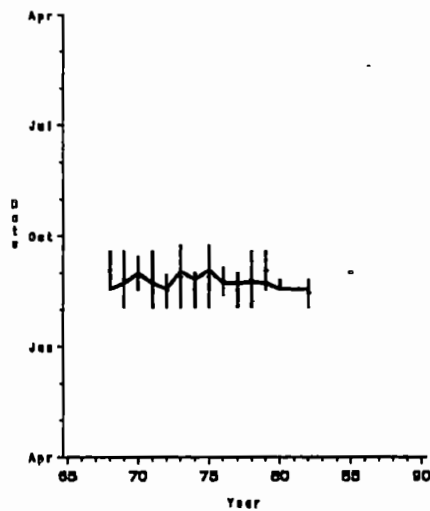
Steelhead (ST)



Chum

Chinook

Steelhead



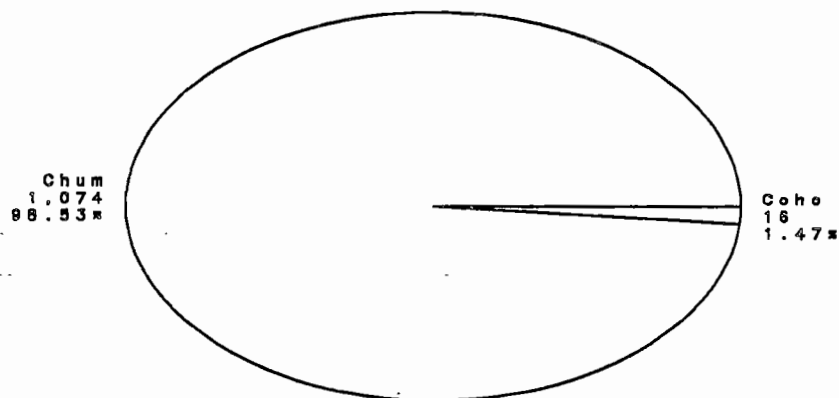
Chum				
Year	Escapement	Start	Peak	End
1966	700	18OCT	18NOV	18NOV
1968	2,400	18OCT	18NOV	30NOV
1970	400	18OCT	02NOV	13NOV
1971	300	18OCT	18NOV	30NOV
1972	750	02NOV	18NOV	30NOV
1973	1,000	18OCT	31OCT	30NOV
1974	700	01NOV	07NOV	30NOV
1975	900	18OCT	28OCT	30NOV
1976	800	28OCT	10NOV	28NOV
1977	1,150	01NOV	10NOV	30NOV
1978	2,300	13OCT	08NOV	30NOV
1979	1,800	18OCT	10NOV	18NOV
1980	2,400	07NOV	15NOV	18NOV
1981	-	-	-	-
1982	700	07NOV	15NOV	30NOV
1983	95	-	-	-
1984	-	-	-	-
1985	400	-	-	01NOV

Chinook				
Year	Escapement	Start	Peak	End
1966	0	-	-	-
1968	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	0	-	-	-
1981	-	-	-	-
1982	0	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	-	-	-	-

Steelhead				
Year	Escapement	Start	Peak	End
1966	-	-	-	-
1968	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-

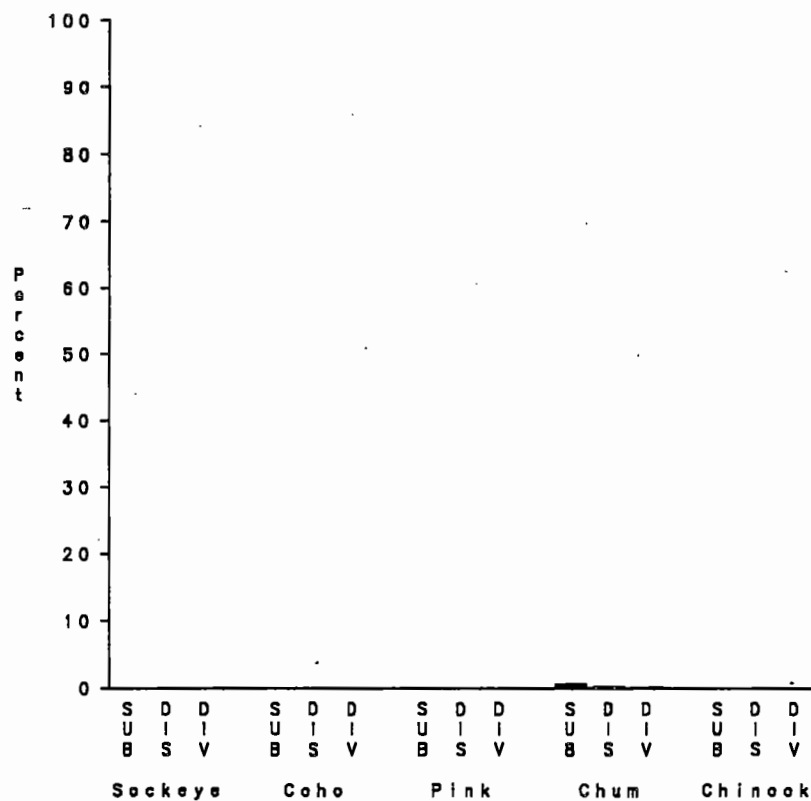
HOLFORD CREEK (93-2580-750)

10-yr Mean Escapement
(1978-1987)



HOLFORD CREEK : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(1e Subdistrict, District & Division)



A. DESCRIPTION

Stream Name: UNNAMED CREEK	D.F.O. Division: SOUTH COAST
Local Name: USELESS CREEK, USELESS INLET CREEK	District: 4 PORT ALBERNI
Watershed Code: 93-2590	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-6
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92C/14
		B.C.G.S. (1:20k) Map: 095
		U.T.M. Mouth:
		Lat./Long. Mouth: 48 DG. 59' 50" 125 DG. 03' 05"
		Mainstem Length: Ref. No.:
		Watershed Area: Ref. No.:
		Location: FLOWS INTO N. END OF USELESS INLET

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	GRADIENT BECOMES A BARRIER AT 0.6 KM (REF. 23-8)

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:
NO INFORMATION AVAILABLE	

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
CO COHO SALMON	PRESENT (REF. 23-11)
CN CHUM SALMON	TO 0.6 KM (REF. 23-8)
CT CUTTHROAT TROUT	PRESENT (REF. 23-11)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	28	1978 - 1987	28A-18	60	28A-18		
CN CHUM SALMON	88	1978 - 1987	28A-18	300	28A-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	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	

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	ONGOING LOGGING (REF. 23-8)

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: 1989/03/08
Last checked by: VIOLET KOMORI	Date: 1990/03/29

ESCAPEMENT: USELESS CREEK

WATERSHED-CODE: 93-2590

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	25	0	750	0	0
1954	0	25	0	750	0	0
1955	0	25	0	75	0	0
1956	0	25	0	200	0	0
1957	0	25	0	400	0	0
1958	0	25	0	200	0	0
1959	0	0	0	400	0	0
1960	0	N/O	0	75	0	0
1961	0	25	0	75	0	0
1962	0	25	0	25	0	0
1963	0	25	0	25	0	0
1964	0	N/O	0	75	0	0
1965	0	25	0	75	0	0
1966	0	25	0	75	0	0
1967	0	25	0	75	0	0
1968	0	75	0	200	0	0
1969	0	75	0	750	0	0
1970	0	75	0	750	0	0
1971	0	25	N/O	25	0	0
1972	0	25	0	400	0	0
1973	0	75	N/O	750	0	0
1974	0	75	N/O	200	0	0
1975	0	25	0	75	0	0
1976	0	45	N/O	700	0	0
1977	0	50	0	685	0	0
1978	0	60	0	300	0	0
1979	0	50	0	30	0	0
1980	0	0	0	0	0	0
1981	0	UNK	0	0	0	0
1982	UNK	UNK	UNK	UNK	UNK	UNK
1983	0	UNK	0	UNK	0	0
1984	0	UNK	0	UNK	0	0
1985	UNK	UNK	UNK	UNK	UNK	0
1986	0	UNK	UNK	200	UNK	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

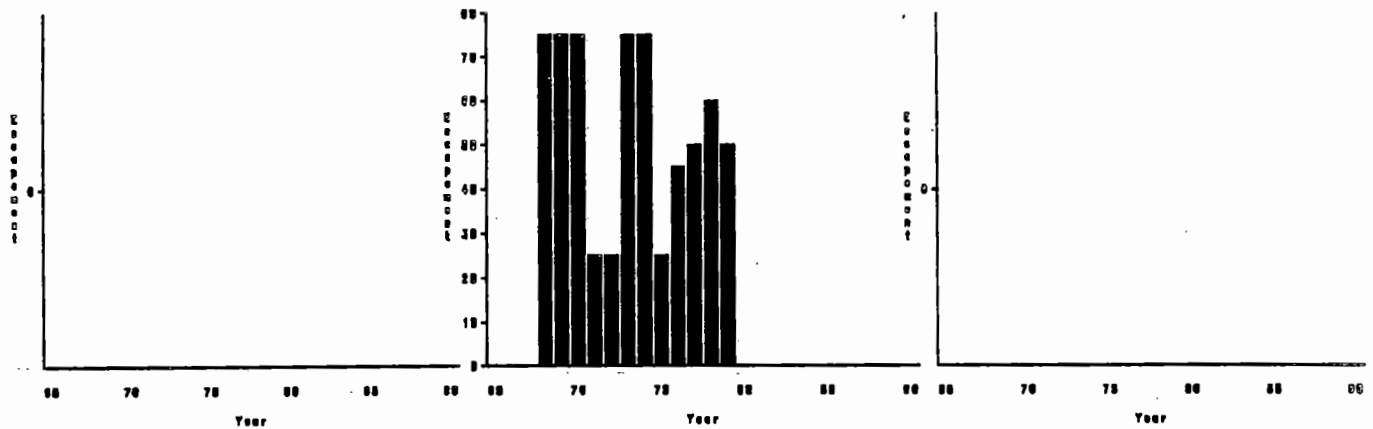
UNNAMED C (93-2590)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

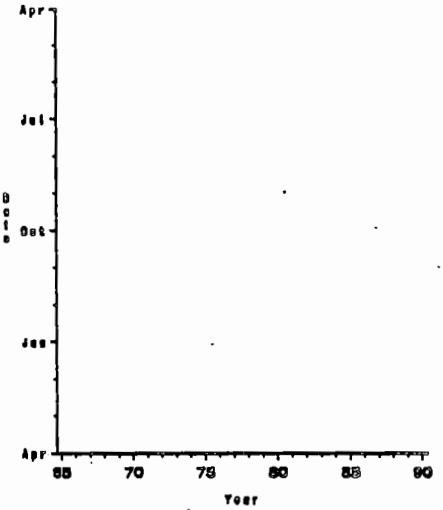
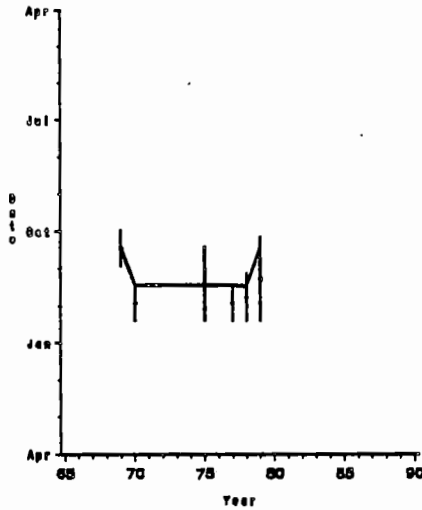
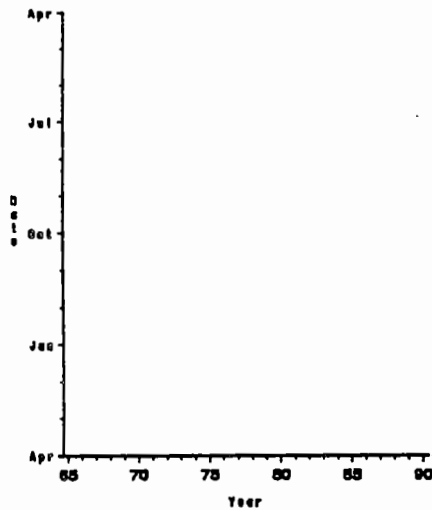
Pink (PK)



Sockeye

Coho

Pink



Sockeye

Coho

Pink

Year	Escapement	Start	Peak	End
1965	0	-	-	-
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	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1965	75	-	-	-
1966	75	01OCT	15OCT	30OCT
1967	75	15NOV	15NOV	15DEC
1968	20	-	-	-
1969	20	-	-	-
1970	75	-	-	-
1971	75	-	-	-
1972	20	-	-	-
1973	20	-	-	-
1974	20	-	-	-
1975	20	15OCT	15NOV	15DEC
1976	45	-	-	-
1977	50	15NOV	15NOV	15DEC
1978	50	05NOV	15NOV	15DEC
1979	50	05OCT	15OCT	15DEC
1980	0	-	-	-
1981	0	-	-	-
1982	0	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	0	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1965	0	-	-	-
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	-	-	-
1986	0	-	-	-
1987	0	-	-	-

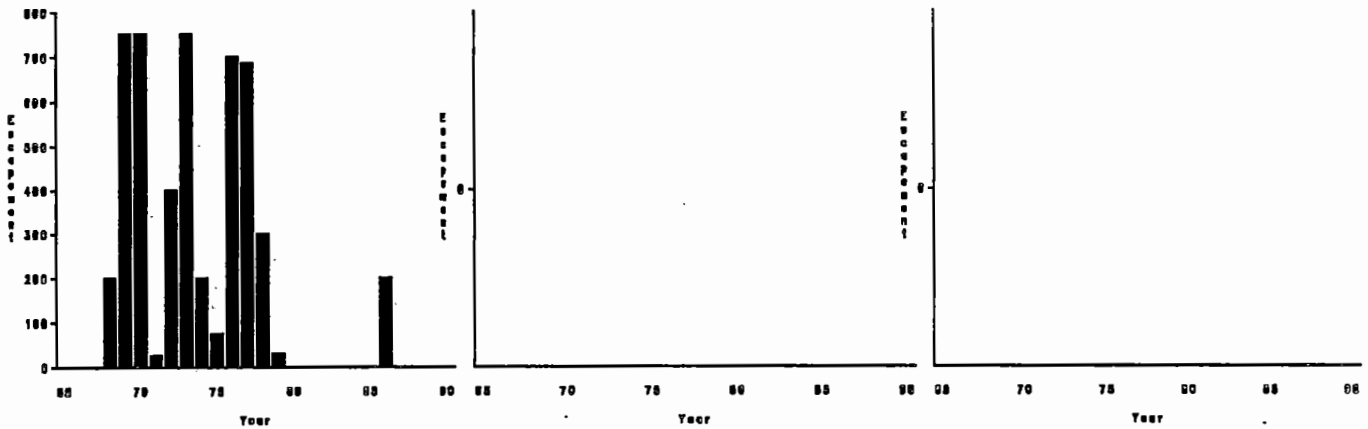
UNNAMED C (93-2590)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

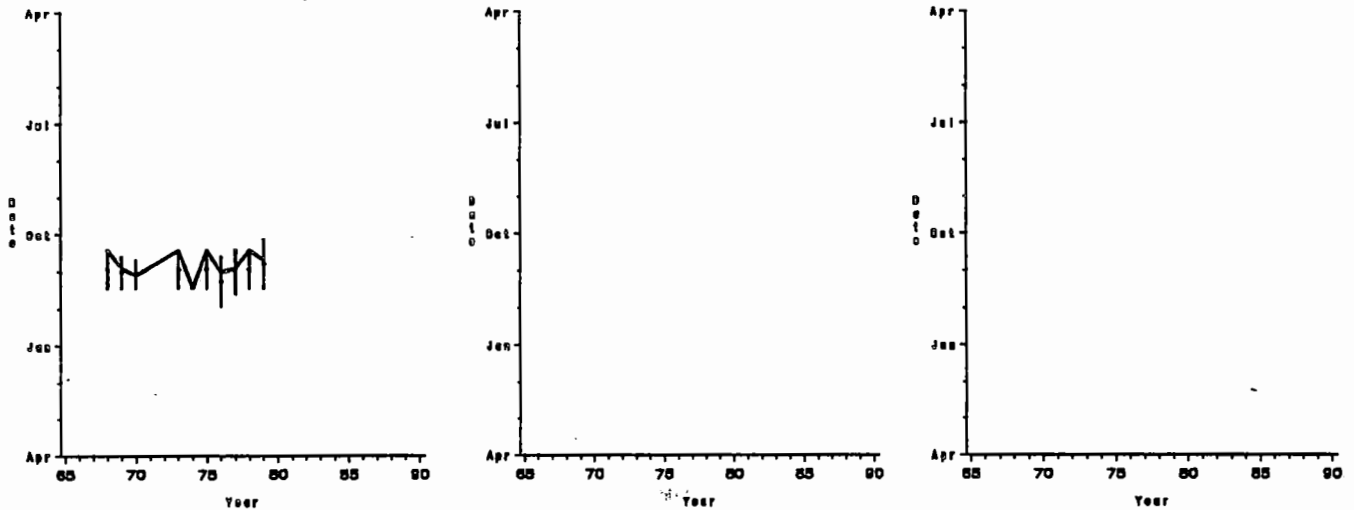
Steelhead (ST)



Chum

Chinook

Steelhead



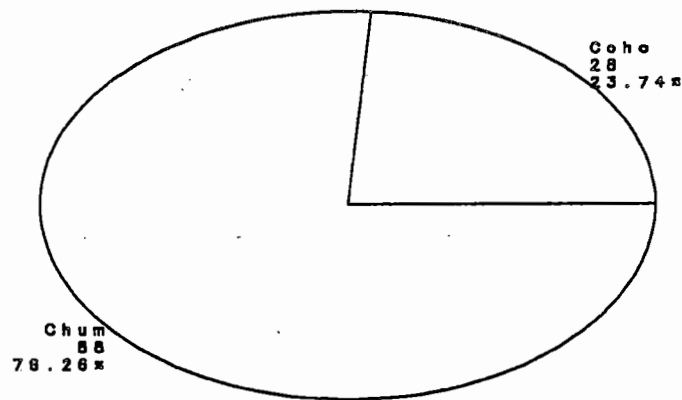
Chum				
Year	Escapement	Start	Peak	End
1968	200	18OCT	19OCT	19NOV
1969	750	28OCT	30OCT	12NOV
1970	750	23OCT	03NOV	19NOV
1971	20	-	-	-
1972	400	-	-	-
1973	700	18OCT	19OCT	19NOV
1974	200	18NOV	19NOV	12NOV
1975	70	18OCT	19OCT	19NOV
1976	700	28OCT	02NOV	30NOV
1977	600	13OCT	30OCT	20NOV
1978	200	13OCT	19OCT	19NOV
1979	30	08OCT	23OCT	19NOV
1980	0	-	-	-
1981	0	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	200	-	-	-
1987	0	-	-	-

Chinook				
Year	Escapement	Start	Peak	End
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	-	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Steelhead				
Year	Escapement	Start	Peak	End
1968	-	-	-	-
1969	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

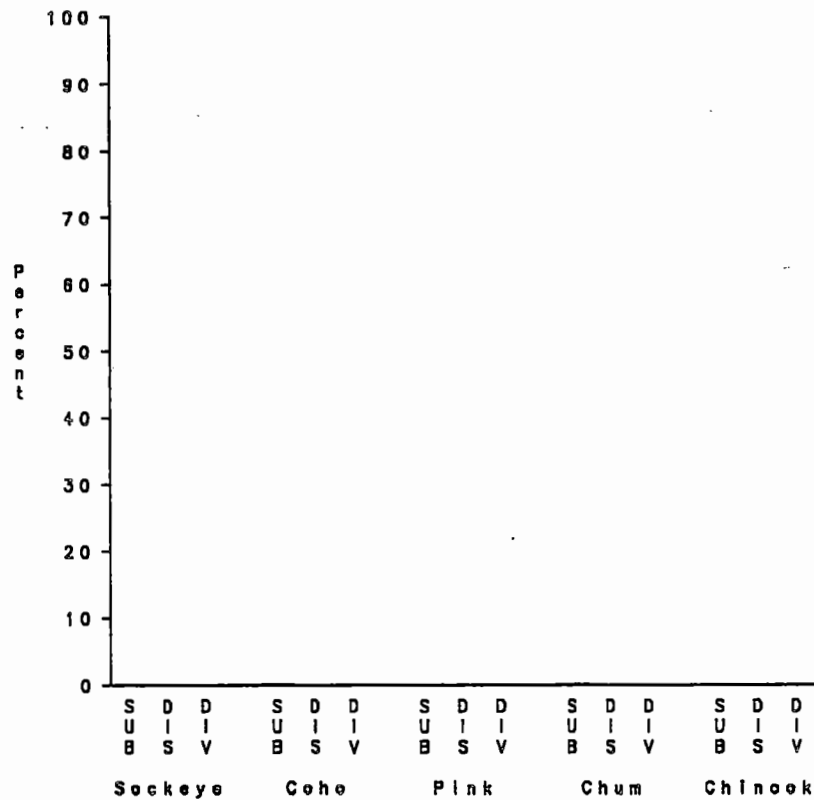
UNNAMED C (93-2590)

10-yr Mean Escapement
(1978-1987)



UNNAMED C : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



Stream Name: UNNAMED CREEK	D.F.O. Division: SOUTH COAST
Local Name: VERNON BAY CREEK, VERNON CREEK	District: 4 PORT ALBERNI
	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-6
Watershed Code: 93-2650	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92F//3 B.C.G.S. (1:20k) Map: 005 U.T.M. Mouth: Lat./Long. Mouth: 49 06. 00' 31'' 125 06. 08' 29'' Mainstem Length: Ref. No.: Watershed Area: Ref. No.:
		Location: FLOWS INTO HEAD OF VERNON BAY

Gradient Class/Location (km upstream from mouth)						Comments
0 - .5%	.5 - 2%	2 - 5%	5 - 10%	>10%		HIGH GRADIENT (REF. 23-8)

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
F FALLS		0.8	AF ALL SPECIES	(REF. 23-8)

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

Species	Watershed Distribution
CO COHO SALMON	OCCASIONALLY (REF. 23-8)
CM CHUM SALMON	TO FALLS AT 0.8 KM (REF. 23-8)

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	43	1978 - 1987	28A-18	70	28A-18		
CN CHUM SALMON	488	1978 - 1987	28A-18	800	28A-18		

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

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	

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	ONGOING LOGGING (REF. 23-8)

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: 1989/03/09
Last checked by: VIOLET KOMORI	Date: 1990/03/29

ESCAPEMENT: VERNON BAY CREEK

WATERSHED-CODE: 93-2650

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	0	0	200	0	0
1954	0	25	0	200	0	0
1955	0	25	0	75	0	0
1956	0	25	0	25	0	0
1957	0	25	0	75	0	0
1958	0	25	0	200	0	0
1959	0	25	0	75	0	0
1960	0	N/O	0	75	0	0
1961	0	N/O	0	200	0	0
1962	0	N/O	0	25	0	0
1963	0	25	0	25	0	0
1964	0	N/O	0	75	0	0
1965	0	N/O	0	200	0	0
1966	0	N/O	0	200	0	0
1967	0	0	0	75	0	0
1968	0	200	0	400	0	0
1969	0	75	0	750	0	0
1970	0	75	0	200	0	0
1971	0	25	0	25	0	0
1972	0	25	0	400	0	0
1973	0	75	0	200	0	0
1974	0	75	0	400	0	0
1975	0	75	0	200	0	0
1976	0	35	0	450	0	0
1977	0	45	0	2700	0	0
1978	0	70	0	400	0	0
1979	0	60	0	750	0	0
1980	UNK	UNK	UNK	UNK	UNK	UNK
1981	UNK	UNK	UNK	UNK	UNK	UNK
1982	UNK	UNK	UNK	UNK	UNK	UNK
1983	UNK	UNK	UNK	UNK	UNK	UNK
1984	0	UNK	0	UNK	0	0
1985	UNK	UNK	UNK	800	UNK	0
1986	0	UNK	0	UNK	0	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

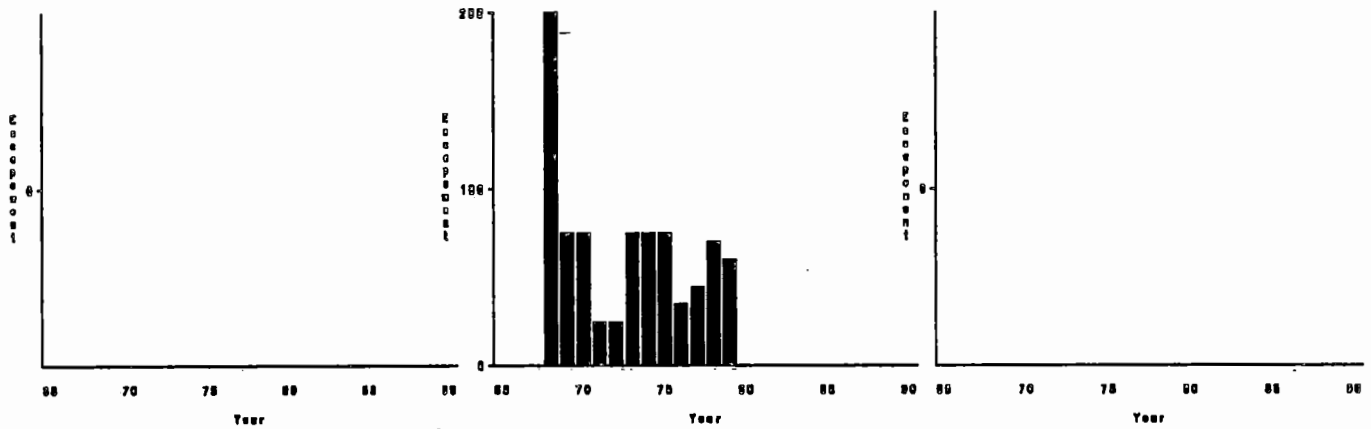
UNNAMED C (93-2650)

Escapement & Run Timing

Socketeye (SK)

Coho (CO)

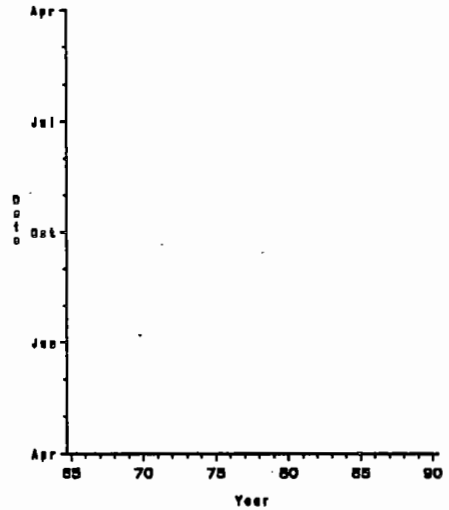
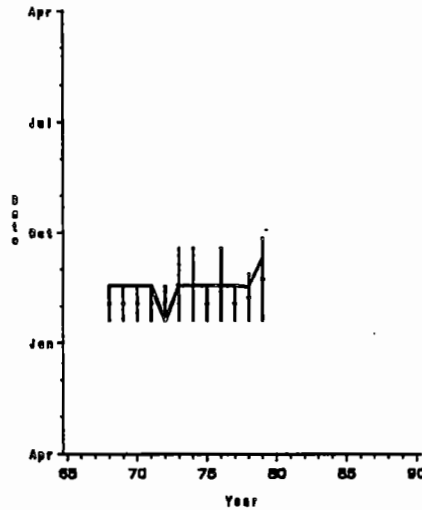
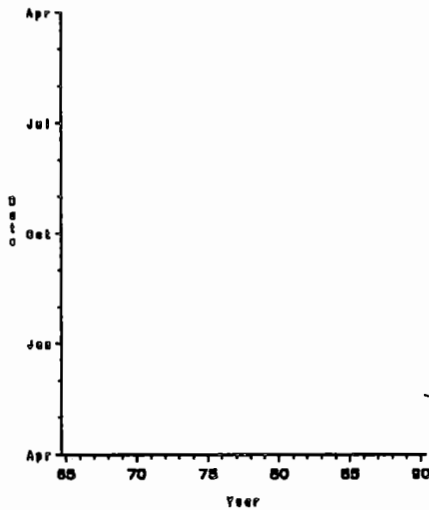
Pink (PK)



Socketeye

Coho

Pink



Year	Escapement	Start	Peak	End
1966	0	-	-	-
1969	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1966	200	10NOV	10NOV	10DEC
1969	75	10NOV	10NOV	10DEC
1970	75	10NOV	10NOV	10DEC
1971	20	10NOV	10NOV	10DEC
1972	20	10NOV	10DEC	10DEC
1973	75	10NOV	10NOV	10DEC
1974	75	10NOV	10NOV	10DEC
1975	75	10NOV	10NOV	10DEC
1976	20	10NOV	10NOV	10DEC
1977	65	10NOV	10NOV	10DEC
1978	70	10NOV	10NOV	10DEC
1979	60	10NOV	10NOV	10DEC
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1966	0	-	-	-
1969	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

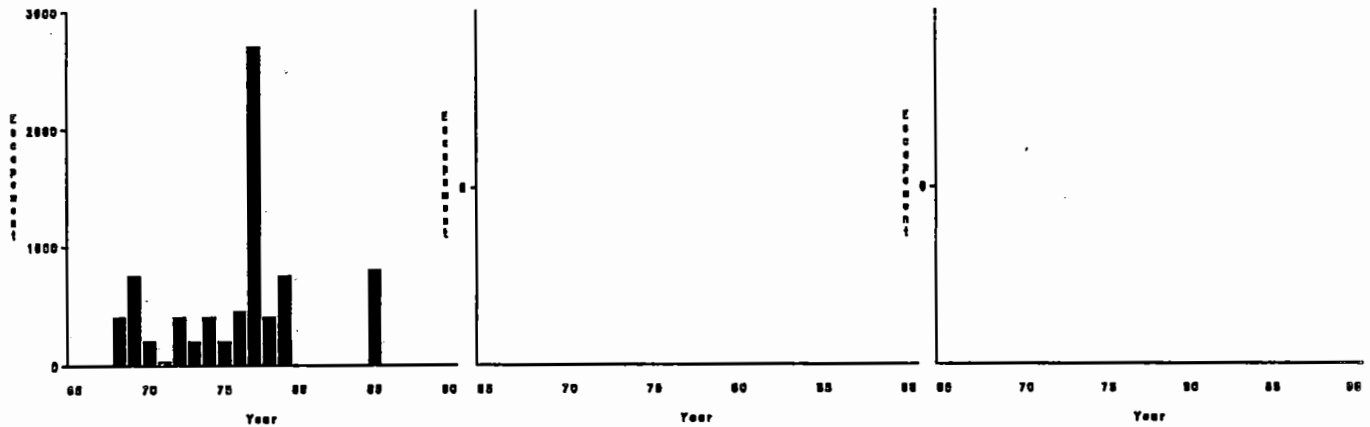
UNNAMED C (93-2650)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

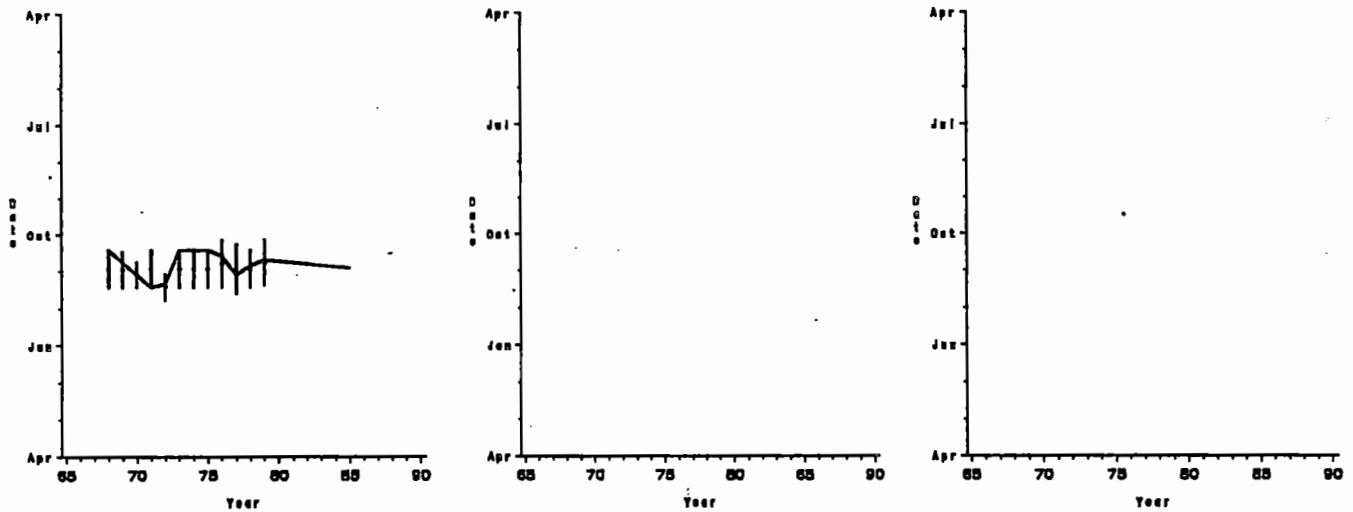
Steelhead (ST)



Chum

Chinook

Steelhead



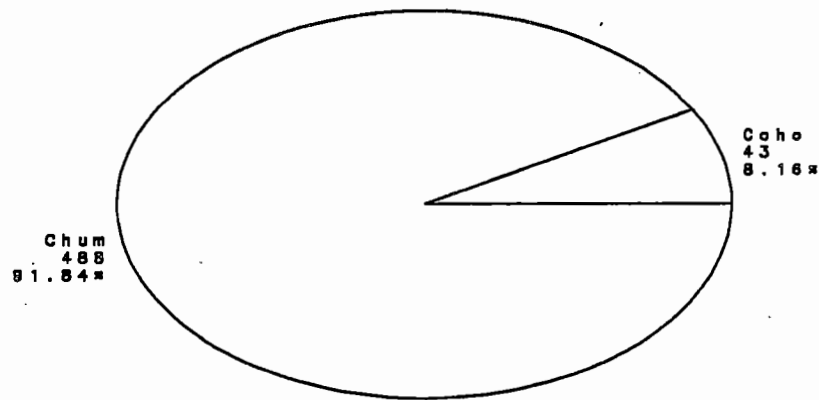
Chum				
Year	Escapement	Start	Peak	End
1968	400	15OCT	15OCT	15NOV
1969	700	15OCT	25OCT	15NOV
1970	200	25OCT	05NOV	15NOV
1971	20	15OCT	15NOV	15NOV
1972	400	04NOV	12NOV	23NOV
1973	300	15OCT	15OCT	15NOV
1974	400	15OCT	15OCT	15NOV
1975	300	15OCT	15OCT	15NOV
1976	450	08OCT	20OCT	15NOV
1977	2,700	14OCT	05NOV	20NOV
1978	400	15OCT	20OCT	15NOV
1979	700	06OCT	23OCT	13NOV
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	600	-	20OCT	-
1986	-	-	-	-
1987	0	-	-	-

Chinook				
Year	Escapement	Start	Peak	End
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	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Steelhead				
Year	Escapement	Start	Peak	End
1968	-	-	-	-
1969	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

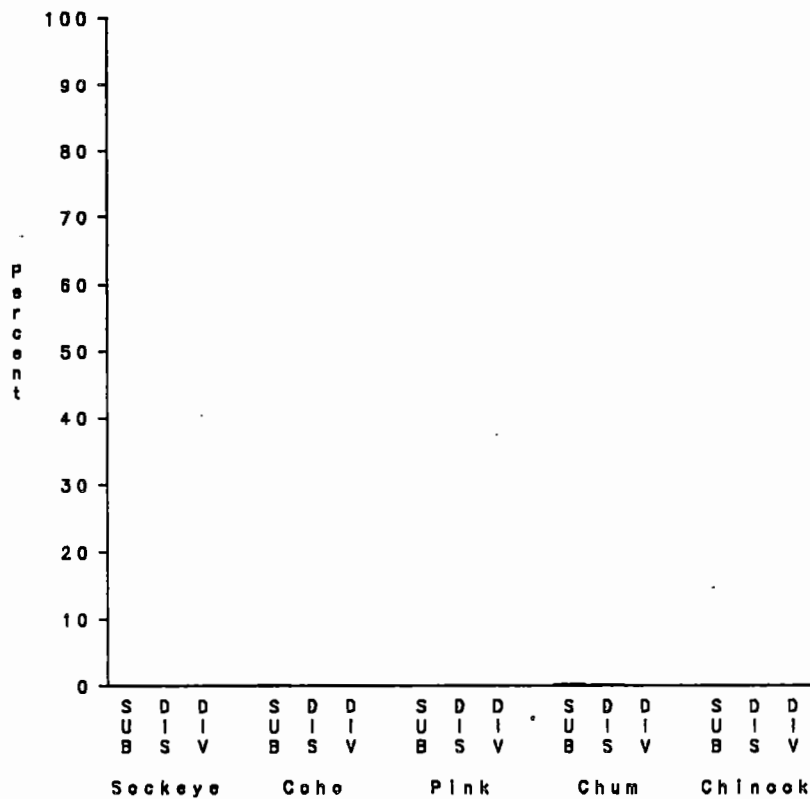
UNNAMED C (93-2650)

10-yr Mean Escapement
(1978-1987)



UNNAMED C : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



A. DESCRIPTION

Stream Name: COEUR D'ALENE CREEK	D.F.O. Division: SOUTH COAST
Local Name: COUR C'ALENE CREEK	District: 4 PORT ALBERNI
Watershed Code: 93-2740	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-6
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit: 7

Tributaries	Code	Topographic (1:50k) Map: 92F/3
		B.C.G.S. (1:20k) Map: 005
		U.T.M. Mouth:
		Lat./Long. Mouth: 49 DG. 02' 44" 125 DG. 08' 06"
		Mainstem Length: 1.2 km Ref. No.: 23-1
		Watershed Area: 18.0 km2 Ref. No.: 23-1
		Location: FLOWS S.E. AND W. INTO EFFINGHAM INLET, CLAYOQUOT DIST.

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	RELATIVELY LOW GRADIENT LOWER 2-3KM (REF. 23-8)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
F FALLS	15.2	1.2	AF ALL SPECIES	(REF. 23-1)

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	TO FALLS AT 1.2 KM (REF. 23-1, REF. 23-8)
CM CHUM SALMON	TO FALLS AT 1.2 KM (REF. 23-1, REF. 23-8)
CH CHINOOK SALMON	TO FALLS AT 1.2 KM (REF. 23-1, REF. 23-8)
CT CUTTHROAT TROUT	ABOVE FALLS (REF. 23-8)
RB RAINBOW TROUT	ABOVE FALLS (REF. 23-8)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	36	1978 - 1987	28A-18	100	28A-18		
CM CHUM SALMON	153	1978 - 1987	28A-18	750	28A-18		

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
NO INFORMATION AVAILABLE				

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	ONGOING LOGGING THROUGHOUT WATERSHED (HEAVILY LOGGED) (REF. 23-8)

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: 1989/02/28
Last checked by: VIOLET KOMORI	Date: 1990/03/27

ESCAPEMENT: COEUR D'ALENE CREEK

WATERSHED-CODE: 93-2740

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	25	0	75	0	0
1954	0	200	0	400	0	0
1955	0	75	0	75	0	0
1956	0	400	0	75	0	0
1957	0	75	0	400	0	0
1958	0	75	0	400	25	0
1959	0	75	0	750	25	0
1960	0	25	0	200	25	0
1961	0	200	0	75	0	0
1962	0	75	0	200	0	0
1963	0	25	0	25	2	0
1964	0	75	0	75	0	0
1965	0	25	0	75	N/O	0
1966	0	25	0	75	N/O	0
1967	0	200	0	750	N/O	0
1968	0	200	0	750	UNK	0
1969	0	75	0	750	N/O	UNK
1970	0	200	0	200	25	0
1971	0	25	0	75	25	0
1972	0	25	0	750	25	0
1973	0	200	0	400	25	0
1974	0	75	0	750	50	0
1975	0	75	0	150	25	0
1976	0	90	0	250	0	0
1977	0	85	0	200	0	0
1978	0	100	0	200	N/O	0
1979	0	80	0	50	N/O	0
1980	UNK	UNK	UNK	UNK	UNK	UNK
1981	0	N/O	0	50	0	0
1982	0	N/O	0	N/O	UNK	0
1983	0	UNK	0	20	UNK	0
1984	0	UNK	0	UNK	UNK	0
1985	UNK	UNK	UNK	750	UNK	0
1986	0	UNK	0	UNK	0	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = ' STREAM INSPECTED, NO FISH OBSERVED

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

A. DESCRIPTION

Stream Name: EFFINGHAM RIVER	D.F.O. Division: SOUTH COAST
Local Name:	District: 4 PORT ALBERNI
Watershed Code: 93-2800	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-6
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92F/3
		B.C.G.S. (1:20k) Map: 005
		U.T.M. Mouth:
		Lat./Long. Mouth: 49 DG. 05' 44'' 125 DG. 11' 50''
		Mainstem Length: 7.2 km Ref. No.: 23-1
		Watershed Area: 38.9 km ² Ref. No.: 23-1
		Location: FLOWS S.E. INTO N. END OF EFFINGHAM INLET, CLAYOQUOT 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
C CASCADE		4.5		CANYON (REF. 23-8)

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
SK SOCKEYE SALMON	PRESENT (REF. 28A-18)
CO COHO SALMON	TO UPPER REACHES (REF. 23-8)
CM CHUM SALMON	IN THE LOWER 2KM (REF. 23-8)
CH CHINOOK SALMON	TO CANYON AT ABOUT 4KM (REF. 23-8)
ST STEELHEAD	THROUGHOUT (REF. 23-8)
ST STEELHEAD	SUSPECT THERE ARE SUMMER STEELHEAD ABOVE THE CANYON (REF. 23-13)
CT CUTTHROAT TROUT	THROUGHOUT (REF. 23-8)
DV DOLLY VARDEN	IN THE LOWER 2KM (REF. 23-8)
RB RAINBOW TROUT	THROUGHOUT (REF. 23-8)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
SK SOCKEYE SALMON	10	1978 - 1987	28A-18	100	28A-18		
CO COHO SALMON	520	1978 - 1987	28A-18	2100	28A-18		
CM CHUM SALMON	2808	1978 - 1987	28A-18	7200	28A-18		
Comments: FOR PERIOD OF RECORD (1978-1987); PINK ESCAPEMENT: 1 FISH RECORDED IN 1988. (REF. 28A-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	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	HEAVY LOGGING CEASED IN THE EARLY 1970'S. SIGNIFICANT SILVICULTURAL ACTIVITY IN 1982/83, INCLUDING INTENSIVE HELICOPTER HERBICIDE SPRAYING. (REF. 23-8)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

LEVEL OF UTILIZATION IS FAR LOWER THAN IT SHOULD BE. STOCKS AREN'T REBOUNDING AS THEY SHOULD. (REF. 23-8)
POOR ACCESS TO WATERSHED (REQUIRES BOAT), BUT AN OLD ROAD EXTENDS FROM THE MOUTH TO THE TOP. POSSIBLE EXAMINATION OF HARVESTING EFFECTS ON MAIN-CHANNEL WITH LOGGING COMMENCING 10 YEARS PRIOR TO CARNATION CREEK (REF. 23-2)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:

K. SIS COMPLETED BY

Completed by: GITA KAPAH	Date: 1989/03/02
Last checked by: VIOLET KOMORI	Date: 1990/03/29

ESCAPEMENT: EFFINGHAM RIVER

WATERSHED-CODE: 93-2800

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	400	0	1500	25	0
1954	0	200	0	7500	0	0
1955	0	200	0	3500	25	0
1956	N/O	200	0	3500	25	0
1957	0	400	0	7500	25	0
1958	0	400	75	7500	25	0
1959	0	400	0	3500	UNK	N/O
1960	0	400	0	3500	25	0
1961	0	750	0	1500	25	0
1962	0	400	0	750	25	N/O
1963	0	400	0	750	25	N/O
1964	0	1500	0	3500	25	25
1965	0	3500	0	1500	25	0
1966	0	3500	0	7500	25	0
1967	0	1500	0	7500	25	0
1968	0	750	0	15000	25	0
1969	0	400	0	3500	N/O	0
1970	0	750	0	9000	N/O	200
1971	0	750	0	200	25	0
1972	0	750	0	15000	25	0
1973	0	1500	0	7500	50	75
1974	0	750	150	8000	40	0
1975	0	750	100	4000	N/O	0
1976	0	700	250	8500	N/O	0
1977	0	1700	0	3500	0	0
1978	0	2100	0	5000	0	0
1979	0	500	0	3500	0	0
1980	0	0	0	500	0	0
1981	0	UNK	0	3000	0	0
1982	0	UNK	0	2700	0	0
1983	0	0	1	560	N/O	0
1984	0	UNK	0	UNK	0	0
1985	100	UNK	UNK	7200	UNK	0
1986	0	UNK	0	UNK	UNK	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

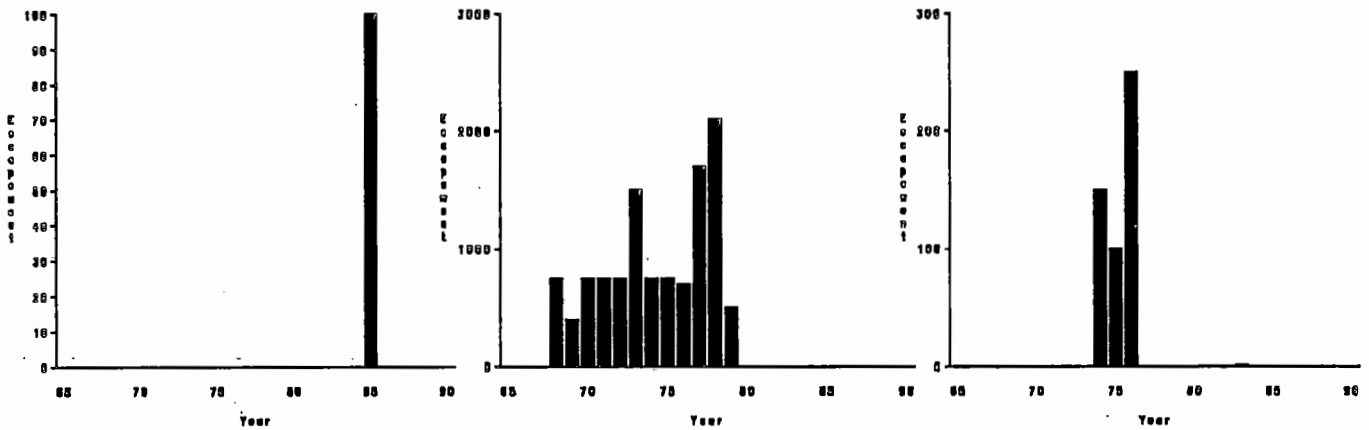
EFFINGHAM RIVER (93-2800)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

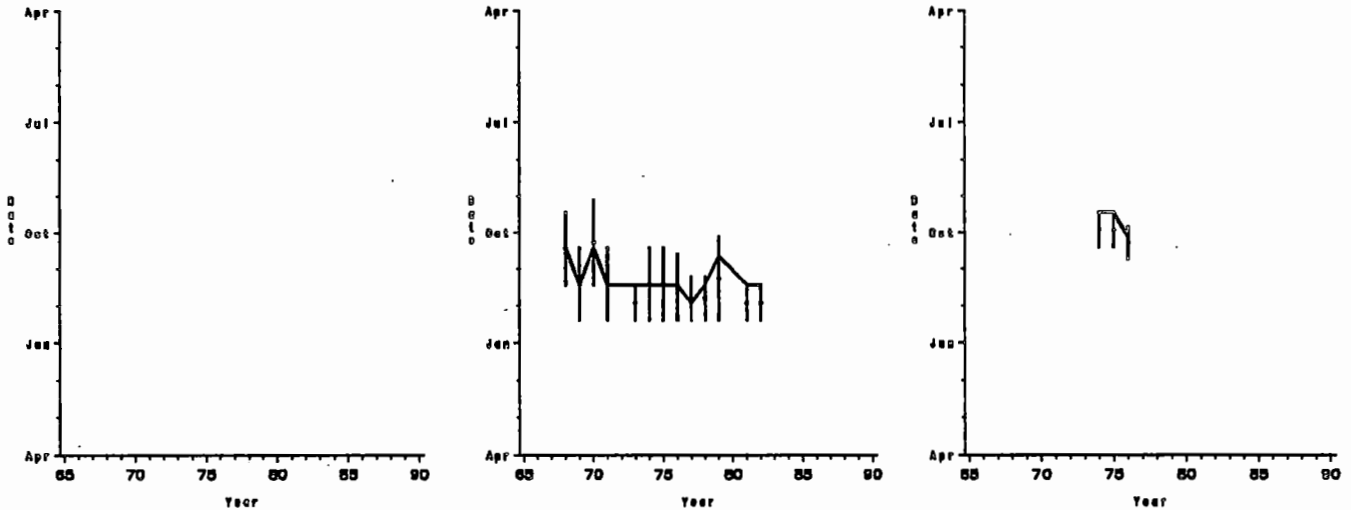
Pink (PK)



