# STREAM CATALOG OF SOUTHEASTERN ALASKA REGULATORY DISTRICT No. 2





#### ABSTRACT

Information about part of Southeastern Alaska salmon streams is cataloged from the voluminous records of the Alaska Department of Fish and Game, the Alaska Salmon Industry, the Fisheries Research Institute of the University of Washington, the U. S. Fish and Wildlife Service, and other agencies. Stream descriptions, maps, and historical records of salmon escapement data are compiled for 88 salmon streams in the Southeastern Alaska Regulatory District No. 2. Each stream is located geographically by latitude and longitude, and by orientation to prominent land masses. A standard numbering system, number designations formerly in use, and common names of each stream are listed. Physical descriptions are presented for the intertidal zone and the upstream area of each stream. Available records of weather, water temperatures, and information useful to ground and aerial stream surveyors are presented in brief form. The species of salmon utilizing the spawning grounds and estimates of the escapements each year for many years are given.

## UNITED STATES DEPARTMENT OF THE INTERIOR, STEWART L. UDALL, SECRETARY Fish and Wildlife Service, Clarence F. Pautzke, Commissioner Bureau of Commercial Fisheries, Donald L. McKernan, Director

## STREAM CATALOG OF SOUTHEASTERN ALASKA REGULATORY DISTRICT NO. 2

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### STREAM CATALOG OF SOUTHEASTERN ALASKA REGULATORY DISTRICT NO. 2 $\stackrel{\underline{1}}{\underline{}}$

#### INTRODUCTION

The pink salmon of Southeastern Alaska are an important fishery resource. Millions of these fish are captured annually by the commercial fishery during their spawning migration. There are more than 1, 100 known spawning streams, plus hundreds of small, individually unimportant ones, scattered along the 9,000 coastal miles of Southeastern Alaska.

For many years, management and research agencies of the Federal, Territorial and State governments, Alaska Salmon canners, and the Fisheries Research Institute of the University of Washington, have independently conducted stream surveys of the salmon spawning grounds. A vast amount of valuable information has been accumulated and has been, in the main, kept on file in the offices of the various organizations.

To make full use of all these scattered materials, records from the various souces have been gathered together and methods of stream surveying have been studied on a comparative basis. This information has been consolidated into a standard form which is presented here as a stream catalog.

This catalog has been compiled under a contract given to the Fisheries Research Institute by the United States Fish and Wildlife Service. The material contained herein includes 88 major and numerous minor streams of Regulatory District No. 2.

Information on each stream is presented in three parts: a map, stream description, and the escapement record. Information pertinent to the identification of each stream by name, number, and location is given, and further physical features are described where necessary for positive identification. Descriptions of each stream are given as completely as available information allows. The catalog format is so designed that future surveys by various agencies can be recorded and conducted according to a uniform style.

I/ Contribution No. 149, College of Fisheries, University of Washington, Seattle, Washington. It is the second catalog of salmon streams of Southeastern Alaska. The first catalog covered the Eastern Section of Ketchikan Management District, Special Scientific Report -- Fisheries No. 305. (Regulatory District No. 1).

As a handbook of salmon streams, this catalog is expected to serve as an aid to conservation agencies as well as others who have an interest in the valuable salmon resource of Southeastern Alaska.

#### SOURCES OF DATA

The information compiled in this catalog is derived from a number of sources, both in and outside of the field of fisheries work. A complete list of these sources is given below.

<u>Alaska Department of Fish and Game.</u> Valuable stream and escapement information are available in reports by research and management personnel.

Alaska Salmon Industry. Surveys (made by individual members of the industry) are among some of the earliest records available.

Fisheries Research Institute. Records are available for each year starting with 1947. Many of the Institute research projects have been concerned with precise measurements of physical factors. Data from these projects provide some of the stream descriptions and escapement estimates included in this catalog. In 1950 and 1951 the Institute assembled a stream catalog for Southeastern Alaska with all the information then available. It has served as a quide for the present catalog.

<u>U. S. Coast and Geodetic Survey.</u> Charts used throughout the catalog for standardization of stream location coordinates are from this source. A number of largescale charts have provided intertidal zone information.

The U. S. Coast Pilot (1952, Southeast Alaska, Dixon Entrance to Yakutat Bay, x, 544 p., plus charts and Supplements dated February 9, 1957, and January 7, 1961, Ninth Supplement) is the source of information on vessel approaches to stream mouths and the authority for spelling of proper names.

U. S. Fish and Wildlife Service. District catalogs of this agency are a major source of stream physical data and salmon escapement records. Escapement records from the streams where weirs were operated are actual counts. The F. W. S. stream numbering system, being the first system used, is incorporated in this catalog. Information on some of the large

mainland streams with headwaters in Canada was obtained from the Canadian government by the U.S. Fish and Wildlife Service.

- U. S. Federal Power Commission. The report, Water Power of Southeastern Alaska, 1947, published with the cooperation of the U. S. Forest Service, provides discharge rates and stream drainage areas, and other information about a number of important salmon streams. 168 p.
- <u>U. S. Forest Service</u>. Data on stream characteristics and salmon escapements are available on several streams in records of studies conducted by this agency on the effects of logging on the physical makeup of streams.
- U. S. Geological Survey. Aerial photographs from this agency are the primary source for measurements of stream distances and areas and for valley features not visible from the ground. These photographs, which are of most of the streams in Southeastern Alaska, were made by the U. S. Navy (Patrol Squadron Four) in 1948.

<u>Local residents.</u> Another source is the descriptive information on several major streams provided by local residents.

#### LIMITATIONS OF DATA

Escapement estimates obtained by visual means are often limited in accuracy because fish are not seen in turbid water, under overhanging stream banks, or in areas inaccessible to observers. Actual counts throughout the duration of the salmon run past a counting weir or tower are relatively accurate estimates of total escapement. However, it is not economically feasible to establish a weir on each stream, and escapement surveys are the only source of information for a large part of the area which must be covered. The value of the catalog as a history of the salmon escapements can be realized only if its limitations are fully known.

#### Escapement Estimates

Escapement estimates do not indicate the actual total escapement. At no time are all the salmon in the stream simultaneously since the spawning run extends over a period of weeks. Therefore, each escapement estimate is an index of the relative abundance at the time of survey.

The maximum estimate determined by survey methods at about the peak of the run is used as an estimate of the relative abundance of the total escapement. Reliable indices of relative abundance from year to year can be made only if the surveys are comparable. Evaluation of the following factors is

necessary to determine the accuracy of the escapement estimates.

Observers. --The escapement records are from many different observers. Variability in estimating the number of salmon in a given area by different observers should be considered in judging the accuracy of the data. In general, with more observers variability increases.

<u>Survey systems.</u> --Different survey systems have been used by the various agencies. Reliability of the escapement estimates varies with the systems used.

Survey systems that employ standard counting techniques over standard distances are the most reliable method now available for comparison of abundance between years, particularly when streams can be only partially covered. Standard survey distances in comparatively long streams were not widely used prior to 1949.

Survey systems requiring periodic visits to each stream during the spawning period are more reliable for estimates of peak abundance than systems requiring only one or two visits. The peak period of abundance in a salmon stream is usually relatively short, and one or two visits may miss the peak.

Type of survey. --Two basic methods for covering the streams during escapement surveys are being used.

The oldest method is the ground survey in which the observer follows the stream course on foot or in a skiff with an outboard motor. Most parts of the stream can be closely observed by this type of survey.

The newer method is aerial survey. This is a fast, economical means of covering a large number of streams in a short period of time over stream distances greater than is possible on the ground. This method requires experienced personnel familiar with ground surveys as well.

Aerial surveys are best suited for large rivers and streams where ground coverage is limited usually to the lower portion of the stream near the banks. Ground surveys are more reliable than aerial surveys on small streams that offer poor visibility from the air.

Observation conditions, --Weather is an extremely important factor in the reliability of escapement estimates. During flooding, ground surveys can be made only with great difficulty. Visibility is also greatly reduced because of turbid water. Any estimate made during years that had heavy rains of

long duration during the peaks of spawning runs is not comparable with an estimate made during normal water levels.

Streams in which intertidal spawning predominates may present difficult observation conditions at high tide. Spawning salmon in the intertidal zone behave differently when the spawning areas are flooded by the high tide.

Aerial observations vary with the different types of aircraft used. Observations made from small light planes capable of following winding stream courses are more reliable than those made from larger planes which must fly at considerable height above the stream and generally at greater speeds.

#### Physical Observations

Observations of the characteristics of each stream by different observers have been recorded with varying degrees of accuracy. Many details of stream descriptions are dependent upon the individual observer's ability and knowledge.

Many stream dimensions are merely estimates. Instruments for measurements were usually not available to observers, and pacing and estimating were used.

Most basic stream distances have been taken from aerial photographs and are relatively accurate. However, some errors may have occurred where reference points were difficult to identify. Drainage estimates were based on compensating polar planimeter measurements of valley areas, but occasionally drainage divides were difficult to distinguish and the areas given are only approximate.

#### EXPLANATION OF CATALOG FORMAT

Further descriptions of the data such as estimates of timing, temperature ranges, spawning facilities, etc., are included under these specific headings in the explanation of the catalog format that follows:

#### Stream Designations

<u>Statistical area number</u>. --The number used by the Alaska Department of Fish and Game to designate the statistical area is given in the upper left side of the heading.

Stream name. --This appears in the center of the first line of the heading. Recorded names or common local names are used when available. Otherwise unnamed streams of importance are given descriptive names corresponding to location or other distinguishing features. Some streams have identical names; they are retained without change due to local

usage. Many minor streams have no names; hence they are identified only by number.

Stream number. -- This number appears on the right side of the first line of the heading. The letter preceding the number designates the administrative district in Southeastern Alaska: e. g., "K" for Ketchikan. Continuity of stream numbers along a shoreline is followed where practical. Due to the numerous islands, breaks in the sequence have been necessary. Nonhyphenated numbers designate major or important streams. A catalog number which includes a hyphenated number designates a tributary to the stream of the same number. A catalog number combining numbers and letters designates a minor stream, either adjacent to or between major streams numbered in sequence. For example, stream number 17A is a minor stream adjacent to major stream number 17.

Latitude and longitude. --This appears on the second line, left side, of the heading. Location of streams is given by the use of "N" for north latitude, and "W" for west longitude, stated in degrees (°), minutes and tenths of minutes ('). Location of the high tide point on the stream is given for positive identification.

Previous number. --This appears on the second line, right side, of the heading. Stream number or numbers used in the past by Fish and Wildlife Service are given for positive identification of old stream records.

Geographic location. --This appears on the third line of the heading. Each stream location is described by the administrative district, major channel, bay or inlet, arm or cove, and location within the smallest division given by direction (from true north) and distance (nautical miles).

Major species. --Included are those species of salmon which furnish the bulk of spawning in the stream. Where more than one dominates, both (or more) are included.

Other species. --This indicates other known species of salmon and trout using the stream.

Escapement timing. --The timing is based on systematic stream survey records, which include a number of years of surveys with visits before, near, and after the peaks of abundance. Extensive stream temperature studies were conducted in conjunction with most of these surveys. The earliest runs of salmon occur along the colder mainland streams. The latest runs are in the outer channel and coastal areas where stream levels are dependent upon rainfall. An intermediate timing of the runs occurs in the

region lying between the mainland and outer coastal areas. Three major time divisions are used to indicate the peak period that the major species are found in the stream. "Early" designates peaks before August 15; "middle," peaks between August 15 and September 15; "late," peaks after September 15. The range of time in which the major species are found in the streams is given by months.

Escapement magnitudes. --These are estimates of the total escapement, based on stream counts of the peak abundance of salmon, multiplied by a certain factor. This factor was determined from stream tagging experiments conducted at Herman Creek in 1953 by the Fisheries Research Institute, who found the total escapement was between two and three times the peak count. The range of the escapement magnitude is given in thousands.

Spawning facilities. --This includes a general classification rating of poor, fair, good, excellent, etc. The rating is based on estimates made by various individuals.

<u>Stream temperatures.</u> --In this classification, the following general ranges are used for each stream. Each range is for the 3-month period (July, August, and September) in which the majority of the salmon spawning migrations occur:

Cold range, averaging less than  $50^{\circ}$  F., usually an early run stream.

Normal range, averaging between 50° F., and 55° F., usually a middle run stream.

Warm range, averaging over  $55\,^{\circ}$  F., usually a late run stream.

These ranges generally correspond to the geographic location of the stream and time of the runs. Where only limited temperature information is available for a stream, the range has been estimated from its location and timing of the run. Cold-range streams are usually found along the mainland or on the larger islands in the northern part of Southeastern Alaska. Warm-range streams are usually found along the outer channels and coastal areas, which are dependent upon precipitation as the primary source of supply. The normal-range streams appear to fall geographically between and may combine characteristics of both cold- and warm-range streams. Timing of the salmon runs, especially pink salmon, also follows the geographic distribution outlined above. Recording thermograph data, available from a number of streams with known escapement timing, have been used as a basis for comparison.

<u>Valley description.</u> --Glacial, "stream-cut," etc., describe valley origin with a general

description of the outstanding features such as length, width, timber, slopes, directions, etc. They have been obtained from aerial photographs and by direct observations.

<u>Drainage area</u>. --This has been either estimated in square miles or computed with a polar planimeter from aerial photographs. Estimates of the drainage area of large systems have been taken from the small-scale, key, composite photographs and are less reliable. Data from <u>Water Power of Southeastern Alaska 1947</u> are included when available. Descriptions are given of supply sources, drainage topography, and characteristics governing water quality and temperature ranges during spawning from the editor's interpretation of aerial photos and local knowledge.

Stream mouth identification. -- This is a description of some general features visible at the stream mouth.

Anchorage. --Descriptions of temporary anchorages which have been used for short stops by stream survey vessels are given. Overnight and storm anchorages are given in the U. S. Coast Pilot.

Trails and survey routes. --These include descriptions of trails that have been used by ground parties on stream surveys. Where other than the streambed was used, a description of routes is given, including difficult points, identification, outstanding features, presence of brown bears, etc.

Aerial survey notes, --The notes include remarks from various individual observations on the visibility in each stream and the conditions considered necessary for adequate observations. Approaches to valley, starting points, and any known hazards are described from aerial surveyor's notes and the editor's knowledge of the area.

#### Intertidal zone

Length. --The distance is given in miles from mean high to mean low tide, obtained from aerial photographs measured to the nearest tenth of a mile. Where low tide locations were not known the measurement was made from the edge of tidal flats visible in the photographs.

Average width. -- These estimates in feet, based on observations by various individuals.

Average depth. -- These are estimates in inches, or in feet in larger systems, based on observation by various individuals.

<u>Gradient.</u> -- Estimates in degrees from horizontal, based on observation by various individuals.

<u>Velocity</u>. --Estimates in feet per second during normal water levels, based on observation by various individuals.

Bottom. -- A description is given of the composition such as gravel (range from 1/4 inch to over 5 inches in diameter, arbitrary division point), mud, silt, organic materials, broken and water-washed rock, boulders, large rocks, bedrock, etc., according to observations by various individuals.

Low tide location. -- The location of the mean low tide point is an approximation and is given only where it falls near good identification points, usually found in restricted stream outlets.

High tide location. --The mean high tide location generally has been found to correspond to the tree line. Other methods of locating the high tides, such as markers, are described when present.

<u>Salmon schooling areas.</u> -- The areas are usually found near high tide where pools often occur. The areas are described with reference to the mean high tide mark. Annual variations in streambeds may alter locations of schooling areas.

Spawning areas. -- Major areas are described with reference to the high tide mark. Location may change with change in stream conditions.

<u>General notes.</u> -- This includes notes pertinent to the intertidal stream that are of interest and importance in the description of runs.

#### Upstream

Length accessible. -- The length given in miles was measured from aerial photographs along the course of the stream to the known upper limits of salmon migration. Where barriers restrict major species but allow more vigorous species to pass, secondary species limits are given under "Barriers."

<u>Gradient.</u> -- Slope was estimated in degrees from horizontal, based on observation by various individuals.

<u>Velocity</u>. --It is in feet per second during normal water levels and is an estimate from observations by various individuals.

Bottom. -- A description is given whether gravel (range from 1/4 inch to over S inches in diameter, arbitrary division point), mud, silt, organic materials, broken and water-washed rock, boulders, bedrock, etc., are present, from observations by various individuals.

<u>Marker distance</u>. -- Di stance is given in miles along stream course to standard termination point for salmon counting.

Marker identification. -- Description of an artificial marker or of identification feature marking termination point for salmon spawning surveys is given.

Barriers. -- Distance and location above high tide point to known barriers, both passable and impassable, are listed. Descriptions are also given when available.

<u>Tributaries.</u> -- Tributaries used by spawning salmon are listed by distance from the mouth of the main stream, by direction, and by importance. Tributaries not used by salmon, but numerous, are mentioned under "Drainage."

Salmon schooling areas. -- Based on survey records, major salmon schooling areas are listed where specific locations have been observed for an individual stream.

<u>Spawning areas.</u> -- Major areas are described by distance above high tide or from a reference point in the stream.

General notes. -- The notes include data pertinent to the upstream areas that are of interest and importance in the description of salmon escapements.

#### Escapement Record

Statistical area number. -- The number used by the Alaska Department of Fish and Game to designate the statistical area as given on the upper left side of the heading.

Stream name. -- This appears in the center of the first line of the heading.

<u>Stream number.</u> -- The new and old numbers appear on the right side of the first line of the heading on the first page of the escapement record. The following pages give only the new number.

<u>Date surveyed</u>. -- Surveys are listed chronologically.

Miles surveyed. -- Distances are given as measured along stream course to the termination point of the regular survey. Ground surveys are designated by "G" and aerial by "A." These symbols precede miles surveyed.

Surveyed by. --Initials of surveying organizations are listed as follows: Alaska Department of Fish and Game, ADF&G; Alaska Salmon Industry, ASI; Fisheries Research Institute, FRI; U.S. Fish and

Wildlife Service, Bureau of Commercial Fisheries, FWS; and U.S. Forest Service, USFS.

Pink, chum, other species. -- Abundance of salmon observed during surveys is given as a numerical estimate. Estimates of secondary species are usually less reliable than those for the primary species. Estimates of dead salmon of all species usually are very general, having been based on the percentage of the count.

Remarks. -- Adjective ratings are given first when available. The ratings range from poor to excellent and describe the abundance of salmon for the surveyed date only. They do not indicate seasonal escapement abundance. Other notes entered in this column include survey conditions, behavior and distribution of salmon, and salmon observations beyond stated survey distances.

#### MAPPING SYMBOLS

North

LANDFORMS

MIIIIII

Bonk

MIKLUMITER

Bedrock

Boulders

Canyon

Dry Channel

Glacier

Gorge

MARKET COM

Gravel

Hill

Low or Rolling Grade

Steep Grade

Ridge

115 MINE TO 115 MI

Sand (bar)

MARKERS

Manager of the same of the sam

Fish and Wildlife Limit Marker



Forest Service

Trail Marker

HT

High Tide Morker

•

Morker

3

Section Marker

Streom Goge

ROUTES

Railroad

Road

Trail (type designated)

STRUCTURES

Beaver Dam

≥ Bridge

Cabin

Instrument Shelter

VeeV

Cable Crossing

Munulla

Dam

Pier

cells:

Piling

Weir

533

Windfoll

VEGETATION

69

Brush

white aller

Grass

Muskeg

**6**3

Stump

Trees Conifers

Deciduous

WATER FORMS

Anchorage

Channel (in sand

and gravel)

Falls

Fathom

Float

Pool

Rapids

E/ Riffle

Stream Entrance

Tidal Area (sand ond groy value)



Woter (groy value)

#### ALPHABETICAL INDEX OF SALMON STREAMS

AIKEN CREEK, Clarence Strait, Moira Sound, North Arm,	K 137	(127B)
Aiken Cove, S. W. head CABIN CREEK, Clarence Strait, Skowl Arm, Polk Inlet,	K 169	(142E)
W. shore 7.6 miles from head CANNERY CREEK, Clarence Strait, Cholmondeley Sound,	K 152	(135 )
West Arm, S. shore S.7 miles from head Cholmondeley Sound, .8 mile E. of entrance to Sunny	K 156A	(133C)
Cove, Clarence Strait Cholmondeley Sound, 1 mile S.W. of Lancaster Cove,	K 142	(130C)
Clarence Strait Cholmondeley Sound, South Arm, S.W. head, Clarence	K 151	(134A)
Strait Cholmondeley Sound, S. shore 1.6 miles W. of entrance	K 146	(131F)
to Kitkun Bay, Clarence Strait Cholmondeley Sound, West Arm, Head, Clarence Strait	K 155	(137)
Cholmondeley Sound, West Arm, N. shore . S mile from head, Clarence Strait	K 155A	(137A)
Clarence Strait, S miles S. of Windy Point Clarence Strait, 2 miles N. of Forss Cove	K 140 K 185	(129)
Clover Bay, . 3 mile from head, Clarence Strait	K 158	(137C)
CLOVER CREEK, Clarence Strait, Clover Bay, Head	K 15 7	(137B)
Coal Bay, Head, Kasaan Bay, Clarence Strait	K 173	(143A)
Dickman Bay, N. head of N. arm, Clarence Strait, Moira Sound, West Arm	K 135B	
Dickman Bay, N.E. head of N. arm, Clarence Strait, Moira Sound, West Arm	K 135	
Dickman Bay, N.W. head of S. arm, Clarence Strait, Moira Sound, West Arm	K 134B	
Dickman Bay, S. shore 1.5 miles from W. head, Clarence	K 134	
Stroit, Moira Sound, West Arm Dickman Bay, W. head of N. arm, Clarence Strait, Moira	K 135A	(125D)
Sound, West Arm Dickman Bay, W. head of S. arm, Clarence Strait, Moira	K 134A	
Sound, West Arm DISAPPEARANCE CREEK, Clarence Strait, Cholmondeley	K 150	(134)
Sound, South Arm, S. E. head	17 100	/120D\
Doctor Point, 0.4 mile from point, Clarence Strait DOG SALMON CREEK, Clarence Strait, Skowl Arm, Polk	K 189 K 167	(138B) (142G)
Inlet, W. shore, 3 miles from head DOLOMI CREEK, Clarence Strait, Port Johnson, Dolomi	K 139	(128)
Bay, Head Dora Bay, S. shore 2 miles N. E. of head, Clarence	K 147	(132A)
Strait, Cholmondeley Sound	11 1 17	(2327)
Dora Bay, W. shore 1.2 miles from head, Clarence Strait, Cholmondeley Sound	K 149	(132B)
DORA CREEK, Clarence Strait, Cholmondeley Sound, Dora Bay, Head	K 148	(132)
Frederick Cove, S. W. head, Clarence Strait, Moira Sound, West Arm	K 133A	(125B)
FREDERICK CREEK, Clarence Strait, Moira Sound, West	K 133	(125)
Arm, Frederick Cove, N. shore 1.5 miles from head Goose Cove, Clarence Strait, Skowl Arm, Polk Inlet,	K 164	(142K)
S. head of S. E. arm GRAVELLY CREEK, Clarence Strait, Thorne Bay, left	K 184-1	
bank 1 mile up Thorne River HARRIS RIVER, Clarence Strait, Kasaan Bay, Twelvemile	K 176	(144)
Arm, W. shore 8.2 miles from head	K 126	(122F)
Hidden Bay, Center head, Clarence Strait INDIAN CREEK, Clarence Strait, Kasaan Bay, Twelvemile Arm, W. shore 7.8 miles from head	K 126 K 176-1	(122E) (144A)
Tital, it shote it a miles from neur		

IVES CREEK, Clarence Strait, Kasaan Bay, S. shore	K	172	(143C)
2.5 miles W. of Baker Point  JOHNSON CREEK, Clarence Strait, Moira Sound, Johnson	K	127	(123)
Cove, S. W. head  KARTA RIVER, Clarence Strait, Kasaan Bay, Karta Bay,	K	178	(146)
Head  Kasaan Bay, E. shore 2.7 miles from N. head, Clarence	K	180A	
Strait	17	1.0.0	
Kasaan Bay, N. head, Clarence Strait		180	
Kasaan Bay, N. shore 7.8 miles from N. head, Clarence	K	181	
Strait KEGAN CREEK, Clarence Strait, Moira Sound, Kegan Cove,	K	1 3 6	(126)
Head  Kendrick Bay, N. shore 5 miles from head of West Arm,	K	125	(122D)
Clarence Strait	V	1 2 3 A	(122)
Kendrick Bay, Short Arm, Head, Clarence Strait			(122)
Kendrick Bay, South Arm, Head, Clarence Strait		123	(121)
Kendrick Bay, West Arm, Head, Clarence Strait		124	(122C)
KINA CREEK, Clarence Strait, Kasaan Bay, Kina Cove,	K	174	(143)
Head			
Kitkun Bay, N. shore 2.5 miles from head, Clarence Strait, Cholmondeley Sound	K	145	(131E)
Kitkun Bay, S. shore 1.25 miles from head, Clarence Strait, Cholmondeley Sound	K	144	(131A)
Kitkun Bay, S. shore 3 miles from head, Clarence Strait, Cholmondeley Sound	K	143	(131)
LAGOON CREEK, Clarence Strait, Cholmondeley Sound, West Arm, S. shore 3.1 miles from head	K	154	(136)
Lancaster Cove, Head, Clarence Strait, Cholmondeley Sound	K	141	(130)
McKenzie Inlet, F. head, Clarence Strait, Skowl	K	161	(142B)
McKenzie Inlet, W. shore 1.7 miles from head, Clarence Strait, Skowl Arm	K	162A	(142M)
McLean Arm, Head of N. arm, Clarence Strait	K	122A	(120A)
		121	(119)
McLean Arm, S. shore 2 miles from head of N.W. arm, Clarence Strait	IX	1 24 1	(112)
McLean Arm, S. shore 2.5 miles from head of N.W. arm, Clarence Strait	K	121A	(119A)
MAYBESO CREEK, Clarence Strait, Kasaan Bay, Twelvemile Arm, N. shore 10 miles from head	K	177	(144B)
MILLER CREEK, Clarence Strait, Moira Sound, North	v	138	(127)
	11	136	(127)
Arm, Head	12	1.2.1	(1240)
Moira Sound, South Arm, Head, Clarence Strait		131	(124C)
Moira Sound, South Arm, N.W. shore 1 mile from head,	K.	132	(124D)
Clarence Strait			
Moira Sound, South Arm, S. shore I mile from head,	K	1 3 0	(124B)
Clarence Strait	17	1.30	(124 )
Moira Sound, South Arm, S. shore 1.5 miles from head,	K	129	(124A)
Clarence Strait	17	1201	(1070)
Nowiskay Cove, Head, Clarence Strait, Moira Sound, North Arm	K	138A	(127C)
Nichols Bay, Head of N. arm, Dixon Entrance	K	119	(118A)
OLD FRANKS CREEK, Clarence Strait, Skowl Arm, Polk		170	(142D)
Inlet, N. shore 8 miles from head			, , , , ,
OLD TOMS CREEK, Clarence Strait, Skowl Arm, Paul	K	163	(142)
Bight, S. head	1/	162	(1/2/)
OMAR CREEK, Clarence Strait, Skowl Arm, McKenzie	r,	162	(142A)
Inlet, S. head			

PERKINS CREEK, Clarence Strait, Moira Sound, South Arm, S. E. shore 4 miles	K 128	(124)
POLK CREEK, Clarence Strait, Skowl Arm, Polk Inlet, Head	K 165	(1421)
Polk Inlet, E. shore 1.8 miles from head, Clarence Strait, Skowl Arm	K 165A	(142J)
Polk Inlet, W. shore 3.5 miles from head, Clarence Strait, Skowl Arm	K 168	(142F)
ROCK CREEK, Clarence Strait, Skowl Arm, Polk Inlet, 0.3 mile N. W. of head	K 166	(142H)
Saltery Cove, S. head, Clarence Strait, Skowl Arm SALTERY CREEK, Clarence Strait, Skowl Arm, Saltery	K 160A K 160	(141A) (141)
Cove, S. E. head Skowl Arm, N. shore 0.7 mile W. of Old Kasaan National	K 171A	(142L)
Monument, Clarence Strait Skowl Arm, N. shore 2 miles W. of Old Kasaan National	K 171	(142C)
Monument, Clarence Strait Stone Rock Bay, S. tip of bay, Dixon Entrance	K 120	(118C)
SUNNY CREEK, Clarence Strait, Cholmondeley Sound, Sunny Cove, Head	K 156	(133)
THORNE RIVER, Clarence Strait, Thorne Bay, N. head Tolstoi Bay, E. shore 1.8 miles from head, Clarence	K 184 K 183A	(149 ) (148A)
Strait Tolstoi Bay, Head, Clarence Strait TOM CREEK, Clarence Strait, Cholmondeley Sound,	K 183 K 153	(148) (135A)
West Arm, S. shore 4 mi.es from head Twelvemile Arm, N. shore 10.3 miles from head, Clarence Strait, Kasaan Bay	K 177A	(144C)
Twelvemile Arm, W. shore 3.2 miles from head, Clarence Strait, Kasaan Bay	K 175B	(145B)
Twelvemile Arm, W. shore 2.7 miles from head, Clarence Strait, Kasaan Bay	K 175A	(145A)
TWELVEMILE CREEK, Clarence Strait, Kasaan Bay, Twelvemile Arm, Head	K 175	(145)
Windfall Harbon, Head, Clarence Strait YOUNG CREEK, Clarence Strait, Kasaan Bay, N. W. head	K 182 K 179	(147) (146A)

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K 120	(118C)	Dixon Entrance, Stone Rock Bay, S. tip of bay
K 121	(119)	Clarence Strait, McLean Arm, S. shore 2 miles from head of N. W. arm
K 121A	(119A)	Clarence Strait, McLean Arm, S. shore 2. S miles from head
		of N. W. arm
K 122A	(120A)	Clarence Strait, McLean Arm, Head of N. arm
K 123	(121)	Clarence Strait, Kendrick Bay, South Arm, Head
K 123A	(122)	Clarence Strait, Kendrick Bay, Short Arm, Head
K 124	(122C)	Clarence Strait, Kendrick Bay, West Arm, Head
K 125		
K 123	(122D)	Clarence Strait, Kendrick Bay, N. shore 5 miles from head of West Arm
K 126	(122E)	Clarence Strait, Hidden Bay, Center head
K 127	(123)	JOHNSON CREEK, Clarence Strait, Moira Sound, Johnson Cove,
/	(/	S. W. head
K 128	(124)	
K 120	(124)	PERKINS CREEK, Clarence Strait, Moira Sound, South Arm,
		S. E. shore 4 miles from head
K 129	(124A)	Clarence Strait, Moira Sound, South Arm, S. shore 1.5 miles
		from head
K 130	(124B)	Clarence Strait, Moira Sound, South Arm, S. shore 1 mile
		from head
K 131	(124C)	Clarence Strait, Moira Sound, South Arm, Head
K 132	(124D)	Clarence Strait, Moira Sound, South Arm, N. W. shore 1
K 132	(1240)	
77 1 2 2	(100)	mile from head
K 133	(125)	Clarence Strait, Moira Sound, West Arm, Frederick Cove,
		N. shore 1.5 miles from head
K 133A	(12SB)	Clarence Strait, Moira Sound, West Arm, Frederick Cove,
		S. W. head
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K 134A		Clarence Strait, Moira Sound, West Arm, Dickman Bay,
R 131A		W. head of S. arm
V 124D		
K 134B		Clarence Strait, Moira Sound, West Arm, Dickman Bay,
		N. W. head of S. arm
K 13S		Clarence Strait, Moira Sound, West Arm, Dickman Bay,
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K 135A	(12SD)	Clarence Strait, Moira Sound, West Arm, Dickman Bay,
		W. head of N. arm
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K 136	(126)	KEGAN CREEK, Clarence Strait, Moira Sound, Kegan Cove,
10 130	(120)	Head
17 1 2 7	(1070)	
K 137	(127B)	AIKEN CREEK, Clarence Strait, Moira Sound, North Arm,
		Aiken Cove, S. W. head
K 138	(127)	MILLER CREEK, Clarence Strait, Moira Sound, North Arm,
		Head
K. 138A	(127C)	Clarence Strait, Moira Sound, North Arm, Nowiskay Cove,
	,	Head
K 139	(128)	DOLOMI CREEK, Clarence Strait, Port Johnson, Dolomi Bay,
	(3-0)	Head
K 140	(129)	Clarence Strait, S miles S. of Windy Point
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K 141	(130)	Clarence Strait, Cholmondeley Sound, Lancaster Cove, Head
K 142	(130C.)	Clarence Strait, Cholmondeley Sound, 1 mile S. W. of
		Lancaster Cove
K 143	(131)	Clarence Strait, Cholmondeley Sound, Kitkun Bay, S. shore
		3 miles from head
		1 1

K 144	(131A)	Clarence Strait, Cholmondeley Sound, Kitkun Bay, S. shore 1.25 miles from head
K 145	(131E)	Clarence Strait, Cholmondeley Sound, Kitkun Bay, N. shore 2.5 miles from head
K 146	(131F)	Clarence Strait, Cholmondeley Sound, S. shore 1.6 miles W. of entrance to Kitkun Bay
K 147	(132A)	Clarence Strait, Cholmondeley Sound, Dora Bay, S. shore 2 miles N. E of head
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K 149	(132B)	Dora Bay, Head Clarence Strait, Cholmondeley Sound, Dora Bay, W shore 1, 2 miles from head
K 150	(134)	DISAPPEARANCE CREEK, Clarence Strait, Cholmondeley Sound, South Arm, S. E. head
K 151	(134A)	Clarence Strait, Cholmondeley Sound, South Arm, S. W. head
K 152	(135)	CANNERY CREEK, Clarence Strait, Cholmondeley Sound, West Arm, S. shore 5.7 miles from head
K 1S3	(135A)	TOM CREEK, Clarence Strait, Cholmondeley Sound, West Arm, S. shore 4 miles from head
K 154	(136)	LAGOON CREEK, Clarence Strait, Cholmondeley Sound,
16 1 5 5	(107)	West Arm, S. shore 3.1 miles from head
K 155	(137)	Clarence Strait, Cholmondeley Sound, West Arm, Head Clarence Strait, Cholmondeley Sound, West Arm, N.
K 155A	(137A)	shore 0.5 mile from head
K 156	(133)	SUNNY CREEK, Clarence Strait, Cholmondeley Sound, Sunny Cove, Head
K 156A	(133C)	Clarence Strait, Cholmondeley Sound, 0.8 mile E. of entrance to Sunny Cove
K 157	(137B)	CLOVER CREEK, Clarence Strait, Clover Bay, Head
K 158	(137C)	Clarence Strait, Clover Bay, 0.3 mile from head
K 159	(138B)	Clarence Strait, Doctor Point, 0.4 mile from point
K 160	(141)	SALTERY CREEK, Clarence Strait, Skowl Arm, Saltery Cove, S. E. head
K 160A	(141A)	Clarence Strait, Skowl Arm, Saltery Cove, S. head
K 161	(142B)	Clarence Strait, Skowl Arm, McKenzie Inlet, E. head
K 162	(142A)	OMAR CREEK, Clarence Strait, Skowl Arm, McKenzie
	(11011)	Inlet, S. head
K 162A	(142M)	Clarence Strait, Skowl Arm, McKenzie Inlet, W. shore 1.7 miles from head
K 163	(142)	OLD TOM CREEK, Clarence Strait, Skowl Arm, Paul Bight, S. head
K 164	(142K)	Goose Cove, Clarence Strait, Skowl Arm, Polk Inlet, S. head of S. E. arm
K 16S	(1421)	POLK CREEK, Clarence Strait, Skowl Arm, Polk Inlet, Head
K 165A	(142J)	Clarence Strait, Skowl Arm, Polk Inlet, E. shore 1.8 miles from head
K 166	(142H)	ROCK CREEK, Clarence Strait, Skowl Arm, Polk Inlet, 0.3 mile N. W. of head
K 167	(142G)	DOG SALMON CREEK, Clarence Strait, Skowl Arm, Polk Inlet, W. shore 3 miles from head
K 168	(142F)	Clarence Strait, Skowl Arm, Polk Inlet, W. shore 3.5 miles from head
K 169	(142E)	CABIN CREEK, Clarence Strait, Skowl Arm, Polk Inlet, W. shore 7.6 miles from head
K 170	(142D)	OLD FRANKS CREEK, Clarence Strait, Skowl Arm, Polk Inlet, N. shore 8 miles from head
K 171	(142C)	Clarence Strait, Skowl Arm, N. shore 2 miles W. of Old Kasaan National Monument
K 171A	(142L)	Clarence Strait, Skowl Arm, N. shore 0.7 mile W. of Old Kasaan National Monument

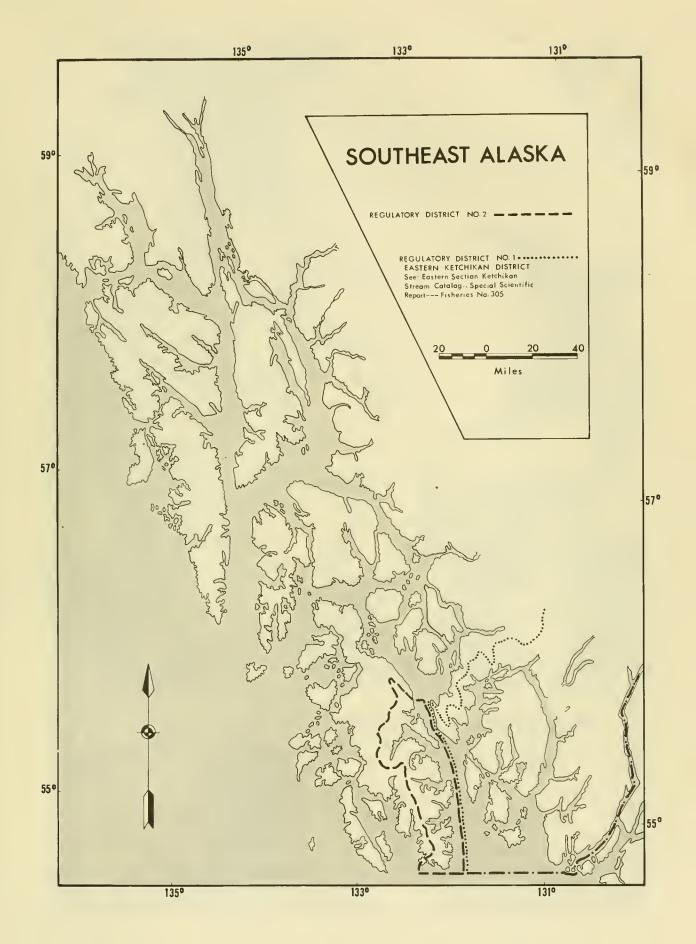
K 172	(143C)	IVES CREEK, Clarence Strait, Kasaan Bay, S. shore 2.5 miles W. of Baker Point
K 173	(143A)	Clarence Strait, Kasaan Bay, Coal Bay, Head
K 174	(143)	KINA CREEK, Clarence Strait, Kasaan Bay, Kina Cove, Head
K 175	(145)	TWELVEMILE CREEK, Clarence Strait, Kasaan Bay, Twelvemile Arm, Head
K 175A	(145A)	Clarence Strait, Kasaan Bay, Twelvemile Arm, W. shore 2.7 miles from head
K 17SB	(145B)	Clarence Strait, Kasaan Bay, Twelvemile Arm, W. shore 3.2 miles from head
K 176	(144)	HARRIS RIVER, Clarence Strait, Kasaan Bay, Twelvemile Arm, W. shore 8.2 miles from head
K 176-1	(144A)	INDIAN CREEK, Clarence Strait, Kasaan Bay, Twelvemile Arm, W. shore 7.8 miles from head
K 177	(144B	MAYBESO CREEK, Clarence Strait, Kasaan Bay, Twelvemile Arm, N. shore 10 miles from head
K 177A	(144C)	Clarence Strait, Kasaan Bay, Twelvemile Arm, N. shoʻre 10.3 miles from head
K 178	(146)	KARTA RIVER, Clarence Strait, Kasaan Bay, Karta Bay, Head
K 179	(146A)	YOUNG CREEK, Clarence Strait, Kasaan Bay, N. W. head
K 180		Clarence Strait, Kasaan Bay, N. head
K 180A		Clarence Strait, Kasaan Bay, E. shore 2.7 miles from N. head
K 181		Clarence Strait, Kasaan Bay, N. shore 7.8 miles from N. head
K 182	(147)	Clarence Strait, Windfall Harbor, Head
K 183	(148)	Clarence Strait, Tolstoi Bay, Head
K 183A	(148A)	Clarence Strait, Tolstoi Bay, E. shore 1.8 miles from head
K 184	(149)	THORNE RIVER, Clarence Strait, Thorne Bay, N. head
K 184-1		GRAVELLY CREEK, Clarence Strait, Thorne Bay, left bank 1 mile up Thorne River
K 18S		Clarence Strait, 2 miles N. of Forss Cove

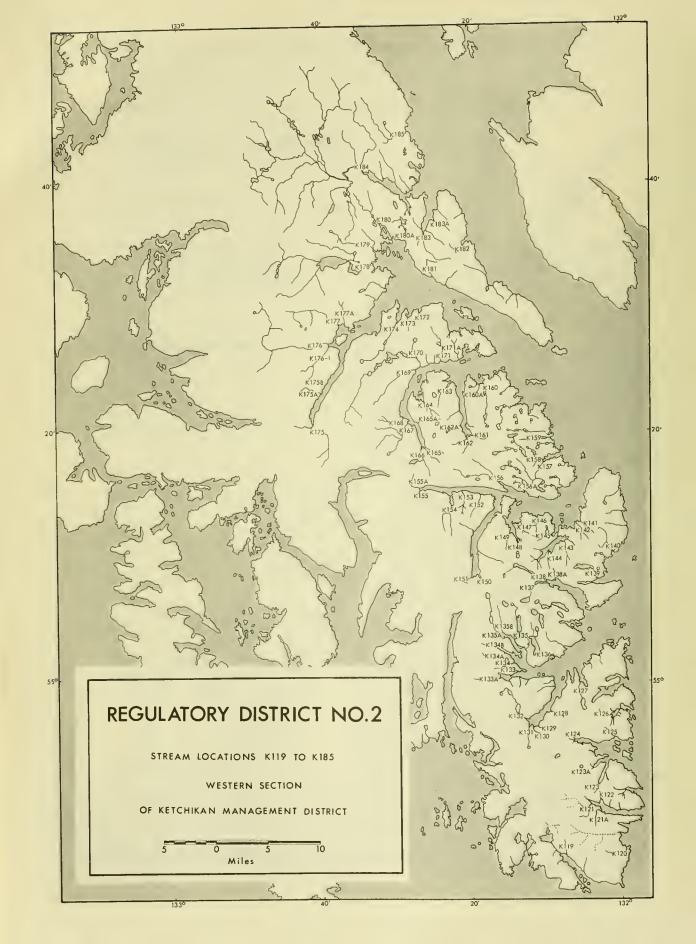
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Clarence Strait, Skowl Arm, Saltery Cove, S. Clarence Strait, Skowl Arm, McKenzie Inlet,	head K	160 A 161	(141A) (142B)
OMAR CREEK, Clarence Strait, Skowl Arm, Mc	cKenzie K	162	(142A)
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Clarence Strait, Skowl Arm, McKenzie Inlet, 1.7 miles from head	W. shore K	162A	(142M)
OLD TOM CREEK, Clarence Strait, Skowl Arm	, к	163	(142)
Paul Bight, S. head			
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Head	·		•
Clarence Strait, Skowl Arm, Polk Inlet, E. sho	are 1.8 K	165 A	(142J)
miles from head  ROCK CREEK, Clarence Strait, Skowl Arm, Po	lk Inlet, K	166	(142H)
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Clarence Strait, Kasaan Bay, Caal Bay, Head	К	173	(143A)
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Head TWELVEMILE CREEK, Clarence Strait, Kasaan	Ray K	175	(145)
Twelvemile Arm, Head		175	(110)
Clarence Strait, Kasaan Bay, Twelvemile Arm	, W. K	175A	(145A)
shore 2.7 miles from head Clarence Strait, Kasaan Bay, Twelvemile Arm	. w. ĸ	17SB	(14SB)
shore 3.2 miles from head			
HARRIS RIVER, Clarence Strait, Kasaan Bay,	K	176	(144)
Twelvemile Arm, W. share 8.2 miles fro INDIAN CREEK, Clarence Strait, Kasaan Bay,		176-1	(144A)
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Clarence Strait, Kasaan Bay, Twelvemile Arm,	, N. K	177A	(144C)
share 10.3 miles from head			
KARTA RIVER, Clarence Strait, Kasaan Bay, I Bay, Head	Karta K	178	(146)

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YOUNG CREEK, Clarence Strait, Kasaon Bay, N. W. head	K 179	(146A)
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Clarence Strait, Kasaan Bay, E. shore 2.7 miles	K 180A	
from N. head		
Clarence Strait, Kasaan Bay, N. shore 7.8 miles	K 181	
· · · · · · · · · · · · · · · · · · ·	W 101	
from N. head		
113-13		
Clarence Strait, Cholmondeley Sound, Lancaster	K 141	(130)
Cove, Head		
Clarence Strait, Cholmondeley Sound, 1 mile S. W.	K 142	(130C)
of Lancaster Cove		
Clarence Strait, Cholmondeley Sound, Kitkun Bay,	K 143	(131)
S. shore 3 miles from head		•
Clorence Strait, Cholmondeley Sound, Kitkun Bay,	K 144	(131A)
S. shore 1. 25 miles from head		(10111)
Clorence Strait, Cholmondeley Sound, Kitkun Bay,	V 145	(121E)
	K 145	(131E)
N. shore 2.5 miles from head		
Clarence Strait, Cholmondeley Sound, S. shore 1.6	K 146	(131F)
miles W. of entrance to Kitkun Bay		
Clorence Strait, Cholmondeley Sound, Dora Bay,	K 147	(132A)
S shore 2 miles N. E. of head		
DORA CREEK, Clarence Strait, Chalmondeley Sound,	K 148	(132)
Dora Bay, Head		` '
Clarence Strait, Cholmondeley Sound, Dora Bay,	K 149	(132B)
W. shore 1.2 miles from head	11 1 1 1 2	(1020)
	K 150	/12/1
DISAPPEARANCE CREEK, Clarence Strait,	K 130	(134)
Cholmondeley Sound, South Arm, S. E. head		
Clorence Strait, Cholmondeley Sound, South Arm,	K 151	(134A)
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CANNERY CREEK, Clarence Strait, Cholmondeley	K 152	(135)
Sound, West Arm, S. shore S.7 miles from head		
TOM CREEK, Clarence Strait, Chol mondeley Sound,	K 153	(135A)
West Arm, S share 4 miles from head		
LAGOON CREEK, Clarence Strait, Cholmondeley	K 154	(136)
Sound, West Arm, S. shore 3.1 miles from head		()
Clarence Strait, Cholmondeley Sound, West Arm, Head	K 155	(137)
Clarence Strait, Cholmondeley Sound, West Arm, N.	K 155A	
	N 133A	(137A)
shore 0.5 mile from head		
SUNNY CREEK, Clarence Strait, Cholmondeley Sound,	K 156	(133)
Sunny Cove, Head		
Clarence Strait, Cholmondeley Sound, 0.8 mile E. of	K 156A	(133C)
entrance to Sunny Cove		
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DOLOMI CREEK, Clarence Stroit, Port Johnson,	K 139	(128)
Dolomi Bay, Head		•
Clarence Strait, S miles S. of Windy Point	K 140	(129)
113-23		( 22 )
JOHNSON CREEK, Clarence Strait, Moira Sound,	K 127	(123)
Johnson Cove, S. W. head	N 12/	(123)
	17 1 0 0	41041
PERKINS CREEK, Clarence Strait, Moira Sound,	K 128	(124)
South Arm, S. E shore 4 miles from head		
Clarence Strait, Moira Sound, South Arm, S. shore	K 129	(124A)
1.5 miles from head		
Clarence Strait, Moiro Sound, South Arm, S. shore	K 130	(124B)
1 mile from head		
Clarence Strait, Moira Sound, South Arm, Head	K 131	(124C)
Clarence Strait, Moira Sound, South Arm, N. W.	K 132	(124D)
shore 1 mile from head		•

11.	3-23 FREDERICK CREEK, Clarence Strait, Moira Sound,	K 133	(125)
	West Arm, Frederick Cove, S. shore 1.5		(123)
	miles from head	K 133A	(125B)
	Clarence Strait, Moira Sound, West Arm, Frederick	K 133A	(1231)
	Cove, S. W. head	V 124	(125)
	Clarence Strait, Moira Sound, West Arm, Dickman	K 134	(125)
	Bay, S. shore 1.5 miles from W. head	12 1 2 4 A	
	Clarence Strait, Moira Sound, West Arm, Dickman	K 134A	
	Bay, W. head of S. arm	** 10.40	
	Clarence Strait, Moira Sound, West Arm, Dickman	K 134B	
	Bay, N. W. head of S. arm		
	Clarence Strait, Moira Sound, West Arm, Dickman	K 135	
	Bay, N. E. head of N. arm		
	Clarence Strait, Moira Sound, West Arm, Dickman	K 135A	(125D)
	Bay, W. head of N. arm		
	Clarence Strait, Moira Sound, West Arm, Dickman	K 135B	
	Bay, N. head of N. arm		
	KEGAN CREEK, Clarence Strait, Moira Sound, Kegan	K 136	(126)
	Cove, Head		
	AIKEN CREEK, Clarence Strait, Moira Sound, North	K 137	(127B)
	Arm, Aiken Cove, S. W. head		•
	MILLER CREEK, Clarence Strait, Moira Sound,	K 138	(127)
	North Arm, Head		,
	Clarence Strait, Moira Sound, North Arm, Nowiskay	K 138A	(127C)
	Cove, Head		•
	Dixon Entrance, Nichols Bay, Head of N. arm	K 119	(118A)
	Dixon Entrance, Stone Rock Bay, S. tip of bay	K 120	(118C)
	Clarence Strait, McLean Arm, S. shore 2 miles from	K 121	(119)
	head of N. W. arm		()
	Clarence Strait, McLean Arm, S. shore 2.5 miles from	K 121A	(119A)
	head of N. W. arm	N 151A	(11271)
	Clarence Strait, McLean Arm, Head of N. arm	K 122A	(120A)
	Clarence Strait, Kendrick Bay, South Arm, Head	K 123	(120A)
		K 123A	,
	Clarence Strait, Kendrick Bay, Short Arm, Head		(122)
	Clarence Strait, Kendrick Bay, West Arm, Head	K 124	(122C)
	Clarence Strait, Kendrick Bay, N. shore 5 miles from	K 125	(122D)
	head of West Arm	17. 1.00	(1005)
	Clarence Strait, Hidden Bay, Center Head	K 126	(122E)
114	4-10		
	Clarence Strait, Windfall Harbor, Head	K 182	(147)
	Clarence Strait, Tolstoi Bay, Head	K 183	(148)
	Clarence Strait, Tolstoi Bay, E. shore 1.8 miles	K 183A	(148A)
	from head		
	THORNE RIVER, Clarence Strait, Thorne Bay, N. head		(149)
	Clarence Strait, 2 miles N. of Forss Cove	K 185	
	Gravelly Creek, Clarence Strait, Thorne Bay, left	K 184-1	
	bank 1 mile up Thorne River		





113-30 54° 44.5' N. 132° 10' W.