Sockeye

Coho

Pink



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	100	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1966	750	15SEP	15OCT	15NOV
1967	400	15OCT	15NOV	15DEC
1968	700	05SEP	15OCT	15NOV
1969	700	15OCT	15NOV	15DEC
1970	700	15NOV	15NOV	15NOV
1971	1,400	15NOV	15NOV	15DEC
1972	750	15OCT	15NOV	15DEC
1973	750	15OCT	15NOV	15DEC
1974	700	20OCT	15NOV	15DEC
1975	1,700	05NOV	30NOV	15DEC
1976	1,100	05NOV	15NOV	15DEC
1977	300	05OCT	22OCT	15DEC
1978	0	-	-	-
1979	0	-	-	-
1980	0	-	-	-
1981	0	-	-	-
1982	0	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	0	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1966	0	-	-	-
1967	0	-	-	-
1968	0	-	-	-
1969	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	150	15SEP	15SEP	15OCT
1975	150	15SEP	15SEP	15OCT
1976	250	27SEP	06OCT	15OCT
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	0	-	-	-
1981	0	-	-	-
1982	0	-	-	-
1983	1	-	-	-
1984	0	-	-	-
1985	0	-	-	-
1986	0	-	-	-
1987	0	-	-	-

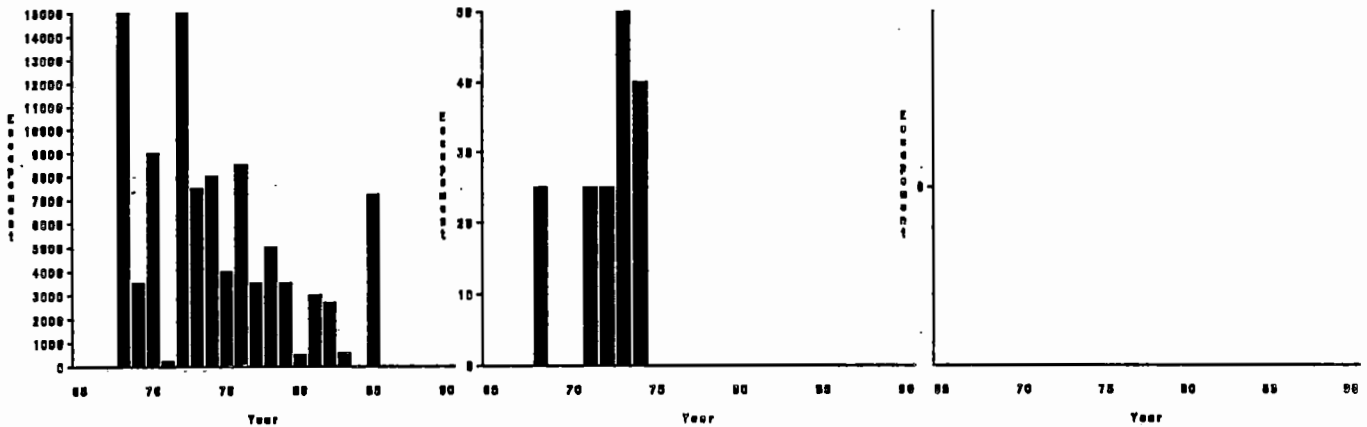
EFFINGHAM RIVER (93-2800)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

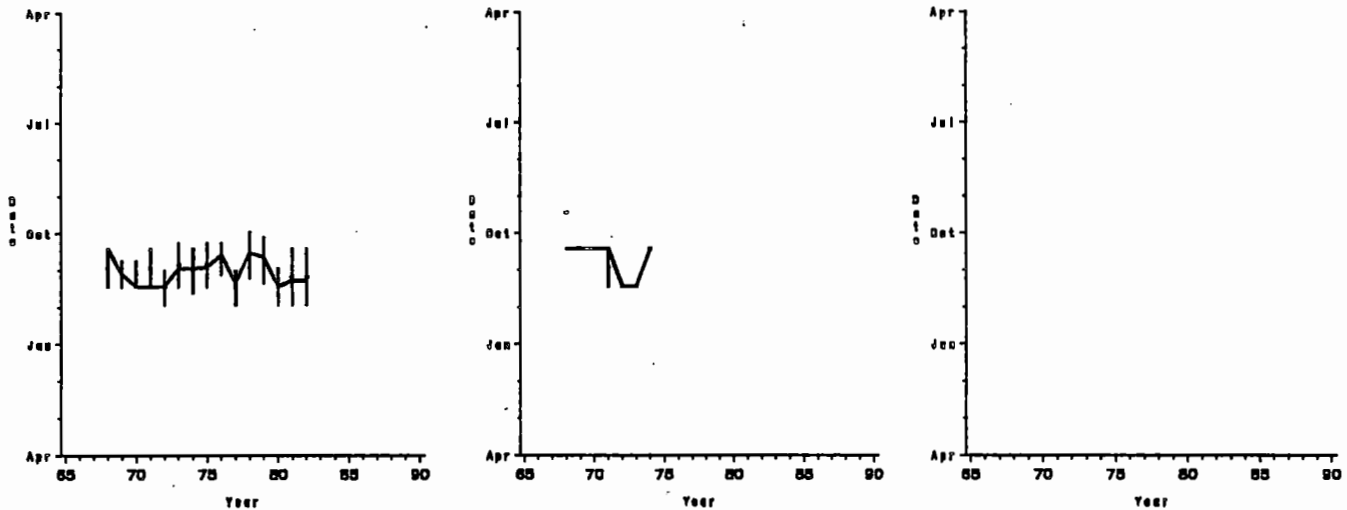
Steelhead (ST)



Chum

Chinook

Steelhead



Chum

Chinook

Steelhead

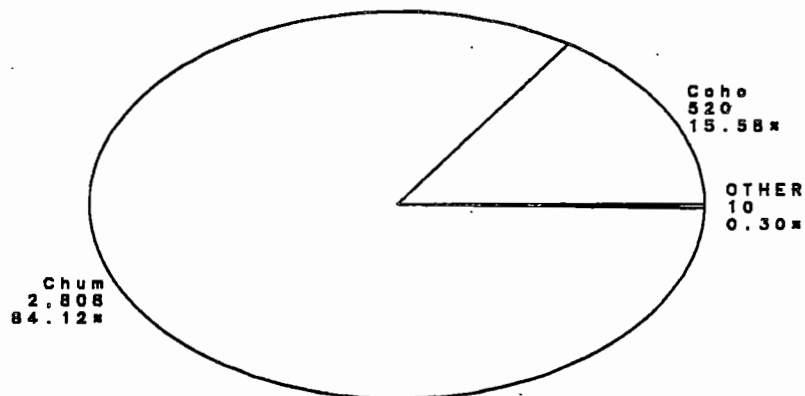
Year	Escapement	Start	Peak	End
1965	15,000	19OCT	19OCT	19NOV
1966	3,500	28OCT	08NOV	19NOV
1967	8,000	28OCT	15NOV	19NOV
1968	15,000	19OCT	15NOV	19NOV
1969	7,500	01NOV	15NOV	30NOV
1970	8,000	19OCT	21OCT	19NOV
1971	4,000	19OCT	21OCT	19NOV
1972	3,500	19OCT	21OCT	19NOV
1973	8,000	19OCT	21OCT	19NOV
1974	3,500	19OCT	21OCT	19NOV
1975	6,000	19OCT	21OCT	19NOV
1976	3,500	19OCT	21OCT	19NOV
1977	3,000	02NOV	12NOV	30NOV
1978	2,500	01OCT	19OCT	08NOV
1979	2,500	08OCT	22OCT	12NOV
1980	8,000	31OCT	15NOV	30NOV
1981	8,000	19OCT	10NOV	30NOV
1982	2,700	19OCT	10NOV	30NOV
1983	300	-	-	-
1984	-	-	-	-
1985	7,200	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1965	25	19OCT	19OCT	-
1966	0	-	-	-
1967	0	19OCT	-	-
1968	25	19OCT	19OCT	19NOV
1969	25	19OCT	19OCT	19NOV
1970	40	19OCT	19OCT	19NOV
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	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1965	-	-	-	-
1966	-	-	-	-
1967	-	-	-	-
1968	-	-	-	-
1969	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

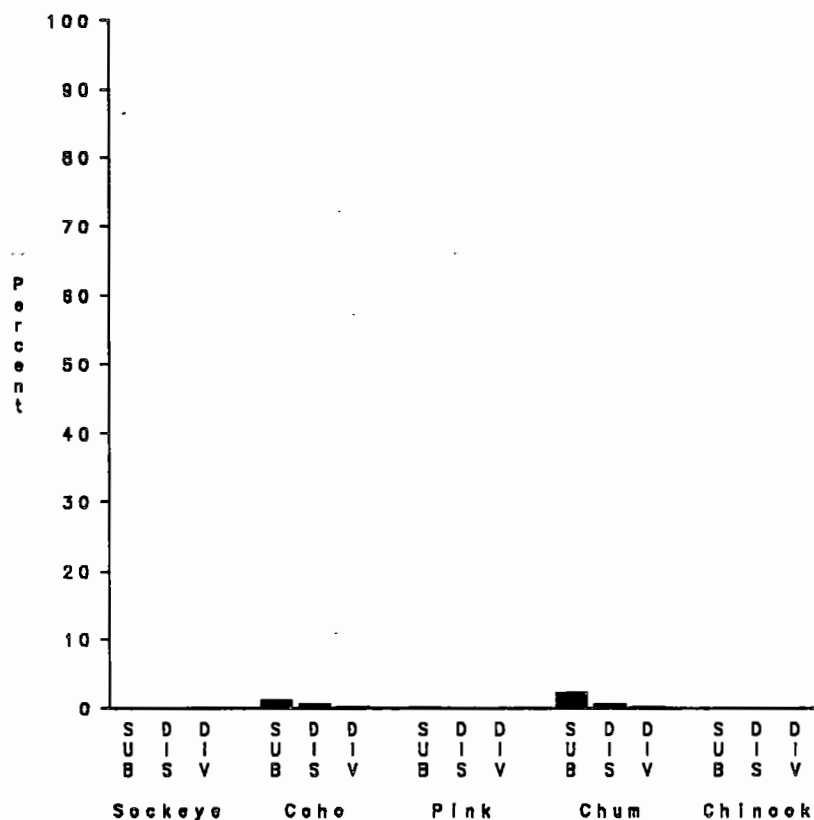
EFFINGHAM RIVER (93-2800)

10-yr Mean Escapement
(1978-1987)



EFFINGHAM RIVER : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



A. DESCRIPTION

Stream Name: UNNAMED CREEK	D.F.O. Division: SOUTH COAST
Local Name: WALLACE CREEK, WEST CREEK	District: 4 PORT ALBERNI
Watershed Code: 93-2820	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-6
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92F/3
		B.C.G.S. (1:20k) Map:
		U.T.M. Mouth:
		Lat./Long. Mouth: DG. ' ' ' ' DG. ' ' ' '
		Mainstem Length: Ref. No.:
		Watershed Area: Ref. No.:
		Location: FLOWS INTO EFFINGHAM INLET ON WEST SHORE, HALF WAY UP

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	5.0	1.5	AF ALL SPECIES	(REF. 23-8)

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	TO FALLS (REF. 23-8)
CN CHUM SALMON	TO FALLS (REF. 23-8)
CH CHINOOK SALMON	HISTORICAL PRESENCE (REF. 28A-18)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	40	1978 - 1987	28A-18	100	28A-18		
CN CHUM SALMON	3119	1978 - 1987	28A-18	10000	28A-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 X	X
CM CHUM 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
NO INFORMATION AVAILABLE				

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	HISTORICAL LOGGING (REF. 23-8)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

SEVERELY DAMAGED BY LOGGING IN THE 1960'S. THE SYSTEM IS NOW RECOVERING. (REF. 23-8)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / / Prepared By:

K. SIS COMPLETED BY

Completed by: GITA KAPAHI Date: 1989/03/09
Last checked by: VIOLET KOMORI Date: 1990/03/29

ESCAPEMENT: WEST CREEK

WATERSHED-CODE: 93-2820

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	75	0	750	0	0
1954	0	75	0	7500	0	0
1955	0	25	0	1500	0	0
1956	0	25	0	7500	0	0
1957	0	25	0	1500	25	0
1958	0	25	0	7500	25	0
1959	0	25	0	400	UNK	0
1960	0	25	0	1500	0	0
1961	0	25	0	75	N/O	0
1962	0	25	0	750	0	0
1963	0	25	0	400	25	0
1964	0	25	0	3500	0	0
1965	0	25	0	1500	0	0
1966	0	25	0	1500	0	0
1967	0	75	0	750	0	0
1968	0	200	0	7500	0	0
1969	0	75	0	3500	0	0
1970	0	75	0	7500	0	0
1971	0	25	0	3500	25	0
1972	0	25	0	3500	0	0
1973	0	200	0	3500	0	0
1974	0	200	0	3500	0	0
1975	0	25	0	3000	0	0
1976	N/O	30	0	3500	0	0
1977	0	50	0	3200	0	0
1978	0	100	0	5000	0	0
1979	0	80	0	1500	0	0
1980	0	20	0	10000	0	0
1981	0	UNK	0	2000	0	0
1982	0	UNK	0	0	0	0
1983	0	0	0	455	UNK	0
1984	0	UNK	0	UNK	0	0
1985	UNK	UNK	UNK	6000	UNK	0
1986	0	UNK	0	UNK	0	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

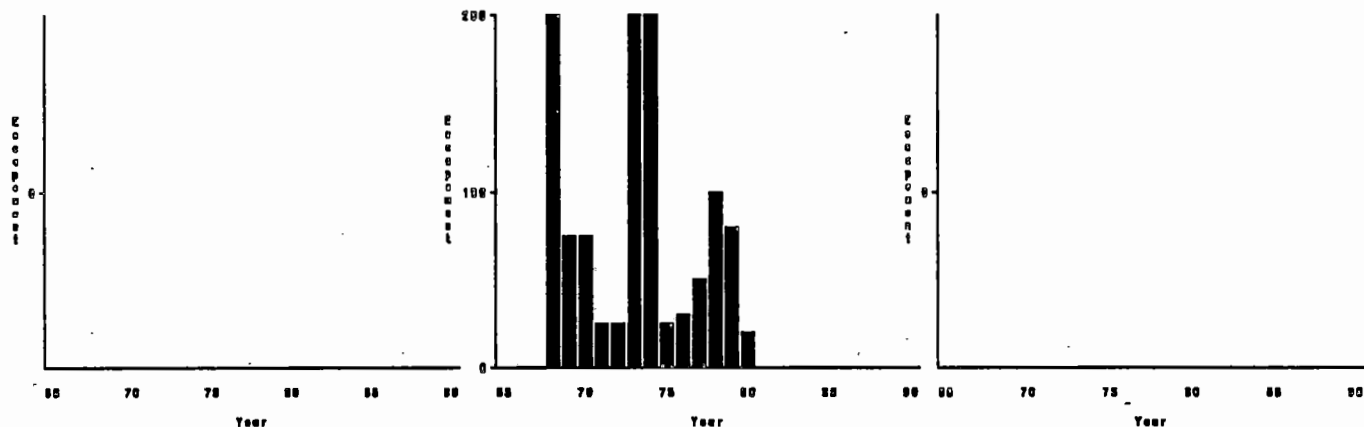
UNNAMED C (93-2820)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

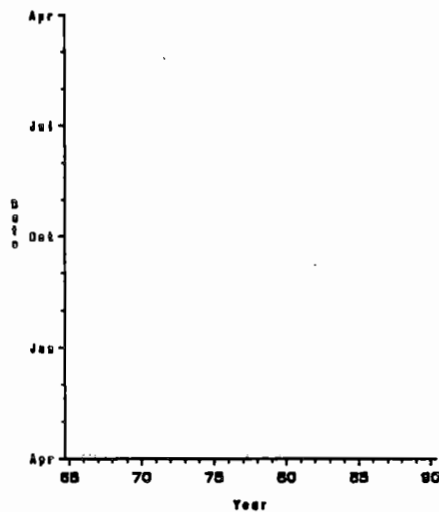
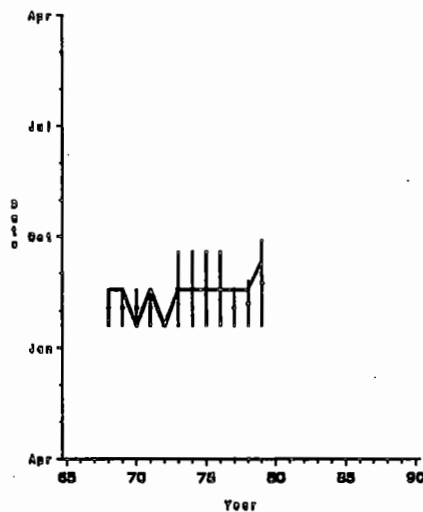
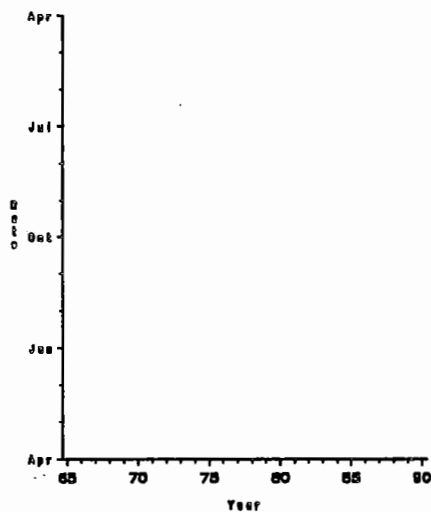
Pink (PK)



Sockeye

Coho

Pink



Sockeye

Coho

Pink

Year	Escapement	Start	Peak	End
1966	0	-	-	-
1968	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	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1966	200	15NOV	15NOV	15DEC
1968	70	15NOV	15NOV	15DEC
1970	75	15NOV	15DEC	15DEC
1971	25	15NOV	15NOV	15DEC
1972	25	15DEC	15DEC	15DEC
1973	200	15OCT	15NOV	15DEC
1974	200	15OCT	15NOV	15DEC
1975	20	15OCT	15NOV	15DEC
1976	30	15OCT	15NOV	15DEC
1977	50	15NOV	15NOV	15DEC
1978	100	15NOV	15NOV	15DEC
1979	50	15OCT	22OCT	15DEC
1980	20	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	0	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1966	0	-	-	-
1968	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	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

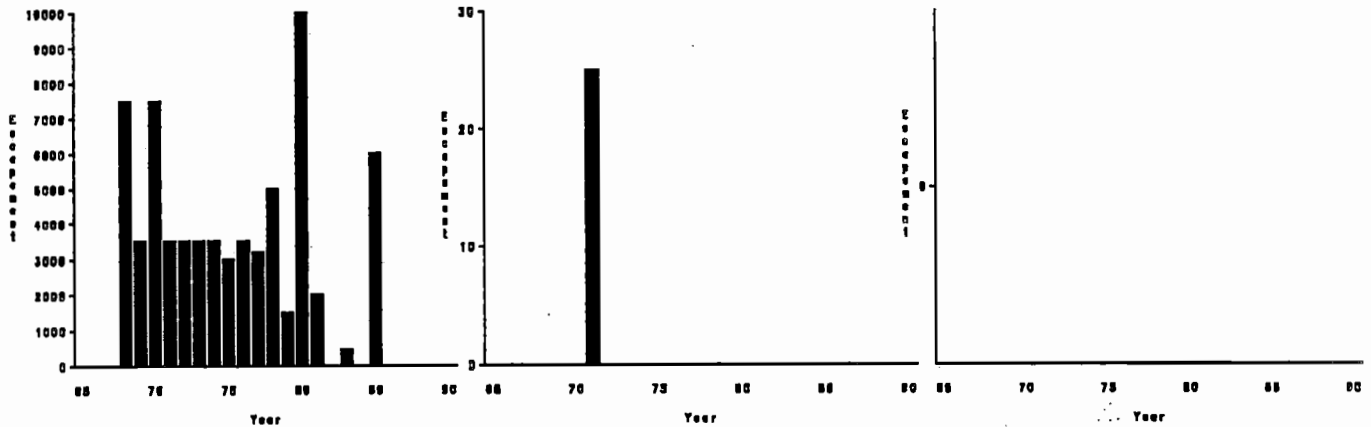
UNNAMED C (93-2820)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

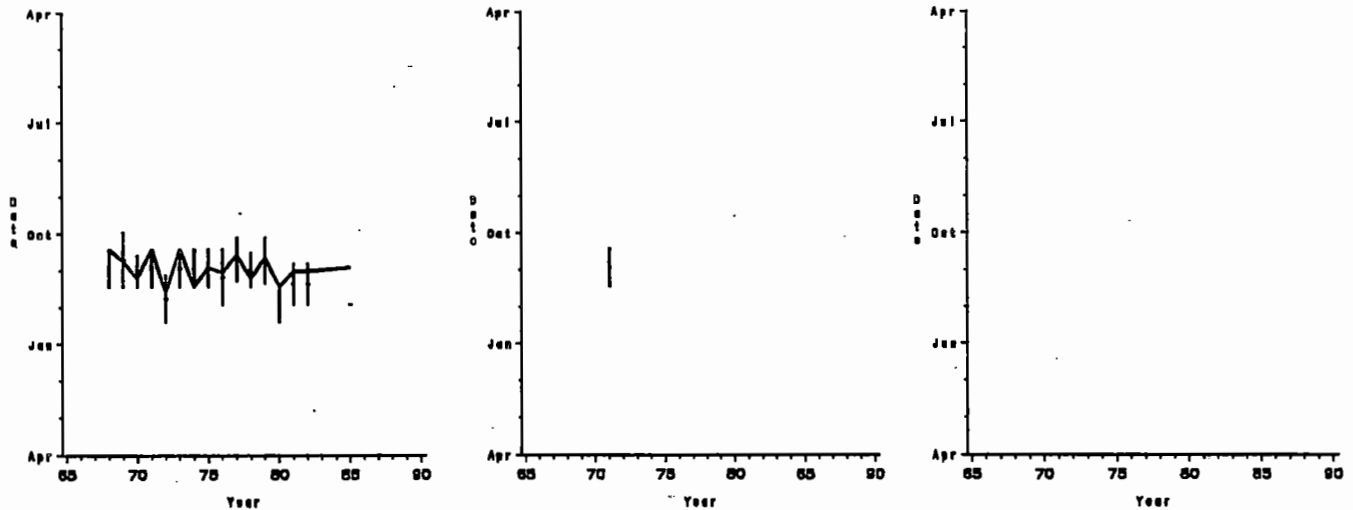
Steelhead (ST)



Chum

Chinook

Steelhead



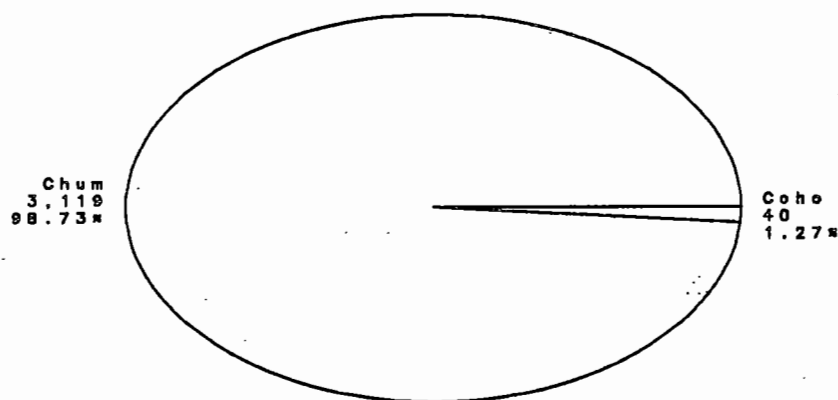
Chum				
Year	Escapement	Start	Peak	End
1965	7,500	15OCT	15OCT	15NOV
1966	5,500	05OCT	25OCT	15NOV
1967	7,500	25OCT	05NOV	15NOV
1968	3,500	15OCT	15OCT	15NOV
1969	3,500	05NOV	20NOV	15DEC
1970	3,500	15OCT	15OCT	15NOV
1971	3,500	15OCT	15NOV	15NOV
1972	2,500	15OCT	20OCT	15NOV
1973	2,500	15OCT	20OCT	15NOV
1974	2,500	15OCT	15NOV	15NOV
1975	2,500	15OCT	20OCT	15NOV
1976	3,500	15OCT	05NOV	30NOV
1977	3,500	05OCT	20OCT	15NOV
1978	3,500	15OCT	05NOV	15NOV
1979	1,500	05OCT	25OCT	15NOV
1980	15,000	15NOV	15NOV	15DEC
1981	2,500	27OCT	05NOV	30NOV
1982	0	27OCT	05NOV	30NOV
1983	400	-	-	-
1984	-	-	-	-
1985	8,000	-	30OCT	30NOV
1986	-	-	-	-
1987	0	-	-	-

Chinook				
Year	Escapement	Start	Peak	End
1965	0	-	-	-
1966	0	-	-	-
1967	0	-	-	-
1968	25	15OCT	15NOV	15NOV
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	-	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Steelhead				
Year	Escapement	Start	Peak	End
1965	-	-	-	-
1966	-	-	-	-
1967	-	-	-	-
1968	-	-	-	-
1969	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

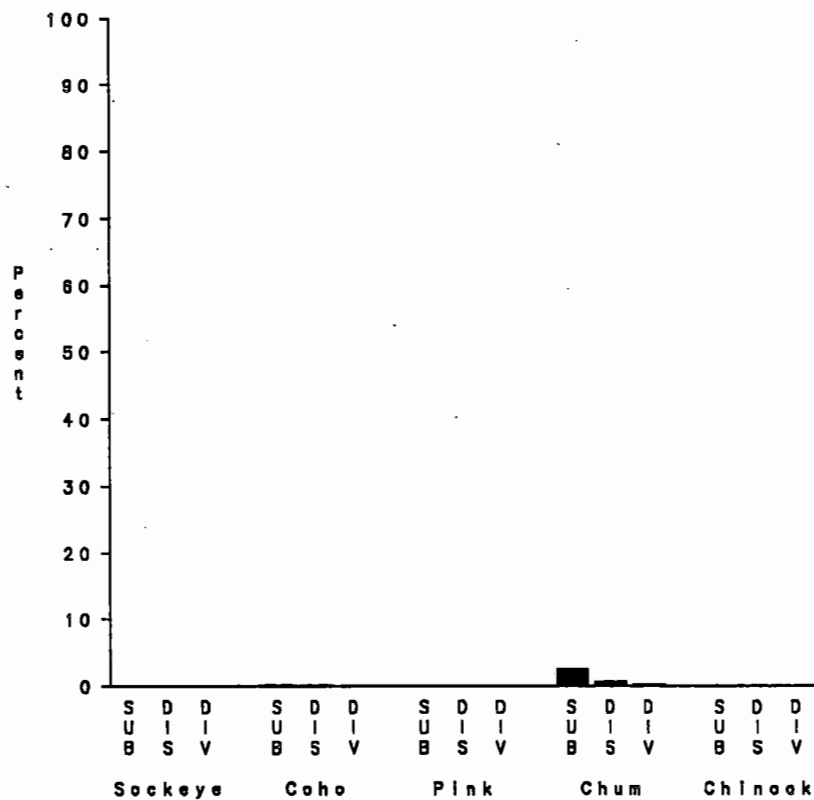
UNNAMED C (93-2820)

10-yr Mean Escapement
(1978-1987)



UNNAMED C : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



A. DESCRIPTION

Stream Name: UNNAMED CREEK	D.F.O. Division: SOUTH COAST
Local Name: CANOE PASS CREEK, JULIA CREEK JULIA PASSAGE CREEK	District: 4 PORT ALBERNI
Watershed Code: 93-2880	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-6
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit: 7

Tributaries	Code	Topographic (1:50k) Map: 92C/14 B.C.G.S. (1:20k) Map: U.T.M. Mouth: 10.3376.54250 Lat./Long. Mouth: 48 06. 57' 50'' 125 06. 12' 52'' Mainstem Length: 1.8 km Ref. No.: 23-1 Watershed Area: 5.2 km2 Ref. No.: 23-1
		Location: FLOWS S. AND S.W. INTO JULIA PASSAGE, W. OF ALMA RUSSEL ISLAND.

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	GRADIENT STEEPENS SIGNIFICANTLY AT 0.4 KM. (REF. 23-8)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
BD BEAVER DAM		0.4	AF ALL SPECIES	SHOULD BE REMOVED (1985) (REF. 23-7)

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	THROUGHOUT TO UPPER REACHES (0.4KM) (REF. 23-1, REF. 23-8)
CH CHUM SALMON	LOWER REACHES, 0-400M (REF. 23-8, REF. 23-11)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	33	1978 - 1987	28A-18	50	28A-18		
CH CHUM SALMON	153	1978 - 1987	28A-18	350	28A-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	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	

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	PAST LOGGING (EARLY 1900'S) (REF. 23-8)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

SOME BEAR PREDATION (REF. 23-7)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:

K. SIS COMPLETED BY

Completed by: GITA KAPAHI	Date: 1989/02/28
Last checked by: VIOLET KOMORI	Date: 1990/03/29

ESCAPEMENT: CANOE PASS CREEK

WATERSHED-CODE: 93-2880

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	25	0	200	0	0
1954	0	75	0	200	0	0
1955	0	25	0	200	0	0
1956	0	25	0	75	0	0
1957	0	200	0	75	0	0
1958	0	75	0	200	0	0
1959	0	200	0	200	0	0
1960	0	75	0	200	0	0
1961	0	200	0	75	0	0
1962	0	200	0	25	0	0
1963	0	25	0	75	0	0
1964	0	200	0	200	0	0
1965	0	25	0	25	0	0
1966	0	25	0	400	0	0
1967	0	75	0	200	0	0
1968	0	75	0	200	0	0
1969	0	200	0	200	0	0
1970	0	200	0	75	0	0
1971	0	75	0	75	0	0
1972	0	75	0	200	0	0
1973	0	75	0	200	0	0
1974	0	75	0	150	25	0
1975	0	20	0	150	0	0
1976	0	50	0	200	0	0
1977	0	50	0	180	0	0
1978	0	50	0	200	0	0
1979	0	50	0	60	0	0
1980	UNK	UNK	UNK	UNK	UNK	UNK
1981	0	UNK	0	UNK	0	0
1982	UNK	UNK	UNK	UNK	UNK	UNK
1983	UNK	UNK	UNK	UNK	UNK	UNK
1984	0	UNK	0	UNK	0	0
1985	UNK	UNK	UNK	350	UNK	0
1986	0	UNK	0	UNK	0	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

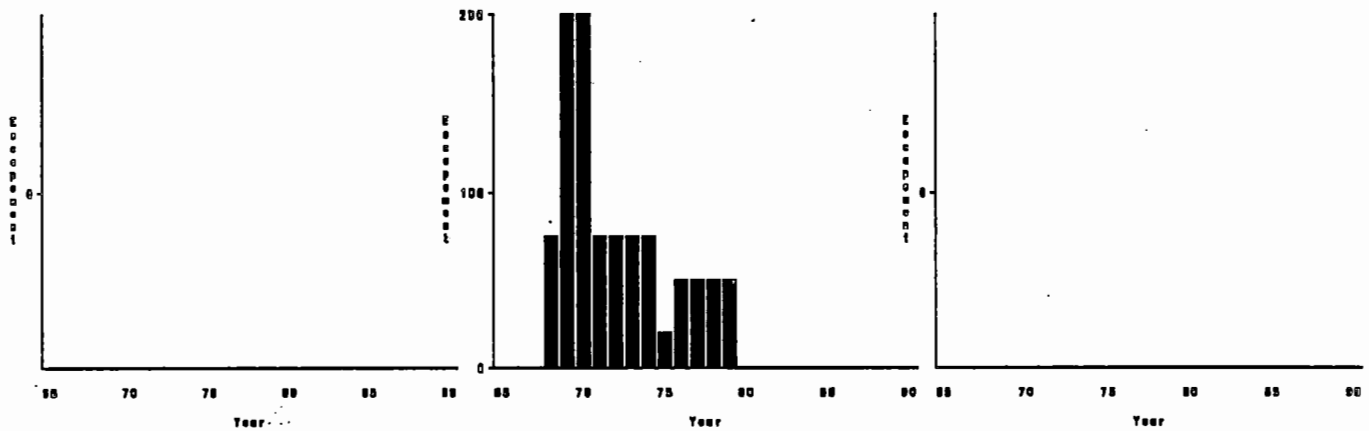
UNNAMED C (93-2880)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

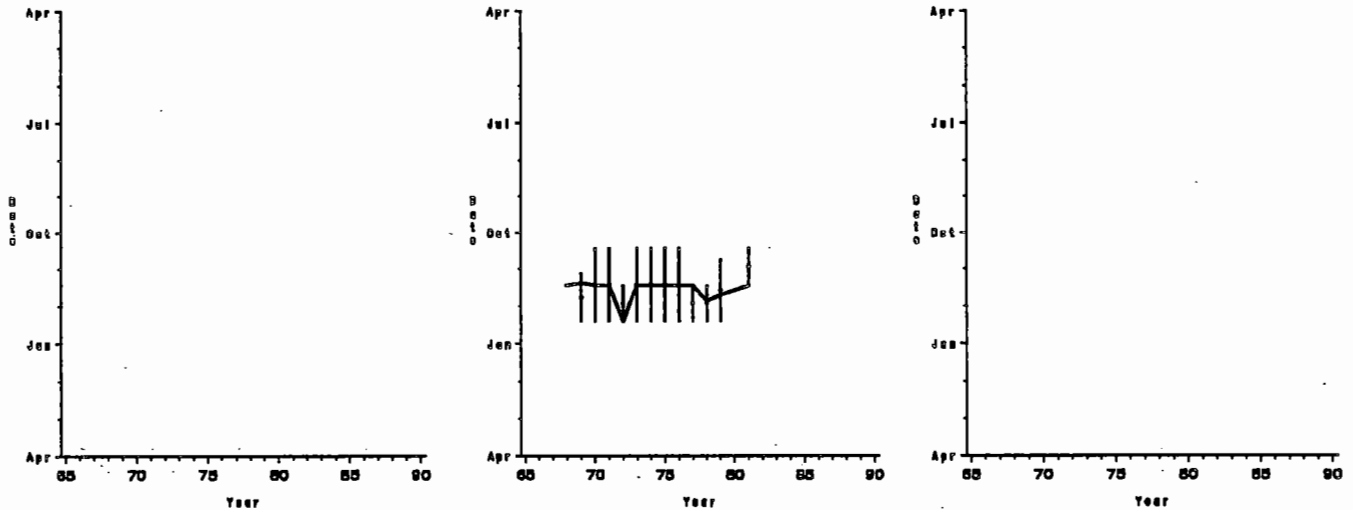
Pink (PK)



Sockeye

Coho

Pink



Sockeye

Coho

Pink

Year Escapement Start Peak End

1965	0	-	-	-
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	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year Escapement Start Peak End

1965	70	10NOV	10NOV	-
1966	200	05NOV	12NOV	10DEC
1967	200	10NOV	10NOV	10DEC
1971	70	10NOV	10NOV	10DEC
1972	70	10NOV	10DEC	10DEC
1973	70	10NOV	10NOV	10DEC
1974	70	10NOV	10NOV	10DEC
1975	20	10NOV	10NOV	10DEC
1976	50	10NOV	10NOV	10DEC
1977	50	10NOV	10NOV	10DEC
1978	50	10NOV	10NOV	10DEC
1979	10	10NOV	10NOV	10DEC
1980	-	-	-	-
1981	-	10NOV	10NOV	10NOV
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Year Escapement Start Peak End

1965	0	-	-	-
1966	0	-	-	-
1967	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	-	-	-
1986	0	-	-	-
1987	0	-	-	-

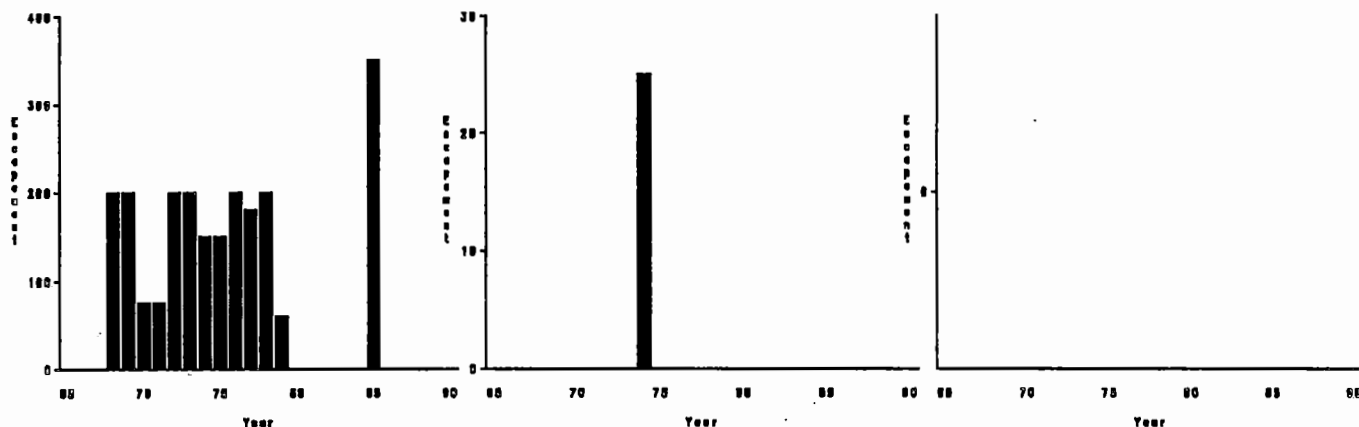
UNNAMED C (93-2880)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

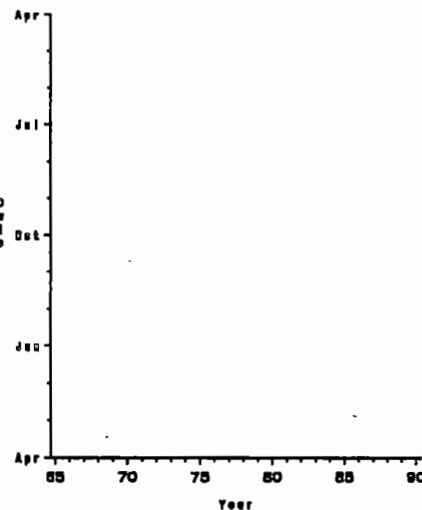
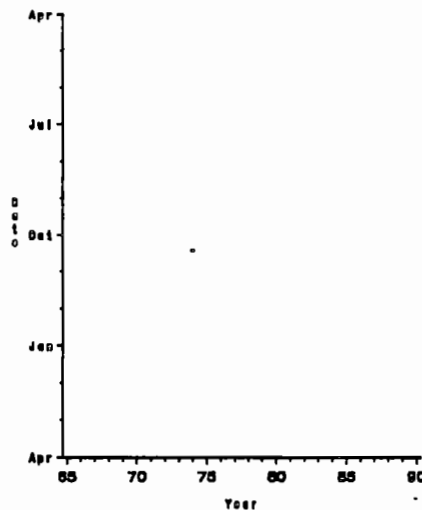
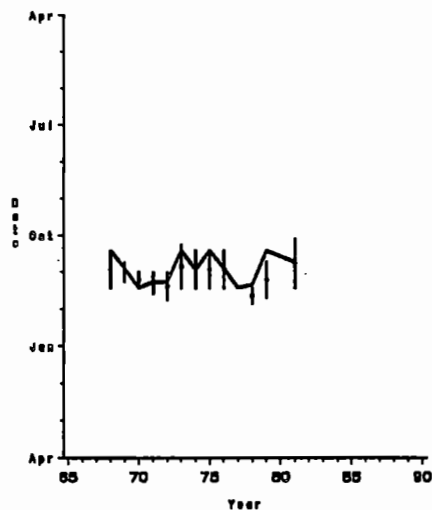
Steelhead (ST)



Chum

Chinook

Steelhead



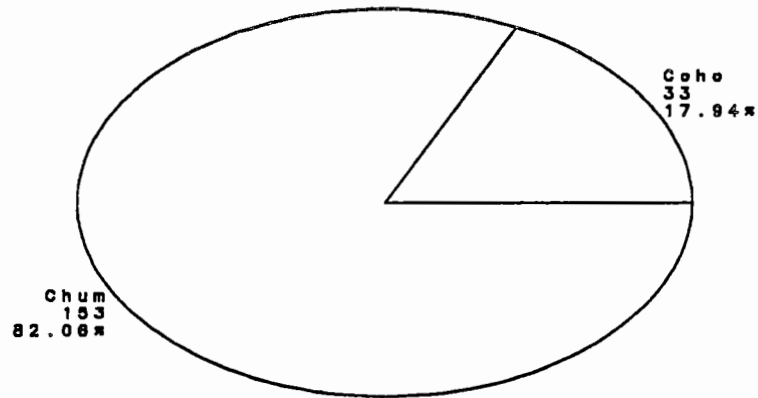
Year	Escapement	Start	Peak	End
1965	200	15OCT	15OCT	15NOV
1966	200	20OCT	20OCT	15NOV
1967	75	01NOV	15NOV	15NOV
1971	75	02NOV	15NOV	20NOV
1972	200	02NOV	15NOV	20NOV
1973	200	15OCT	15OCT	15NOV
1974	150	15OCT	15OCT	15NOV
1975	150	15OCT	15OCT	15NOV
1976	200	15OCT	20OCT	15NOV
1977	100	15NOV	15NOV	15NOV
1978	200	15NOV	15NOV	20NOV
1979	00	24OCT	15OCT	20NOV
1980	-	-	-	-
1981	-	01OCT	20OCT	15NOV
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	200	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1965	0	-	-	-
1966	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	25	15OCT	15OCT	15OCT
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	-	-	-	-
1981	0	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1965	-	-	-	-
1966	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

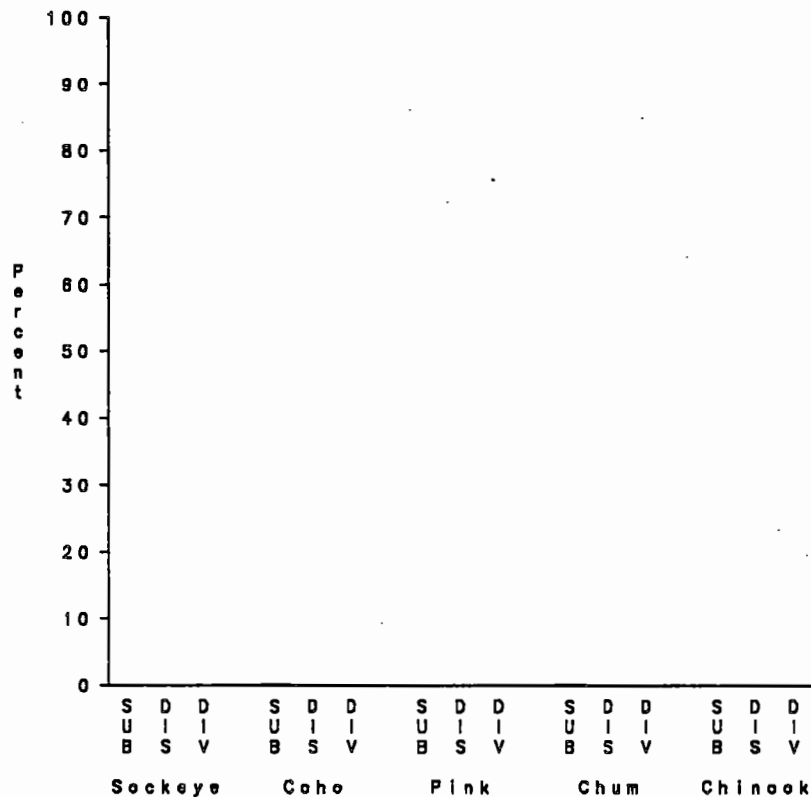
UNNAMED C (93-2880)

10-yr Mean Escapement
(1978-1987)



UNNAMED C : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(1e Subdistrict, District & Division)



Stream Name: UNNAMED CREEK	D.F.O. Division: SOUTH COAST
Local Name: SECHART CREEK	District: 4 PORT ALBERNI
	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-8
Watershed Code: 93-2895	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92C/14 B.C.G.S. (1:20k) Map: 094 U.T.M. Mouth: Lat./Long. Mouth: 48 DG. 57' 21" 125 DG. 14' 55" Mainstem Length: 1.6 km Ref. No.: 23-1 Watershed Area: 2.6 km2 Ref. No.: 23-1
		Location: FLOWS S.W. INTO SECHART CHANNEL, N. OF BROKEN GROUP, BARKLEY DIST.

Gradient Class/Location (km upstream from mouth)						Comments
0 - .5%	.5 - 2%	2 - 5%	5 - 10%	>10%	STEEPENS AT 0.4 KM (REF. 23-8)	

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
F FALLS		0.1	AF ALL SPECIES	(REF. 23-2)

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

Species	Watershed Distribution
CO COHO SALMON	PRESENT (REF. 23-2)
CN CHUM SALMON	LOWER 0.1 KM (REF. 23-8)

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	18	1978 - 1987	28A-18	40	28A-18		
CH CHUM SALMON	83	1978 - 1987	28A-18	200	28A-18		

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

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	

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	PAST LOGGING IN 1960'S (REF. 23-8)

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 KAPAHU	Date: 1989/03/08
Last checked by: VIOLET KONORI	Date: 1990/03/29

ESCAPEMENT: SECHART CREEK

WATERSHED-CODE: 93-2895

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	0	0	400	0	0
1954	0	25	0	400	0	0
1955	0	N/O	0	200	0	0
1956	0	0	0	25	0	0
1957	0	0	0	400	0	0
1958	0	0	0	200	0	0
1959	0	0	0	200	0	0
1960	0	0	0	25	0	0
1961	0	0	0	75	0	0
1962	0	0	0	25	0	0
1963	0	0	0	200	0	0
1964	0	0	0	75	0	0
1965	0	25	0	25	0	0
1966	0	25	0	400	0	0
1967	0	0	0	75	0	0
1968	0	75	0	200	0	0
1969	0	75	0	400	0	0
1970	0	25	0	200	0	0
1971	0	0	0	25	0	0
1972	0	0	0	200	0	0
1973	0	75	0	200	0	0
1974	0	75	0	75	0	0
1975	0	25	0	50	0	0
1976	0	30	0	140	0	0
1977	0	35	0	80	0	0
1978	0	30	0	100	0	0
1979	0	40	0	30	0	0
1980	UNK	UNK	UNK	UNK	UNK	UNK
1981	0	0	0	6	0	0
1982	UNK	UNK	UNK	UNK	UNK	UNK
1983	0	UNK	0	78	0	0
1984	0	UNK	0	UNK	0	0
1985	UNK	UNK	UNK	170	UNK	0
1986	0	UNK	UNK	200	UNK	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

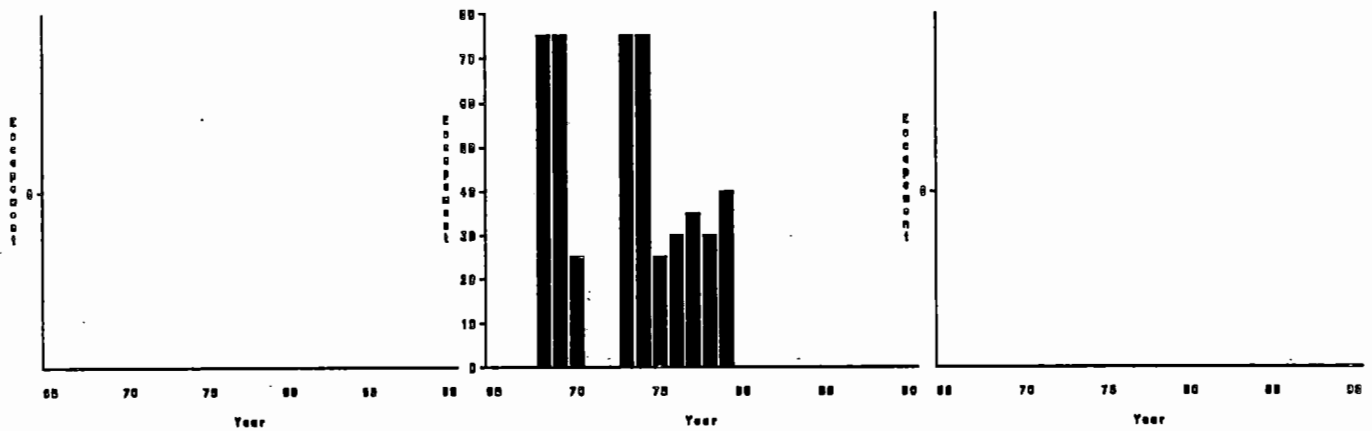
UNNAMED C (93-2895)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

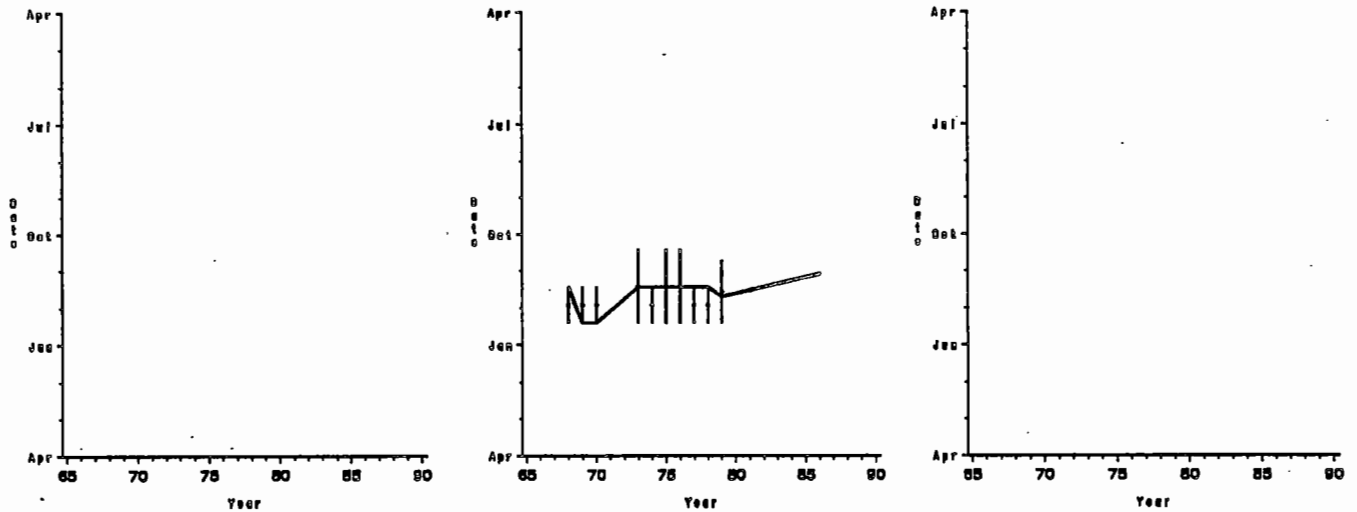
Pink (PK)



Sockeye

Coho

Pink



Sockeye				
Year	Escapement	Start	Peak	End
1966	0	-	-	-
1968	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	-	-	-	-
1981	0	-	-	-
1982	-	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Coho				
Year	Escapement	Start	Peak	End
1966	75	15NOV	15NOV	15DEC
1968	75	15NOV	15DEC	15DEC
1970	35	15NOV	15DEC	15DEC
1971	0	-	-	-
1972	0	-	-	-
1973	75	15NOV	15NOV	15DEC
1974	75	15NOV	15NOV	15DEC
1975	35	15NOV	15NOV	15DEC
1976	30	15NOV	15NOV	15DEC
1977	35	15NOV	15NOV	15DEC
1978	35	15NOV	15NOV	15DEC
1979	40	24NOV	23NOV	15DEC
1980	-	-	-	-
1981	0	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	04NOV	-
1987	0	-	-	-

Pink				
Year	Escapement	Start	Peak	End
1966	0	-	-	-
1968	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	-	-	-	-
1981	0	-	-	-
1982	-	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

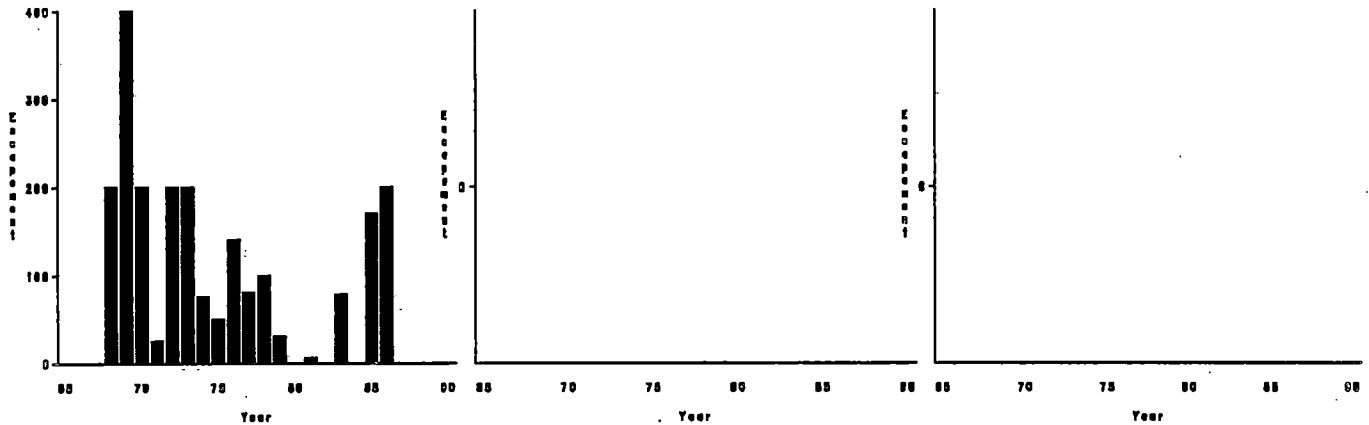
UNNAMED C (93-2895)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

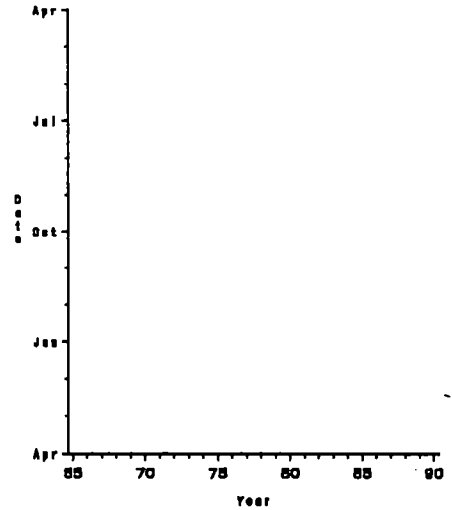
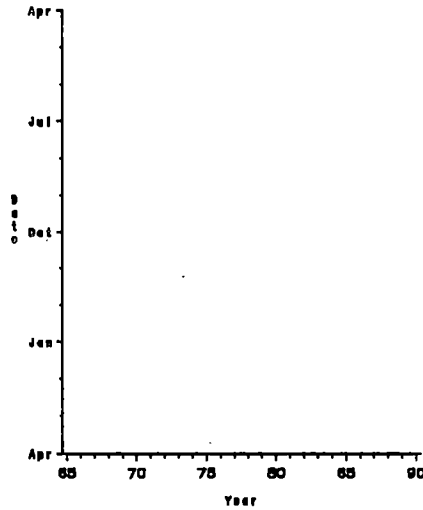
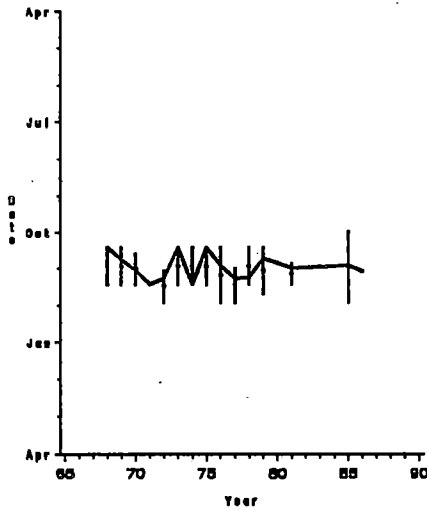
Steelhead (ST)



Chum

Chinook

Steelhead



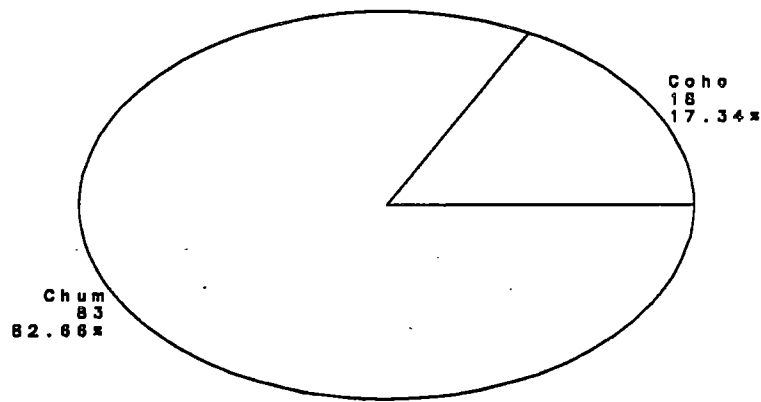
Chum				
Year	Escapement	Start	Peak	End
1966	200	12OCT	12OCT	12NOV
1968	400	14OCT	20OCT	12NOV
1970	200	24OCT	03NOV	12NOV
1971	20	15NOV	15NOV	12NOV
1972	200	02NOV	10NOV	30NOV
1973	200	12OCT	10OCT	12NOV
1974	70	14OCT	10NOV	12NOV
1976	80	14OCT	10OCT	12NOV
1978	140	13OCT	20OCT	30NOV
1977	80	01NOV	10NOV	30NOV
1979	100	12OCT	08NOV	12NOV
1979	30	12OCT	24OCT	22NOV
1980	-	-	-	-
1981	0	20OCT	01NOV	12NOV
1982	-	-	-	-
1983	70	-	-	-
1984	-	-	-	-
1986	170	01OCT	20OCT	30NOV
1988	200	-	04NOV	-
1987	0	-	-	-

Chinook				
Year	Escapement	Start	Peak	End
1966	0	-	-	-
1968	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1976	0	-	-	-
1978	0	-	-	-
1977	0	-	-	-
1979	0	-	-	-
1979	0	-	-	-
1980	-	-	-	-
1981	0	-	-	-
1982	-	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1986	-	-	-	-
1988	-	-	-	-
1987	0	-	-	-

Steelhead				
Year	Escapement	Start	Peak	End
1966	-	-	-	-
1968	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1976	-	-	-	-
1978	-	-	-	-
1977	-	-	-	-
1979	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1986	-	-	-	-
1988	-	-	-	-
1987	-	-	-	-

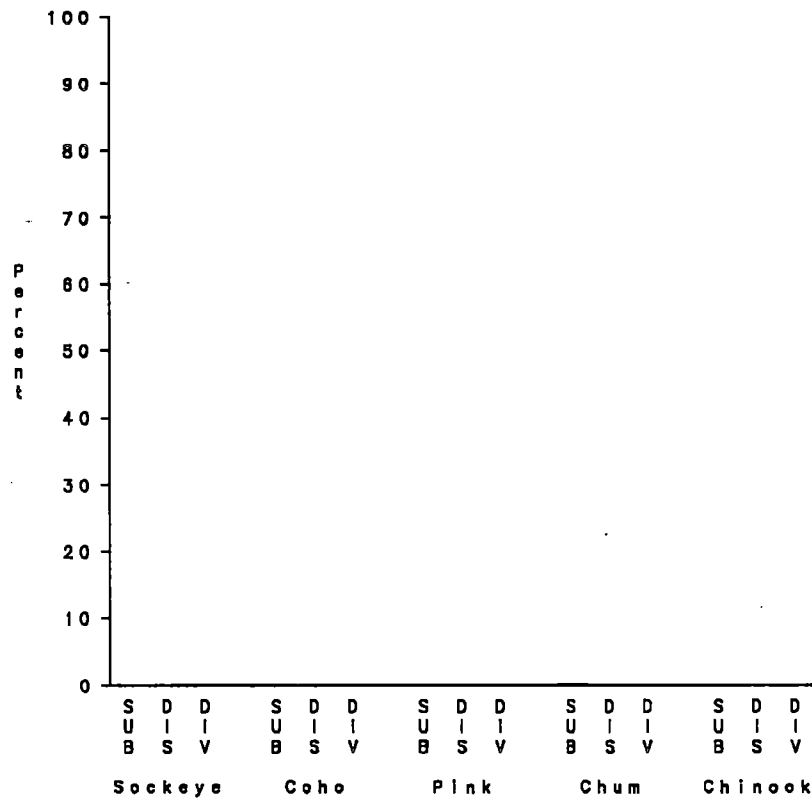
UNNAMED C (93-2895)

10-yr Mean Escapement
(1978-1987)



UNNAMED C : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



A. DESCRIPTION

Stream Name: UNNAMED CREEK	D.F.O. Division: SOUTH COAST
Local Name: DUTCH HARBOUR EAST CREEK, MAIN CREEK	District: 4 PORT ALBERNI
Watershed Code: 93-2910	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-8
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92C/14
		B.C.G.S. (1:20k) Map: 094
		U.T.M. Mouth: 10.3338.54259
		Lat./Long. Mouth: 48 DG. 57' 38" 125 DG. 16' 20"
		Mainstem Length: Ref. No.:
		Watershed Area: Ref. No.:
Location: FLOWS S.W. INTO SECHART CHAN., N. OF BROKEN GROUP, BARCLAY DIST.		

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	STEEP GRADIENT (REF. 23-8)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
F FALLS		1.5	AF ALL SPECIES	(REF. 23-8)
F FALLS		3.2	AF ALL SPECIES	(REF. 23-2)

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	TO FALLS (REF. 23-8)
CH CHUM SALMON	TO FALLS (REF. 23-8)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	33	1978 - 1987	28A-18	80	28A-18		
CH CHUM SALMON	703	1978 - 1987	28A-18	3500	28A-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 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	PAST LOGGING IN THE 1950'S. SYSTEM HAS RECOVERED FAIRLY WELL SINCE THEN (REF. 23-8)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

HEAVY BEAR PREDATION (REF. 23-8)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:

K. SIS COMPLETED BY

Completed by: GITA KAPAHI	Date: 1989/03/02
Last checked by: VIOLET KOMORI	Date: 1990/03/29

ESCAPEMENT: DUTCH HARBOUR CREEK EAST

WATERSHED-CODE: 93-2910

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	75	0	3500	0	0
1954	0	75	0	7500	0	0
1955	0	75	0	1500	0	0
1956	0	25	0	3500	0	0
1957	0	25	0	3500	0	0
1958	0	75	0	7500	0	0
1959	0	75	0	3500	0	0
1960	0	25	0	750	0	0
1961	0	25	0	750	0	0
1962	0	25	0	400	0	0
1963	0	25	0	750	0	0
1964	0	25	0	400	0	0
1965	0	25	0	25	0	0
1966	0	75	0	750	0	0
1967	0	25	0	200	0	0
1968	0	75	0	400	0	0
1969	0	25	0	3500	0	0
1970	0	400	0	1500	0	0
1971	0	25	0	75	0	0
1972	0	25	0	1500	0	0
1973	0	200	0	200	0	0
1974	0	50	0	750	0	0
1975	0	25	0	200	0	0
1976	0	90	0	1050	0	0
1977	0	120	0	1500	0	0
1978	0	80	0	400	0	0
1979	0	75	0	250	0	0
1980	0	75	0	3500	0	0
1981	0	4	0	25	0	0
1982	0	N/O	0	975	0	0
1983	0	N/O	0	170	0	0
1984	0	UNK	0	UNK	0	0
1985	UNK	UNK	UNK	UNK	UNK	0
1986	0	UNK	UNK	300	UNK	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

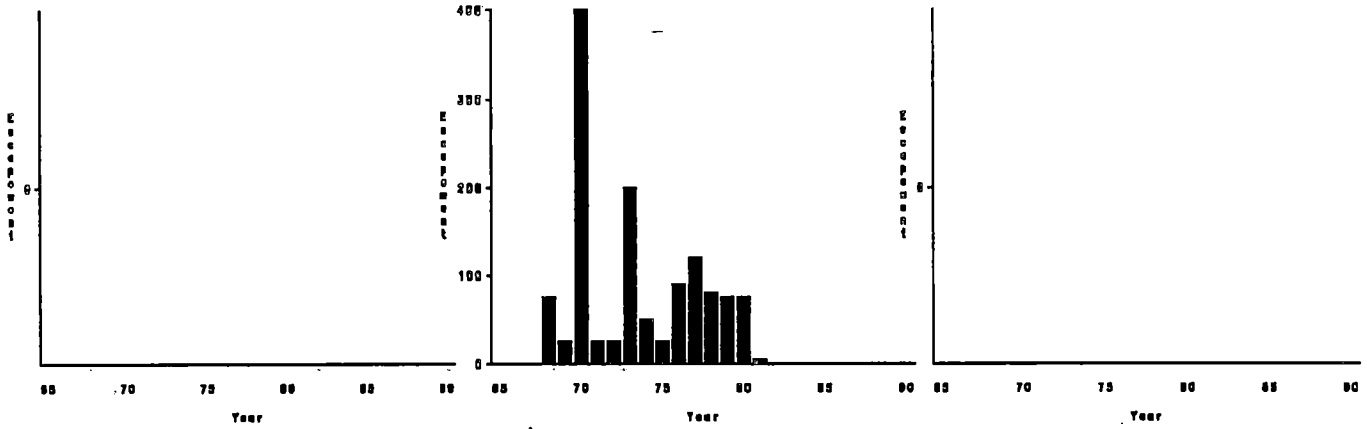
UNNAMED C (93-2910)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

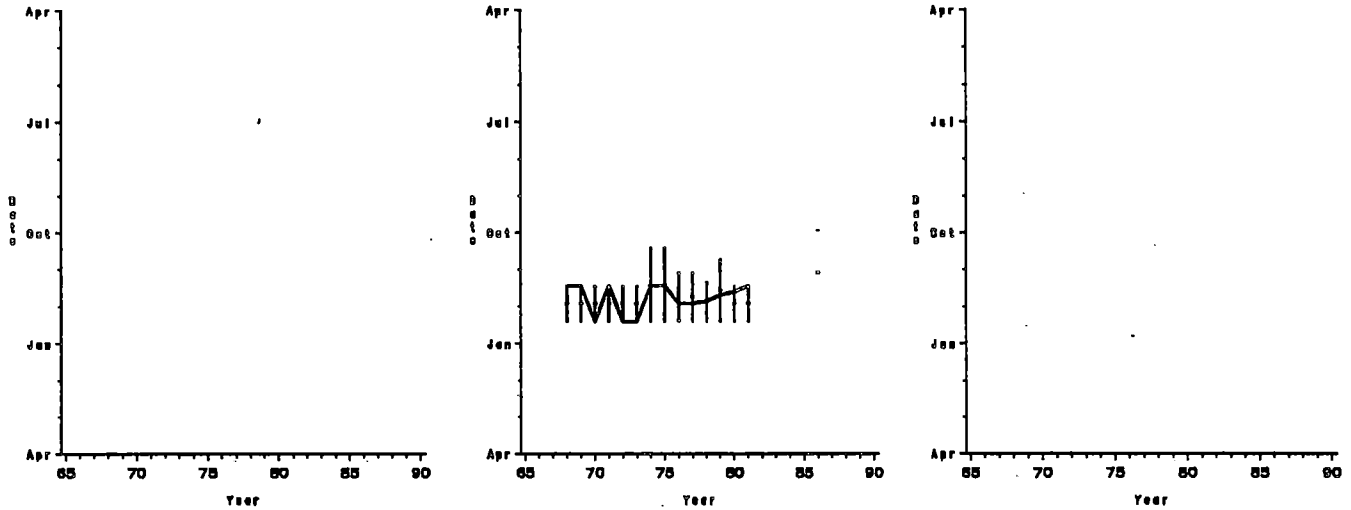
Pink (PK)



Sockeye

Coho

Pink



Sockeye

Coho

Pink

Year	Escapement	Start	Peak	End
1965	0	-	-	-
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	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1965	75	15NOV	15NOV	15DEC
1966	25	15NOV	15NOV	15DEC
1967	400	15NOV	15DEC	15DEC
1968	35	15NOV	15NOV	15DEC
1969	35	15NOV	15DEC	15DEC
1970	200	15NOV	15DEC	15DEC
1971	50	15NOV	15NOV	15DEC
1972	25	15NOV	15NOV	15DEC
1973	25	15NOV	15NOV	15DEC
1974	25	15NOV	15NOV	15DEC
1975	25	15NOV	15NOV	15DEC
1976	25	15NOV	15NOV	15DEC
1977	120	15NOV	15NOV	15DEC
1978	50	15NOV	15NOV	15DEC
1979	75	15NOV	15NOV	15DEC
1980	75	15NOV	15NOV	15DEC
1981	5	15NOV	15NOV	15DEC
1982	0	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	0	-	-	-
1986	0	-	-	04NOV
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1965	0	-	-	-
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	-	-	-
1986	0	-	-	-
1987	0	-	-	-

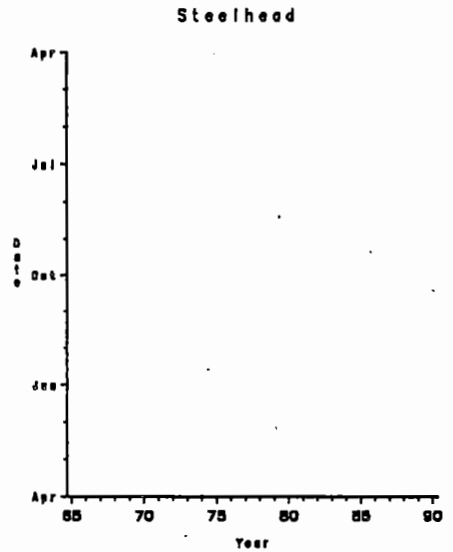
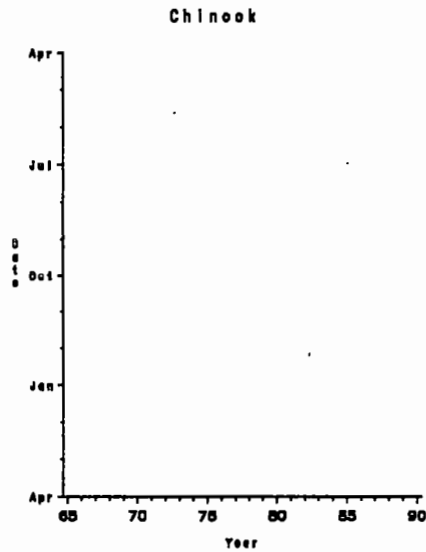
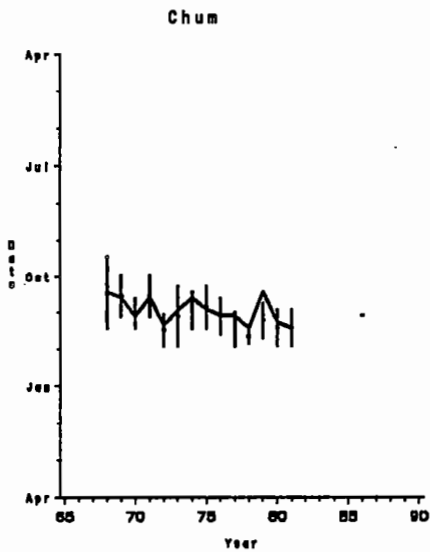
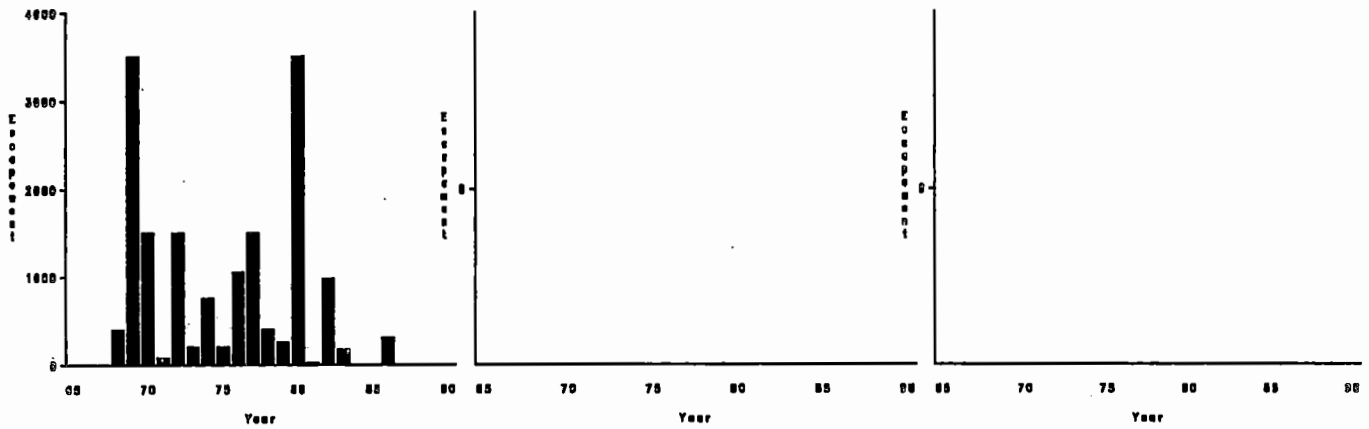
UNNAMED C (93-2910)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

Steelhead (ST)



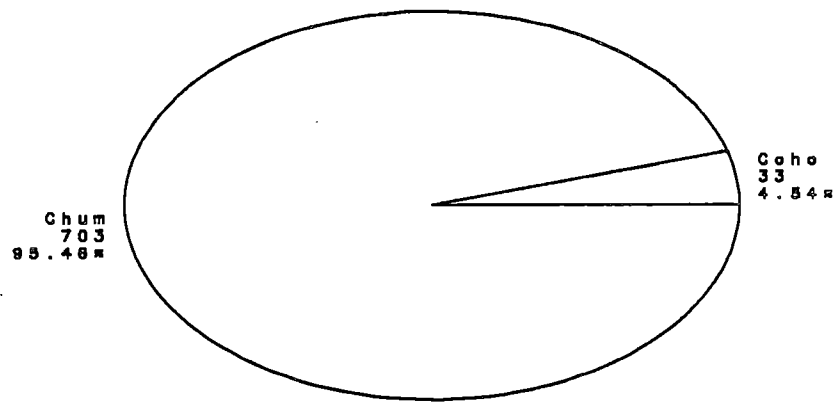
Chum				
Year	Escapement	Start	Peak	End
1966	400	18SEP	18OCT	18NOV
1968	3,000	01OCT	30OCT	02NOV
1970	1,500	24OCT	08NOV	18NOV
1971	70	01OCT	20OCT	02NOV
1972	1,500	03NOV	12NOV	20NOV
1973	200	18OCT	21OCT	30NOV
1974	700	18OCT	20OCT	18NOV
1975	300	18OCT	20OCT	18NOV
1976	1,050	28OCT	04NOV	20NOV
1977	1,300	01NOV	04NOV	20NOV
1978	400	13NOV	15NOV	22NOV
1979	200	24OCT	18OCT	22NOV
1980	3,000	30OCT	10NOV	20NOV
1981	24	20OCT	18NOV	20NOV
1982	673	-	-	-
1983	170	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	300	-	-	04NOV
1988	0	-	-	-

Chinook				
Year	Escapement	Start	Peak	End
1966	0	-	-	-
1968	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	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Steelhead				
Year	Escapement	Start	Peak	End
1966	-	-	-	-
1968	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

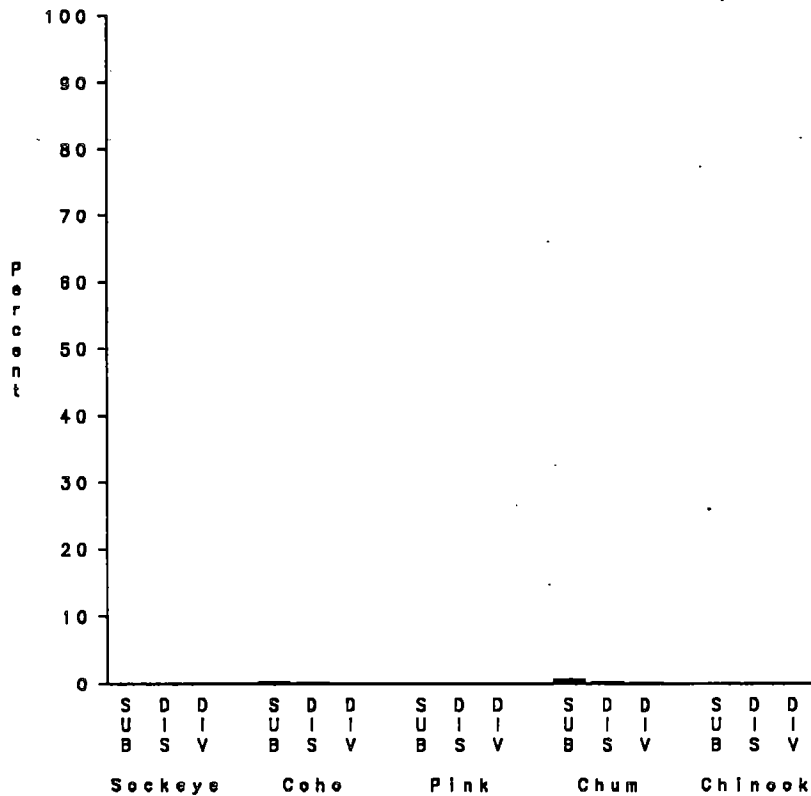
UNNAMED C (93-2910)

10-yr Mean Escapement
(1978-1987)



UNNAMED C : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



A. DESCRIPTION

Stream Name: UNNAMED CREEK	D.F.O. Division: SOUTH COAST
Local Name: DUTCH HARBOUR WEST CREEK, SMALL CREEK	District: 4 PORT ALBERNI
Watershed Code: 93-2920	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-8
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92C/14
		B.C.G.S. (1:20k) Map: 094
		U.T.M. Mouth: 10.3330.54263
		Lat./Long. Mouth: 48 06. 57' 53'' 125 06. 17' 00''
		Mainstem Length: Ref. No.:
		Watershed Area: Ref. No.:
		Location: FLOWS S.W. INTO SECHART, CHAN., N. OF BROKEN GROUP, BARCLAY 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	4.6	0.8		(REF. 23-1, REF. 23-8)

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	FEW COHO TO THE FALLS (REF. 23-8)
CN CHUM SALMON	MOSTLY CHUMS TO FALLS (REF. 23-8)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	21	1978 - 1987	28A-18	45	28A-18		
CN CHUM SALMON	254	1978 - 1987	28A-18	700	28A-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 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	

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	PAST LOGGING IN THE 1950'S. ONLY A VERY SMALL PART OF THE UPPERMOST SECTION OF THE WATERSHED HAS BEEN LOGGED (< 10HA) (REF. 23-2, REF. 23-8)

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
Last checked by: VIOLET KOMORI

Date: 1989/03/02
Date: 1990/03/29

ESCAPEMENT: DUTCH HARBOUR CREEK WEST

WATERSHED-CODE: 93-2920

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	UNK	UNK	UNK	UNK	UNK	UNK
1954	0	25	0	750	0	0
1955	0	25	0	750	0	0
1956	0	25	0	750	0	0
1957	0	25	0	1500	0	0
1958	0	25	0	1500	0	0
1959	0	25	0	1500	0	0
1960	0	25	0	400	0	0
1961	0	25	0	200	0	0
1962	0	25	0	75	0	0
1963	0	25	0	75	0	0
1964	0	25	0	75	0	0
1965	0	25	0	75	0	0
1966	0	25	0	750	0	0
1967	0	25	0	200	0	0
1968	0	400	0	750	0	0
1969	0	25	0	750	0	0
1970	0	75	0	750	0	0
1971	0	25	0	75	0	0
1972	0	25	0	750	0	0
1973	0	25	0	400	0	0
1974	0	25	0	400	0	0
1975	0	25	0	200	0	0
1976	0	35	0	800	0	0
1977	0	30	0	875	0	0
1978	0	45	0	150	0	0
1979	0	30	0	190	0	0
1980	0	30	0	700	0	0
1981	UNK	UNK	UNK	UNK	UNK	UNK
1982	0	N/O	0	230	0	0
1983	UNK	UNK	UNK	UNK	UNK	UNK
1984	UNK	UNK	UNK	UNK	UNK	UNK
1985	UNK	UNK	UNK	UNK	UNK	0
1986	0	UNK	0	UNK	0	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

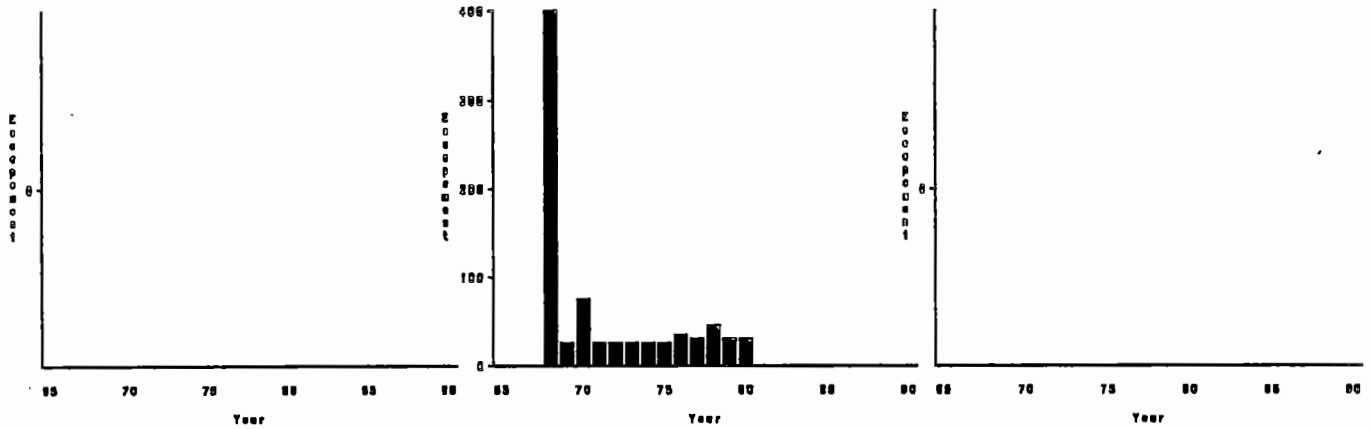
UNNAMED C (93-2920)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

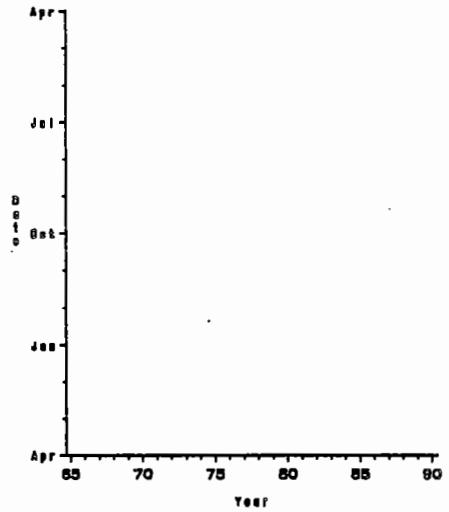
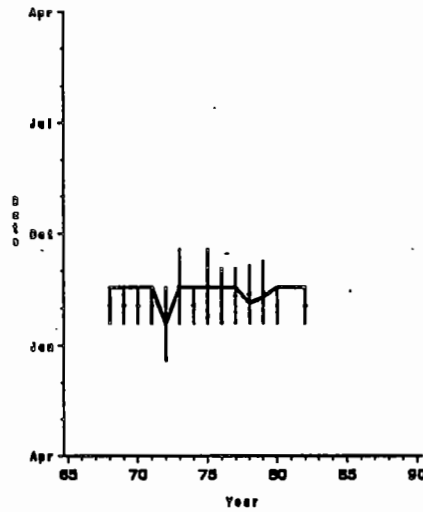
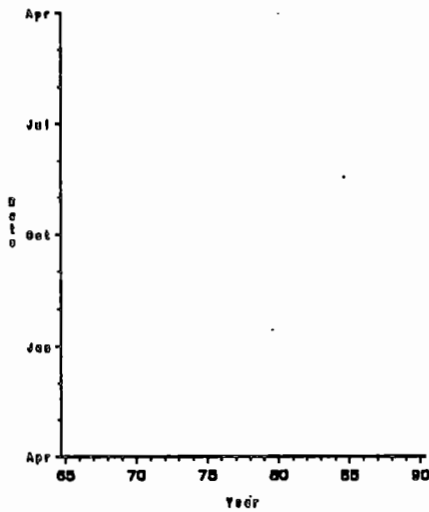
Pink (PK)



Sockeye

Coho

Pink



Sockeye

Coho

Pink

Year	Escapement	Start	Peak	End
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	-	-	-	-
1982	0	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1969	400	19NOV	19NOV	19DEC
1970	20	19NOV	19NOV	19DEC
1971	75	19NOV	19NOV	19DEC
1972	20	19NOV	19NOV	19DEC
1973	20	19NOV	19DEC	14JAN
1974	20	19NOV	19NOV	19DEC
1975	25	19NOV	19NOV	19DEC
1976	25	19NOV	19NOV	19DEC
1977	30	30OCT	19NOV	19DEC
1978	45	19NOV	20NOV	19DEC
1979	30	24OCT	23NOV	19DEC
1980	30	19NOV	19NOV	19DEC
1981	-	-	-	-
1982	0	19NOV	19NOV	19DEC
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
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	-	-	-	-
1982	0	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

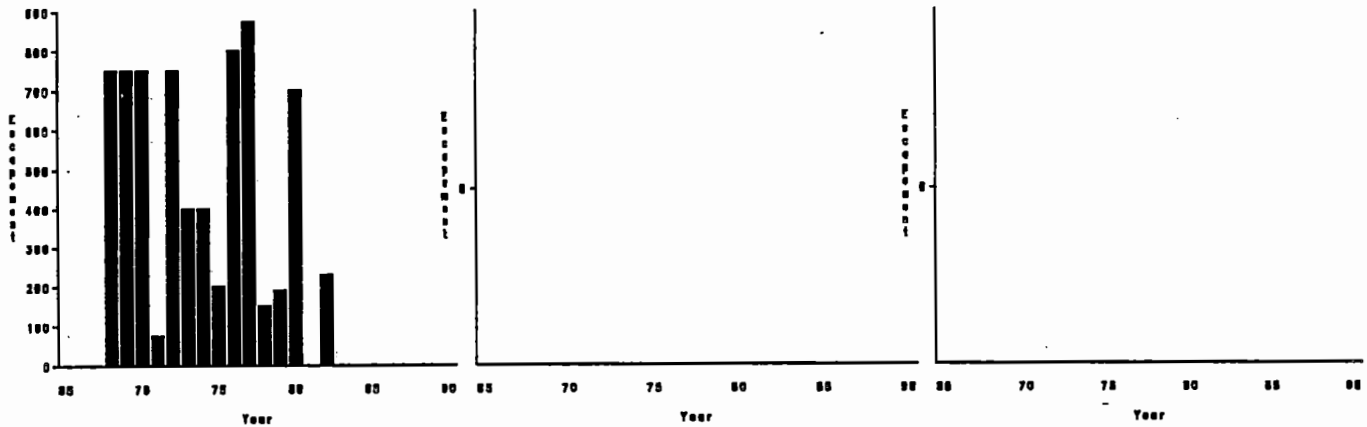
UNNAMED C (93-2920)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

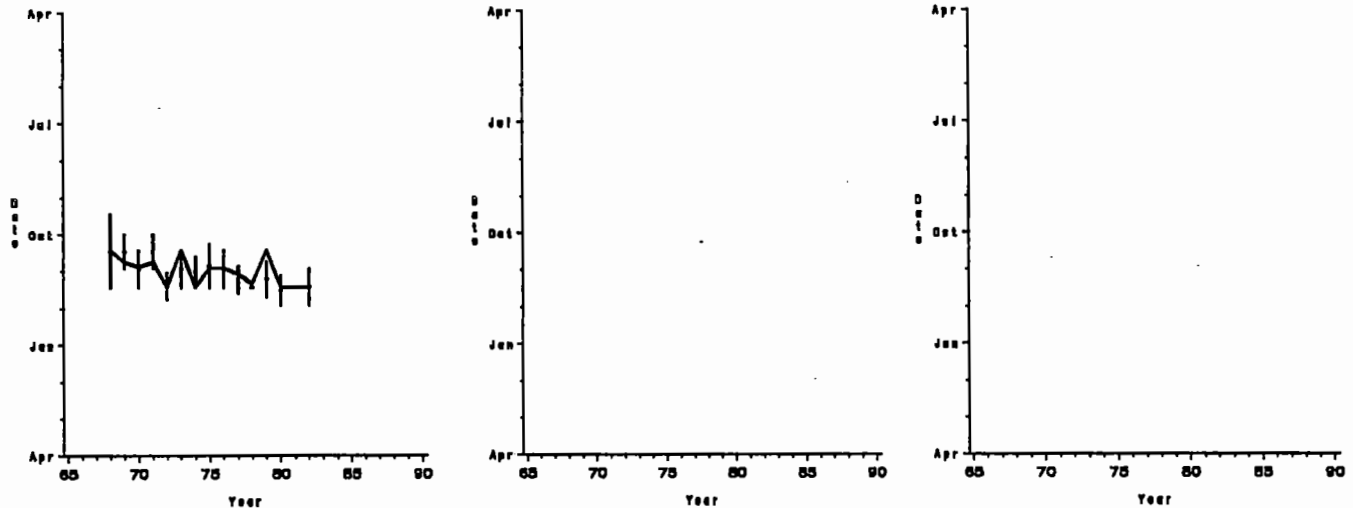
Steelhead (ST)



Chum

Chinook

Steelhead



Chum

Chinook

Steelhead

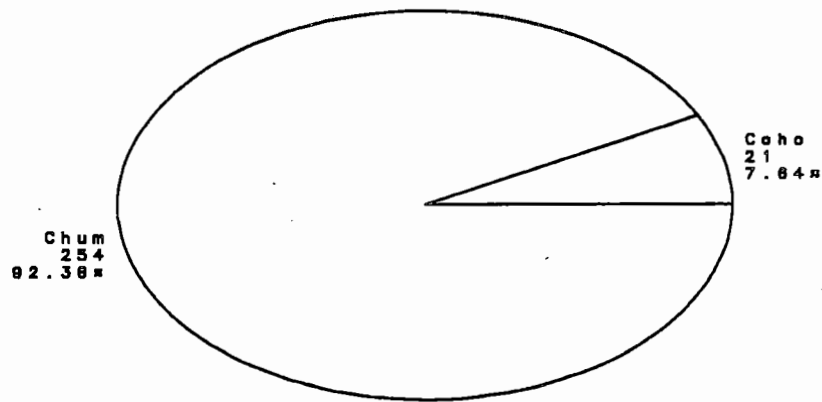
Year	Escapement	Start	Peak	End
1966	700	15SEP	15OCT	15NOV
1968	700	02OCT	30OCT	30OCT
1970	700	15OCT	20OCT	15NOV
1971	70	02OCT	25OCT	30OCT
1972	700	02NOV	15NOV	25NOV
1973	400	15OCT	15OCT	15NOV
1974	400	20OCT	15NOV	15NOV
1975	300	15OCT	20OCT	15NOV
1976	400	15OCT	20OCT	15NOV
1977	370	20OCT	04NOV	20NOV
1978	150	15NOV	12NOV	15NOV
1979	150	24OCT	10OCT	22NOV
1980	700	02NOV	15NOV	30NOV
1981	-	-	-	-
1982	330	30OCT	15NOV	30NOV
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1966	0	-	-	-
1968	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	0	-	-	-
1981	-	-	-	-
1982	0	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1966	-	-	-	-
1968	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

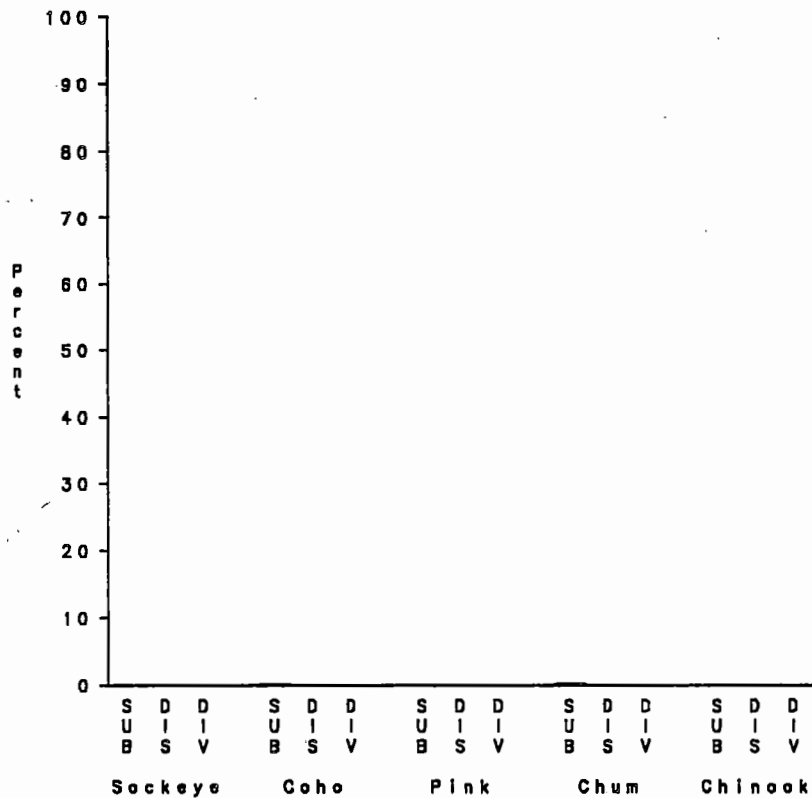
UNNAMED C (93-2920)

10-yr Mean Escapement
(1978-1987)



UNNAMED C : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(1e Subdistrict, District & Division)



Stream Name: CATARACT CREEK	D.F.O. Division: SOUTH COAST
Local Name:	District: 4 PORT ALBERNI
Watershed Code: 93-3000	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-10
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit: 7

Tributaries	Code	Topographic (1:50k) Map: 92F/3 B.C.G.S. (1:20k) Map: 004 U.T.M. Mouth: Lat./Long. Mouth: 49 DG. 00' 57" 125 DG. 16' 21" Mainstem Length: 0.4 km Ref. No.: 23-1 Watershed Area: 20.7 km2 Ref. No.: 23-1
		Location: FLOWS N.W. FROM CATARACT LAKE INTO PIPESTEM INLET, CLAYOQUOT DIST.