K 119 Previous No. 118A

#### KETCHIKAN, DIXON ENTRANCE, NICHOLS BAY, Head of N. arm

MAIOR SPECIES Red

OTHER SPECIES Coho, pink

ESCAPEMENT TIMING Late (estimated)

ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Poor. The presence of large amounts of bedrock and coarse rock limits the spawning to a small amount of stream.

STREAM TEMPERATURES Warm range (estimated).

VALLEY DESCRIPTION

DRAINAGE 8 square miles (polar planimeter). Drains Nichols Lake and several other small lakes which lie in a large muskeg area.

STREAM MOUTH IDENTIFICATION Enters the northwest end of Nichols Bay through a narrow 1,500' estuary.

ANCHORAGE There are 2 anchorages in the bay, one in each of 2 bights on the S.W. shore. For directions on entering see U.S. Coast Pilot.

TRAILS AND SURVEY ROUTES No trails. The stream banks are heavily wooded. For easiest traveling, follow the right bank.

AERIAL SURVEY NOTES The dark musked water makes conditions for derial observation poor.

#### INTERTIDAL ZONE

LENGTH 0.3 mile GRADIENT AND VELOCITIES Gentle BOTTOM Rock LOW TIDE LOCATION HIGH TIDE LOCATION

SCHOOLING AREAS Salmon tend to school off the mouth near the S.W. shore of the bay.

SPAWNING AREAS Spawning activity has not been observed in this zone.

GENERAL NOTES

#### UPSTREAM

LENGTH ACCESSIBLE 0.7 mile to lake GRADIENT AND VELOCITIES Gentle BOTTOM Mainly bedrock. MARKER DISTANCE MARKER IDENTIFICATION BARRIERS None.

SCHOOLING AREAS Many small pools.

SPAWNING AREAS The middle section of stream has the highest percent spawning area. Above and below this section spawning areas are limited. It has not been reported if any or all of the reds go to the lake to spawn or utilize the stream. Limited spawning occurs in the stream between the first and second lakes.

AVERAGE WIDTH/DEPTH 75'/6'

AVERAGE WIDTH/DEPTH 100'/36"

#### ESCAPEMENT RECORD

	SURVEYED		PlN	ıĸ	СН	UM	OTHER SPECIES	REMARKS	
Date		iles	Ву	Live	Dead		Dead	Live	Adjective rating
1949									
Sep 4	G	. 5	FWS	2,000					Few dead pink
1 <b>95</b> S									
Aug 26	Α		FWS					100 red	2,000 at mouth
1956									
July 8			FWS					1, <b>500</b> red	500 red at mouth
July 14			FWS					S00 red	300 red at mouth
July 17			FWS					600 red ,	1,500 red at mouth
July 20			FWS					1,500 red	
July 21			FWS					300 red	
July 22			FWS					SO red	
July 29			FWS					<b>75</b> red	
July 30			FWS					1SO red	
Aug 4			FWS					600 red	
Aug 6			FWS					60 red	
Aug 25			FWS						3,000-5,000 coho, pink
1957									
July 17			FWS					150 red	
July 17			FWS					500 red	
July 22			FWS					3,000 red	
July 24			FWS					250 red	
1961									
Sep 1	A		ADF&G						No fish observed off mouth

113-30 \$4°45'12" N. 132°01'12" W.

KETCHIKAN, DIXON ENTRANCE, STONE ROCK BAY, S. tip of Bay

MAJOR SPECIES Chum, pink

OTHER SPECIES

ESCAPEMENT TIMING Late (estimated)

ESCAPEMENT MAGNITUDE

AVERAGE WIDTH/DEPTH

SPAWNING FACILITIES

STREAM TEMPERATURES None observed.

VALLEY DESCRIPTION

DRAINAGE 2 square miles (polar planimeter).

STREAM MOUTH IDENTIFICATION The mouth is located on the northern side of the point which is at the W. end of the bay.

ANCHORAGE Small fish craft anchor close to shore, but use of this bay for anything but temporary anchorage is not recommended.

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES Not surveyed by air.

GENERAL NOTES The little information available on this stream indicated it was not an important salmon producer.

#### INTERTIDAL ZONE

LENGTH
GRADIENT AND VELOCITIES
BOTTOM
LOW TIDE LOCATION
HIGH TIDE LOCATION
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES

#### UPSTREAM

LENGTH ACCESSIBLE

GRADIENT AND VELOCITIES
BOTTOM

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS Reported to be blocked by a falls 100 yards upstream.

TRIBUTARIES

SCHOOLING AREAS

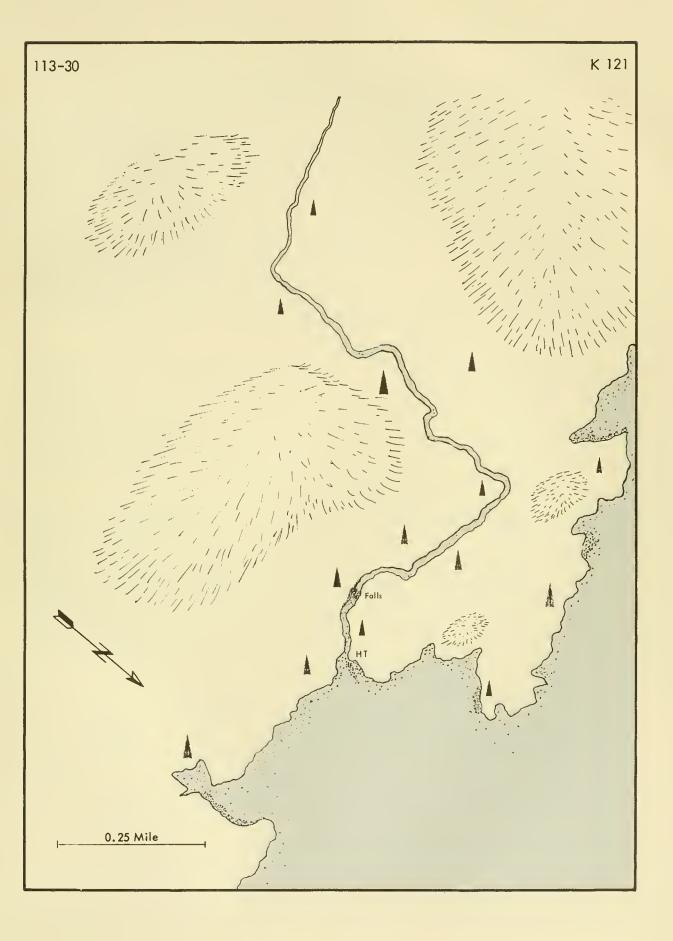
SPAWNING AREAS

GENERAL NOTES

#### ESCAPEMENT RECORD

SORVEYED		PINK		CHUM		OTHER SPECIES	REMARKS	
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1930								
Sep 20	G 0. 1	FWS						2,000 chum, pink in stream







#### KETCHIKAN, CLARENCE STRAIT, McLEAN ARM, S. shore 2 miles from head of N.W. arm

MAJOR SPECIES Not reported

OTHER SPECIES

ESCAPEMENT TIMING Late (estimated)

ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Spawning facilities appear to be good in the lower reaches, but the upstream area is of unknown quality.

STREAM TEMPERATURES Warm range (estimated).

VALLEY DESCRIPTION Heavily wooded. About 2 miles in length and 2 miles in width at its widest point.

DRAINAGE 2 square miles (polar planimeter). Precipitation fed.

STREAM MOUTH IDENTIFICATION The mouth lies on the S. side of the point at the entrance to the southerly arm. Enters the S.W. corner of a small bight.

ANCHORAGE The southerly arm of this bay is best for anchoring.

TRAILS AND SURVEY ROUTES No trails.

AERIAL SURVEY NOTES Not surveyed by air.

GENERAL NOTES Only one record of escapement to this stream was found. It included only the number of fish and not the species composition or other physical features.

#### INTERTIDAL ZONE

LENGTH
GRADIENT AND VELOCITIES
BOTTOM
LOW TIDE LOCATION
HIGH TIDE LOCATION
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES

AVERAGE WIDTH/DEPTH

AVERAGE WIDTH/DEPTH 30'-40'/4"-6"

#### UPSTREAM

LENGTH ACCESSIBLE
GRADIENT AND VELOCITIES
BOTTOM
MARKER DISTANCE
MARKER IDENTIFICATION

BARRIERS A falls a short distance above the beach presents at least a partial block to samon.

TRIBUTARIES

SCHOOLING AREAS

SPAWNING AREAS The lower reaches appear to have good spawning facilities.

GENERAL NOTES

#### ESCAPEMENT RECORD

SURVEYED			PINK		CHUM		OTHER SPECIES	REMARKS	
Date	Miles	Ву	Live	Dead	L ive	Dead	Live	Adjective rating	
1947									
Aug 28	G	FRI						No fish seen	



K 121A Previous No. 119A

KETCHIKAN, CLARENCE STRAIT, McLEAN ARM, S. shore 2.5 miles from head of N.W. arm

MAJOR SPECIES None observed
ESCAPEMENT TIMING Late (estimated)

OTHER SPECIES
ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES

STREAM TEMPERATURES Warm range (estimated).

VALLEY DESCRIPTION The valley terminates in a snow-capped mountain. East of the stream the valley wall rises sharply.

DRAINAGE 1 square miles (polar planimeter). Drains a muskeg lake one-half mile above the mouth. The lake is about 200 yards long and 100 yards wide.

STREAM MOUTH IDENTIFICATION Runs into McLean Arm 0.25 mile E. of K 121.

ANCHORAGE Refer to K 121.

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES Too small for aerial survey.

GENERAL NOTES A small stream. Salmon have not been observed in this stream the few times it was surveyed.

#### INTERTIDAL ZONE

LENGTH
GRADIENT AND VELOCITIES
BOTTOM
LOW TIDE LOCATION
HIGH TIDE LOCATION
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES

AVERAGE WIDTH/DEPTH

AVERAGE WIDTH/DEPTH

DE1 ( . D. . . .

#### UPSTREAM

LENGTH ACCESSIBLE
GRADIENT AND VELOCITIES
BOTTOM
MARKER DISTANCE
MARKER IDENTIFICATION
BARRIERS
TRIBUTARIES
SCHOOLING AREAS
SPAWNING AREAS

CHRUEVED

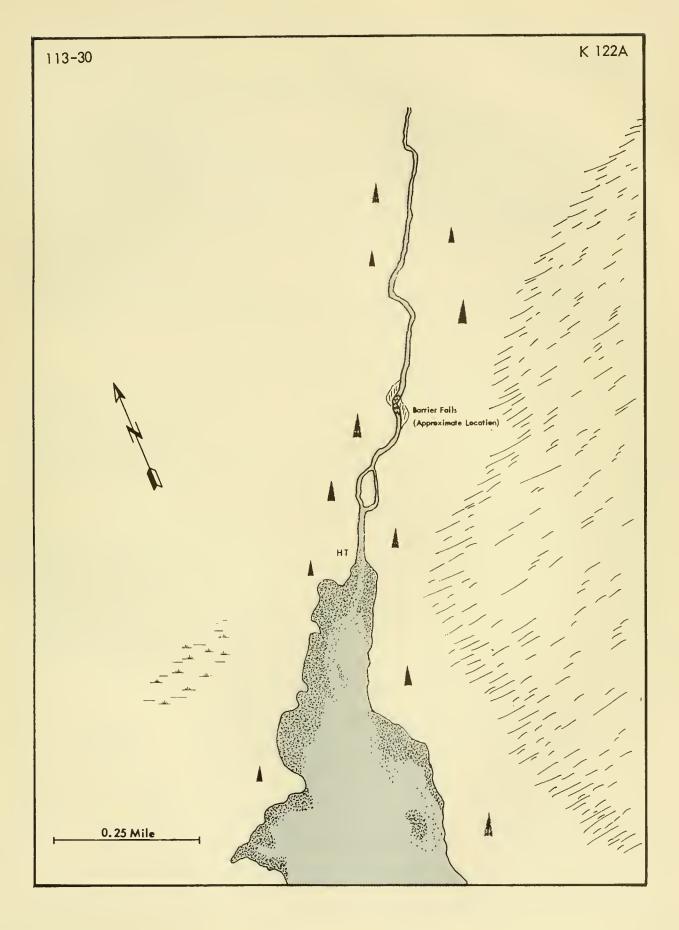
GENERAL NOTES A small stream with an easy ascent into salt water and a stream bed apparently well suited for spawning.

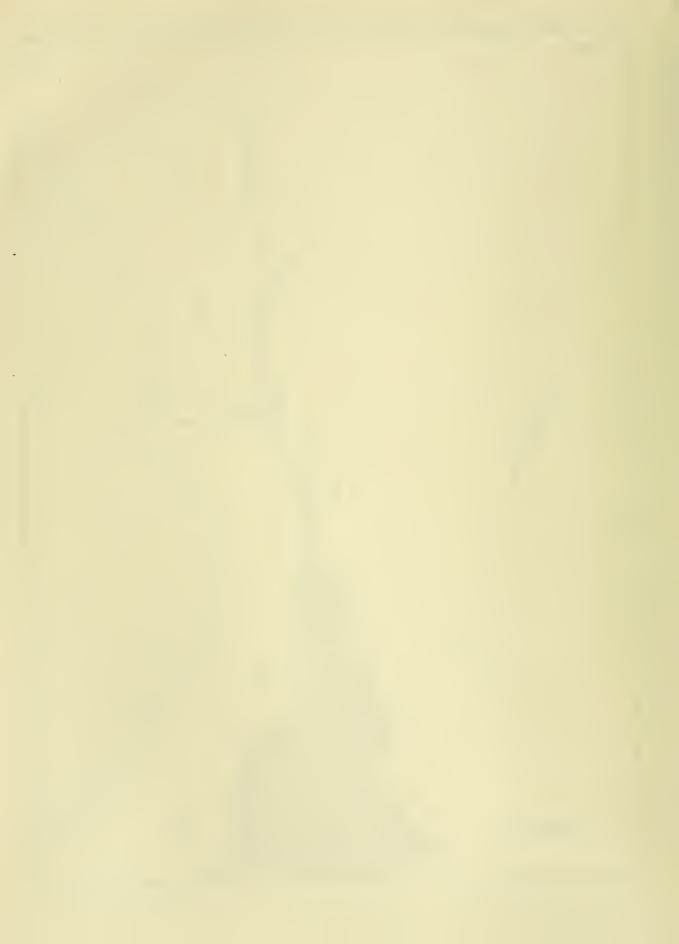
#### ESCAPEMENT RECORD

DIME CHIM OTHER CRECIES

SOKVETED			1 11417		CHOM		OTHER SPECIES		REMARKS	
Date	Miles	Ву	Live	Dead	Live	Dead	Live		Adjective rating	
1947 Aug. 28	G 0.5	FRI						No fich	Straam high & diggs	lanad
Aug. 20	60.5	11/1						NO IISH.	Stream high & disco	lored







113-30 \$4°48.8' N. 132°03.5' W.

KETCHIKAN, CLARENCE STRAIT, McLEAN ARM, Head of N. arm

MAJOR SPECIES Pink, chum

OTHER SPECIES

ESCAPEMENT TIMING Late (estimated)

ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Good in the intertidal zone limited in the area above the high tide mark-The heaviest spawning takes place in the intertidal zone.

STREAM TEMPERATURES Warm range (estimated). No observed temperatures.

VALLEY DESCRIPTION The valleys run N. and then W. to the base of 2,340' mountain Wooded except along the mountain where there is considerable bedrock. Extends about halfway to Kendrick Bay.

DRAINAGE 1 square mile (polar planimeter). Precipitation fed. Surface runoff and snowmelt are the water source of this stream. A few musked areas are also drained.

STREAM MOUTH IDENTIFICATION Enters the head of the northerly arm.

ANCHORAGE See K 121.

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES Come in along the E. side of the valley and make a 180° turn down the creek. Maintains an altitude of at least 500'.

GENERAL NOTES This stream offers spawning facilities for only a couple thousand feet. Observations are lacking.

## INTERTIDAL ZONE

LENGTH 200 yards GRADIENT AND VELOCITIES BOTTOM LOW TIDE LOCATION HIGH TIDE LOCATION SCHOOLING AREAS

AVERAGE WIDTH/DEPTH

AVERAGE WIDTH/DEPTH 8'-12'/4"

SPAWNING AREAS The largest part of the spawning occurs in this zone. GENERAL NOTES

#### UPSTREAM

LENGTH ACCESSIBLE GRADIENT AND VELOCITIES BOTTOM Gravel MARKER DISTANCE MARKER IDENTIFICATION BARRIERS Falls a short distance upstream block the ascent of salmon.

TRIBUTARIES SCHOOLING AREAS Very few pools.

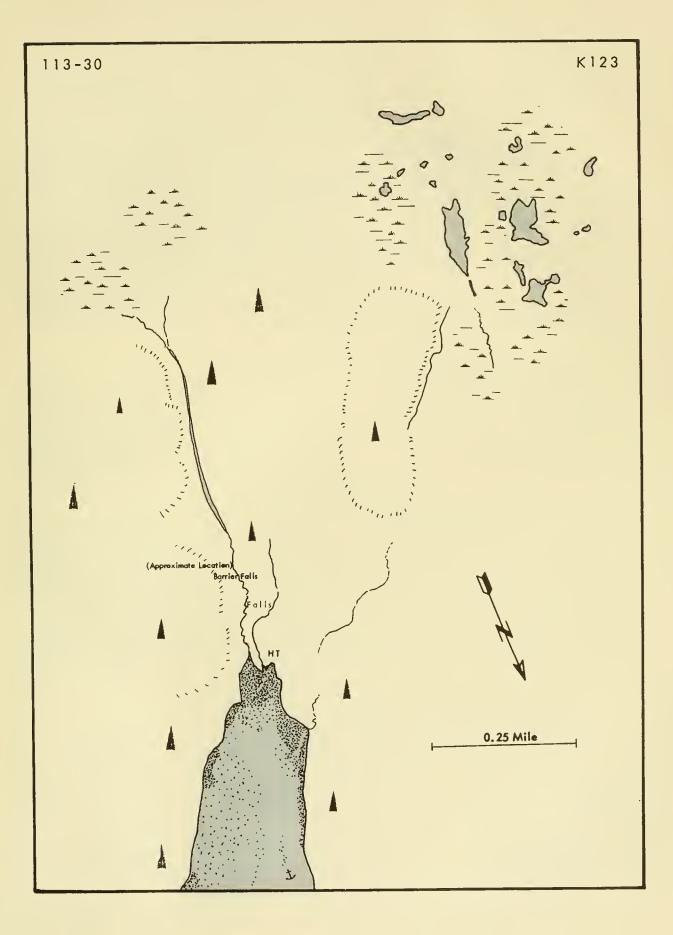
SPAWNING AREAS

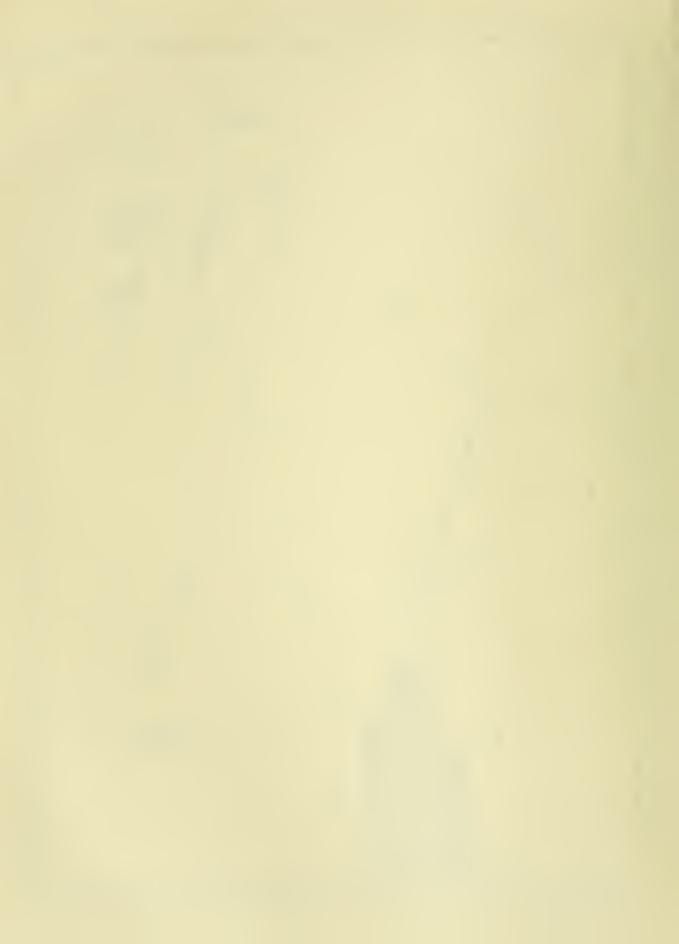
GENERAL NOTES The stream splits just above tidewater.

## ESCAPEMENT RECORD

SURVEYED		PINK		CHUM		OTHER SPECIES	REMARKS	
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
								,
1930								
Sep. 20	G	FWS	1,000					1,500 fish off mouth
1947								-,
Aug 29	G 0.2	FRI						No fish or carcasses seen
								in the contract of the contrac







1 1 3 - 3 0 S4°48. 8' N. 132°03. S' W.

KETCHIKAN, CLARENCE STRAIT, KENDRICK BAY, SOUTH ARM, Head

MAJOR SPECIES None reported

OTHER SPECIES

ESCAPEMENT TIMING Late (estimated)

ESCAPEMENT MAGNITUDE

AVERAGE WIDTH/DEPTH

SPAWNING FACILITIES Limited by falls to the first 2SO yards above the high tide mark.

STREAM TEMPERATURES Warm range (estimated). No observed temperatures.

VALLEY DESCRIPTION A short stream cut valley less than 1 mile in length. Heavily wooded near the mouth. Slopes are of moderate to steep gradient.

DRAINAGE 1 square mile (polar planimeter). Precipitation fed. Drains numerous scattered muskeg areas. STREAM MOUTH IDENTIFICATION Lies at the head of South Arm.

ANCHORAGE Both the South Arm and the North Arm afford good anchorage for small craft. The West Arm is about 2 miles long, foul for 0.5 mile, and should be entered during low water.

TRAILS AND SURVEY ROUTES An easy stream to hike.

AERIAL SURVEY NOTES

GENERAL NOTES Salmon have not been observed in this stream. Could support only a small number of spawners.

# INTERTIDAL ZONE

LENGTH
GRADIENT AND VELOCITIES
BOTTOM
LOW TIDE LOCATION
HIGH TIDE LOCATION
SCHOOLING AREAS
SPAWNING AREAS

## UPSTREAM

LENGTH ACCESSIBLE
GRADIENT AND VELOCITIES
BOTTOM
MARKER DISTANCE
MARKER IDENTIFICATION

AVERAGE WIDTH/DEPTH 15'

BARRIERS Three falls are found 250 yards upstream. The first two are passable, but the third is 15' high and presents a total block to salmon.

TRIBUTARIES

GENERAL NOTES

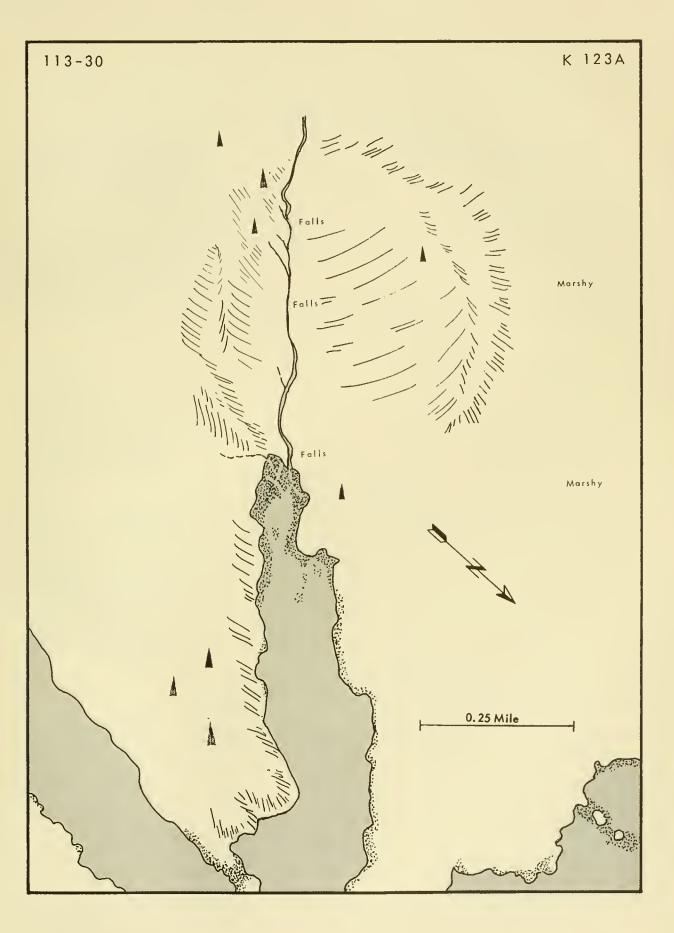
SCHOOLING AREAS Pools 3' to 4' deep afford cover for fish.

SPAWNING AREAS The only spawning facilities are found in the first 250 yards above the high tide mark. GENERAL NOTES

## ESCAPEMENT RECORD

	SURVEYED		ED	PINK		CH	UM	OTHER SPECIES	REMARKS
Da	te	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
194	17								
Sep	6	G 0.3	FRI						No fish or signs of fish seen
196	51								
Sep	1	A	ADF&G						None observed
Sep	8	A	ADF&G						None observed
Sep	20	A	ADF&G			100			300 fresh fish at mouth







# KETCHIKAN CLARENCE STRAIT, KENDRICK BAY, SHORT ARM, Head

MAJOR SPECIES None reported ESCAPEMENT TIMING SPAWNING FACILITIES STREAM TEMPERATURES

OTHER SPECIES ESCAPEMENT MAGNITUDE

VALLEY DESCRIPTION Glacial origin. The stream runs along the S.E. side of the valley. The valley wall on this side has a steep gradient.

DRAINAGE 1.3 square miles (polar planimeter). Precipitation fed. Snow fields at the headquaters contribute as a water source along with surface runoff.

STREAM MOUTH IDENTIFICATION The stream enters the head of Short Arm.

ANCHORAGE Refer to K 123.

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES

GENERAL NOTES This arm was examined for salmon streams in 1947 by the FRI and no streams which looked suitable for salmon were found. No record of spawning. A small stream.

#### INTERTIDAL ZONE

LENGTH
GRADIENT AND VELOCITIES
BOTTOM
LOW TIDE LOCATION
HIGH TIDE LOCATION
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES

AVERAGE WIDTH/DEPTH

## UPSTREAM

LENGTH ACCESSIBLE
GRADIENT AND VELOCITIES
BOTTOM
MARKER DISTANCE
MARKER IDENTIFICATION
BARRIERS
TRIBUTARIES
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES

AVERAGE WIDTH/DEPTH

# ESCAPEMENT RECORD

SURVEYED			PIN	١K	CHUM		OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1947								
Sep S	G	FRI						No fish



K 124 Previous No. 122C

54° N. 132°06:9' W.

# KETCHIKAN, CLARENCE STRAIT, KENDRICK BAY, WEST ARM, Head

MAJOR SPECIES Pink
ESCAPEMENT TIMING Late (estimated)

OTHER SPECIES Chum
ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES

STREAM TEMPERATURES Warm range (estimated)

VALLEY DESCRIPTION

DRAINAGE 9 square miles (polar planimeter).

STREAM MOUTH IDENTIFICATION The stream empties into the head of the West Arm

ANCHORAGE Refer to K 121. A float and dock are on edge of tideflat on N. shore.

TRAILS AND SURVEY ROUTES Road has been constructed up the valley to Bokan Mountain.

AERIAL SURVEY NOTES

GENERAL NOTES The stream does not appear to be of much importance.

# INTERTIDAL ZONE

LENGTH 0.1 mile
GRADIENT AND VELOCITIES
BOTTOM
LOW TIDE LOCATION
HIGH TIDE LOCATION
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES

AVERAGE WIDTH/DEPTH

#### UPSTREAM

LENGTH ACCESSIBLE
GRADIENT AND VELOCITIES
BOTTOM Coarse gravel.
MARKER DISTANCE
MARKER IDENTIFICATION
BARRIERS
TRIBUTARIES
SCHOOLING AREAS
SPAWNING AREAS

AVERAGE WIDTH/DEPTH 10'-12'/2"-3"

GENERAL NOTES The stream loses itself in brush and windfalls just above the intertidal zone.

## ESCAPEMENT RECORD

SURVEYED		PINK-		CH	UM	OTHER SPECIE	ES REMARKS	
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1937 Oct S	G	FWS	3,000	1 000				I anno announced for all in the
1947	J	1 ****	3,000	1,000				Large escapement for this stream
Sep S	G 0.3	FRI						Few fingerling. No adult salmon



113-30 54°54.2' N. 132°0.1.3' W. K 12S Previous No. 122D

KETCHIKAN, CLARENCE STRAIT, KENDRICK BAY, N. shore 5 miles from head of W. arm

MAJOR SPECIES Pink

OTHER SPECIES

ESCAPEMENT TIMING Late (estimated)

ESCAPEMENT MAGNITUDE

AVERAGE WIDTH/DEPTH

AVERAGE WIDTH / DEPTH

SPAWNING FACILITIES Reported to have little spawning area for its size.

STREAM TEMPERATURES Warm range (estimated).

VALLEY DESCRIPTION

DRAINAGE 3 square miles (estimated).

STREAM MOUTH IDENTIFICATION Enters Kendrick Bay from the N., about 1.5 miles inside the bay entrance.

ANCHORAGE Good anchorage and shelter for small craft can be found among the islands at the entrance to Kendrick Bay. Care must be taken in entering.

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES

GENERAL NOTES A small stream -- scant escapement record.

#### INTERTIDAL ZONE

LENGTH
GRADIENT AND VELOCITIES
BOTTOM
LOW TIDE LOCATION
HIGH TIDE LOCATION
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES

#### UPSTREAM

LENGTH ACCESSIBLE
GRADIENT AND VELOCITIES
BOTTOM Coarse broken rock.
MARKER DISTANCE

MARKER DISTANCE
MARKER IDENTIFICATION
BARRIERS One-third mile upstream there is a 3' passable falls, 1,000' above this there is a 14'

falls which is a total block to salmon.

TRIBUTARIES

SCHOOLING AREAS Good sized pools provide cover for fish.

SPAWNING AREAS

GENERAL NOTES

# ESCAPEMENT RECORD

	SURVEYED	)	PIN	K	CH	UM	OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1937								
Oct S	G	FWS	3,000					Very good escapement
1947								
Aug 2	G 0.1	FRI						Many coho fingerling. No adult



# KETCHIKAN, CLARENCE STRAIT, HIDDEN BAY, Center head

MAJOR SPECIES Pink, chum

ESCAPEMENT TIMING Late (estimated)

SPAWNING FACILITIES Good

STREAM TEMPERATURES Warm range. No temperature observations.

VALLEY DESCRIPTION

DRAINAGE 2 square miles (estimated).

STREAM MOUTH IDENTIFICATION The mouth lies at the head of the bay. There are 2 streams in this corner - this stream is the most easterly.

ANCHORAGE Suitable for small craft only. See U.S. Coast Pilot.

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES

### INTERTIDAL ZONE

OTHER SPECIES

ESCAPEMENT MAGNITUDE

AVERAGE WIDTH/DEPTH

AVERAGE WIDTH/DEPTH

LENGTH
GRADIENT AND VELOCITIES
BOTTOM
LOW TIDE LOCATION
HIGH TIDE LOCATION
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES

## UPSTREAM

LENGTH ACCESSIBLE 0.5 mile to falls
GRADIENT AND VELOCITIES

BOTTOM

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS An impassable falls is found 0. S mile upstream.

TRIBUTARIES

SCHOOLING AREAS

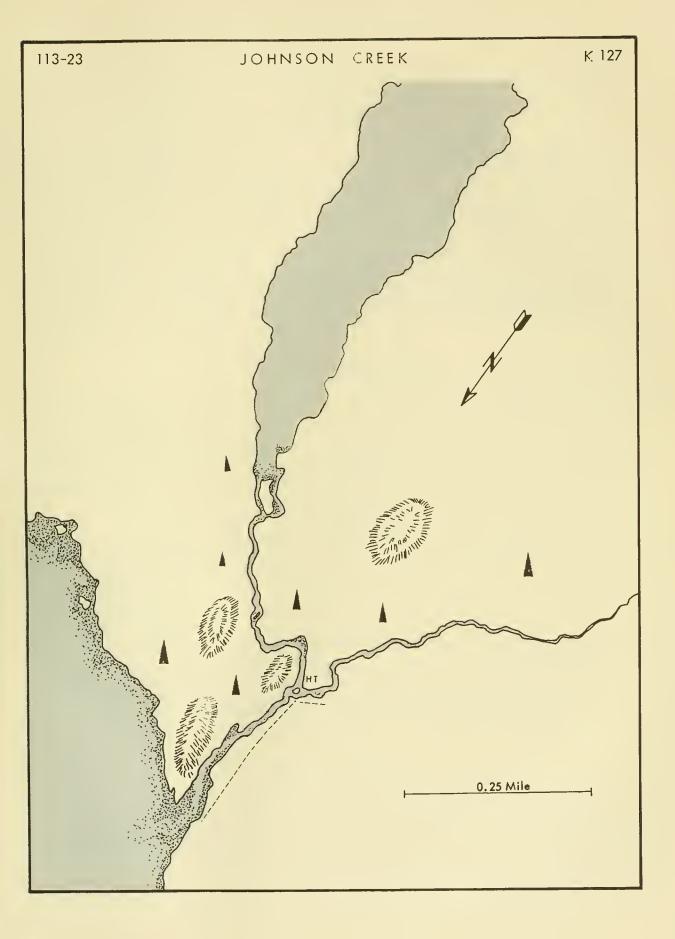
SPAWNING AREAS In the distance from high tide to the falls there is reportedly good spawning ground for the size of the stream.

GENERAL NOTES

# ESCAPEMENT RECORD

	SURVEYED	)	PINI	ζ.	СНИМ	OTHER SPECIES	REMARKS
Date	Miles	By	Live	Dead	Live Dead	Live	Adjective rating
1930		THE	100		222		
Sep 21 1957	G 0. S	FWS	100		200		Good
Sep S	G	FWS	2,700		0		Few off mouth







# KETCHIKAN, CLARENCE STRAIT, MOIRA SOUND, JOHNSON COVE, S.W. head

MAJOR SPECIES Pink, chum

ESCAPEMENT TIMING Late. Sept. -Oct.

OTHER SPECIES
ESCAPEMENT MAGNITUDE

AVERAGE WIDTH/DEPTH 40'-60'/12"-24"

AVERAGE WIDTH/DEPTH 40'/10"

SPAWNING FACILITIES Good in the upper intertidal zone. Excellent throughout the entire upstream area. STREAM TEMPERATURES Warm range. 57° F., 9/22/52.

VALLEY DESCRIPTION The right fork runs through a short shallow valley from the lake to its confluence with the left fork. Above the lake the valley is generally flat with numerous muskeg areas.

DRAINAGE 6.5 square miles (polar planimeter). The right fork drains a lake 1.2 miles long and 0.3 mile wide. The left fork is fed by surface run off.

STREAM MOUTH IDENTIFICATION The mouth is located about half way down the W. shore in a small bight and enters the cove from the south on the west side of a wooded point.

ANCHORAGE West of Black Point the sound has not been surveyed and boats must navigate with caution.

Good anchorage is found in Keegan Bay for small boats. In the past there has been a float anchored here.

TRAILS AND SURVEY ROUTES A good trail follows the right side of the stream. Easily waded when water is at normal level.

AERIAL SURVEY NOTES Good for aerial survey.

#### INTERTIDAL ZONE

LENGTH 0.3 mile

GRADIENT AND VELOCITIES Moderate

BOTTOM Gravel

LOW TIDE LOCATION

HIGH TIDE LOCATION At the upper end of the pool lying above the cleared area on the E. side of the creek.

SCHOOLING AREAS Fish school in several pools throughout this zone.

GENERAL NOTES

## UPSTREAM

LENGTH ACCESSIBLE 1.5 miles to a lake

GRADIENT AND VELOCITIES Moderate

BOTTOM Gravel.

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS None.

TRIBUTARIES None reported.

SCHOOLING AREAS There are pools scattered throughout the stream which are utilized by the fish for schooling.

SPAWNING AREAS Fish spawn throughout the main stream and the east fork. Distribution of fish is nearly uniform during years of substantial runs.

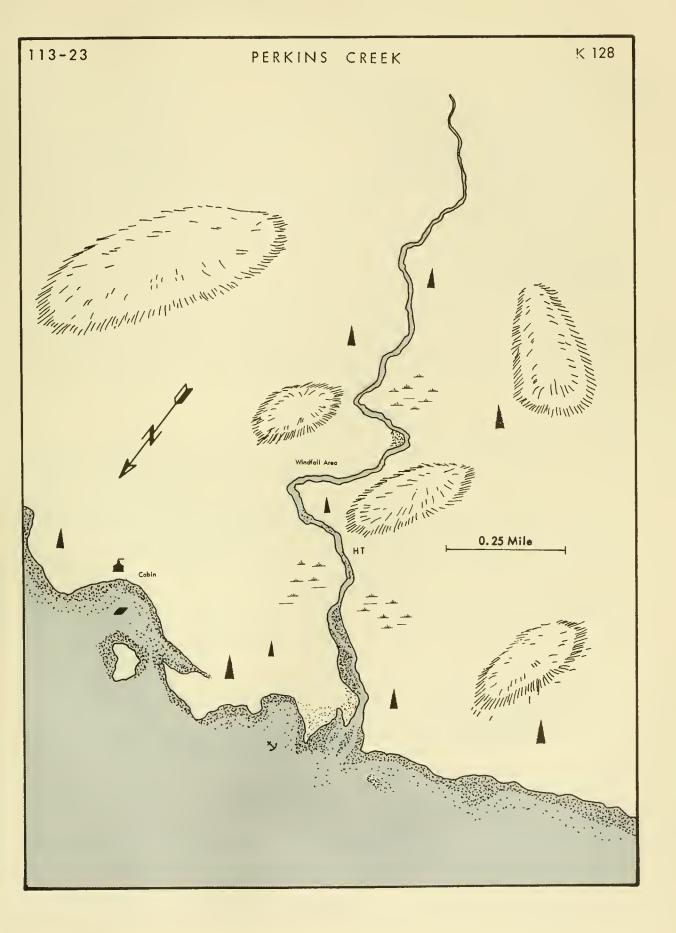
GENERAL NOTES The stream branches about 0.5 mile above the tidal zone, and about 0.5 mile up the right branch there is a lake. The left fork is the smallest, has the least number of spawning salmon.

JOHNSON CREEK

K 127 Previous No. 123

# ESCAPEMENT RECORD

	SUR VEYED		PINK		СНИМ		OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1930								
Sep 21		FWS	7,500		17,000			Well seeded. Cove full of fish
1940		r w s	7,300		17,000			Well seeded. Cove fall of fish
Sep 26	G 1.0	FWS	45,000		5,000			Excellent. 20,000 fish off mouth
1941	0 1. 0	1 110	10,000		0,000			
Oct 4	G 1.0	FWS	10,000					Good
1945	0 11 0		20,000					
Sep 27	G 1.0	FWS	50,000		15,000			Excellent. 6,000 fish off mouth
1947			·					
Oct 11	G 0. 3	FRI	15,000					
1952								
Sep 9	G 0.3	FRI	650	0	350	0	SO coho	Run just starting
Sep 22	G 0.3	FRI	\$80	0	850	0	Few coho	Fair showing of pink at mouth
Oct 6	G 0. 3	FRI	5 20	90	2,820	3,800	Several coho	
1953								
June 26	G	FWS						Few pink, some red
Aug 22	G	FWS						No fish showing
Sep 1	G 1.0	FWS	35		2			Poor
1957		EMC	250		250			
Aug 26		FWS FWS	250 250		250			
Aug 28		FWS	300		300			
Aug 30		FWS	1,500		300			
<b>S</b> ep 5 <b>S</b> ep 11	G 0.9	FRI	20,000		350			2,000 pink off mouth
Sep 18	G 0. 3	FWS	20,000		330			600 chum, 200 pink off mouth
1961		1.44.2						ood chain, 200 pink off mouth
Sep 1	A	ADF&G						Name absorred
geb T	A	ADIOG						None observed





# KETCHIKAN, CLARENCE STRAIT, MOIRA SOUND, SOUTH ARM, S.E. shore 4 miles from head

MAJOR SPECIES Pink, chum

OTHER SPECIES Coho, red, trout

ESCAPEMENT TIMING Late. Sept. -Oct. ESCAPEMENT MAGNITUDE SPAWNING FACILITIES Good in the area above the intertidal bedrock rapids. Fair below the rapids. STREAM TEMPERATURES Warm range. 44° F., 10/7/49; 47-50° F., 1950; 49° F., 9/22/51; 44° F.,

9/27/51; 49° F., 9/22/52.

VALLEY DESCRIPTION The valley is flat for 2 miles upstream and then narrows to form a canyon. Southwest of the stream is a mountain with considerable bedrock outcrops.

DRAINAGE 4.5 square miles (polar planimeter). Precipitation fed. A few small muskeg areas are drained by this stream.

STREAM MOUTH IDENTIFICATION The stream empties into the south arm of Moira Sound from the E side, about 1.5 miles from the head of the arm. The outlet into salt water is narrow with gravel beaches

ANCHORAGE Refer to K 127. Temporary anchorage is available off the mouth.

TRAILS AND SURVEY ROUTES The stream is easily waded above the intertidal zone. Banks are fairly open. Follow the left bank for easiest travel.

AERIAL SURVEY NOTES Valley narrows about 2 miles upstream and aerial visibility becomes impaired. During a S.W. wind there are downdrafts of considerable force. Good light is considered necessary for adequate aerial survey.

#### INTERTIDAL ZONE

LENGTH 0.3 mile

AVERAGE WIDTH/DEPTH 40'-50'/12"-18"

AVERAGE WIDTH/DEPTH 30'/9"

GRADIENT AND VELOCITIES Gentle to moderate

BOTTOM Gravel and coarse sand.

LOW TIDE LOCATION

HIGH TIDE LOCATION At the first bedrock rapids.

SCHOOLING AREAS Three pools are present which are utilized.

SPAWNING AREAS Several hundred yards of good spawning gravel are found in this zone.

GENERAL NOTES A bedrock rapid is located at the upper end of this zone; at times of low water fish appear to have difficulty passing it.

# UPSTREAM

LENGTH ACCESSIBLE 3 miles

GRADIENT AND VELOCITIES Moderate

BOTTOM Fine gravel, sand and some rock.

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS None

TRIBUTARIES No spawning tributaries have been reported.

SCHOOLING AREAS Very few pools above the intertidal zone - fish school anywhere there are deep areas.

SPAWNING AREAS Spawning occurs throughout, but is heaviest just above the high tide mark.

GENERAL NOTES An old cabin and float are found on the N.E. side of the stream mouth.

# ESCAPEMENT RECORD

_	SURVEYE		PINE		СН		OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective roting
1930		FILE	20.000		22 222		200	
S∈p 23 1940	G 3.0	FWS	20,000		20,000		300 coho	
5ep 26 1941	G 0.8	FWS	35,000					Excellent
Oct 4 1942	G 1.5	FWS	40,000					Excellent
Sep 25 1947	G 0.8	FWS	3,500		500			Poor. 6,000 fish off mouth
Oct 9 1948	G0.6	FRI	4,000		1,000			Good
Sep 7	G 1.0		S, S00		1,000		100 coho, 20 red	Foir-good
Sep 13	G 1. 3		7,000		600		100 coho, 200 red	Good
Sep 27 Oct S	G 0. S G 0. 1	ASI ASI	20,000 4,000	200	6,000 500	100		Good Good
1949	0 1	7101	1,000	200	500	100		3004
Sep 9	G 0.8	FRI	2, 200	6	100	1	1 coho, 3 red	
Oct 7 1980	G 0.8	FRI	S, 700	700	2,000	470	180 coho	
Sep 14	G 0.8	FRI	1,500	25	650	153	119 red	
Sep 26	G 0. 8 G 0. 8	FRI	4,950	26 670	1,710	189	18 coho, 26 red	
Oct 5		FRI	4, 260	678	1, 340	752	S7 coho, 23 red	
Sep 22	G 0. 8 G 0. 6	FRI FRI	1, 250	S0	190	10 40	Few coho, 62 red	2,000 fish off mouth. Water low
Sep 27 1952	G 0. 0	FKI	1,100	135	170	40	10 coho, 60 red	2,000 chum, 5,000 pink at mouth
Sep 9	G 0. 4	FRI	77	0	27	0	18 coho, 39 red	250 at mouth
Sep 22 19\$3	G 0.8	FRI	319	0	92	0	7 coho, 8 red	100 at mouth
June 25	G 1.0	FWS	0	0	0	0		Water low
Aug 20	G	FWS	200	0	0	0		
Sep 7	G 0. 1	FWS FRI	0	0	0	0		50 -: 1 - 56 1
Sep 8 Sep 20	G 0.5 G 0.8	FRI	20	U	SO	U	10 coho	60 pink off mouth
1954								
Sep 25 1955	A 0.8	FRI	2,500					None observed off mouth
Sep 19	A0.8							Few chum and pink
Sep 25	A 0.8		c 000		11 000			Few pink. None at mouth
Sep 25 1956	G	FW5	6,000		11,000			
Sep 9	A 0.8 A 0.8		5 000					Few pink. Several thousand at mouth
Sep 20 Sep 29	A 0.8		5,000 20,000					5,000-10,000 at mouth
1957 Aug 25	A 0.8	FRI	0		0			Some at mouth spawning
<b>5</b> ep 1\$	A 0.8		U		0			Too early Few pink. SOO pink at mouth
1958								
Sep 7	A	FWS						Poor visibility. 200 at mouth
Sep 20 1960	A	FWS			•			Pink present. Poor visibility
Aug 25 Sep 2	A A	ADF&G ADF&G	0		0			None at mouth
Sep 2	A	ADF&G	0		0			None at mouth
оср о			J		U			None at mouth

S UR VEYED		D	PINK		CHUM		OTHER SPECIES	REMARKS	
Date	:	Miles	By	Live	Dead	Live	Dead	Live	Adjective rating
1961									
Aug 1	6 A	A	ADF&G						Several hundred in bay
Sep	1 /	A.	ADF&G						None in stream
Sep 1	.3 A	A	ADF&G						200 at mouth none in
Sep 2	2O A	A	ADF&G			10			stream Vision fair



KETCHIKAN, CLARENCE STRAIT, MOIRA SOUND, SOUTH ARM, S. shore 1.5 miles from head

MAJOR SPECIES Pink, chum

OTHER SPECIES

ESCAPEMENT TIMING Late (estimated)

ESCAPEMENT MAGNITUDE

AVERAGE WIDTH/DEPTH

AVERAGE WIDTH /DEPTH 12'/8"-12"

SPAWNING FACILITIES Fair

STREAM TEMPERATURES Warm range (estimated).

VALLEY DESCRIPTION

DRAINAGE 4 square miles (estimated).

STREAM MOUTH IDENTIFICATION Lies about 0.7 mile from the head of South Arm. Empties into the S.E. corner of the first small bay on the E. shore, W. of K 128.

ANCHORAGE Same as for K 127.

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES Not suitable for aerial survey.

GENERAL NOTES A small stream, but there have been some good sized escapements observed.

# INTERTIDAL ZONE

LENGTH
GRADIENT AND VELOCITIES
BOTTOM Coarse broken rock
LOW TIDE LOCATION
HIGH TIDE LOCATION
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES

# UPSTREAM

LENGTH ACCESSIBLE
GRADIENT AND VELOCITIES Steep
BOTTOM Coarse broken rock
MARKER DISTANCE
MARKER IDENTIFICATION
BARRIERS
TRIBUTARIES
SCHOOLING AREAS
SPAWNING AREAS

GENERAL NOTES In 1947 a block was formed about 75 yards above the mouth preventing passage of fish upstream beyond this point.

## ESCAPEMENT RECORD

	SURVEYED		PIN	K	CH	UM	OTHER SPECIES	REMARKS		
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective		
1942										
Sep 25	G	FWS	3,500					Poor		
1946								1001		
Oct 1	G 1.0	ASI-FWS						Fair		
1947								2 011		
Oct 8	G 0. 1	FRI	100		60			Poor		
1953										
Aug 20	Α	FWS						No jumps		
Sep 20	G	FRI-FWS							nt salmon stream	
1960								- J		
Aug 25	A	ADF&G	0		0			None at m	outh	
Sep 2	A	ADF&G	0		0			None at m		
Sep 6	A	ADF&G	0		0			None at m		

Continued K 129

SURVEYED PINK CHUM OTHER SPECIES REMARKS

Date Miles By Live Dead Live Dead Live Adjective rating

113-23 \$4\*\$\$.1' N. 132\*13.1' W.

KETCHIKAN, CLARENCE STRAIT, MOIRA SOUND, SOUTH ARM, S. shore I mile from head

MAJOR SPECIES Pink, chum

OTHER SPECIES Coho, red

ESCAPEMENT TIMING Late (estimated)

ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Fair. About 1.2 miles upstream a canyon begins and spawning facilities become poor.

STREAM TEMPERATURES Warm range (No observed temperatures).

VALLEY DESCRIPTION

DRAINAGE 2 square miles (estimated).

STREAM MOUTH IDENTIFICATION Empties into the S.W. corner of the first small bay W. of K 128 along the E. shore.

ANCHORAGE See K 127.

TRAILS AND SURVEY ROUTES Game trails, some distance from the stream, provide good hiking. AERIAL SURVEY NOTES Not suitable for aerial survey.

#### INTERTIDAL ZONE

LENGTH
GRADIENT AND VELOCITIES
BOTTOM
LOW TIDE LOCATION
HIGH TIDE LOCATION
SCHOOLING AREAS
SPAWNING AREAS

GENERAL NOTES

AVERAGE WIDTH/DEPTH

AVERAGE WIDTH/DEPTH 15'/14"

## UPSTREAM

LENGTH ACCESSIBLE
GRADIENT AND VELOCITIES Steep
BOTTOM Small rock.
MARKER DISTANCE
MARKER IDENTIFICATION
BARRIERS
TRIBUTARIES

SCHOOLING AREAS Numerous pools.

SPAWNING AREAS The best spawning areas lie below the canyon which begins 1.2 miles upstream. GENERAL NOTES

# ESCAPEMENT RECORD

SURVEYED			PINK		CHUM		OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective Rating
1947								
Oct 9 1953	G 1. S	FRI	2,000		1,000		1 coho, 3 red	Good
Aug 20 Sep 20	A G	FWS FRI-FWS						No jumps Insignificant salmon stream



# KETCHIKAN, CLARENCE STRAIT, MOIRA SOUND, SOUTH ARM, Head

MAJOR SPECIES Pink, chum

OTHER SPECIES

ESCAPEMENT TIMING Late (estimated)

ESCAPEMENT MAGNITUDE

SPAWNING 'FACILITIES Spawning is limited almost entirely to the intertidal zone. A small part of each fork is also utilized.

STREAM TEMPERATURES Warm range (estimated).

VALLEY DESCRIPTION The stream flows through a flat open muskeg area.

DRAINAGE 6 square miles (estimated). Drains a large muskeg area.

STREAM MOUTH IDENTIFICATION The mouth lies at the head of South Arm. Enters from the S. into a small bay.

ANCHORAGE Same as for K 127.

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES Only the lower part of the stream is suitable for aerial survey.

GENERAL NOTES One of the better salmon streams in South Arm.

#### INTERTIDAL ZONE

LENGTH 0.25 mile
GRADIENT AND VELOCITIES
BOTTOM
LOW TIDE LOCATION
HIGH TIDE LOCATION

AVERAGE WIDTH/DEPTH

SCHOOLING AREAS The fish school around the small island off the edge of the tidal flats. SPAWNING AREAS Spawning takes place primarily in this zone.

GENERAL NOTES This stream is formed by 2 small streams which converge just above the mouth.

#### UPSTREAM

LENGTH ACCESSIBLE

AVERAGE WIDTH/DEPTH
Right branch 10'/10"
Left branch 10'/18"

BOTTOM Right branch - coarse crushed rock and bedrock.

Left branch - gravel and rock

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS

TRIBUTARIES

SCHOOLING AREAS

SPAWNING AREAS Not much spawning area is available above the high tide mark.

GENERAL NOTES

# ESCAPEMENT RECORD

	SURVEYE	D	PIN	K	CH	UM	OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1046								
1946	0.00	A CT FILIC						Pair Diale Landana
Oct 1 1947	G 0. 8	ASI-FWS						Fair. Right-hand stream
Oct 8	G 0.3	FR1	1,000		400			Good. Right-hand stream
Oct 8	G 0.8	FRI	2,000		1,000			Good. Left-hand stream
1953								
Aug 20	A	FWS						No jumps
Sep 20	G0.3	FRI						Few chum, pink. Small stream
1 <b>954</b>								
Sep 8	A	FRI						Pink present. Several thousand at mouth
19 <b>S</b> 6								
Sep 2 1987	G	FWS						15,000 pink at mouth
Sep 17	G	FWS						4,000-S,000 chum in bay outside
1961								
Aug 16	A	ADF&G						100 off mouth none in stream
Sep 1	A	ADF&G						200 off mouth none in stream
Sep 13	A	ADF&G						200 off mouthnone in stream
Sep 20	A	ADF&G						Fish present; water dark

KETCHIKAN, CLARENCE STRAIT, MOIRA SOUND, SOUTH ARM, N.W. shore 1 mile from head

MAJOR SPECIES Pink, chum

OTHER SPECIES Coho

ESCAPEMENT TIMING Late (estimated).

ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Excellent in the area below the forks and fair in the right fork below the falls.

STREAM TEMPERATURES Warm range (estimated).

VALLEY DESCRIPTION

DRAINAGE 8 square miles (estimated). Muskeg drainage area.

STREAM MOUTH IDENTIFICATION Enters at the head of the South Arm, from the W. The mouth is found in a protected bay behind a small island.

ANCHORAGE Same as for K 127.

TRAILS AND SURVEY ROUTES Game trails are found along the banks.

AERIAL SURVEY NOTES The water is muskeg colored, and good light is needed for making an aerial survey.

GENERAL NOTES Has had large escapements at times.

#### INTERTIDAL ZONE

LENGTH

AVERAGE WIDTH/DEPTH

GRADIENT AND VELOCITIES

BOTTOM Gravel and bedrock.

LOW TIDE LOCATION

HIGH TIDE LOCATION At the second bedrock constriction just below the forks.

SCHOOLING AREAS

SPAWNING AREAS

GENERAL NOTES Very limited.

#### UPSTREAM

LENGTH ACCESSIBLE

AVERAGE WIDTH/DEPTH 30'-40'/6"-12"

GRADIENT AND VELOCITIES Moderate

BOTTOM Small broken rock.

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS Two falls a short distance up the right hand branch are impassable to salmon.

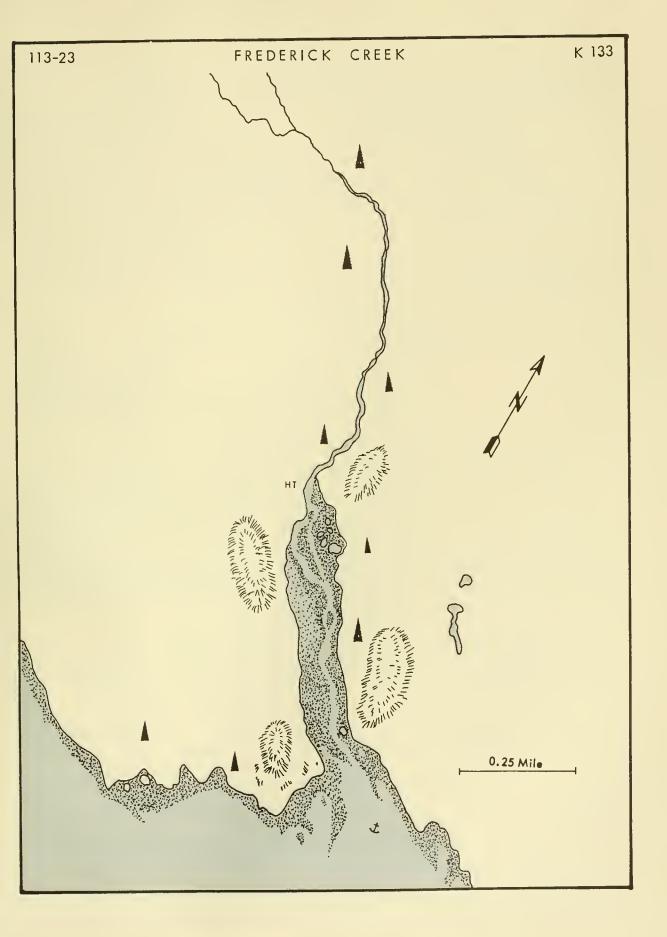
TRIBUTARIES

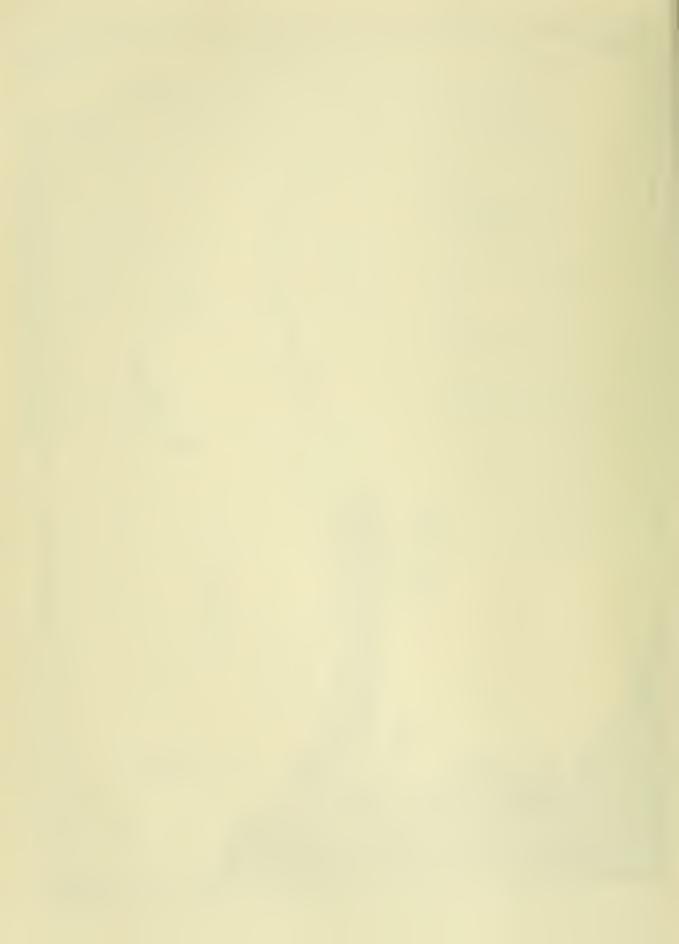
SCHOOLING AREAS

SPAWNING AREAS The main stem is reported to contain 30 to 60 percent available spawning area.

GENERAL NOTES

	SURVEYED			PINK		JM	OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1930								
Sep 22		FWS	90,000		10,000		Few coho	Well seeded
1947								
Oct 9	G 0. S	FRI	20,800		8,000			Excellent
1948								
Aug 9	G 1.0	ASI						No fish present
Aug 16	G 0.S	ASI						No fish present
Aug 23	G 0.3	ASI						Few chum showing
Aug 30	G 1.S	ASI	10		18		25 coho	
Sep 7	G 0.S	ASI	2,000		1,000		100 coho	
Sep 13	G 1.0	ASI	8,500		1,050		25 coho	Good
Sep 22	G 1.0	ASI						Same amount of fish as last week
Sep 27	G 0.3	ASI	32,000		3,500			Good
Oct 5	G 1.0	ASI	16,000	S,000	3,200	3,000	250 coho	Good
1 <b>9S</b> 6			·					
Sep 2		FWS						20,000 pink at mouth
1957								
Sep 17		FWS						2, 700 ot mouth
1961								
Aug 16	A	ADF&G						200 at mouth, none in stream, water low
Sep 1	A	ADF&G						None in mouth or stream, water low
Sep 13	A	ADF&G						200 at mouth, none in stream, water low
Sep 20	A	ADF&G						None at mouth; fish present; visibility poor





K 133 Previous No. 125

# KETCHIKAN, CLARENCE STRAIT, MOIRA SOUND, WEST ARM, FREDERICK COVE, N. shore 1.5 miles from head

MAJOR SPECIES Pink, chum

OTHER SPECIES

ESCAPEMENT TIMING Late (estimated)

ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Good throughout the intertidal zone and the first SOO yards above high tide.

STREAM TEMPERATURES Warm range (estimated).

VALLEY DESCRIPTION A short stream-cut valley. Rolling hills with heavy forestation. Valley rises steeply away from the tidal flot but becomes gentle upstream.

DRAINAGE 3 square miles (polar planimeter).

STREAM MOUTH IDENTIFICATION Enters about half way up the N. shore of Frederick Cove. Long tide flat, about 0.7 mile in length.

ANCHORAGE Same as for K 127.

TRAILS AND SURVEY ROUTES To avoid having skiff grounded approach the stream and anchor on the right-hand side.

AERIAL SURVEY NOTES Approach should be made up E. side of valley. A tight turn to left is required to begin downstream leg.

# INTERTIDAL ZONE

LENGTH

AVERAGE WIDTH/DEPTH 50'

GRADIENT AND VELOCITIES BOTTOM LOW TIDE LOCATION HIGH TIDE LOCATION SCHOOLING AREAS

SPAWNING AREAS This area appears to have good spawning facilities.

GENERAL NOTES

#### UPSTREAM

LENGTH ACCESSIBLE
GRADIENT AND VELOCITIES Swift
BOTTOM Coarse rock.
MARKER DISTANCE
MARKER IDENTIFICATION
BARRIERS
TRIBUTARIES

AVERAGE WIDTH/DEPTH 30'/24"

SCHOOLING AREAS

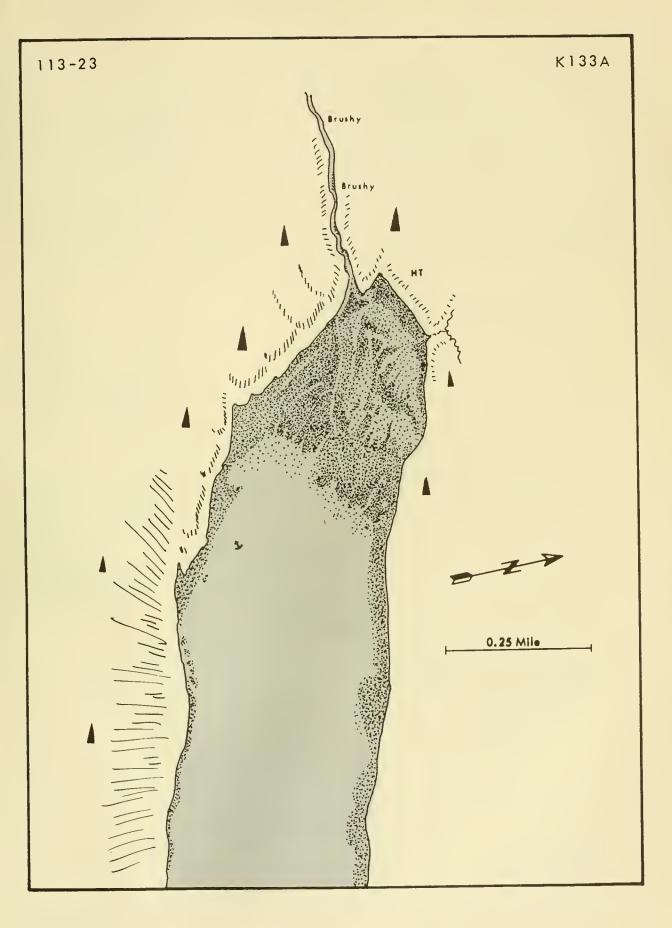
SPAWNING AREAS The first 500 yards above high tide have good spawning facilities throughout. Above this area spawning facilities are less favorable.

GENERAL NOTES

# ESCAPEMENT RECORD

	SURVEYE	.D	PII	٧K	СН	UM	OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1961								
ep 13	A	ADF&G						None observed
Sep 20	A	ADF&G			300			30 at mouth, most spawning







113-23 \$4°59.5' N. 132°17.4' W.

KETCHIKAN, CLARENCE STRAIT, MOIRA SOUND, WEST ARM, FREDERICK COVE, S. W. head

MAJOR SPECIES Pink, chum
ESCAPEMENT TIMING Late (estimated)

OTHER SPECIES
ESCAPEMENT MAGNITUDE

AVERAGE WIDTH/DEPTH

SPAWNING FACILITIES Poor

STREAM TEMPERATURES Warm range (No observed temperatures).

VALLEY DESCRIPTION Stream cut. Steep-sided. Widens about one mile upstream. Valley runs toward the E.

DRAINAGE 4.3 square miles (polar planimeter).

STREAM MOUTH IDENTIFICATION Enters at the head of Frederick Cove, in the S. W. corner.

ANCHORAGE Refer to K 127.

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES The stream runs through fallen logs and brush in most places, therefore aerial observations are inadequate.

GENERAL NOTES No record of physical features.

# INTERTIDAL ZONE

LENGTH
GRADIENT AND VELOCITIES
BOTTOM
LOW TIDE LOCATION
HIGH TIDE LOCATION
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES

SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

### UPSTREAM

LENGTH ACCESSIBLE

GRADIENT AND VELOCITIES

BOTTOM

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS

TRIBUTARIES

### ESCAPEMENT RECORD

	SURVEYED			PINK		UM	OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1947								
Oct 10 1949	G	FRI	300					Excellent
Sep 8 1955	G 0. S	FWS	200					
Aug 26 1956	G	FWS						300 fish
Sep 29 19 <b>S7</b>	G	FWS	S00		13,000			
Sep 11	G	FWS			250			
Sep 11	G 0.5	FRI	0		0			Few chum off mouth

SURVEYED PINK CHUM OTHER SPECIES REMARKS
Date Miles By Live Dead Live Dead 'Live Adjective rating

113-23 \$5°00.6' N. 132°15.4' W.

KETCHIKAN, CLARENCE STRAIT, MOIRA SOUND, WESTARM, DICKMAN BAY, S. shore 1.5 miles from W. head

MAJOR SPECIES Pink, chum
ESCAPEMENT TIMING Late (estimoted)
SPAWNING FACILITIES Very good
STREAM TEMPERATURES Worm range (estimated).

ESCAPEMENT MAGNITUDE

OTHER SPECIES

VALLEY DESCRIPTION

DRAINAGE 2 square miles (estimated).

STREAM MOUTH IDENTIFICATION Enters the south arm of Dickmon Bay from the S. about 0. S mile from the bay entrance.

ANCHORAGE Some as for K 127.
TRAILS AND SURVEY ROUTES
AERIAL SURVEY NOTES

GENERAL NOTES A small stream reported to have good spawning facilities.

INTERTIDAL ZONE

LENGTH
GRADIENT AND VELOCITIES
BOTTOM
LOW TIDE LOCATION
HIGH TIDE LOCATION
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES

AVERAGE WIDTH/DEPTH

UPSTREAM

AVERAGE WIDTH/DEPTH

LENGTH ACCESSIBLE
GRADIENT AND VELOCITIES
BOTTOM Small rock and grovel.
MARKER DISTANCE
MARKER IDENTIFICATION
BARRIERS Falls 0.5 mile upstreom
TRIBUTARIES
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES

	SURVEYE	)	PIN	К	CHU	M	OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1930								
Sep 23 1940		FWS	75,000		65,000			Stream overcrowded
Sep 27 1941	G 0.3	FWS	s,000					Good
Oct 4 1942	G 0.3	FWS	s,000					Good
Sep 25	G 0.8	FWS	2,000		8,000			Excellent. 8,000 pink in bay
194S Sep 27	G 0.S	FWS	6,000		10,000			Excellent. 6,000 fish off mouth
1947 Oct 10 1953	G 0.3	FRI	5,000	3,500	250			Good
Sep 6	G 0.1	FWS	8		1			Poor. Few at mouth, bay. Water low
Sep 20 1988	G 0. 2	FWS			1,650	91		Fair. Few at mouth
Oct 4 19\$6	G	FWS	1\$0		S,650			
Sep 2 1987		FWS						15,000 pink at mouth
Sep 11 Sep 18	G 0.3	FWS FWS	S0		250			Few jumps in bay 30 chum at mouth

113-23 55°00.9' N. 132°17.4' W.

KETCHIKAN, CLARENCE STRAIT, MOIRA SOUND, WEST ARM, DICKMAN BAY, W. head of S. arm

MAJOR SPECIES ESCAPEMENT TIMING SPAWNING FACILITIES Fair STREAM TEMPERATURES Warm range. VALLEY DESCRIPTION DRAINAGE 2 square miles (estimated). STREAM MOUTH IDENTIFICATION Enters at the extreme west end of the south arm of Dickman Bay. ANCHORAGE Same as for K 127.

OTHER SPECIES ESCAPEMENT MAGNITUDE

INTERTIDAL ZONE

LENGTH GRADIENT AND VELOCITIES BOTTOM LOW TIDE LOCATION HIGH TIDE LOCATION SCHOOLING AREAS SPAWNING AREAS Fair

GENERAL NOTES

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES

AVERAGE WIDTH/DEPTH

AVERAGE WIDTH/DEPTH 6'/6"

# UPSTREAM

LENGTH ACCESSIBLE GRADIENT AND VELOCITIES BOTTOM MARKER DISTANCE MARKER IDENTIFICATION BARRIERS High falls 0.5 mile upstream is impassable. TRIBUTARIES SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

# ESCAPEMENT RECORD

	SURVEYE	D	PINK		CHUM		OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1930 Sep 24	G 0.5	FWS					sy	SO fish, 75% pink. Chum pawned out. 1,500 pink at nouth.



113-23 55°01.3' N. 132°16.5' W.

KETCHIKAN, CLARENCE STRAIT, MOIRA SOUND, WEST ARM, DICKMAN BAY, N. W. head of S. arm

MAJOR SPECIES Pink, chum
ESCAPEMENT TIMING

O'THER SPECIES Coho ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES About 0.5 mile of good spawning grounds.

STREAM TEMPERATURES Warm range (estimated).

VALLEY DESCRIPTION

DRAINAGE 2 square miles (estimated).

STREAM MOUTH IDENTIFICATION Enters a small bay about half way up the N. shore of the southerly arm of Dickman Bay.

ANCHORAGE Same as for K 127.

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES

GENERAL NOTES A small stream of little importance. No records of physical features.

### INTERTIDAL ZONE

LENGTH
GRADIENT AND VELOCITIES
BOTTOM
LOW TIDE LOCATION
HIGH TIDE LOCATION
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES

AVERAGE WIDTH/DEPTH

### UPSTREAM

LENGTH ACCESSIBLE
GRADIENT AND VELOCITIES
BOTTOM
MARKER DISTANCE
MARKER IDENTIFICATION
BARRIERS
TRIBUTARIES
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES

AVERAGE WIDTH/DEPTH 6'/6"

# ESCAPEMENT RECORD

	SURVEYED		PINE	ζ	CH	UM	OTHER SPECIES	REMARKS	
Date	Miles	By	Live	Dead	Live	Dead	Live	Adjective rating	
1930 Sep 24	G 0.5	FWS	750					Many dead chum, 1,000 fresh pink at mouth	
Sep 11	G 0.5	FWS	2		8		6 coho	Few bear kills	



KETCHIKAN, CLARENCE STRAIT, MOIRA SOUND, WEST ARM, DICKMAN BAY, N.E. head of N. arm

MAJOR SPECIES Chum

OTHER SPECIES Pink ESCAPEMENT MAGNITUDE

ESCAPEMENT TIMING Late (estimated)

SPAWNING FACILITIES Good

STREAM TEMPERATURES Warm range

VALLEY DESCRIPTION

DRAINAGE 14.5 square miles (polar planimeter).

STREAM MOUTH IDENTIFICATION The first stream on the N side of the inner part of the northerly arm.

ANCHORAGE Same as for K 127.

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES

GENERAL NOTES Reported to be a good chum stream.

## INTERTIDAL ZONE

LENGTH GRADIENT AND VELOCITIES BOTTOM LOW TIDE LOCATION HIGH TIDE LOCATION SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

AVERAGE WIDTH/DEPTH

AVERAGE WIDTH/DEPTH 40'/10"

### UPSTREAM

LENGTH ACCESSIBLE GRADIENT AND VELOCITIES BOTTOM Small rock, sand and gravel MARKER DISTANCE MARKER IDENTIFICATION BARRIERS Falls 1 mile upstream is impassable to salmon. TRIBUTARIES SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

### ESCAPEMENT RECORD

	SURVEYED	)	PIN	K	CHUM		OTHER SPECIES	REMARKS
Date	Miles	By	Live	Dead	Live	Dead	Live	Adjective rating
1930								
Sep 24	G	FWS	2,500		22,500			Many dead, mostly chum
1953								
Sep 20	G 0. S	FWS	1		5,500	104		Good. 200 chum at mouth
Sep 25	G 0. 3	FWS						Good. Many chum



KETCHIKAN, CLARENCE STRAIT, MOIRA SOUND, WEST ARM, DICKMAN BAY, W. head of N. arm

MAJOR SPECIES Pink, chum
ESCAPEMENT TIMING
SPAWNING FACILITIES Fair.
STREAM TEMPERATURES Warm range

OTHER SPECIES Coho ESCAPEMENT MAGNITUDE

VALLEY DESCRIPTION

DRAINAGE 9.4 square miles (polar planimeter).

STREAM MOUTH IDENTIFICATION Enters the N. arm of Dickman Bay at its head end, comes into the S.W. corner.

ANCHORAGE Same as for K 127.

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES

GENERAL NOTES Escapement figures indicate that this stream does not support large runs of salmon. Mainly a chum stream.

### INTERTIDAL ZONE

LENGTH
GRADIENT AND VELOCITIES
BOTTOM
LOW TIDE LOCATION
HIGH TIDE LOCATION
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES

AVERAGE WIDTH/DEPTH

AVERAGE WIDTH/DEPTH 6-10'/8"

#### UPSTREAM

LENGTH ACCESSIBLE 850 feet to falls GRADIENT AND VELOCITIES BOTTOM Small rocks, little sand and gravel. MARKER DISTANCE MARKER IDENTIFICATION

RARRIERS A series of falls, impressible to sale.

BARRIERS A series of falls, impassable to salmon, are encountered 850' upstream.

TRIBUTARIES
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES

# ESCAPEMENT RECORD

	SURVEYE	D	PIN	K	CH	UM	OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1930								
Sep 24	G	FWS	336		114			1,500 fish off mouth
1937								
Oct S	G	FWS						Good chum run. Few pink
195 <b>S</b>								
Oct 4	G	FWS	1 <b>S</b> 0		5,650			
1956								
Sep 2	G	FWS						15,000 pink at mouth
19 <b>\$</b> 7								
Sep 10	G 0.5	FWS	2		8		6 coho	Jumps way out in bay
<b>S</b> ep 11	G 0.5	FWS	0		250			Jumps in bay
1961								
Sep 1	Α	ADF&G	15					Schooled
Sep 13	Α	ADF&G						None observed
Sep 20	Α	ADF&G						None observed



113-23 \$\$\text{K}\$ 135B \$\$\text{S\$\circ\$02.6'}\$ N. 132\circ\$17.4' W. No Previous No.

KETCHIKAN, CLARENCE STRAIT, MOIRA SOUND, WEST ARM, DICKMAN BAY, N. head of N. arm

MAJOR SPECIES Pink, chum
ESCAPEMENT TIMING
SPAWNING FACILITIES
STREAM TEMPERATURES Warm range
VALLEY DESCRIPTION

OTHER SPECIES ESCAPEMENT MAGNITUDE

DRAINAGE 6.2 square miles (polar planimeter).

STREAM MOUTH IDENTIFICATION Enters the N W. corner of the northern arm at the head of Dickman Bay.

ANCHORAGE Same as for K 127.
TRAILS AND SURVEY ROUTES
AERIAL SURVEY NOTES
GENERAL NOTES Only 1 survey report. Does not appear to be of much importance.

INTERTIDAL ZONE

LENGTH
GRADIENT AND VELOCITIES
BOTTOM
LOW TIDE LOCATION
HIGH TIDE LOCATION
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES

AVERAGE WIDTH/DEPTH

# UPSTREAM

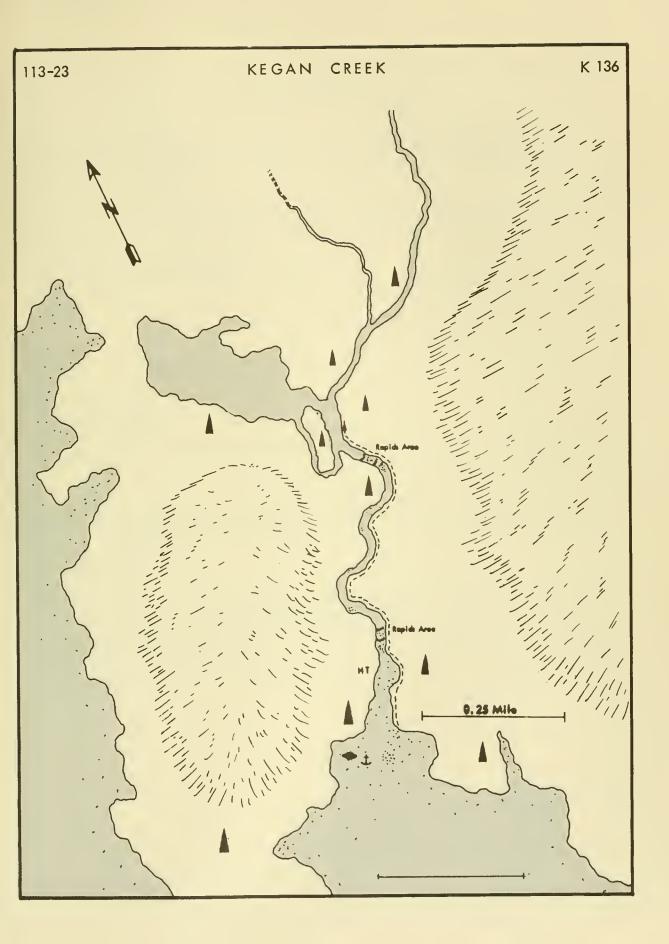
LENGTH ACCESSIBLE
GRADIENT AND VELOCITIES
BOTTOM Large rocks - very little sand and gravel.
MARKER DISTANCE
MARKER IDENTIFICATION
BARRIERS High falls 0.25 mile upstream.
TRIBUTARIES
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES

AVERAGE WIDTH/DEPTH 10'/12"

### ESCAPEMENT RECORD

Date	SUR VEYED Miles	Ву	PIN Live	IK Dead	CH Live	UM Dead	OTHER SPECIES Live	Adjective	REMARKS rating
1930 Sep 23	G	FWS			S,000			Few pink.	1,000 at mouth







# KETCHIKAN, CLARENCE STRAIT, MOIRA SOUND, KEGAN COVE, Head

MAJOR SPECIES Pink

ESCAPEMENT TIMING Late. Sept. -Oct.

OTHER SPECIES Chum, coho, red
ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Good. Limited by sections of bedrock. No intertidal spawning.

SPAWNING TEMPERATURES Warm range. 60° F., 9/22/Sl, S6° F., 9/27/S1; S6° F., 9/9/52; S6° F., 9/8/S3, S1° F., 19/4/S3.

VALLEY DESCRIPTION A short, steep-sided valley. Heavily wooded. Connects the lake with Kegan Cove. DRAINAGE 10 square miles (polar planimeter). Drains three interconnected lakes. The first lake is the

largest and is 3.5 miles long and about 0.5 mile wide. These lakes are precipitation fed.

STREAM MOUTH IDENTIFICATION The mouth is found at the head of Kegan Cove. The stream runs over a bedrock rapid just before entering salt water.

ANCHORAGE Moor at the float or anchor in the cove off the creek mouth.

TRAILS AND SURVEY ROUTES A good forest service trail follows the left bank up to the lake.

AERIAL SURVEY NOTES Fly up the east side of the valley. Difficult to survey because of dark water.

# INTERTIDAL ZONE

AVERAGE WIDTH/DEPTH

LENGTH
GRADIENT AND VELOCITIES
BOTTOM
LOW TIDE LOCATION
HIGH TIDE LOCATION
SCHOOLING AREAS
SPAWNING AREAS

GENERAL NOTES The intertidal zone is almost nonexistent, has a bedrock bottom and therefore offers no spawning area.

### **UPSTREAM**

LENGTH ACCESSIBLE 0.8 mile to lake AVERAGE WIDTH/DEPTH 30'-35'/15"-30"

GRADIENT AND VELOCITIES Moderate to swift

BOTTOM Sand and bedrock.

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS None.

TRIBUTARIES The chain of lakes which Kegan Creek empties has numerous tributaries, but spawning has only been reported to take place in the inlet to the lower lake.

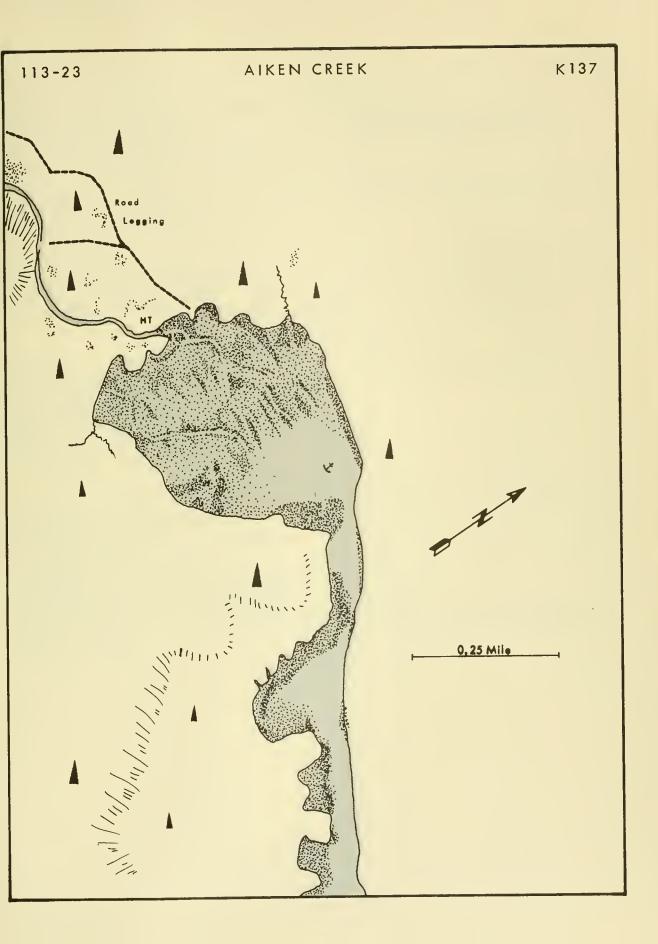
SCHOOLING AREAS Several pools are utilized by schooling salmon, but the main schooling area is in the pool just below the upper bridge.

SPAWNING AREAS The heaviest spawning occurs in the wide flat area just below the rapids which run out of the lake. Spawning between the flat and salt water is limited to gravel areas interspersed among bedrock outcrops.

	SURVEYED		PIN		CH		OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1930								
Sep 24 1941	G 0.4	FWS						50,000 chum & pink in stream
Oct 4 1942	G 0.4	FWS	10,000					Good
Sep 26 1947	G 0.4	FWS	10,000		300			Good
Oct 10 1951	G 0.4	FRI	15,000		300			Excellent
Sep 22	G 0.4	FRI	11,000	0		0		Few chum. 5,000-8,000 fish, mostly pink off mouth
Sep 27 1952	G 0.4	FRI	10, 200	0	125	0	Some coho	1,000 chum, 5,000 pink off mouth
Sep 9	G 0.4	FRI	800	0	50	0	150 coho	300-500 at mouth
Sep 22	G 0.4	FRI	3, 200	0	200	0	Coho present	Very few at mouth
Oct 6 1953	G 0.4	FRI	3, 100	300	1,800	600	200 coho	
June 22	G 0.0	FWS	0		0		200 red	
June 26	A 0.4	FWS						No jumps seen
June 28	G 0, 0	FWS					300 red	
July 17	G 0.0	FWS	2					300 red in cove
July 31	G 0.0	FWS						Red present
Aug 21	G 0.0	FWS						Few red present
Aug 22	G 0.0	FWS					Few coho & red	
Aug 27	G 0, 3	FWS	50		0		75 coho	15 coho, 120 pink, 12 red at mouth
Sep 5	G 0.3	FWS	500				100 coho	800 coho at mouth
Sep 6	G 0.3	FWS	1,000				200 coho	400 coho at mouth
Sep 8	G 0.4	FRI	1,080	0	20		76 coho	
Sep 20	G 0.4	FRI	1,000	0	1,000	0	Coho present	
Oct 4 1954	G 0.4	FRI	500	100	1,500	400	23 coho	
5ep 4	A 0.4	FWS						Stream low
Sep 25 1955	G 0.4	FRI	15,000					10,000-15,000 at mouth
Sep 19	A 0.4	FRI	3,000					
Sep 23	G	FWS	5,000					
Sep 25	A 0.4	FRI	7,000					Several thousand at mouth
Sep 28 1956	A 0.4	FRI	12,500					2,000 at mouth
July 3		FWS					7,000 red	
Sep 2		FWS						15,000 pink at mouth
Sep 9	A 0.4	FRI	>2,000					20,000 at mouth. Many outside cove
Sep 11		FWS	6,000		1			
Sep 20	A 0.4	FRI	>10,000					30,000-60,000 chum and pink at mouth
Sep 22		FWS	20,000		500			
Sep 29	A 0.4	FRI	>30,000					25,000 at mouth
Oct 1 1957		FW5	27,000		3,000			
July 1		FWS					1, 200 red	
July 15		FWS					100 red	
Aug 25	S A 0.4	FRI						2,000 in stream, probably pink

Data Miles Des Time Dead Time Dead Time Adjusting nating	
Date Miles By Live Dead Live Dead Live Adjective rating	
1957	
Aug 28 FWS 4,000	
Sep 5 FWS 7,300	
Sep 10 G 0.4 FWS 10,000 500 135 dead. About 1,000 c	chum,
4,000 pink off mouth	
Sep 10 G 0.4 FWS 600 2 2,000 pink at mouth	
Sep 15 A 0.4 FRI 5,000 0 1,000 at mouth. Jumps is	n lake
Sep 16 FWS 19,000 4,000	
Sep 18 FWS 1, 300 chum, 900 pink a	t mouth
1958	
C C A STATE	
Sep / A 0.4 FWS 2,000 schooled in lagoor & off mouth	1
C CO A C A WHITE	
Some pink present	
Jul 3 A ADF&G 1,000 red 200 at mouth	







K 137 Previous No. 127B

KETCHIKAN, CLARENCE STRAIT, MOIRA SOUND, NORTH ARM, AIKEN COVE, S. W. head MAJOR SPECIES Pink, chum OTHER SPECIES Red, coho ESCAPEMENT TIMING Late. Sept.-Oct. ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Fair to good.

STREAM TEMPERATURES Warm range (estimated).

VALLEY DESCRIPTION Stream cut. Runs W. for 0.5 mile and then S. to its headwaters near Eudora Mountain, 3500" in height. The valley is sparsely wooded in places in the lower part. Valley walls are of moderate to steep gradient.

DRAINAGE 4 square miles (polar planimeter).

STREAM MOUTH IDENTIFICATION The mouth lies at the head of Aiken Cove, just to the left of a cabin ruins.

ANCHORAGE Excellent shelter for small boats is found within the cove. Core must be taken when running in the North Arm because of numerous rocks.

TRAILS AND SURVEY ROUTES Easily waded except in lower reaches where observations may be made from stream banks. A logging road runs up the left bank and may be used for travel downstream.

AERIAL SURVEY NOTES Difficult to survey from the air.

### INTERTIDAL ZONE

LENGTH
GRADIENT AND VELOCITIES
BOTTOM Gravel and broken rocks.
LOW TIDE LOCATION
HIGH TIDE LOCATION
SCHOOLING AREAS Two large pools near the low tide mark.
GENERAL NOTES

AVERAGE WIDTH/DEPTH

AVERAGE WIDTH/DEPTH 30'-35'/10"-12"

UPSTREAM

LENGTH ACCESSIBLE
GRADIENT AND VELOCITIES
BOTTOM Gravel and small broken rock.

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS Falls 0.75 mile upstream are at least a partial block to salmon.

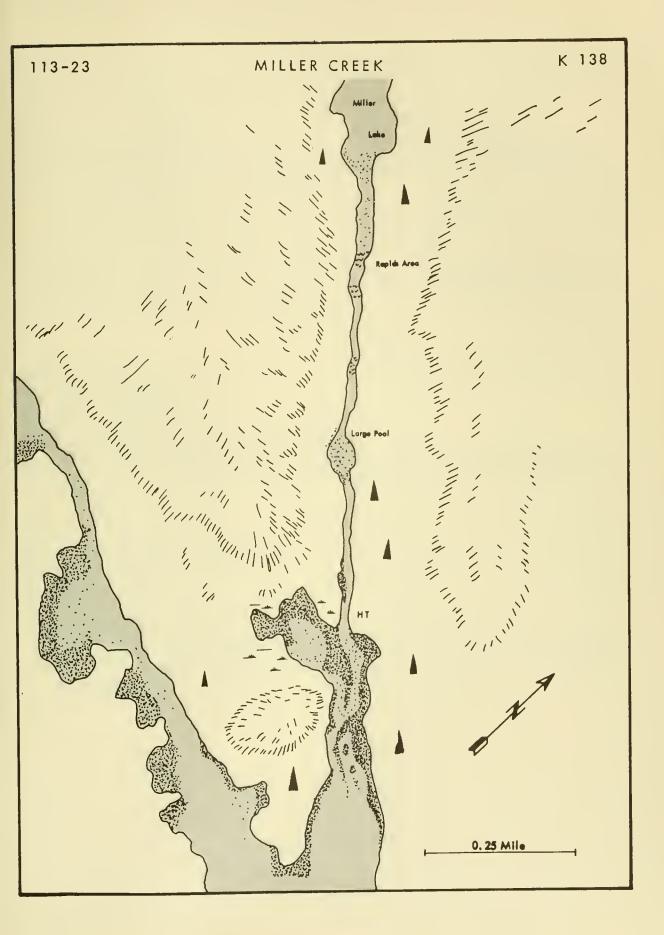
TRIBUTARIES No spawning tributaries reported.

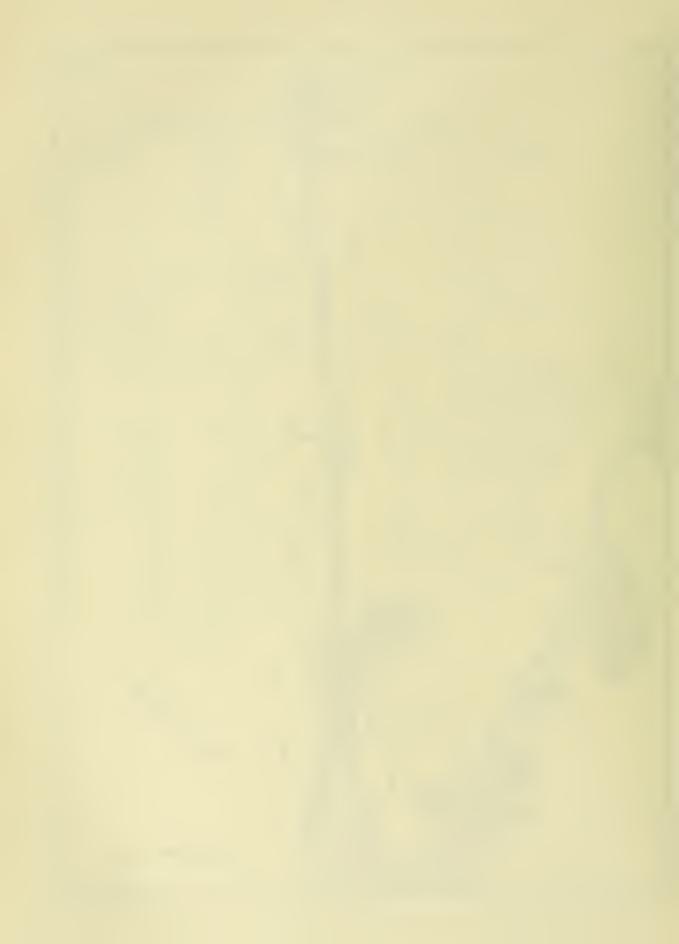
SCHOOLING AREAS Small pools throughout the distance surveyed.

SPAWNING AREAS The heaviest spawning takes place below the falls. The best spawning facilities and largest available spawning area is found here. Some spawning occurs in gravel pockets below this area.

GENERAL NOTES

	SURVEYED	)	PIN	1K	СН	ШM	OTHER SPECIES	REMARKS
Date	Miles	By	Live	Dead	Live	Dead	Live	Adjective rating
1940		TOTAL	20.000		2 000			Excellent
Sep 26 1941	G 0.8	FWS	30,000		3,000			Excellent
Oct 5	G 1.0	FWS	75,000		5,000			Excellent
1946	G 1. 0	1 113	75,000		0,000			
Sep 29	G 0.5	ASI						Poor
1947								
Oct 8	G 0.8	FRI	10,000		5,000			Excellent
1948								
Aug 23	G 0.5	FRI						No fish in the stream
Aug 31	G 0.8	FRI			55			
Sep 6	G 0.5	ASI			200			Poor
Sep 14	G 0.3	ASI	200		50			Poor
Sep 26	G 0.5	ASI	3,000		2,000			Fair
Oct 4	G 0.5	ASI	10,000		3,000			Good. Many dead chum and pink
1951 Sep 22	G 0.3	FRI						Low water. Fish unable to enter. 5,000
3ep 22	G 0. 3	LIA						pink, 8,000 chum off mouth
1953								pink, 0,000 chain oil mouth
Aug 29	G 0.0	FWS	0		200			
Sep 7	G 0.0	FWS	100		500			
Sep 19	G 0.3	FRI	25	0	4,500	35		Dead mostly predator kills
Sep 24		FWS						Creek filled with chum
1954								
Sep 4	A 0.8	FWS						Stream low
1955								
Oct 2	G	FWS	40		3,370			
1956		27.10	=00					
Sep 29		FWS	500		13,000			
1957		FWS					100 red	
July 15 Sep 21		FWS			2,025		100 rea	2,000 chum, 5,000 pink at mouth
1959		F W 3			2,023			2,000 chum, 3,000 pink ut mouth
Sep 4	Α	FWS	2,000		so		50 coho	
Jup		1 113	2,000		30		30 CORO	





# KETCHIKAN, CLARENCE STRAIT, MOIRA SOUND, NORTH ARM, Head

MAJOR SPECIES Pink, chum

OTHER SPECIES Coho, red ESCAPEMENT MAGNITUDE

ESCAPEMENT TIMING Late. Sep. -Oct.

SPAWNING FACILITIES Poor. The most satisfactory spawning area is at the lake outlet since the remainder of the stream flows over solid marble bottom. Spawning does not occur in the intertidal zone.

STREAM TEMPERATURES Warm range (Estimated).

VALLEY DESCRIPTION A short stream -cut valley at the lower end of a large valley. The S. W. slope of the valley runs into Miller Lake. Between the lake and the North Arm the valley is heavily wooded. The stream flows through a narrow garge.

DRAINAGE 10 square miles (polar planimeter). Drains Miller Lake 2.5 miles long and 0.2 mile wide. This

lake is fed by several other small lakes lying within the drainage system.

STREAM MOUTH IDENTIFICATION Enters at the extreme head of the North Arm of Moira Sound. ANCHORAGE Adequate anchorage for small boats can be found off the creek mouth. Refer to K 137. TRAILS AND SURVEY ROUTES There are no trails and it is difficult to ascend the slippery rock margins. AERIAL SURVEY NOTES Not surveyed from the air.