Gradient Class/Location (km upstream from mouth)						Comments
0 - .5%	.5 - 2%	2 - 5%	5 - 10%	>10%	EXTREMELY STEEP. ONLY LOWER 400M ARE USED (REF. 23-8)	

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
F FALLS	1.8	0.4	AF ALL SPECIES	SET OF 2 FALLS; 1.8M AND 3.0M (REF. 23-1, REF. 23-7)

Flow Control:	Water Survey of Canada (WSC) Flow Gauge:		
W.S.C. Station No. 1:	No. 2:	No. 3:	No. 4:
Comments: LOW FLOWS PREVENT ENTRY TO CREEK (REF. 23-7)			

Species	Watershed Distribution
CO COHO SALMON	TO FALLS (REF. 23-8)
CM CHUM SALMON	TO FALLS; A GOOD CM CREEK (REF. 23-8)

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	16	1978 - 1987	28A-18	25	28A-18		
CM CHUM SALMON	352	1978 - 1987	28A-18	700	28A-18		

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

F. LIFE HISTORY TIMING CONTINUED

Species	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CH 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
FO FORESTRY	PAST LOGGING IN UPPER REACHES 1950'S / 1960'S (REF. 23-8)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

AREA ABOVE FALLS CONTAINS LARGE LAKE (1.7 SQ. KM) AND NUMEROUS OTHER SMALL LAKES, PONDS AND SWAMPS. MAJORITY OF HARVESTING ACTIVITY ON EAST SIDE OF LAKE AND TOOK PLACE IN 1964 - 1969. (REF. 23-2)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:

K. SIS COMPLETED BY

Completed by: GITA KAPPAH	Date: 1989/02/28
Last checked by: VIOLET KOMORI	Date: 1990/03/29

ESCAPEMENT: CATARACT CREEK

WATERSHED-CODE: 93-3000

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	0	0	750	0	0
1954	0	0	0	200	0	0
1955	0	0	0	400	0	0
1956	0	0	0	200	0	0
1957	0	0	0	750	0	0
1958	0	0	0	1500	0	0
1959	0	0	0	750	0	0
1960	0	0	0	400	0	0
1961	0	0	0	200	0	0
1962	0	0	0	200	0	0
1963	0	0	0	75	2	0
1964	0	0	0	200	0	0
1965	0	0	0	200	0	0
1966	0	0	0	400	0	0
1967	0	0	0	400	0	0
1968	0	0	0	400	0	0
1969	0	0	0	400	0	0
1970	0	0	0	400	0	0
1971	0	25	0	75	0	0
1972	0	25	0	750	0	0
1973	0	25	0	75	0	0
1974	0	25	0	150	0	0
1975	0	25	0	300	0	0
1976	0	25	0	450	0	0
1977	0	20	0	550	0	0
1978	0	24	0	250	0	0
1979	0	25	0	700	0	0
1980	UNK	UNK	UNK	UNK	UNK	UNK
1981	0	UNK	0	UNK	0	0
1982	0	UNK	0	308	0	0
1983	UNK	UNK	UNK	UNK	UNK	UNK
1984	UNK	UNK	UNK	UNK	UNK	UNK
1985	UNK	UNK	UNK	UNK	UNK	0
1986	0	UNK	UNK	500	UNK	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

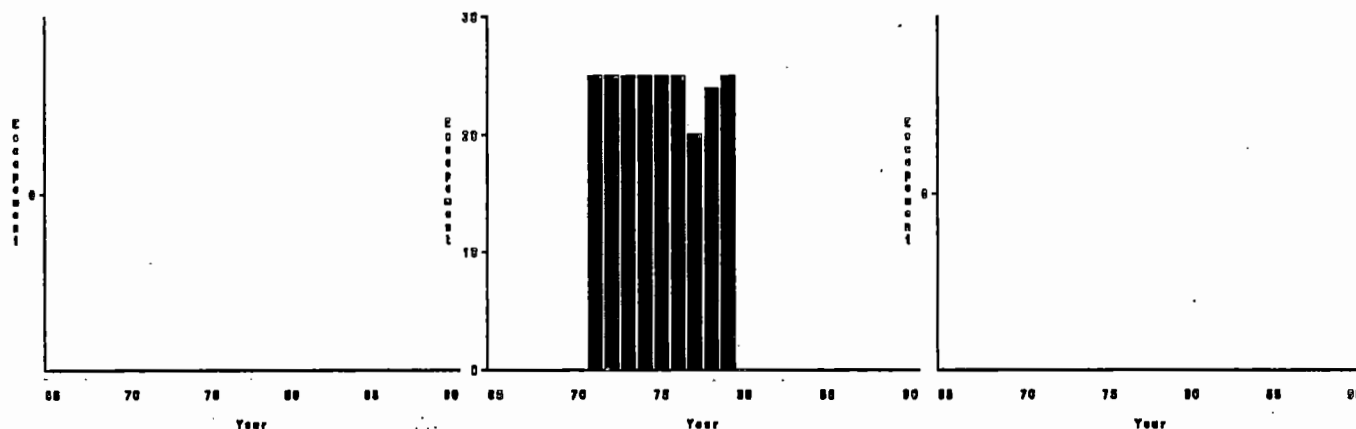
CATARACT CREEK (93-3000)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

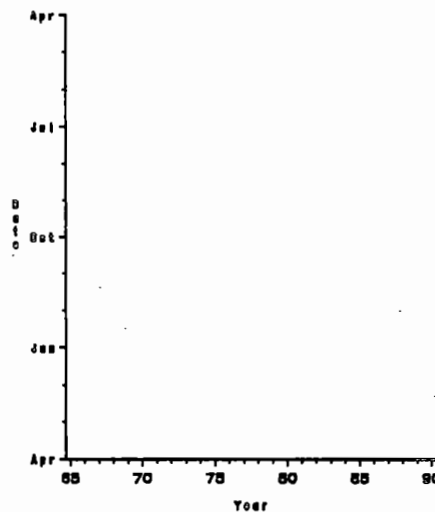
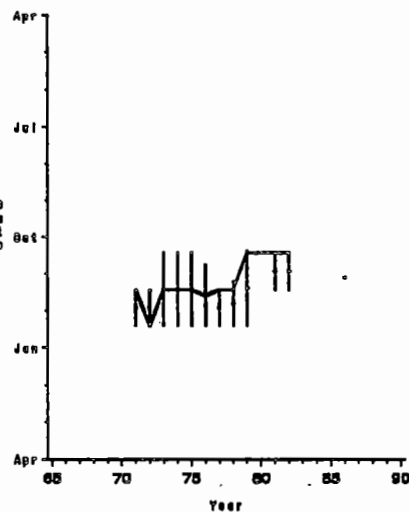
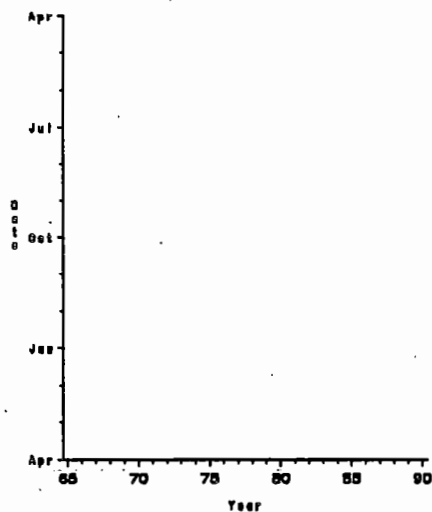
Pink (PK)



Sockeye

Coho

Pink



Year	Escapement	Start	Peak	End
1966	0	-	-	-
1968	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	-	-	-	-
1981	0	-	-	-
1982	0	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1966	0	-	-	-
1968	0	-	-	-
1970	0	-	-	-
1971	10	19NOV	19NOV	19DEC
1972	15	19NOV	19DEC	19DEC
1973	10	19OCT	19NOV	19DEC
1974	25	19OCT	19NOV	19DEC
1975	10	19OCT	19NOV	19DEC
1976	15	29OCT	29NOV	19DEC
1977	10	19NOV	19NOV	19DEC
1978	10	19NOV	19NOV	19DEC
1979	10	19OCT	19OCT	19DEC
1980	-	-	-	-
1981	-	19OCT	19OCT	19NOV
1982	-	19OCT	19OCT	19NOV
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	19NOV	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1966	0	-	-	-
1968	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	-	-	-	-
1981	0	-	-	-
1982	0	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

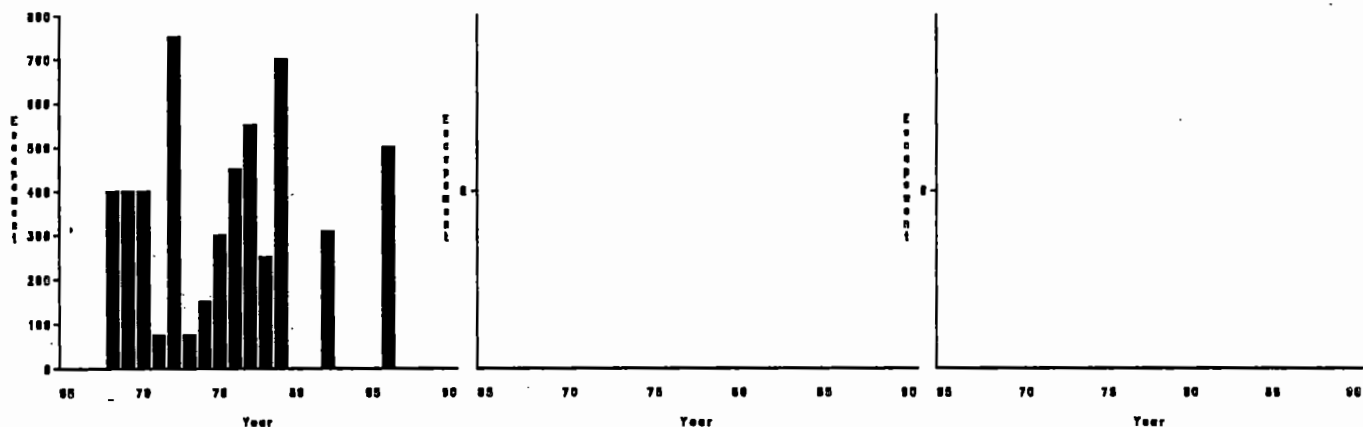
CATARACT CREEK (93-3000)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

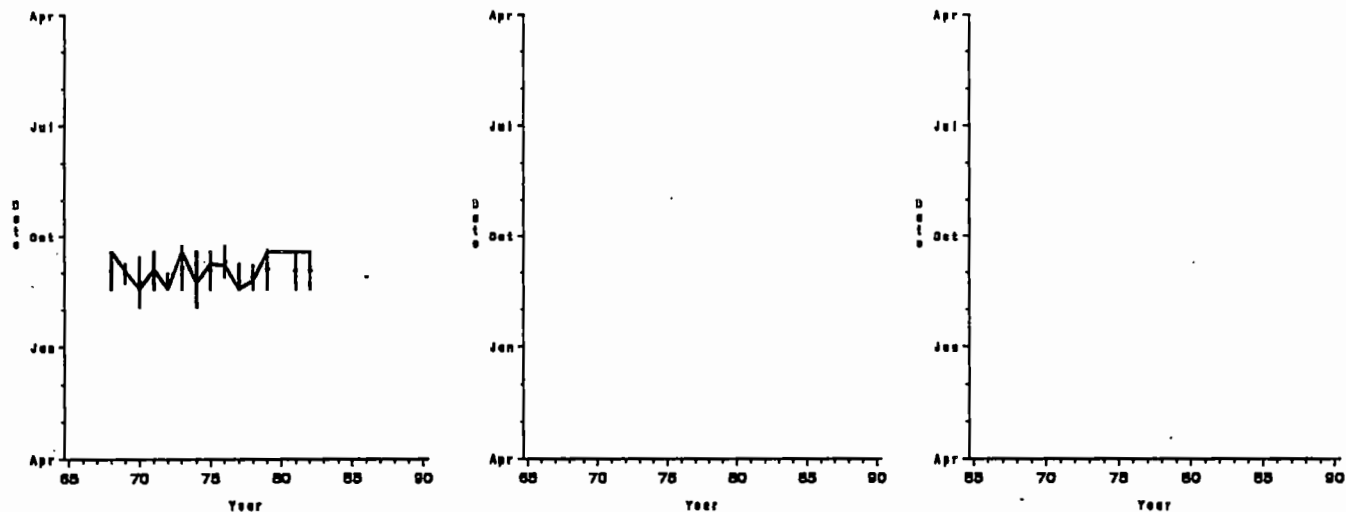
Steelhead (ST)



Chum

Chinook

Steelhead



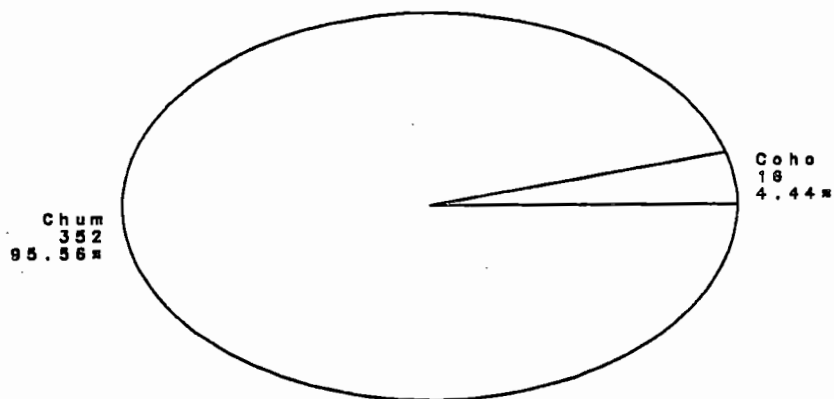
Chum				
Year	Escapement	Start	Peak	End
1965	400	15OCT	18OCT	18NOV
1966	400	22OCT	21OCT	18NOV
1967	400	19OCT	15NOV	30NOV
1971	75	15OCT	30OCT	18NOV
1972	700	02NOV	10NOV	18NOV
1973	70	16OCT	18OCT	18NOV
1974	120	15OCT	18NOV	30NOV
1975	300	16OCT	28OCT	18NOV
1976	450	16OCT	28OCT	02NOV
1977	350	22OCT	12NOV	18NOV
1978	300	24OCT	08NOV	15NOV
1979	700	12OCT	18OCT	18NOV
1980	-	-	-	-
1981	-	15OCT	18OCT	18NOV
1982	300	15OCT	15OCT	18NOV
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	500	02NOV	-	-
1987	0	-	-	-

Chinook				
Year	Escapement	Start	Peak	End
1965	0	-	-	-
1966	0	-	-	-
1967	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	-	-	-	-
1981	0	-	-	-
1982	0	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Steelhead				
Year	Escapement	Start	Peak	End
1965	-	-	-	-
1966	-	-	-	-
1967	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

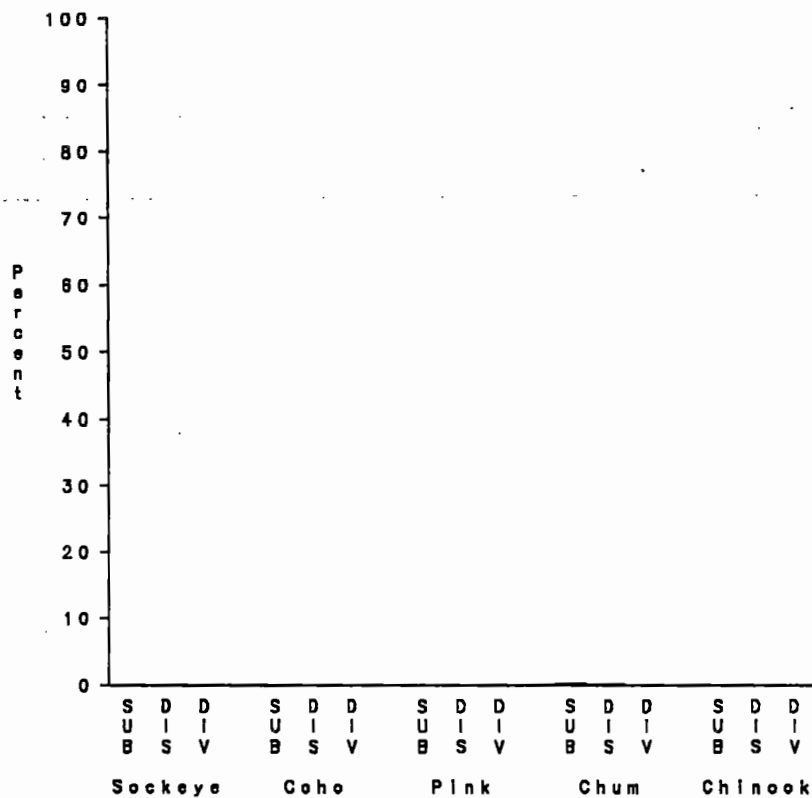
CATARACT CREEK (93-3000)

10-yr Mean Escapement
(1978-1987)



CATARACT CREEK : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



A. DESCRIPTION

Stream Name: UNNAMED CREEK		D.F.O. Division: SOUTH COAST
Local Name: PIPESTEAM CREEK, PIPESTEM CREEK		District: 4 PORT ALBERNI
Watershed Code: 93-3030		Subdistrict: 23 PORT ALBERNI
		Statistical Subarea: 23-11
		M.O.E.P. Region: 1 VANCOUVER ISLAND
		Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92F/3
		B.C.G.S. (1:20k) Map: 005
		U.T.M. Mouth:
		Lat./Long. Mouth: 49 DG. 02' 22" 125 DG. 11' 59"
		Mainstem Length: 1.2 km Ref. No.: 23-1
		Watershed Area: 7.8 km ² Ref. No.: 23-1
Location: FLOWS S.E. AND W. INTO PIPESTEM INLET, W. OF EFFINGHAM INLET FROM SKULL LAKE		

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
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:	
NO INFORMATION AVAILABLE				

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
CO COHO SALMON	PRESENT (REF. 23-2)
CH CHUM SALMON	LOWER 0.5 KM (REF. 23-8)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	38	1978 - 1987	28A-18	80	28A-18		
CH CHUM SALMON	195	1978 - 1987	28A-18	500	28A-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	X X	X X

F. LIFE HISTORY TIMING CONTINUED

Species	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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	NO LOGGING UP TO 1984 (REF. 23-2)

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: 1989/03/08
Last checked by: VIOLET KOMORI	Date: 1990/03/29

ESCAPEMENT: PIPESTEAM CREEK

WATERSHED-CODE: 93-3030

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	75	0	1500	0	0
1954	0	25	0	1500	0	0
1955	0	25	0	400	0	0
1956	0	25	0	3500	0	0
1957	0	25	0	1500	0	0
1958	0	25	0	1500	0	0
1959	0	25	0	1500	0	0
1960	0	25	0	400	0	0
1961	0	25	0	750	0	0
1962	0	25	0	200	0	0
1963	0	25	0	200	0	0
1964	0	25	0	400	0	0
1965	0	25	0	400	0	0
1966	0	25	0	750	0	0
1967	0	75	0	400	0	0
1968	0	200	0	750	0	0
1969	0	200	0	750	0	UNK
1970	0	400	0	200	0	0
1971	0	25	0	200	0	0
1972	0	25	0	750	0	0
1973	0	400	0	750	0	0
1974	0	75	0	1000	0	0
1975	0	40	0	400	0	0
1976	0	75	0	280	0	0
1977	0	90	0	180	0	0
1978	0	80	0	500	0	0
1979	0	70	0	160	0	0
1980	UNK	UNK	UNK	UNK	UNK	UNK
1981	0	0	0	60	0	0
1982	0	UNK	0	400	0	0
1983	0	UNK	0	UNK	0	0
1984	0	UNK	0	UNK	0	0
1985	UNK	UNK	UNK	50	UNK	0
1986	0	UNK	0	UNK	0	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

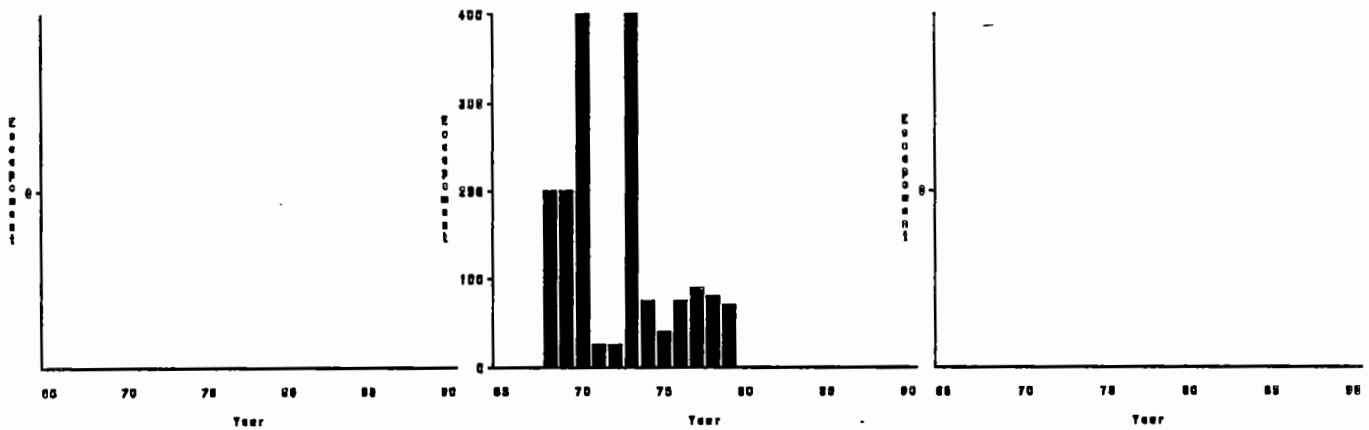
UNNAMED C (93-3030)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

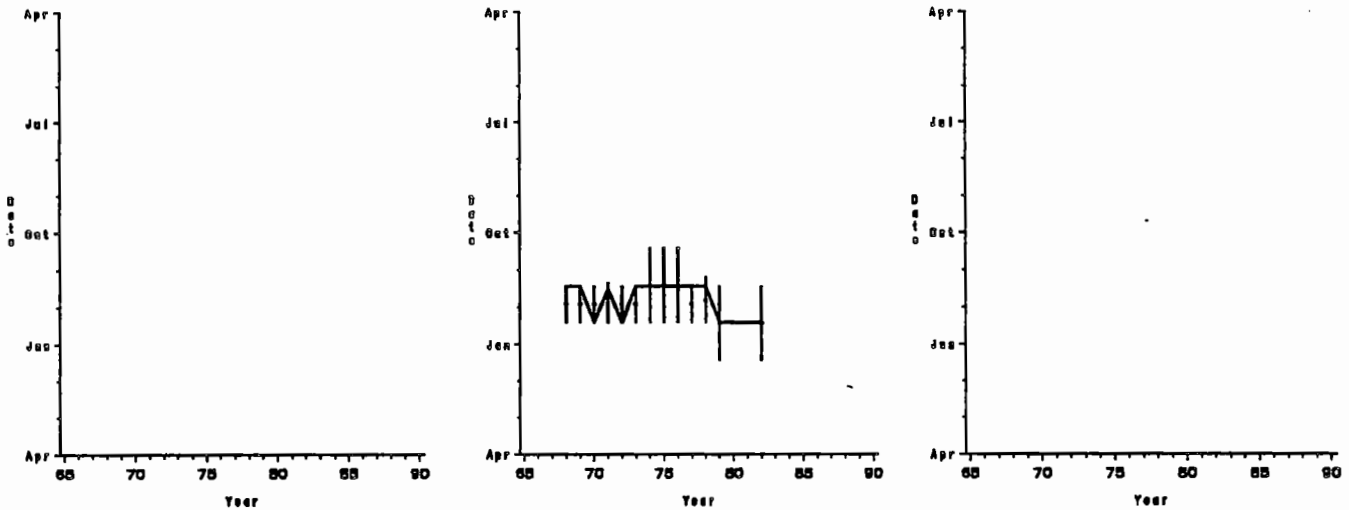
Pink (PK)



Sockeye

Coho

Pink



Sockeye

Coho

Pink

Year	Escapement	Start	Peak	End
1965	0	-	-	-
1966	0	-	-	-
1967	0	-	-	-
1968	0	-	-	-
1969	0	-	-	-
1970	200	-	-	-
1971	400	-	-	-
1972	20	-	-	-
1973	20	-	-	-
1974	70	-	-	-
1975	40	-	-	-
1976	70	-	-	-
1977	90	-	-	-
1978	70	-	-	-
1979	60	-	-	-
1980	0	-	-	-
1981	0	-	-	-
1982	0	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	0	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1965	200	1965-01-01	1965-01-01	1965-01-01
1966	200	1966-01-01	1966-01-01	1966-01-01
1967	400	1967-01-01	1967-01-01	1967-01-01
1968	20	1968-01-01	1968-01-01	1968-01-01
1969	20	1969-01-01	1969-01-01	1969-01-01
1970	400	1970-01-01	1970-01-01	1970-01-01
1971	70	1971-01-01	1971-01-01	1971-01-01
1972	40	1972-01-01	1972-01-01	1972-01-01
1973	70	1973-01-01	1973-01-01	1973-01-01
1974	90	1974-01-01	1974-01-01	1974-01-01
1975	70	1975-01-01	1975-01-01	1975-01-01
1976	60	1976-01-01	1976-01-01	1976-01-01
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	0	-	-	-
1981	0	-	-	-
1982	0	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	0	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1965	0	-	-	-
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	-	-	-
1986	0	-	-	-
1987	0	-	-	-

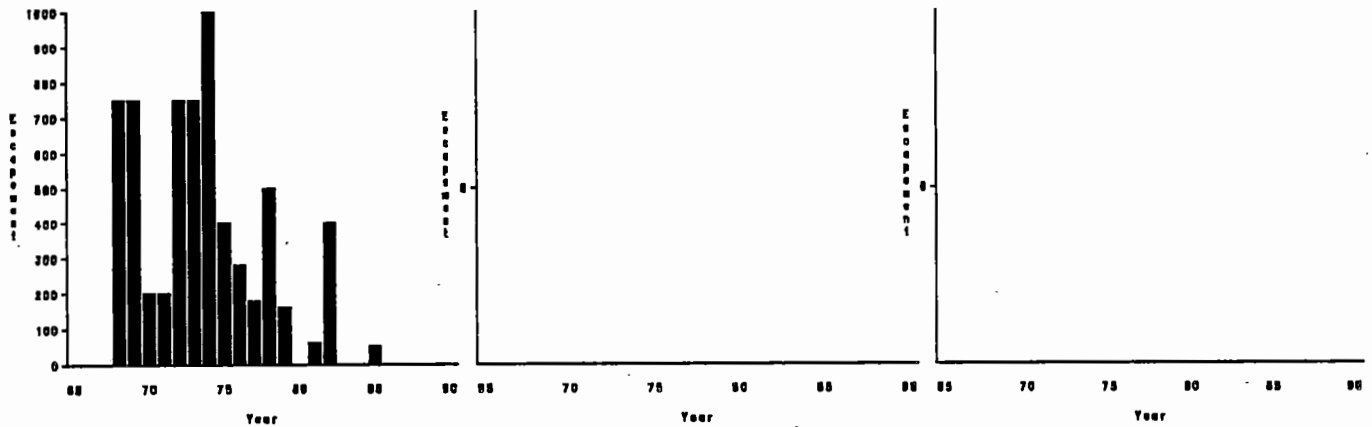
UNNAMED C (93-3030)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

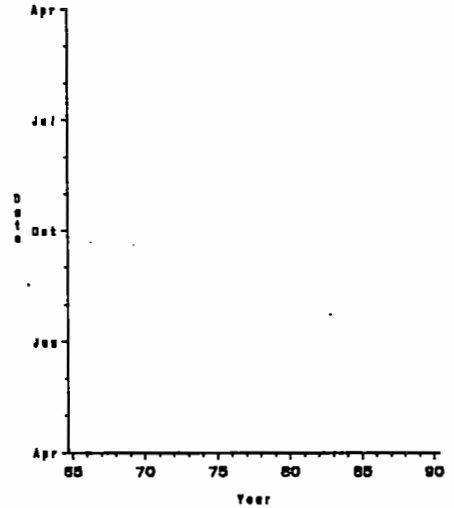
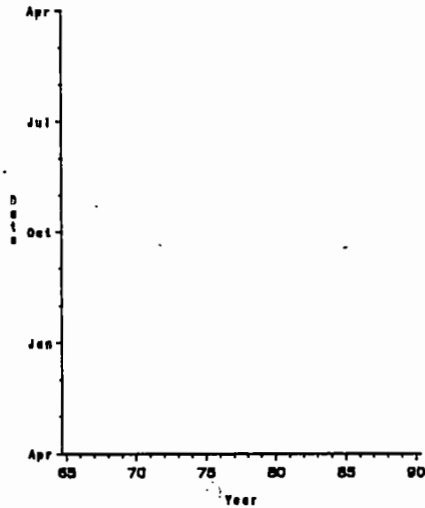
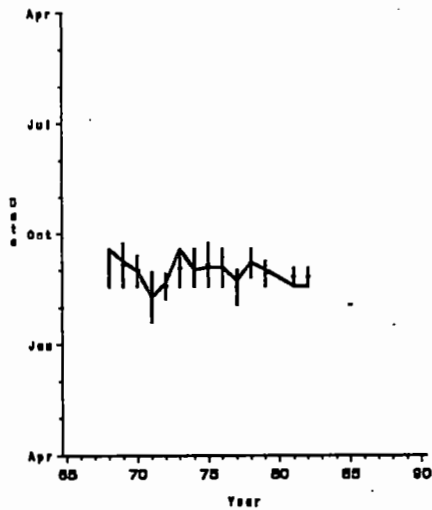
Steelhead (ST)



Chum

Chinook

Steelhead



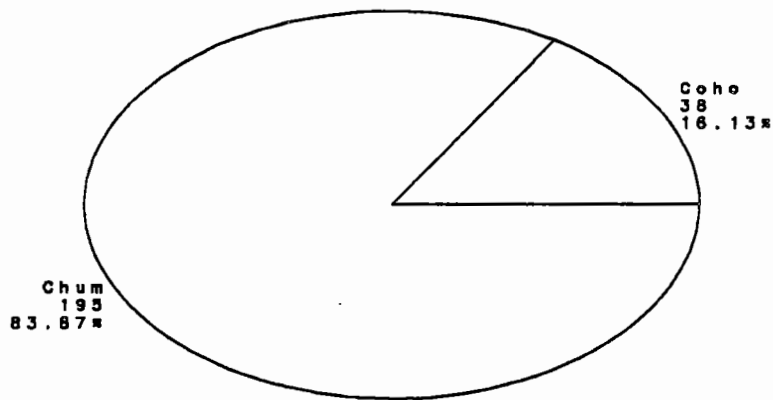
Year	Escapement	Start	Peak	End
1966	750	12OCT	12OCT	12NOV
1968	750	10OCT	28OCT	12NOV
1970	200	24OCT	02NOV	12NOV
1971	200	03NOV	24NOV	12DEC
1972	750	04NOV	12NOV	24NOV
1973	750	12OCT	10OCT	12NOV
1974	1,000	12OCT	01NOV	12NOV
1976	400	14OCT	20OCT	12NOV
1978	200	13OCT	30OCT	12NOV
1977	100	01NOV	10NOV	30NOV
1978	300	12OCT	24OCT	02NOV
1979	100	28OCT	01NOV	12NOV
1980	-	-	-	-
1981	60	30OCT	10NOV	12NOV
1982	400	30OCT	15NOV	12NOV
1983	-	-	-	-
1984	-	-	-	-
1985	20	-	-	30NOV
1986	-	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1966	0	-	-	-
1968	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1976	0	-	-	-
1978	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	-	-	-	-
1981	0	-	-	-
1982	0	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1966	-	-	-	-
1968	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1976	-	-	-	-
1978	-	-	-	-
1977	-	-	-	-
1979	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

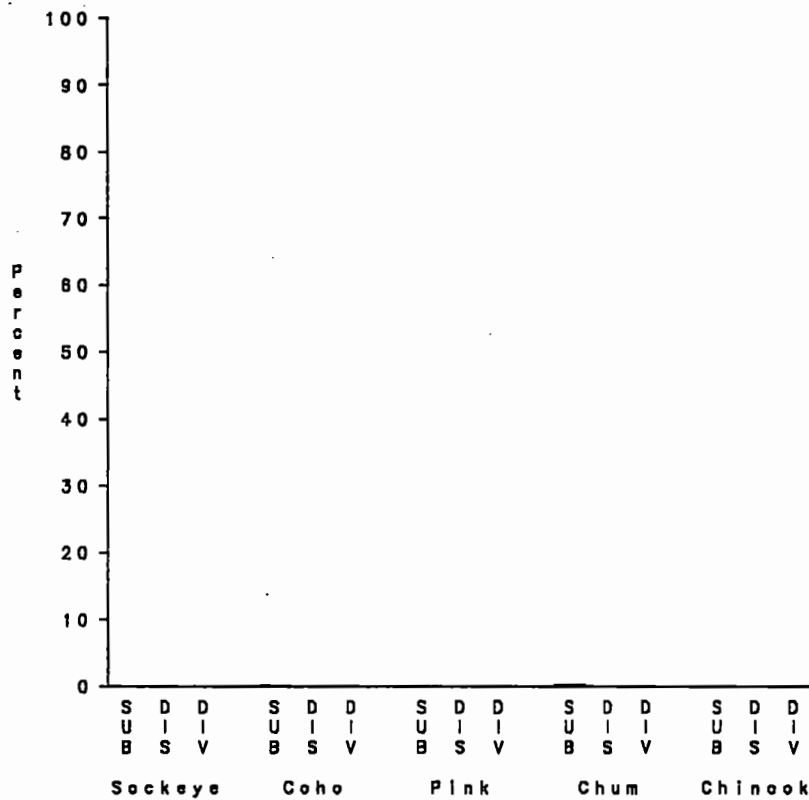
UNNAMED C (93-3030)

10-yr Mean Escapement
(1978-1987)



UNNAMED C : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



A. DESCRIPTION

Stream Name: LUCKY CREEK	D.F.O. Division: SOUTH COAST
Local Name:	District: 4 PORT ALBERNI
Watershed Code: 93-3080	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-10
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92F/3
		B.C.G.S. (1:20k) Map: 004
		U.T.M. Mouth:
		Lat./Long. Mouth: 49 DG. 01' 39" 125 DG. 18' 15"
		Mainstem Length: 0.8 km Ref. No.: 23-1
		Watershed Area: Ref. No.:
		Location: FLOWS S. INTO PIPESTEM INLET, W. OF EFFINGHAM INLET.

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	GENERALLY VERY STEEP, ONLY LOWER 0.5 KM IS ACCESSIBLE (REF. 23-8)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
F FALLS	6.0	0.8	AF ALL SPECIES	(REF. 23-8)

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	TO FALLS (REF. 23-8)
CM CHUM SALMON	TO FALLS (REF. 23-8)
ST STEELHEAD	TO FALLS (REF. 23-8)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	30	1978 - 1987	28A-18	70	28A-18		
CM CHUM SALMON	261	1978 - 1987	28A-18	520	28A-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	X 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
NO INFORMATION AVAILABLE				

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	FUTURE LOGGING PROPOSED IN UPPER WATERSHED. HAVE HELICOPTER LOGGED ONE SMALL AREA IN 1988 (REF. 23-8)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

ABOVE 0.8 KM THE STREAM IS A SERIES OF FALLS AND CANYONS WITH LITTLE OR NO SPAWNING GRAVEL (REF. 23-1, REF. 23-2)
MOST OF THE STREAM UTILIZED BY SALMON IS IN THE LOWER SECTION (REF. 23-1)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / / Prepared By:

K. SIS COMPLETED BY

Completed by: GITA KAPAHU Date: 1989/03/06
Last checked by: VIOLET KOMORI Date: 1990/03/29

ESCAPEMENT: LUCKY CREEK

WATERSHED-CODE: 93-3080

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	75	0	1500	0	25
1954	0	25	0	400	0	25
1955	0	75	0	75	0	0
1956	0	25	0	400	0	25
1957	0	25	0	750	0	25
1958	0	25	0	750	0	75
1959	0	25	0	3500	0	75
1960	0	25	0	75	0	75
1961	0	75	0	400	0	75
1962	0	25	0	75	0	200
1963	0	25	0	200	0	200
1964	0	75	0	200	0	75
1965	0	25	0	200	0	75
1966	0	75	0	200	0	0
1967	0	75	0	750	0	0
1968	0	200	0	400	0	0
1969	0	75	0	750	0	0
1970	0	25	0	400	0	0
1971	0	25	0	75	0	0
1972	0	25	0	400	25	0
1973	0	75	0	200	N/O	0
1974	0	25	0	150	0	0
1975	0	25	0	75	0	0
1976	0	50	0	250	N/O	0
1977	0	70	0	500	0	0
1978	0	70	0	400	0	0
1979	0	50	0	200	0	0
1980	UNK	UNK	UNK	UNK	UNK	UNK
1981	0	0	0	50	0	0
1982	0	UNK	0	520	0	0
1983	UNK	UNK	UNK	UNK	UNK	UNK
1984	0	UNK	0	UNK	0	0
1985	UNK	UNK	UNK	460	UNK	0
1986	0	UNK	UNK	200	UNK	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

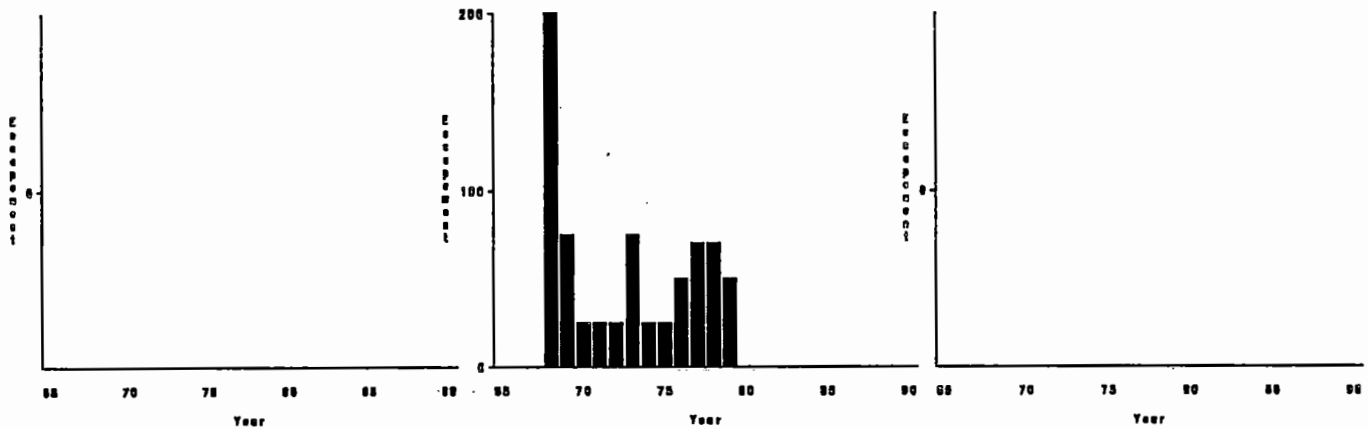
LUCKY CREEK (93-3080)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

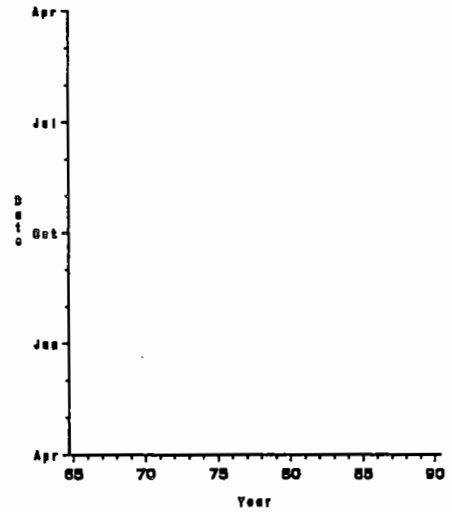
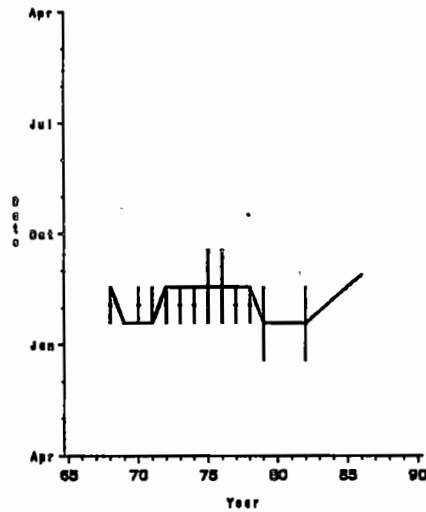
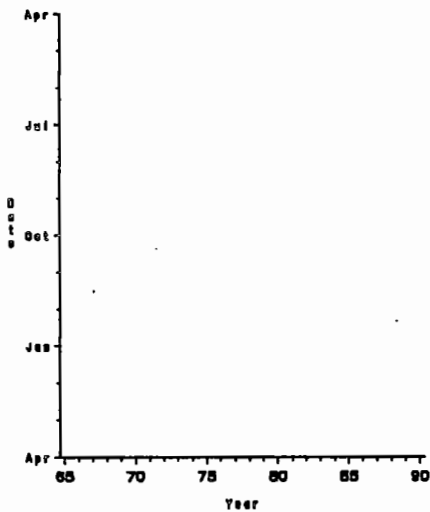
Pink (PK)



Sockeye

Coho

Pink



Sockeye

Coho

Pink

Year Escapement Start Peak End

1966	0	-	-	-
1968	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	-	-	-	-
1981	0	-	-	-
1982	0	-	-	-
1983	-	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year Escapement Start Peak End

1966	200	15NOV	15NOV	15DEC
1969	75	15DEC	15DEC	15DEC
1970	35	15NOV	15DEC	15DEC
1971	35	15NOV	15DEC	15DEC
1972	35	15NOV	15NOV	15DEC
1973	75	15NOV	15NOV	15DEC
1974	35	15NOV	15NOV	15DEC
1975	35	15OCT	15NOV	15DEC
1976	35	15OCT	15NOV	15DEC
1977	70	15NOV	15NOV	15DEC
1978	70	15NOV	15NOV	15DEC
1979	30	15NOV	15DEC	15JAN
1980	-	-	-	-
1981	0	-	-	-
1982	-	15NOV	15DEC	15JAN
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	15NOV	-
1987	0	-	-	-

Year Escapement Start Peak End

1966	0	-	-	-
1968	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	-	-	-	-
1981	0	-	-	-
1982	0	-	-	-
1983	-	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

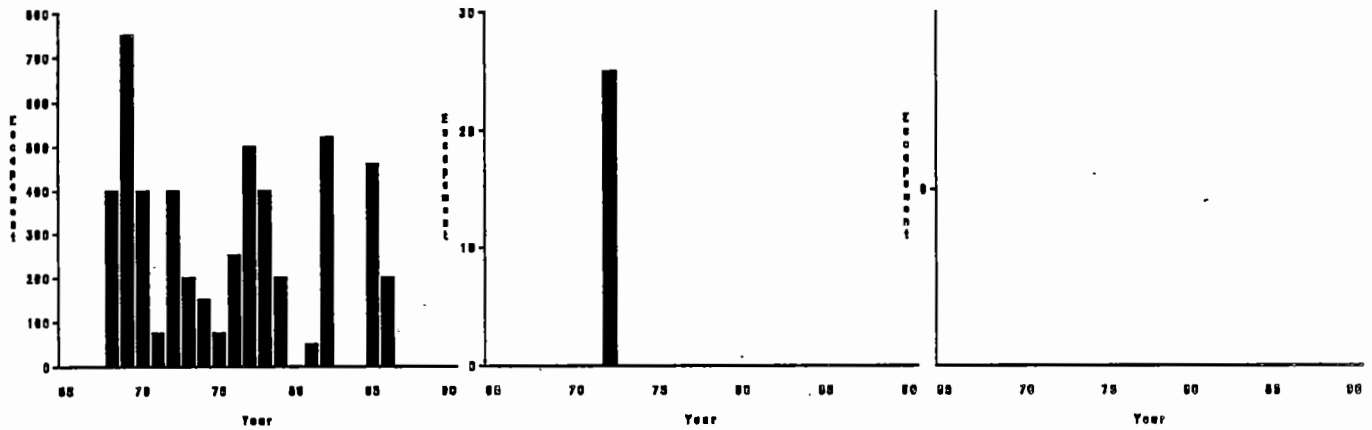
LUCKY CREEK (93-3080)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

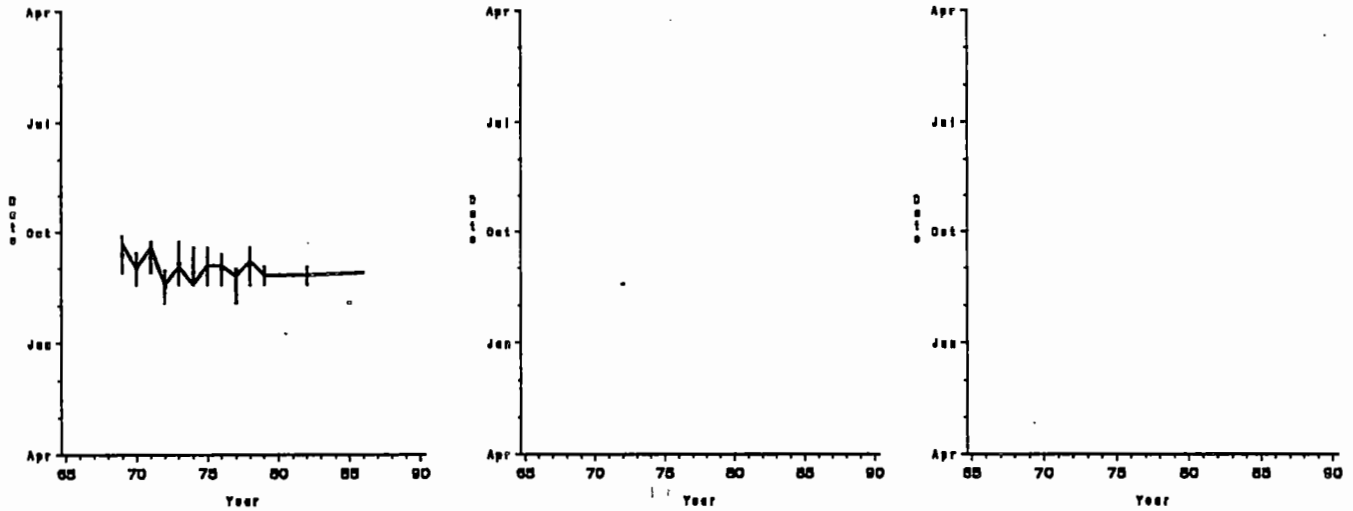
Steelhead (ST)



Chum

Chinook

Steelhead



Chum

Chinook

Steelhead

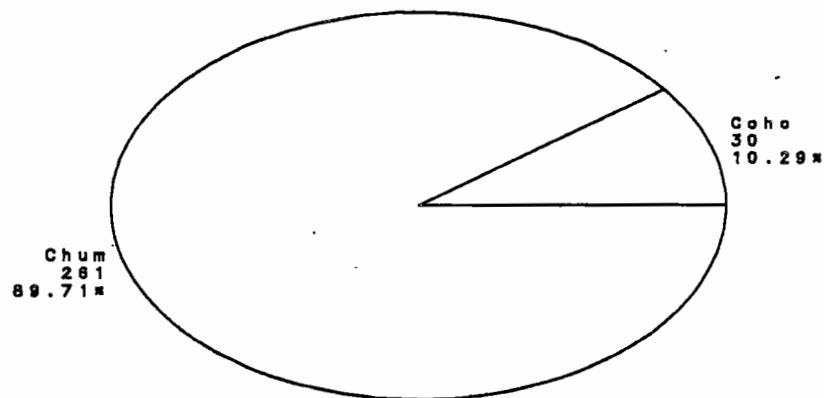
Year	Escapement	Start	Peak	End
1966	400	-	-	-
1967	750	08OCT	12OCT	08NOV
1968	400	18OCT	01NOV	18NOV
1969	70	18OCT	12OCT	08NOV
1970	400	02NOV	12NOV	30NOV
1971	200	18OCT	31OCT	18NOV
1972	150	18OCT	18NOV	18NOV
1973	70	18OCT	20OCT	18NOV
1974	350	20OCT	30OCT	18NOV
1975	300	01NOV	08NOV	30NOV
1976	400	13OCT	20OCT	18NOV
1977	200	31OCT	07NOV	18NOV
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	50	-	-	-
1982	520	31OCT	07NOV	18NOV
1983	-	-	-	-
1984	-	-	-	-
1985	400	-	-	30NOV
1986	200	-	08NOV	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1966	0	-	-	-
1967	0	-	-	-
1968	0	-	-	-
1969	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	25	15NOV	12NOV	18NOV
1973	0	-	-	-
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	-	-	-	-
1981	0	-	-	-
1982	0	-	-	-
1983	-	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

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	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

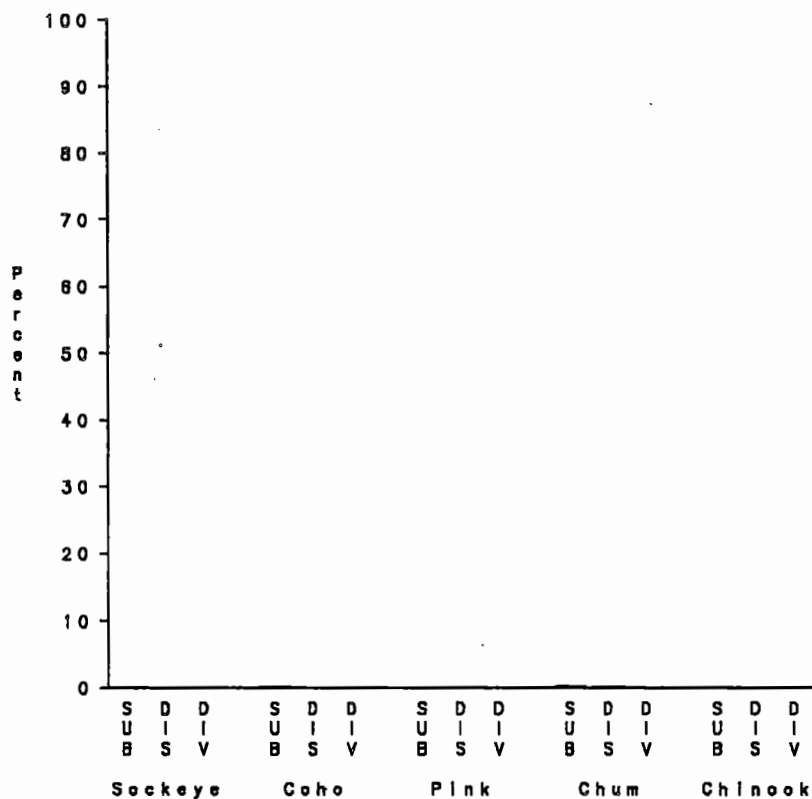
LUCKY CREEK (93-3080)