# INTERTIDAL ZONE

LENGTH 0.2 mile

AVERAGE WIDTH/DEPTH 301/12"

GRADIENT AND VELOCITIES Moderate

BOTTOM Bedrock and heavy rubble.

LOW TIDE LOCATION

HIGH TIDE LOCATION

SCHOOLING AREAS Schooling takes place off the mouth.

SPAWNING AREAS None reported.

GENERAL NOTES The remains of an old marble quarry are situated near the mouth. This stream is unimportant as a salmon stream; however, lake spawning of pink, chum, and red occurs at the head end of the lake.

### UPSTREAM

LENGTH ACCESSIBLE 0.5 mile to lake GRADIENT AND VELOCITIES Moderate

t o

AVERAGE WIDTH/DEPTH 20'-25'/?

BOTTOM Bedrock.

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS None.

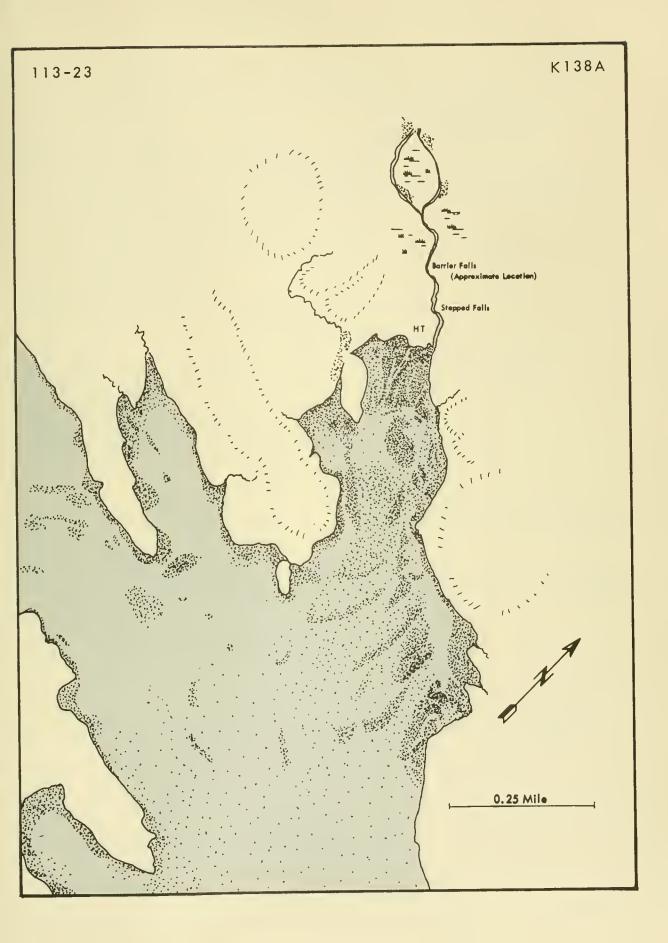
TRIBUTARIES None reported.

SCHOOLING AREAS About halfway to the lake there is a deep pool which provides excellent shelter for schooling salmon. Numerous small pools are also available.

SPAWNING AREAS Numerous bedrock areas restrict spawning. The best spawning area is just below the lake outlet.

GENERAL NOTES A poor salmon stream.

	SURVEYED		PIN	ıĸ	СН	UM	OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead I	Live	Dead	Live	Adjective rating
1940								
Sep 25	G 0.3	FWS	15,000		2,000			Excellent
Sep 27	G 0.8	FWS	4,000	3	3,000			Good. 7,000 fish off mouth
1941								P 11
Oct S	G 0. S	FWS	\$0,000					Excellent
1942			600					Fair. 10,000 fish off mouth
Sep 24	G 0.3	FWS	S00	4	4,000			run. 10,000 iisii oii moutii
1947	G 0.6	FRI	10,000		700			
Oct 7 1948	G 0. 6	FIG	10,000		700			
Aug 10	G 0.6	ASI					25 red	
Aug 17	3 0.0	ASI						Jumps off mouth
Aug 23	G 0.3	ASI						Chum showing in bay
Aug 31	G 0.6	FRI	25		10			
Sep 6	G 0.6	ASI	100					Some chum. Stream high and discolored
Sep 14		ASI	1,000		25			
Sep 26	G 0.3	ASI						Fair showing
Oct 4	G 0.6	ASI	15,000	4	4,000			Good. Many dead both species
1953								
June 28	G 0.0	FWS						No fish showing
July 11	G 0.0	FWS					7S red	D 11
July 1S	G 0.0	FWS						Reds have gone upstream, 2 small
	. 0 -	******						schools in bay
July 24	A 0.6	FWS					D - J	Few jumpers noted - reds
Aug 1	G 0.0	FWS					Red present	Few pink Few red at feeder stream, upper end of
Aug 14	A 0.6	FWS						lake. Few jumps in outlet stream
Aug 29	G 0.0	FWS						Few schools of chum, coho, pink present
Aug 30	A 0.6	FWS						Poor. Red beach spawning at head of
Aug 30	A 0.0	1 113						lake. 1 jump at mouth
Sep 19	G 0.6	FWS	1,000	:	2,000		1,000 coho	Poor to fair
1956			_,		,			
Sep 21	G 0.0	FWS	\$00	4	4,500			
19 <b>S</b> 7								
Sep 11		FWS	350		600			1,800 chum at mouth
Sep 21		FWS	S00	9	9,000			6,000 chum at mouth
Sep 22		FWS						2,000 chum at mouth





113-23 55°07.8' N. 132°08.6' W. Previous No. 127C

KETCHIKAN, CLARENCE STRAIT, MOIRA SOUND, NORTH ARM, NOWISKAY COVE, Head

MAJOR SPECIES Pink

OTHER SPECIES Chum

ESCAPEMENT TIMING Late. Sep. -Oct.

ESCAPEMENT MAGNITUDE

AVERAGE WIDTH/DEPTH

SPAWNING FACILITIES Poor, except in the intertidal zone.

STREAM TEMPERATURES Warm range (estimated).

VALLEY DESCRIPTION Stream cut. The valley is short, about 1 mile in length and branches at the upper end. The tributary valleys are less than a quarter mile long. Headwaters are at the base of the prominent ridge S.E. of Kitkun Bay.

DRAINAGE 0.7 square mile (polar planimeter).

STREAM MOUTH IDENTIFICATION The mouth lies at the head of Nowiskay Cove, the first cove on the east shore of the North Arm.

ANCHORAGE Refer to K 138.

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES

GENERAL NOTES Unimportant as a salmon stream. Very small.

### INTERTIDAL ZONE

LENGTH
GRADIENT AND VELOCITIES
BOTTOM Good spawning gravel
LOW TIDE LOCATION
HIGH TIDE LOCATION
SCHOOLING AREAS None reported.

SPAWNING AREAS The intertidal zone supports most of the spawning in this stream.

GENERAL NOTES

#### UPSTREAM

LENGTH ACCESSIBLE Less than 0.1 mile

AVERAGE WIDTH/DEPTH 10'-15'/6"-8"

GRADIENT AND VELOCITIES

BOTTOM Bedrock, boulders and large rubble

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS Two falls present blocks in this stream. The lower 3' falls at the high tide mark presents a partial block, while the 18' falls 425' upstream is a total block.

TRIBUTARIES None

SCHOOLING AREAS None reported

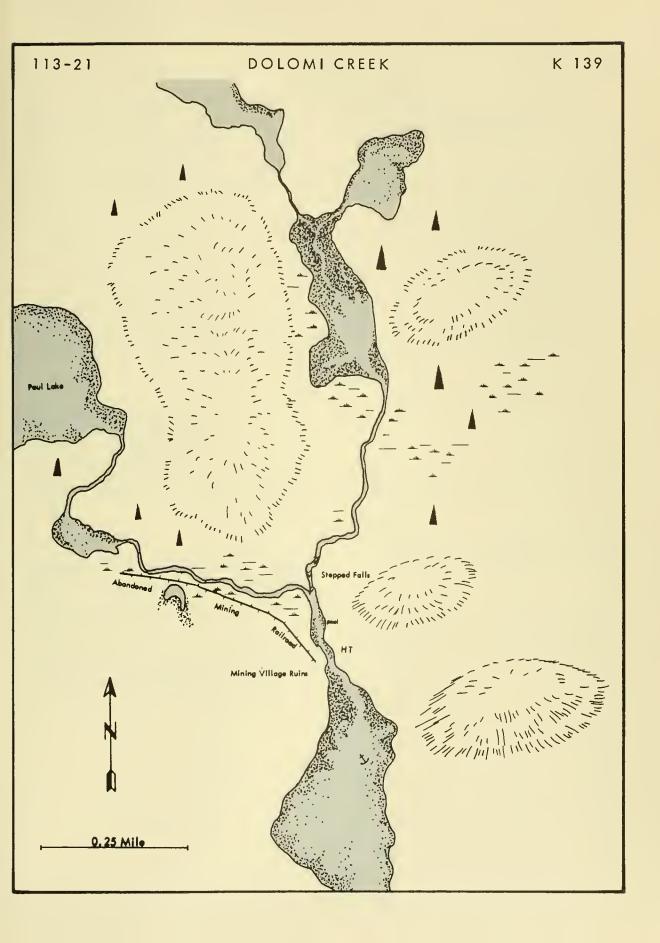
SPAWNING AREAS The only good spawning area is above the barrier.

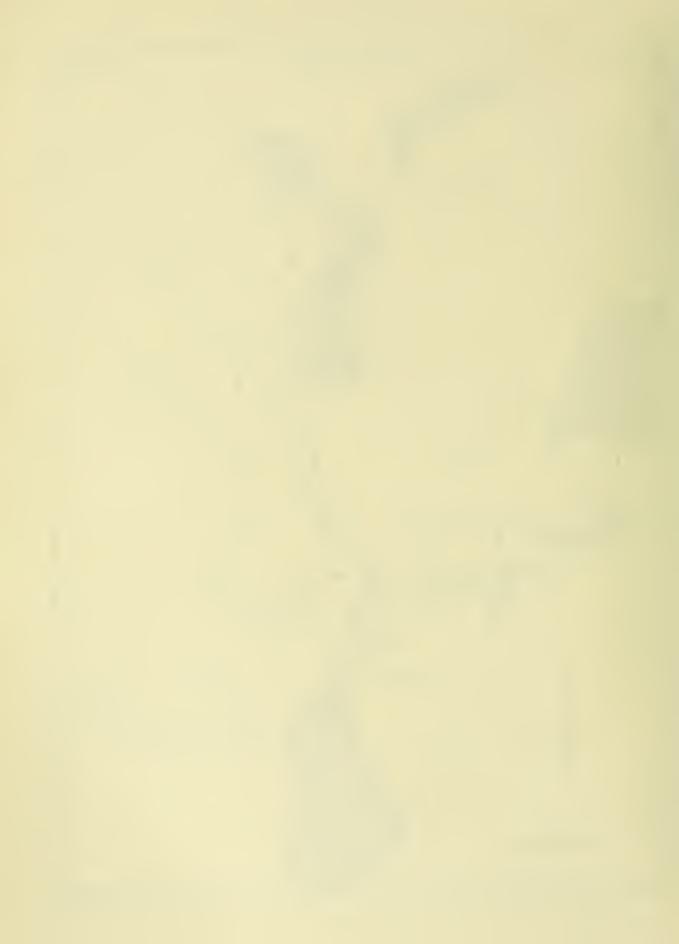
GENERAL NOTES A very small stream consisting of a series of falls and pools.

### ESCAPEMENT RECORD

	SURVEYED			PINK		UM	OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1047								
1947								
Oct 7	G 0.1	FRJ	112		2			Excellent
1953								
Sep 10	G	FRI-FWS						A trickle - not a salmon stream
1954	-							
	4.0.1	EMC						Stream low
Sep 4	A 0. 1	FWS						ottedin low







## DOLOMI CREEK

KETCHIKAN, CLARENCE STRAIT, PORT JOHNSON, DOLOMI BAY, Head

MAJOR SPECIES Pink, red

OTHER SPECIES Coho, chum

ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Fair Pink and chum are restricted to the area below the barrier. Reds and coho can reach the area above the falls.

STREAM TEMPERATURES Warm range (estimated).

ESCAPEMENT TIMING Early. July -Aug.

VALLEY DESCRIPTION A forested young valley between mountain ranges 1, 200 to 2,000' in height on each side and across the upper end. The valley is 6 miles long and 1 mile wide, originating in a glacial cirque.

DRAINAGE 10 square miles (Polar planimeter) Drains Paul Lake, which is 2 miles long and 0.4 mile wide. Paul Lake is formed by feeder streams converging from 3 sides. Other small lakes are also found within the

STREAM MOUTH IDENTIFICATION The mouth is found at the head of Dolomi Bay, the only bay on the north shore, 2 miles from the head of Port Johnson. The remains of an old mining village are found

ANCHORAGE Small craft may anchor in the bay off the creek mouth in 6 to 7 fathoms and have limited room for swinging.

TRAILS AND SURVEY ROUTES An old mining railway follows the left bank almost to the lake. AERIAL SURVEY NOTES The brushy banks bordering the stream make aerial observation difficult.

#### INTERTIDAL ZONE

LENGTH

AVERAGE WIDTH/DEPTH

AVERAGE WIDTH/DEPTH 401/12"

GRADIENT AND VELOCITIES BOTTOM Rock and boulders. LOW TIDE LOCATION HIGH TIDE LOCATION SCHOOLING AREAS

SPAWNING AREAS Few if any fish spawn here - very rocky and strewn with boulders. GENERAL NOTES

## UPSTREAM

LENGTH ACCESSIBLE 0.2 mile to falls

GRADIENT AND VELOCITIES Moderate

BOTTOM Bedrock, boulders, mud, and sand.

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS A stepped falls 1,400' upstream is a total block to pink and chum. The falls are 3' and 7' in height and 50' apart.

TRIBUTARIES A good sized tributary flows in at the upper end of the pool. This stream is 10'/6" and is used extensively by salmon.

SCHOOLING AREAS The large pool below the barrier.

GENERAL NOTES 500 feet of the lower stream runs through a rocky canyon.

		•			-			
Date	SURVEYEI Miles	Ву	PIN Live	IK Dead	Cl Live	IUM Deod	OTHER SPECIES Live	REMARKS Adjective rating
1930								
Sep 28	G 0.5	FWS						Well seeded. Water high and discolored. Had good local reports
1941								Cool 1 000 fish off mouth
Oct 4 1942	G 0.1	FWS	20,000					Good. 1,000 fish off mouth
Sep 3	G 1.0	FWS						No fish in stream
Sep 24 1949	G 1.0	FWS	11,000		S00			Excellent. 2,000 fish off mouth
Sep 14 1953	G 0.3	FWS	200					N. C. L. Marketter to all house
June 21	GQO	FWS						No fish showing. Many fry, in all bays
June 22	G 0.0	FWS						Few jumpers in bay
June 26	A 0.0	FWS						No jumpers seen
July 6	G 0.0	FWS						150 fish in bay
July 14	G 0.0	FWS						250 red in cove, creek low
July 18	G 0.0	FWS						600 red in bay
July 25	G 0.0	FWS					1 100 1	Red going upstream
July 26	G 0.5	FWS					1, 100 red	Ded anterior streets Dain becarbs
Aug 17	G 0.5	FWS					1,000 red	Red entering stream. Rain brought stream level up
Aug 18	G 0. 3	FWS					Paul auto	Many red below falls. Fish having hard time getting over falls
Sep S	G 0.5	FWS	100		200		Few coho	Few chum
Sep 19	G 0. 3	FRI	100		300		SO coho	Poor. Falls 1/4 mi. appears impassable on present water level
1954	403	FRI			2,000			Few at mouth
Sep 28 195S	A 0. 3	FAI			2,000			rew de moudi
Aug 25 1956	G	FWS					1,500 coho, 8,000	red
July 1		FWS					S00 red	
July 3		FWS					S,000 red	
July 4		FWS					2,500 red	
July 5		FWS					8,000 red	
July 6		FWS					5,000 red	
July 9		FWS					S,000-8,000 red	
July 13		FWS					400 red	
July 18		FWS					600 red	
July 21 19 <b>S</b> 7		FWS					600 red	
July 26	G 0.3	FWS					800 red	200 red at mouth
Aug 27		FWS						10 chum, 65 pink ot mouth
Aug 28		FWS	800					
<b>Sep</b> 11		FWS	400					Few chum. Jumps off mouth
Sep 12 1959		FRI	400					Few chum. Jumps off mouth
July 26		FWS	0		0		150 red	None at mouth
Aug 3		FWS	0		0		500 red	None at mouth
Aug 10	A	FWS	0		0	)	1,000	None at mouth
1961	-	ADECC						
Jul 13	G	ADF&G					700 red	300 at mouth
Jul 30	A	ADFEG						1,000 at mouth
Aug 4	A	ADF&G						1,000 at mouth

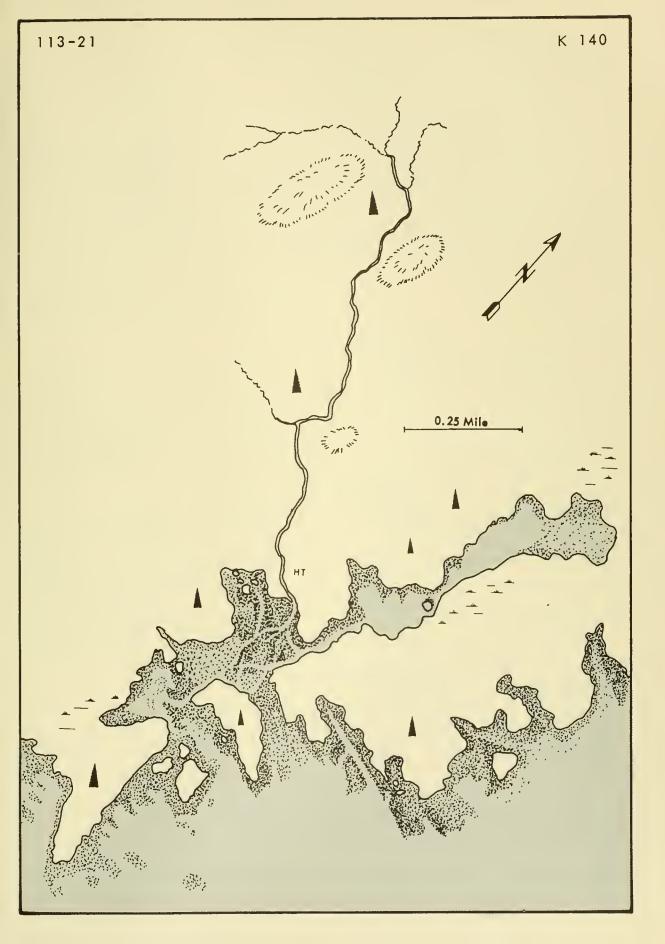
113-21

DOLOMI CREEK - Continued

K 139

SURVEYED PINK CHUM OTHER SPECIES REMARKATION OF THE SPECIES REMARKATION OF

REMARKS





113 - 21

SS°09.8' N. 132°00.8' W.

K 140 Previous No. 129

## KETCHIKAN, CLARENCE STRAIT, 5 miles S. of Windy Point

MAJOR SPECIES None reported

OTHER SPECIES ESCAPEMENT TIMING Late (estimated) ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES

STREAM TEMPERATURES Warm range (no observed temperatures).

VALLEY DESCRIPTION This stream flows through a valley of slight gradient.

DRAINAGE 4.3 square miles (polar planimeter). Precipitation fed. A few small lakes and ponds are found in this drainage system.

STREAM MOUTH IDENTIFICATION The tidal flat at the mouth lies behind a wooded island. The main channel enters Clarence Strait on the southerly side of the island.

ANCHORAGE The bay off the stream mouth offers only a fair weather anchorage. For overnight anchoring refer to K 139.

TRAILS AND SURVEY ROUTES AERIAL SURVEY NOTES GENERAL NOTES No survey records.

#### INTERTIDAL ZONE

LENGTH GRADIENT AND VELOCITIES BOTTOM LOW TIDE LOCATION HIGH TIDE LOCATION SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

AVERAGE WIDTH/DEPTH

## UPSTREAM

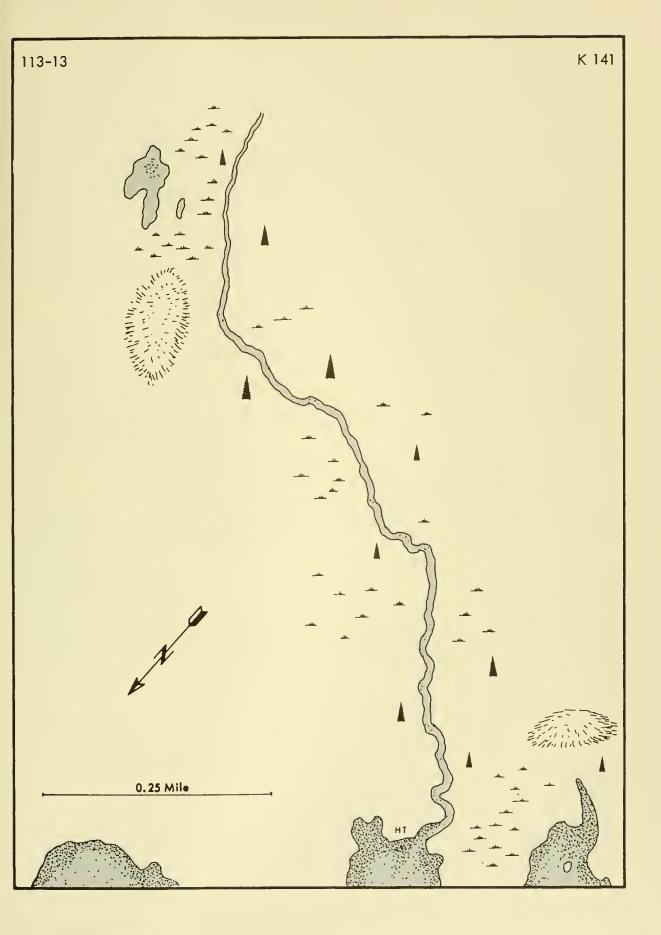
AVERAGE WIDTH/DEPTH

LENGTH ACCESSIBLE GRADIENT AND VELOCITIES BOTTOM MARKER DISTANCE MARKER IDENTIFICATION BARRIERS TRIBUTARIES SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

### ESCAPEMENT RECORD

SURVEYED			PII	νK	CH	UM	OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating







113-13 SS\*12.6' N. 132\*0S' W. K 141 Previous No. 130

## KETCHIKAN, CLARENCE STRAIT, CHOLMONDELEY SOUND, LANCASTER COVE, Head

MAJOR SPECIES Pink, chum

OTHER SPECIES Coho

ESCAPEMENT TIMING Late. Sept. -Oct.

ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Fair throughout the upstream area. Limited in the intertidal zone.

STREAM TEMPERATURES Warm range. 47.5° F. 10/7/SO.

VALLEY DESCRIPTION A narrow, flat valley, made up mostly of muskeg areas.

DRAINAGE 1.4 square miles (polar planimeter).

STREAM MOUTH IDENTIFICATION The stream enters the S.E. corner of Lancaster Cove. Short tidal flat.

ANCHORAGE Lancaster Cove affords good anchorage in 13 to 14 fathoms. Enter the cove from either side of the wooded island in its entrance.

TRAILS AND SURVEY ROUTES No trails are found along the stream banks. Easily waded during periods of low flow.

AERIAL SURVEY NOTES Not surveyed by air.

#### INTERTIDAL ZONE

LENGTH 100 yards

AVERAGE WIDTH/DEPTH 30'/8"-12"

GRADIENT AND VELOCITIES Gentle

BOTTOM Heavy rubble.

LOW TIDE LOCATION HIGH TIDE LOCATION

SCHOOLING AREAS A narrow gut of moderate depth near the low tide mark provides an excellent schooling area.

SPAWNING AREAS Limited.

GENERAL NOTES

### UPSTREAM

LENGTH ACCESSIBLE >3 miles

AVERAGE WIDTH/DEPTH 25'/12"

GRADIENT AND VELOCITIES Gentle except in the gorge.

BOTTOM Broken rock and gravel.

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS None reported

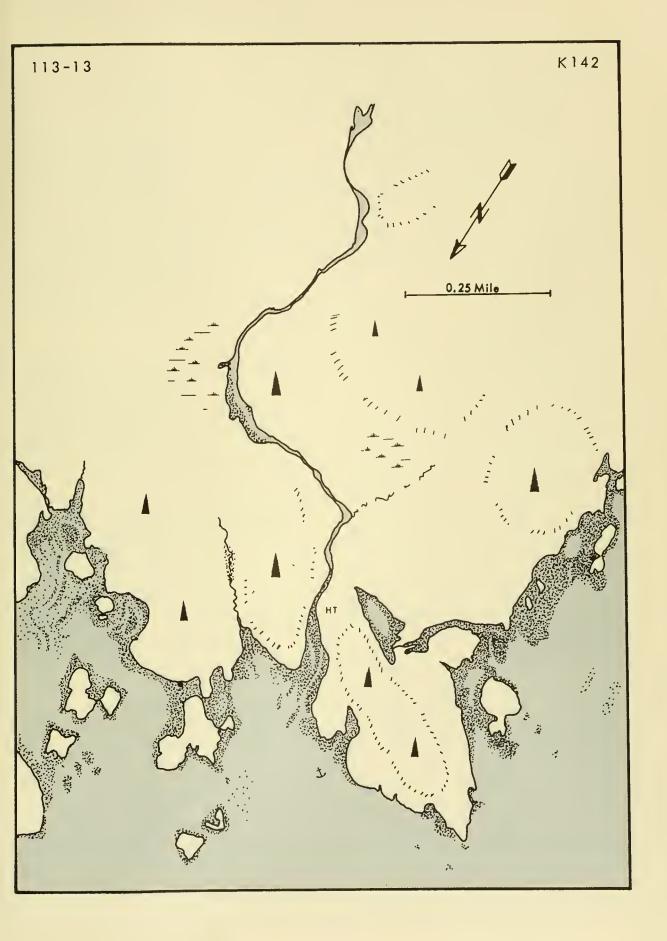
TRIBUTARIES None

SCHOOLING AREAS None

SPAWNING AREAS Excellent spawning areas are found in the entire distance surveyed except in the area of the garge.

GENERAL NOTES About 200 yards upstream the stream narrows and becomes precipitous for a short distance.

	SURVEYED	)	PIN	K	СН	UM	OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1930								
Oct 7 1948	G 3.0	FWS						25,000 fish in stream
Sep 30 1950	G 0.4	FWS	1,500		1,400			Excellent. S,000 fish off mouth
Oct 7 1952	G 0. 3	FRI	80	5	105	22		
Sep 9 1953	G 0. 1	FWS						None present in stream 8 chum at mouth
Sep 21 19\$6	G	FWS						Stream flooding
Sep 4 1987	G	FWS						10,000 pink off mouth
Sep 18	G	FWS			400			500 chum at mouth





113-13 \$5' 12. 1' N. 132° 05.5' W.

K 142 Previous No. 130C

# KETCHIKAN, CLARENCE STRAIT, CHOLMONDELEY SOUND, 1 mile S. W. or Lancaster Cove

MAJOR SPECIES Pink, chum

OTHER SPECIES

ESCAPEMENT TIMING Late (estimated)

SPAWNING FACILITIES Good

ESCAPEMENT MAGNITUDE

AVERAGE WIDTH/DEPTH

STREAM TEMPERATURES Warm range (estimated).

VALLEY DESCRIPTION The valley widens a short distance above the mouth and keeps widening until it terminates. Mostly wooded with few open muskeg areas.

DRAINAGE 3 square miles (polar planimeter).

STREAM MOUTH IDENTIFICATION The stream enters the second bay S. W. of Lancaster Cove. Two wooded islands lie northeast of the bay entrance.

ANCHORAGE Good anchorage is available in Lancaster Cove. See K 141.

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES

GENERAL NOTES Not an important salmon stream.

#### INTERTIDAL ZONE

LENGTH Moderate GRADIENT AND VELOCITIES BOTTOM Large sharp boulders. LOW TIDE LOCATION HIGH TIDE LOCATION SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES Very short.

## UPSTREAM

LENGTH ACCESSIBLE 1 mile Moderate GRADIENT AND VELOCITIES BOTTOM Small gravel. MARKER DISTANCE MARKER IDENTIFICATION BARRIERS None. TRIBUTARIES None. SCHOOLING AREAS

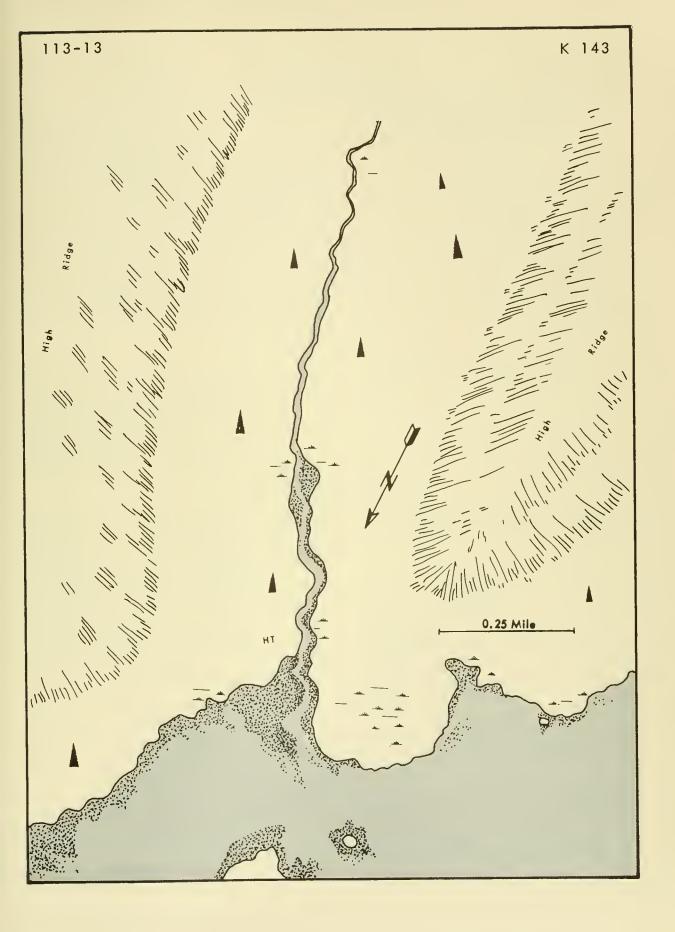
SPAWNING AREAS Spawning takes place in the lower section just above the high tide mark. GENERAL NOTES A small overgrown stream formed by 2 small branches which converge 0.7 mile above

the high tide mark. Considered to be a poor salmon stream.

### ESCAPEMENT RECORD

	SURVEYED		PINK		CH	UM	OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	<b>L</b> ive	Adjective rating
1948								
Sep 30	G 0. 3	FWS	270		3SO			Good. 750 fish at mouth
1980								
Oct 7	G 0.3	FRI	20	0	80	132		
19 <b>S7</b>								
Sep 13	G 1.0	FWS	2					5,000 chum at mouth
Sep 18	G	FWS						5,250 chum at mouth







113-13 5S°11' N. 132°07.5' W.

KETCHIKAN, CLARENCF STRAIT, CHOLMONDELEY SOUND, KITKUN BAY, S. shore 3 miles from head

MAJOR SPECIES Pink, chum
ESCAPEMENT TIMING Late. Sept. -Oct.

OTHER SPECIES Coho
ESCAPEMENT MAGNITUDE

AVERAGE WIDTH/DEPTH

SPAWNING FACILITIES Fair.

STREAM TEMPERATURES Warm range (estimated).

VALLEY DESCRIPTION Glacial origin. Heads at the base of a group of mountains. These mountains and ridges outline the valley for most of its entire length.

DRAINAGE 2 square miles (polar planimeter).

STREAM MOUTH IDENTIFICATION The mouth enters a bight S. of the wooded island 0.5 mile E. of Kitkun Bay entrance. Fair sized tidal flat E. of stream bed.

ANCHORAGE Kitkun Bay has not been surveyed. A small boat should be used for travel to this and other streams in the bay. The bay entrance is west of Babe Islands.

TRAILS AND SURVEY ROUTES No trails along the stream banks. Easily waded during low flows. AERIAL SURVEY NOTES

GENERAL NOTES Few survey reports are available on this stream. Those which have been made indicate that this stream has a good escapement at times.

#### INTERTIDAL ZONE

LENGTH
GRADIENT AND VELOCITIES
BOTTOM Gravel in between large rocks.
LOW TIDE LOCATION
HIGH TIDE LOCATION
SCHOOLING AREAS
SPAWNING AREAS Limited.
GENERAL NOTES

## UPSTREAM

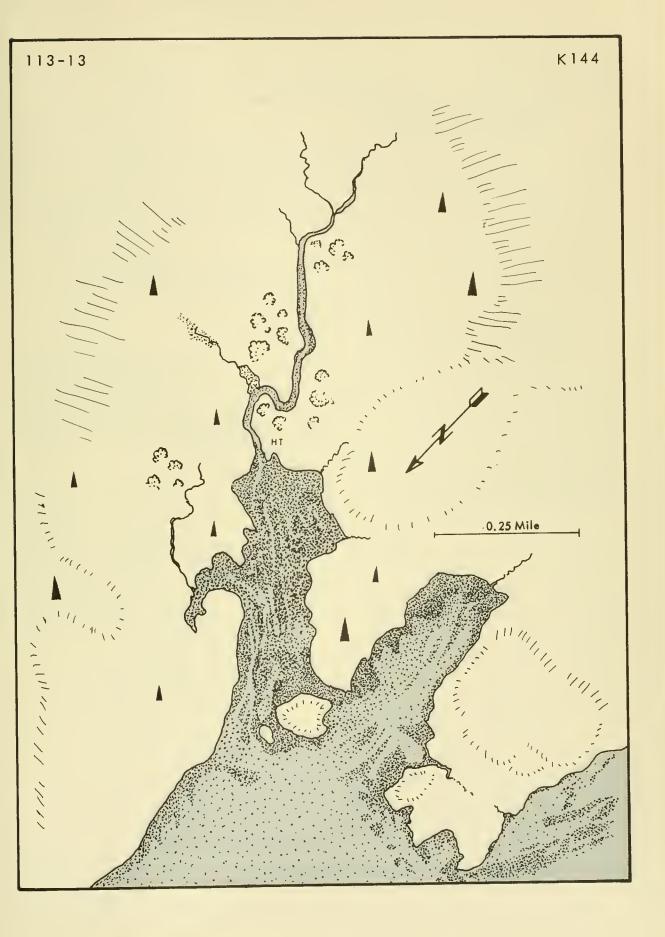
LENGTH ACCESSIBLE
GRADIENT AND VELOCITIES
BOTTOM
MARKER DISTANCE
MARKER IDENTIFICATION
BARRIERS
TRIBUTARIES
SCHOOLING AREAS

SPAWNING AREAS The lower part of the stream has a bottom made up largely of bedrock, above this there are gravel areas.

GENERAL NOTES

AVERAGE WIDTH/DEPTH 10'-20'/8"-10"

	SURVEYED		PIN	тĸ	сн	ЛМ	OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1930								
Oct 6		FWS						Very good. Banks, stream mouth full of spawned chum
1940								
Sep 25	G 0.1	FWS	3,000					Good
1941	C 1 5	ACT						Very good. 150,000 in stream and
Sep 18	G 1.5	ASI						bay, mostly chum
1948								
Sep 30	G 0.5	FWS	10, 300		2, 200			Good. 3,000 fish off mouth
1952								
Sep 9	G 1.0	FWS	0		12	3		
1953								5 0111 1
Oct 8 1955	G 0. 1	FWS	1		1	80	14 coho	Poor. Old beaver dam present
Season 1956	G	FWS	3,500		3,500			
Sep 2		FWS						20,000 pink at mouth
Sep 15		FWS	1,000		1,000			*
1957	Λ	1 113	1,000		-,			
Sep 11		FWS						5,000-7,000 in bay
Sep 13		FWS			40			10,000 chum at mouth. 25,000
- T								chum in bay
Sep 17		FWS						60,000 at mouth
Sep 21		FWS			30,000			
1961								
Oct 11	G 0.2	ADF&G			9	17		





K 144 Previous No. 131A

KETCHIKAN, CLARENCE STRAIT, CHOLMONDELEY SOUND, KITKUN BAY, S. shore 1. 25 miles from head

MAJOR SPECIES Pink, chum

OTHER SPECIES Coho

AVERAGE WIDTH/DEPTH

ESCAPEMENT TIMING Late. Sept. -Oct.

ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Good. Restricted by small size.

STREAM TEMPERATURES Warm range. No observed temperatures.

VALLEY DESCRIPTION Glacial origin. The valley lies west of a prominent ridge which borders the valley almost to salt water. Heavily wooded.

DRAINAGE 1 square mile (polar planimeter).

STREAM MOUTH IDENTIFICATION The stream enters Kitkun Bay 1 mile S. W. of K 143. Long tideflat at mouth.

ANCHORAGE Same as for K 143.

TRAILS AND SURVEY ROUTES Above the tideflat the stream is almost entirely overgrown with brush, making travel up the stream bed difficult.

AERIAL SURVEY NOTES Dense brush limits visibility.

#### INTERTIDAL ZONE

LENGTH 0.7 mile GRADIENT AND VELOCITIES BOTTOM Gravel and rubble. LOW TIDE LOCATION HIGH TIDE LOCATION SCHOOLING AREAS On edge of tideflats. SPAWNING AREAS Spawning takes place throughout.

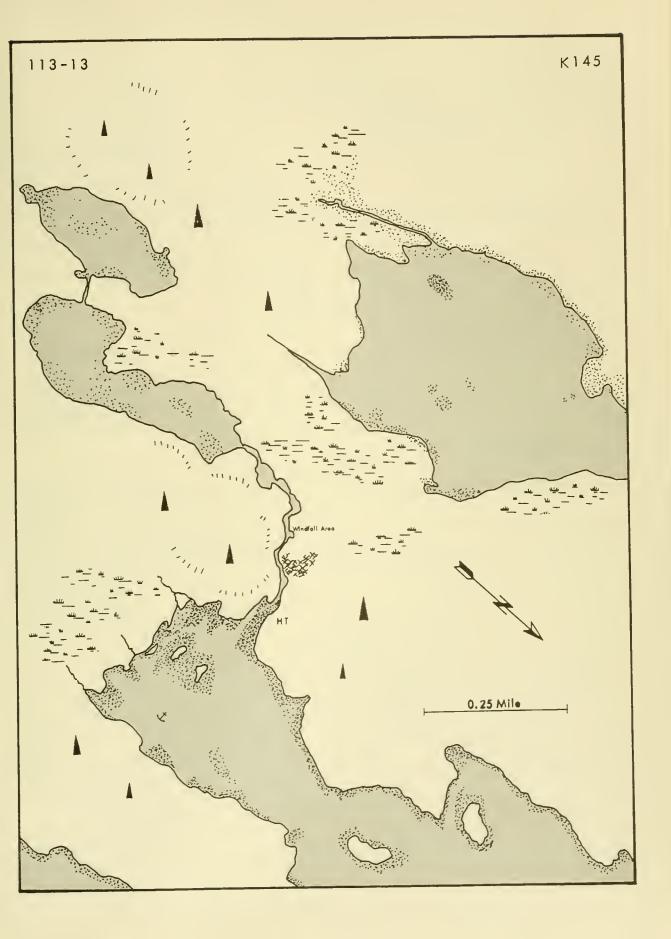
GENERAL NOTES Flows through a long tidal flat.

#### UPSTREAM

LENGTH ACCESSIBLE GRADIENT AND VELOCITIES BOTTOM MARKER DISTANCE MARKER IDENTIFICATION BARRIERS Beaver dam 0.3 mile, blocks all fish. TRIBUTARIES SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

AVERAGE WIDTH/DEPTH 20'-30'/4"-6"

	SURVEYE	D	PIN	ĸ	CH	JM	OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1020								
1930	G	FWS						2,000 in stream. Pink spawned out
Oct 6 1940	G	LWS						2,000 in stream. Time spewhed out
Sep 25	G 0. 1	FWS	3,000					Good
1948	0		•, •••					
Sep 29	G 0.3	FWS	2,500		2,000			Fair. 3,000 fish off mouth
1949								
Aug 31	G 0.3	FWS	1,000					
1982								
Sep 10	G 0. 1	FWS						No fish present
1983								
Sep 18	G 0.3	FWS			S0			Poor. Lagoon has fish but stream empty
Sep 26	G	FWS						Many chum in stream
Oct 8	G 0.3	FWS	3		250	SS0	1 coho	None at mouth
1987								
Sep 13	G 0. S	FWS	0		0			3,000 chum off mouth
1961		4 D EC.C			1, 150			No fresh fish. Beaver dam stops
Oct 11	G 0. S	ADF&G			1, 130			fish





K 145 Previous No. 131E

KETCHIKAN, CLARENCE STRAIT, CHOLMONDELEY SOUND, KITKUN BAY, N. shore 2.5 miles from head

MAJOR SPECIES Pink, chum ESCAPEMENT TIMING SPAWNING FACILITIES

OTHER SPECIES ESCAPEMENT MAGNITUDE

STREAM TEMPERATURES Warm range

VALLEY DESCRIPTION

DRAINAGE 3 square miles (polar planimeter).

STREAM MOUTH IDENTIFICATION The mouth is found at the head of a bay which opens towards the E. into the entrance to Kitkun Bay. Enters the bay from the W.

ANCHORAGE Refer to K 143.

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES

GENERAL NOTES No records of escapement or physical features.

## INTERTIDAL ZONE

LENGTH GRADIENT AND VELOCITIES BOTTOM LOW TIDE LOCATION HIGH TIDE LOCATION SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

AVERAGE WIDTH/DEPTH

#### UPSTREAM

LENGTH ACCESSIBLE GRADIENT AND VELOCITIES BOTTOM MARKER DISTANCE MARKER IDENTIFICATION BARRIERS Reported to have a 5'-6' impassable falls at the high tide mark.

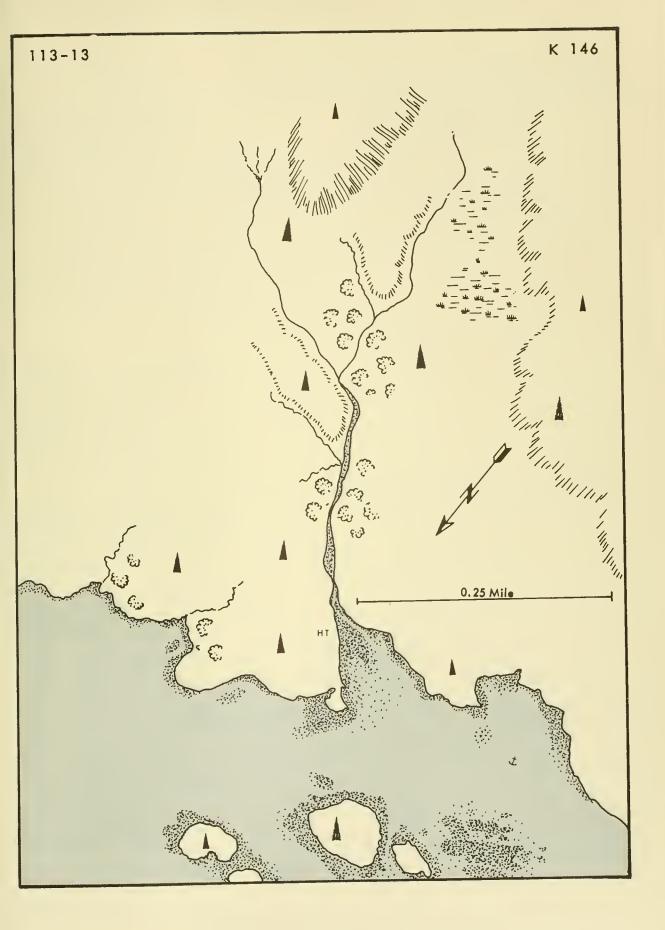
AVERAGE WIDTH/DEPTH

TRIBUTARIES SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

#### ESCAPEMENT RECORD

	SURVEYED	)	PINI	K CI	HUM	OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead Live	Dead	Live	Adjective rating
1948							
Sep 29	<b>G</b> 0. 1	FR1	300	600	)		Excellent. 200 fish off mouth
1957	- 0 -	-	0				Name absorpted off mouth
<b>S</b> ep 13	G 0. 1	FWS	0	(	,		None observed off mouth







# KETCHIKAN, CLARENCE STRAIT, CHOLMONDELEY SOUND, S. shore 1.6 miles W. of entrance to Kitkun Bay

MAJOR SPECIES None reported

ESCAPEMENT TIMING Late (estimated)

OTHER SPECIES
ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES

STREAM TEMPERATURES Warm range. No observed temperatures.

VALLEY DESCRIPTION Stream-cut. Headwaters are at the base of a 2,000' mountain to the S. Heavily wooded near the mouth. Gradient upstream is steep.

DRAINAGE 2 square miles (polar planimeter). Precipitation fed. A few small lakes are found within this drainage system.

STREAM MOUTH IDENTIFICATION Enters Cholmondeley Sound I mile west of the entrance to Kitkun Bay. The mouth lies behind a small island at the head of a bight.

ANCHORAGE

GENERAL NOTES

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES Densely covered with brush.

GENERAL NOTES No escapement records.

#### INTERTIDAL ZONE

LENGTH
GRADIENT AND VELOCITIES
BOTTOM
LOW TIDE LOCATION
HIGH TIDE LOCATION
SCHOOLING AREAS
SPAWNING AREAS

AVERAGE WIDTH/DEPTH

#### UPSTREAM

LENGTH ACCESSIBLE
GRADIENT AND VELOCITIES
BOTTOM
MARKER DISTANCE
MARKER IDENTIFICATION
BARRIERS
TRIBUTARIES
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES A poor salmon stream

AVERAGE WIDTH/DEPTH 15'-20'/6"-8"

## ESCAPEMENT RECORD

	SURVEYED		PINK		CHUM		OTHER SPECIES	REMARKS	
Date	Miles	By	Live	Dead	Live	Dead	Live	Adjective rating	
1948									
Sep 29	G 0. 1	FWS	400		400			Poor. 250 fish off mouth	





KETCHIKAN, CLARENCE STRAIT, CHOLMONDELEY SOUND, DORA BAY, S. shore 2 miles N. E. of head

MAJOR SPECIES Pink, chum

ESCAPEMENT TIMING Late (estimated)

OTHER SPECIES Coho
ESCAPEMENT MAGNITUDE

AVERAGE WIDTH/DEPTH

SPAWNING FACILITIES

STREAM TEMPERATURES Warm range. No observed temperatures.

VALLEY DESCRIPTION A short valley with a steep hill on the left side of the stream.

DRAINAGE O.S square mile (polar planimeter). Precipitation fed.

STREAM MOUTH IDENTIFICATION Enters outer Dora Bay from the S. side in a bight behind the largest wooded island. Tidal flat is about 0..3 mile in length.

ANCHORAGE Dora Bay may be used as an anchorage, but is not recommended. Anchor at head of bay in 25 to 35 fathoms.

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES

GENERAL NOTES Inadequate escapement records - cannot classify as to importance.

### INTERTIDAL ZONE

LENGTH
GRADIENT AND VELOCITIES
BOTTOM
LOW TIDE LOCATION
HIGH TIDE LOCATION
SCHOOLING AREAS
SPAWNING AREAS

UPSTREAM

AVERAGE WIDTH/DEPTH 20'-30'/6"-8"

LENGTH ACCESSIBLE

GRADIENT AND VELOCITIES

BOTTOM

MARKER DISTANCE

GENERAL NOTES

MARKER IDENTIFICATION

BARRIERS A 6' falls 200' upstream is passable with some difficulty.

TRIBUTARIES None

SCHOOLING AREAS

SPAWNING AREAS Above the falls for 0.3 mile the stream offers fair spawning facilities for chum. GENERAL NOTES Reported to be a poor salmon stream.

# ESCAPEMENT RECORD

	SURVEYED		PIN	K	CH	UM	OTHER SPECIES	REMARKS		
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating		
1941										
Sep 15	G	FWS						200,000 in bay & streams		
1948										
Sep 29	G 0. 1	FWS	300		400			Good. 100 fish at mouth		
1953										
Sep 17	G 0. 1	FWS			2			Poor		
1957										
Sep 13	G 0. 3	FWS	25		0			1,000 pink off mouth		
19 <b>S</b> 9										
Aug 10	A	FWS	4,000		0			None at mouth		



K 148 Previous No. 132

## KETCHIKAN, CLARENCE STRAIT, CHOLMONDELEY SOUND, DORA BAY, Head

MAJOR SPECIES Pink, chum

OTHER SPECIES Coho

ESCAPEMENT TIMING Middle to late

ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Poor. Limited spawning area is found in the short distance between the high tide mark and Dora Lake.

STREAM TEMPERATURES Warm range (estimated).

VALLEY DESCRIPTION Flows through a valley cut between high mountains.

DRAINAGE Drains Dora Lake.

STREAM MOUTH IDENTIFICATION The mouth is located at the extreme head of Dora Bay.