10-yr Mean Escapement
(1978-1987)



LUCKY CREEK : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



A. DESCRIPTION

Stream Name: TOQUART RIVER	D.F.O. Division: SOUTH COAST
Local Name: MAIN RIVER	District: 4 PORT ALBERNI
Watershed Code: 93-3100	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-10
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92F/3
LITTLE TOQUART CREEK	020	B.C.G.S. (1:20k) Map: 004
		U.T.M. Mouth: 10.3278.54338
		Lat./Long. Mouth: 49 DG. 02' 03'' 125 DG. 21' 15''
		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 GRADIENT (REF. 23-8)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
C CASCADE		4.0	CH CHINOOK SALMON CM CHUM SALMON	SERIES OF CATARACTS (REF. 23-8)

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. 23-8)
PK PINK SALMON	PRESENCE NOTED (REF. 28A-18)
CM CHUM SALMON	TO CASCADES AT 4KM (REF. 23-8)
CH CHINOOK SALMON	TO CASCADES AT 4 KM (REF. 23-8)
ST STEELHEAD	SUMMER STEELHEAD, OVER SUMMER IN TOQUART LAKE (REF. 23-13)
ST STEELHEAD	WINTER STEELHEAD (REF. 23-13)
CT CUTTHROAT TROUT	TO UPPER REACHES (REF. 23-8)
RB RAINBOW TROUT	PRESENT (REF. 23-8)

E. ESCAPEMENT SUMMARY

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

E. ESCAPEMENT SUMMARY CONTINUED

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	711	1978 - 1987	28A-18	2000	28A-18		
CM CHUM SALMON	8075	1978 - 1987	28A-18	25000	28A-18		
CH CHINOOK SALMON	73	1978 - 1987	28A-18	300	28A-18		
Comments: FOR PERIOD OF RECORD (1978-1987); PINK ESCAPEMENT: 2 FISH RECORDED IN 1981 (REF. 28A-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 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	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	CH CHINOOK SALMON CO COHO SALMON	0.0	THORNTON CREEK ATTEMPTING ENHANCEMENT (ONGOING). MINOR PILOT PROJECTS (REF. 23-8)	1985/
TR TRANSPLANT	CH CHINOOK SALMON	0.0	TRANSPLANT OF CHINOOKS IS BEING CONSIDERED (REF. 23-8)	/

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	INTENSIVE LOGGING ONGOING (REF. 23-8)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

SNORKEL SURVEYS 1978,1983 (REF. 23-13)
DETAILED BIOPHYSICAL SURVEYS AVAILABLE (REF. 23-19, REF. 23-20)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:

K. SIS COMPLETED BY

Completed by: GITA KAPAH
Last checked by: VIOLET KOMORI

Date: 1989/03/09
Date: 1990/03/29

ESCAPEMENT: TOQUART RIVER

WATERSHED-CODE: 93-3100

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	7500	N/O	35000	400	400
1954	0	35000	N/O	75000	750	400
1955	0	7500	0	3500	400	400
1956	0	3500	200	7500	200	400
1957	0	3500	0	15000	200	400
1958	0	7500	200	35000	200	400
1959	0	3500	N/O	15000	75	400
1960	0	3500	200	7500	200	400
1961	0	3500	N/O	7500	200	400
1962	0	3500	25	7500	75	400
1963	0	3500	25	1500	25	400
1964	0	3500	N/O	7500	25	400
1965	0	3500	N/O	3500	25	0
1966	0	3500	N/O	15000	200	0
1967	0	3500	N/O	25000	25	N/O
1968	0	3500	0	7500	UNK	0
1969	0	750	0	5000	0	0
1970	0	3500	0	11000	25	750
1971	0	1500	0	5000	25	400
1972	0	1500	0	18000	25	0
1973	0	3500	0	10000	75	0
1974	0	750	0	15000	40	0
1975	0	1500	0	20000	75	0
1976	0	1200	150	19000	45	0
1977	0	1950	N/O	17000	60	0
1978	0	2000	0	4500	50	0
1979	0	1500	0	10000	50	UNK
1980	0	N/O	0	N/O	0	0
1981	0	30	2	10000	10	0
1982	0	25	0	11500	UNK	0
1983	0	UNK	0	3000	25	0
1984	0	UNK	0	600	UNK	UNK
1985	N/O	UNK	UNK	25000	300	0
1986	0	UNK	UNK	UNK	UNK	0
1987	0	UNK	0	UNK	UNK	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

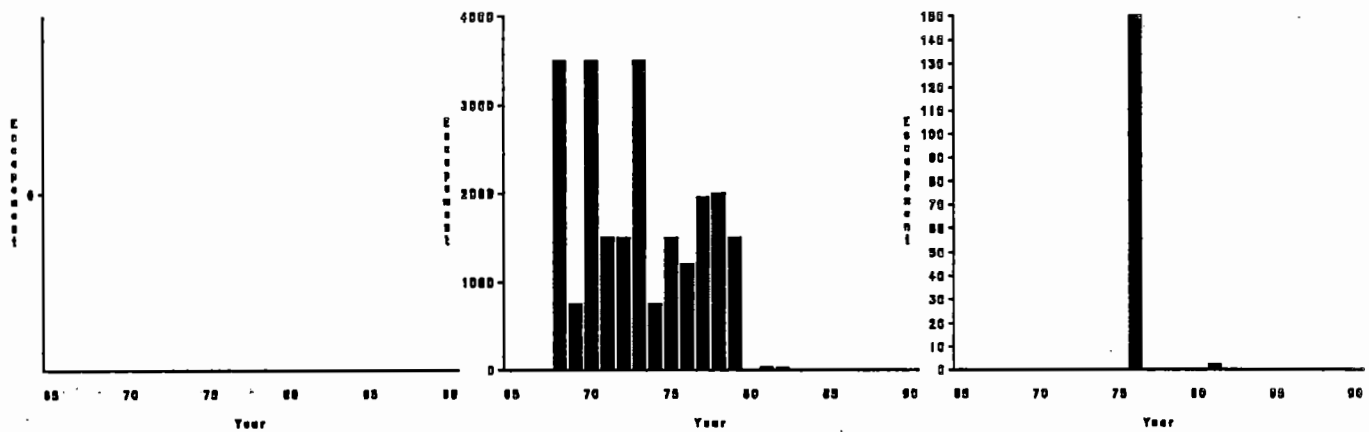
TOQUART RIVER (93-3100)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

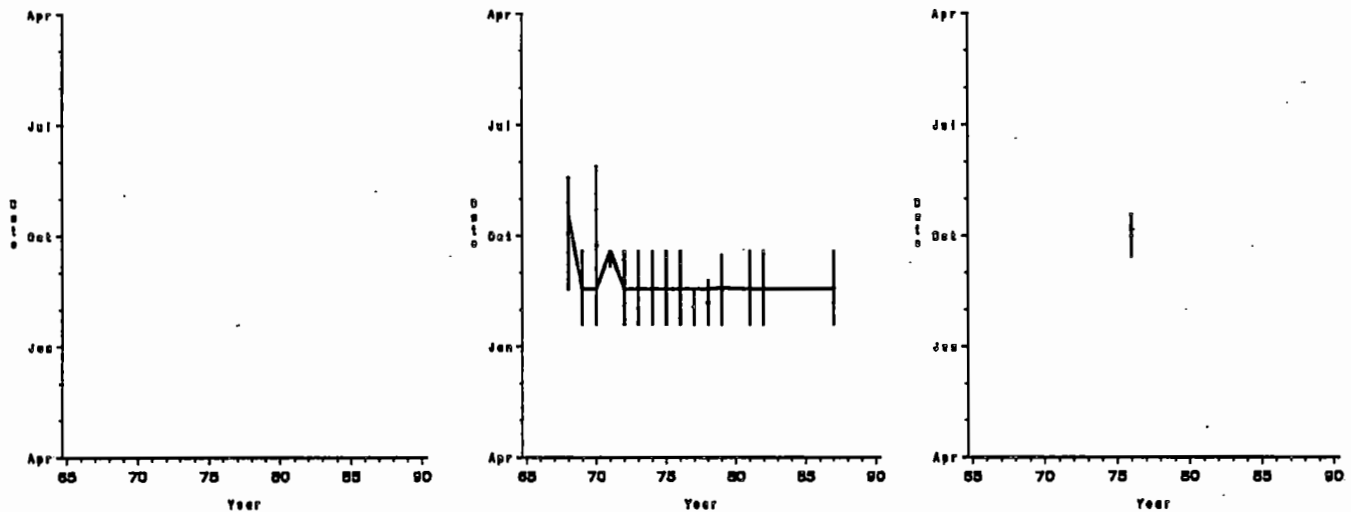
Pink (PK)



Sockeye

Coho

Pink



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	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1966	3,000	15AUG	15SEP	15NOV
1967	700	15OCT	15NOV	15DEC
1968	2,500	05AUG	15NOV	15DEC
1969	1,300	15OCT	15NOV	27OCT
1970	1,300	15OCT	15NOV	15DEC
1971	2,300	15OCT	15NOV	15DEC
1972	700	15OCT	15NOV	15DEC
1973	1,300	15OCT	15NOV	15DEC
1974	1,300	15OCT	15NOV	15DEC
1975	1,300	15OCT	15NOV	15DEC
1976	1,300	15OCT	15NOV	15DEC
1977	1,300	15OCT	15NOV	15DEC
1978	2,000	08NOV	15NOV	15DEC
1979	1,300	15OCT	14NOV	15DEC
1980	0	-	-	-
1981	20	15OCT	15NOV	15DEC
1982	15	15OCT	15NOV	15DEC
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	15OCT	15NOV	15DEC

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	150	14SEP	01OCT	20OCT
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	0	-	-	-
1981	2	-	-	-
1982	0	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

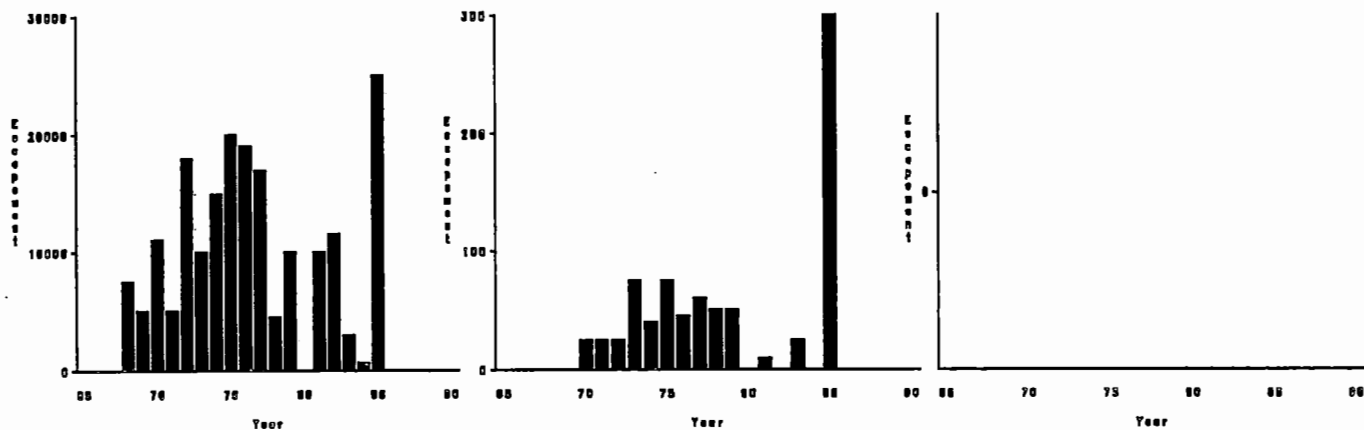
TOQUART RIVER (93-3100)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

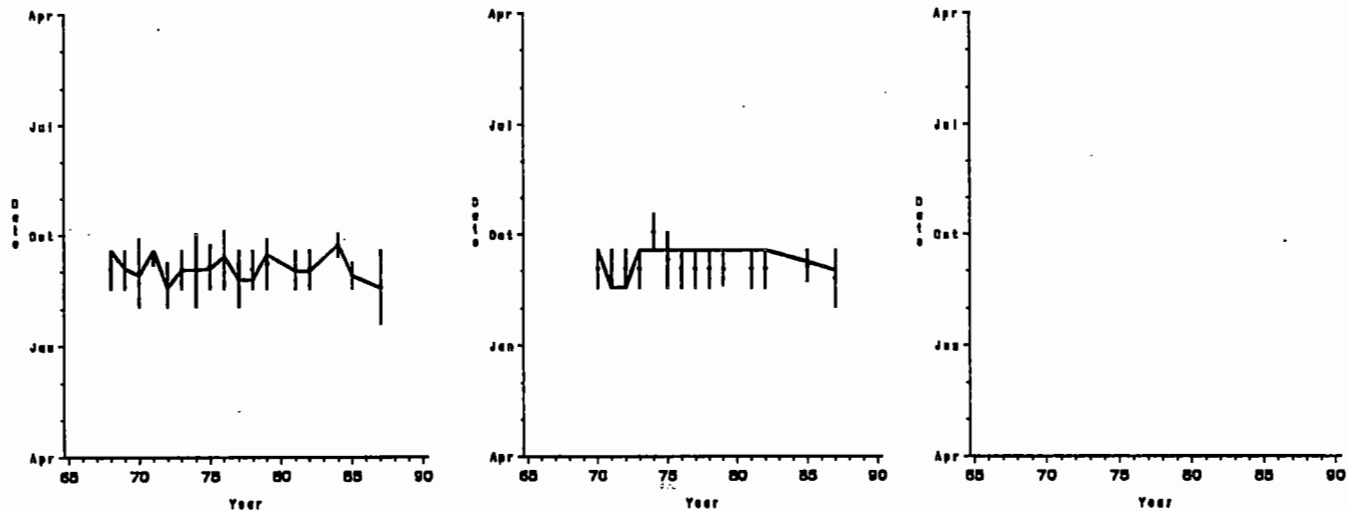
Steelhead (ST)



Chum

Chinook

Steelhead



Chum

Chinook

Steelhead

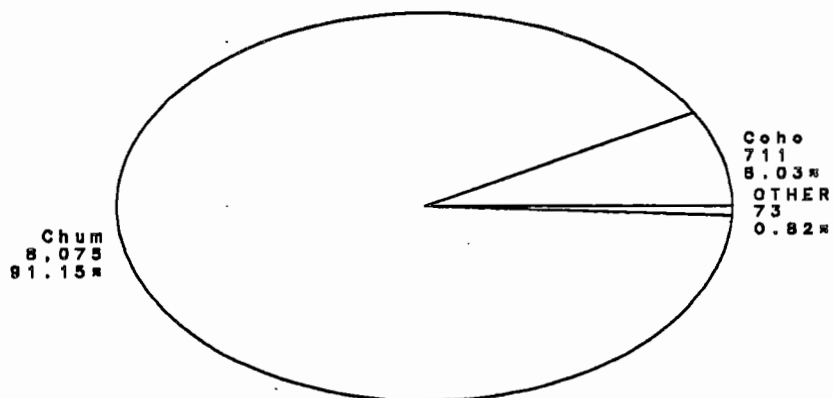
Year	Escapement	Start	Peak	End
1966	7,000	10OCT	10OCT	10NOV
1968	8,000	10OCT	20OCT	10NOV
1970	11,000	08OCT	08NOV	30NOV
1971	8,000	10OCT	10OCT	27OCT
1972	10,000	20OCT	10NOV	30NOV
1973	10,000	10OCT	31OCT	10NOV
1974	10,000	01OCT	31OCT	30NOV
1975	20,000	10OCT	20OCT	10NOV
1976	10,000	20SEP	20OCT	10NOV
1977	17,000	10OCT	08NOV	30NOV
1978	4,000	10OCT	08NOV	10NOV
1979	10,000	08OCT	10OCT	10NOV
1980	0	-	-	-
1981	10,000	10OCT	01NOV	10NOV
1982	11,000	10OCT	01NOV	10NOV
1983	3,000	-	-	-
1984	000	01OCT	10OCT	20OCT
1985	20,000	20OCT	08NOV	10NOV
1986	-	-	-	-
1987	-	10OCT	10NOV	10DEC

Year	Escapement	Start	Peak	End
1966	-	-	-	-
1968	0	-	-	-
1970	35	10OCT	10OCT	10NOV
1971	35	10OCT	10NOV	10NOV
1972	30	10OCT	10NOV	10NOV
1973	70	10OCT	10OCT	10NOV
1974	40	10SEP	10OCT	10OCT
1975	70	20SEP	10OCT	10NOV
1976	45	10OCT	10OCT	10NOV
1977	80	10OCT	10OCT	10NOV
1978	50	10OCT	10OCT	10NOV
1979	50	10OCT	10OCT	10NOV
1980	0	-	-	-
1981	10	10OCT	10OCT	10NOV
1982	-	10OCT	10OCT	10NOV
1983	35	-	-	-
1984	-	-	-	-
1985	300	10OCT	20OCT	10NOV
1986	-	-	-	-
1987	-	10OCT	01NOV	01DEC

Year	Escapement	Start	Peak	End
1966	-	-	-	-
1968	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

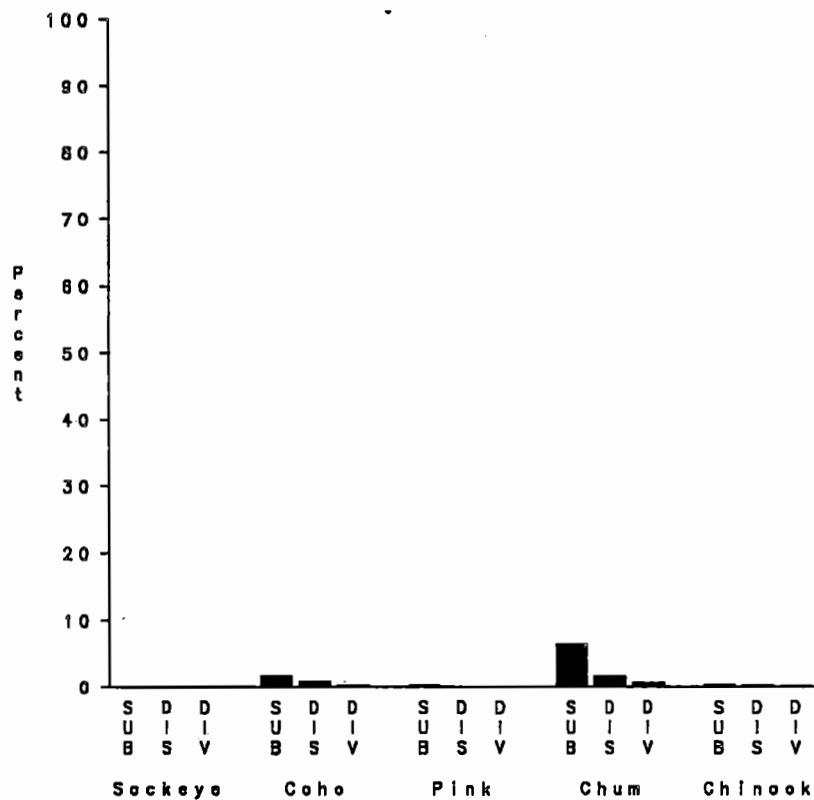
TOQUART RIVER (93-3100)

10-yr Mean Escapement
(1978-1987)



TOQUART RIVER : Escapement (1978-1987).

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



A. DESCRIPTION

Stream Name: LITTLE TOQUART CREEK	D.F.O. Division: SOUTH COAST
Local Name: LEFT FORK TOQUART CREEK	District: 4 PORT ALBERNI
Watershed Code: 93-3100-020	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-10
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92F/3
		B.C.G.S. (1:20k) Map: 004
		U.T.M. Mouth:
		Lat./Long. Mouth: 49 DG. 02' 25'' 125 DG. 21' 32''
		Mainstem Length: 3.2 km Ref. No.: 23-1
		Watershed Area: 11.7 km2 Ref. No.: 23-1
		Location: FLOWS S.E. INTO TOQUART BAY, W. OF TOQUART RIVER, CLAYOQUOT DIST.

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	GENERALLY VERY LOW GRADIENT (REF. 23-8)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
F FALLS	4.0	2.1	CM CHUM SALMON	FALLS IS JUST DOWNSTREAM OF LITTLE TOQUART LAKE (REF. 23-1, REF. 23-8, REF. 23-20)

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	TO UPPER LIMITS, THROUGHOUT SYSTEM (REF. 23-8)
CM CHUM SALMON	LOWER SECTION (REF. 23-8)
CH CHINOOK SALMON	PRESENT (REF. 23-8)
ST STEELHEAD	TO UPPER LIMITS, THROUGHOUT SYSTEM (REF. 23-8)
CT CUTTHROAT TROUT	PRESENT (REF. 23-8)
RB RAINBOW TROUT	PRESENT (REF. 23-8)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	60	1978 - 1987	28A-18	100	28A-18		
CM CHUM SALMON	650	1978 - 1987	28A-18	1500	28A-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 X	X
CM CHUM 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
BX INCUBATION BOX	CO COHO SALMON	0.0	NATIVE PROJECT IN FIRST MAIN TRIBUTARY TO MAINSTEM. PROJECT FAILED. (REF. 23-8)	1985/1985

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	NEGATIVELY IMPACTED BY LOGGING. 1981 COLSON FOREST PRODUCTS PROSECUTED FOR IMPACTING 3 TRIBUTARIES (REF. 23-8)
FO FORESTRY	HEAVY ONGOING LOGGING (REF. 23-8)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

THERE IS 3.2 KM OF POTENTIAL AREA ABOVE THE FALLS. (REF. 23-1)
LITTLE TOQUART LAKE AND ASSOCIATED SWAMP HAVE GOOD POTENTIAL AS REARING AREAS (REF. 23-1)
DETAILED HABITAT PHOTOS AVAILABLE (REF. 23-20)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:

K. SIS COMPLETED BY

Completed by: GITA KAPAHI	Date: 1989/03/06
Last checked by: VIOLET KOMORI	Date: 1990/03/29

ESCAPEMENT: LITTLE TOQUART CREEK

WATERSHED-CODE: 93-3100-020

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	0	0	7500	0	0
1954	0	25	0	15000	0	0
1955	0	25	0	400	0	0
1956	0	25	0	1500	0	0
1957	0	25	0	15000	0	0
1958	0	25	0	15000	0	0
1959	0	25	0	3500	0	0
1960	0	25	0	3500	0	0
1961	0	25	0	3500	0	0
1962	0	25	0	3500	0	0
1963	0	25	0	750	0	0
1964	0	25	0	750	0	0
1965	0	25	0	750	0	0
1966	0	75	0	7500	0	0
1967	0	75	0	750	0	0
1968	0	75	0	3500	0	0
1969	0	75	0	3500	0	0
1970	0	200	0	3500	0	0
1971	0	75	0	400	0	0
1972	0	75	0	7500	0	0
1973	0	200	0	5000	0	0
1974	0	75	0	750	10	0
1975	0	75	0	4500	0	0
1976	0	60	0	6200	0	0
1977	0	90	0	6500	0	0
1978	0	100	0	350	0	0
1979	0	80	0	300	0	0
1980	0	N/O	0	100	0	0
1981	UNK	UNK	UNK	UNK	UNK	UNK
1982	0	UNK	0	1500	0	0
1983	UNK	UNK	UNK	UNK	UNK	UNK
1984	0	UNK	0	1000	0	0
1985	UNK	UNK	UNK	UNK	UNK	0
1986	0	UNK	0	UNK	0	0
1987	0	UNK	0	UNK	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

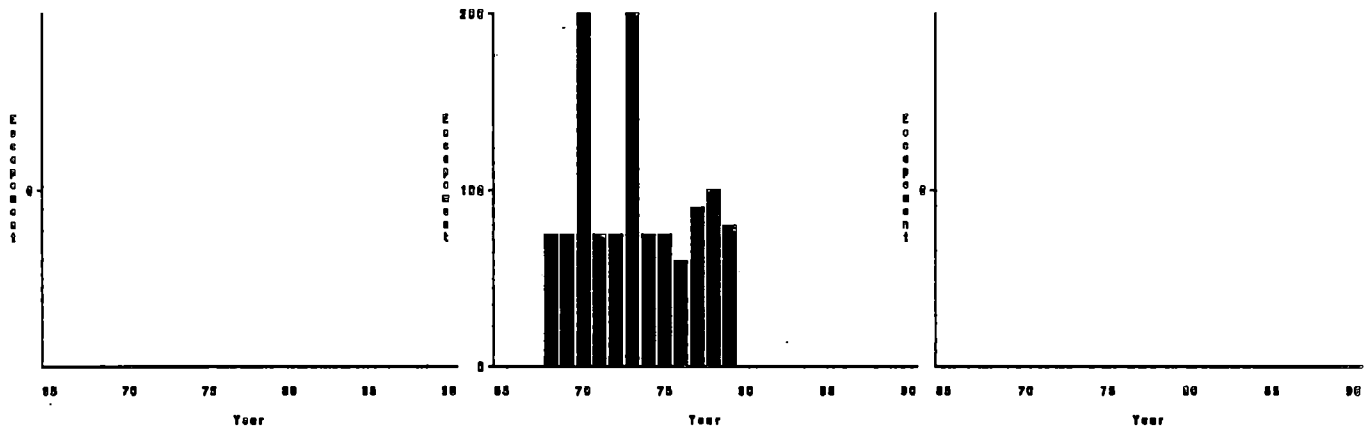
LITTLE TOQUART CREEK (93-3100-020)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

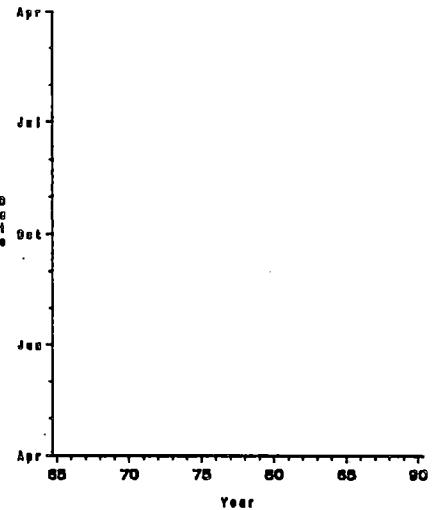
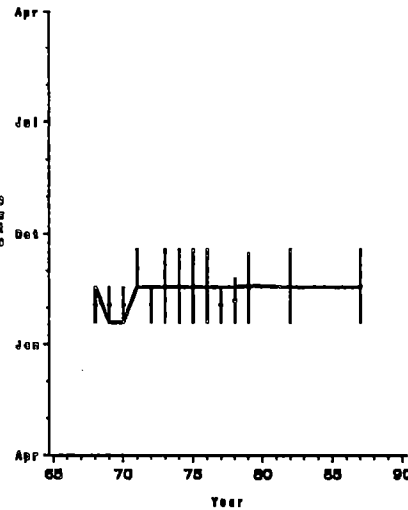
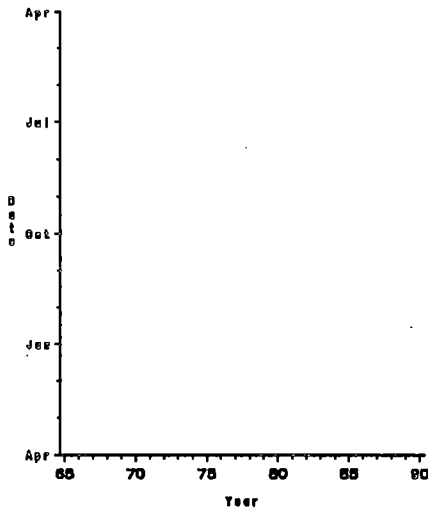
Pink (PK)



Sockeye

Coho

Pink



Sockeye

Coho

Pink

Year	Escapement	Start	Peak	End
1965	0	-	-	-
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	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1965	75	15NOV	15NOV	15DEC
1966	75	15NOV	15DEC	15DEC
1969	200	15NOV	15DEC	15DEC
1971	75	15OCT	15NOV	15NOV
1972	75	15NOV	15NOV	15DEC
1973	200	15OCT	15NOV	15DEC
1974	75	15OCT	15NOV	15DEC
1975	75	15OCT	15NOV	15DEC
1976	90	15OCT	15NOV	15DEC
1977	90	15NOV	15NOV	15DEC
1978	100	15NOV	15NOV	15DEC
1979	90	15OCT	15NOV	15DEC
1980	0	-	-	-
1981	-	-	-	-
1982	-	15OCT	15NOV	15DEC
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	15OCT	15NOV	15DEC

Year	Escapement	Start	Peak	End
1965	0	-	-	-
1966	0	-	-	-
1969	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	0	-	-	-
1981	-	-	-	-
1982	0	-	-	-
1983	-	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

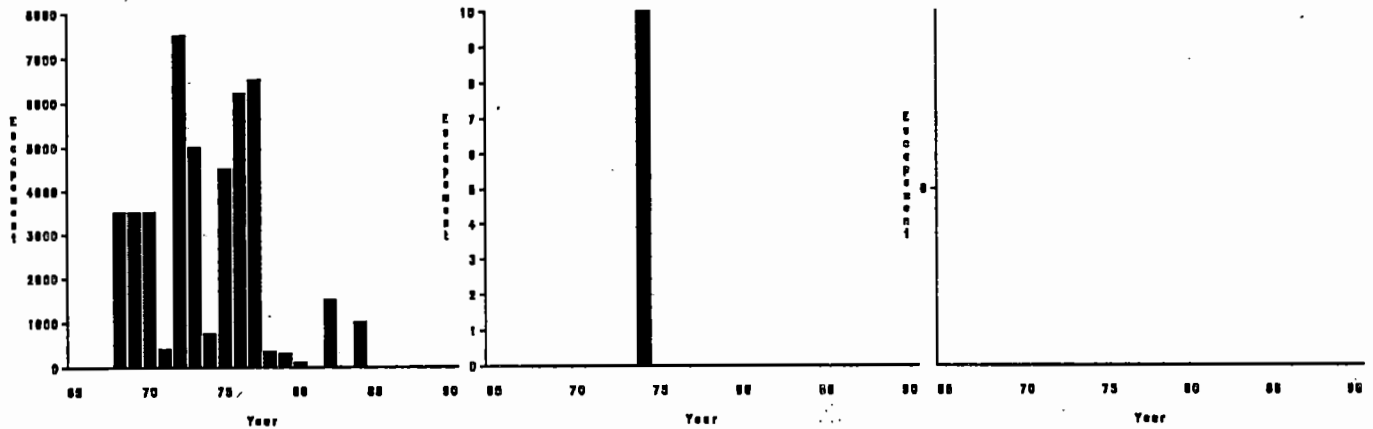
LITTLE TOQUART CREEK (93-3100-020)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

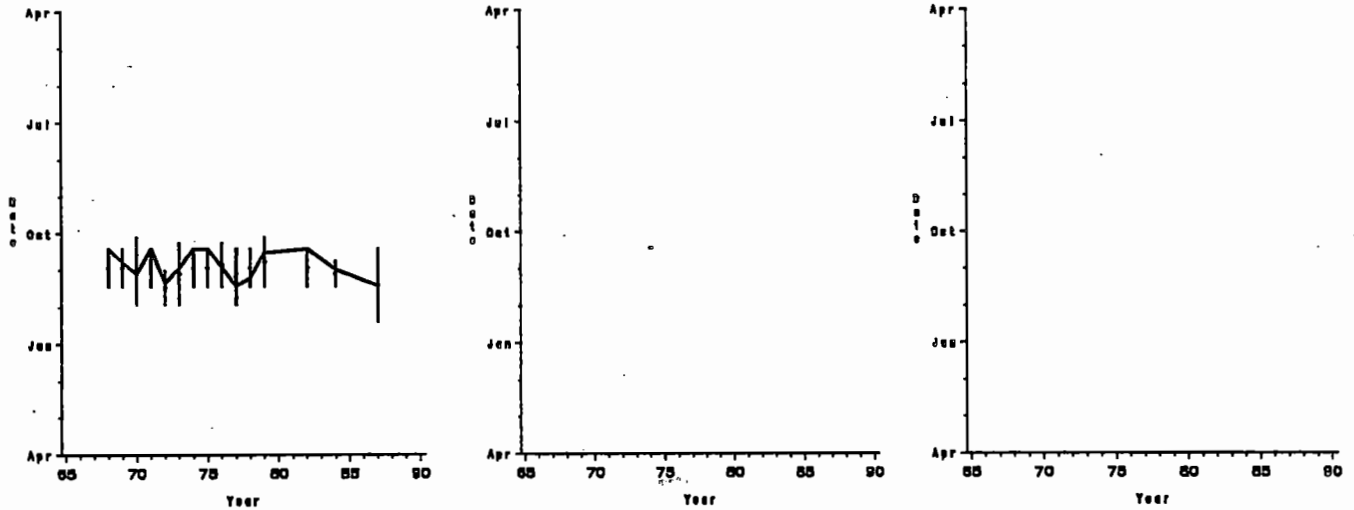
Steelhead (ST)



Chum

Chinook

Steelhead



Chum

Chinook

Steelhead

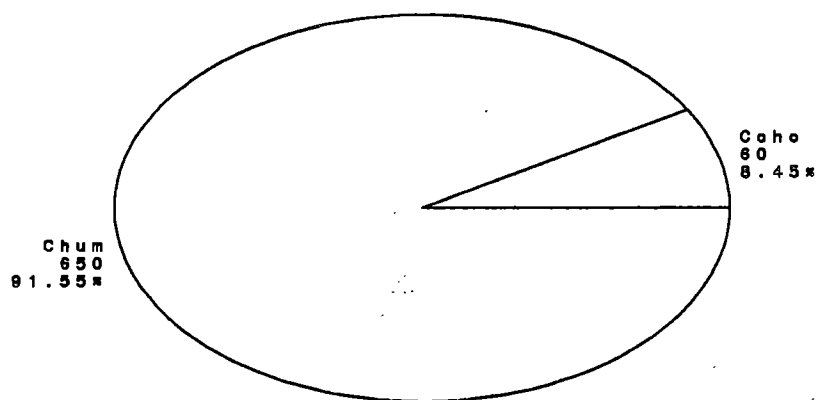
Year	Escapement	Start	Peak	End
1969	3,500	18OCT	18OCT	18NOV
1970	3,500	18OCT	28OCT	18NOV
1971	3,500	02NOV	02NOV	30NOV
1972	100	18OCT	18OCT	18NOV
1973	7,500	02NOV	12NOV	30NOV
1974	2,500	18OCT	21OCT	30NOV
1975	750	18OCT	18OCT	18NOV
1976	4,500	18OCT	18OCT	18NOV
1977	2,500	18OCT	30OCT	18NOV
1978	6,500	18OCT	18NOV	30NOV
1979	350	18OCT	08NOV	18NOV
1980	200	08OCT	18OCT	18NOV
1981	100	-	-	-
1982	1,300	18OCT	18OCT	18NOV
1983	-	-	-	-
1984	1,400	25OCT	01NOV	18NOV
1985	-	-	-	-
1986	-	-	-	-
1987	-	18OCT	18NOV	18DEC

Year	Escapement	Start	Peak	End
1969	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	10	18OCT	18OCT	18OCT
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	0	-	-	-
1981	0	-	-	-
1982	0	-	-	-
1983	-	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1969	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

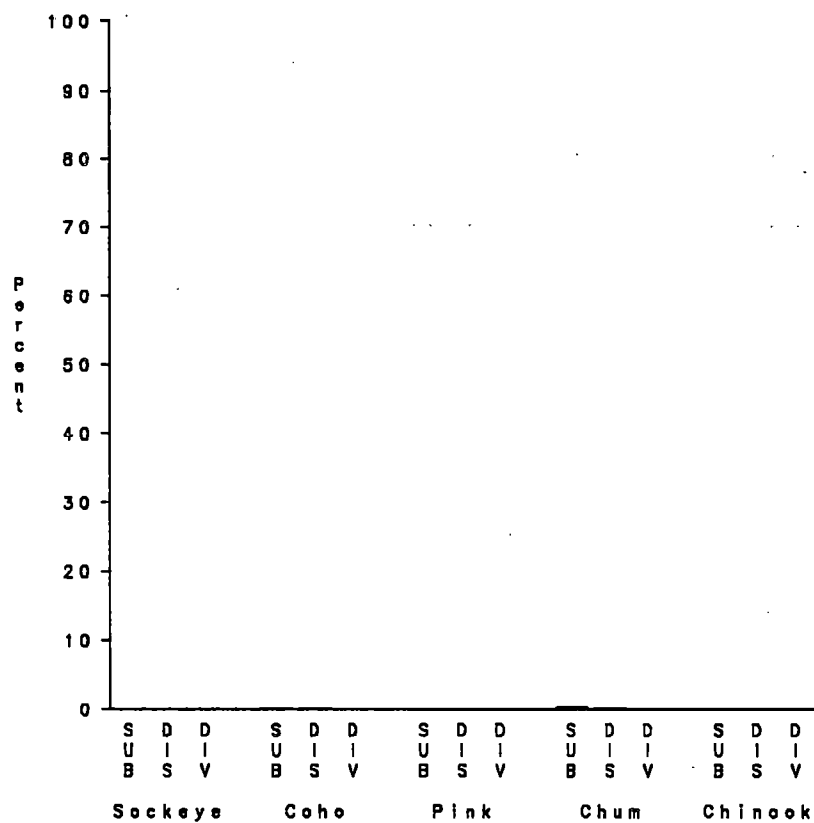
LITTLE TOQUART CREEK (93-3100-020)

10-yr Mean Escapement
(1978-1987)



LITTLE TOQUART CREEK : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



A. DESCRIPTION

Stream Name: MAGGIE RIVER	D.F.O. Division: SOUTH COAST
Local Name:	District: 4 PORT ALBERNI
Watershed Code: 93-3200	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-10
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92C/14 B.C.G.S. (1:20k) Map: 094 U.T.M. Mouth: Lat./Long. Mouth: 48 DG. 59' 05'' 125 DG. 23' 35'' Mainstem Length: Watershed Area: 25.9 km2 Ref. No.: 23-1
DRAW CREEK	900	
		Location: FLows S.E. INTO MACDAH PASS., S. OF TOQUART BAY, BARCLAY DIST.

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	VERY LOW GRADIENT (REF. 23-8)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
F FALLS		1.2		BYPASSED BY A FISH LADDER (REF. 23-1, REF. 23-8)

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
SK SOCKEYE SALMON	HISTORICAL PRESENCE (REF. 23-8)
CO COHO SALMON	PRESENT (REF. 23-2)
CM CHUM SALMON	TO FALLS (REF. 23-8)
ST STEELHEAD	IN LAKE AND TRIBUTARIES (REF. 23-8)
CT CUTTHROAT TROUT	IN LAKE AND TRIBUTARIES (REF. 23-8)
DV DOLLY VARDEN	IN LAKE AND TRIBUTARIES (REF. 23-8)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	681	1978 - 1987	28A-18	1500	28A-18		
CM CHUM SALMON	893	1978 - 1987	28A-18	4000	28A-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	X X	X X	X X
CH 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
HY HATCHERY	CH CHINOOK SALMON CO COHO SALMON	0.0	THORNTON CREEK HATCHERY ENHANCING LOCAL COHO AND CHINOOK (ONGOING) (REF. 23-8)	1982/

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
FO FORESTRY	HEAVY ONGOING LOGGING (REF. 23-8)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

FISHWAY REQUIRES PERIODIC INSPECTION, AND CONSTANT REPAIRS (REF. 23-1, REF. 23-8)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /

Prepared By:

K. SIS COMPLETED BY

Completed by:	GITA KAPANI	Date:	1989/03/06
Last checked by:	VIOLET KOMORI	Date:	1990/03/29

ESCAPEMENT: MAGGIE RIVER SYSTEM

WATERSHED-CODE: 93-3200

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	3500	0	1500	0	0
1954	0	7500	0	400	0	0
1955	0	7500	0	200	0	0
1956	0	750	0	200	0	0
1957	0	3500	0	750	0	0
1958	0	3500	0	1500	0	75
1959	0	3500	0	750	0	200
1960	0	1500	0	750	0	0
1961	0	3500	0	750	0	200
1962	0	3500	0	400	0	200
1963	0	3500	0	200	0	200
1964	0	3500	0	200	0	200
1965	0	1500	0	400	0	0
1966	0	1500	0	400	0	0
1967	0	3500	0	1500	0	0
1968	0	3500	0	750	0	0
1969	0	400	0	200	0	UNK
1970	0	1500	0	750	0	0
1971	0	400	0	75	0	0
1972	0	750	0	1500	0	0
1973	25	2000	0	200	0	0
1974	0	1500	0	750	0	0
1975	0	1200	0	200	0	0
1976	0	1800	0	2000	0	0
1977	0	1300	0	290	0	0
1978	0	1500	0	400	0	0
1979	0	1500	0	350	0	0
1980	0	UNK	0	0	0	0
1981	UNK	UNK	UNK	UNK	UNK	UNK
1982	0	7	0	N/O	0	0
1983	0	UNK	0	UNK	0	0
1984	0	UNK	0	UNK	0	0
1985	UNK	400	UNK	1500	UNK	0
1986	0	UNK	UNK	4000	UNK	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

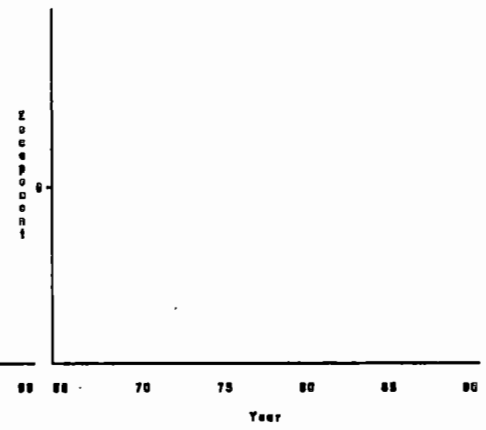
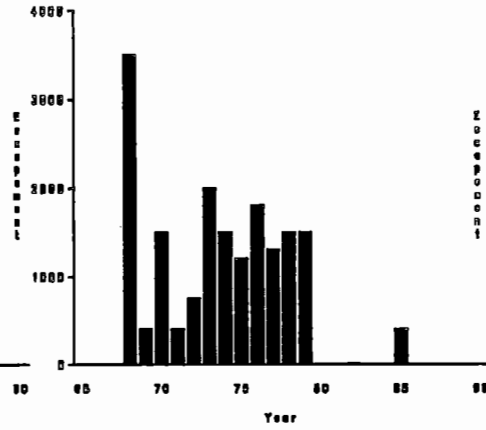
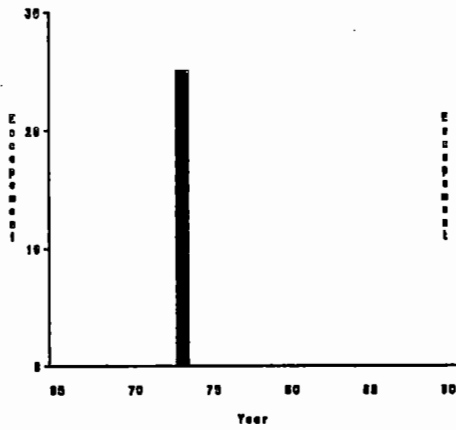
UNNAMED C (93-3200)

Escapement & Run Timing

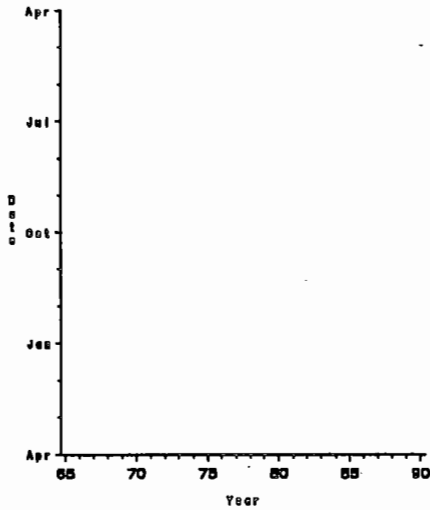
Sockeye (SK)

Coho (CO)

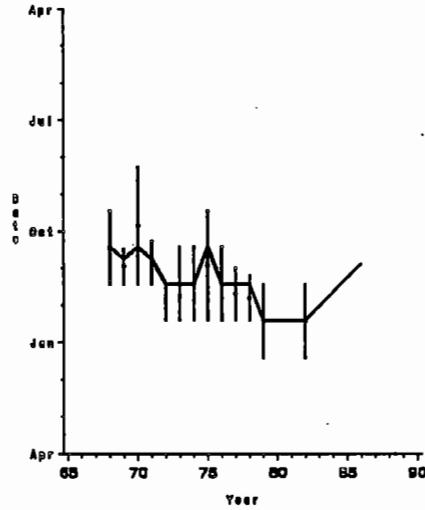
Pink (PK)



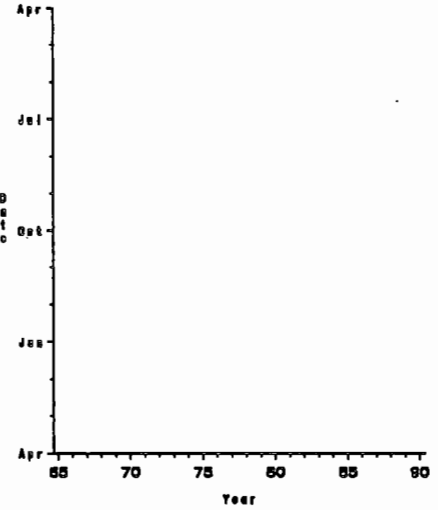
Sockeye



Coho



Pink



Sockeye

Year	Escapement	Start	Peak	End
1969	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	25	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	0	-	-	-
1981	-	-	-	-
1982	0	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Coho

Year	Escapement	Start	Peak	End
1969	3,500	10SEP	15OCT	10NOV
1970	400	10OCT	20OCT	10NOV
1971	1,500	10AUG	15OCT	10NOV
1972	400	10OCT	20OCT	10NOV
1973	700	10NOV	10NOV	10DEC
1974	3,000	10OCT	10NOV	10DEC
1975	1,500	10OCT	10NOV	10DEC
1976	1,200	10SEP	10OCT	10DEC
1977	1,000	15OCT	10NOV	10DEC
1978	1,300	01NOV	10NOV	10DEC
1979	1,500	08NOV	10NOV	10DEC
1980	1,000	10NOV	10DEC	10JAN
1981	-	-	-	-
1982	7	10NOV	10DEC	10JAN
1983	-	-	-	-
1984	-	-	-	-
1985	400	-	-	-
1986	-	-	20OCT	-
1987	0	-	-	-

Pink

Year	Escapement	Start	Peak	End
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	-	-	-	-
1982	0	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

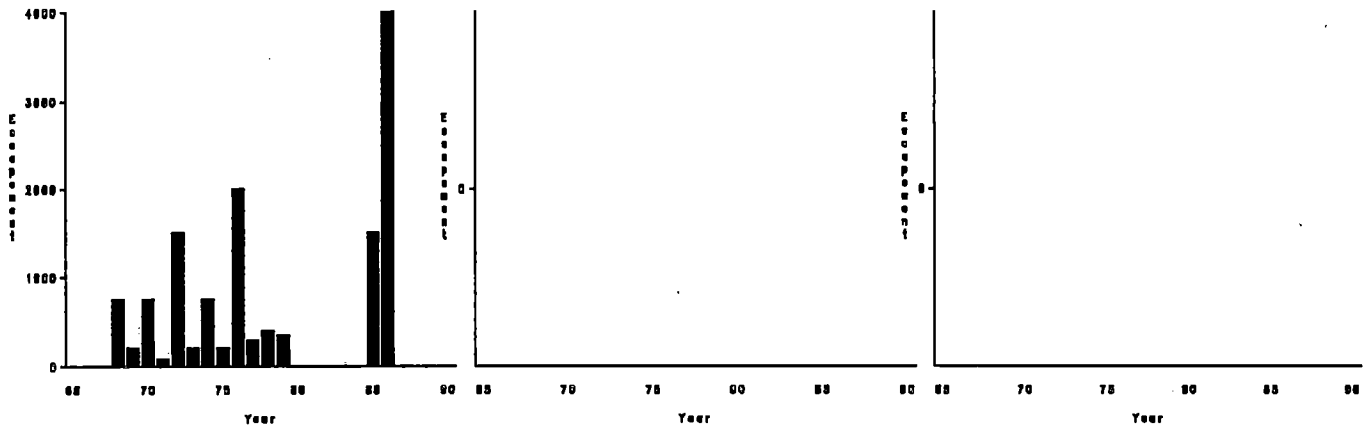
UNNAMED C (93-3200)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