ANCHORAGE Same as for K 147.

TRAILS AND SURVEY ROUTES No trails are found along the stream course and travel up the banks is difficult. It is preferable to travel up the streambed.

AERIAL SURVEY NOTES

### INTERTIDAL ZONE

LENGTH 200 yards

AVERAGE WIDTH/DEPTH 25'/8"-12"

GRADIENT AND VELOCITIES Moderate

BOTTOM Boulders.

LOW TIDE LOCATION

HIGH TIDE LOCATION

SCHOOLING AREAS Schooling takes place in the bay off the creek mouth.

SPAWNING AREAS This zone offers conditions unsuitable for spawning.

GENERAL NOTES

#### UPSTREAM

LENGTH ACCESSIBLE 0. 25 mile to lake

AVERAGE WIDTH/DEPTH 20'/12"-15"

GRADIENT AND VELOCITIES Moderate

BOTTOM Heavy gravel interspersed among boulders.

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS None.

TRIBUTARIES The inlet to Dora Lake provides good spawning area and supports a salmon run of unknown magnitude.

SCHOOLING AREAS No schooling areas are found.

SPAWNING AREAS The spawning areas are very limited and of poor quality.

GENERAL NOTES This stream connects Dora Lake with the salt water and provides 0.4 mile of stream.

	SURVEYE	)	PIN	ΙK	СН	UM	OTHER SPECIES	REMARKS
Date	Miles	By	Live	Dead	Live	Dead	Live	Adjective rating
1020								
1930 Oct 5	G 0. 3	FWS						Wall anded 5 000 about
	G 0. 3	L M 2						Well seeded. 5,000 chum, coho, ond pink in stream
1941		-						
Sep 15		FWS						200,000 chum, coho, and pink in bay stream and K 147
1948								
Sep 29	G 0.3	FWS	6,000		600			Good. 1,000 off mouth
1982								
Sep 10	G 0.3	FWS	35	0	20	0		
1953								
July 12	G	FWS						Nothing in stream. About 1,000 red in entire bay
July 24	A 0.0	FWS						Few jumps, probably red
Aug 30	A 0.3	FWS						Light poor. 2 jumps at mouth
Sep 17	G 0.3	FWS	8		30		1 coho	Poor. 90% fish bright
1955								
Aug 26		FWS	500					5,000 at mouth
Sep 28 1956	G	FWS	10,000		2,000			
Sep 2		FWS						25,000 pink at mouth
Sep 4		FWS	15,000					•
1957								
Aug 19		FWS	100					400 pink ot mouth
Aug 28		FWS	500		2,500			
Sep 11		FWS	5,000					
Sep 13		FWS	25					
Sep 16		FWS						Many at mouth
5ep 19		FWS						1,400 chum, 5,600 pink at mouth
Sep 21		FWS	5,000		20,000			Good

K 149 Previous No. 132B

KETCHIKAN, CLARENCE STRAIT, CHOLMONDELEY SOUND, DORA BAY, W. shore I. 2 miles from head

MAJOR SPECIES Pink, chum

ESCAPEMENT TIMING Late (estimated)

SCATEMENT TIMING Late (estimated

SPAWNING FACILITIES

STREAM TEMPERATURES Warm range (estimated).

VALLEY DESCRIPTION

DRAINAGE 1.9 square miles (polar planimeter).

STREAM MOUTH IDENTIFICATION The stream enters a small bay on the W. shore of Dora Bay just inside its entrance. The bay opens towards the E. and is opposite the largest wooded island in the bay.

ANCHORAGE Same as for K 147.

TRAILS AND SURVEY ROUTES Barrier Falls may be reached by skiff during high tides.

AERIAL SURVEY NOTES

### INTERTIDAL ZONE

OTHER SPECIES

ESCAPEMENT MAGNITUDE

AVERAGE WIDTH/DEPTH

AVERAGE WIDTH/DEPTH 30'-40'/8"-12"

LENGTH 0.25 mile

GRADIENT AND VELOCITIES

BOTTOM

LOW TIDE LOCATION

HIGH TIDE LOCATION

SCHOOLING AREAS

SPAWNING AREAS Salmon spawn throughout. Most of the spawning population utilize this zone.

GENERAL NOTES

## UPSTREAM

LENGTH ACCESSIBLE 0.2 mile to falls GRADIENT AND VELOCITIES Steep

GRADIENT AND VELOCITIES Steep

BOTTOM

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS A 10' falls 900' upstream is a total block to salmon. Two smaller falls are found just above the falls.

TRIBUTARIES

SCHOOLING AREAS

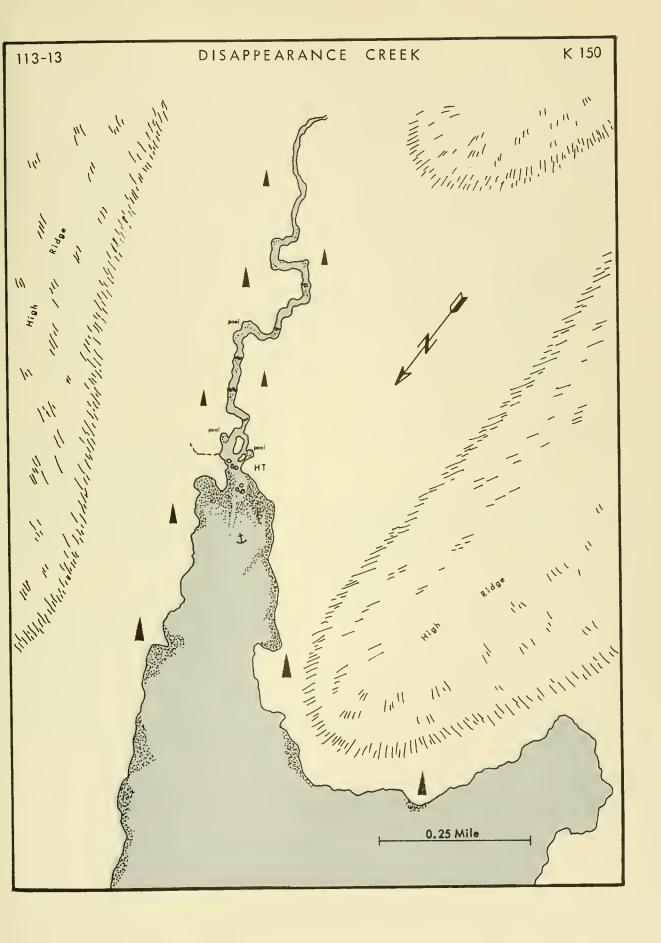
SPAWNING AREAS Fair spawning facilities up to the falls.

GENERAL NOTES

### ESCAPEMENT RECORD

SURVEYED		PIN	PINK		UM	OTHER SPECIES	REMARKS	
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1948	G 0 n	FILLO	0. 200		600			E : 200 (: ) - (( )
Sep 29 19S2	G 0, 2	FWS	2, 300		S00			Fair. 200 fish off mouth
Sep 10	G 0. 2	FWS						No fish at present







K 150

Previous No. 134

55°09' N. 132°18.5' W.

KETCHIKAN, CLARENCE STRAIT, CHOLMONDELEY SOUND, SOUTH ARM, S.E. head

MAJOR SPECIES Chum

OTHER SPECIES Pink

ESCAPEMENT TIMING Late. Sept. -Oct.

ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Fair in the intertidal zone. Poor in the area between the high tide mark and the spring ponds and good in the spring ponds.

STREAM TEMPERATURES Cold range (4S.5° F., 9/30/49; 4S->4S°.F., 19S0; 46° F., 9/21,51, 46° F., 9/28/51; 47° F., 10/S/52; 46° F., 9/18/53).

VALLEY DESCRIPTION Stream-cut. A heavily wooded valley with an abundance of underbrush.

DRAINAGE 3 square miles (polar planimeter). Precipitation fed. Snowfields E. and W. of the valley along with ground water from the spring ponds are the water source.

STREAM MOUTH IDENTIFICATION The stream enters the S. E. corner of the South Arm. There is a small grass flat on the W. side of the stream.

ANCHORAGE Good anchorage is found at the head of the South Arm. Favor either side of the channel until >1 mile into the bay and then keep to midchannel. Anchor S. of the small island.

TRAILS AND SURVEY ROUTES Waded without much difficulty. Banks have thick brush, making hiking difficult. An A.D.F. &G. trail follows the left bank to the stream source.

AERIAL SURVEY NOTES Fly up to the lake and make a 180° turn, crossing over and back continuously on the way downstream in order to count.

GENERAL NOTES This stream has large escapements at times. Large numbers of black bear frequent the stream. Permanent weir cabin was installed by the A.D.F. & G. in 1961.

### INTERTIDAL ZONE

LENGTH 0.75 mile

AVERAGE WIDTH/DEPTH 30'-40'/10"-20"

GRADIENT AND VELOCITIES Moderate

BOTTOM Gravel in between large rocks.

LOW TIDE LOCATION

HIGH TIDE LOCATION

SCHOOLING AREAS The fish generally school off the mouth, below the low tide mark.

SPAWNING AREAS Chum and a few pink spawn throughout this zone. The bottom composition is rather coarse.

GENERAL NOTES A series of rapids extends almost down to the high tide mark.

#### UPSTREAM

LENGTH ACCESSIBLE 0.75 mile

AVERAGE WIDTH/ DEPTH 15'-40'/8"-10"

GRADIENT AND VELOCITIES Moderate to swift

BOTTOM Small rock, shale, boulders and bedrock.

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS None

TRIBUTARIES The stream branches and rejoins just above the intertidal zone.

SCHOOLING AREAS Small pools throughout the stream are utilized for schooling, but schooling is generally heaviest in the spring ponds.

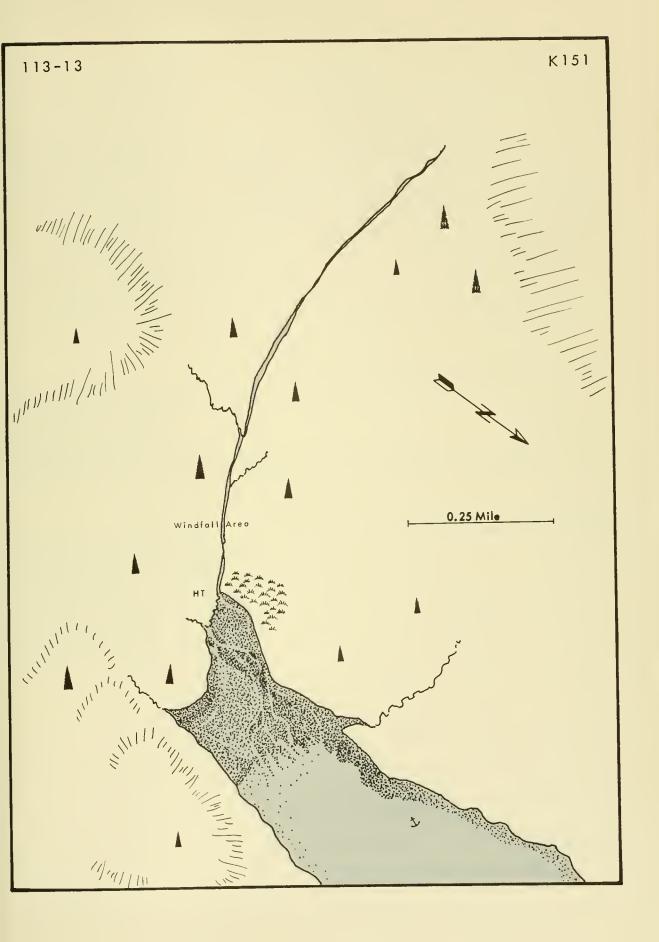
SPAWNING AREAS Fish spawn throughout the stream. The major area is the spring ponds which have a bottom composition of excellent spawning gravel.

GENERAL NOTES

		[		J	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
	SURVEYED		PIN	IK	СН	UM	OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live		Live	Adjective rating
		•						
1939								
Sep 20	G 0.5	FWS						Poor. Few hundred in stream. Pink off mouth
1941								
Oct 3	G 0.3	FWS	16,000		4,000			Excellent. S, 000 off mouth
1942								
Sep 23	G 0.3	FWS	200		1,800			Excellent. 1, 500 fish off mouth
1943		2004.00	15 600		10.000			C1 0 000 Gd - G
5ep 30	G 0.5	FWS	15,000		10,000			Good. 2,000 fish off mouth
1946	0.00	EMC	c 000		6 000			Cood 3 000 flob off month
Oct 5	G 0. S	FWS	6,000		6 <b>,00</b> 0			Good. 3,000 fish off mouth
1947 Oct 3	G 0. 2 FI	RI FWS	90,000		10,000			Excellent. 150,000 fish off mouth
Oct 5	G 0. 2 F	ASI	20,000		10,000			Excellent. 75,000 fish in stream and bay
1948	0.0							
Sep 29	G 0.4	FWS	3,600		3,000			Good. 30,000 fish off mouth
1949			.,		,			
5ep 9	G 0.5	FRI	6		3,937	34		
Sep 30	G 0.5	FRI	400	42	20, 638	2,450		>25,000 fish off mouth
Oct 8	G 0.5	FRI	7,900	1	9,900	18,000		Majority of chum dead. 5,000 off mouth
1950								
Sep 1S	G 0.5	FRI	1	0	196	0		
Sep 27	G 0.5	FRI	110	5	8,690	95		10.000 } (6.1)
Oct 6	G 0.5	FRI	625	2	17,625	2,490		10,000 chum off mouth
1951	C 0 5	1713 ¥		0	6 500	200		10, 000-20, 000 fish inside fishing week
Sep 21	G 0.5	FRI	0	0	6,500	200		10,000-20,000 fish inside fishing markers 25,000 chum and over 5,000 pink
Sep 28	G 0.5	FRI	0	0	18,600	1,700		in bay
1952								iii owy
Sep 8	G 0.3	FRI	0	0	2	0		Few chum in bay. Too early
Sep 19	A 0. 1	ADF&G			150			Many jumpers midway down Arm
Sep 20	G 0.4	FWS	0		1,500	0		300 chum at mouth
Sep 21	G 0.5	FRI	0	0	2,800			Predatory kills of chum. Fair to good
								showing in bay
Oct 5	G 0.5	FRI	60	0	33,700	3,600		5,000-8,000 chum off mouth
1953								
Sep 7	G 0. S	FRI	0	0	0	0		40 coho and 250 chum off mouth
5ep 18	G 0.5	FRI	2	0	5,000	0		
Sep 19	G 0.5	ADF&G			5,900			Few dead chum
Sep 25	G 0, 4	FWS		0	35,000	3 000	Coursel caba	Stream high. 8,000-10,000 at mouth 5,000-10,000 chum at mouth
Oct 3 Oct 7		FRI FWS	4	0 1	15,000		Several coho	3,000-4,000 chum at mouth
1954	G 0, 3	L 11/3	4	1	15,000	3,300		o, ood a, ood cham at mouth
Sep 28	G .5	FRI			9,600	500		Several pink. 2,000 chum, few pink
July 20					2,000	300		at mouth
1955								
Sep 1S	G 0.5	FW5	150		60, 200			
Sep 19	G 0.5	FRI	2,000					
Sep 25	G 0.5	FRI	5,000					Several thousand at mouth
Sep 28	A 0.5	FRI			5,000			5,000 at mouth
1956	00.5	1270.7			40.000			4 000 -1
Sep 29	G0.5	FRI			13,000			4,000 chum at mouth
1957	COF	EME	0		7.5			Faur imme 3 000 4 000 alum at mouth
Sep 12 Sep 15		FWS FRI	0		75 400	0		Few jumps. 3,000-4,000 chum at mouth Several thousand chum at mouth
Sep 18	A 0. 3	FWS			400	0		6,000 chum at mouth
Sep 18	A 0.5	FRI			4,000	>200		Few pink. 5,000 chum at mouth
Sep 29		FWS			12,000	200		1,500 chum at mouth
Oct 19		FWS			12,000			5,000 chum at mouth

	SURVEY	ED	PINE	ς	CH	UM	OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1050								
1958								
Sep 7	A 0.5	FWS						Few pink present. Many jumpers off mouth
Sep 20	A 0.5	FWS			8,000			Some live pink. S,000 at mouth
1959								
Sep 20	G	FWS			7,500			
1960								
Ang 29	Α	ADFGG	0		0			None at mouth
Sep 2	Α	ADFEG	0		0			100 chum at mouth
Sep 6	Α	ADFEG	0		>400			8,000-10,000 chum at mouth
Sep 29	G	ADF&G	ດ		3,500			250 chum at mouth
1961								
Aug 16	Α	ADF&G						None observed
Aug 18	Α	ADF&G						None observed
Sep 1	A	ADF&G			150			100 at mouth - schooled
Sep 13	Α	ADF&G			2,600			6,000 at mouth - most spawning
Sep 20	A	ADF&G			5, 100			1,000+ - most spawning - well
								spread
Sep 22	A	ADF&G			2,400			Some at mouth - many dead
Oct 6	Α	ADF&G			1,200			Some at mouth - many dead
Oct 11	G	ADF&G			1,500			Some at mouth - run over







KETCHIKAN, CLARENCE STRAIT, CHOLMONDELEY SOUND, SOUTH ARM, S.W. head

MAJOR SPECIES Pink, chum

OTHER SPECIES

ESCAPEMENT TIMING Late. Sept. -Oct.

ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Fair. The upper intertidal zone is reported to be the major spawning area.

STREAM TEMPERATURES Warm range (Observed temperature: 43° F., 9/10/49.).

VALLEY DESCRIPTION The valley runs S. for only a short distance before it splits. One branch goes to the base of the mountains to the S.E., the other to the ridge to the W.

DRAINAGE 2.3 square miles (polar planimeter). Precipitation fed. A snowfield lies in the S.E. corner of the valley and probably contributes snow melt at certain times of the year.

STREAM MOUTH IDENTIFICATION The stream enters the S.W. corner of the head of South Arm.

A large grass flat is found at the mouth.

ANCHORAGE See Disappearance Creek (K 150).

TRAILS AND SURVEY ROUTES Travel is easy along the stream bed. No trails.

AERIAI SURVEY NOTES For best aerial coverage of this stream fly up the N. side of the valley and down the S. side.

GENERAL NOTES A small stream having a good escapement at times.

### INTERTIDAL ZONE

LENGTH 150 yards

AVERAGE WIDTH/DEPTH 15'/24"

GRADIENT AND VELOCITIES Moderate

BOTTOM Gravel and rubble

LOW TIDE LOCATION

HIGH TIDE LOCATION

SCHOOLING AREAS

SPAWNING AREAS The upper part of this zone is spawned in heavily by both chum and pink.

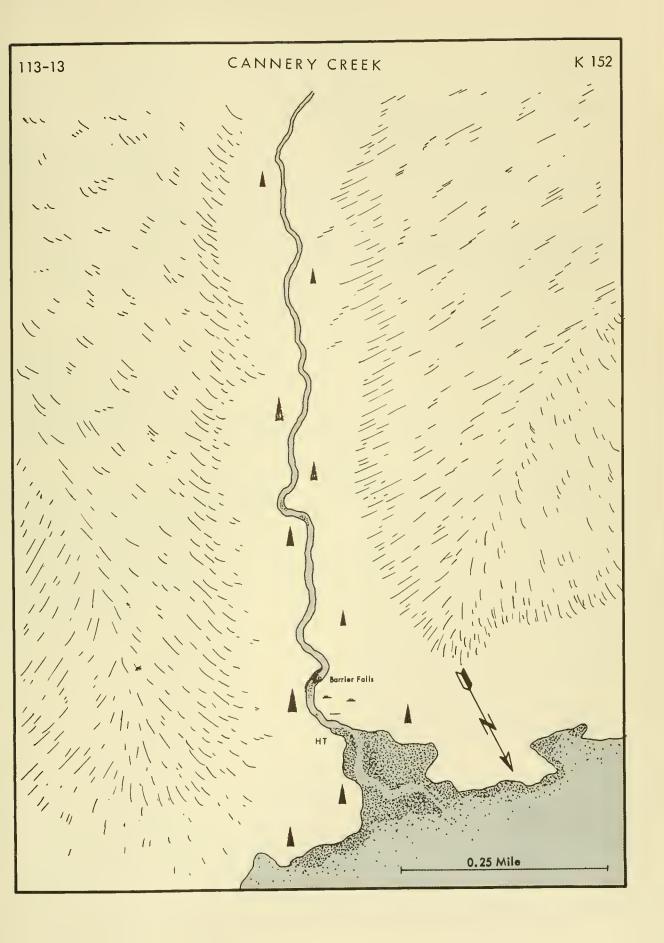
GENERAL NOTES

### UPSTREAM

LENGTH ACCESSIBLE
GRADIENT AND VELOCITIES Moderate
BOTTOM Gravel and small rock.
MARKER DISTANCE
MARKER IDENTIFICATION
BARRIERS None
TRIBUTARIES About
SCHOOLING AREAS
SPAWNING AREAS Limited.
GENERAL NOTES

AVERAGE WIDTH/DEPTH 12'-30'/10"-15"

	SURVEYE	D	PIN	ıκ		UM	OTHER SPECIES	REMARKS
Date	Miles	By	Live	Dead	Live	Dead	Live	Adjective rating
19 <b>3</b> 9								
Sep 20		FWS						Poor. Few hundred in stream. Pink
								schooled in bay
1941			40.000		2 200			F114
Oct 3 1942	G 1.0	FW5	12,000		3,000			Excellent
Sep 23	G 0.3	FWS	200		2, 300			Excellent. 3,000 fish off mouth
1943					-,			,
Sep 30	G 0.3	FW5	10,000		s,000			Fair. 1,000 fish off mouth
1946	- 0 -	*****						Card 1 000 fiel off mouth
Oct 5 1947	G 0.8	FWS	2,500					Good. 1,000 fish off mouth
Oct 3	G 0. 3	FRI,FWS	80,000		20,000			Good. 10,000 fish off mouth
1948		,	,		,			·
Sep 29	G 0.6	FW5	2,000		3,000			Good. 1,500 fish off mouth
1949					500			
Sep 10	G 0. S G 0. 1	FRI FRI	500	35	503	5,000		No fish off mouth
Oct 8 1952	G 0. 1	1711	1,000	33	1,000	3,000		No lish oir model
Sep 20	G 0. 2	FW5	0		100	0		200 chum at mouth
1953								
Sep 15	G 0.0	FWS	0		1,000			Fresh
5ep 18	G 0.5	FRI	1		1,500	35		Stream 3"-6" above normal. Dead
5an 10		ADF&G	6		1,470			predator kills
Sep 19 Sep 26	G 0.1	FWS	U		1, 470			Probably 3,000 fish. Stream flooding
1954	• • • • •							, ,
Sep 4	A 0.5	FWS						Stream low
1959								
Sep 7	G	FRI	0		150			None at mouth
Sep 30 Oct 1	A G	ADF&G FRI	0		30,000			
1960	G	LKI	U		50,000			
Aug 25	A	ADF&G	0		0			None at mouth
Sep 2	Α	ADF&G	0		0			None at mouth
Sep 6 1961	A	ADF&G	0		0			None at mouth
Aug 16		ADF&G						None observed
Sep 1		ADF&G						50 at mouth
Sep 13		ADF&G ADF&G			B.^			None observed
Oct 11	G 0. 2	ADIOG			50			All old





K 152 Previous No. 135

KETCHIKAN, CLARENCE STRAIT, CHOLMONDELEY SOUND, WEST ARM, S. shore 5.7 miles from head

MAJOR SPECIES Pink, chum

OTHER SPECIES ESCAPEMENT TIMING Late. Sept. -Oct. ESCAPEMENT MAGNITUDE

AVERAGE WIDTH/DEPTH

AVERAGE WIDTH/DEPTH 12'-15'/9"-12"

SPAWNING FACILITIES Fair

STREAM TEMPERATURES Warm range (estimated).

VALLEY DESCRIPTION Glacial origin. A steep-sided valley with heavy forestation along the streambanks. Some bedrock outcrops occur on the ridge to the west.

DRAINAGE 2.5 square miles (polar planimeter). Precipitation fed.

STREAM MOUTH IDENTIFICATION The stream enters the West Arm from the S. and is found 1 mile W. of the entrance to the South Arm. Tidal flat 0.3 mile in length. Remains of old cannery are still on flats.

ANCHORAGE Shelter for small craft may be found in the small indentation on the S. shore just W. of the confluence of the two arms.

TRAILS AND SURVEY ROUTES The margins of the stream are very brushy. May be waded at low water.

## INTERTIDAL ZONE

LENGTH 0.1 mile GRADIENT AND VELOCITIES Moderate BOTTOM LOW TIDE LOCATION HIGH TIDE LOCATION SCHOOLING AREAS

SPAWNING AREAS There is very little spawning area available in this zone.

GENERAL NOTES

### UPSTREAM

LENGTH ACCESSIBLE 0.4 miles to falls GRADIENT AND VELOCITIES Steep BOTTOM Gravel, rock and bedrock MARKER DISTANCE MARKER IDENTIFICATION

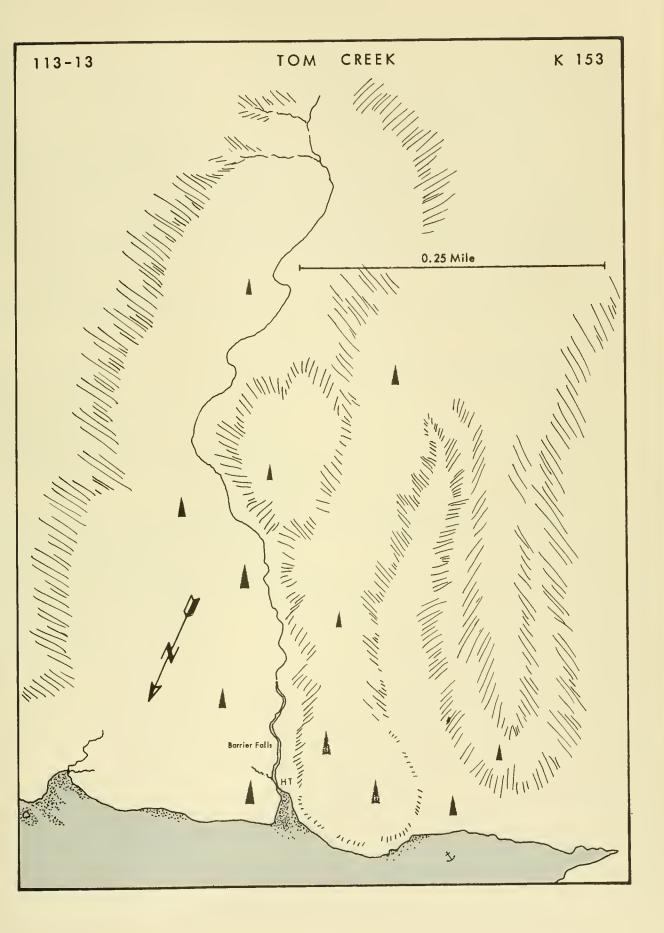
TRIBUTARIES None reported.

SCHOOLING AREAS SPAWNING AREAS

GENERAL NOTES

BARRIERS Falls 0.4 mile upstream obstructs the passage of fish.

	SURVEYED		PIN	√K	CH	IUM	OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1930								
Sep 30		FWS						Stream at flood. Good indications of
								good run
1940		=====						
Sep 24	G 0.4	FWS	4,000					Good
1941 Oct 3	G 0.4	FWS	4,000					Excellent. 1,500 fish off mouth
1942	G 0.4	r w s	4,000					Excellent. 1,300 lish oil mouth
Sep 23	G 0.4	FWS	500		2,500			Fair. 3,000 fish at mouth
1945					•			.,
Sep 26	G 0.4	FWS	4,500		1,500			Excellent. 10,000 fish at mouth
1947								
Oct S		ASI						Good pink, chum escapement
1948	<i>a</i> 0 0	FT-10			0.000			E 11 . 0.000 (1.1
Sep 29 1952	G0.3	FWS	2,000		2,000			Excellent. 2,000 fish at mouth
Sep 12	G0.4	FWS						No fish present
1953								and and project
Sep 10	G0.4	FWS	200		450			Poor to fair. About 300 in salt water,
								95% fresh
Sep 19	G0.4	FWS	200		450			95% fresh. 300 in salt water
1957								
Sep 12	G0.4	FWS	0		122			500 chum off mouth
Sep 17		FWS			250			800 chum at mouth
1961	A	ADF&G						None observed
Aug 18 Sep 1	A	ADF&G						None observed
Oct 11		ADF&G			75			All spuwning
JCC 11	0 2							





55°15.5' N. 132°22.5' W.

KETCHIKAN, CLARENCE STRAIT, CHOLMONDELEY SOUND, WEST ARM, S. shore 4 miles from head

MAJOR SPECIES Pink, chum OTHER SPECIES

ESCAPEMENT TIMING Late. Sep. -Oct. (Est.)

SPAWNING FACILITIES Good.

STREAM TEMPERATURES Warm range. (No observed temperatures.)

VALLEY DESCRIPTION Glacial origin. A steep-sided valley heading in a glacial cirque at the base of a 3,000' mountain. Heavy brush along stream banks. Valley is 2 miles in length.

DRAINAGE 2.3 square miles (polar planimeter). Precipitation fed. A large snowfield at the upper end of the valley contributes to the water source as well as surface runoff.

STREAM MOUTH IDENTIFICATION The stream enters the West Arm from the S. and is about half way between K 152 and K 154. A small tideflat, heavily wooded to the high tide mark, is found at the mouth.

ANCHORAGE Same as for K 154.

TRAILS AND SURVEY ROUTES Heavy brush and no trails make hiking difficult.

AERIAL SURVEY NOTES

#### INTERTIDAL ZONE

LENGTH 0.1 mile GRADIENT AND VELOCITIES BOTTOM LOW TIDE LOCATION HIGH TIDE LOCATION SCHOOLING AREAS SPAWNING AREAS

AVERAGE WIDTH/ DEPTH 501/18"

GENERAL NOTES Very little spawning occurs in this area.

#### UPSTREAM

LENGTH ACCESSIBLE 0.2 mile to Barrier Falls AVERAGE WIDTH/DEPTH 30'-40'/10" GRADIENT AND VELOCITIES Steep

BOTTOM Rock and bedrock.

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS A 30' falls 0.2 mile upstream blocks all fish passage.

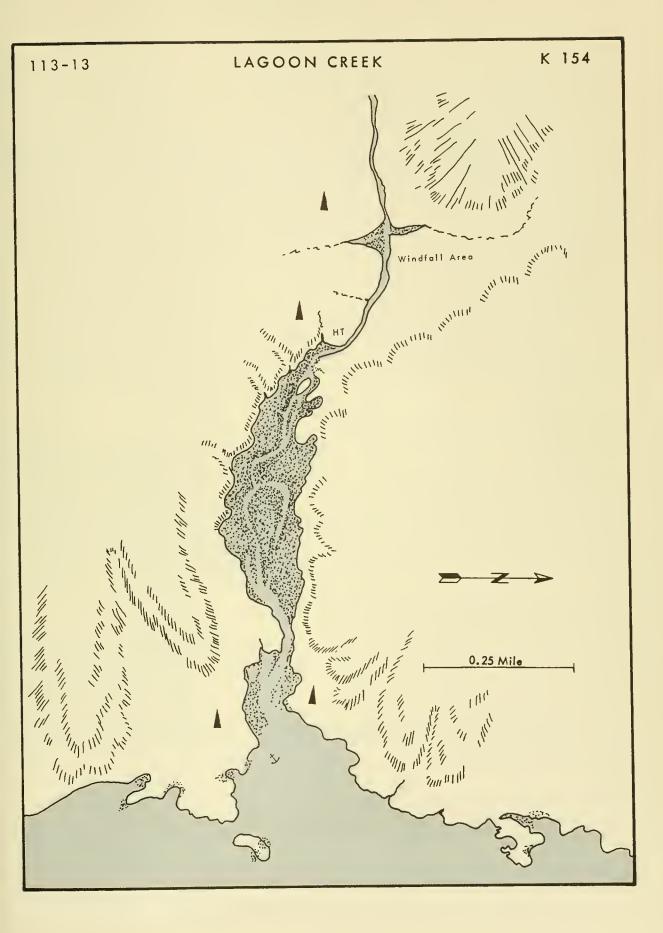
TRIBUTARIES

SCHOOLING AREAS

SPAWNING AREAS

GENERAL NOTES

	SURVEYED	)	PIN	К	СН	UM	OTHER SPECIES		REMARKS
Date	Miles	By	Live	Dead	Live	Dead	Live	Adjective	rating
1937									
Oct 6	G	FWS	75,000	2	25,000			Very good.	. Several thousand at mouth
1940 Sep 24	G	FWS	50,000					Excellent	
1941		27116	100.000	,				Б 11	10, 000
Oct 3 1942	G 1.5	FWS	100,000	1	15,000			Excellent.	10,000 at mouth
Sep 3	G 1.8	FWS			40				
Sep 22 1945	G 1.8	FWS	35,000	2	25,000			Excellent.	40,000 at mouth
Sep 26 1948	G 1.8	FWS	15,000	3	35,000			Excellent.	20,000 at mouth
Sep 29	G 0.1	FWS	100		250			Excellent.	1,000 fish off mouth





K 154 Previous No. 136

KETCHIKAN, CLARENCE STRAIT, CHOLMONDELEY SOUND, WEST ARM, S. shore 3.1 miles from head

MAJOR SPECIES Pink, chum

OTHER SPECIES Coho, red, trout

ESCAPEMENT TIMING Late, Sept. -Oct

ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Excellent in the upstream area and the upper intertidal zone.

STREAM TEMPERATURES Warm range (Observed temperatures: 43° F., 9/20/51, 45° F., 9/28/51;

47° F., 9/21/52, 43° F., 10/5/52; 45° F., 9/7/53, 45° F., 9/20/53, 47° F., 9/24/54). VALLEY DESCRIPTION Glacial origin. Two miles upstream the valley splits, the shorter tributary going to the W. Both valleys narrow and terminate in high mountains.

DRAINAGE 14 square miles (polar planimeter). Precipitation fed. Large snow fields are found on both sides of the valley and on the ridge dissecting the two valleys.

STREAM MOUTH IDENTIFICATION The stream enters a lagoon which opens into the West Arm on the S. shore just W. of the most easterly group of small wooded islands. A tidal flat 1.2 miles long runs along both banks.

ANCHORAGE Good anchorage with ample room for swinging is found just inside the wooded islands. Enter directly from the main channel.

TRAILS AND SURVEY ROUTES In the intertidal zone the left bank may be followed most easily. Above the intertidal zone the stream may be waded at times of normal water level.

AERIAL SURVEY NOTES The stream is open except for dense brush along the sides and aerial survey seems satisfactory. About 1.5 miles upstream the mountains converge rapidly and form a canyon which makes it necessary to turn around at this point.

### INTERTIDAL ZONE

LENGTH 1.2 miles

AVERAGE WIDTH/DEPTH 60'-100'/12"-24"

GRADIENT AND VELOCITIES Gentle to moderate

BOTTOM Small rock, gravel, and sand.

LOW TIDE LOCATION

HIGH TIDE LOCATION Just above the point where the stream meets the hill on the E. side of the valley at the upper end of the tide flat.

SCHOOLING AREAS The majority of the schooling takes place in the deeper water in the lower stream and off the mouth from the low tide mark to the small island.

SPAWNING AREAS Salmon spawn throughout this zone, but the area from midtide to the high tide mark appears to be the best spawning area.

GENERAL NOTES

### UPSTREAM

LENGTH ACCESSIBLE >2 miles

AVERAGE WIDTH/DEPTH SO'-125'/6"-12"

GRADIENT AND VELOCITIES Moderate

BOTTOM Small rocks, gravel, and sand-

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS None.

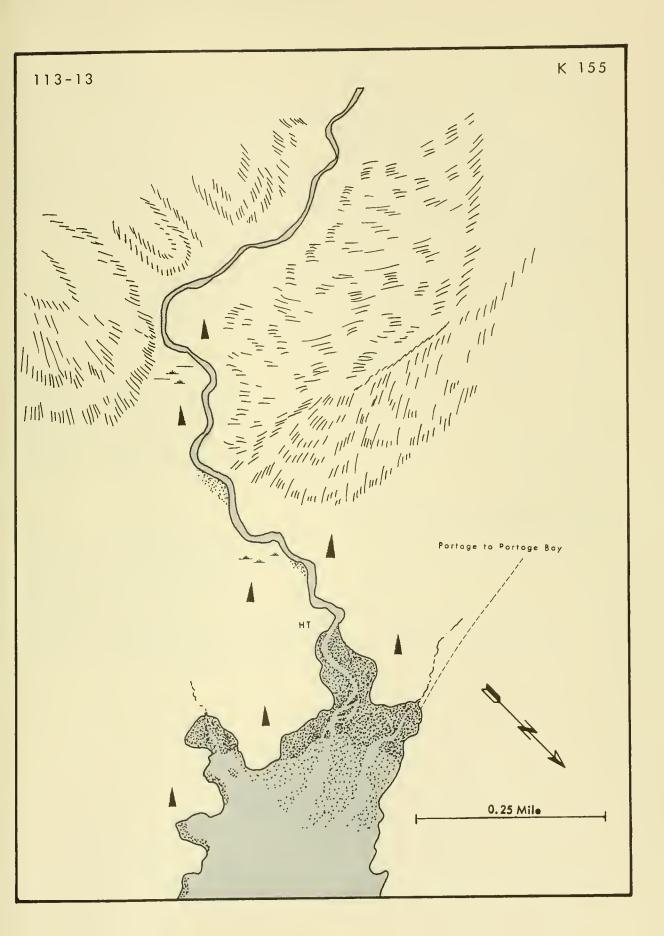
TRIBUTARIES None reported.

SCHOOLING AREAS Numerous pools throughout the streams length provide shelter for schooling salmon. SPAWNING AREAS Good spawning areas are interspersed throughout the entire distance surveyed. GENERAL NOTES

		_	·	-	•	_	·	
	SURVEYE	)	PIN	пк	СН	UM	OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1935								
Season		FWS						Poor escapement
1936								
Season 1937		FWS						Good escapement
Season		FWS						Poor escapement
1938								
Season		FWS						Good escapement
1939		FWS						5,000 in stream. Several schools at mouth
Sep 20 1946		1113						5,500 in section several sensors at moun
Oct 5	G 1.0	FWS	13,000		12,000			Good. 5,000 fish in bay
1947		*****						W- 1 1 2 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Oct 5	G 1.5	FWS						Many chum in bay. Good escapement of chum, pink
1948								or chain, plan
Aug 10	G 1.0	ASI						No fish in stream
Aug 18	G 0.5	ASI						No fish in stream
Aug 24	G 0.3	ASI						Few chum
Sep 1	G 1.0	FRI			410			Pink off mouth
Sep 7	G 0.3	ASI	1,000		1,750			
Sep 14	G 1.0	ASI	600		1,000	300	2 coho	C 1 20 000
Sep 29	G 1.3	FWS	7,450		9, 300	F 000	315 coho, 16 red	Good. 30,000 off mouth
Oct S	G 0.5	AS1	3,000		20,000	5,000	50 coho	Good
1950	A 1 C	FRI						Estimated S,000 fish, presumably chum
Sep 27 1951	A 1.5	IM						Estimated 0,000 Isin, presumately onem
Sep 20	G 0.5	FRI	3,700	20	430	0	Some coho, 2 red	4,000 pink, 20,000 chum off mouth
Sep 28	G 0.5	FRI	600		3,700	1,000		Few dead pink. Poor visibility. Water
								rising rapidly. Poor count
1952	C 0 2	FD 1	4	0	8	0	1 red	Very few fish in locality
Sep 8 Sep 11	G 0. 3 G 0. 5	FRI FWS	4 40	U	30	· ·	1 Teu	600 chum in lagoon
Sep 19		ADF&G	40		30			Good showing. Chum jumpers
Sep 21		FRI	45	0	830	0	7 coho, 1 red	5,000-8,000 chum in lagoon
Oct 5	_	FRI	75		5,700		150 coho	Few dead pink
1953					•			
Sep 7	G 0.3		11	0	20	0	3 coho	100 chum off mouth
Sep 19	G 0.5	FWS	900		5,000			2,000-3,000 chum, 500-600 pink. salt water
Sep 20	G 0.5	ADF&G	90		2,330		2 coho	Few hundred chum in upper logoon, 5,000
C 20	C 0 F	170.1	460	0	c 220	50	co aska 1 mad	or more near fishing markers
Sep 20	G 0.5	FRI	460	0	6,320	50	60 coho, 1 red	5,000 chum off mouth. Fish fresh, fish moving up
Sep 25	G 1. S	FWS	1,500		8,000			1,500 fish in lagoon
Oct 2			50		1,650		Some coho	8,000-10,000 chum at mouth. Flooding
Oct 7		FWS	590	11	2,030	490	350 coho, 1 red	2,000-4,000 at mouth
1954								
Sep 4		FWS	0					Stream low
Sep 8		FRI	400					Few at mouth
Sep 19		FWS	400		0. 100			Poor. Low water
Sep 24	G 0.5	FRI	2,800		3, 100			

	SURVEYE	D	PIN	īΚ	СН	UM	OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1955								
Sep 19	A 0.5	FRI	7,000		2,000			15,000 chum & pink at mouth
Sep 23	A Q.S	FRI	7,000		9,000			3,000 chum above marker, 7,000 at mouth
Sep 26		FWS	10,000		10,000			
Sep 28	A 0. S	FRI	9,000		8,000			5,000 chum at mouth. Some dead chum, pink
1956								
Sep 9	A 0. S	FRI						Few chum, pink. >20,000 chum at mouth
Sep 20	A 0. S	FRI	3,000		1,000			75,000 chum at mouth, many in bay
Sep 29	A 0.5	FRI	13,000		>2,000			Some dead chum, pink. 20,000
								chum at mouth. 10,000 chum above
1957								Manci
Sep 12	G 2.0	FWS	SO		400			30,000 off mouth
Sep 1S	A 0.5	FRI	200	0	100	0		>1S,000 chum at mouth
Sep 17		FWS	150		2,850			15,000 chum at mouth
Sep 27	A 0. S	FRI			4,000	>200		Few pink
Sep 29					16,000			2,000 at mouth
Oct 19		FWS	150		5,000			Fair
1958								
Sep 7	A 0.S	FWS	200					Good vis. 200 schooled off mouth
Sep 20 1961	A 0. S	FWS			4,600			8,000-10,000 schooled at mouth
Aug 18	Α	ADF&G	20					SO at mouth - water low
Sep 1	A	ADF&G			100			200 at mouth
Sep 13	A	ADF&G			100			1,000 at mouth
Sep 20	A	ADF&G			3,200			1,000 at mouth - fish well spread
Oct 6	A	ADF&G			3,100			1,500 at mouth







KETCHIKAN, CLARENCE STRAIT, CHOLMONDELEY SOUND, WEST ARM, Head

MAJOR SPECIES Pink, chum ESCAPEMENT TIMING Late. Sept. -Oct.

OTHER SPECIES Coho ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Good to excellent.

STREAM TEMPERATURES Warm range (Observed temperatures: 46° F., 9/6/S3, 45°.F., 9/20/S3). VALLEY DESCRIPTION Stream-cut. The valley runs in a N. -S. direction. One mile upstream the valley walls rise sharply away from the stream. Extensive outcropping on the ridge to the W.

DRAINAGE 4.5 square miles (polar planimeter). Precipitation fed. Snowfields encompass the upper end of the valley, contributing snowmelt at certain times of the year. Surface runoff probably also contributes.

STREAM MOUTH IDENTIFICATION Enters the head of the West Arm from the S. side. This stream and K 155A enter a large tide flat; K 155 enters the 5.E. corner.

ANCHORAGE Refer to K 154.

TRAILS AND SURVEY ROUTES Relatively easy to travel up either bank.

AERIAL SURVEY NOTES Fly up the W. side of the stream and swing back down the valley.

### INTERTIDAL ZONE

LENGTH 0.5 mile GRADIENT AND VELOCITIES BOTTOM Gravel. LOW TIDE LOCATION HIGH TIDE LOCATION SCHOOLING AREAS SPAWNING AREAS Spawning is limited in this zone. GENERAL NOTES

AVERAGE WIDTH/DEPTH

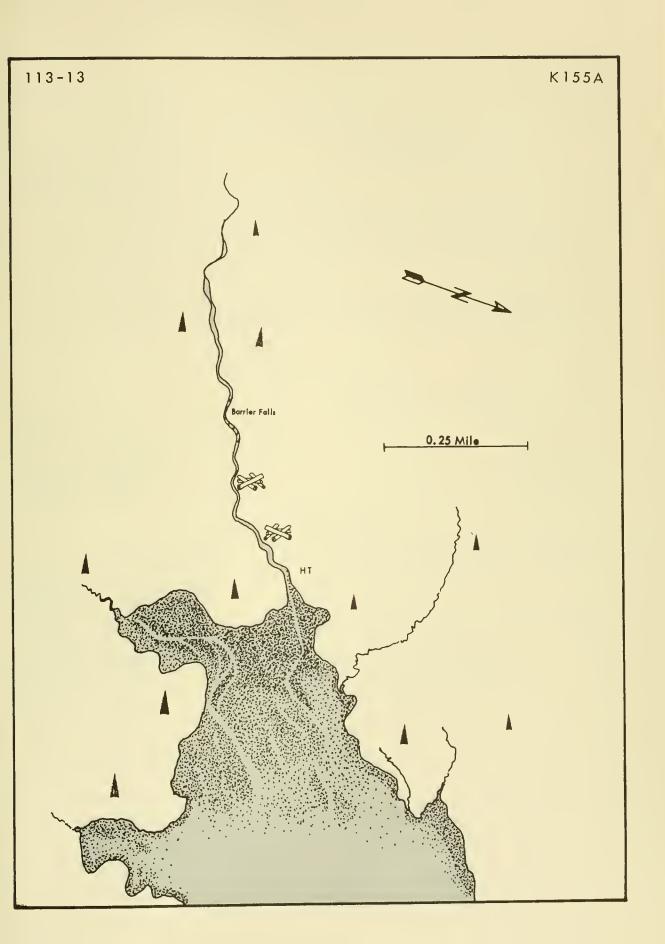
AVERAGE WIDTH/DEPTH 20'-30'/12"-16"

### UPSTREAM

LENGTH ACCESSIBLE GRADIENT AND VELOCITIES Moderate BOTTOM Gravel and small boulders. MARKER DISTANCE 0.8 mile MARKER IDENTIFICATION BARRIER 5 TRIBUTARIES SCHOOLING AREAS Numerous large pools.

SPAWNING AREAS Reported to be an excellent spawning stream with numerous gravel riffles. GENERAL NOTES

	SURVEYE	D.	PIN	īΚ	СН	UM	OTHER SPECIES	REMARKS
Date	Miles	By	Live	Dead	Live	Dead	Live	Adjective rating
1946								
Oct S	G 1.3	FWS	8,000		S,000			Fair. 2,000 fish at mouth
1947								
Oct 3	G 1.0	FWS	45,000		35,000			Excellent. 20,000 fish at mouth
1948								
Sep 29	G 1.0	FWS	2, 300		9,500			Good. 15,000 fish at mouth
1952								
Sep 11	G 0.4	FWS						No fish present
1953								
Sep 6	G 0.5		1	0	0	0		250 chum, 40 coho off mouth
Sep 19	G 0.8		150		600			3,000-4,000 fish working to stream
Sep 20	G 0.5		160	0	970	0		Chum fresh. Visibility 100%
Oct 7	G 1.0	FWS	9	1	1, 100	214		200 chum at mouth
1954								<b>7</b> 100
Sep 28	A 0.8	FRI			1,500			Few 100 at mouth. Visibility not good
1956								150 000 11
Sep 2		FWS						150,000 pink at mouth
Sep 29	A 0. 3	FRI	8,000					Chum present
1957								
Sep 17		FWS	300		800			<b>D</b>
Sep 29		FWS			6,000			Poor 200 chum at mouth
Oct 19		FWS						200 Chum at mouth
1959		4 D TCC	0		0.000			NT
Sep 20 1960	A	ADF&G	0		2,500			None at mouth
	605	ADECC	20		00			AT
Sep 20	Gus	ADF&G	30		90			None at mouth
1961								220
Aug 18	A	ADF&G						200 at mouth \$0 at mouth
Sep 1	A	ADF&G	202		000			oo at moun
Oct 11	G U. S	ADF&G	200		800			





SS° 16.3' N. 132° 29.2' W.

K 155A Previous No. 137A

KETCHIKAN, CLARENCE STRAIT, CHOLMONDELEY SOUND, WEST ARM, N. shore 0.5 mile from head

MAJOR SPECIES Pink, chum

ESCAPEMENT TIMING Late. Sept. -Oct.

OTHER SPECIES ESCAPEMENT MAGNITUDE

AVERAGE WIDTH/DEPTH

SPAWNING FACILITIES Good.

STREAM TEMPERATURES Warm range (estimated).

VALLEY DESCRIPTION Glacial origin. The valley widens to 3 miles at its upper end. Heavily wooded. The headwaters are adjacent to those of Portage Creek (WC 14).

DRAINAGE 3 square miles (polar planimeter). Precipitation fed. Small snowfields N. and S. of the valley probably contribute to the water source along with surface runoff.