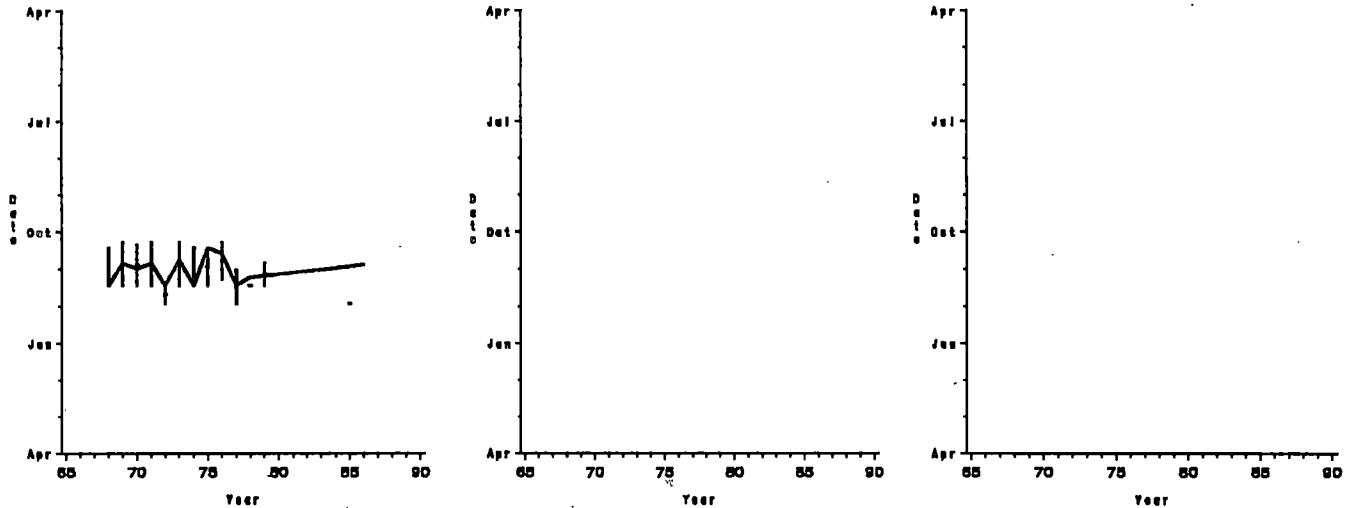
Steelhead (ST)



Chum

Chinook

Steelhead



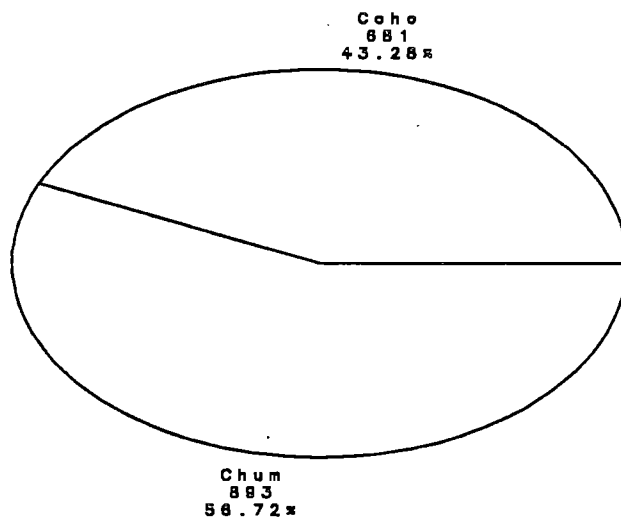
Chum				
Year	Escapement	Start	Peak	End
1968	700	18OCT	18NOV	18NOV
1969	300	14OCT	28OCT	18NOV
1970	750	12OCT	61NOV	18NOV
1971	70	14OCT	28OCT	18NOV
1972	1,200	18NOV	18NOV	30NOV
1973	200	14OCT	28OCT	18NOV
1974	750	18OCT	18NOV	18NOV
1975	200	14OCT	18OCT	18NOV
1976	2,000	14OCT	28OCT	18NOV
1977	200	02NOV	18NOV	30NOV
1978	400	18NOV	08NOV	12NOV
1979	200	27OCT	07NOV	18NOV
1980	0	-	-	-
1981	-	-	-	-
1982	0	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	1,000	-	-	30NOV
1986	4,000	-	29OCT	-
1987	0	-	-	-

Chinook				
Year	Escapement	Start	Peak	End
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	-	-	-	-
1982	0	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Steelhead				
Year	Escapement	Start	Peak	End
1968	-	-	-	-
1969	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

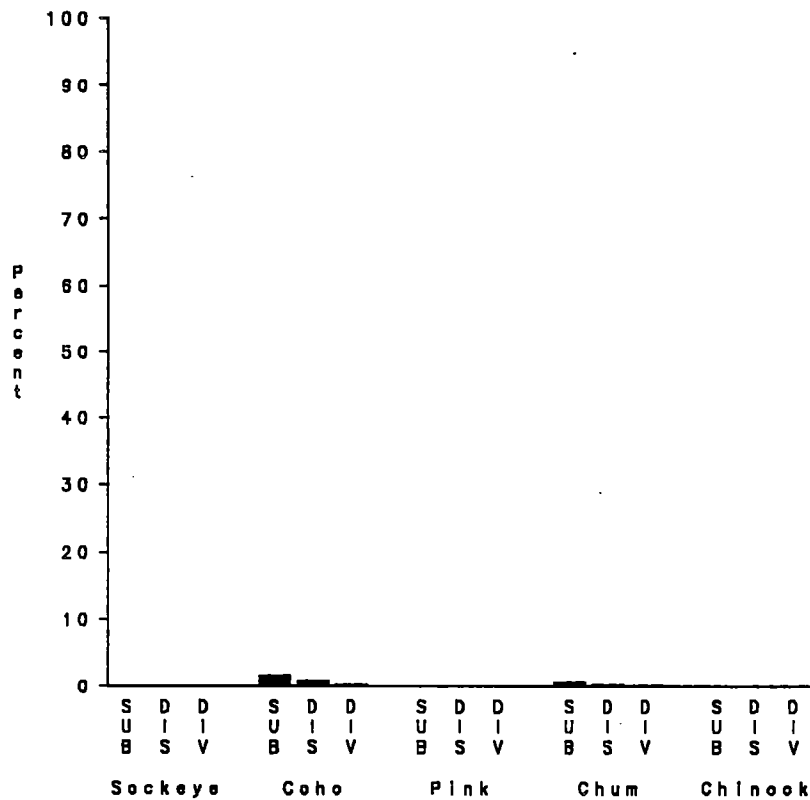
UNNAMED C (93-3200)

10-yr Mean Escapement
(1978-1987)



UNNAMED C : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



Stream Name: DRAW CREEK	D.F.O. Division: SOUTH COAST
Local Name:	District: 4 PORT ALBERNI
Watershed Code: 93-3200-900	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-10
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Gradient Class/Location (km upstream from mouth)					Comments
0 - .5%	.5 - 2%	2 - 5%	5 - 10%	>10%	THE STREAM IS A SERIES OF LONG RIFFLES INTERCONNECTED WITH DEEP POOLS (REF. 23-1)

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

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

Species	Watershed Distribution
CO COHO SALMON	PRESENT (REF. 23-8)
ST STEELHEAD	PRESENT (REF. 23-8, REF. 23-13)

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

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
TR TRANSPLANT	SK SOCKEYE SALMON	0.0	A TOTAL OF 8,500,000 SK EGGS WERE PLANTED BETWEEN 1929 AND 1941, BUT NO APPRECIABLE RETURNS WERE OBSERVED (REF. 23-1, REF. 23-2)	1929/1941
FW FISHWAY		0.8	(REF. 23-2)	/

H. LAND USE/WATER USE/WATER QUALITY

Activity	Description/Location
MI MINING	1961 - 1969 COPPER MINING ACTIVITY (NORANDA) (REF. 23-1, REF. 23-2, REF. 23-8)
FO FORESTRY	HEAVY LOGGING THROUGHOUT THE WATERSHED (REF. 23-8)
FO FORESTRY	APPROXIMATELY 30% OF THE WATERSHED IS TSA, THE REMAINDER IS WITHIN TFL 44 (REF. 23-2)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

REHABILITATING NICELY AFTER MINING PROBLEMS (REF. 23-8)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:

K. SIS COMPLETED BY

Completed by: GITA KAPAH	Date: 1989/03/02
Last checked by: VIOLET KOMORI	Date: 1990/03/27

Stream Name: REDFORD CREEK	D.F.O. Division: SOUTH COAST
Local Name: REDFORD CREEK	District: 4 PORT ALBERNI
Watershed Code: 93-3200-900-400	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-10
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit: 7

Tributaries	Code	Topographic (1:50k) Map: 92F/3 B.C.G.S. (1:20k) Map: 003 U.T.M. Mouth: 10.3223.54359 Lat./Long. Mouth: DG. ' ' ' ' DG. ' ' ' ' Mainstem Length: Ref. No.: Watershed Area: Ref. No.:
		Location: TRIBUTARY TO DRAW CREEK.

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

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
F FALLS			AF ALL SPECIES	SEE MAP (REF. 23-8)

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

Species	Watershed Distribution
NO INFORMATION AVAILABLE	

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

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
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 KAPAHI	Date: 1989/02/28
Last checked by: VIOLET KOMORI	Date: 1990/03/27

A. DESCRIPTION

Stream Name: UNNAMED CREEK	D.F.D. Division: SOUTH COAST
Local Name: LITTLE MAGGIE RIVER	District: 4 PORT ALBERNI
Watershed Code: 93-3205	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-10
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92C/14
		B.C.G.S. (1:20k) Map: 094
		U.T.M. Mouth: 10.3249.54276
		Lat./Long. Mouth: 48 DG. 58' 35" 125 DG. 23' 38"
		Mainstem Length: 0.4 km Ref. No.: 23-1
		Watershed Area: 1.9 km ² Ref. No.: 23-1
		Location: FLOWS E. INTO MACOAH PASS., LOUNDOUN CHAN., BARCLAY DIST.

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	LOW GRADIENT (REF. 23-8)

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:
NO INFORMATION AVAILABLE			

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
CO COHO SALMON	PRESENT (REF. 23-1, REF. 23-8)
CH CHUM SALMON	TO ABOUT 0.5 KM (REF. 23-8)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	47	1978 - 1987	28A-18	70	28A-18		
CH CHUM SALMON	48	1978 - 1987	28A-18	80	28A-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 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 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	ONGOING LOGGING ACTIVITY BEGAN IN 1986-87 (REF. 23-2, REF. 23-8)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

THIS IS A VERY MINOR STREAM (REF. 23-8)
ACCESSIBLE LENGTH OF 0.4 KM. NUMEROUS SMALL LAKES AND PONDS IN UPPER AREAS HAVE POTENTIAL, BUT LACK SALMON (REF. 23-2)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:

K. SIS COMPLETED BY

Completed by: GITA KAPAHI	Date: 1989/03/06
Last checked by: VIOLET KOMORI	Date: 1990/03/29

ESCAPEMENT: LITTLE MAGGIE RIVER

WATERSHED-CODE: 93-3205

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	UNK	UNK	UNK	UNK	UNK	UNK
1954	0	25	0	750	0	0
1955	0	25	0	75	0	0
1956	0	25	0	25	0	0
1957	0	25	0	400	0	0
1958	0	25	0	400	0	0
1959	0	25	0	750	0	0
1960	0	25	0	200	0	0
1961	0	75	0	400	0	0
1962	0	25	0	75	0	0
1963	0	25	0	75	0	0
1964	0	25	0	75	0	0
1965	0	25	0	200	0	0
1966	0	75	0	750	0	0
1967	0	25	0	200	0	0
1968	0	75	0	200	0	0
1969	0	25	0	400	0	0
1970	0	25	0	75	0	0
1971	0	25	0	25	0	0
1972	0	75	0	75	0	0
1973	0	75	0	400	0	0
1974	0	25	0	150	0	0
1975	0	75	0	75	0	0
1976	0	90	0	800	0	0
1977	0	80	0	180	0	0
1978	0	70	0	50	0	0
1979	0	70	0	80	0	0
1980	UNK	UNK	UNK	UNK	UNK	UNK
1981	UNK	UNK	UNK	UNK	UNK	UNK
1982	0	0	0	0	0	0
1983	UNK	UNK	UNK	UNK	UNK	UNK
1984	0	UNK	0	UNK	0	0
1985	UNK	UNK	UNK	UNK	UNK	0
1986	0	UNK	UNK	60	UNK	0
1987	0	UNK	0	UNK	UNK	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

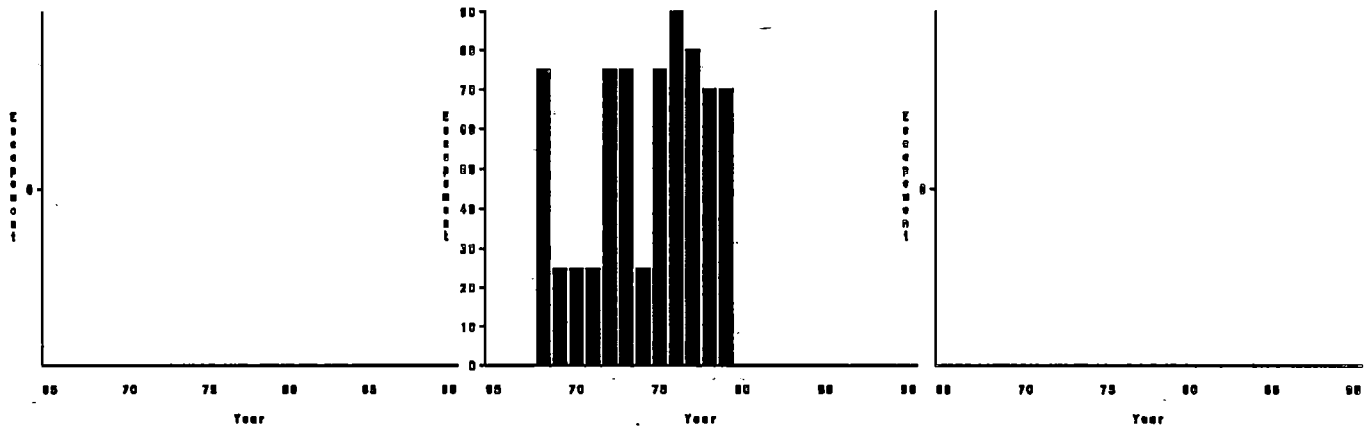
UNNAMED C (93-3205)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

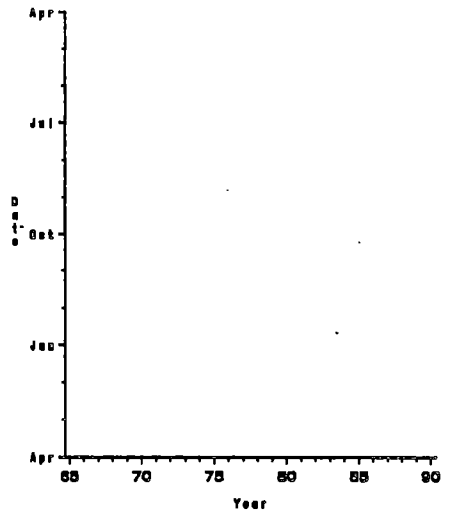
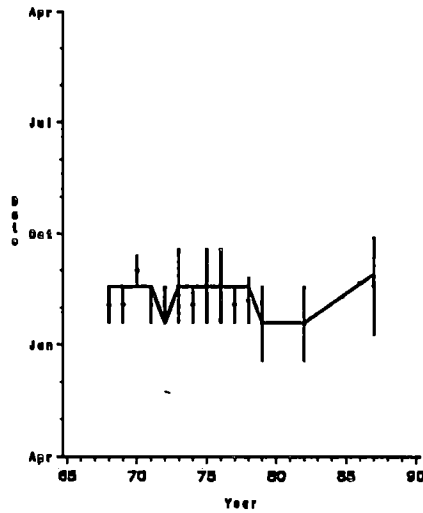
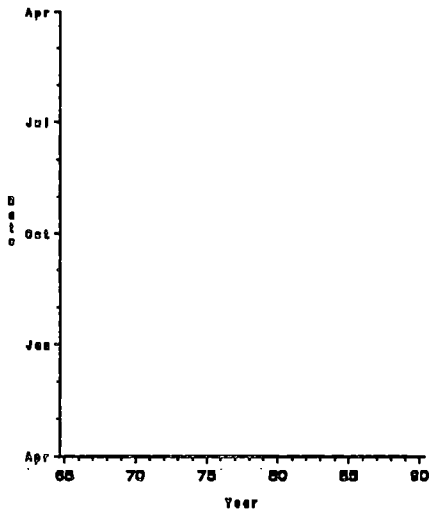
Pink (PK)



Sockeye

Coho

Pink



Sockeye				
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	-	-	-	-
1981	-	-	-	-
1982	0	-	-	-
1983	-	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Coho				
Year	Escapement	Start	Peak	End
1966	75	15NOV	15NOV	15DEC
1967	25	15NOV	15NOV	15DEC
1968	25	20OCT	15NOV	15NOV
1969	25	15NOV	15NOV	15DEC
1970	75	15NOV	15DEC	15DEC
1971	75	15NOV	15NOV	15DEC
1972	75	15NOV	15DEC	15DEC
1973	75	15OCT	15NOV	15DEC
1974	25	15NOV	15NOV	15DEC
1975	75	15OCT	15NOV	15DEC
1976	85	15OCT	15NOV	15DEC
1977	80	15NOV	15NOV	15DEC
1978	70	15NOV	15NOV	15DEC
1979	70	15NOV	15DEC	15JAN
1980	-	-	-	-
1981	-	-	-	-
1982	0	15NOV	15DEC	15JAN
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	12NOV
1987	-	20OCT	20NOV	20DEC

Pink				
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	-	-	-	-
1981	-	-	-	-
1982	0	-	-	-
1983	-	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

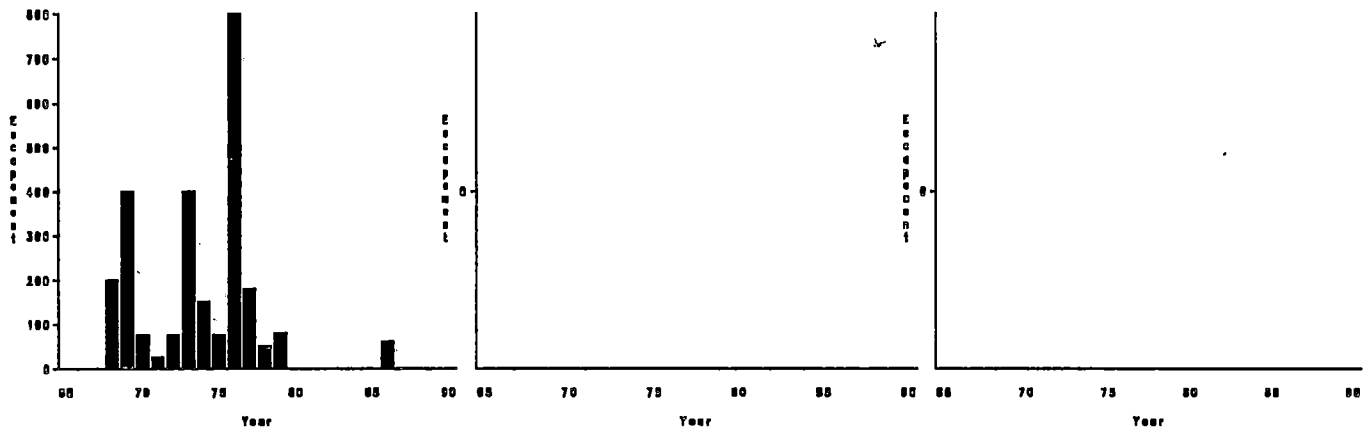
UNNAMED C (93-3205)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

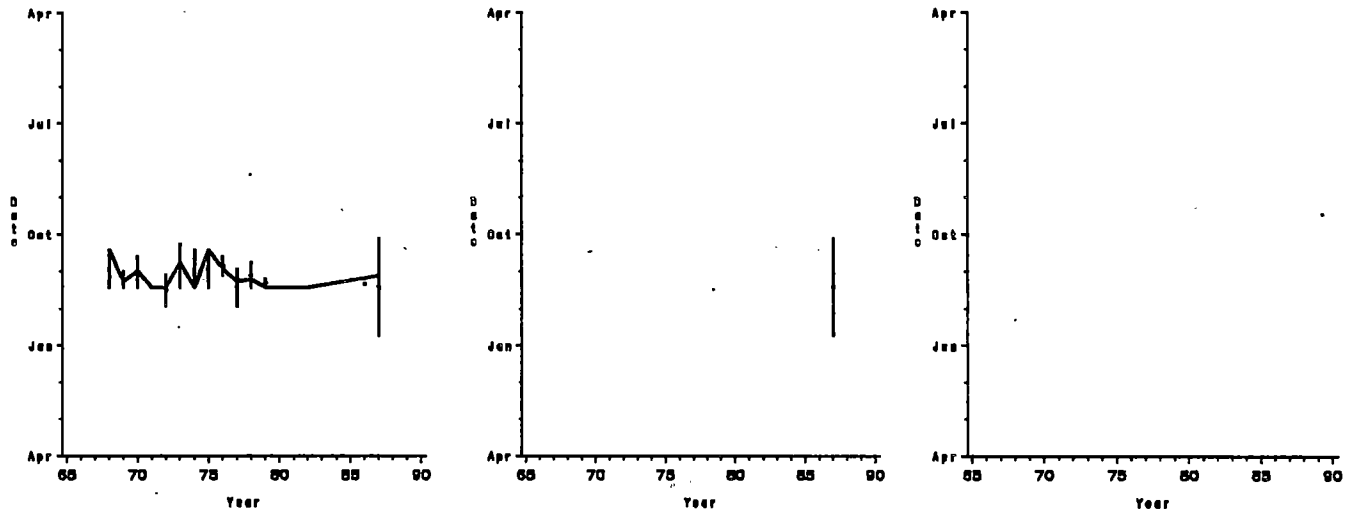
Steelhead (ST)



Chum

Chinook

Steelhead



Chum

Chinook

Steelhead

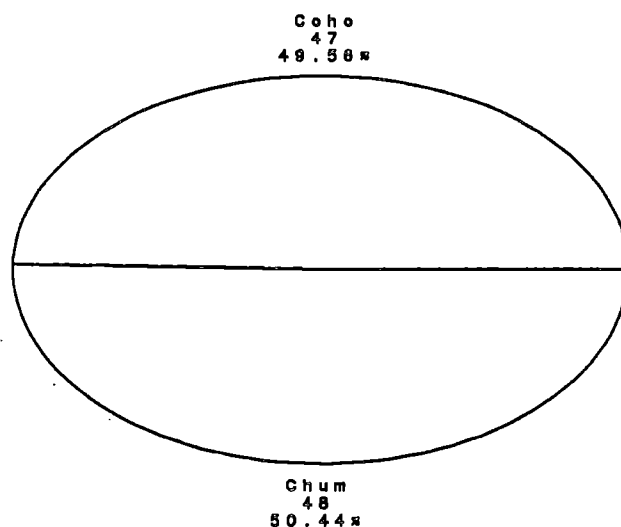
Year	Escapement	Start	Peak	End
1966	200	19OCT	19OCT	19NOV
1967	400	01NOV	19NOV	19NOV
1968	75	20OCT	01NOV	19NOV
1969	20	19NOV	19NOV	19NOV
1970	75	04NOV	19NOV	30NOV
1971	400	19OCT	29OCT	19NOV
1972	150	19OCT	19NOV	19NOV
1973	75	19OCT	19OCT	19NOV
1974	400	20OCT	29OCT	03NOV
1975	100	30OCT	19NOV	30NOV
1976	50	29OCT	09NOV	19NOV
1977	0	07NOV	19NOV	19NOV
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	0	19NOV	19NOV	19NOV
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	40	-	-	12NOV
1988	-	09OCT	09NOV	20DEC

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	-	-	-	-
1981	-	-	-	-
1982	0	-	-	-
1983	-	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	09OCT	09NOV	20DEC

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	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

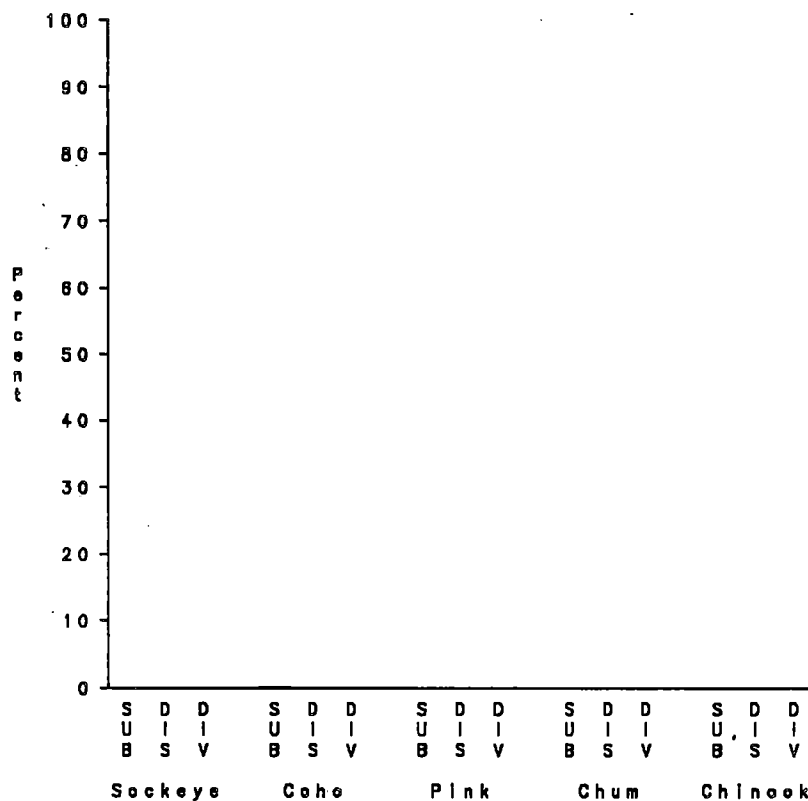
UNNAMED C (93-3205)

10-yr Mean Escapement
(1978-1987)



UNNAMED C : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



Stream Name:	UNNAMED CREEK	D.F.O. Division:	SOUTH COAST
Local Name:	TWIN RIVERS EAST RIVER	District:	4 PORT ALBERNI
	TWO RIVERS EAST RIVER	Subdistrict:	23 PORT ALBERNI
Watershed Code:	93-3225	Statistical Subarea:	23-11
		M.O.E.P. Region:	1 VANCOUVER ISLAND
		Management Unit:	

Tributaries	Code	Topographic (1:50k) Map: 92C/14 B.C.G.S. (1:20k) Map: U.T.M. Mouth: Lat./Long. Mouth: DG. ' ' DG. ' ' Mainstem Length: Ref. No.: Watershed Area: Ref. No.:
		Location: AT NORTH END OF CHENATHA IR 4, W. SIDE OF BARKLEY SOUND, MACOAH PASS., S.W. OF UCLUELET ACROSS FROM FORBES IS.

Gradient Class/Location (km upstream from mouth)					Comments
0 - .5%	.5 - 2%	2 - 5%	5 - 10%	>10%	LOW GRADIENT (REF. 23-8)

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
X LOG JAMS				SCATTERED LOG JAMS THROUGHOUT (REF. 23-8)

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

Species	Watershed Distribution
CO COHO SALMON	TO GRADIENT BARRIER (REF. 23-8)
CM CHUM SALMON	TO GRADIENT BARRIER (REF. 23-8)

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	60	1978 - 1987	28A-18	100	28A-18		
CM CHUM SALMON	175	1978 - 1987	28A-18	350	28A-18		

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

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	

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	ONGOING LOGGING (REF. 23-8)
UD URBAN DEVELOPMENT	SOME PRIVATE LAND DEVELOPMENT (REF. 23-8)

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
Last checked by: VIOLET KOMORI

Date: 1989/03/09
Date: 1990/03/29

ESCAPEMENT: TWIN RIVERS EAST RIVER

WATERSHED-CODE: 93-3225

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	UNK	UNK	UNK	UNK	UNK	UNK
1954	0	25	0	7500	0	0
1955	0	25	0	200	0	0
1956	0	25	0	3500	0	0
1957	0	25	0	3500	0	0
1958	0	25	0	7500	0	0
1959	0	25	0	3500	0	0
1960	0	25	0	400	0	0
1961	0	25	0	400	0	0
1962	0	25	0	400	0	0
1963	0	25	0	750	0	0
1964	0	25	0	400	0	0
1965	0	25	0	400	0	0
1966	0	75	0	3500	0	0
1967	0	75	0	200	0	0
1968	0	75	0	750	0	0
1969	0	400	0	3500	0	0
1970	0	200	0	3500	0	0
1971	0	0	0	0	0	0
1972	0	75	0	3500	0	0
1973	0	200	0	1500	0	0
1974	0	75	0	3500	0	0
1975	0	75	0	750	0	0
1976	0	75	0	700	0	0
1977	0	85	0	500	0	0
1978	0	100	0	50	0	0
1979	0	80	0	350	0	0
1980	UNK	UNK	UNK	UNK	UNK	UNK
1981	UNK	UNK	UNK	UNK	UNK	UNK
1982	0	UNK	0	300	0	0
1983	0	UNK	0	UNK	0	0
1984	0	UNK	0	UNK	0	0
1985	UNK	UNK	UNK	UNK	UNK	0
1986	0	UNK	0	UNK	0	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

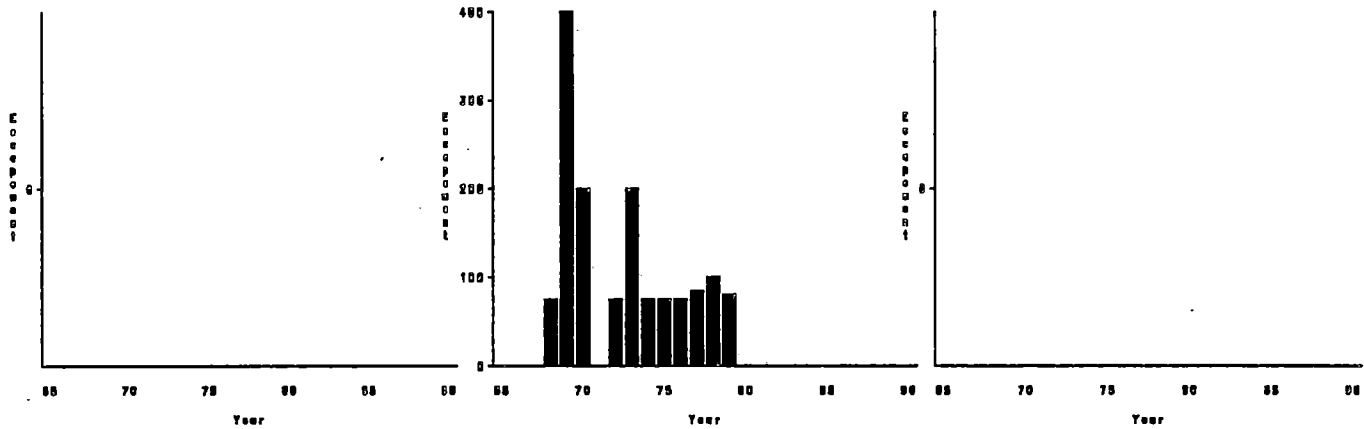
UNNAMED C (93-3225)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

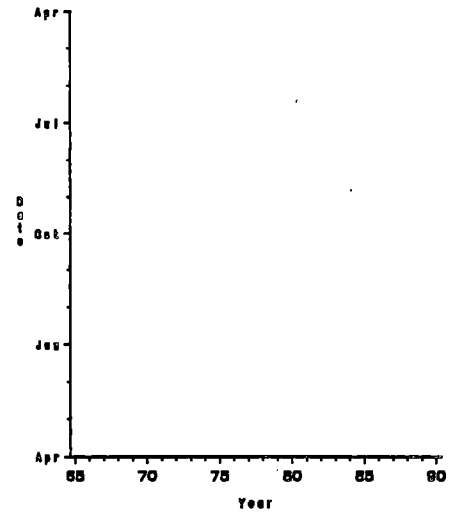
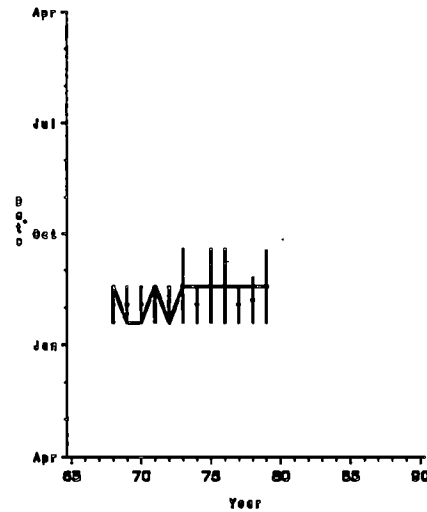
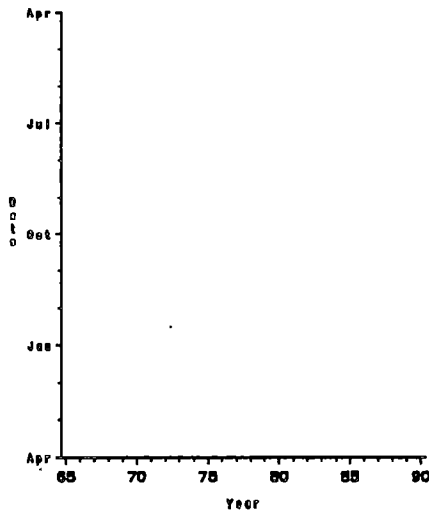
Pink (PK)



Sockeye

Coho

Pink



Sockeye

Coho

Pink

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	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year Escapement Start Peak End

1966	75	19NOV	19NOV	19DEC
1967	400	19NOV	19DEC	19DEC
1968	200	19NOV	19DEC	19DEC
1969	0	19NOV	19NOV	19DEC
1970	75	19NOV	19DEC	19DEC
1971	200	19NOV	19NOV	19DEC
1972	75	19NOV	19DEC	19DEC
1973	200	19NOV	19NOV	19DEC
1974	75	19NOV	19NOV	19DEC
1975	75	19NOV	19NOV	19DEC
1976	75	19NOV	19NOV	19DEC
1977	80	19NOV	19NOV	19DEC
1978	100	19NOV	19NOV	19DEC
1979	80	19NOV	19NOV	19DEC
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

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	-	-	-	-
1981	-	-	-	-
1982	0	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

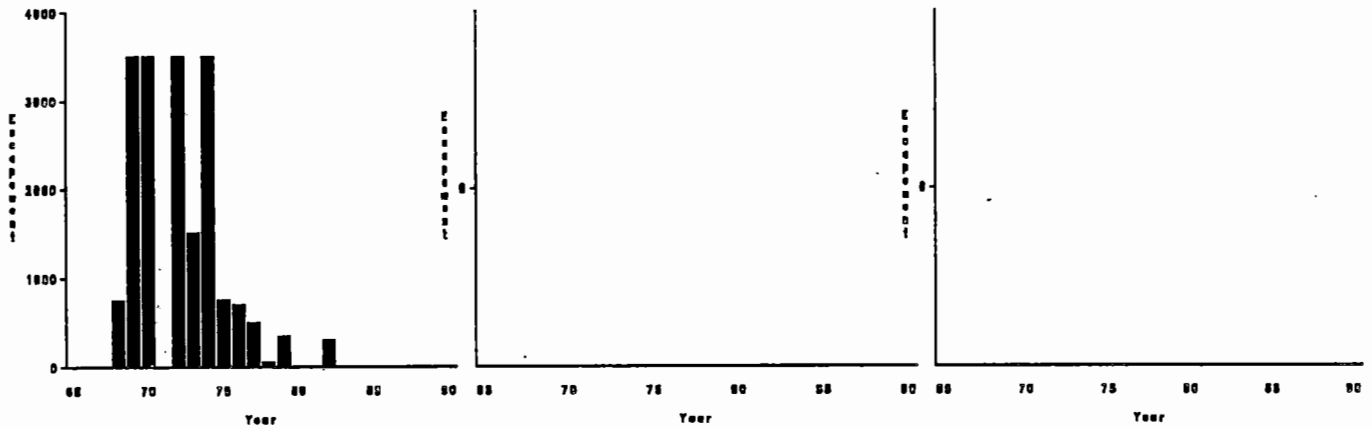
UNNAMED C (93-3225)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

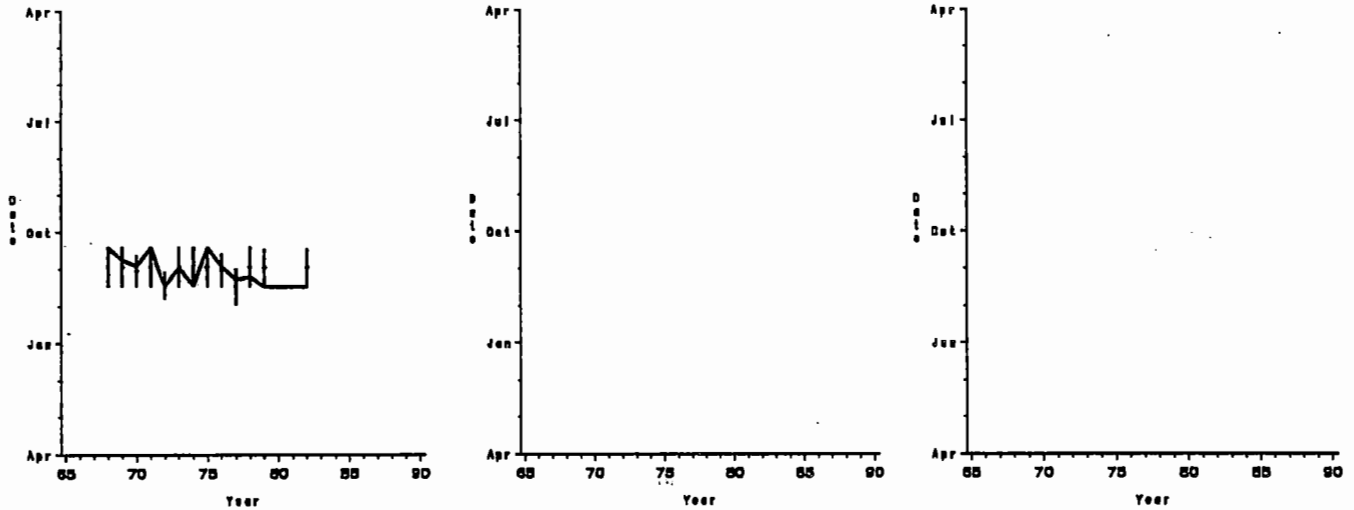
Steelhead (ST)



Chum

Chinook

Steelhead



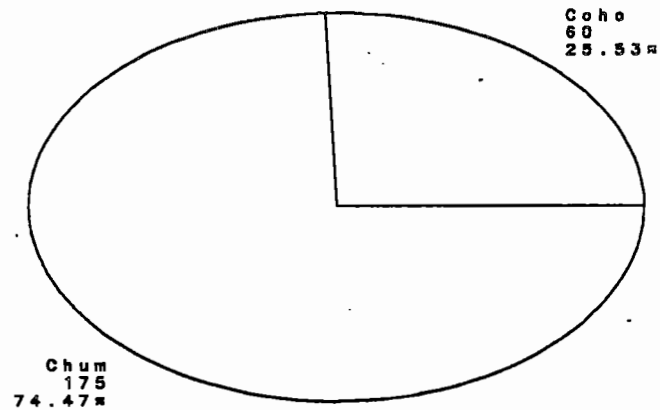
Year	Escapement	Start	Peak	End
1968	700	12OCT	12OCT	12NOV
1969	3,500	12OCT	20OCT	12NOV
1970	2,500	21OCT	30OCT	12NOV
1971	0	12OCT	12OCT	12NOV
1972	3,500	04NOV	10NOV	23NOV
1973	1,500	12OCT	21OCT	12NOV
1974	2,500	12OCT	18NOV	12NOV
1975	700	12OCT	12OCT	12NOV
1976	700	20OCT	30OCT	12NOV
1977	800	01NOV	10NOV	30NOV
1978	30	12OCT	08NOV	12NOV
1979	200	10OCT	10NOV	12NOV
1980	-	-	-	-
1981	-	-	-	-
1982	200	12OCT	10NOV	12NOV
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
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	-	-	-	-
1981	-	-	-	-
1982	0	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1968	-	-	-	-
1969	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

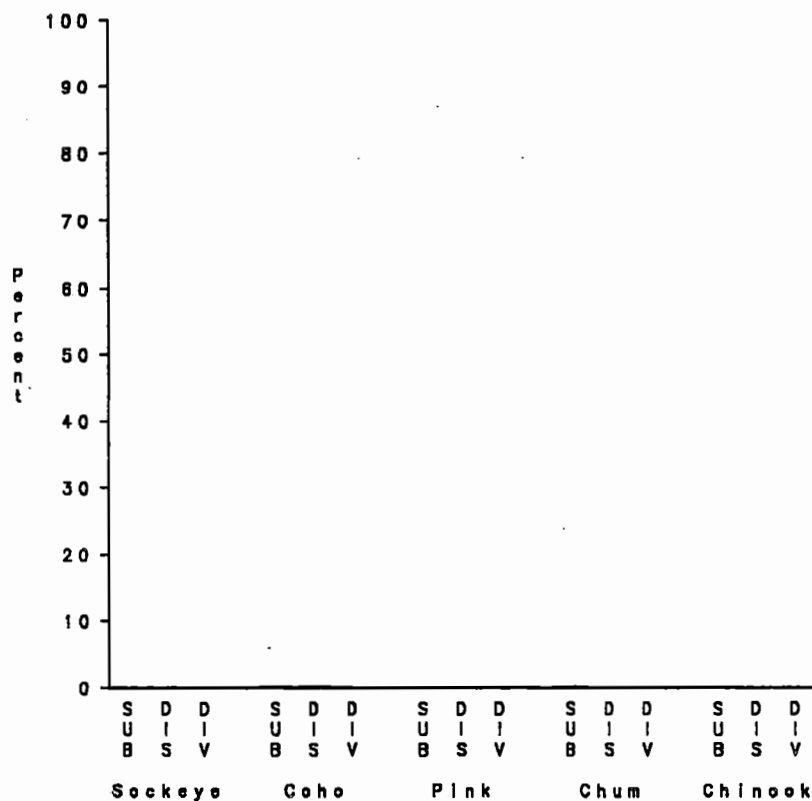
UNNAMED C (93-3225)

10-yr Mean Escapement
(1978-1987)



UNNAMED C : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



Watershed Code: 93-3230
Stream Name: UNNAMED CREEK
Page: 1

Stream Name:	UNNAMED CREEK	D.F.O. Division:	SOUTH COAST
Local Name:	TWIN RIVERS WEST CREEK	District:	4 PORT ALBERNI
	TWO RIVERS WEST CREEK	Subdistrict:	23 PORT ALBERNI
Watershed Code:	93-3230	Statistical Subarea:	23-11
		M.O.E.P. Region:	1 VANCOUVER ISLAND
		Management Unit:	

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

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
C CASCADE		3.2	AF ALL SPECIES	(REF. 23-1)

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

Species	Watershed Distribution
CO COHO SALMON	THROUGHOUT. (REF. 23-1)
CN CHUM SALMON	LOWER SECTIONS. (REF. 23-1)

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	91	1978 - 1987	28A-18	180	28A-18		
CN CHUM SALMON	1808	1978 - 1987	28A-18	9000	28A-18		

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

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	

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 KAPAHI	Date: 1990/03/19
Last checked by: VIOLET KOMORI	Date: 1990/03/29

ESCAPEMENT: TWIN RIVERS WEST CREEK

WATERSHED-CODE: 93-3230

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	75	0	3500	0	0
1954	0	25	0	400	0	0
1955	0	25	0	200	0	0
1956	0	25	0	75	0	0
1957	0	25	0	200	0	0
1958	0	25	0	400	0	0
1959	0	25	0	750	0	0
1960	0	25	0	75	0	0
1961	0	25	0	25	0	0
1962	0	25	0	75	0	0
1963	0	25	0	400	0	0
1964	0	25	0	200	0	0
1965	0	25	0	25	0	0
1966	0	75	0	750	0	0
1967	0	75	0	200	0	0
1968	0	25	0	400	0	0
1969	0	200	0	3500	0	0
1970	0	200	0	3500	0	0
1971	0	0	0	200	25	0
1972	0	200	0	3500	0	0
1973	0	400	0	750	0	0
1974	0	75	0	3500	0	0
1975	0	200	0	3000	0	0
1976	0	175	0	4800	0	0
1977	0	150	0	2200	0	0
1978	0	180	0	150	0	0
1979	0	150	0	450	0	0
1980	UNK	UNK	UNK	UNK	UNK	UNK
1981	0	UNK	0	500	0	0
1982	0	32	0	9000	0	0
1983	0	UNK	0	750	0	0
1984	0	UNK	0	UNK	0	0
1985	UNK	UNK	UNK	UNK	UNK	0
1986	0	UNK	0	UNK	0	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

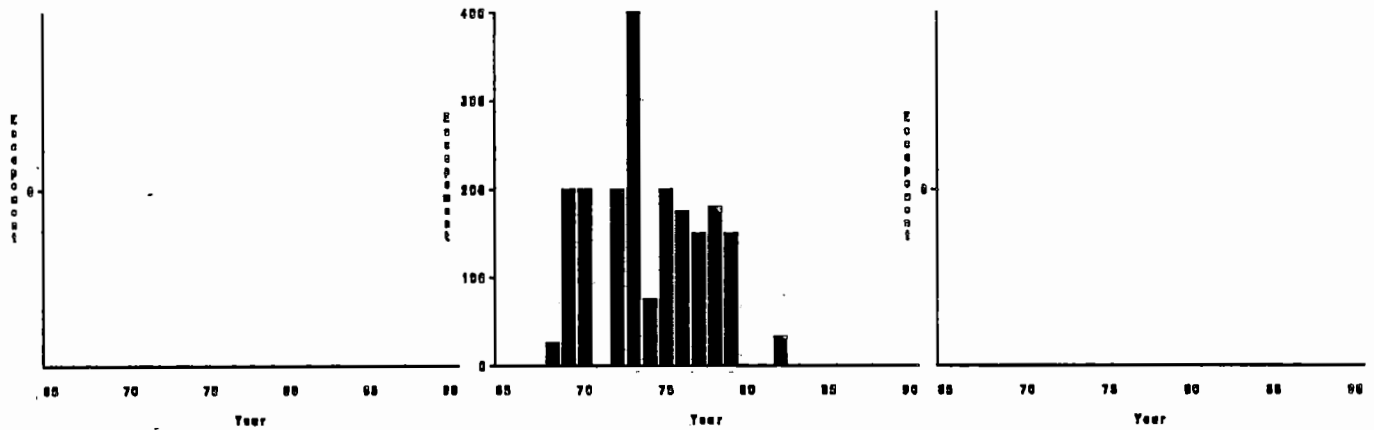
UNNAMED C (93-3230)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

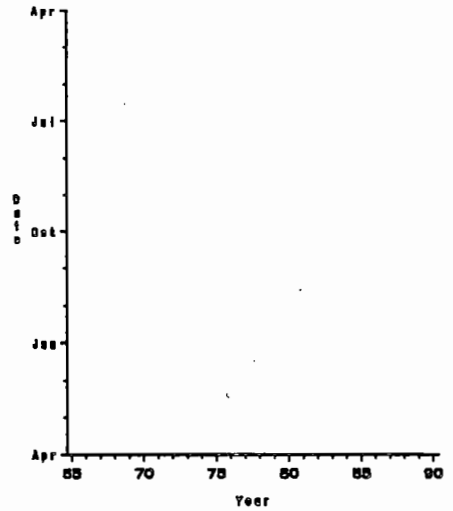
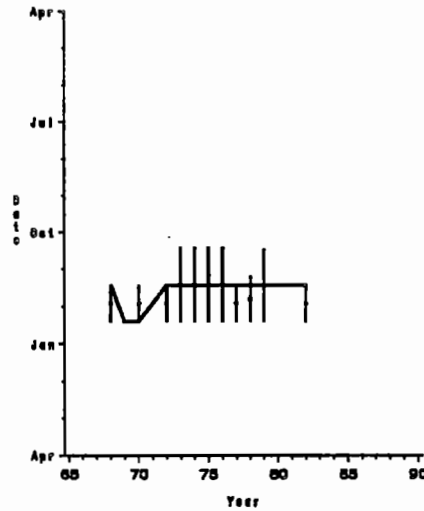
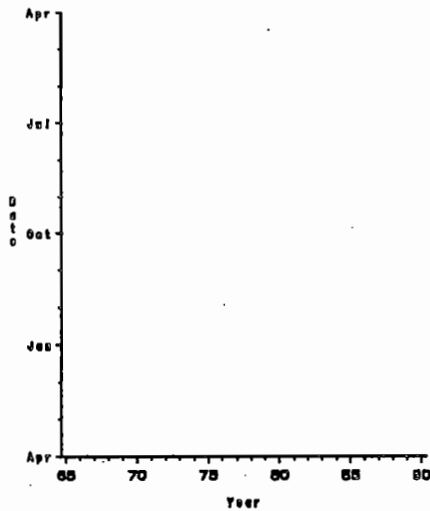
Pink (PK)