STREAM MOUTH IDENTIFICATION The stream enters the N.W. corner of the tideflat at the head of West Arm. The same flat into which K 15S enters.

ANCHORAGE See K 154.

TRAILS AND SURVEY ROUTES No trails. Travel is easiest in the stream bed for the first 300 to 400 yards, at this point the stream becomes overgrown with brush and travel is difficult.

AERIAL SURVEY NOTES Only a short part of the lower section of stream may be surveyed from the air.

GENERAL NOTES Has good escapements at times.

### INTERTIDAL ZONE

LENGTH 0.5 mile GRADIENT AND VELOCITIES Moderate BOTTOM Gravel. LOW TIDE LOCATION HIGH TIDE LOCATION SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

## UPSTREAM

LENGTH ACCESSIBLE 0.25 mile GRADIENT AND VELOCITIES BOTTOM Gravel and small rock.

AVERAGE WIDTH /DEPTH 10'-15'/8"

MARKER DISTANCE

MARKER IDENTIFICATION

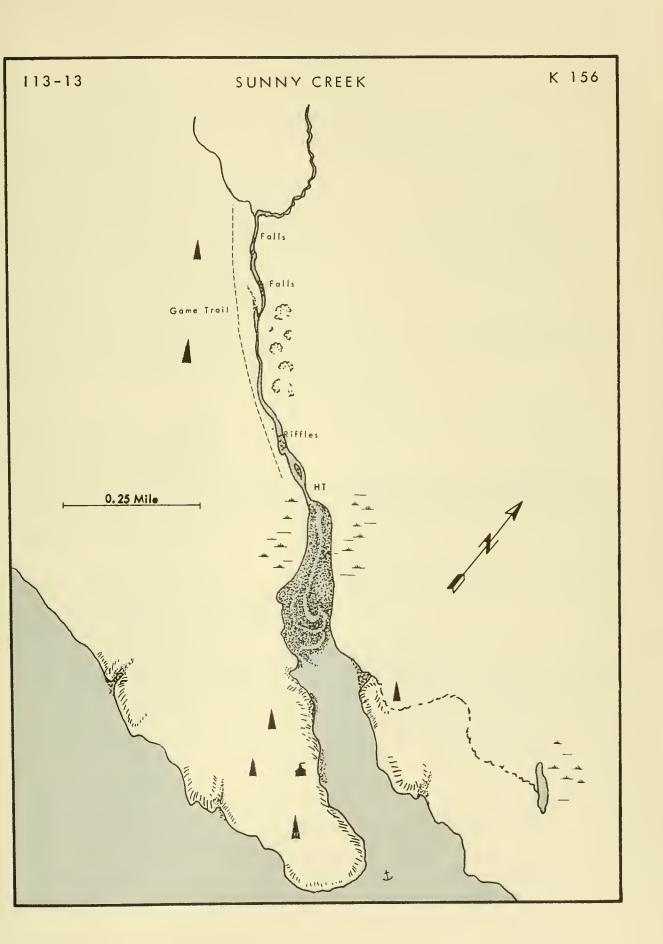
BARRIERS A 40' water fall is found 500 yards upstream, falling through a distance of 50', broken into 5 steps--probably impassable.

TRIBUTARIES The stream splits into 4 small tributaries 0. 25 mile above the mouth.

SCHOOLING AREAS

SPAWNING AREAS The stream offers good spawning facilities in the first quarter mile.

	SURVEYE		PIN		СН		OTHER SPECIES		REMARKS
Date	Miles	Ву	Live	Dead L	ive	Dead	Live	Adjective	rating
1946	- 0 -				000				
Oct 5 1947	G 0. S	FWS	3,000	2,	,000			Fair	
Oct 3 1948	G 0. 3	FRI-FWS	35,000	S,	000			Excellent	
Sep 29	G 0.4	FWS	1,900	2,	100			Good	
19S3 Sep 19	G 0.3	FWS	1		s			Poor	
19 <b>S</b> 6 Sep 2		FWS						100,000 p	oink at mouth
1957 Aug <b>2</b> 9		FWS						100 chum	, 900 pink at mout
Sep 29 1960		FWS		6,	,000				
Sep 29 1961	G 0.3	ADF&G	2		0			None at n	nouth
Oct 11	G 0. 2	ADF&G			100				





SUNNY CREEK

K 156 Previous No. 133

KETCHIKAN, CLARENCE STRAIT, CHOLMONDELEY SOUND, SUNNY COVE, Head

MAJOR SPECIES Pink, chum ESCAPEMENT TIMING Late

OTHER SPECIES Coho, red ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Good in the upper intertidal zone and lower part of the upstream area. Bottom composition becomes coarse upstream.

STREAM TEMPERATURES Warm range (Observed temperatures: S0° F., 9/15/50; 47.5° F., 9/27/50; 47° F., 9/21/51; 48° F., 9/28/51; 47° -48° F., 1952; S1° F., 9/7/S3 S0° F., 9/20/53).

VALLEY DESCRIPTION Glacial origin. The valley splits 2 miles upstream, and each branch contains a fork of the creek. The headwaters of the W. branch are near Barren Mountain, 3400' in height.

DRAINAGE 9 square miles (polar planimeter). Precipitation fed. Snowfields at the upper and E. side of the valley. A few small lakes to the S.

STREAM MOUTH IDENTIFICATION The stream enters the head of Sunny Cove. Grass flats are found on both the E. and W. sides of the mouth.

ANCHORAGE The cove affords good anchorage for small craft.

TRAILS AND SURVEY ROUTES The stream can be easily waded in its lower reaches, but due to boulders travel becomes difficult above the bedrock constriction. Fair game trails follow the N. bank.

AERIAL SURVEY NOTES Satisfactory for aerial survey.

GENERAL NOTES One of the better streams in Cholmondeley Sound.

## INTERTIDAL ZONE

LENGTH 0.6 mile

AVERAGE WIDTH/DEPTH 35'-S0'/15"

GRADIENT AND VELOCITIES

BOTTOM Medium gravel to coarse.

LOW TIDE LOCATION

HIGH TIDE LOCATION

SCHOOLING AREAS There are no deep pools in the intertidal zone; fish tend to school off the mouth.

SPAWNING AREAS Spawning takes place throughout the intertidal zone, but increases progressively upstream.

GENERAL NOTES

#### UPSTREAM

LENGTH ACCESSIBLE >2 miles

AVERAGE WIDTH/DEPTH 30'-40'/10"

GRADIENT AND VELOCITIES Moderate

BOTTOM Medium coarse gravel and boulders.

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS A 6' falls 1 mile upstream could be a partial block at times of low water.

TRIBUTARIES 1.5 miles upstream the stream forks. The right fork appears to be the larger of the two.

SCHOOLING AREAS The large pool found in the bedrock constriction is the major schooling area. Other

CHOOLING AREAS The large pool found in the bedrock constriction is the major schooling area. Other pools are also available.

SPAWNING AREAS The major part of the spawning takes place just above the high tide mark. Additional spawning takes place throughout the upper reaches, but is confined by areas of bedrock.

	ALLD LETTED		nra	me.	CII		OTHER CRECIES	DEMARKS
Data	SURVEYED Miles		PIN Live	Dead	Live	UM Dead	OTHER SPECIES Live	REMARKS Adjective rating
Date	Milles	Ву	Live	Dedd	Live	Dedd	Live	Adjective identity
1930								
Sep 30		FWS						Stream at flood stage. Good showing,
•								thousands of dead
1937								
Oct 1		FWS						Large schools of pink at stream mouth.
								Stream full
1939								
Sep 20		FWS	50,000					Excellent
1941								
Sep 20		ASI						100,000 pink at stream mouth
Oct 3	G O.S	FWS	so,000		5,000			Excellent
1942		F7440						No California
Sep 3	G 0. 0	FWS	7 000		45 000			No fish in stream
Sep 23	G 0.0	FWS	7,000		45,000			Excellent. 6,000 pink at mouth
1943 Sep 30	G 0.5	FWS	15,000		5,000			Fair. S,000 fish off mouth
1947	G 0. 3	1 113	13,000		3,000			rum 5,000 mm on moun
Oct 2	G 0.5 F	RI,FWS	30,000		20,000			Good
Oct 4	G 0. S	ASI	••,•••		,			Very good escapement of chum & pink
1948								
Aug 10	G 0.5	FRI					20 red	
Aug 24	G 0.5	ASI						Few chum
Aug 31	G 0.0	FRI			280			
Sep 8	G 0.5	ASI	200		2,500		10 coho	
Sep 14	G 0, 5	ASI	500		950	270	20 red	
Sep 23	G 0.5	ASI	7,000		2,500			Good
Sep 27	G 0.5	ASI	6,000		•	1,500		E 11 . C 000 C 1 CC - 1
Sep 30	G 0.5	FWS	12,525		8, 400	z 200		Excellent. 5,000 fish off mouth
Oct S 1949	G 0.5	ASI	8,000		7,500	5,500		Good
Sep 10	G 0.5	FRI	I,57S	6	595	133	14 red	
Sep 30	G 0.5	FRI	5,875	193		1,969	I red	
Oct 8	G 0. S	FRI	1,936	98	864	144		
1950	00.0		1,000					
Sep 1S	G 0.5	FRI	160	0	63	0	27 red, 0 dead red	
Sep 27	G 0.5	FRI	2,450	25	600	3S	8 red, 0 dead red	
Oct 6		FRI						Flooding
1951								
Sep 21	G 0.5	FRI	2,800	1\$0	1,550	200	Few coho, 35 red	S,000 chum, 4,000 pink off mouth
Sep 28	G 0.5	FRI	S, 200		2,900			Some dead chum, pink. Poor visibility
1050								Fish ascending
1952	C 0 3	EDI	42	0	25	^	2	All pink in intertidal. Too early
Sep 8	G 0.3 G 0.5	FRI FRI	42 600	0	1 000	0	2 red	400 chum, 200 pink at mouth
Sep 19 Sep 21	G 0. 3	FRI	460	10	1,000 310		6 coho 2 coho, 9 red	Few dead chum. About 1,000
3cp 21	3 0. 3		100	10	310		a cono, o reu	pink at mouth
Oct 6	G 0. 3	FRI	700	75	1,700	150	Several coho	1
1953					_,,			
Sep 7	G 0.5	FRI	378	0	84	0	2 coho, 22 red	Several hundred chum, pink off mouth
Sep 18	G 0. S	FWS	2,600		3,000			Fair. 90% fresh. 300-400 chum,
								300-400 pink in salt water
Sep 20	G 0.5	FRI	1, 190	6	1,403	25	18 red, 1 dead red	500 off mouth. Visibility 80%

	SURVEYE	D	PIN	ίκ	СН	JM	OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
		·						•
1954								
Sep 4	A 0.5	FWS	0					Small school at mouth
Sep 15	A 0.5	FRI						Some pink, few chum. 12,000 pink
								in bay. Poor visibility
Sep 28	G 0.5	FRI	13, 400	500	1,000	100		13,000 pink off mouth
1955								
Aug 26		FWS						5,000 at mouth
<b>Sep</b> 19	A 0.5	FRI			2,000			10,000 chum at mouth
Sep 23	A 0.5	FRI	12,000					Some chum. 8,000 fish at mouth
5ep 23	A	FWS	12,000					8,000 at mouth
Sep 28	A 0.5	FRI	20,000					Some chum. Many dead chum, pink.
								5,000 pink at mouth
Sep 28	Α	FWS	36,000		4,000			5,000 at mouth
19\$6								
Sep 15	A	FWS	25,000					25,000 pink at mouth
Sep 20	A 0.5	FRI	16,000					Some chum, few dead pink. 30,000
								at mouth, chum in bay
<b>5ep 2</b> 9	A 0.5	FRI	18,000	>2,000				Chum present. Some at mouth.
								Spawning
1957		FILE	600					1 000
Aug 19		FWS	600					1,000 pink at mouth
Aug 28		FWS	500					
Sep 3		FWS	5,000					
Sep 11	G 0. 3	FW5 FWS	12,000 350		350			135 dead. 2,000 pink, 1,000 chum
Sep 13	60.3	L M 2	330		330			off mouth
Sep 15	A 0.5	FRI	1,000					Some chum, some dead chum & pink.
ocp 10	1.0.0		1,000					4,000 pink, 5,000 chum at
								mouth. Some spawning
Sep 19		FWS	5,000					10,000 pink at mouth
Sep 27	A 0.5	FRI	1,000		8,000	>200		Some dead pink. Few at mouth.
1958			,					•
Sep 7	A 0.5	FWS	3,000					Few chum
Sep 20	A 0.5	FW5	200					Fair visibility. Many dead
1959								
5ep 20	A	ADF&G	3,500		0			5,500 at mouth
1960								
Aug 25	Α	ADF&G	0		0			None at mouth
Sep 2	A	ADF&G	0		0			None at mouth
Sep 6	A	ADF&G	0		0			Woter dark. Visibility poor
Sep 14	A	ADF&G	200				10 coho	Some chum. 1, 200 at mouth
Sep 29	Α	ADF&G	>600		0			None at mouth
1961								10 000 at mouth. Nano in stream
Aug 18	A	ADF&G						10,000 at mouth. None in stream water low
C 1		ADECC						1,000 at mouth. Many in stream
Sep 1	A	ADF&G						Visibility poor
San 12	٨	ADF&G						3,000 at mouth: Many dead
Sep 13	A	ADFGG						Visibility poor
Sep 30	Α	ADF&G						11,500 pink and chum -
3CP 30	- 1	AD100						all spowning



KETCHIKAN, CLARENCE STRAIT, CHOLMONDELEY SOUND, 0.8 mile E. of entrance to Sunny Cove

MAJOR SPECIES Pink, chum
ESCAPEMENT TIMING Late (estimoted)
SPAWNING FACILITIES Good
STREAM TEMPERATURES Warm ronge
VALLEY DESCRIPTION

OTHER SPECIES
ESCAPEMENT MAGNITUDE

DRAINAGE

GENERAL NOTES

STREAM MOUTH IDENTIFICATION Enters the sound on the N. shore 1 mile E. of the entronce to Sunny Cove.

ANCHORAGE Suitable onchorage for small craft is found in Sunny Cove (K 156).

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES

GENERAL NOTES A very small stream of little importance as a salmon producer.

## INTERTIDAL ZONE

LENGTH
GRADIENT AND VELOCITIES
BOTTOM
LOW TIDE LOCATION
HIGH TIDE LOCATION
SCHOOLING AREAS
SPAWNING AREAS

AVERAGE WIDTH/DEPTH

### UPSTREAM

LENGTH ACCESSIBLE 0.4 mile AVERAGE WIDTH/DEPTH 15'/12"
GRADIENT AND VELOCITIES
BOTTOM Gravel
MARKER DISTANCE
MARKER IDENTIFICATION
BARRIERS Folls .0.4 mile upstream are of unknown height.
TRIBUTARIES
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES

## ESCAPEMENT RECORD

SURVEYED		)	PINK		CHUM		OTHER SPECIES	REMARKS
Date	Miles	By	Live	Dead	Live	Dead	Live	Adjective rating
1940								
Sep 24	G	FWS	4,000					Good
1947								
Oct S	G	ASI						Good escapement of chum & pink
1983								
Sep 20	G 0.3	FWS				2		No fish



K 157 Previous No. 137B

KETCHIKAN, CLARENCE STRAIT, CLOVER BAY, Head

MAJOR SPECIES Pink, chum

OTHER SPECIES Trout

ESCAPEMENT TIMING Late (estimated)

ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Poor in the intertidal zone. Excellent above the canyon for a distance of 1 mile. STREAM TEMPERATURES Warm range (Observed temperature: S2° F., 9/14/57).

VALLEY DESCRIPTION A valley heavily wooded with spruce, hemlock and cedar, surrounded by rolling hills. Some muskeg areas.

DRAINAGE 9 square miles (polar planimeter)

STREAM MOUTH IDENTIFICATION Lies at the head of Clover Bay and is reached by traveling through the islands and bearing toward the S.W. corner of the bay.

ANCHORAGE The head of the bay is blocked by islands, but a suitable anchorage is found just inside the bay entrance.

TRAILS AND SURVEY ROUTES The stream is difficult to survey. The stream bed should be followed. AERIAL SURVEY NOTES Overhung by trees and brush. Proper light conditions are necessary for aerial surveying.

#### INTERTIDAL ZONE

LENGTH 0.2 mile

AVERAGE WIDTH/DEPTH 3S'-4S'/10"-15"

GRADIENT AND VELOCITIES Gentle to moderate

BOTTOM Small rocks and boulders.

LOW TIDE LOCATION

HIGH TIDE LOCATION

SCHOOLING AREAS In the bay off the creek mouth.

SPAWNING AREAS Spawning occurs in scattered areas near the high tide mark, but this zone is for the most part unsuitable for spawning.

GENERAL NOTES

### UPSTREAM

LENGTH ACCESSIBLE 1.7 miles

AVERAGE WIDTH/DEPTH 30-35'/12"

GRADIENT AND VELOCITIES Moderate

BOTTOM Small rock, boulders, bedrock and gravel.

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS A 20' falls 1.7 miles upstream is impassable to salmon.

TRIBUTARIES

SCHOOLING AREAS Few small pools.

SPAWNING AREAS Some spawning gravel is available in the lower 0.5 mile, but the best spawning area is above a canyon 0.5 mile upstream. This area has excellent spawning gravel and extends for about 1 mile.

	SURVEYED		PII	PINK CHUM		OTHER SPECIES	REMARKS	
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1930 Oct 7		FWS		>2,000				Well seeded. Pink spent. 15,000 fish
1937 Oct 1		FWS						Well seeded. Pink spawning. Chum dead. S0% each species
Oct 7		FWS						Good pink escapement. Bright chum. Many dead, mostly chum
1947 Oct 6 1948		ASI						Good showing. Good early run of pink
Sep 28 19\$2	G 0.8	FWS	2, 350		14,000			Good
Sep 18 1953	G 0.5	FWS	300		800			250 chum, pink at mouth
Sep 20 19SS	<b>G</b> 1.0	FWS	2,000		1,500			75% fresh. 300-400 off mouth
Season 1986		FWS	5,000		100			Estimate
Sep 2 1987		FWS						4,000 estimated
Aug 20		FWS FWS	1S0 2, 700					
Aug 27 Sep 14	G 2.0	FWS	700		250			Few jumps in bay

KETCHIKAN, CLARENCE STRAIT, CLOVER BAY, 0.3 mile from head

MAJOR SPECIES Chum ESCAPEMENT TIMING

OTHER SPECIES ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES

STREAM TEMPERATURES Warm range

VALLEY DESCRIPTION

DRAINAGE 6 square miles (polar planimeter)

STREAM MOUTH IDENTIFICATION The stream enters Clover Bay from the W., about

the head of the bay.

ANCHORAGE Same as for K 157.

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES

GENERAL NOTES A small stream. No records of physical features. Does not appear to be of much importance.

## INTERTIDAL ZONE

AVERAGE WIDTH/DEPTH

LENGTH GRADIENT AND VELOCITIES BOTTOM LOW TIDE LOCATION HIGH TIDE LOCATION SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

UPSTREAM

LENGTH ACCESSIBLE GRADIENT AND VELOCITIES BOTTOM MARKER DISTANCE MARKER IDENTIFICATION BARRIERS An 8' falls at mouth is impassable barrier. Valueless for salmon.

AVERAGE WIDTH/DEPTH

TRIBUTARIES SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

### ESCAPEMENT RECORD

[Counts made by ground surveys are designated by G. Aerial surveys by A]

OTHER SPECIES REMARKS **SUR VEYED** CHUM PINK Live Dead Date Miles Live Dead Live Adjective rating By



KETCHIKAN, CLARENCE STRAIT, DOCTOR POINT, 0.4 mile from Doctor Point

MAJOR SPECIES ESCAPEMENT TIMING SPAWNING FACILITIES STREAM TEMPERATURES Warm range

OTHER SPECIES ESCAPEMENT MAGNITUDE

VALLEY DESCRIPTION

DRAINAGE 3 square miles (polar planimeter) STREAM MOUTH IDENTIFICATION

ANCHORAGE Suitable anchorage is found in Clover Bay 1 mile S.

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES

GENERAL NOTES No escapement records

### INTERTIDAL ZONE

LENGTH GRADIENT AND VELOCITIES BOTTOM LOW TIDE LOCATION HIGH TIDE LOCATION SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

### UPSTREAM

LENGTH ACCESSIBLE GRADIENT AND VELOCITIES BOTTOM MARKER DISTANCE MARKER IDENTIFICATION BARRIERS TRIBUTARIES SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

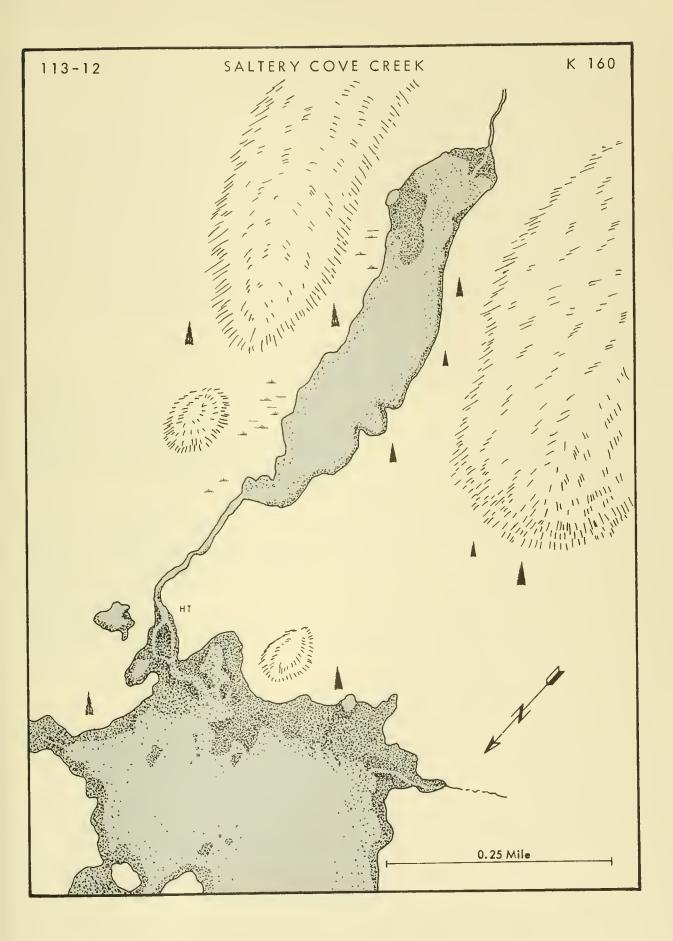
AVERAGE WIDTH / DEPTH

AVERAGE WIDTH/DEPTH

## ESCAPEMENT RECORD

[Counts made by ground surveys are designated by G. Aerial surveys by A]

CHUM OTHER SPECIES REMARKS SUR VEYED PINK Live Dead Live Dead Date Miles Bv Live Adjective rating





113-12

55°24' N. 132°19. 2' W. SALTERY COVE CREEK

K 160

Previous No. 141

KETCHIKAN, CLARENCE STRAIT, SKOWL ARM, SALTERY COVE, S.E. head

MAJOR SPECIES Pink, chum

ESCAPEMENT TIMING Late. Sept. -Oct.

OTHER SPECIES
ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Fair.

STREAM TEMPERATURES Warm range (no observed temperatures).

VALLEY DESCRIPTION The upper end is of glacial origin. Valley walls slope gently away from the stream near the mouth; the gradient increases at the upper end of the valley.

DRAINAGE 7 square miles (polar planimeter). Drains 2 precipitation fed lakes and is also fed by snow melt at certain times of the year.

STREAM MOUTH IDENTIFICATION Mouth opens into the S.E. corner of Saltery Cove. Tidal flat is about 0.2 mile in length.

ANCHORAGE This cove offers a well protected anchorage at its head end for small craft. The channel to the E. of the islands at the entrance to the cove is used most often.

TRAILS AND SURVEY ROUTES Good trails follow both stream banks.

AERIAL SURVEY NOTES The dark water of this stream impairs aerial visibility.

#### INTERTIDAL ZONE

LENGTH 0.2 mile

AVERAGE WIDTH/DEPTH

GRADIENT AND VELOCITIES Moderate

BOTTOM Rubble.

LOW TIDE LOCATION

HIGH TIDE LOCATION

SCHOOLING AREAS Located just below low tide.

SPAWNING AREAS Slight utilization of upper tidal area.

GENERAL NOTES Intertidal spawning area limited by lack of suitable bottom composition.

## UPSTREAM

LENGTH ACCESSIBLE <0.5 mile to lake AVERAGE WIDTH/DEPTH 20'/10"

GRADIENT AND VELOCITIES Moderate gradient up to lake

BOTTOM Heavy rubble with interspersed gravel beds.

MARKER DISTANCE

MARKER IDENTIFICATION

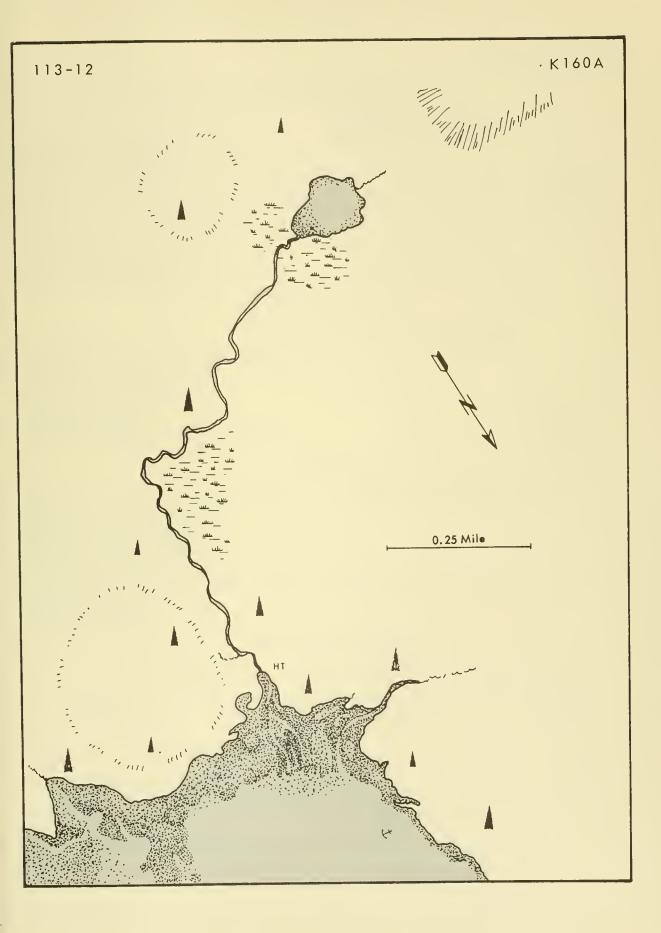
BARRIERS None.

TRIBUTARIES None.

SCHOOLING AREAS

SPAWNING AREAS Spawning throughout entire section from lake to outlet.

	SURVEYED		PIN	K	СН	UM	OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	<b>L</b> ive	Dead	Live	Adjective rating
1930								
Oct 11		FWS	2,000					Good. Fish mostly spawned or
1942								
Sep 23	G 0, S	FWS	5,000		2,000			Good. 5,000 fish at mouth
1943								
Sep 29 1948	G 0.5	FWS	25,000		10,000			Good. 5,000 fish at mouth
Sep 2S	G 0. 3	FWS	2,350		3,800			Good
1950								
Oct 7	G 0. 1	FRI		26		58		Chum, pink present
1953								
Sep 22	G 0. 3	FWS	1,000		4,500			Good
Oct 1S	G 0. 3	FWS	1	200	90	1,350		Fair. Old run. Stream high
19 <b>5</b> S								
Oct 3	G	FWS	6,000		8,000			
1959								
Sep 12	А	FWS	250		200			None at mouth
1960								
Sep 2 1961	G	ADF&G	0		2S			None at mouth
<b>S</b> ep 5	G	ADF&G			4,000			





113-12 SS°24' N. 132°19.2' W.

KETCHIKAN, CLARENCE STRAIT, SKOWL ARM, SALTERY COVE, S. head

MAJOR SPECIES Pink, chum

OTHER SPECIES Coho

ESCAPEMENT TIMING Late (estimated)

ESCAPEMENT MAGNITUDE

AVERAGE WIDTH/DEPTH

SPAWNING FACILITIES Fair.

STREAM TEMPERATURES Warm range (estimated).

VALLEY DESCRIPTION Stream-cut. The valley runs toward the S. W. and terminates in a 2,400' mountain - less than a mile wide in most places.

DRAINAGE 1 square mile (polar planimeter). Precipitation fed. A small lake is found at the head of the stream. A snowfield lies beyond the lake.

STREAM MOUTH IDENTIFICATION Lies in the S. W. corner of Saltery Cove.

ANCHORAGE Refer to K 160.

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES

GENERAL NOTES Not a very good spawning stream, but might warrant further surveying.

#### INTERTIDAL ZONE

LENGTH 0.1 mile GRADIENT AND VELOCITIES Moderately steep BOTTOM Coarse broken gravel. LOW TIDE LOCATION HIGH TIDE LOCATION SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

#### UPSTREAM

LENGTH ACCESSIBLE 0.75 mile to lake AVERAGE WIDTH/DEPTH 15'/6"

GRADIENT AND VELOCITIES

BOTTOM Broken gravel.

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS None reported in first half mile.

TRIBUTARIES A small stream which enters the head of the lake is reported to be a fair spawning stream.

SCHOOLING AREAS

SPAWNING AREAS

GENERAL NOTES

## ESCAPEMENT RECORD

	SURVEYED		PIN	PINK		UM	OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1943								
Sep 29 1948	G 0.5	FWS	10,000		2,000			Good. 3 000 fish in bay
Sep 25 1980	G 0. 1	FWS	105		135			Fair
Oct 7 1955	G 0. 1	FRI		26		58		Live chum, pink present
Oct 3	G	FWS	50		25			



KETCHIKAN, CLARENCE STRAIT, SKOWL ARM, McKENZIE INLET, E. head

MAJOR SPECIES Pink, chum

OTHER SPECIES Coho

ESCAPEMENT TIMING Late (estimated)

ESCAPEMENT MAGNITUDE

AVERAGE WIDTH/DEPTH

SPAWNING FACILITIES Poor to fair.

STREAM TEMPERATURES Warm range (No observed temperatures)

VALLEY DESCRIPTION

DRAINAGE 2 square miles (polar planimeter)

STREAM MOUTH IDENTIFICATION Lies at the end of a small bay in the S.E. corner of the head of McKenzie inlet.

ANCHORAGE A good anchorage is found at the head of the inlet on the W. side of Peacock Island. When entering the inlet keep to the W. of McKenzie Rock and steer a midchannel course.

TRAILS AND SURVEY ROUTES No trails. Very easy going along the stream bed.

AERIAL SURVEY NOTES Difficult to survey because of numerous splits.

GENERAL NOTES Not a large stream, at times going almost completely dry.

### INTERTIDAL ZONE

LENGTH 300 yards
GRADIENT AND VELOCITIES Moderate
BOTTOM
LOW TIDE LOCATION
HIGH TIDE LOCATION
SCHOOLING AREAS
SPAWNING AREAS Some spawning in this area.
GENERAL NOTES

#### UPSTREAM

LENGTH ACCESSIBLE

AVERAGE WIDTH/DEPTH 15'-20'/6"

GRADIENT AND VELOCITIES Moderate to swift.

BOTTOM Small rock and gravel.

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS Falls 0.5 mile upstream.

TRIBUTARIES The stream splits and rejoins many times.

SCHOOLING AREAS

SPAWNING AREAS

	SURVEYE	)	PIN	ıκ	CI	IUM	OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
		Ť						
1930		777.450						Stream dry. Fish are stranded
Oct 8 1940		FWS						Stream dry. Fish dre stranded
Oct 3	G 0.4	FWS	4,000		1,000			Excellent
1941	0 0. 1		-,		-,			
Oct 2	G 0.8	FWS	12,000		3,000			Excellent
1942								
Sep 22	G 0.S	FWS			2,000			Good. 3,000 fish at mouth
1946		THE	1 500		500			Good
Oct 3 1947	GQS	FWS	1,500		300			Good
Oct 4	G 0.31	FRI,FWS	S,000		5,000			Good
Oct 7	0 0 0 .	ASI	-,		-,			Plenty of salmon in the creek
1948								·
Sep 26	G 0.3	FWS	1,700		4,950			Excellent
1953								
Sep 21	G 0.1	FWS	8		1, 100			n : 400 l l : 1 · 1 · 0 ·
Oct 1S	G 0.3	FWS	8		25		3 coho	Fair. 400 dead, mostly chum. Ob- struction above high tide
1000								struction above high tide
19\$\$ Oct 3	G	FWS	4\$0		12	ı		
19 <b>5</b> 6	G	rws	430		12	'		
Aug 28		FWS						3,000 chum at mouth
Sep 3		FWS	40,000		10,000	1		
Sep 17		FWS						900 pink at mouth
19\$7								
Sep 23	G 0.3	FRI			3, S00			Few pink. Creek is completely dry
1960	-	4 D B0 0	•					M a
Oct 7 1961	G	ADF&G	0		14			None at mouth
Aug 18	Α	ADF&G						None observed
Sep 5		ADF&G			4,000			Few at mouth
-					,			

K 162

55°19.7' N. 132°21.2' W. Previous No. 142A

KETCHIKAN, CLARENCE STRAIT, SKOWL ARM, McKENZIE INLET, S. head

MAJOR SPECIES Pink, chum

OTHER SPECIES

ESCAPEMENT TIMING Late. Sept. -Oct.

ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Fair in the intertidal zone where most of the spawning takes place and poor upstream.

STREAM TEMPERATURES Warm range

VALLEY DESCRIPTION

DRAINAGE 4 square miles (polar planimeter).

STREAM MOUTH IDENTIFICATION The stream empties into the S. W. corner of the head of McKenzie Inlet.

ANCHORAGE Same as for K 161.

TRAILS AND SURVEY ROUTES Game trails are found on both streambanks. Easy traveling up the streambed.

AERIAL SURVEY NOTES Short only enough time for a quick look. Fly upstream, make a turn and come back downstream.

GENERAL NOTES Fair escapements for the spawning facilities available.

### INTERTIDAL ZONE

LENGTH 200 yards

AVERAGE WIDTH/DEPTH

GRADIENT AND VELOCITIES BOTTOM LOW TIDE LOCATION HIGH TIDE LOCATION SCHOOLING AREAS

SPAWNING AREAS Most of the spawning takes place in this zone.

GENERAL NOTES

### UPSTREAM

LENGTH ACCESSIBLE 0.2 mile

AVERAGE WIDTH/DEPTH 20'-35'/6"-12"

GRADIENT AND VELOCITIES Moderate

BOTTOM Small rock, boulders, and gravel.

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS Impassable falls 0.4 mile upstream.

TRIBUTARIES

SCHOOLING AREAS

SPAWNING AREAS Poor spawning facilities are found above the intertidal zone. The bottom in this area is unsuitable for good spawning.

	SURVEYED		PIN	ік сн	UM	OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead Live	Dead	Live	Adjective rating
1930							
Oct 8	G0.8	FWS					Few chum, pink. 4,000 fish at mouth.
							Good early escapement
1940		77416	0.000	0.000			P 11 /
Oct 3 1941	G 0.4	FWS	8,000	2,000			Excellent
Oct 2	G0.5	FWS	8,500	1,500			Good
1942							
Sep 22	G0.4	FWS		5,000			Fair. 5,000 fish at mouth
1946 Oct 3	G 1.0	FWS	700	300			Good
1947	0 1.0		, 00	300			
Oct 4	G0.3 I	RI,FWS	25,000	25,000			Good
1948	2.00	EDI					No fish in stream
Aug 11	G0.S G0.S	FRI ASI					No fish in stream
Aug 18 Aug 26	G 1.0	ASI					No fish in stream
Sep 1	G0.5	ASI		337			110 11311 111 302 0 1111
Sep 8	G0.5	ASI		1, 250	473		
Sep 1S	G0.5	ASI		1,723	7/3		Good
Sep 26	G0.3	FWS	900	4, 185			Good
Sep 28	G0.3	ASI	500	5,000			Good
19 <b>53</b>	00.5	AJI	300	3,000			3000
Sep 21	G0.1	FWS	6	600			
Oct 15	G0.3	FWS		80	300		Poor
1955							
Oct 3	G0.3	FWS	500	50			
Aug 25		FWS	150	500			2,000-4,000 pink at mouth
Aug 26		FWS	200	000			2,000 chum at mouth
Sep 2		FWS					12,000 pink at mouth
1957		20					12,000 pink at mount
Sep 3		FWS	7,500	22, 500			Good
Sep 23	G 0.3	FWS	10	3, 400	200		Visibility excellent
1958							
Sep 20	A 0. S						Few live pink. Good visibility
1960							
Oct 7	G	ADF&G	0	8			None at mouth
1961							
Aug 18	Α .	ADF&G					100 at mouth

KETCHIKAN, CLARENCE STRAIT, SKOWL ARM, McKENZIE INLET, W. shore 1.7 miles from head

MAJOR SPECIES Pink, chum ESCAPEMENT TIMING

OTHER SPECIES ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES

STREAM TEMPERATURES Warm range

VALLEY DESCRIPTION

DRAINAGE 3 square miles (polar planimeter).

STREAM MOUTH IDENTIFICATION Runs into McKenzie Arm from the W. about 1 mile from the head of the arm.

ANCHORAGE Refer to K 161.

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES

GENERAL NOTES A small stream. Only 1 record of escapement and no record of physical features. Unimportant salmon stream.

### INTERTIDAL ZONE

LENGTH GRADIENT AND VELOCITIES воттом LOW TIDE LOCATION HIGH TIDE LOCATION SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

AVERAGE WIDTH/DEPTH

### UPSTREAM

LENGTH ACCESSIBLE GRADIENT AND VELOCITIES BOTTOM MARKER DISTANCE MARKER IDENTIFICATION BARRIERS SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

AVERAGE WIDTH/DEPTH

## ESCAPEMENT RECORD

	SURVEYED	)	PIN	K	CH	UM	OTHER SPECIES	REMARKS
Date	Miles	By	Live	Dead	Live	Dead	Live	Adjective rating
1948								
Sep 6	G 0.3	FWS	210		1,91\$			Good. 100 fish at mouth
1953								
Sep 21	G 0.1	FWS	6		100			



K 163 Previous No. 142

KETCHIKAN, CLARENCE STRAIT, SKOWL ARM, PAUL BIGHT, S. head

MAJOR SPECIES Pink, chum

OTHER SPECIES Red, coho

ESCAPEMENT TIMING Late. Sept. -Oct. FSCAPEMENT MAGNITUDE

SPAWNING FACILITIES Excellent spawning facilities throughout.

STREAM TEMPERATURES Warm range (estimated).

VALLEY DESCRIPTION Flows through a steep-sided valley.

DRAINAGE 7 square miles (polar planimeter). Precipitation fed. Several lakes are found in this drainage area.

STREAM MOUTH IDENTIFICATION The stream enters a lagoon at the head of Paul Bight. This lagoon lies between bedrock outcroppings.

ANCHORAGE. The bight affords good anchorage for small craft in S to 8 fathoms. In entering, favor the S.

TRAILS AND SURVEY ROUTES A fair trail follows the left stream bank for at least 1 mile upstream. Both the forks and the main stream are easily waded.

AERIAL SURVEY NOTES Valley wide enough for aircraft but light limits accuracy of count.

GENERAL NOTES One of the best spawning streams in Kasaan Bay.

## INTERTIDAL ZONE

LENGTH 0.75 mile

AVERAGE WIDTH/DEPTH 40'-S0'/20"-40"

GRADIENT AND VELOCITIES

BOTTOM Gravel

LOW TIDE LOCATION At the upper end of the tidal pool.

HIGH TIDE LOCATION 3S yards downstream from the weir cabin.

SCHOOLING AREAS The main schooling area is just off the mouth in the tidal pool. Other areas are found at the 11', 13', 15', and 18' tide levels.

SPAWNING AREAS Spawning occurs throughout this zone.

GENERAL NOTES

### UPSTREAM

LENGTH ACCESSIBLE 4-S miles

AVERAGE WIDTH/DEPTH 30'/8"

GRADIENT AND VELOCITIES Moderate to slow

BOTTOM Gravel

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS None

TRIBUTARIES The stream forks about 1.5 miles from the high tide mark. Both forks are ascended by salmon.

SCHOOLING AREAS Numerous pools are available for schooling.

SPAWNING AREAS Fish spawn in all areas throughout this stream. Heaviest spawning occurs just above the intertidal zone.

GENERAL NOTES A weir has been maintained on this stream since 1949. The weir and a cabin are found on the left bank just above the intertidal zone.

Date	SURVEYED Miles	Ву	PINK Llve Dead	CHUM Live Dead	OTHER SPECIES Live	REMARKS Adjective rating
1930						
Oct 9	G 3.0	FWS	285,000	15,000		Banks, flats covered with dead fish
Sep 21		FWS	10,000			Excellent. Chum numerous. 25,000 pink at mouth
1940		771.15	#F 000	e 000		Exactlent 20 000 fish at mouth
Oct 3 1941	G 1.3	FWS	75,000	5,000		Excellent. 20,000 fish ot mouth
Oct 2 1942	G 1.5	FWS	80,000	20,000		Excellent
Sep 2	G 0.8	FWS				No fish in stream
Sep 22 1946	G 1.5	FWS	40,000	10,000		Good. 50,000 fish at mouth
Oct 3 1947	G 1.0	FWS	75,000	4,000		Overseeded
Oct 3	G 0.5 F	RI,FWS	1,200	1, 200		Poor
Oct 4 1948		RI,FWS		2,500		Good. Run about over
Aug 11	G 0.5	ASI				None in stream
Aug 18	G 0.5	ASI				None in stream
Aug 26	G 0.5	ASI	2 000	700		None in stream Fair
Sep 8 Sep 1S	G 0. S G 0. S	ASI ASI	3,000 5,300	200		Good
Sep 13		FWS	22, 350	S, 750		Good. 5,000 off mouth
Sep 28 1949		ASI	23,000	2,000		
Oct 8 1950	Weir	FWS	23,036	19,407	32 coho, 12 red	5,000 spawned below weir
Oct 6 1951	Weir	FWS	15, 347	6,505	156 coho, 18 red	Final total. Weir installed Aug. 25
Oct 16 1952	Weir	FWS	51,675	22, 423	84 coho, 6 red	Final total. Weir installed Aug. 6
Oct 7		FWS	9, 433			Final total. Weir installed Sept. 1
Oct 12 1954	Weir	FWS	3,994	21, 995	146 coho	Final total. Weir installed Aug. 14
Oct 16	Weir	FWS	59,066	4, 119	392 coho	Final total. Weir installed Aug. 18
Oct 12 1956	Weir	FWS	21,185	3,866	130 coho, 10 red	4,000 spawned below weir
Sep 2		FWS				20,000 pink at mouth
Sep 18		FWS	1,945	4,500		Est. 45,000 to lower weir
Oct 6	Weir	FWS	33, 681	53, 661	S coho	Final total. Weir installed Aug. 18
Sep 14		FWS				2,000-3,000 at mouth
Sep 17		FWS	671	4 472		300 pink at mouth
Sep 17		FWS FWS	671	4, 473 675		
Sep 18 Sep 19		FWS		1, 184		
Sep 20		FWS	1,094	6, 244		709 pink at mouth
Sep 21		FWS	20	700		Big school
Sep 30 1959	) Weir	FWS	1, 248	19,704	24 coho	4,000 spawned below weir
Sep 12	2 A	FWS	1,000	140	200 coho	None of mouth
Sep 20		ADF&G		0		None at mouth
Sep 27		FWS	100	25		
196 <b>0</b> Oct 6		ADFEG	0	30		None at mouth

		SURVEYE	D	PINK		CHUM		OTHER SPECIES	REMARKS
Do	ate	Miles	By	Live	Dead	Live	Dead	Live	Adjective rating
10.									
196	51								
Aug	18	A	ADF&G						None observed
Sep	1	A	ADF&G	1,000					
Sep	18	G	ADF&G						S,000 pink and chum
_									FWS personnel

U.S. Fish & Wildlife Service Weir Counts

	U.S. Fish & Wildlife Service Weir Counts								
Date	Pink	Chum	Coho R	ed King	Stream Gage	Water Temp.	Remarks		
1949 Aug 14 15 16 17 18 19 20	1 2			1					
21 22 23 24 25 26 27 28 29 30 31 Sep 1 2 3 4	1 8 17 2 10 45 53	3 4 8 2 9 24 42 77 103 45 18 42 76		1					
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	11 60 25 5 75 824 3, 365 300 11 64 25 72 5,734	95 74 160 63 16 219 808 2,759 288 28 34 117 123 7,426		1					
22 23 24 25 26 27 28 29 30 Oct 1 2 3 4 5	1,638 1,043 359 313 298 383 1,438 387 554 882 4,157 874	1,882 782 198 241 216 264 597 129 264 346 1,428 397	6 11 2 7	8 1		No fish No fish No fish			
8 Total	23,036	19,407	32	12		Weir remov Estimate of	red fish spawned below 00 pink, not included		

in total

												K 103
Date	Pink	Chum	Coho	Red	King	Stream	Gauge	Water	Temp.	Air 7	Γemp.	Remarks
					_	A. M.	P. M.	A. M.	P. M.	A. M.	P. M.	
1950												
Aug 25	32	37	1	3			2.48		55		51	Rain. Water level
												2. 68 at 9:30 P. M.
26	205	109	9	6		2. 36	2.48	53	52	56	55	Rain
27	286	116	7	9		2. 10	1.74	52	53	54	56	Rain
28	199	66	5			2.94	2. 12	52	52	53	55	Shower, A.M. Cloudy,
29	20	53				1 00	1 70	50	50	40		P. M. 3.06 at 4:00 A. M.
30	26	35				1.98 1.48	1. 72 1. 44	50 51	53	49	56	Cloudy
31	1	9 9				1.44	1.36	50	52 52	49 42	53	Cloudy
Sep 1	68	139				2. 38	2. 18	51	52	54	56 56	Cloudy Showers
2	29	112				1.88	1. 68	50	52	50	56	Rain
3	185	90				1.80	1.90	52	53	55	57	Shower
4	2	30				1.70	1.86	50	52	51	55	Rain
5	406	435				2.66	2. 22	50	51	49	54	Showers
6	45	53	1			2. 12	1.96	50	52	50	55	Cloudy
7	168	80	8			1.88	1.82	50	52	49	52	Clear
8	296	86	6			1.78	1.48	48	52	42	55	Clear
9	27	43				1.50	1.46	49	58	45	59	Clear
10	68	49				1.40	1.40	50	59	46	61	Clear
11	365	41	3			1.38	1.38	53	54	55	57	Clear
12	29	22				1.36	1.36	51	55	48	60	Clear
13	1,438	33				1.36	1.34	49	53	46	58	Clear
14	1, 142	42	5			1.34	1.34	53	54	54	57	Cloudy
15	49	18				1.40	1.40	52	54	58	58	Cloudy
16	226	11	1			1.40	1.40	52	53	54	56	Cloudy
17	242	92				1.40	1.30	50	53	48	55	Cloudy
18	181	87				1. 30	1. 30	51	52	51	55	Cloudy
19	3, 382	697	26			1.38	1.68	52	53	55	61	Rain
20	2, 386	914	36			2.58	1.86	51	52	58	56	Cloudy
21	840	795	23			3.51	1.12	51 53	55 53	56 56	62 59	Roin Roin
22	434	312	9			3.06 4.76	3. 28 2. 88	51	51	<b>5</b> 6	56	Rain. 4.86 ot 1:00 A.M.
23 24	327 287	388 365				3.00	2.58	51	51	54	56	Rain
25	237	218	6			2.58	2. 22	50	51	54	55	Roin
26	169	225	Ū			2.00	1. 88	48	51	48	54	Showers
27	172	212	4			1.82	1.78	49	51	47	55	Cloudy
28	192	164	3			1.74	1. 68	42	49	42	52	Clear
29	179	127	3			1.60	1.56	46	49	44	51	Clear
30	148	107	_			1.50	1.48	45	48	39	50	Clear
Oct 1	133	42				1.44	1.38	45	47	39	50	Clear
2	102	14				1.34	1.32	42	41	35	41	Clear
3	<b>7</b> 6	8				1.28	1.26	42	47	32	50	Cloudy
4	38	5				1. 24	1. 24	46	49	48	<b>5</b> 6	Cloudy
5	338	24				1.44	1.38	46	49	48	52	Cloudy
6	172					2.76		46		49	53	Rain
Total	15,347	6,505	156	18								2,000 pink estimated
												below weir at time of
												closing, not included