Sockeye

Coho

Pink



Year	Escapement	Start	Peak	End
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	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1969	20	15NOV	15NOV	15DEC
1970	200	15DEC	15DEC	15DEC
1971	200	15NOV	15DEC	15DEC
1972	0	-	-	-
1973	200	15NOV	15NOV	15DEC
1974	400	15OCT	15NOV	15DEC
1975	75	15OCT	15NOV	15DEC
1976	200	15OCT	15NOV	15DEC
1977	175	15OCT	15NOV	15DEC
1978	150	15NOV	15NOV	15DEC
1979	150	15NOV	15NOV	15DEC
1980	150	15OCT	15NOV	15DEC
1981	-	-	-	-
1982	32	15NOV	15NOV	15DEC
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1969	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	-	-	-	-
1981	0	-	-	-
1982	0	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

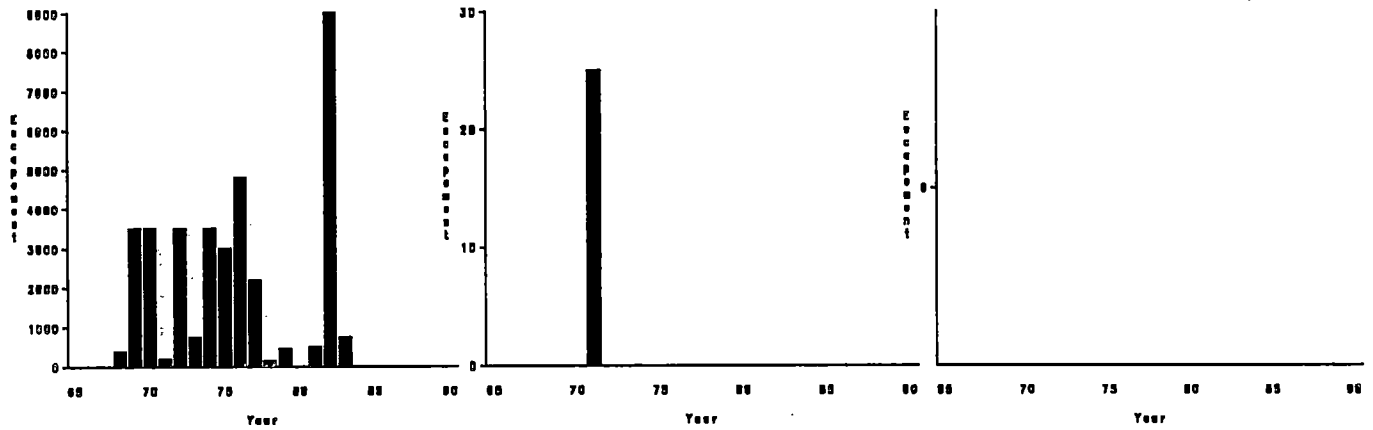
UNNAMED C (93-3230)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

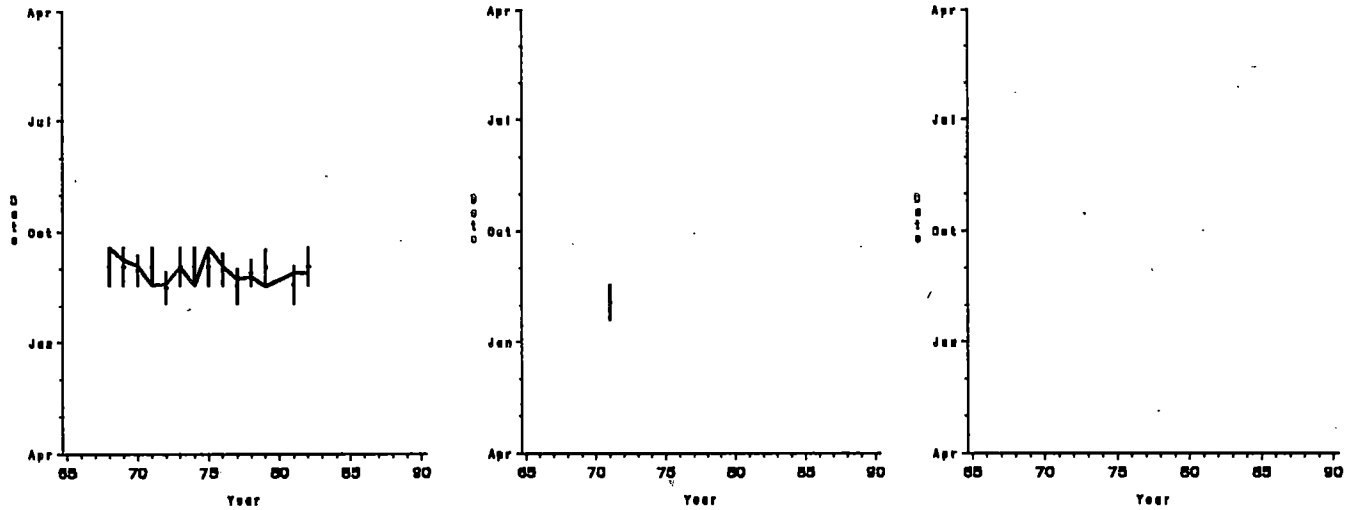
Steelhead (ST)



Chum

Chinook

Steelhead



Chum

Chinook

Steelhead

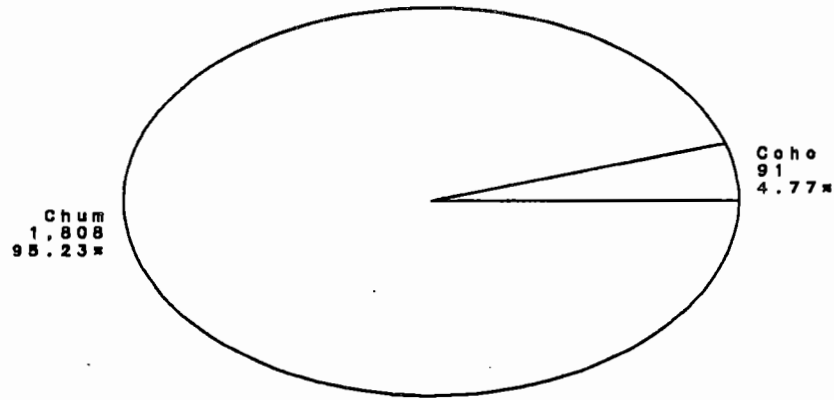
Year	Escapement	Start	Peak	End
1968	400	18OCT	18OCT	18NOV
1969	3,500	18OCT	28OCT	18NOV
1970	3,200	21OCT	30OCT	18NOV
1971	200	18OCT	18NOV	18NOV
1972	3,300	04NOV	14NOV	30NOV
1973	700	18OCT	21OCT	18NOV
1974	3,200	18OCT	18NOV	18NOV
1975	3,000	18OCT	18OCT	18NOV
1976	4,000	28OCT	30OCT	18NOV
1977	2,200	01NOV	10NOV	30NOV
1978	150	23OCT	08NOV	13NOV
1979	400	18OCT	18NOV	18NOV
1980	-	-	-	-
1981	200	31OCT	08NOV	30NOV
1982	6,000	13OCT	03NOV	18NOV
1983	750	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1968	0	-	-	-
1969	0	-	-	-
1970	0	-	-	-
1971	15	15NOV	15NOV	15DEC
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	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year	Escapement	Start	Peak	End
1968	-	-	-	-
1969	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

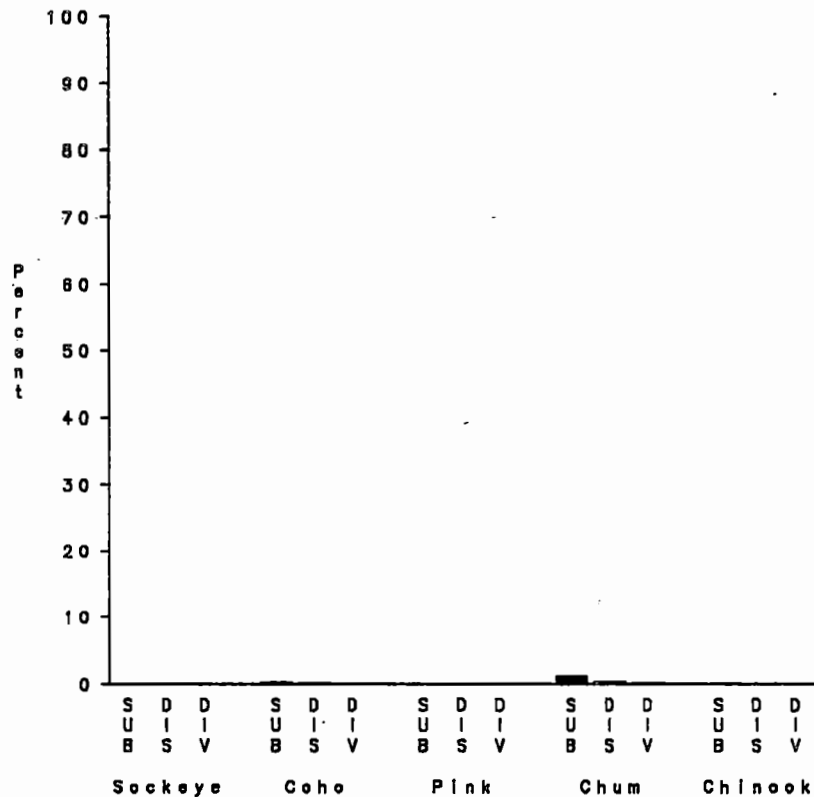
UNNAMED C (93-3230)

10-yr Mean Escapement
(1978-1987)



UNNAMED C : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



Stream Name:	ITATSOO CREEK	D.F.O. Division:	SOUTH COAST
Local Name:	SANDY CREEK	District:	4 PORT ALBERNI
Watershed Code:	93-3260	Subdistrict:	23 PORT ALBERNI
		Statistical Subarea:	23-11
		M.O.E.P. Region:	1 VANCOUVER ISLAND
		Management Unit:	

Tributaries	Code	Topographic (1:50k) Map: 92C/13 B.C.G.S. (1:20k) Map: 093 U.T.M. Mouth: Lat./Long. Mouth: 48 DG. 55' 37'' 125 DG. 30' 07'' Mainstem Length: 1.0 km Ref. No.: 23-1 Watershed Area: 2.1 km2 Ref. No.: 23-1
		Location: FLOWS S.E. INTO NEWCOMBE CHAN., N. OF BEG. IS., CLAYOQUOT DIST.

Gradient Class/Location (km upstream from mouth)						Comments
0 - .5%	.5 - 2%	2 - 5%	5 - 10%	>10%		VERY LOW GRADIENT (REF. 23-8)

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
F FALLS		1.0	AF ALL SPECIES	(REF. 23-8)
D DAM		1.0	AF ALL SPECIES	(REF. 23-1)

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

Species	Watershed Distribution
CO COHO SALMON	TO FALLS (REF. 23-8)
CN CHUM SALMON	TO FALLS (REF. 23-8)

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CH CHUM SALMON	107	1978 - 1987	28A-18	200	28A-18		

[illegible]

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

Activity	Description/Location
FO FORESTRY	ONGOING LOGGING (REF. 23-8)

SUITABLE FISH HABITAT ABOVE FALLS, BUT DO NOT RECOMMEND REMOVAL OF FALLS (REF. 23-8)

Date Prepared: / / Prepared By:

Completed by:	GITA KAPANI	Date:	1989/03/06
Last checked by:	VIOLET KOMORI	Date:	1990/03/29

ESCAPEMENT: ITATSOO CREEK

WATERSHED-CODE: 93-3260

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	0	0	75	0	0
1954	0	0	0	200	0	0
1955	0	0	0	200	0	0
1956	0	0	0	200	0	0
1957	0	0	0	400	0	0
1958	0	0	0	400	0	0
1959	0	0	0	400	0	0
1960	0	0	0	200	0	0
1961	0	0	0	200	0	0
1962	0	0	0	25	0	0
1963	0	0	0	25	0	0
1964	0	0	0	75	0	0
1965	0	0	0	200	0	0
1966	0	0	0	200	0	0
1967	0	0	0	200	0	0
1968	0	0	0	400	0	0
1969	0	0	0	75	0	0
1970	0	0	0	400	0	0
1971	0	0	0	200	0	0
1972	0	0	0	400	0	0
1973	0	0	0	200	0	0
1974	0	0	0	400	0	0
1975	0	0	0	400	0	0
1976	0	0	0	450	0	0
1977	0	0	0	280	0	0
1978	0	0	0	200	0	0
1979	0	0	0	120	0	0
1980	UNK	UNK	UNK	UNK	UNK	UNK
1981	UNK	UNK	UNK	UNK	UNK	UNK
1982	UNK	UNK	UNK	UNK	UNK	UNK
1983	0	UNK	0	UNK	0	0
1984	UNK	UNK	UNK	UNK	UNK	UNK
1985	UNK	UNK	UNK	UNK	UNK	0
1986	0	UNK	0	UNK	0	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

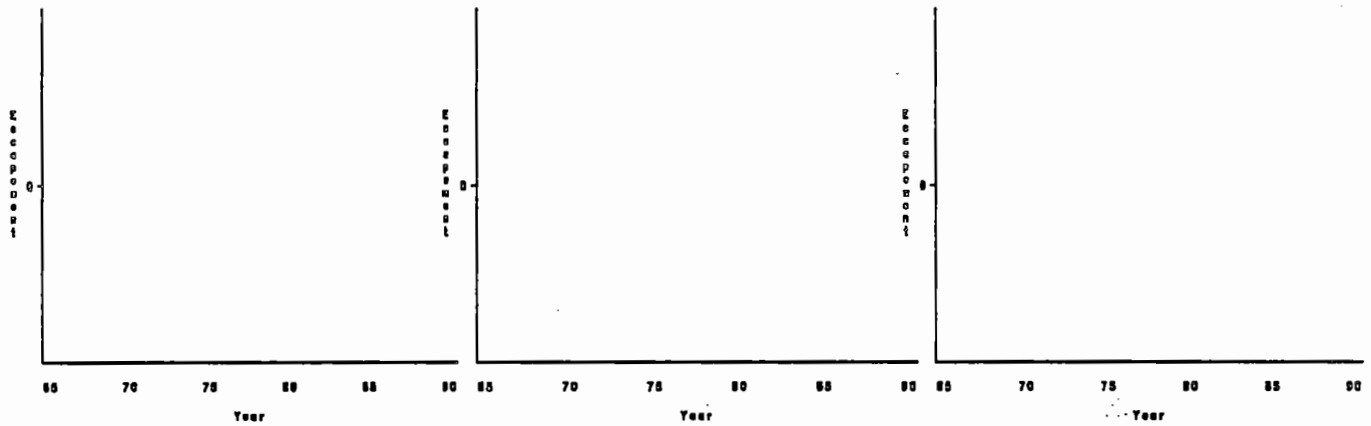
ITATSOO CREEK (93-3260)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

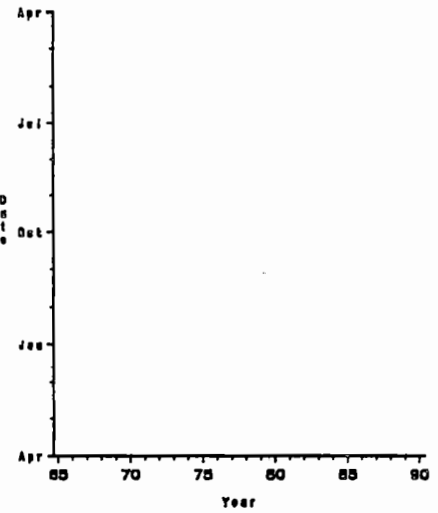
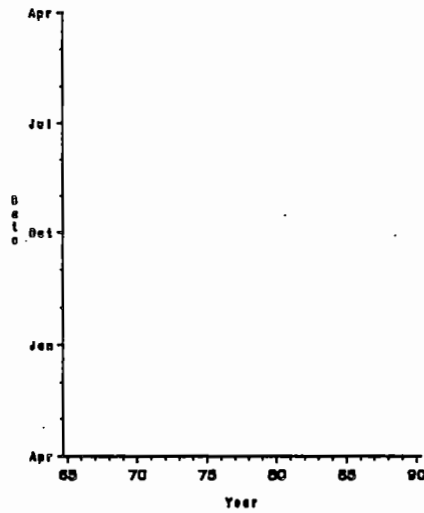
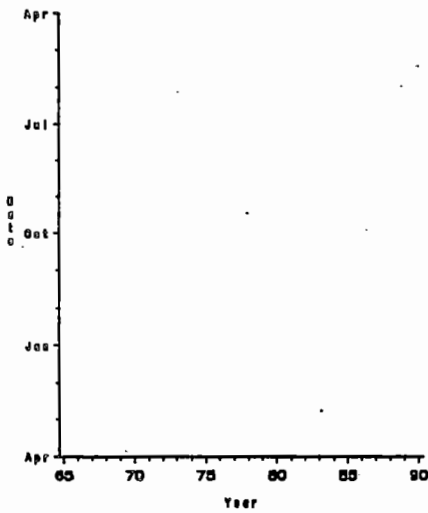
Pink (PK)



Sockeye

Coho

Pink



Sockeye

Coho

Pink

Year Escapement Start Peak End

1966	0	-	-	-
1967	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	0	-	-	-
1984	-	-	-	-
1985	-	-	-	-

Year Escapement Start Peak End

1966	0	-	-	-
1967	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-

Year Escapement Start Peak End

1966	0	-	-	-
1967	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	0	-	-	-
1984	-	-	-	-
1985	-	-	-	-

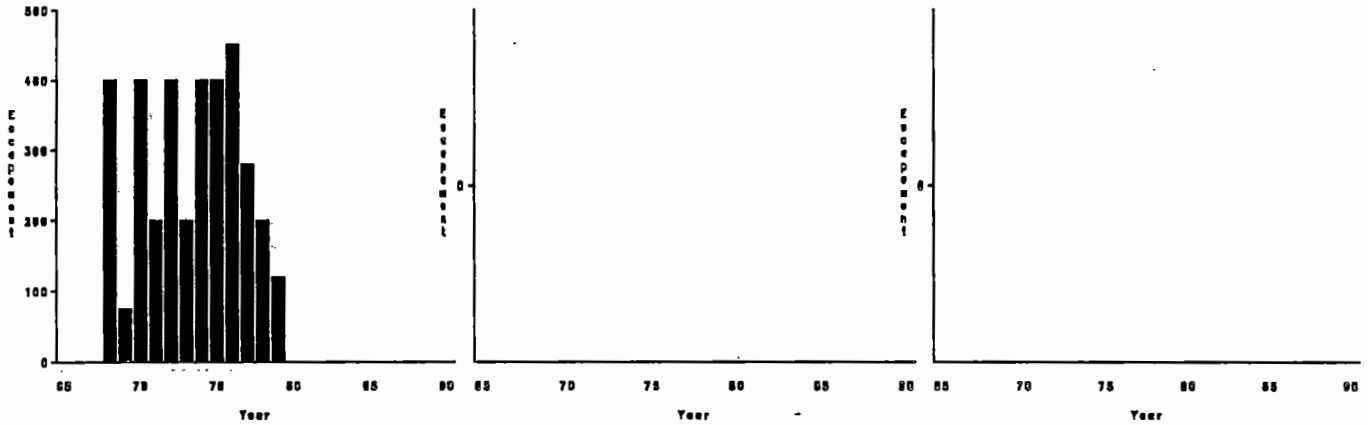
ITATSOO CREEK (93-3260)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

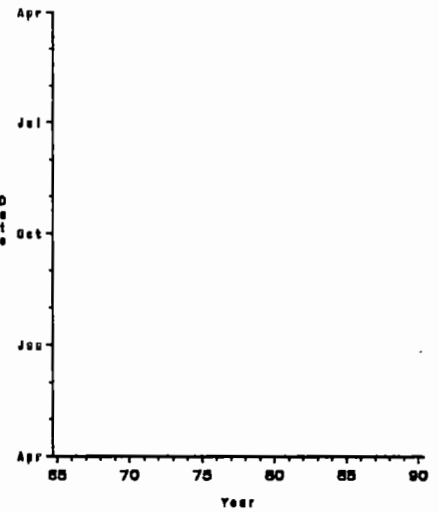
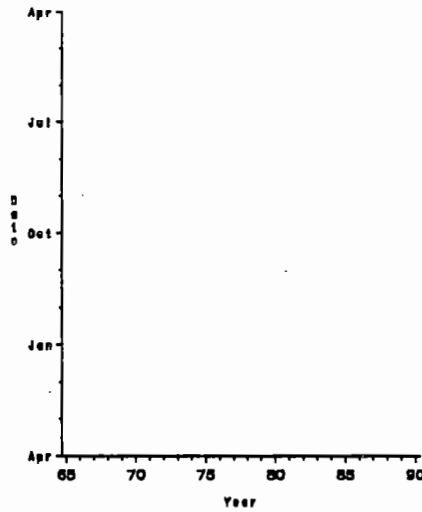
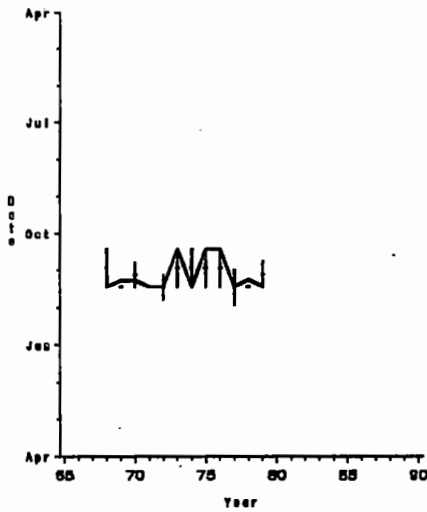
Steelhead (ST)



Chum

Chinook

Steelhead



Chum

Chinook

Steelhead

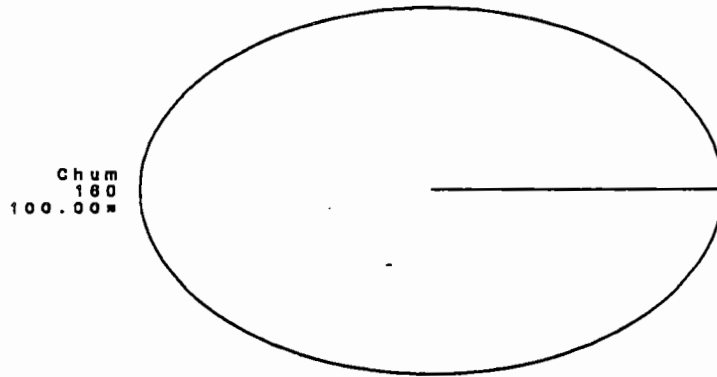
Year	Escapement	Start	Peak	End
1966	400	12OCT	18NOV	12NOV
1967	78	12NOV	10NOV	12NOV
1968	400	20OCT	10NOV	12NOV
1969	200	12NOV	13NOV	12NOV
1970	400	02NOV	12NOV	23NOV
1971	200	12OCT	18OCT	12NOV
1972	400	12OCT	18NOV	12NOV
1973	400	12OCT	18NOV	12NOV
1974	400	12OCT	18NOV	12NOV
1975	400	12OCT	18NOV	12NOV
1976	400	12OCT	18NOV	12NOV
1977	200	01NOV	12NOV	26NOV
1978	200	12NOV	09NOV	12NOV
1979	128	22OCT	12NOV	12NOV
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-

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	-	-	-	-
1982	-	-	-	-
1983	0	-	-	-
1984	-	-	-	-
1985	-	-	-	-

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	-	-	-	-

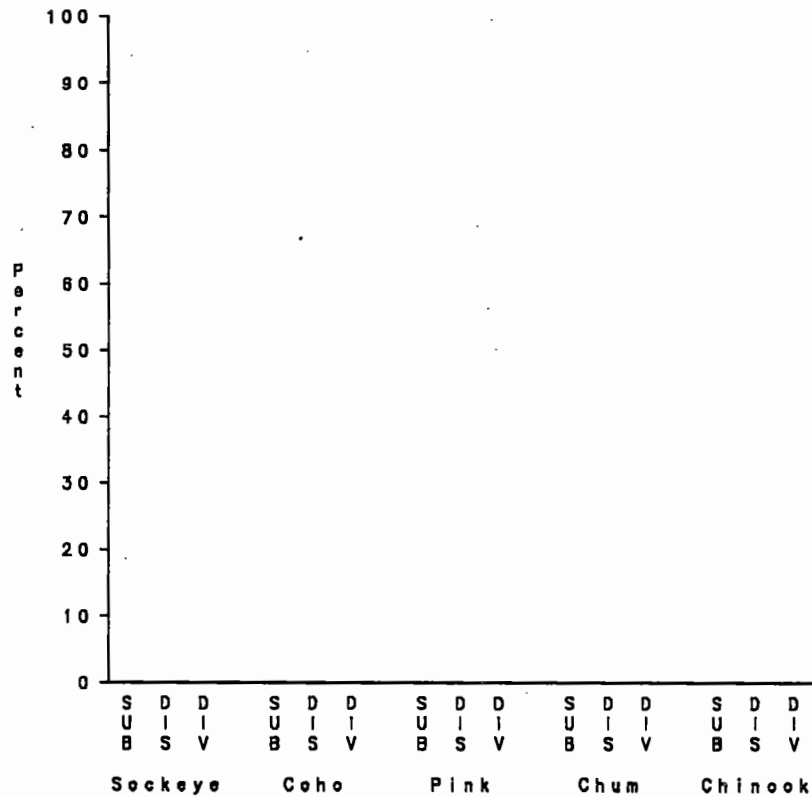
ITATSOO CREEK (93-3260)

10-yr Mean Escapement
(1978-1987)



ITATSOO CREEK : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(1e Subdistrict, District & Division)



Stream Name: UNNAMED CREEK	D.F.O. Division: SOUTH COAST
Local Name: HILLIER CREEK, MERCER CREEK	District: 4 PORT ALBERNI
	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-11
Watershed Code: 93-3280	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92C/13 B.C.G.S. (1:20k) Map: U.T.M. Mouth: 10.3134.54254 Lat./Long. Mouth: DG. ' ' DG. ' ' Mainstem Length: 0.8 km Ref. No.: 23-1 Watershed Area: 3.9 km2 Ref. No.: 23-1
		Location: FLows S. AND W. FROM MERCER LAKE INTO UCLUELET INLET AT PORT ALBION

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

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
C CASCADE		0.8	AF ALL SPECIES	(REF. 23-8)

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

Species	Watershed Distribution
CM. CHUM SALMON	0.8 KM TO CASCADES (REF. 23-8)

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CM CHUM SALMON	1025	1978 - 1987	28A-18	3400	28A-18		

[illegible]

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	ONGOING LOGGING ACTIVITY (REF. 23-8)

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: 1989/03/09
Last checked by: VIOLET KOMORI	Date: 1990/03/29

ESCAPEMENT: HILLIER CREEK

WATERSHED-CODE: 93-3280

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	0	0	750	0	0
1954	0	0	0	1500	0	0
1955	0	0	0	200	0	0
1956	0	0	0	400	0	0
1957	0	0	0	400	0	0
1958	0	0	0	750	0	0
1959	0	0	0	750	0	0
1960	0	0	0	75	0	0
1961	0	0	0	400	0	0
1962	0	0	0	400	0	0
1963	0	0	0	200	0	0
1964	0	0	0	750	0	0
1965	0	0	0	200	0	0
1966	0	0	0	3500	0	0
1967	0	0	0	750	0	0
1968	0	0	0	750	0	0
1969	0	0	0	3500	0	0
1970	0	0	0	1500	0	0
1971	0	0	0	400	0	0
1972	0	0	0	1500	0	0
1973	0	0	0	750	0	0
1974	0	0	0	750	0	0
1975	0	0	0	75	0	0
1976	0	0	0	1200	0	0
1977	0	0	0	550	0	0
1978	0	0	0	500	0	0
1979	0	0	0	200	0	0
1980	UNK	UNK	UNK	UNK	UNK	UNK
1981	UNK	UNK	UNK	UNK	UNK	UNK
1982	UNK	UNK	UNK	UNK	UNK	UNK
1983	0	0	0	UNK	0	0
1984	0	0	0	UNK	0	0
1985	UNK	UNK	UNK	3400	N/O	0
1986	0	UNK	0	UNK	0	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

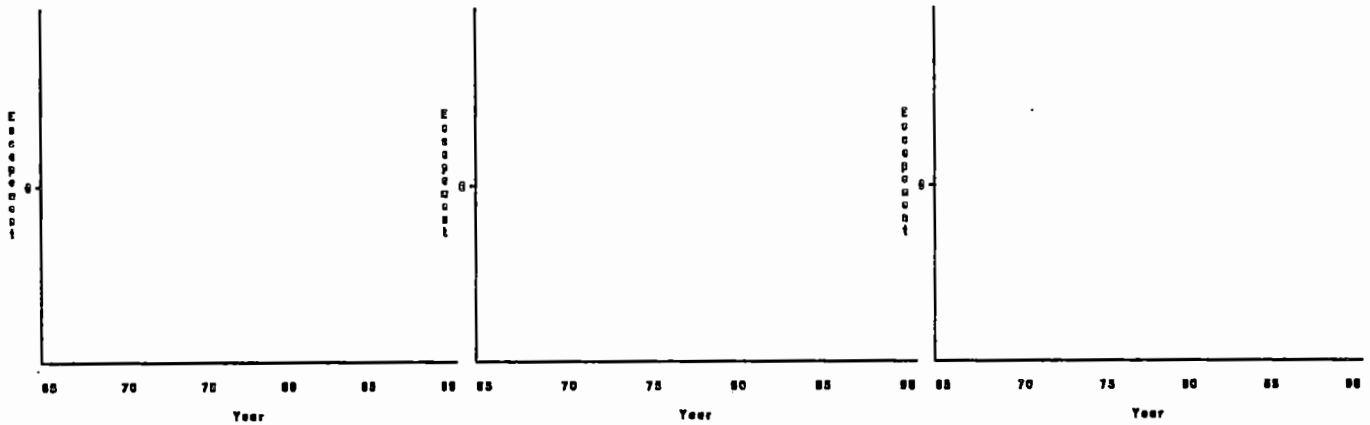
UNNAMED C (93-3280)

Escapement & Run Timing

Sockeye (SK)

Coho (CO)

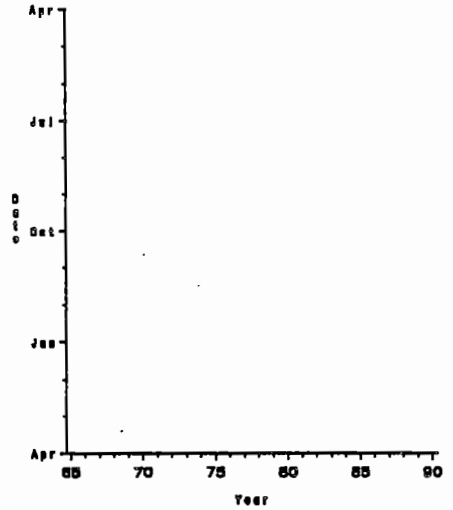
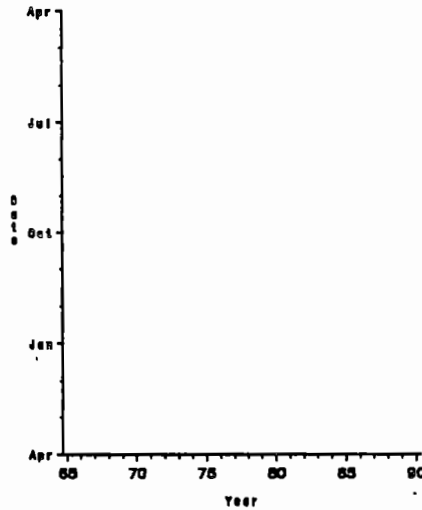
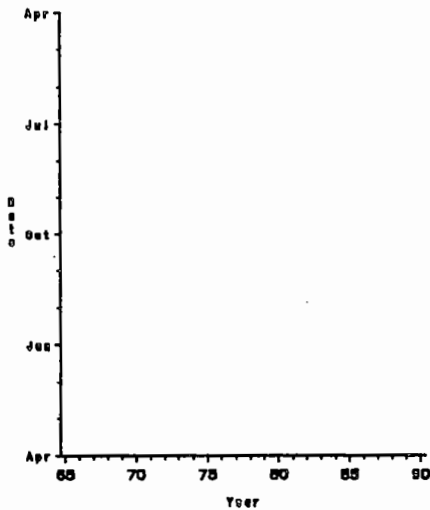
Pink (PK)



Sockeye

Coho

Pink



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	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

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	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	0	-	-	-

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	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

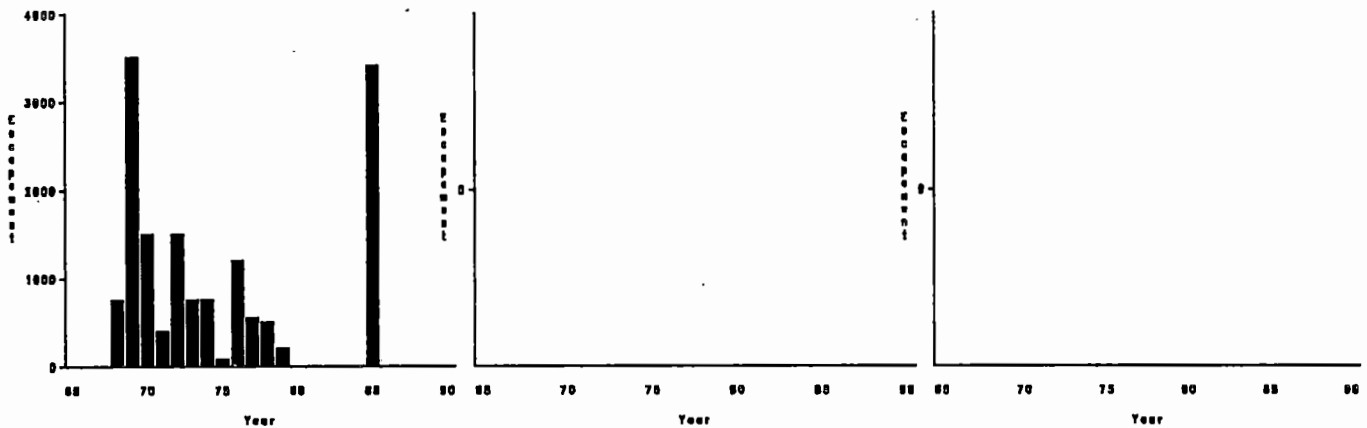
UNNAMED C (93-3280)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

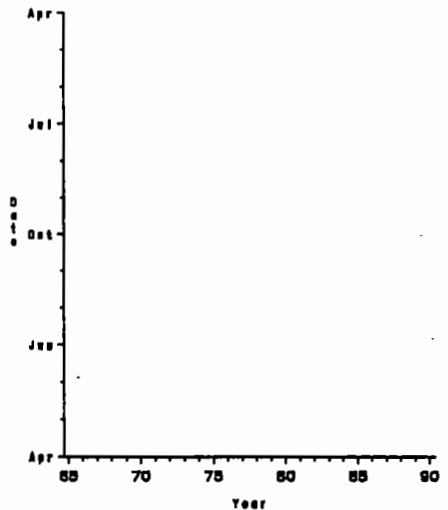
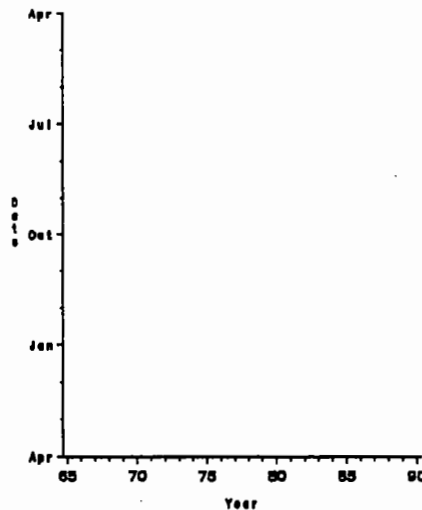
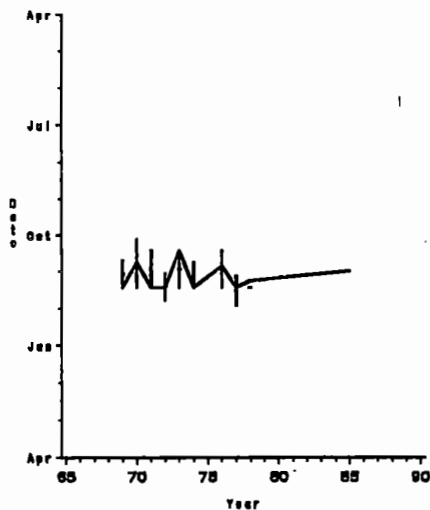
Steelhead (ST)



Chum

Chinook

Steelhead



Chum				
Year	Escapement	Start	Peak	End
1968	700	-	-	-
1969	3,000	23OCT	18NOV	18NOV
1970	1,300	08OCT	29OCT	13NOV
1971	400	18OCT	18NOV	13NOV
1972	1,300	02NOV	15NOV	23NOV
1973	700	18OCT	18OCT	18NOV
1974	700	25OCT	18NOV	18NOV
1975	70	-	-	-
1976	1,300	15OCT	28OCT	13NOV
1977	200	08NOV	18NOV	26NOV
1978	300	13NOV	08NOV	13NOV
1979	300	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	3,400	-	01NOV	-
1986	-	-	-	-
1987	0	-	-	-

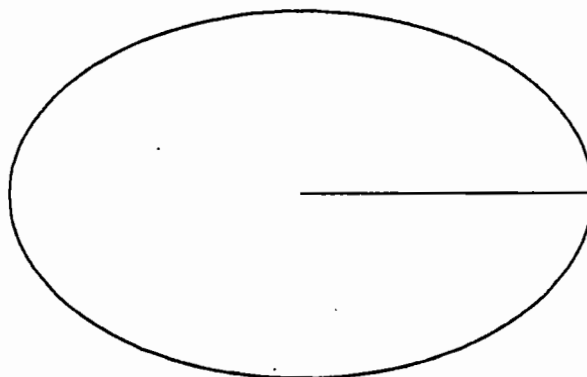
Chinook				
Year	Escapement	Start	Peak	End
1968	0	-	-	-
1969	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	0	-	-	-
1984	0	-	-	-
1985	0	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Steelhead				
Year	Escapement	Start	Peak	End
1968	-	-	-	-
1969	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

UNNAMED C (93-3280)

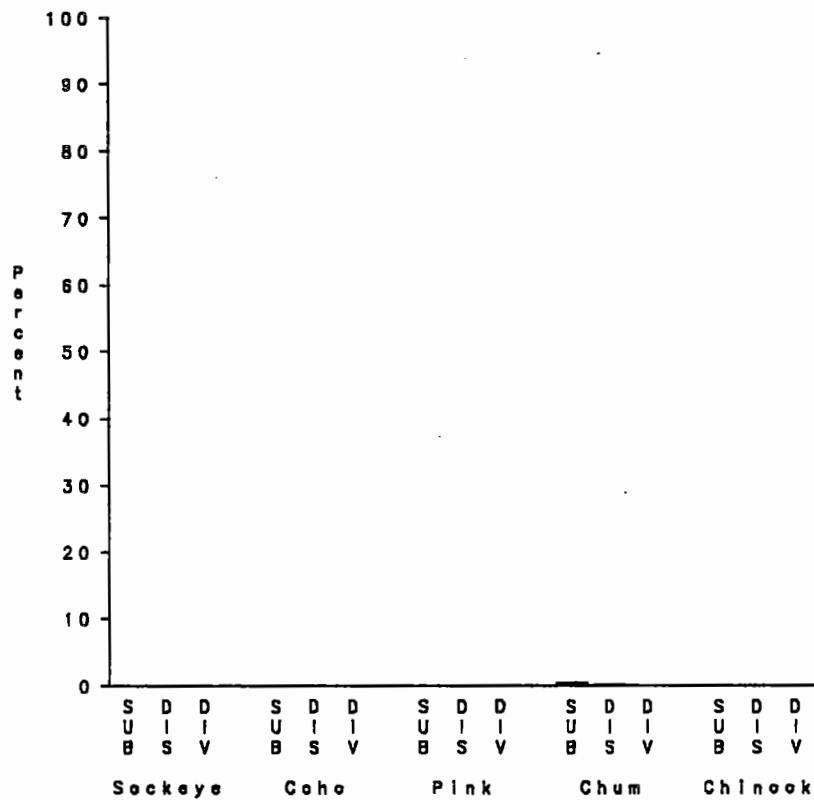
10-yr Mean Escapement
(1978-1987)

Chum
1,025
100.00%



UNNAMED C : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



A. DESCRIPTION

Stream Name: MERCANTILE CREEK	D.F.O. Division: SOUTH COAST
Local Name: MILL CREEK	District: 4 PORT ALBERNI
Watershed Code: 93-3290	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-11
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92C/13 B.C.G.S. (1:20k) Map: 093 U.T.M. Mouth: Lat./Long. Mouth: 48 DG. 57' 46'' 125 DG. 33' 29'' Mainstem Length: 0.2 km Ref. No.: 23-1 Watershed Area: 20.7 km2 Ref. No.: 23-1
		Location: FLows S. AND W. INTO UCLUELET INLET, CLAYOQUOT DIST.

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	LOW GRADIENT (REF. 23-8)

B. OBSTRUCTIONS TO MIGRATION

Barrier (Type)	Height (meters)	Location (km U/S)	Impassable to (species)	Comments
F FALLS		0.2	AF ALL SPECIES	(REF. 23-1)
D DAM		0.2	AF ALL SPECIES	(REF. 23-1)

C. FLOW

Flow Control:	Water Survey of Canada (WSC) Flow Gauge: Y
W.S.C. Station No. 1: 08HB064	No. 2: No. 3: No. 4:

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
CO COHO SALMON	PRESENT (REF. 23-8)
CN CHUM SALMON	PRESENT (REF. 23-8)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	33	1978 - 1987	28A-18	200	28A-18		
CN CHUM SALMON	947	1978 - 1987	28A-18	3032	28A-18		

F. LIFE HISTORY TIMING

Species	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CN 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
FO FORESTRY	ONGOING LOGGING (REF. 23-8)
WM WATER WITHDRAWAL	WATER SUPPLY FOR VILLAGE OF UCLUELET (REF. 23-1, REF. 23-8)
WQ WATER QUALITY	WATER QUALITY CONCERNS IN UCLUELET INLET MARINE ENVIRONMENT (REF. 23-8)

I. FISH PRODUCTION POTENTIAL/CONSTRAINTS/GENERAL COMMENTS

SOME STRAYING POSSIBLE FROM THORNTON CREEK HATCHERY (REF. 23-8)
THIS STREAM HAS VERY LITTLE SUITABLE SPAWNING HABITAT (REF. 23-1)
THIS CREEK HAS A HYDRO R/W IN LOWER HALF OF THE WATERSHED (REF. 23-2)

J. FISHERY OFFICER NARRATIVE

Date Prepared: / /	Prepared By:

K. SIS COMPLETED BY

Completed by: GITA KAPANI	Date: 1989/03/06
Last checked by: VIOLET KOMORI	Date: 1990/03/29

ESCAPEMENT: MERCANTILE CREEK

WATERSHED-CODE: 93-3290

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	0	0	75	0	0
1954	0	0	0	200	0	0
1955	0	0	0	75	0	0
1956	0	0	0	75	0	0
1957	0	0	0	200	0	0
1958	0	0	0	750	0	0
1959	0	0	0	1500	0	0
1960	0	0	0	75	0	0
1961	0	0	0	75	0	0
1962	0	0	0	25	0	0
1963	0	0	0	400	0	0
1964	0	0	0	75	0	0
1965	0	0	0	75	0	0
1966	0	0	0	750	0	0
1967	0	0	0	75	0	0
1968	0	0	0	200	0	0
1969	0	0	0	400	0	0
1970	0	0	0	400	0	0
1971	0	0	0	200	0	0
1972	0	0	0	200	0	0
1973	0	0	0	200	0	0
1974	0	0	0	75	0	0
1975	0	0	0	200	0	0
1976	0	0	0	240	0	0
1977	0	0	0	200	0	0
1978	0	0	0	100	0	0
1979	0	0	0	50	0	0
1980	UNK	UNK	UNK	UNK	UNK	UNK
1981	UNK	UNK	UNK	UNK	UNK	UNK
1982	0	0	0	0	0	0
1983	UNK	UNK	UNK	UNK	UNK	UNK
1984	0	0	0	3032	0	0
1985	UNK	200	UNK	2500	2	0
1986	0	UNK	0	UNK	0	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

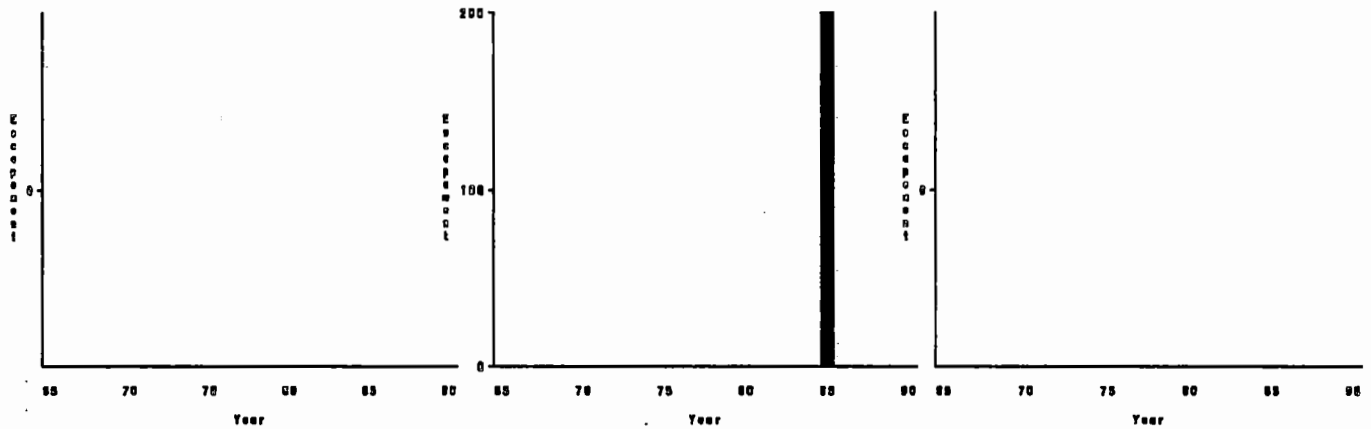
MERCANTILE CREEK (93-3290)

Escapement & Run Timing

Socketeye (SK)

Coho (CO)

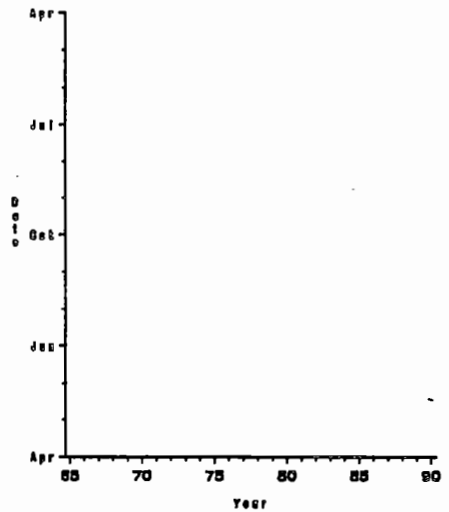
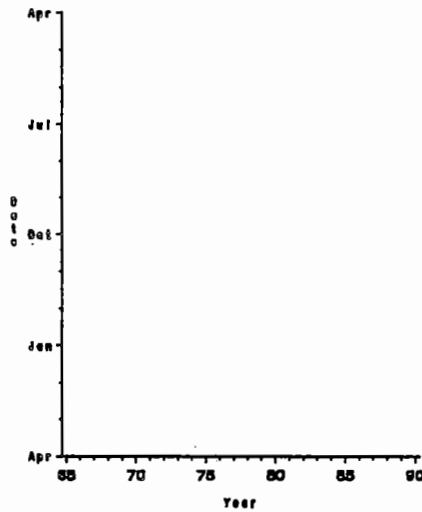
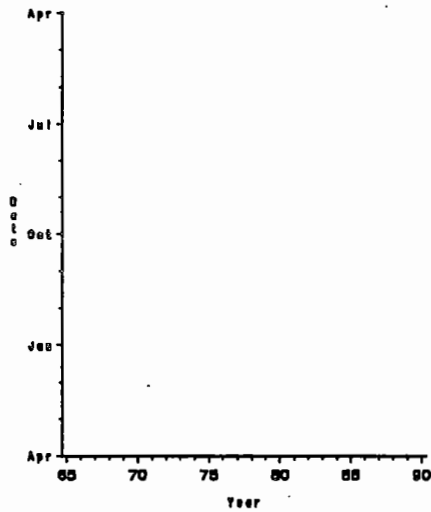
Pink (PK)



Sockeye

Coho

Pink



Sockeye

Coho

Pink

Year Escapement Start Post End

1966	0	-	-	-
1968	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	0	-	-	-
1983	-	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Year Escapement Start Post End

1966	0	-	-	-
1968	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	0	-	-	-
1983	-	-	-	-
1984	0	-	-	-
1985	200	-	01000	-
1986	-	-	-	-
1987	0	-	-	-

Year Escapement Start Post End

1966	0	-	-	-
1968	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	0	-	-	-
1983	-	-	-	-
1984	0	-	-	-
1985	-	-	-	-
1986	0	-	-	-
1987	0	-	-	-

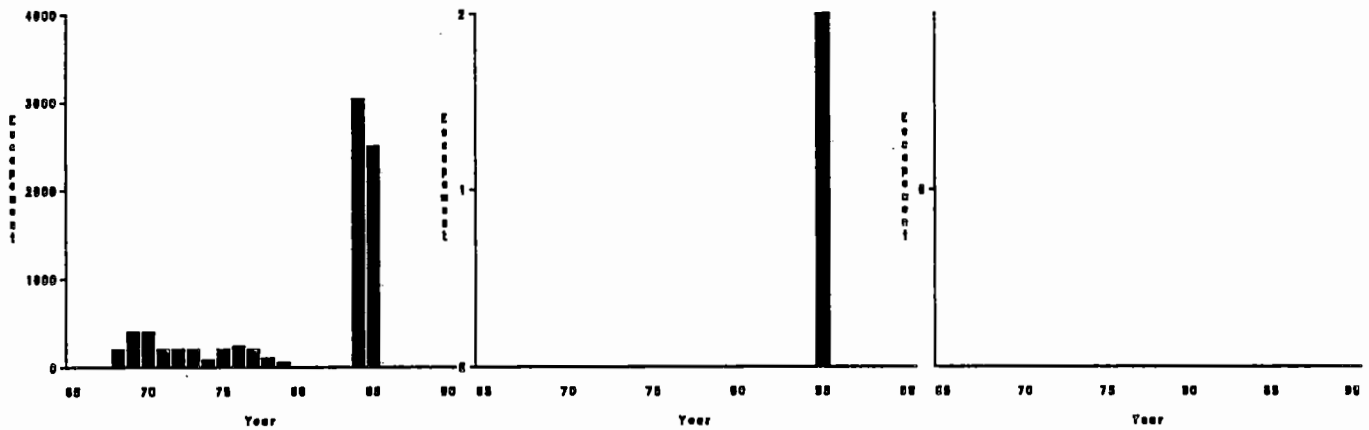
MERCANTILE CREEK (93-3290)

Escapement & Run Timing

Chum (CM)

Chinook (CH)

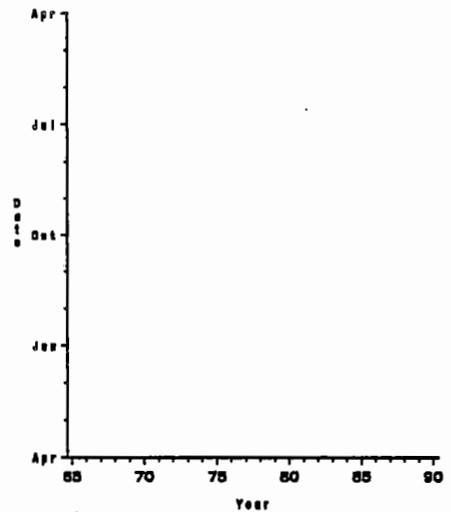
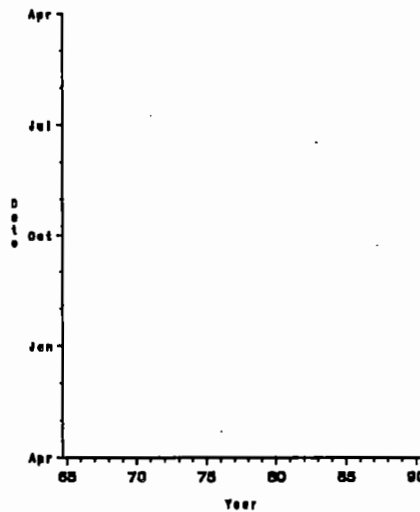
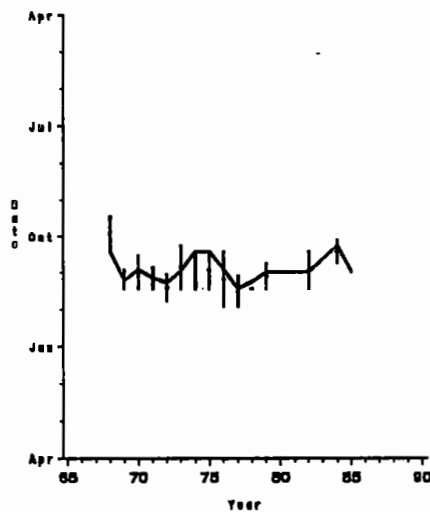
Steelhead (ST)



Chum

Chinook

Steelhead



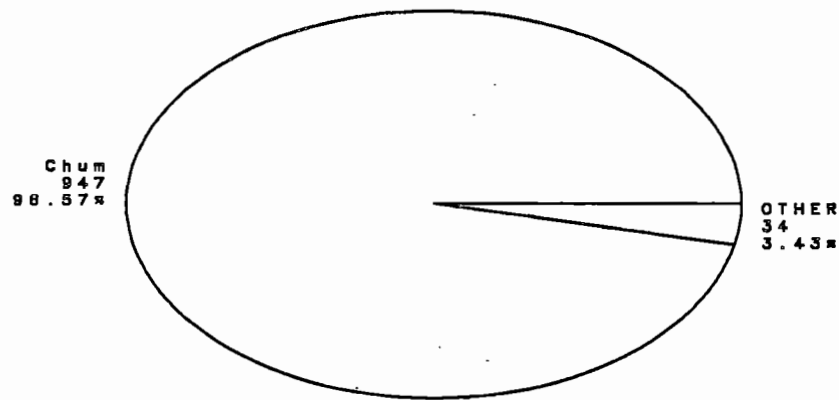
Chum				
Year	Escapement	Start	Peak	End
1965	300	12SEP	19OCT	19OCT
1966	400	30OCT	06NOV	19NOV
1970	400	19OCT	30OCT	13NOV
1971	300	29OCT	09NOV	13NOV
1972	300	02NOV	10NOV	20NOV
1973	300	19OCT	31OCT	19NOV
1974	70	19OCT	19OCT	19NOV
1975	300	19OCT	19OCT	19NOV
1976	340	19OCT	30OCT	30NOV
1977	300	04NOV	12NOV	30NOV
1978	100	12NOV	09NOV	12NOV
1979	00	29OCT	01NOV	12NOV
1980	-	-	-	-
1981	-	-	-	-
1982	0	12OCT	01NOV	19NOV
1983	-	-	-	-
1984	3,432	09OCT	19OCT	23OCT
1985	3,000	-	01NOV	-
1986	-	-	-	-
1987	0	-	-	-

Chinook				
Year	Escapement	Start	Peak	End
1965	0	-	-	-
1966	0	-	-	-
1970	0	-	-	-
1971	0	-	-	-
1972	0	-	-	-
1973	0	-	-	-
1974	0	-	-	-
1975	0	-	-	-
1976	0	-	-	-
1977	0	-	-	-
1978	0	-	-	-
1979	0	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	0	-	-	-
1983	-	-	-	-
1984	0	-	-	-
1985	2	-	-	-
1986	0	-	-	-
1987	0	-	-	-

Steelhead				
Year	Escapement	Start	Peak	End
1965	-	-	-	-
1966	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	-	-	-	-
1974	-	-	-	-
1975	-	-	-	-
1976	-	-	-	-
1977	-	-	-	-
1978	-	-	-	-
1979	-	-	-	-
1980	-	-	-	-
1981	-	-	-	-
1982	-	-	-	-
1983	-	-	-	-
1984	-	-	-	-
1985	-	-	-	-
1986	-	-	-	-
1987	-	-	-	-

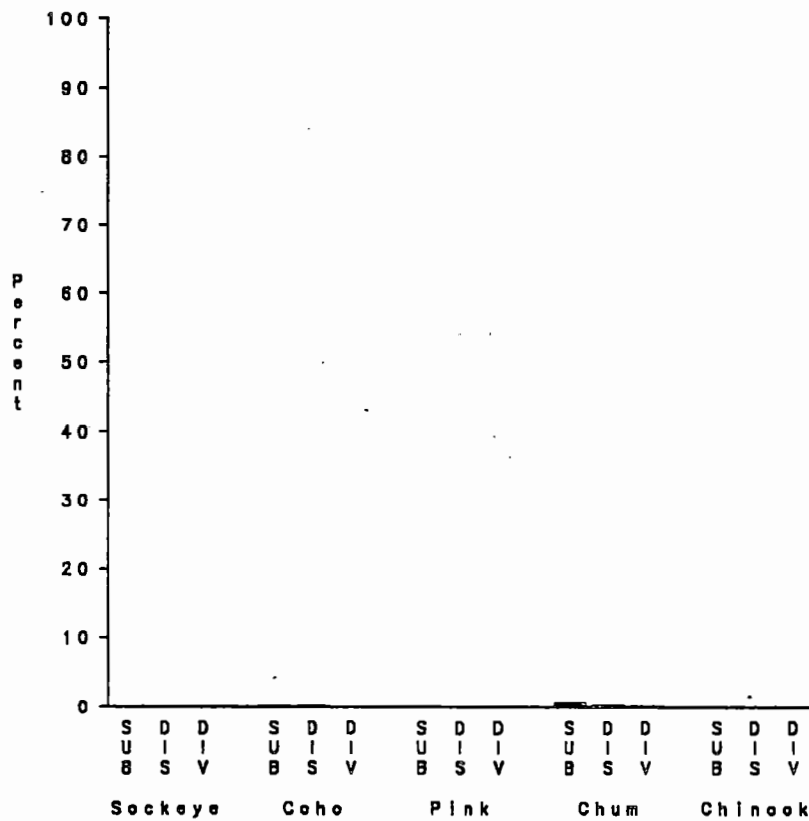
MERCANTILE CREEK (93-3290)

10-yr Mean Escapement
(1978-1987)



MERCANTILE CREEK : Escapement (1978-1987)

Species Escapement as a Proportion of DFO Management Units
(ie Subdistrict, District & Division)



A. DESCRIPTION

Stream Name: SMITH CREEK	D.F.O. Division: SOUTH COAST
Local Name: SALMON CREEK	District: 4 PORT ALBERNI
Watershed Code: 93-3310	Subdistrict: 23 PORT ALBERNI
	Statistical Subarea: 23-11
	M.O.E.P. Region: 1 VANCOUVER ISLAND
	Management Unit:

Tributaries	Code	Topographic (1:50k) Map: 92C/13 B.C.G.S. (1:20k) Map: 093 U.T.M. Mouth: Lat./Long. Mouth: 48 DG. 58' 43'' 125 DG. 34' 22'' Mainstem Length: 3.2 km Ref. No.: 23-1 Watershed Area: 13.0 km2 Ref. No.: 23-1
		Location: FLows S. INTO UCLUELET INLET, N. OF KVARNO ISLAND, CLAYOQUOT DIST.

Gradient Class/Location (km upstream from mouth)	Comments
0 - .5% .5 - 2% 2 - 5% 5 - 10% >10%	LOW GRADIENT THAT EVENTUALLY STEEPENS TO BECOME A BARRIER (REF. 23-8)

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:
NO INFORMATION AVAILABLE	

D. DISTRIBUTION SUMMARY

Species	Watershed Distribution
CO COHO SALMON	UPPER REACHES (REF. 23-8)
PK PINK SALMON	HISTORICAL PRESENCE (REF. 28A-18)
CN CHUM SALMON	LOWER REACHES (REF. 23-8)

E. ESCAPEMENT SUMMARY

Species	Escapement			Maximum Recorded Escapement	Ref. No.	Management Target Escapement	Ref. No.
	Mean	Period of Record	Ref. No.				
CO COHO SALMON	46	1978 - 1987	28A-18	100	28A-18		
CN CHUM SALMON	2024	1978 - 1987	28A-18	4743	28A-18		

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	CM CHUM SALMON	0.0	TOOK BROOD STOCK FOR THORNTON CREEK HATCHERY FROM SMITH C (REF. 23-1)	1976/1977
EN ENHANCEMENT ACTS	CM CHUM SALMON	0.0	TOOK BROOD STOCK FOR THORNTON CREEK HATCHERY FROM SMITH C (REF. 23-8)	1981/1986

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 KAPAHI
Last checked by: VIOLET KOMORI

Date: 1989/03/08
Date: 1990/03/29

ESCAPEMENT: SMITH CREEK

WATERSHED-CODE: 93-3310

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK	STEELHEAD
1953	0	0	0	3500	0	0
1954	0	0	0	7500	0	0
1955	0	0	25	1500	0	0
1956	0	0	0	1500	0	0
1957	0	0	0	3500	0	0
1958	0	0	0	7500	0	0
1959	0	25	0	7500	0	0
1960	0	0	0	1500	0	0
1961	0	25	0	400	0	0
1962	0	25	0	750	0	0
1963	0	0	0	750	0	0
1964	0	25	0	750	0	0
1965	0	25	0	200	0	0
1966	0	25	0	3500	0	0
1967	0	25	0	1500	0	0
1968	0	200	0	3500	0	0
1969	0	75	0	1500	0	0
1970	0	400	25	7500	0	0
1971	0	75	0	1500	0	0
1972	0	75	0	15000	0	0
1973	0	200	0	3500	0	0
1974	0	150	0	3500	0	0
1975	0	75	0	400	0	0
1976	0	70	0	5700	0	0
1977	0	105	0	5000	0	0
1978	0	100	0	3500	0	0
1979	0	100	0	1000	0	0
1980	UNK	UNK	UNK	UNK	UNK	UNK
1981	UNK	UNK	UNK	UNK	UNK	UNK
1982	0	UNK	0	2400	0	0
1983	0	UNK	0	UNK	0	0
1984	0	0	0	4743	0	0
1985	UNK	30	UNK	500	UNK	0
1986	0	UNK	0	UNK	0	0
1987	0	0	0	0	0	0
1988						
1989						
1990						
1991						
1992						
1993						
1994						
1995						

N/O = STREAM INSPECTED, NO FISH OBSERVED

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

NUMERIC BIBLIOGRAPHY

REFERENCE LIST
1990/03/29

Page: 1

REFERENCE NO: 17- 68

AUTHOR: TUTTY, B.D.
DESCRIPTION: HABITAT BIOLOGIST, HABITAT MANAGEMENT DIVISION, NANAIMO. PERSONAL COMMUNICATION, JUNE 1987.
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AO ALL SALMON OB OBSTRUCTIONS PY PHYSICAL HABITAT
S SPAWNING

REFERENCE NO: 23- 1

AUTHOR: BROWN, R.F.; M.M. MUSGRAVE ET AL
DESCRIPTION: CATALOGUE OF SALMON STREAMS AND SPAWNING ESCAPEMENTS OF STATISTICAL AREAS 22 AND 23 (NITINAT AND BARKLEY SOUND)
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AF ALL SPECIES AO ALL SALMON PY PHYSICAL HABITAT
S SPAWNING

REFERENCE NO: 23- 2

AUTHOR: BROWN, T.G.; I.V. WILLIAMS & A. LANGSTON
DESCRIPTION: WATERSHED DATA BASE: BARKLEY SOUND VANCOUVER ISLAND. AUG. 1987. CON. DATA REPORT OF FISH & AQ. SCIENCES NO. 667
LOCATION: G DFO - SOUTH COAST DIVISION - NANAIMO
KEYWORDS: AO ALL SALMON FO FORESTRY PS POPULATION SAMPLING
S SPAWNING

REFERENCE NO: 23- 5

AUTHOR: HARVER, D.W. & B.C. ANDERSON 1974
DESCRIPTION: FISH POPULATIONS OF CARNATION CREEK AND OTHER BARKLEY SOUND STREAMS - 1970-1973: DATA RECORD & PROGRESS REPORT. FISH RES. BOARD CAN. MANUSCRIPT SERIES NO. 1303 115PP.
LOCATION: A DFO - REGIONAL LIBRARY - VANCOUVER
KEYWORDS: AF ALL SPECIES FO FORESTRY PS POPULATION SAMPLING
S SPAWNING

REFERENCE NO: 23- 6

AUTHOR: HARVER, D.W. & T.W. CHAMBERLIN 1976
DESCRIPTION: CARNATION CREEK: AN EXPERIMENT TOWARDS INTEGRATED MANAGEMENT. D.O.E., P.B.S., NANAIMO, B.C. CIRCULAR NO. 104 20PP
LOCATION: A DFO - REGIONAL LIBRARY - VANCOUVER
KEYWORDS: AO ALL SALMON FO FORESTRY PY PHYSICAL HABITAT

REFERENCE NO: 23- 7

AUTHOR: VARIOUS
DESCRIPTION: STREAM FILES IN PORT ALBERNI FISHERY OFFICE
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AF ALL SPECIES AO ALL SALMON HS HABITAT SAMPLING
PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 23- 8

AUTHOR: GIRODAT, DENNIS
DESCRIPTION: FISHERY OFFICER, PORT ALBERNI (1975 - PRESENT). PERSONAL INFORMATION. INTERVIEWED JAN 18 - 19, 1989
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AF ALL SPECIES AO ALL SALMON FS FISH SAMPLING
PY PHYSICAL HABITAT S SPAWNING

REFERENCE NO: 23- 11

AUTHOR: ANDERSON, B.C. OCT. 1983
DESCRIPTION: FISH POPULATIONS OF CARNATION CREEK AND OTHER BARKLEY SOUND STREAMS 1970-1980. CAN DATA REPORT NO. 415
LOCATION: A DFO - REGIONAL LIBRARY - VANCOUVER
KEYWORDS: AF ALL SPECIES FS FISH SAMPLING HS HABITAT SAMPLING
PY PHYSICAL HABITAT

REFERENCE NO: 23- 12

AUTHOR: MORRIS, S. & A.J. LEANEY
DESCRIPTION: THE SOMASS RIVER ESTUARY STATUS OF ENVIRONMENTAL KNOWLEDGE TO 1980. MAR. 15, 1980. SPECIAL ESTUARY SERIES NO. 9
LOCATION: A DFO - REGIONAL LIBRARY - VANCOUVER
KEYWORDS: AF ALL SPECIES FS FISH SAMPLING PY PHYSICAL HABITAT

REFERENCE NO: 23- 13

AUTHOR: LIRETTE, M.
DESCRIPTION: FISHERIES BIOLOGIST, MINISTRY OF ENVIRONMENT, NANAIMO. (1979-PRESENT) PERSONAL INTERVIEW, FEB.20,1989.
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AF ALL SPECIES CT CUTTHROAT TROUT FS FISH SAMPLING
HS HABITAT SAMPLING PY PHYSICAL HABITAT ST STEELHEAD

REFERENCE NO: 23- 14

AUTHOR: UNKNOWN
DESCRIPTION: 1:50,000 NTS INVENTORY MAPS BASED ON 1970'S FIELD SURVEYS.
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AF ALL SPECIES AO ALL SALMON PY PHYSICAL HABITAT
TR TROUT

REFERENCE NO: 23- 15

AUTHOR: HORNCastle, G.S.
DESCRIPTION: SOMASS RIVER INVENTORY, 1976.
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AF ALL SPECIES FS FISH SAMPLING HS HABITAT SAMPLING
PY PHYSICAL HABITAT TR TROUT

REFERENCE NO: 23- 16

AUTHOR: HORNCastle, G.S.
DESCRIPTION: SOMASS RIVER STEELHEAD INVESTIGATIONS PROGRESS DURING 1977-1978
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: FS FISH SAMPLING ST STEELHEAD

REFERENCE NO: 23- 19

AUTHOR: UNKNOWN
DESCRIPTION: TOQUART WATERSHED INTEGRATED RESOURCE STUDY PROJECT REPORT 1974. B.C. FOR. SERV. PROJ. 731
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AF ALL SPECIES FO FORESTRY

REFERENCE NO: 23- 20

AUTHOR: HARDING, E.A. & ERICKSON 1974
DESCRIPTION: TOQUART RIVER STUDY FISHERIES VALUES BELOW TOQUART LAKE.
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AF ALL SPECIES FS FISH SAMPLING HS HABITAT SAMPLING
PY PHYSICAL HABITAT

REFERENCE NO: 23- 21

AUTHOR: MACKILLAN BLOEDEL FORESTRY DIV. FISHERIES SECT.
DESCRIPTION: LAND USE PLANNING GROUP: MACKTUSH CREEK WATERSHED INTERIM REPORT, AUG. 1974.
LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AF ALL SPECIES FO FORESTRY FS FISH SAMPLING
HS HABITAT SAMPLING PY PHYSICAL HABITAT

REFERENCE NO: 6N- 28

AUTHOR: HARDING, E.A.; DE MARCO, R.;
DESCRIPTION: S.H.I.P. ENVIRONMENTAL CONSULTANTS LTD. AIR PHOTO ANALYSIS, MAP DIGITIZING AND GENERAL COMMENTS.
LOCATION: NA NOT APPLICABLE
KEYWORDS: PY PHYSICAL HABITAT

REFERENCE NO: 28A- 18

AUTHOR: DFO.
DESCRIPTION: SALMON ESCAPEMENT DATA SYSTEM (SEDS); PACIFIC BIOLOGICAL STATION; NANAIMO.
LOCATION: J DFO - PACIFIC BIOLOGICAL STATION - NANAIMO
KEYWORDS: CH CHINOOK CM CHUM CO COHO
PK PINK S SPawning SK SOCKEYE

ALPHABETIC BIBLIOGRAPHY

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Page: 1

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LOCATION: O MOE - REGION 1 - NANAIMO
KEYWORDS: AF ALL SPECIES FO FORESTRY

REFERENCE NO: 23- 7

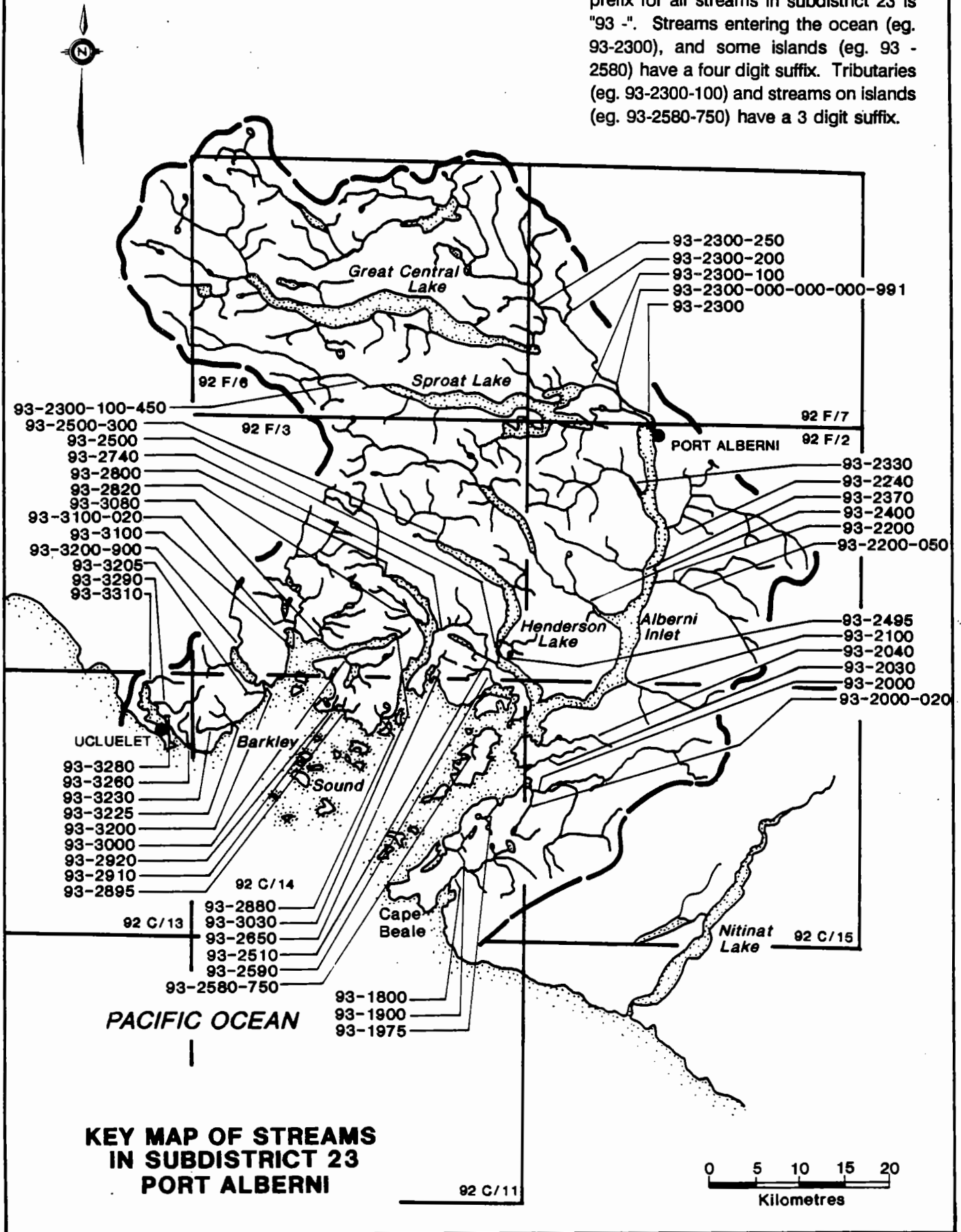
AUTHOR: VARIOUS
DESCRIPTION: STREAM FILES IN PORT ALBERNI FISHERY OFFICE
LOCATION: S DFO - SUBDISTRICT (INCLUDED IN REF. NO)
KEYWORDS: AF ALL SPECIES AO ALL SALMON HS HABITAT SAMPLING
PY PHYSICAL HABITAT S SPAWNING

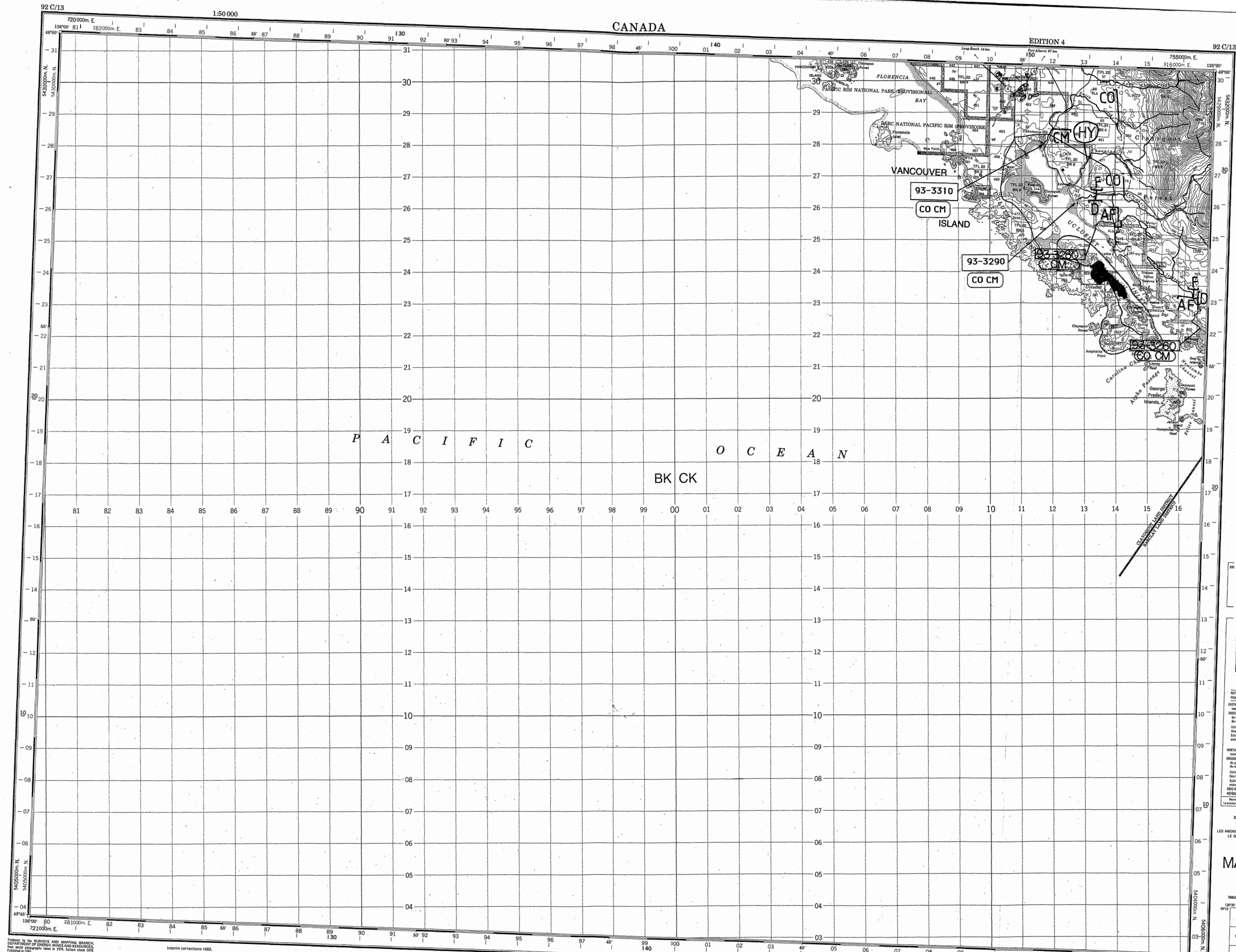
5.0 MAPS

This section contains the following Stream Information Summary Maps for Subdistrict 23 - Port Alberni:

92 C/11	Pachena Point
92 C/13	Ucluelet
92 C/14	Barkley Sound
92 C/15	Little Nitinat River
92 F/2	Alberni Inlet
92 F/3	Effingham River
92 F/6	Great Central Lake
92 F/7	Horne Lake

NOTE: The grid indicates 1:50,000 NTS map coverage. The watershed code prefix for all streams in subdistrict 23 is "93 -". Streams entering the ocean (eg. 93-2300), and some islands (eg. 93 - 2580) have a four digit suffix. Tributaries (eg. 93-2300-100) and streams on islands (eg. 93-2580-750) have a 3 digit suffix.





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
CM* upper limit of spawning

OBSTRUCTIONS
(measurements included where known)

log jam (persistent)
D = dam
F = falls (3m high)
CV = culvert
BD = beaver dam
R = rock falls
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)
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.

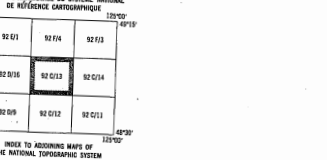
REFERENCE POINT
CHURCH - ÉGLISE (see above)

ENTRÉE Read number on grid line immediately to left of point.
ENTRÉE Read number on grid line immediately to right of point.
ENTRÉE Read number on grid line immediately to left of point.
ENTRÉE Read number on grid line immediately to right of point.
ENTRÉE Read number on grid line immediately to left of point.
ENTRÉE Read number on grid line immediately to right of point.
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ENTRÉE Read number on grid line immediately to left of point.
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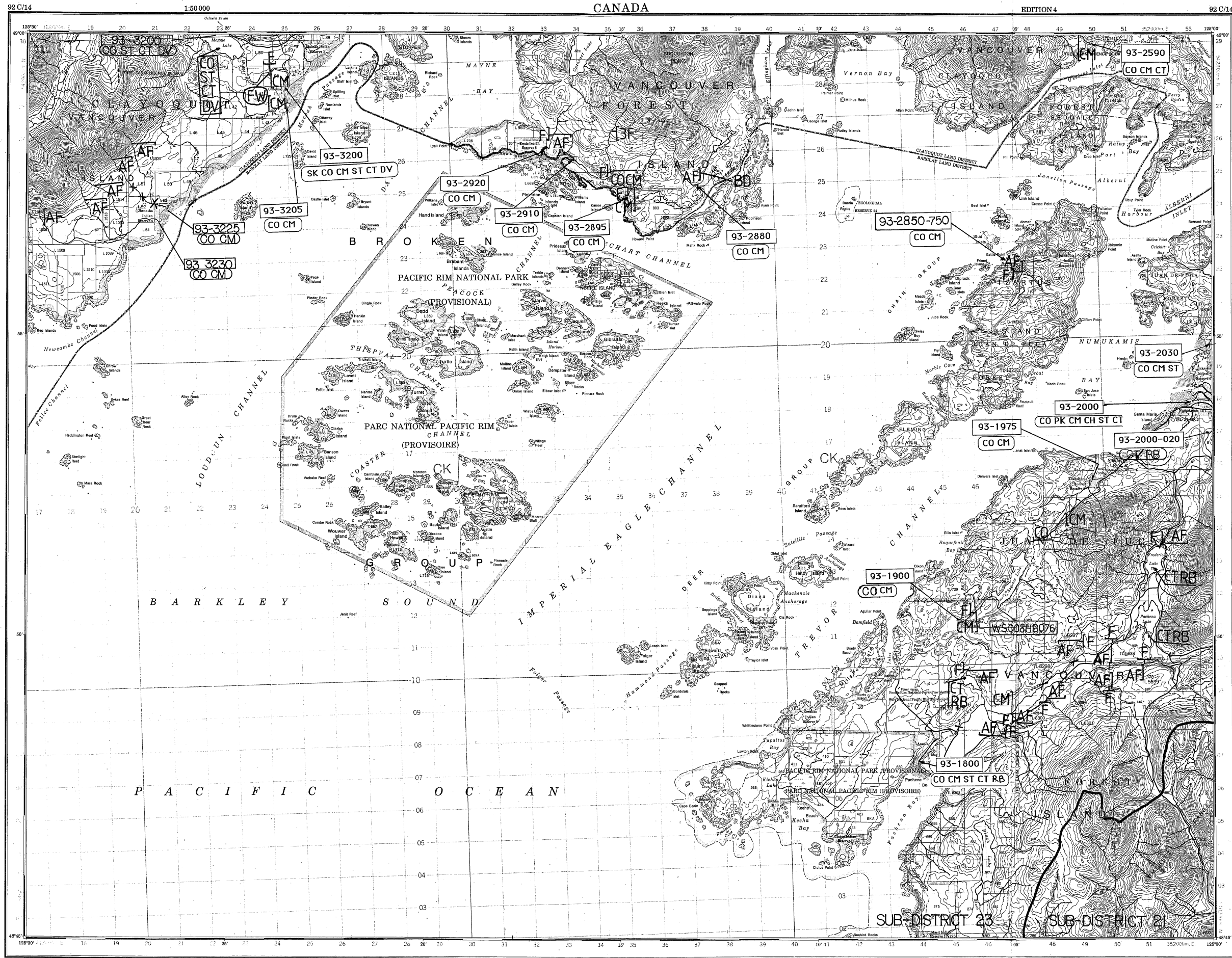
BROWN NUMBERED TICKS INDICATE THE 1000 METRE U.T.M. GRID

LES AMORCES BRUNES NUMÉROTÉES REPRÉSENTENT LE QUADRILLAGE DE 1000 MÈTRES U.T.M.

MAR. 90



UCLUELET 92 C/13 ÉDITION 4



GLOSSARY GLOSSAIRE

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

91-2900 Watershed Code and Species Summary
CO CM CT

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
CM upper limit of spawning

OBSTRUCTIONS
(measurements included where known)

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

ENHANCEMENT/MANAGEMENT ACTIVITIES

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

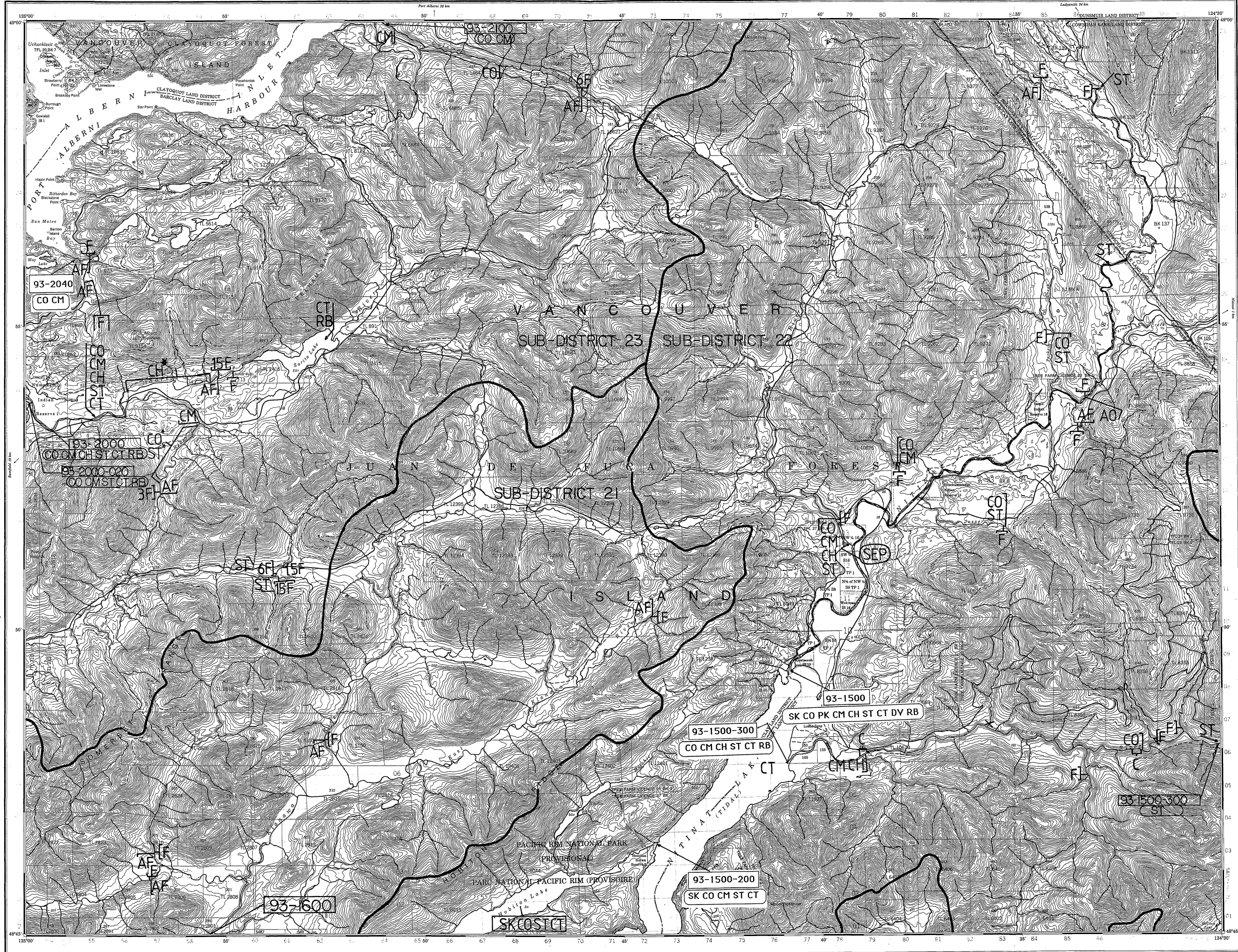
WSC08F8003 Water Survey of Canada Gauging Station

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.



Military users:
refer to this map as:
Référence de cette carte:
pour usage militaire:

SERIES A 721 SÉRIE
MAP 92 C/15 CARTE
EDITION 4 ÉDITION

GLOSSARY GLOSSAIRE

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

91-2900 Watershed Code and
CO CM ST Species Summary

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species present
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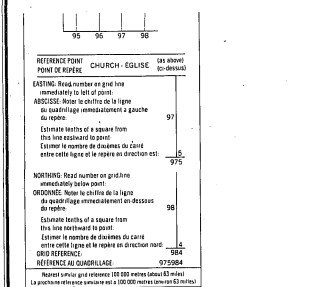
WSC8F8003 Water Survey of Canada
Gauging Station

300 CO tributary watershed code

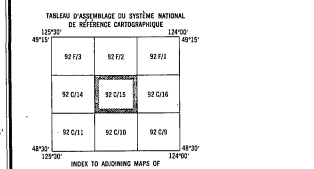
SPECIES ABBREVIATION LIST

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CM - Chum KO - Kokanee
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Maps and files are organized by watershed
code



MAR. 90



LITTLE NITINAT RIVER
92 C/15
EDITION 4

Produced by the SURVEYS AND MAPPING BRANCH,
DEPARTMENT OF ENERGY, MINES AND RESOURCES,
from aerial photographs taken in 1976. Culture data 1978.
Published in 1982.
Copies may be obtained from the Canada Map Office,
Department of Energy, Mines and Resources, Ottawa,
or your nearest map dealer.
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Department of Energy, Mines and Resources.

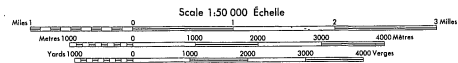
Interim corrections 1982.

Roads:
hard surface, all weather: pavé, toute saison
hard surface, all weather: pavé, toute saison
loose or stabilized surface, all weather: gravier, aggloméré, toute saison
loose surface, dry weather: de gravier, temps sec
unstable surface: route non classée
can't track: de terre
trail, cut line or portage: sentier, percée ou portage

FOR COMPLETE REFERENCES SEE REVERSE SIDE POUR LA LECTURE COMPLÈTE DES SIGNES, VOIR AU VERSO

LITTLE NITINAT RIVER
BRITISH COLUMBIA

Scale 1:50 000 Échelle



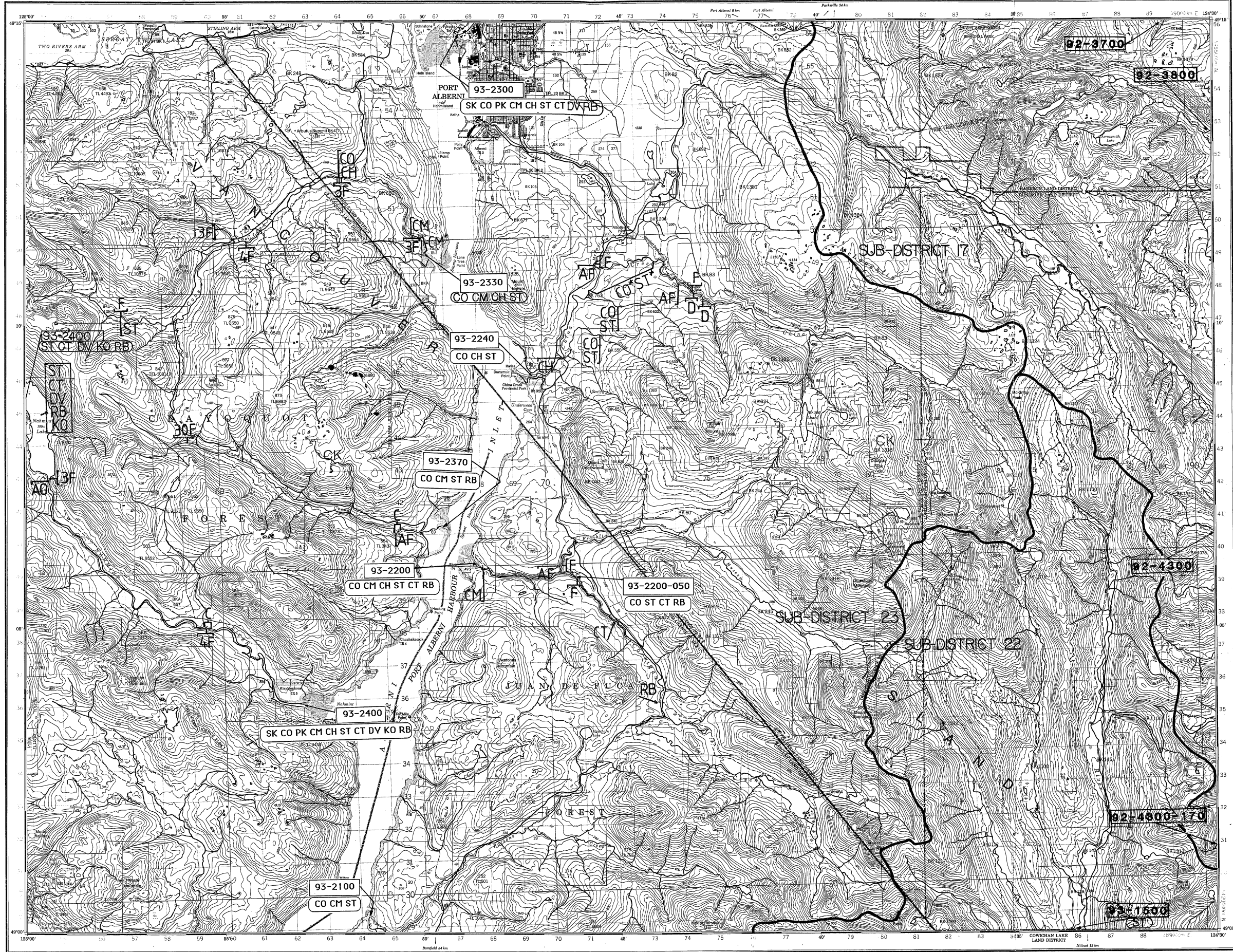
Information concerning location and precise elevation of bench
marks can be obtained by writing to the Canada Survey, Survey
and Mapping Branch, Ottawa.

On peut obtenir des renseignements sur le lieu et l'altitude exacte des
points de nivellement en écrivant au Service de Levé, de Levé et de Levé,
Branche de Levé et de Levé, Ottawa.

On peut obtenir des renseignements sur le lieu et l'altitude exacte des
points de nivellement en écrivant au Service de Levé, de Levé et de Levé,
Branche de Levé et de Levé, Ottawa.

Corrections provisoires 1982.

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

91-2900 Watershed Code and
CO CM ST Species Summary

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WSC08F003 Water Survey of Canada
Gauging Station

300 CO tributary watershed code

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

REFERENCE POINT
POINT DE REPÈRE

ADDITION: Read number on grid line
corresponding to left of point.
ADDITION: Read number on grid line
corresponding to right of point.
ADDITION: Read number on grid line
corresponding to bottom of point.
ADDITION: Read number on grid line
corresponding to top of point.

NOTES: Read number on grid line
corresponding to left of point.
NOTES: Read number on grid line
corresponding to right of point.
NOTES: Read number on grid line
corresponding to bottom of point.
NOTES: Read number on grid line
corresponding to top of point.

COORDINATES: Read number on grid line
corresponding to left of point.
COORDINATES: Read number on grid line
corresponding to right of point.
COORDINATES: Read number on grid line
corresponding to bottom of point.
COORDINATES: Read number on grid line
corresponding to top of point.

SCALE: 1:50 000

MAR.90

MARCH 1988

MAP 92 F/2

ALBERNI INLET
92 F/2
EDITION 4

Produced by the SURVEYS AND MAPPING BRANCH,
DEPARTMENT OF ENERGY, MINES AND RESOURCES,
Région de l'ouest, 1000, rue de la Paix, Ottawa,
Ontario K1P 6P6.

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Ontario K1P 6P6.

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Département des Énergie, des Mines et des
Ressources.

Roads
Rues

hard surface, all weather
revêtement dur, toutes saisons

hard surface, all weather
revêtement dur, toutes saisons

loose or stabilized surface, all weather
surface lâche ou stabilisée, toutes saisons

loose surface, dry weather
surface lâche, temps sec

unclassified streets
rues non classées

trail, coal line or portage
sentier, ligne de charbon ou portage

une ligne complète des symboles pour les 1:50 000

ALBERNI INLET BRITISH COLUMBIA

Scale 1:50 000 Échelle

Miles 0 1 2 3
Kilometres 0 1 2 3
Mètres 0 1000 2000 3000 4000
Yards 0 1000 2000 3000 4000

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

On peut obtenir des renseignements sur la localisation et l'altitude exacte des
marques de nivellement en consultant le Service des levés géodésiques, Direction
des levés et de la cartographie, Ottawa.

CONVERSION SCALE FOR ELEVATIONS
ÉCHELLE DE CONVERSION DES ALTITUDES

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

CONTOUR INTERVAL 40 METRES
Intervalles de lignes de niveau 40 mètres

ÉQUIVALENCE DES CONTOURS 40 MÈTRES
Intervalles de lignes de niveau 40 mètres

Cartes produites par le Service des cartes et des
relevés, Ministère des Énergie, des Mines et des
Ressources, 1000, rue de la Paix, Ottawa,
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