	_							
Date	Pink	Chum	Coho	Red	King	Stream	Woter	Remarks
						Gage	Temp.	
1951								
Aug 6				2				
14				4				
16	1							
Sep 5	_	2						
6	18	23						
7	489	317						
8	730	440						
9	960	632						
10	226	114	1					
11	326	242	1					
12	626	542						
13	484	593						
14	2,363	411						
15	256	272						1st spawn-out appeared today - Chum
16	2,043	607						·
17	716	417						
18	245	282						
19	139	142						50,000 in Creek mouth. No pink spawning
20	140	252						
21	112	132						
22	142	176						
23	167	150						
24	522	365						First pink spawning
25	276	625						
26	115	514						
27	148	655						First dead pink. 65,000 between weir & bay
28	2, 852	2, 294						Creek rising
29	2,836	1,417						
30	4,426	2,051	6					
Oct 1	4,277	1,881	9					
2	4,976	1,617	11					
3	5,322	1,765	7					Creek high
4	3,420	1, 193	5					
5	4,563	1, 296	14					
6	3,742	826	18					
7								Creek very high, about 5,000 went over weir
8								No count made, water too discolored
9	1,276	123						
10	879	43	5					
11	784	5	7					
12								No count made, water too discolored. About
13								2,000 over weir. (13th same as 12th)
14	682							
15	396	7						
16								Weir dismantled. Fish could not go through
								gate & did not ascend when rocks were removed.
Total	51,675	22, 423	84	6				7,000 mixed went over weir on high water.
								25,000 spawned below weir in intertidal zone
1952								
Sep 1								
2								

Date	Pink	Chum	Coho	Red	King	Stream Gage	Water Temp.	Remarks
1952 Sep 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 Oct 1 2 3 4 5 6 7 Total	175 69 8 2 1 143 212 118 176 1,630 236 41 130 144 95 59 1,421 1,205 538 244 134 604 121 341 375 93 181 209 42 2 9,433							
1953 Aug 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	2	3				6 A. M.		Weir installed  1st pink noted below weir  1st chum noted below weir  3 chum below weir  2 pink below weir  3 pink beiow weir  17 pink and 2 chum below weir  No fresh fish at weir. Roinfall Aug 10-31  3. 28 inches
Sep 1 2 3						1.00		8 pink at weir, 50 pink & chum downstream, about 200 pink & chum in boy at mouth of creek. Creek very low

Date	Pink	Chum	Coho	Red	King Stream	Water	Remarks	
					Gage	Temp.		
					6 A. M.			
1953								
Sep 4	_				0.98			
5	6 1	2			0.98			
6 7	1	2			0.96		5 pink at weir	
8		20			1.04		Roin	
9	682	363	4		1. 78		Rain	
10	155	123	3		1. 30		Rain	
11	356	400	9		1.88		Rain. 1st chum noted spawning	
12	392	265	5		1.32		Rain	
1 <b>3</b>	643	522	9		1.96		Rain. 1st dead fish noted, a chum	
14	108	174			1.46		Rain	
15	165	492	1		2. 16		Roin	
16	18	664	2		1.50		Rain	
17	29	1, 387			1.86		Rain	
18	4	191	1		1.44		Rain	
19	1	44			1.46		Rain. About 2,000 fish in bay	
20	6	143			1. 28		Rain	
21	601	4,549	11		1.82		Rain	
22	71	1,094	4		1.62		Rain	
23	52	614	8		1.38		Rain	
24	118	2,974	7		1.96		Rain	
25	28	587	6		1. 6 <del>4</del> 2. 80		Rain Heavy rain. Staff gauge reading at 2 l	M
26					2. 80		3. 36, about 3,500 fish below weir	• 1AT•
27	245	2, 362	28		2.56		1st dead pink seen	
28	1	322	4		1.78		Rain	
29	15	412	1		2.00		Rain	
30	2	337	1		2.04		Rain	
Oct 1	8	312	2		1.68		Rain	
2	59	1, 115			2.04		Rain	
3	67	587	12		2.54		Rain	
4	34	486	7		2. 22		Rain	
5	60	446	11		2. 26		Rain	
6	43	396	8		2. 26		Rain	
7	22	243			1.80		Rain	_
8					4.06		Heavy rain, creek very high, about 60	
							went over and downstream through over	rilow
0		102	2		2.40		gates in weir	
9 10		183	2		2. 48		Rain Rain	
11		123 56			2. 58 3. 56		Rain	
12		30			3.60		Rain. About 50 chum below weir, nor	ıe.
Total	3,994	21,995	146		3.00		in bay. Commenced to remove weir	
	-,	,	0					
1954					A. M.	A. M.		
Aug 18							First fish at weir - chum	
19							4 pink, 1 chum at creek mouth	
20								
21							300 pink, few chum at mouth	
22								
23								
24					0.84		500 pink & chum at mouth, 1 at weir.	No
05	1						water in creek	
25	1	1					1 pink, 3 chum at weir	
26 27					0.78		2 pink, 76 chum at weir	reel
21					0.78		1, 200 pink & chum at creek mouth. C going down	LCCK
							going down	

Date	Pink	Chum	Coho	Red	King	Stream	Water	Remarks
						Gage	Temp.	
						A. M.	A. M.	
1954								
Aug 28								
29								
30								
31						0. 78		2,000 pink and chum at mouth
Sep 6	2, 324	1,326	1			1.66		Raining
7	3,877	123	4			1.46	49	Cloudy with rain
8	5, 157	278	8			2.04	50	Heavy rain during night
9	1,024	10				1. 32	48	Clear
10	883	1				1. 22	48	Clear. First chum spawning
11	220	3				1. 18	48	Clear. Est. 15,000 in bay. Pink fresh
12	554	5				1. 12	50	Cloudy, light rain
13	1,525	151				1. 12	50	Cloudy, showers
14	1,909	219	6			1. 24	50	Cloudy. Est. 20,000 in bay, 90% pink
15	704	27	2			1. 16	48	Clear
16	242	1				1.12	46	Clear
17	139	56	2			1.08	46	Cloudy
18	6 <b>3</b>					1.08	49	Partly cloudy. First pink spawning. Est. 35,000
							_	fish in bay. Few chum
19	12	4				1.06	50	Partly cloudy
20	51	9				1.06	52	Cloudy, drizzle
21	126	67				1.06	52	Cloudy, showers
22	331	108				1. 24	50	Cloudy, showers
23	538	175				1.40	50	Cloudy, light rain
24	1,406	371	6			1.44	50	Cloudy, showers
25	8, 264	464	11			1.58	50	Cloudy, showers
26	520	62	6			1.76	49	Cloudy, drizzle
27	294	3	·			1. 60	48	Clear
28	158	2				1. 26	48	Clear
29	214	4	56			1. 26	44	Partly cloudy
30	745	3	61			1. 20	44	Clear
Oct 1	1,124	1	31			1. 12	44	Clear
2	339	4	23			1. 12	42	Clear
3	248	17	16			1. 10	36	Clear
4	185	21	9			1. 10	36	Clear
5	107	9	6			1. 10	36	Clear
6	117	5	13			1. 10	38	Partly cloudy
7	176	2	8			1. 10	38	Partly cloudy. Thousands of fish dying of no
· ·	170	-	3			1. 10	30	water in creek
8	67		5			1. 10	42	Cloudy with drizzle
9	2,476	86	22			1. 10	44	Cloudy, light rain. Est. 10,000 fresh fish died
,	2, 170	00				1. 10	-2-%	from lack of water
10	10,947	355	41			1.74	46	Rain
11	7, 263	117	35			1. 56	44	Showers
12	3,473	27	18			2. 30	43	Showers
13	1, 263	2	2			1.76	41	Rain
14	1, 200	_	-			3. 80	44	No fish today. Creek going over banks. Will
						3. 00		pull weir as soon as creek goes down
15						2. 14	44	No more fish in bay, all in creek. About
13						E. IT		8,000 fresh fish all over meadow high and dry,
								left when tide went out
16								Est. 25,000 pink in creek below weir. 8,000
20								in Little Tom. These not included in total
Total	59,066	4, 119	392					
20001	22,000	2, 110	W.E					

Date	Pink	Chum	Coho Re	d King	Stream Gage	Water Temp.	Remarks	
1955					Gage	remp.		
Aug 16		4						
18	4							
24	10	8	4					
31	2	2	2					
Sep 1	23	36	2					
2	2	11	2					
4	2	20						
5	2							
6								
7		1						
8								
9		3						
10	4	14						
11 12	11 528	11 151	1					
13	3, 164	286	1					
14	190	79	-					
15	187	57						
16	103	46						
17	47	37						
18	1,994	242	2					
19	444	190	4					
20	481	190						
21 22	320 213	94 99						
23	103	45						
24	3,731	412						
25	1, 237	336	2					
26	230	98	6 2					
27	190	69	2					
28	107	45	2 2					
29	915	239	2					
30 Oct 1	592 961	203 144	2 17					
2	3, 347	288	50					
3	1, 388	178	14					
4	174	60	9					
5	131	10	2					
6 7	254	142	2					
7								
8								
9 10	81	4	1				These counts for Oct 7-10 inc	alumino.
11	01	*	1				These counts for Oct 7-10 inc	ilusive
12	31	2					These counts for Oct 11-12	
Total	21, 185	3,866	130				4,000 below weir, not includ	ed in total
1956								
Aug 18	7						First fish through weir	
19	11						· ·	
20	44	11						
21	34	9	1					
22	24	26						
23	13	2						
24 25	2							
26								
20								

Date	Pink	Chum	Coho	Red	King	Stream Gage	Water Temp.	Remarks
1956 Aug 27 28 29 30 31 Sep 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 Oct 1 2 3 4 5 6	89 743 30 31 41 56 182 146 118 79 15 10 30 36 21 41 27 29 104 212 6, 264 96 211 713 75 72 39 25 49 438 115 4,030 488 93 8,208 1,868 51 1,171	3 119 273 26 17 14 14 14 34 58 139 281 82 67 179 213 538 523 480 629 636 326 3,553 502 808 4,675 647 911 320 142 362 3,225 1,200 13,345 2,327 352 5,856 1,856 98 1,283	1 1 1 1			Gage	lemp.	
Total	26, 181	46, 161	5					7,500 pink and 7,500 chum est. below weir, not included in total
1957 Sep 4 5 6 7 8 9 10 11 12 13 14 15	38 550 57 22 6 5 4 2 6 2	12 1,503 156 65 110 74 122 291 234 355 233 281	6 6 1					This count up to Sep 4



GOOSE COVE

K 164 Previous No. 142K

KETCHIKAN, CLARENCE STRAIT, SKOWL ARM, POLK INLET, GOOSE COVE, . Head

MAJOR SPECIES Chum ESCAPEMENT TIMING Late. OTHER SPECIES Pink ESCAPEMENT MAGNITUDE

AVERAGE WIDTH/DEPTH

SPAWNING FACILITIES

STREAM TEMPERATURES Warm range (estimated).

VALLEY DESCRIPTION

DRAINAGE 2.3 square miles (polar planimeter).

STREAM MOUTH IDENTIFICATION

ANCHORAGE

TRAILS AND SURVEY ROUTES The banks have open timber with moderate brush.

AERIAL SURVEY NOTES

GENERAL NOTES Only one escapement record.

#### INTERTIDAL ZONE

LENGTH GRADIENT AND VELOCITIES BOTTOM LOW TIDE LOCATION HIGH TIDE LOCATION SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

## UPSTREAM

LENGTH ACCESSIBLE 0.3 mile to falls GRADIENT AND VELOCITIES Gentle BOTTOM Large rubble. MARKER DISTANCE MARKER IDENTIFICATION BARRIERS A 6' to 8' falls is found 0.3 mile upstream. Not reported whether passable or impassable. TRIBUTARIES

AVERAGE WIDTH/DEPTH 25'-30'/4"-6"

SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

#### ESCAPEMENT RECORD

	SURVEYED		PINK		СН	UM	OTHER SPECIES	REMARKS
Date	Miles	By	Live	Dead	Live	Dead	Live	Adjective
1948								
Sep 27	G 0. 3	FWS	45		850			Poor. 30 fish off mouth
1953								
Sep 17	G 0. 3	FWS	1		500			Poor



POLK CREEK

K 16S Previous No. 1421

KETCHIKAN, CLARENCE STRAIT, SKOWL ARM, POLK INLET, Head

MAJOR SPECIES Pink, chum

OTHER SPECIES

ESCAPEMENT TIMING Late (estimated)

ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Fair to good

STREAM TEMPERATURES Warm range (Observed temperature: 49.8° F., 10/4/47).

VALLEY DESCRIPTION

DRAINAGE 6.9 square miles (polar planimeter).

STREAM MOUTH IDENTIFICATION Enters Polk Inlet from the E. about 0.5 mile from the head of the inlet.

ANCHORAGE Polk Inlet is unsurveyed, enter with caution. Appears to be clear for about S miles within the entrance.

TRAILS AND SURVEY ROUTES No trails. The stream is easily waded.

AERIAL SURVEY NOTES

#### INTERTIDAL ZONE

LENGTH

AVERAGE WIDTH/DEPTH

GRADIENT AND VELOCITIES
BOTTOM Small rock; some gravel.

LOW TIDE LOCATION

HIGH TIDE LOCATION SCHOOLING AREAS Most spawning occurs in this area.

SPAWNING AREAS
GENERAL NOTES

#### UPSTREAM

LENGTH ACCESSIBLE

AVERAGE WIDTH/DEPTH 40'/8"-12"

GRADIENT AND VELOCITIES Moderate to swift

BOTTOM Boulders and small rock.

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS A series of falls begins 250' upstream. These falls block the ascent of salmon.

TRIBUTARIES

SCHOOLING AREAS

SPAWNING AREAS Not exceptionally good spawning area.

GENERAL NOTES

## ESCAPEMENT RECORD

	SURVEYED PINK		K	CH	UM	OTHER SPECIES	REMARKS	
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1930								
Oct 12 1947	G 0. 3	FWS	S					Poor
Oct 4 1948	G 0. 3	FRI-FWS	S,000		10,000			Good
Sep 27 1982	G 0.3	FWS			3,600			Poor. 250 fish at mouth
Sep 16 1953	G.0, 2	FWS	0		200	0		
Sep 16	G 0.3	FWS	0		100	Q		Poor. 50 chum in intertidal
Oct 17 19SS	G 0. 1	FWS	0		2	0		Poor. Some dead
Oct 4	G	FWS	30		15			Poor



KETCHIKAN, CLARENCE STRAIT, SKOWL ARM, POLK INLET, E. shore 1.8 miles from head

MAJOR SPECIES Pink, chum
ESCAPEMENT TIMING
SPAWNING FACILITIES Poor.
STREAM TEMPERATURES Worm range

OTHER SPECIES ESCAPEMENT MAGNITUDE

VALLEY DESCRIPTION

DRAINAGE S. 7 square miles (polar planimeter).

STREAM MOUTH IDENTIFICATION Lies at the N.E. end of a small bay 1. S miles N. of K 16S.

ANCHORAGE See K 16S.

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES

GENERAL NOTES An insignificant salmon stream. No records of escapement.

#### INTERTIDAL ZONE

LENGTH
GRADIENT AND VELOCITIES
BOTTOM
LOW TIDE LOCATION
HIGH TIDE LOCATION
SCHOOLING AREAS
SPAWNING AREAS

GENERAL NOTES

AVERAGE WIDTH/DEPTH

## UPSTREAM

LENGTH ACCESSIBLE
GRADIENT AND VELOCITIES
BOTTOM
MARKER DISTANCE
MARKER IDENTIFICATION
BARRIERS
TRIBUTARIES
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES

AVERAGE WIDTH/DEPTH

## ESCAPEMENT RECORD

SURVEYED			PINK		CHUM		OTHER SPECIES	REMARKS
Date	Miles	By	Live	Dead	Live	Dead	Live	Adjective rating
								,
1948								
Sep 27	G0.1	FWS	10		20			Poor. 10 fish at mouth
Sep 27	G 0.1	FWS	10		20			Poor. 10 fish at mouth



Previous No. 142H

KETCHIKAN, CLARENCE STRAIT, SKOWL ARM, POLK INLET, 0.3 mile N. W. of head

MAJOR SPECIES Pink, chum

OTHER SPECIES Coho

ESCAPEMENT TIMING Late (estimated) ESCAPEMENT MAGNITUDE SPAWNING FACILITIES Good

STREAM TEMPERATURES Warm range (estimated).

VALLEY DESCRIPTION

DRAINAGE 7 square miles (polar planimeter).

STREAM MOUTH IDENTIFICATION The stream enters the head of Polk Inlet.

ANCHORAGE Same as for K 16S.

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES Stream banks have been logged; visibility excellent.

GENERAL NOTES One escapement record. No record of physical features or indication of importance as a salmon stream.

#### INTERTIDAL ZONE

LENGTH

AVERAGE WIDTH/DEPTH

AVERAGE WIDTH/DEPTH

GRADIENT AND VELOCITIES Moderate BOTTOM Rubble. LOW TIDE LOCATION

HIGH TIDE LOCATION SCHOOLING AREAS

SPAWNING AREAS Most spawning occurs in this area.

GENERAL NOTES

#### UPSTREAM

LENGTH ACCESSIBLE GRADIENT AND VELOCITIES BOTTOM MARKER DISTANCE MARKER IDENTIFICATION

BARRIERS

TRIBUTARIES Forks <1 mile upstream. The W. fork is about 1.5 miles long and drains a small lake.

SCHOOLING AREAS

SPAWNING AREAS Limited spawning.

GENERAL NOTES

	SURVEYED	)	PIN	тК	CHUM	OTHER SPECIES	REMARKS
Date	Miles	By	Live	Dead	Live Dead	Live	Adjective rating
1930							
Oct 12	G	FWS	1\$				Poor. Very poor showing of dead fish
1942							
Sep 21	G 0.5	FWS	1,000				Fair
1948							
Sep 27	G 0.5	FWS	215		S,000		Fair. 250 off mouth
1953					•		
Sep 16	G 0.3	FWS	12		500	8 coho	
Oct 17	G 0. 3	FWS	2		0		Visibility poor. Stream high
1955	0 0		_		_		, .
Oct 4	G	FWS	50		SO		Poor
1986	G	1113	30		30		
	_	mue					2,000 chum, coho, pink
Aug 21	G	FWS			000		z, ooo chum, cono, pink
Aug 28	G	FWS			900		· ·
Sep 2	G	FWS					7, 200 pink at mouth

K 167 Previous No. 142G

KETCHIKAN, CLARENCE STRAIT, SKOWL ARM, POLK INLET, W. shore 3 miles from head

MAJOR SPECIES Pink, chum

OTHER SPECIES

ESCAPEMENT TIMING Late (estimated)

ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Limited in the intertidal zone, scattered in the upstream areas.

STREAM TEMPERATURES Warm range (No observed temperatures).

VALLEY DESCRIPTION Stream-cut. Most of the valley has been logged.

DRAINAGE 18 square miles (polar planimeter). Precipitation fed.

STREAM MOUTH IDENTIFICATION The stream enters the S. side of a small bay about 2.5 miles from the head of Polk Inlet. Enters the inlet from the W. side.

ANCHORAGE Refer to K 165.

TRAILS AND SURVEY ROUTES Fairly easy going along the stream bed.

AERIAL SURVEY NOTES Aerial visibility poor due to dark water.

GENERAL NOTES Good escapements to this stream have been reported. Needs further surveying.

#### INTERTIDAL ZONE

LENGTH 250 yards

AVERAGE WIDTH/DEPTH 20'-30'/9"-12"

GRADIENT AND VELOCITIES Moderate

BOTTOM Boulders, mud, sand and silt.

LOW TIDE LOCATION

HIGH TIDE LOCATION

SCHOOLING AREAS Off the mouth.

SPAWNING AREAS This zone has very limited spawning use, the bottom composition consisting largely of fine sediments.

GENERAL NOTES A short zone.

#### UPSTREAM

LENGTH ACCESSIBLE

AVERAGE WIDTH/DEPTH 35'/9"

GRADIENT AND VELOCITIES Moderate

BOTTOM Bedrock in places, large gravel.

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS Falls 1 mile upstream are impassable to salmon

TRIBUTARIES None

SCHOOLING AREAS

SPAWNING AREAS Spawning occurs in scattered areas.

GENERAL NOTES

	SURVEYE	D	PINK		СНИМ		OTHER SPECÍES	REMARKS
Date	Miles	By	Live	Dead	Live	Dead	Live	Adjective rating
1930								
Oct 11 1940	G 0.8	FWS	500					Poor. Very few dead fish
Sep 27 1942	G 0.8	FWS	20,000					Good. 3,000 fish at mouth
Sep 21 1948	G 1.0	FWS	5,000		15,000			Good. 10,000 fish at mouth
Sep 27 1952	G 0.8	FWS	275		2, 120			Poor
Sep 16 1953	G 0.3	FWS						No fish present
Sep 17 1960	G0.1	FWS	0		6			Poor. Water too brown & deep
Sep 2 1961	G	ADF&G	0		50			None at mouth
Sep 1	A	ADF&G			200			75 at mouth

KETCHIKAN, CLARENCE STRAIT, SKOWL ARM, POLK INLET, W. shore 3.5 miles from head

MAJOR SPECIES Pink, chum ESCAPEMENT TIMING SPAWNING FACILITIES Poor

OTHER SPECIES ESCAPEMENT MAGNITUDE

AVERAGE WIDTH/DEPTH

STREAM TEMPERATURES Warm range

VALLEY DESCRIPTION A long, low watershed, most of which has been logged.

DRAINAGE 4.6 square miles (polar planimeter).

STREAM MOUTH IDENTIFICATION Lies at the head of the first bight on the W. shore of Polk Inlet.

ANCHORAGE Same as for K 16S.

TRAILS AND SURVEY ROUTES Easily hiked at low water stages.

AERIAL SURVEY NOTES Not surveyed from the air due to dark water.

GENERAL NOTES Scant information is available on this stream,

#### INTERTIDAL ZONE

LENGTH GRADIENT AND VELOCITIES BOTTOM LOW TIDE LOCATION HIGH TIDE LOCATION SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

## UPSTREAM

LENGTH ACCESSIBLE GRADIENT AND VELOCITIES Gentle BOTTOM MARKER DISTANCE MARKER IDENTIFICATION BARRIERS TRIBUTARIES SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

AVERAGE WIDTH/DEPTH 20'-30'/6"-8"

## ESCAPEMENT RECORD

	SURVEYED		PIN	PINK		UM	OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1942								
Sep 20	G 1.0	FWS	3,000		3,000			Fair
1948								
<b>S</b> ep 27	G 0.1	FWS	S		15			Poor. 30 at mouth
1952								
<b>S</b> ep 16	G0.2	FWS						No fish present
1983								
<b>S</b> ep 17	G0.4	FWS	3		36			Poor
Oct 17	G 1.0	FWS	0		0			Poor visibility. Flooding



55°25.3 N. 132°28' W.

KETCHIKAN, CLARENCE STRAIT, SKOWL ARM, POLK INLET, W. shore 7.6 miles from head

MAJOR SPECIES Pink, chum
ESCAPEMENT TIMING Late

OTHER SPECIES Coho

ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Fair. The lower one-fourth mile has the best spawning facilities. Limited facilities are available in the intertidal zone.

STREAM TEMPERATURES Warm range (estimated).

VALLEY DESCRIPTION Steep slopes. Narrow. Heavily wooded. In the process of being logged off.

DRAINAGE 11 square miles (polar planimeter). Precipitation fed.

STREAM MOUTH IDENTIFICATION Enters Polk Inlet 0. 5 mile W. of K 170. Mouth is rather difficult to see from bay because it winds a good deal.

ANCHORAGE Refer to K 16S.

TRAILS AND SURVEY ROUTES Steep banks and heavy brush make travel along this stream difficult.

Game trails follow the stream banks.

AERIAL SURVEY NOTES Easily flown. Dark water limits visibility.

GENERAL NOTES One of the best streams in the unlet.

#### INTERTIDAL ZONE

LENGTH 300 yards

AVERAGE WIDTH/DEPTH 20'-25'/10'-14"

GRADIENT AND VELOCITIES Moderate

BOTTOM Lower muddy - gravel upper

LOW TIDE LOCATION

HIGH TIDE LOCATION

SCHOOLING AREAS Off the mouth

SPAWNING AREAS The upper part could be utilized, but only a limited amount has suitable bottom composition.

GENERAL NOTES

## UPSTREAM

LENGTH ACCESSIBLE 1 mile

AVERAGE WIDTH/DEPTH 20'-50'/6"-15"

GRADIENT AND VELOCITIES Moderate to swift

BOTTOM Small rock, boulders and shale.

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS Falls 1 mile upstream are impassable.

TRIBUTARIES

SCHOOLING AREAS

SPAWNING AREAS The lower one-fourth mile has a bottom largely of gravel and offers the best spawning conditions in the stream. Most of the spawning takes place in this area.

GENERAL NOTES 300 yards above the intertidal zone there is a difficult rapids, passable to most fish.

# CABIN CREEK

K 169 Previous No. 142E

# ESCAPEMENT RECORD

						•	3	or ricital surveys by Aj
	SURVEY		PIN	īK	CI	IUM	OTHER SPECIES	REMARKS
Date	Mile	в Ву	Live	Dead	Live	Dead	Live	Adjective rating
1930								
Oct 11 1940	G 1.0	0 FWS	S, 000					Good. Fair showing of dead fish
Sep 27 1941	G 0.	B FWS	8,000					Good. 2,000 fish off mouth
Oct 2 1942	G 1.0	) FWS	SO, 000					Excellent
Sep 20 1946	G 0. S	s FWS	2,000		3,000			Good. 8,000 fish at mouth
Oct 3 1947	G 0.5	FWS	20,000					Overpopulated
Oct 4 1948	G 0. 3	FRI,FWS	7,000					Good
Sep 28 1952	G 0.3	FWS	1, 150		4, 350			Good
Sep 16 1955		FWS						No fish in stream. 1 chum at mouth
Oct 4 1956	G	FWS	1,500		350			
Sep 2 19S9		FWS	5,000					S,000 pink at mouth
Aug 12	A	FWS	1,500		0			
Sep 2	A	FWS	3,500		0			
Sep 27	Α	FWS	-,		Ū			Water too high
1960								water too mgn
Sep 2 1961	G	ADF&G	0		0			None at mouth
Sep 15	A	ADF&G			200			All old fish

55° 25.6' N. 132° 27.5' W.

K 170 Previous No. 142D

KETCHIKAN, CLARENCE STRAIT, SKOWL ARM, POLK INLET, N. shore 8 miles from head

MAJOR SPECIES Pink, chum ESCAPEMENT TIMING SPAWNING FACILITIES Poor

OTHER SPECIES Coho ESCAPEMENT MAGNITUDE

STREAM TEMPERATURES Warm range

VALLEY DESCRIPTION The lower valley is made up of rolling hills, while the upper valley is mountainous. Heavily forested with second growth spruce and hemlock.

DRAINAGE 34 square miles (palar planimeter). Drains 4 lakes-Lake Mary, Old Franks Lake, and two unnamed lakes, all interconnected by short streams.

STREAM MOUTH IDENTIFICATION The stream enters the upper end of Polk Inlet, about 1 mile W. of the bay entrance. Flows into the bay from the N.

ANCHORAGE Refer to K 16S.

TRAILS AND SURVEY ROUTES Travel is difficult. A trail follows the right bank.

AERIAL SURVEY NOTES Dark water and heavy brush limit visibility.

#### INTERTIDAL ZONE

LENGTH 300 yards

AVERAGE WIDTH/DEPTH 40'-S0'/12"-20"

GRADIENT AND VELOCITIES Moderate

BOTTOM Medium to coarse gravel.

LOW TIDE LOCATION

HIGH TIDE LOCATION

SCHOOLING AREAS Schooling salmon concentrate below the law tide mark.

SPAWNING AREAS Spawning has not been reported to take place in this zone, but conditions are suitable for such activities.

GENERAL NOTES

#### UPSTREAM

LENGTH ACCESSIBLE 1.25 miles

AVERAGE WIDTH/DEPTH S0'/18"

GRADIENT AND VELOCITIES Moderate to steep

BOTTOM Shale and bedrock.

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS Falls 1. 25 miles upstream are impassable to salmon.

TRIBUTARIES

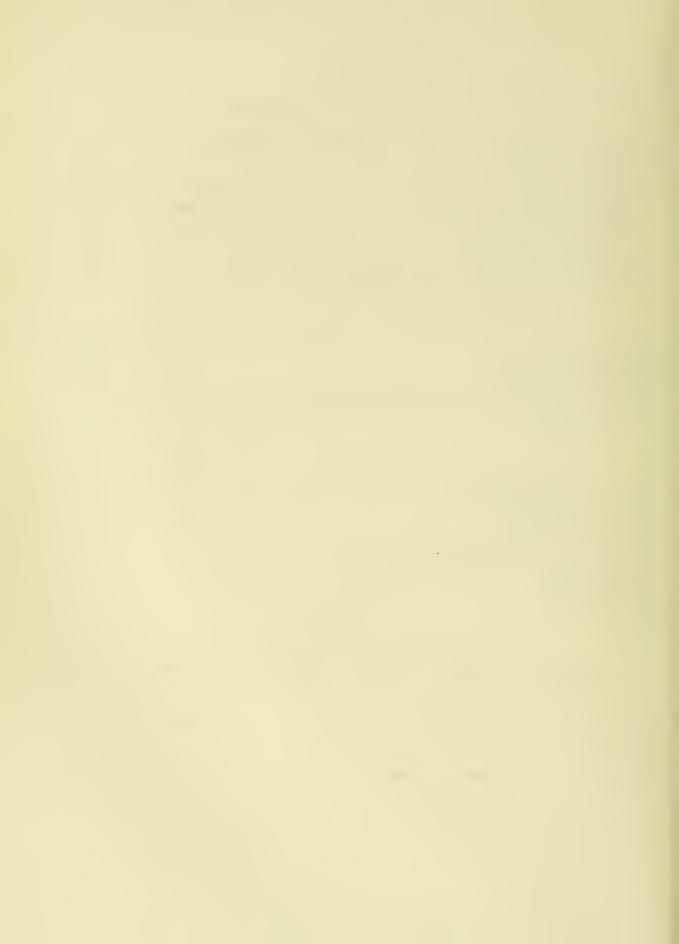
SCHOOLING AREAS A couple small pools below the falls.

SPAWNING AREAS

GENERAL NOTES

#### ESCAPEMENT RECORD

SURVEYED		PINK		СНИМ		OTHER SPECIES	REMARKS	
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1930								
Oct 11	G 1.3	FWS	20,000					Well seeded. Few chum
1941								
Oct 2	G 1. S	FWS	20,000					Fair
1946								
Oct 3	G 0.8	FWS	4,000		1,000			



113-12 55°25.6' N. 132°25' W.

K 171 Previous No. 142C

KETCHIKAN, CLARENCE STRAIT, SKOWL ARM, N. shore 2 miles W. of Old Kasaan National Monument

MAJOR SPECIES Pink
ESCAPEMENT TIMING
SPAWNING FACILITIES
STREAM TEMPERATURES Warm range

OTHER SPECIES
ESCAPEMENT MAGNITUDE

VALLEY DESCRIPTION

DRAINAGE 3 square miles (polar planimeter) STREAM MOUTH IDENTIFICATION

ANCHORAGE A fair-weather anchorage can be made offshore from the S.W. end of the old Kasaan Village.
TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES

GENERAL NOTES Only 1 record of escapement, giving only the number of fish. Unimportant salmon stream.

## INTERTIDAL ZONE

LENGTH
GRADIENT AND VELOCITIES
BOTTOM
LOW TIDE LOCATION
HIGH TIDE LOCATION
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES

AVERAGE WIDTH/DEPTH

#### UPSTREAM

LENGTH ACCESSIBLE
GRADIENT AND VELOCITIES
BOTTOM
MARKER DISTANCE
MARKER IDENTIFICATION
BARRIERS
TRIBUTARIES
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES

AVERAGE WIDTH/DEPTH

#### ESCAPEMENT RECORD

[Counts made by ground surveys are designated by G. Aerial surveys by A]

SURVEYED PINK CHUM OTHER SPECIES REMARKS
Date Miles By Live Dead Live Dead Live Adjective rating



KETCHIKAN, CLARENCE STRAIT, SKOWL ARM, N. shore 0.7 mile W. of Old Kasaan National Monument

MAJOR SPECIES ESCAPEMENT TIMING SPAWNING FACILITIES

OTHER SPECIES ESCAPEMENT MAGNITUDE

STREAM TEMPERATURES Warm range.

VALLEY DESCRIPTION The stream flows through a narrow v-shaped valley for about one-third mile and then enters a wide muskeg area.

DRAINAGE 1 square mile (polar planimeter) STREAM MOUTH IDENTIFICATION

ANCHORAGE Refer to K 171.

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES

GENERAL NOTES No record of escapement or physical features. Not an important salmon stream.

## INTERTIDAL ZONE

LENGTH GRADIENT AND VELOCITIES BOTTOM LOW TIDE LOCATION HIGH TIDE LOCATION SCHOOLING AREAS SPAWNING AREAS

GENERAL NOTES

AVERAGE WIDTH/DEPTH

### UPSTREAM

AVERAGE WIDTH/DEPTH 10!-15'/4"-6"

LENGTH ACCESSIBLE GRADIENT AND VELOCITIES BOTTOM MARKER DISTANCE MARKER IDENTIFICATION BARRIERS TRIBUTARIES SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

## ESCAPEMENT RECORD

SURVEYED		PINK		CHUM		OTHER SPECIES	REMARKS	
Date	Miles	By	Live	Dead	Live	Dead	Live	Adjective rating
1948								
Sep 26	G 0.3	FWS	55		5			Poor. 35 fish at mouth
1953								
<b>S</b> ep 30	G 0. 1	FWS	22	23	0	3		Poor to fair. 2 chum at mouth



S CREEK K 172
Previous No. 143C

KETCHIKAN, CLARENCE STRAIT, KASAAN BAY, S. shore 2.5 miles W. of Baker Point

MAJOR SPECIES Pink

OTHER SPECIES

ESCAPEMENT TIMING

ESCAPEMENT MAGNITUDE

AVERAGE WIDTH/DEPTH

SPAWNING FACILITIES Fair to good.

STREAM TEMPERATURES Warm range.

VALLEY DESCRIPTION

DRAINAGE 2 square miles (polar planimeter).

STREAM MOUTH IDENTIFICATION The mouth lies at the head of the first cove E. of Coal Bay.

ANCHORAGE

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES

GENERAL NOTES No escapement records. Not an important salmon stream.

## INTERTIDAL ZONE

LENGTH
GRADIENT AND VELOCITIES
BOTTOM
LOW TIDE LOCATION

HIGH TIDE LOCATION

SCHOOLING AREAS SPAWNING AREAS

GENERAL NOTES The lower 0.4 mile flows through a tideflat meadow.

#### UPSTREAM

LENGTH ACCESSIBLE 3.5 miles to lake

AVERAGE WIDTH/DEPTH 10'-20'/4"-6"

GRADIENT AND VELOCITIES

BOTTOM

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS

TRIBUTARIES

SCHOOLING AREAS

SPAWNING AREAS The first 0.4 mile has fair spawning facilities, above this good spawning facilities extend for an unknown distance.

GENERAL NOTES

## ESCAPEMENT RECORD

Date	SURVEYED Date Miles By		PINK Live Dead		 UM Dead	OTHER SPECIES Live	REMARKS Adjective rating
1948 Sep 25	G 0.5	FWS	1,400				Fair. 500 fish off mouth



113-12 55°29.9' N. 132°29.2' W.

K 173 Previous No. 143A

KETCHIKAN, CLARENCE STRAIT, KASAAN BAY, COAL BAY, Head

MAJOR SPECIES Pink

OTHER SPECIES Coho

ESCAPEMENT TIMING Late (estimated)

ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Fair.

STREAM TEMPERATURES Warm range. (No observed temperatures.)

VALLEY DESCRIPTION

DRAINAGE 3 square miles (polar planimeter).

STREAM MOUTH IDENTIFICATION The stream enters Coal Bay about halfway down the E. shore.

ANCHORAGE The bay offers good protection from all except northerly winds. A reet extends 0.3 mile in a northerly direction off the western point of the entrance to the bay.

TRAILS AND SURVEY ROUTES Easily hiked.

AERIAL SURVEY NOTES Open enough for satisfactory aerial survey.

## INTERTIDAL ZONE

LENGTH
GRADIENT AND VELOCITIES
BOTTOM
LOW TIDE LOCATION
HIGH TIDE LOCATION
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES

AVERAGE WIDTH/DEPTH

## UPSTREAM

LENGTH ACCESSIBLE
GRADIENT AND VELOCITIES

AVERAGE WIDTH/DEPTH 12'/5"

BOTTOM

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS There have been some log and rubble dams in this stream, but none were complete barriers.

TRIBUTARIES

SCHOOLING AREAS

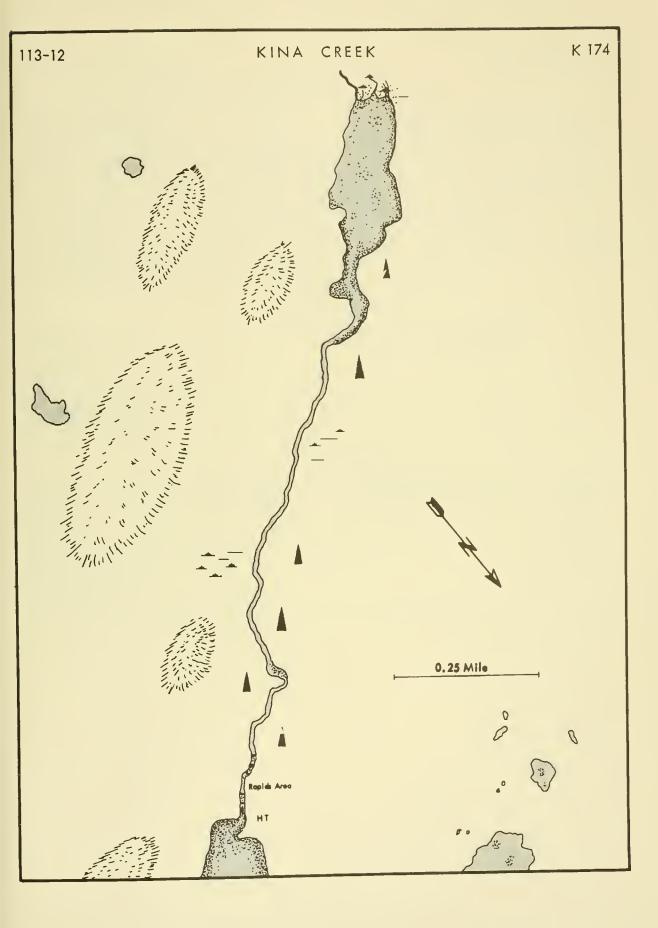
SPAWNING AREAS

GENERAL NOTES The slopes along this stream have been logged.

## ESCAPEMENT RECORD

	SURVEYED		PIN	PINK		JM	OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1940								
Sep 25	G 0. 8	FWS	5,000					Good. 2,000 fish at mouth
1948								
Sep 25	G 0, 3	FWS						No fish seen
1983								
Sep 30 1986	G 0.1	FWS	0		0			No other species
Season		FWS	4,000				500 coho	Season total by streamguard
1987								
Season		FWS	4.000				S00 coho	Good







K 174 Previous No. 143

KETCHIKAN, CLARENCE STRAIT, KASAAN BAY, KINA COVE, Head

MAJOR SPECIES Pink

ESCAPEMENT TIMING Late (estimated)

OTHER SPECIES Chum, coho, red, trout

ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Poor in the lower 0.4 mile, but good spawning facilities above this point. STREAM TEMPERATURES Warm range (No observed temperatures).

VALLEY DESCRIPTION Glacial origin. The valley runs towards the S.W. Numerous scattered muskeg areas. The valley floor is flat with rolling hills along the margins. Hills have been logged.

DRAINAGE 9 square miles (polar planimeter). The stream comes out of Kina Lake 2 miles above the mouth. The lake is 0.5 mile long and 0.2 mile wide and is fed by surface runoff.

STREAM MOUTH IDENTIFICATION Lies at the head of Kina Cove.

ANCHORAGE Affords good anchorage in 8 to 10 fathoms, 0.8 mile inside the entrance. In entering, follow a midchannel course.

TRAILS AND SURVEY ROUTES Logging road follows stream for 1 mile.

AERIAL SURVEY NOTES Muskeg water. Not surveyed from the air.

## INTERTIDAL ZONE

LENGTH 0. 15 mile
GRADIENT AND VELOCITIES
BOTTOM
LOW TIDE LOCATION
HIGH TIDE LOCATION
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES

AVERAGE WIDTH/DEPTH

#### UPSTREAM

LENGTH ACCESSIBLE 0. 2 miles to lake

GRADIENT AND VELOCITIES Moderate. Gentle in valley leading to lake after one quarter mile.

BOTTOM

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS

TRIBUTARIES

SCHOOLING AREAS

SPAWNING AREAS The lower 0.4 mile is largely rocks and rapids, above this there is very good spawning.

GENERAL NOTES

	SURVEYED		PINK		СНИМ		OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1940								
Sep 26 1948	G 0. S	FWS	5,000					Good. 2,000 fish at mouth
Sep 25 19\$3	<b>G 0.</b> 1	FWS	3,000		200		1 coho	Fair. 3,000 fish off mouth
Sep 30 1954	G 0.1	FWS	0		0			No other species
Sep 14 195\$	G 1.3	FWS	25,000				Few coho	Excellent. 10,000 off mouth & boy
Aug 22 19\$6	G 2.0	FWS						2,000 red at mouth
Sep 12	G 2.0	FWS	17,000					2,000 pink at mouth
195 <b>7</b> Sep 2		FWS						15,000 pink at mouth
Sep 14	Α	FWS	75					
Sep 15		FWS	100					150 chum, 100 pink at mouth
1961 Aug 16	A	ADF&G						30 ot mouth - none in streom

KETCHIKAN, CLARENCE STRAIT, KASAAN BAY, TWELVEMILE ARM, Head

MAJOR SPECIES Pink, chum

OTHER SPECIES Coho, red

ESCAPEMENT TIMING Late. Sept. -Oct.

ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Excellent in the upper half of the intertidal zone and in all riffle areas throughout the upstream area.

STREAM TEMPERATURES Warm range (Observed temperatures: 46°-49° F., 1982; 82° F., 9/8/83, 49° F., 9/19/83).

VALLEY DESCRIPTION Flows through a flat area with scattered patches of muskeg. The N. slope has been and is still being logged. The S. slope is heavily wooded. A few seed patches of trees have been left.

DRAINAGE 14 square miles (polar planimeter). Precipitation fed.

STREAM MOUTH IDENTIFICATION The stream enters a small bay at the head of Twelvemile Arm.

Extensive grass flats are found along both stream banks in the mouth area.

ANCHORAGE For overnight anchorage the bay at Hollis may be used, or boats can tie up to the dock found there. The arm has good depth until near the upper end and suitable anchorages can be found.

TRAILS AND SURVEY ROUTES A skiff can be taken about 1 mile upstream. From this point the stream bed must be followed.

AERIAL SURVEY NOTES An easy stream for aerial survey with good light conditions.

## INTERTIDAL ZONE

LENGTH 1.2 miles

AVERAGE WIDTH/DEPTH 80'-100'/16"-24"

AVERAGE WIDTH/DEPTH 40-60'/12"

GRADIENT AND VELOCITIES Moderate to gentle

BOTTOM Gravel

LOW TIDE LOCATION

HIGH TIDE LOCATION At the log jam.

SCHOOLING AREAS Numerous schooling areas are available throughout this zone.

SPAWNING AREAS The major spawning area is above the half-tide mark.

GENERAL NOTES

## UPSTREAM

LENGTH ACCESSIBLE 6.5 miles

GRADIENT AND VELOCITIES Moderate

BOTTOM Sand and gravel.

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS None reported.

TRIBUTARIES About 1 mile upstream a small tributary enters from the left side.

SCHOOLING AREAS Several large holes between the high tide mark and the forks are utilized.

SPAWNING AREAS Spawning occurs on all riffle areas in the main stream and to a small extent in the tributary.

GENERAL NOTES A forest service and FRI cabin is found at the upper end of the intertidal zone. An extensive logging operation is being conducted here by the Campbell Logging Company.

Dote	SURVEYED Miles	Ву	PII Live	NK Dead	CH Live	UM Dead	OTHER SPECIES Live	REMARKS Adjective rating
1000								
1930 Oct 13 1937	G 1.0	FWS	2,000					
Sep 30		FWS						Well seeded with chum, very few pink
1940 Sep 25	G 2.0	FWS	35,000		500			Good
1941								
Oct 10 1946	G 2.0	FWS	20,000					Good. Evidence of early run
Oct 2 1947	G 1.5	FWS	10,000		1,000			Poor
Oct 7 1948	G 1.0	ASI						Paor shawing of fish here
Aug 11	G 0.5	ASI						Chum present
Aug 19	G 1.5	ASI			200			
Aug 26	G 1.0	ASI			200			
Sep 1S	G 1.5	ASI	5,000		12,000		25 coho	
Sep 24	G 2.0	FWS	7,850		12,000	200	25 coho	Fair
Sep 28	G 0.5	ASI	3,000		1,000		maa .	Many dead chum
Oct 6 1951	G 2.0		2,000	1,000	5,000	4,000	\$00 coho	
Sep 19 1952	A 0.3	FRI	1, 300	0	900	0	500 coho	Some fish at mouth
Sep 7	G 0.3	FRI	280	0	54	0	10 coho	50% visibility
Sep 20	G 0.3	FRI	485	0	700	0	350 coho	Few fish, chum and pink
Oct 4 1953	G 0. 3	FRI	120		55		27 coho	Occasional dead pink
Aug 16	G 0.0	FWS	0		0			No other species
Aug 23	G 0.0							Few pink showing
Sep 5	G 0. 3	FRI	210	0	40	0	210 coho	
<b>Sep</b> 19	G 0.3	FRI	130		115		150 coho	Few dead pink. Some spawning. 40% visibility
Oct 1	G 0. 3	FRI	28		550		400 coha	Few dead chum, pink. None off mouth
Oct 1 1954	G 0.9	FWS	100		600		30 coho	
Sep 28 1955	G 0. 3	FRI	3,500	>200	100		350 coho	Few dead chum. None at mouth
Sep 19	A 0.3	FRI	3,000					Some chum
Sep 23	A 0. 3	FRI	3,500					
Sep 28	A 0.3	FRI	7,000		2,000			Chum fresh, pink spawning. Some dead chum, pink
1956								
Aug 28		FWS	6,000					
Sep 2	G 2.5	FRI	2,500		100			
Sep 3	4.0.2	FWS	2, 700		300			10,000
Sep 9	A 0.3 G 2.0	FRI FRI	>3,000 400		900		26 aaha	10,000 at mouth
Sep 17 Sep 20	A 0.3	FRI	18,000		800		26 coho	Chum present Few deed pink Saussal
_								Chum present. Few dead pink. Several thousand at mouth
Sep 29	A 0. 3	FRI	10,000					Chum present. Some dead pink. 2,000 above marker to 2 miles

	SURVEYE	D	PIN	ıĸ	CH	ШM	OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
								,
1957								
Aug 20	G 0.3	FRI	17		5		3 coho, 4 red	
Aug 27	G 0.3	FRI	70		54		28 coho	
Sep 3	G 0.3	FRI	34		22		25 coho	
Sep 12	G 0.3	FRI	112		153		128 coho, 3 red	
Sep 15	A 0.3	FRI	200		100			Several hundred chum at mouth
<b>S</b> ep 19	G 0.3	FRI	108		416		183 coho	
Sep 27	A 0. 3	FRI					1,000 coho	Few chum, pink. None observed
1958								ot mouth
Aug 31	G 0.3	FRI	800		135		17 coho	
Sep 7	A 0.5	FWS	500					Few chum. Spawning. Good visibility
Sep 10	G 0.3	FRI	653		113			
5ep 18	G0.3	FRI	562		54			
Sep 22	G0.3	FRI	<b>3</b> 69		51		171 coho	
Sep 30	G 0.3	FRI	22		4			
1959								
Aug 25	G0.3	FRI	380		40		30 coho	
Aug 29	G0.3	FRI	300		25			
Sep 2	G0.3	FRI	125		60		40 coho	
Sep 18	G0.3	FRI	750		10			
Sep 21	G0.3	FRI	900		110			
1960								
Aug 26	G0.3	FRI	70		5			
Sep 5	G0.3	FRI	1,200		30			
Sep 14	G0.3	FRI	1,500		30			
Sep 20	G0.3	FRI	2,050		20			
Sep 25	G0.3	FRI	1,400		10			
Oct 1	G0.3	FRI	780		10			
1961								
<b>Au</b> g 18	A	ADF&G	200					100 at mouth - all schooled



K 175A Previous No. 145A

KETCHIKAN, CLARENCE STRAIT, KASAAN BAY, TWELVEMILE ARM, W. shore 2.7 miles from head

MAJOR SPECIES
ESCAPEMENT TIMING
SPAWNING FACILITIES
STREAM TEMPERATUR

OTHER SPECIES
ESCAPEMENT MAGNITUDE

STREAM TEMPERATURES Warm range. VALLEY DESCRIPTION

DRAINAGE

STREAM MOUTH IDENTIFICATION Enters Twelvemile Arm about 1 mile N. along the W. shore from Twelvemile Creek (K 175).

ANCHORAGE See Twelvemile Creek (K 175).

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES

GENERAL NOTES Not an important salmon stream.

# INTERTIDAL ZONE

LENGTH
GRADIENT AND VELOCITIES
BOTTOM
LOW TIDE LOCATION
HIGH TIDE LOCATION
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES

AVERAGE WIDTH/DEPTH

## UPSTREAM

LENGTH ACCESSIBLE
GRADIENT AND VELOCITIES
BOTTOM
MARKER DISTANCE
MARKER IDENTIFICATION
BARRIERS
TRIBUTARIES
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES

AVERAGE WIDTH/DEPTH

# ESCAPEMENT RECORDS

	SURVEYED	)	PIN	K	CH	UM	OTHER SPECIES	REMARKS
Date	Miles	Bv	Live	Dead	Live	Dead	Live	Adjective rating
		,						
1948								
Sen 24	G 0.4	FWS	1,650					Fair
ocp Li	G U. 1	1 11 3	1,000					



113-12 S5°24' N. 132°42.4' W.

K 17SB Previous No. 14SB

KETCHIKAN, CLARENCE STRAIT, KASAAN BAY, TWELVEMILE ARM, W. shore 3.2 miles from head

MAJOR SPECIES

, OTHER SPECIES

ESCAPEMENT TIMING Late (estimated)

ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES

STREAM TEMPERATURES Warm range (No observed temperatures).

VALLEY DESCRIPTION

DRAINAGE 8 square miles (polar planimeter).

STREAM MOUTH IDENTIFICATION Enters the Arm about 1 mile N. of K 17SA.

ANCHORAGE Refer to K 17S.

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES

GENERAL NOTES No escapement records. Not an important salmon stream.

## INTERTIDAL ZONE

LENGTH GRADIENT AND VELOCITIES BOTTOM LOW TIDE LOCATION HIGH TIDE LOCATION SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

AVERAGE WIDTH/DEPTH

#### UPSTREAM

LENGTH ACCESSIBLE GRADIENT AND VELOCITIES BOTTOM MARKER DISTANCE MARKER IDENTIFICATION BARRIERS TRIBUTARIES SCHOOLING AREAS SPAWNING AREAS

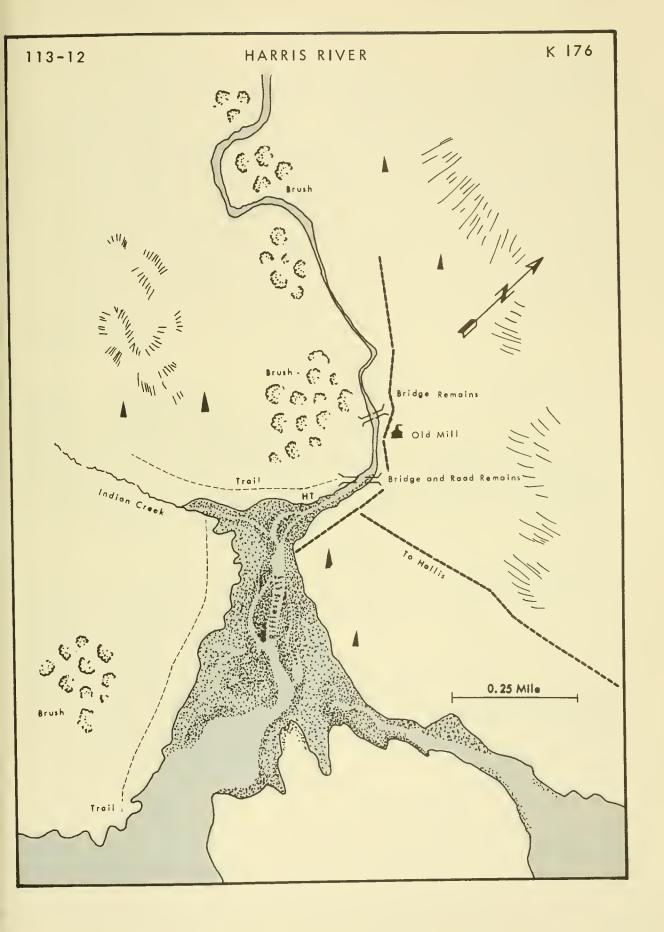
GENERAL NOTES

AVERAGE WIDTH/DEPTH

## ESCAPEMENT RECORD

Date	SUR VEYED Miles	Ву	PIN Live	IK Dead	CH Live	UM Dead	OTHER SPECIES Live	REMARKS Adjective rating	S
1948 Sep 24	G 0. 1	FWS	1					Poor	







K 176 Previous No. 144

KETCHIKAN, CLARENCE STRAIT, KASAAN BAY, TWELVEMILE ARM, W. shore 8.2 miles from head

MAJOR SPECIES Pink

OTHER SPECIES Chum, coho, red ESCAPEMENT MAGNITUDE

ESCAPEMENT TIMING Late. Sept. -Oct.

SPAWNING FACILITIES Excellent but limited in areas by outcrops of bedrock.

STREAM TEMPERATURES Warm range (Observed temperatures: 47° F, 10/8/48, 48°-51° F., 1949; 47-S3° F., 19S0; 51°-54° F., 19S1; 47°-51° F., 19S2; S2° F., 9/S/S3, 50° F., 9/18/S3).

VALLEY DESCRIPTION A wide valley of glacial origin. Both sides of the valley are lined by snowcapped ridges. Numerous small tributary valleys. Logging has taken place along both sides of the river.

DRAINAGE 29 square miles (polar planimeter) Precipitation fed. Numerous small feeder streams fed by surface runoff drain into the river.

STREAM MOUTH IDENTIFICATION The stream enters Twelvemile Arm about 1.5 miles south of Hollis. Extensive mud flats 0.8 mile long and 0.5 mile wide are found at the mouth. Runs into the arm on the S. side of the island.

TRAILS AND SURVEY ROUTES At high tide a skiff may be taken upstream for some distance. When the tide is low a trail may be followed up the left bank. The stream bed is easily followed above the

AERIAL SURVEY NOTES Excellent for aerial survey. GENERAL NOTES

### INTERTIDAL ZONE

LENGTH Approx. 1.5 miles

AVERAGE WIDTH/DEPTH 60-751/21

GRADIENT AND VELOCITIES Moderate

BOTTOM Gravel and fine sediments.

LOW TIDE LOCATION At outer end of island off mouth.

HIGH TIDE LOCATION At first cataract.

SCHOOLING AREAS Numerous pools from the midtide mark to the high tide mark offer shelter for schooling salmon.

SPAWNING AREAS Heavy spawning occurs in a riffle area above the confluence of Harris and Indian Rivers (K176-1), extending to the high tide mark. It has been estimated that in some years 60 percent of the spawning population utilizes this area.

GENERAL NOTES

### UPSTREAM

LENGTH ACCESSIBLE 8 miles GRADIENT AND VELOCITIES AVERAGE WIDTH/DEPTH 30'-40'/2"-24"

BOTTOM Gravel, rock and considerable bedrock in the lower part of stream.

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS None

TRIBUTARIES Indian Creek joins the Harris River about S00 yards below the high tide mark.

SCHOOLING AREAS Pools are found throughout the upstream section.

SPAWNING AREAS At the upper end of the cataract area marked by the remains of an ore stamping mill and wooden bridge abutments there is good spawning gravel with occasional bedrock outcrops. This extends for about 2 miles. Here the valley widens into an area of beaver ponds, log jams, and riffles. About 5 miles of this area is accessible to spawning.

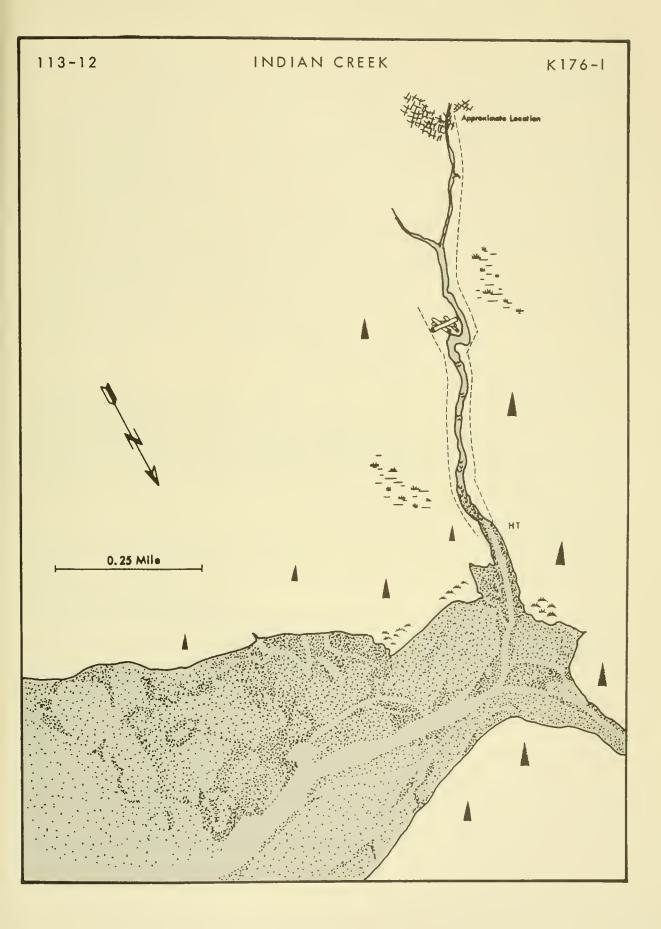
GENERAL NOTES An FRI camp is found in the S. W. corner of the Hollis anchorage on the N. shore. The FWS has a cabin just below the high tide mark.

K 176

Date	SURVEYED Miles	Ву	PIN Live	K Dead		UM Dead	OTHER SPECIES Live	REMARKS Adjective rating
Date	Milles	Бу	LIVE	Dedd	LIVE	Dedd	Tive	Aujective running
1930 Oct 13		FWS						Well seeded. Few live, but indications good of earlier fish
1938 Aug 26 1939		FWS						10,000 pink off mouth
Sep 22 1940		FWS	10,000					Poor. 5,000 fish off mouth
Sep 25 1941	G 1.5	FWS	20,000					Good
Oct 10 1942	G 1.5	FWS	15,000					Fair
Sep 2 1945	G 1.5	FWS	7,000					Fair
Sep 25 1946	G 0.5	FWS	10,000					Excellent. 20,000 fish off mouth
Oct 2 1947	G 1.5	FWS	30,000		500			Good
Oct 7 1948	G 1.0	ASI						Poor. Signs of a small earlier run
Aug 11	G 1.0	ASI						No fish in stream yet
Aug 19	G 1.0	ASI			1,300			
Aug 26	G 1.5	ASI	100		2,000		20 coho	
Sep 16	G 1.5	ASI	3,500		4,000		100 coho	F-i-
Sep 24	G 1.3 G 0.3	FWS	10,000		500		10 coho	Fair
Sep 29 Oct 1 1949	G 2. 0	ASI ASI	3,000 1,000	1,000	1,000	2,000	500 coho 300 coho	Fair
Sep 11	G 1.0	FRI	1,764	12	413	7	75 coho	
Sep 19	G 6. S	USFS	10,045		1,570	•	20 coho, 5 red	
Sep 27	G 6.0	USFS	17, 285		975		225 coho, 25 red	
Sep 29	G 1.0	FRI	14,800	291	180	74	102 coho	
Oct 9 1950	G 1.0	FRI	4,600	1,561	1	22		
Aug 25	G 2.0	USFS			349			
Aug 31	G 1. \$	USFS	3,445		700			
Sep 15	G 7.0	USFS	8,642		1,592		577 coho, 4 red	
<b>S</b> ep 16	G 1.0	FRI	5, 754	65	57	2	112 coho	
Sep 28	G 1.0	FRI	2,505	255	19		95 coho	
Oct 4	G 5.0	USFS	3,788		179		1,785 coho	
Oct 8 1951	G 0.3	FRI	100					Some dead pink. Flooding
Aug 3	G 0. 0	USFS	100		0			
Aug 9	G 0. 1	USFS	55		35			
Aug 21 Aug 24	G 0. 1 G 0. 5	USFS FRI	30 90	0	5	0		Several chum. Run just started. Few
		****	,					off mouth
Aug 28		USFS	1,335	0	265	_	60 coho, 2 red	
Sep 6	G 1.0	FRI	2, 100	0	630	0		
Sep 12	G 1.0	USF5	2,525		400		22 coho	
Sep 15	G 5.0	USF5	6, 127	0	4, 289 2, 850	0	680 coho Good coho showing	Most fish in intertidal zone
Sep 19 Oct 3	G 1.0	FRI USFS	6, 150	U	2, 030	J	Good cono snowing	Many fish in stream. Murky water, high tide

Date	SURVEYEI Miles	D By	PIN Live	IK Dead	CHU!	M Dead	OTHER SPECIES Live	REMARKS
1952	Milles	Бу	LIVE	Dead	Live I	Jeaa	Live	Adjective rating
Aug 20 Aug 30 Sep 7	G 2.9 G 0.5	USFS USFS FRI	205 2,072 475	0	53 228	0	4 coho Some coho	Fish are fresh Some chum. Stream flooding
Sep 9 Sep 20 Sep 24	G 2.9 G 1.0 G 3.3	USFS FRI USFS	1,347 1,700 589	50	177 200 321	0	18 coho 350 coho	Fish are spawning
Oct 4 1953	G 1.0	FRI	20		10		450 coho	Few dead chum, pink
Aug 23 Sep S	G 0.0 G 1.0	FWS FRI	S8S	0	285	0	465 coho	Few pink
Sep 18 Sep 28	G 1.0	FRI FWS	312		80	0	60 coho	Few dead pink. Chum, pink spawn- ing, visibility 0 in holes, 70% on riffles
Sep 30 Oct 1	G 0. 7 G 0. 5	FWS FRI	120 44	12	0 12		125 coho	Water too high to count Stream very low
1954	G 0.3	rkı	***		12		125 cond	Few dead chum, pink. No fish off mouth
Aug 12 Aug 18 Aug 23 Aug 30	G 0.7 G 0.7 G 0.8 G 2.0 G 2.3	USFS USFS USFS USFS	1,041 3,210 4,388	4	185 630 200 423 29	1 7		
Sep 8 Sep 13	G 2.5	USFS	3, 107 11, 707	86	604	17 30		2.000 1.1
Sep 1S Sep 20	A 5. 0 G 2. 0	FRI USFS	7,500 25,71\$	484	253	32		3,000 in bay. Water very low
Sep 28 Sep 29 Oct 4 1955	A 1.0 G 4.0	FRI USFS	9,000 29,955 21,611	>200 1,495 11,277	240 7	S	14 coho	Few chum live and dead
Aug 29 Sep 6 Sep 13 Sep 19	G 1. 0 G 1. 0 G 1. 0 A 1. 0	USFS USFS USFS FRI	362 2,030 2,648 4,000	8	100 139 1,678 >500	4	3S coho 2 coho	
Sep 19 Sep 23	G 1.0 A 1.0	USFS FRI	4,852 22,000	11	15		1 coho	Some chum. Some dead chum, pink.
Sep 28	A 1.0	FRI	18,000					7,000 chum above marker Some dead pink. 7,000 chum, 4,000 pink above marker
1956 Aug 28 Sep 2 Sep 3	G 3.0 G 2.0	FWS FRI FWS	2,000 15,000 32,250		1,000 1,750		300 coha	
Sep 10 Sep 20 Sep 29	A 1.0 A 1.0	FRI FRI FRI	30,000 45,000 25,000		300		500 Cond	Chum present. Few dead pink Chum present. Few dead pink. 3,000 fish above marker
1957 Aug 16 Aug 22 Aug 27 Sep 2	G 1.0 G 1.0 G 1.0 G 1.0	FRI FRI FRI FRI	26S 250 SS 2 S67		66 200 33 84		6 coho	
Sep 8 Sep 9	A 1.0 A 1.0	FRI FRI	1, 200 1, 200	0	0	0	62 coho	300 chum above tide mark
Sep 11 Sep 22	G 1.0 A 1.0	FRI FRI	359 1,500		159 0	0	62 coho 300 coho	Few dead pink. Few fish at mouth
Sep 22 Sep 27	G 1.0 A 1.0	FRI FRI	348	>200	312 0	0	350 cono	Some pink. None observed at mouth

	SURVEYED		PIN	к	CHU	IM	OTHER SPECIES	REMARKS
Date	Miles	By	Live	Dead	Live	Dead	Live	Adjective rating
1958								
Aug 14	G 1.0	FRI	270		150			
Aug 30	G 1.0	FRI	2, 780		131			
Sep 7	A 0.5	FRI	700					Some chum. Good visibility. Most fresh
Sep 10	G 1.0	FRI	2, 800		59		18 coho	
Sep 22	G 1.0	FRI	842		0		15	
Sep 29	G 1.0	FRI	30		0		11 coho	
1959								
Aug 25	G 1.0	FRI	1,500		25		100 coho	
Sep 4	G 1.0	FRI	4,650		0			
Sep 18	G 1.0	FRI	3,500		25			
Sep 21	G 1.0	FRI	4,000		0			
1960								
Aug 25	G 1.0	FRI	200		0			
Sep S	G 1.0	FRI	2, 400		0			
Sep 10	G 1.0	FRI	4,600		0			
Sep 15	G 1.0	FRI	3,000		0			
Sep 20	G 1.0	FRI	2,800		0			
Sep 29	G 1.0	FRI	1,000		0			





K 176-1 Previous No. 144A

KETCHIKAN, CLARENCE STRAIT, KASAAN BAY, TWELVEMILE ARM, W. shore 7.8 miles from head

MAJOR SPECIES Pink

OTHER SPECIES Chum, cohc

ESCAPEMENT TIMING Late. Sept. -Oct.

ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Good in the intertidal zone and lower 0.25 mile of stream. Becomes progressively poorer upstream.

STREAM TEMPERATURES Warm range (Observed temperatures: S2° F., 9/11/49; 46° F., 10/9/49; 39°-SS° F., 19S0; 47°-S7° F., 19S1).

VALLEY DESCRIPTION A stream cut valley lying in, a valley of glacial origin. The gradient is steep along the stream. The valley is not being logged.

DRAINAGE 11 square miles (polar planimeter). Precipitation fed. Snowfields are found in the upper valley. A few small lakes drain into the stream in the lower mile.

STREAM MOUTH IDENTIFICATION The stream enters the S.E. corner of the grass flats at the mouth of the Harris River. Joins Harris River about midway up the intertidal zone.

ANCHORAGE Refer to Harris River (K 176).

TRAILS AND SURVEY ROUTES Trails follow both banks. The trail on the left side goes as far as the stream gage.

AERIAL SURVEY NOTES Aerial survey difficult in the upstream area.

## INTERTIDAL ZONE

LENGTH 0.2 mile

AVERAGE WIDTH/DEPTH 20'/6"-10"

GRADIENT AND VELOCITIES Moderate

BOTTOM Good spawning gravel.

LOW TIDE LOCATION The S. W. corner of Cat Island.

HIGH TIDE LOCATION 600 feet above the confluence with the Harris River.

SCHOOLING AREAS Pools are found in the lower part of this zone.

SPAWNING AREAS This zone provides the major spawning area, and most of the spawning occurs here. GENERAL NOTES

## UPSTREAM

LENGTH ACCESSIBLE

AVERAGE WIDTH/DEPTH 40'/8"

GRADIENT AND VELOCITIES Moderate

BOTTOM Good spawning gravel.

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS Beaver dams and log jams have been reported.

TRIBUTARIES None reported.

SCHOOLING AREAS Few pools available.

SPAWNING AREAS The lower 0.25 mile contains good spawning gravel and the upstream spawning is mainly in this area. Upstream the bottom composition becomes coarse and unsuitable for spawning.

GENERAL NOTES

		[Com	0	, J. Cuila	,0		gadea of or intra-	7- 7-1
	SURVEYE	)	PIN	ТK	CH	IUM	OTHER SPECIES	REMARKS
Date	Miles	By	Live	Dead	Live	Dead	Live	Adjective rating
1930		******						
Oct 13		FWS						Well seeded. Few live fish, but indications of good earlier run
1938 Aug 26		FWS						Water too low for fish to enter
19 <b>3</b> 9 Sep 22 1946	G 1.0	FWS	7,000					Good. S,000 fish at mouth
Oct 2 1948	G 1.0	FWS	300					Good. 30,000 fish off mouth
Sep 24	G 0.4	FWS	3,700		120		1 cobo	Good
1949			0,.00				1 00 00	0000
Aug 30	G 0, 3	FWS	130		8			
Sep 11	G 1. S	FRI	3, 296	2	106	3	1 coho	
Sep 15	G 1.0	USFS	2,010		69			
Sep 19	G 1.0	USFS	2,000		60			
Sep 27	G 1.0	USFS	3, 495		SS			-
Oct 9	G 1.0	FRI	2, 290	176	9			
1950								
Aug 25	G 1.0	USFS	0	0	0	0		
Aug 31	G 1.0	USFS	1,378		1			
Sep 1S	G 1.0	USFS	966		2		1S coho	
Sep 16	G 1.0	FRI	887	9				
Sep 28	G 1.0	FRI	1, 390	85	10		10 coho	
Oct 2	G 0. S	USFS	985		5			
Oct 8	G 1.0	FRI						Few pink, some dead pink. Peak
1001								past. Flooding
1951	C 0 0	Here	10		_			
Aug 4	G 0.8 G 0.8	USFS	10		0			37 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Aug 9 Aug 21	G 0.8	USFS USFS	2		^			No fish in creek. Water very low
Aug 28	G 0.8	USFS	100		0		2 coho	
Sep 13	G 0.8	USFS	850		246		2 00110	
Sep 24	G 0.8	USFS	2, 350		485			
Oct 3	G 0.8	USF5	3, 595		405			
1952			5,020		100			
Aug 20		USFS			42			
Sep 7	G 0. 1	FRI	225	0		0		Chum present. Stream flooding
5ep 9	G 0.8	USFS	775	_	7	Ŭ		Onam present: Juream Hooding
Sep 24	G 1.0	USFS	176		6			
1953					_			
Sep 18	G 0.3	FRI	120		20			Visibility 70%. Chum, pink spawning
Sep 28	G 0. S	FWS	250		6			High water, poor estimate
Sep 30 1954	G 0. 3	FWS	30	3	8			Most fish at mouth
Sep 28 19SS	A 0.5	FRI	4,000					Some dead pink
Sep 19 19 <b>S</b> 6	A 0.5	FRI	3,500					
Sep 2	G 0.5	FRI	2,000		25			
Sep 10	G 0.8	FRI	1,500		60			
Sep 20	A 1.0	FRI	9,000					Few dead pink. Spawning
Sep 29 1957	A 1.0	FRI	7,000					Spawning
Aug 21	G 1.0	FRI	0		0			
Aug 27	G 1.0	FRI	31		2			

	SURVEYED		PIN	ıĸ	CH	ШM	OTHER SPECIES	REMARKS
Date	Miles	By	Live			Dead	Live	Adjective rating
		·						
1957								
Sep 2	G 1.0	FRI	83		13			
Sep 9	A 1.0	FRI	500					
Sep 11	G 1.0	FRI	165		22		1 coho	Very poor
Sep 22	G 1.0	FRI	26		15		10 coho	
1958								
Aug 29	G 1.0	FRI	405		0			
Sep 10	G 1.0	FRI	256		0			
Sep 22	G 1.0	FRI	305		0			
Sep 29	G 1.0	FRI	2, 100		0			
1959								
Aug 25	G 1.0	FRI	20		0			
Sep 4	G 1.0	FRI	400		0			
Sep 8	G 1.0	FRI	1,300		0			
Sep 18	G 1.0	FRI	1,200		0			
Sep 21	G 1.0	FRI	1,500		0			
1960								
Aug 25	G 1.0	FRI	30		0			
Aug 30	G 1.0	FRI	240		0			
Sep 5	G 1.0	FRI	2,050		0			
Sep 10	G 1.0	FRI	2,400		0			
Sep 15	G 1.0	FRI	1,300		0			
Sep 20	G 1.0	FRI	1, 100		0			
Sep 29	G 1.0	FRI	300		0			



Previous No. 144B

KETCHIKAN, CLARENCE STRAIT, KASAAN BAY, TWELVEMILE ARM, N. shore 10 miles from head

MAJOR SPECIES Pink, chum

ESCAPEMENT TIMING Middle. Aug. -Sept.

OTHER SPECIES Coho, red
ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Fair in the upper intertidal zone and good above the falls. Pink and chum are sometimes restricted to the intertidal zone.

STREAM TEMPERATURES Warm range. (Observed temperature: 48°-53° F., 1950; 46°-54° F., 1951). VALLEY DESCRIPTION Glacial origin. The valley has slopes of moderate gradient. This area has been partially logged off. Numerous tributary valleys.

DRAINAGE 21 square miles (polar planimeter). Precipitation fed. A large snowfield is found on the western slope of the valley. A few scattered muskeg areas.

STREAM MOUTH IDENTIFICATION Enters the Hollis anchorage just E. of the old village of Hollis.

A large tide flat is found at the mouth, the stream runs nearly through the middle of it.

ANCHORAGE Refer to Harris River (K 176).

TRAILS AND SURVEY ROUTES A road runs from Hollis to the stream, where a bridge may be crossed.

Also a road leaves the bay 0. 2 mile N. E. of the creek mouth and goes to the headwaters about 6 miles upstream.

AERIAL SURVEY NOTES The open valley offers good visibility for aerial survey. GENERAL NOTES Both sides of the valley have been heavily logged.

#### INTERTIDAL ZONE

LENGTH >0. S mile

AVERAGE WIDTH/DEPTH

GRADIENT AND VELOCITIES

BOTTOM Largely mud and sand in lower part, some gravel above.

LOW TIDE LOCATION At south edge of tide flat.

HIGH TIDE LOCATION At the foot of the first falls.

SCHOOLING AREAS Schooling is heavy in the deep pool below the falls.

SPAWNING AREAS Spawning occurs in the upper part of this zone.

GENERAL NOTES

#### UPSTREAM

LENGTH ACCESSIBLE S miles

AVERAGE WIDTH/DEPTH 30'/10"

GRADIENT AND VELOCITIES Variable

BOTTOM Bedrock to gravel.

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS Two falls are present. The first 450' upstream is a 4' falls, 50' above is a 6' falls. Above this there is a series of cascades. These present a partial block to pink and chum.

TRIBUTARIES

SCHOOLING AREAS

SPAWNING AREAS Good spawning areas are available above the falls, the area immediately below the falls is used extensively.

GENERAL NOTES Has approximately 4 miles of length suitable for spawning for fish that get over the falls at the head of the tidal zone.

	CIIDVEVE	,	וזמ	ATTLE	CH	mn.	OTHER CRECIES	DEMADVE
Date	SURVEYED Miles	By		NK Deod	Live	IUM Dead	OTHER SPECIES Live	REMARKS Adjective rating
Date	MITTES	Бу	LIVE	Dedu	TIAE	Dedu	Tive	Adjective lating
1930								
Oct 14	G 3.0	FWS						Very few live, poor showing of dead
1939								
Sep 22	G 0.5	FWS	1,500					
1940								
Sep 26	G 0.8	FWS	3,000					Poor
1941		574.00						n 10 000 ff
Oct 10 1948	G 1.0	FWS	200					Poor. 10,000 off mouth
Aug 11	G 0.5	ASI						No fish in stream
Aug 19	G 0.5	ASI			1,500			No fish in stredin
Aug 26	G 2.0	ASI			5, 200			
Sep 3	G 0. 3	FRI			2,000			
Sep 9	G 0. 1	ASI			1,000			
<b>S</b> ep 16	G 0. 3	ASI			3,000	200	15 coho	
Sep 24	G 0.5	FWS	75		1, 200		30 coho	Fair
Sep 29	G 3.0	ASI			600		65 coho	
1949								
Aug 25	G 2.0	FWS			900			
Aug 30	G 0. 2	FW5			100			
<b>Sep</b> 16	G 2.0	USFS	688		669		50 coho, 1 red	
Sep 26	G 4.0	USFS	5,506		360		222 coho	
1950								
Aug 24	G 0.5	USFS			300			44 1 1 6 11
Aug 31	G 2.0	USFS	200		544 300		25	44 chum above falls
Sep 14	G 0.5 G 4.0	USFS USFS	200 315		420		25 coho	Low water
Sep 17 Oct 2	G 2. 5	USFS	310		160		349 coho, 1 red 631 coho	
1951	0 2. 0	0313	310		100		031 00110	
Aug 8	A 2.5	USFS	15		50			
Aug 20	A 1.0	USFS	5		197		3 red	
Aug 27	A 1.4	USFS	34		479		7 coho	
Sep 11	A 0.8	USFS	20		500			
Sep 17	A 2. 2	USFS	177		2,018		135 coho, 3 red	
Sep 18	A 0.8	USFS	75		875		50 coho	
Oct 3	A 0.5	USFS	705		660		325 coho	Many carcasses
1952		******						
Aug 11	G 0.9	USFS	2		20			
Aug 20	G 0.9 G 3.5	USFS USFS	6 66		202 1, 354			Fish and appropriate
Aug 30	G 3. 5	USFS	10		369			Fish are spawning Fish getting ragged. Many spawners
Sep 9 1953	G 3. 3	0313	10		303			rish determa raddea. Manny shawners
Aug 12	G 0.0	USFS			102			
Aug 15	G 1.5	USFS			300			
Aug 24		USFS			1,040			
Aug 31	G 0. 1	USFS			300			
Sep 1	G 4.5	USFS			1 955			
Sep 29	G 0. 1	FW5						None observed

	SURVEYE	)	PIN	ıĸ	СН	UM	OTHER SPECIES	REMARKS
Date 1954	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
Aug 11	G 0.5	USFS			278	7		
Aug 17	G 0.5	USFS			393	7		
Aug 23	G 0.5	USFS			1, 079	49		
Aug 30	G 0.5	USFS			1, 297	126		
Sep 9	G 2.0	USFS	5		422	265		
Sep 14	G 1.0	USFS	65		142	445		
Sep 21	G 0.8	USFS						No count made as water too high
Sep 29		USFS	3,571	1	707	31		
Oct 4		USFS	2, 652	128	430	0	No coho	
Oct 25								Few live. Dead washed out
1955								
Aug 30	G 0.1	USFS			100	6		
Sep 7	G 0.1	USFS			125	5		
Sep 14	G 0.1	USFS	12		310	11		
Sep 20	G0.1	USFS	96	3	212	4		
Sep 21	G 2.0	FWS			25			
1956	C 4 0	EDI			330			
Aug 30	G 4.0 G 1.0	FRI FRI	5		600			Chum spawning
Sep 3 Sep 17	G 2.0	FRI	400		800		26 coho	Onam opaniang
1957	0 2.0	rid	700		000		20 Cono	
Aug 21	G 0.8	FRI	7		400		1 red	
Sep 3	G 0.8	FRI	9		1, 124		9 coho, 1 red	
Sep 13	G 0.8	FRI	8		88		31 coho	
Sep 20	G 0.8	FRI	8		70		44 coho	
1958								
Sep 1	G 0.5	FRI	35		20		2 coho	
Sep 23	G 0.5	FRI	21		0			
1959								
Aug 25	G 0.8	FRI	10		25			
Sep 4	G 0.8	FRI	5		6			
Sep 10	G 0.8	FRI	0		30			
Sep 18	G 0.8	FRI	75		0			
Sep 24 1960	G 0, 8	FRI	40		0			
Aug 16	G 1.5	FRI	0		260			
Aug 22	G 1.5	FRI	1		445			
Aug 30	G 1.5	FRI	1		300			
Sep 6	G 1.5	FRI	17		130			
Sep 13	G 1.5	FRI	9		37			
Sep 20	G 1.5	FRI	6		46			



KETCHIKAN, CLARENCE STRAIT, KASAAN BAY, TWELVEMILE ARM, N. shore IO. 3 miles from head

MAJOR SPECIES ESCAPEMENT TIMING SPAWNING FACILITIES STREAM TEMPERATURES Warm range VALLEY DESCRIPTION DRAINAGE 6 square miles (polar planimeter). STREAM MOUTH IDENTIFICATION ANCHORAGE TRAILS AND SURVEY ROUTES AERIAL SURVEY NOTES GENERAL NOTES No record of escapement. Not an important salmon stream.

OTHER SPECIES ESCAPEMENT MAGNITUDE

INTERTIDAL ZONE

LENGTH GRADIENT AND VELOCITIES BOTTOM LOW TIDE LOCATION HIGH TIDE LOCATION SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

AVERAGE WIDTH/DEPTH

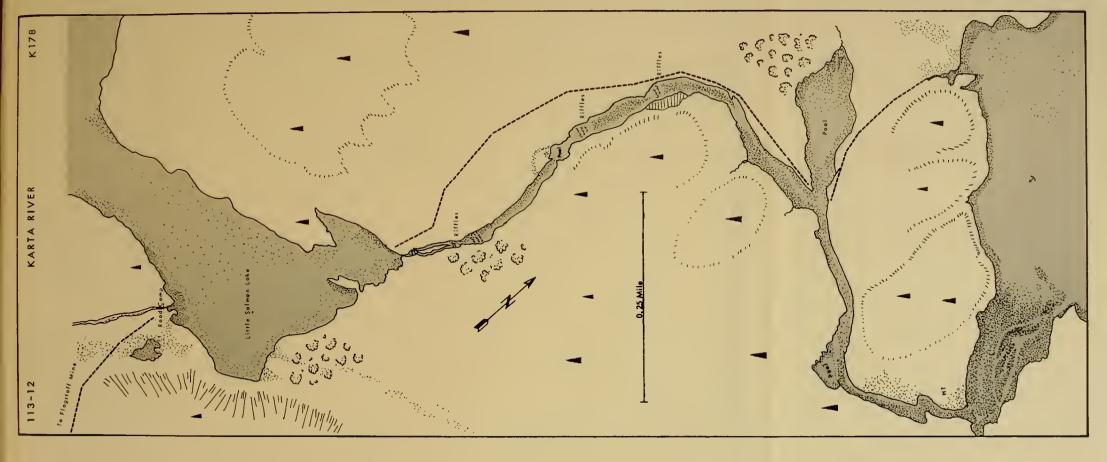
UPSTREAM

LENGTH ACCESSIBLE GRADIENT AND VELOCITIES BOTTOM MARKER DISTANCE MARKER IDENTIFICATION BARRIERS TRIBUTARIES SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

AVERAGE WIDTH/DEPTH

#### ESCAPEMENT RECORD

	SURVEYED	)	PIN	K	СН	UM	OTHER SPECIES	REMARKS
Date	Miles	By	Live	Dead	Live	Dead	Live	Adjective rating
1948								
Sep 24	G 0.5	FWS	50		2,000			Good





55°33.5' N. 132°34.4' W.

KETCHIKAN, CLARENCE STRAIT, KASAAN BAY, KARTA BAY, Head

MAJOR SPECIES Pink, chum

OTHER SPECIES Coho, red
ESCAPEMENT TIMING Late. Sept. -Oct.

ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Fair. A limited amount of spawning in upper intertidal zone. Spawning on all riffles upstream.

STREAM TEMPERATURES Warm range (Observed temperature: 60°-61° F., 1951.)

VALLEY DESCRIPTION The river and the other lakes and streams in this system lie in a valley of glacial origin. Two large tributary valleys enter at the upper end, the first containing McGilvery Creek and the second Andersen Creek.

DRAINAGE 64 square miles (polar planimeter). This river drains Little Salmon Lake, 1.2 miles long and 0.2 mile wide, which is connected to Salmon Lake, 4.5 miles long and 1.5 miles wide. Numerous tributaries enter these lakes.

STREAM MOUTH IDENTIFICATION The stream enters the head of Karta Bay. In the lower reaches the stream runs between steep bedrock banks.

ANCHORAGE Good anchorage in 10 to 12 fathoms is found at the head of the bay. Anchor off the beach near the start of the Forest Service trail, which is marked by a sign.

TRAILS AND SURVEY ROUTES A Forest Service trail follows the left bank up to Little Salmon Lake.

The stream bed is slippery, especially in its lower reaches and difficult to travel.

AERIAL SURVEY NOTES Aerial visibility is very poor due to the dark water and bottom composition.

### INTERTIDAL ZONE

LENGTH 0.3 mile

AVERAGE WIDTH/DEPTH 35'-S0'/16"

GRADIENT AND VELOCITIES Moderate

BOTTOM Rocky with large areas of boulders.

LOW TIDE LOCATION

HIGH TIDE LOCATION At the head of a hundred yard straight stretch where riffles start and the stream turns sharply to the right and splits.

SCHOOLING AREAS The bay off the mouth of the weir is utilized heavily for schooling. In some years schools of fish are found over nearly the entire bay. Schooling also takes place in the pools of the lower intertidal zone.

SPAWNING AREAS Some spawning occurs near the upper limit.

GENERAL NOTES Lower part is very rocky with steep bedrock banks.

## UPSTREAM

LENGTH ACCESSIBLE 1.7 miles to lake AVERAGE WIDTH/DEPTH 150'/18"

GRADIENT AND VELOCITIES Moderate to swift

BOTTOM Gravel and rock.

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS Three falls are present which are a partial block to salmon.

TRIBUTARIES None reported.

SCHOOLING AREAS There are several large pools throughout the streams length which afford good resting areas.

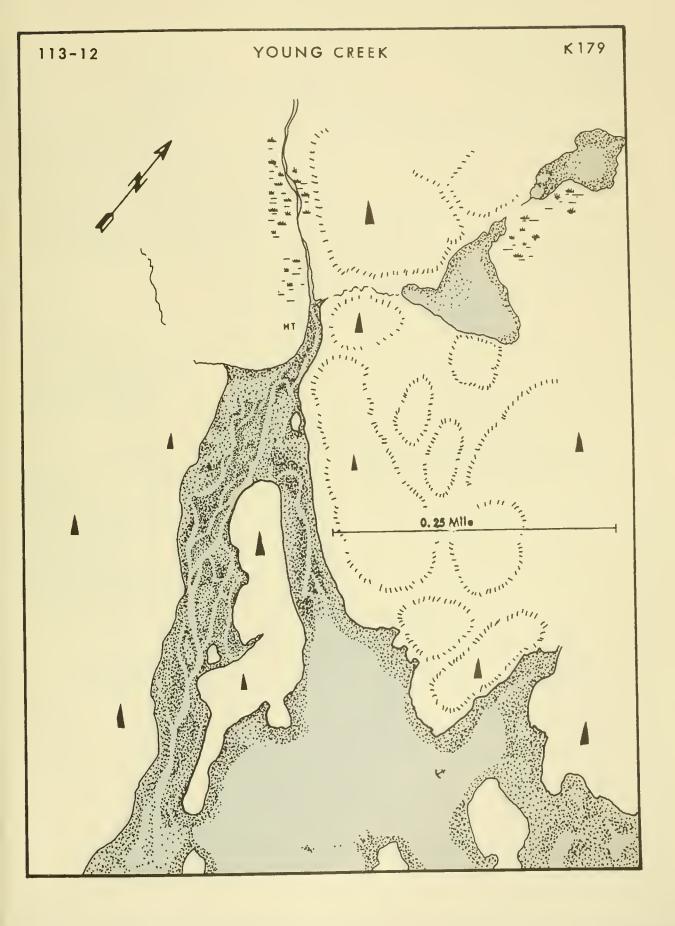
SPAWNING AREAS Spawning takes place over the entire stream length, but is concentrated in the riffle areas between the large pools.

GENERAL NOTES

			•					
	SURVEYED	•	PINK		CHUM		OTHER SPECIES	REMARKS
Date	Miles	By	Live	Dead	Live	Dead	Live	Adjective rating
1930								
Oct 14	G 1.0	FWS						Good indications of run
1938		77110						1 000 6-1
Aug 17	G 1. \$	FWS						1,000 fish
1940	600	THAT	40.000		10.000			Coad S 000 fish off mouth
Sep 24 1941	G 2.0	FWS	40,000		10,000			Good. S,000 fish off mouth
Oct 11	G 2.0	FWS						Water high, many dead. Indications
Oct 11	0 2.0	1113						excellent
1943								
Sep 29	G 2.0	FWS	30,000		10,000			Fair. 4,000 off mouth
1945	_		•		•			
Sep 25	G 1.0	FWS	20,000		10,000			Excellent. 30,000 fish off mouth
1947			-					
Oct 8	G 0. S	ASI						Good chum escapement, small pink
								escapement
1948								
Aug 12	G 1.5	ASI					200 red	
Sep 16	G 1.5	ASI						Good showing chum, pink
Sep 30	G 1.3	ASI			20,000	\$,000		Ca C.11 - C1 3 - 1
Oct 6	G 0.5	ASI						Stream full of chum and pink
1951	C 0 F	FRI	150	0	20	0		Mostly in lower stream. Few off mouth
Aug 25	G 0.5 G 1.0	FRI	4, \$00	0	30 25	1	50 coho, few red	Mostly in lower sciedin. Few oil model
Sep 6 Sep 20	G 1.0	FRI	10, 200	100	6,700	1,500	1,000 coho	>10,000 chum in bay. Some coho in lake
Jep 20	0 1.0	114	10, 200	100	0,700	1,000		15,000 chum above marker
1952								
Sep 19	A 0.5	ADF&G						Poor visibility. Chum and pink present
•								Scattered jumps
1953								
June 3	G 0.0	FWS					Few red showing	
June 7	G 0.0	FWS						First appearance of any number of red
June 11	A 1.0	FWS						No fish seen
June 15	G 0.0	FW5						First time any red noted going upstream
June 18	G 1.0	FWS						None noted in stream. Still numbers
T. J. 24	4 2 0	TERATE						at tide head 2,000 red at head of Salmon Lake
July 24	A 2.0	FWS						· ·
Aug 24 5ep 5	G 1.0 G 0.0	FWS FWS						Several hundred fish at falls Good showing pink & chum in bay,
Sep S	<b>G</b> 0.0	1 113						none in creek
Sep 28	G 0. 1	FW5						Fair. >2,000 salmon. Stream flooding
Oct 1	G 0. 8	FWS						Many chum, few pink. Many at
								mouth. Visibility poor
Oct 7	G 0.0	FWS			\$0,000			Fair. Very few pink. Few fish showing
Oct 16	G 1.0	FWS						Stream flooded, many thousands dead
1954								
Sep 15	A 0.8	FRI	9,000		5,000			6,000 mixed off mouth
Sep 19	G	FWS	40,000		35,000			Excellent. Several thousands off mouth
Sep 25	A 1.0	FRI	0		15,000	>2,000		Many dead pink. Poor visibility. Pink
****								probably present
1955	A 1 C	EDI	E 000		20,000			Some dead chum. 20,000 fish at mouth
Sep 19	A 1.0	FRI	5,000		20,000			Joine dedd Chain. 20,000 fish at Mouth
1956 July 24		FWS					10,000 red	
July 24		1 113					20,000 100	

	SURVEYE	D	PINK		CHUM		OTHER SPECIES		REMARKS
Date	Miles	By	Live	Dead	Live	Dead	Live		Adjective rating
1000									
19 <b>5</b> 6 <b>S</b> ep 9	A 1.0	FRI	>10,000						. 10 000
Sep 15	A 1.0	FWS	35,000		15,000				>10,000 at mouth, many in bay
Sep 20	A 1.0	FRI	>100,000		>50,000				5,000 chum, 5,000 pink at mouth
GCP 20	11 1/0		100,000		-30,000				>50,000 chum above marker. Thou-sands at mouth
Sep 29	A 1.0	FRI	250,000		100,000				20,000 chum and pink at mouth
Oct 1		FWS	20,000		10,000		Few coho		as, see sham and plant at mouth
1957									
July 9	G 1.0	FWS					7,000 red	l	
July 15		FWS					500 red		
July 16		FWS					400 red		
July 19		FWS					100 red		
July 22		FWS					100 red		
July 27		FWS					SO red		
July 28		FWS					100 red		
July 29		FWS					SO red		TO 1
Aug 11		FWS FWS	50				1S coho		50 chum at mouth
Aug 23 Aug 28		FWS	30				13 Cono		100 pink at mouth
Sep 2		FWS	SS		25				100 pink at mouth
Sep 3		FWS	900		300				500 pink at mouth
Sep S		FWS			000				10,000 at mouth
Sep 9	A 1.5	FRI			>15,000				Some pink. Thousands at mouth
•					•				Jumps in bay
Sep 10		FRI							20,000 at mouth
Sep 13	G 1.5	FWS	6,000		25,000				20,000 in bay
Sep 13	A	FWS							10,000 chum at mouth
Sep 14	A	FWS							20,000 chum at mouth
Sep 1S	G.S	FWS							75,000 - 95% chum at mouth
Sep 16		FWS			600				
Sep 17		FWS	S,000		45,000				3,750 pink
Sep 18		FWS			20 000				38,000 chum, 2,000 pink at mouth
5ep 20	4 1 0	FWS			20,000	<b>&gt;0</b> 000			20,000 chum at mouth
Sep 22	A 1.0	FRI			70,000	>2,000			Some pink. >30,000 chum at mouth, Thousands off mouth
Sep 22		FWS							15,000 chum at mouth
Sep 27	A 1.0	FRI			40 000	>50,000			Some pink. 20,000 chum at mouth
1958	71.0	1 1(1			10,000	-50,000			Joine print. 20,000 chain at mount
Sep 7	A 1.0	FWS	3,000		500				Fair visibility. Many jumps in bay
Sep 20	A 1.0		-,		85,000				Fair visibility. 30,000 schooled off
1959					,				mouth
July 13	A	FRI	0		C	)			None at mouth
Aug 30	A	FRI	1,900		1,000		9,725 red,	67S coho	None at mouth
Sep 24	G	FWS							River too high
1960									
Season	A	ADF&G	2,000						None at mouth
1961	C	I D For	0.100		2 700		E 400 - 2-3	100 asha	
Season	Stringuard	ADFEG	8, 100		2,700		5,400 red,	100 CONO	







K 179 Previous No. 146A

KETCHIKAN, CLARENCE STRAIT, KASAAN BAY, N.W. head

MAJOR SPECIES Pink
ESCAPEMENT TIMING
SPAWNING FACILITIES Fair.

OTHER SPECIES
ESCAPEMENT MAGNITUDE

STREAM TEMPERATURES Warm range.

VALLEY DESCRIPTION

DRAINAGE 20 square miles (polar planimeter).

STREAM MOUTH IDENTIFICATION Enter the head of a bay 1 mile N. W. of Mound Point.

ANCHORAGE See Karta River (K 178).
TRAILS AND SURVLY ROUTES

AERIAL SURVEY NOTES

GENERAL NOTES Scant survey records - could be worthy of further surveys. Not an important salmon stream.

### INTERTIDAL ZONE

LENGTH
GRADIENT AND VELOCITIES
BOTTOM
LOW TIDE LOCATION
HIGH TIDE LOCATION
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES

AVERAGE WIDTH/DEPTH

### UPSTREAM

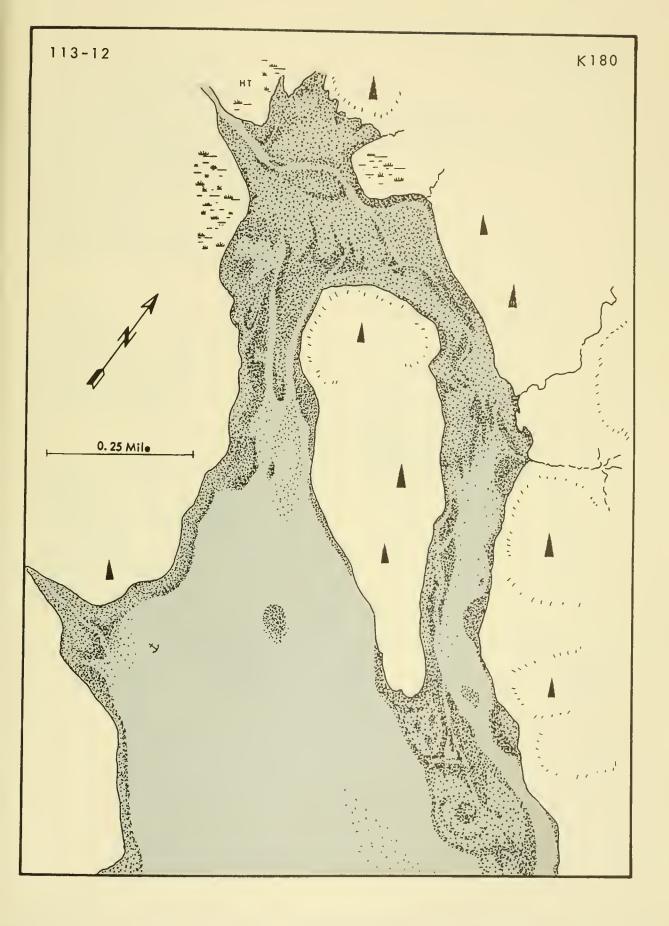
LENGTH ACCESSIBLE
GRADIENT AND VELOCITIES
BOTTOM
MARKER DISTANCE
MARKER IDENTIFICATION
BARRIERS
TRIBUTARIES
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES

AVERAGE WIDTH/DEPTH 20'/6"

### ESCAPEMENT RECORD

SURVEYED			PINK		CH	UM	OTHER SPECIES	REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1940								
Sep 26	G 1.0	FWS	3,500					Fair. 1, S00 fish at mouth
1947			•					
Oct 8		ASI						Small escapement
1953								•
Oct 1	G 0.1	FWS	0	0	1	0		







113-12 SS\*37.6' N. 132\*33.S' W.

K 180 No Previous No.

KETCHIKAN, CLARENCE STRAIT, KASAAN BAY, N. head

MAJOR SPECIES ESCAPEMENT TIMING SPAWNING FACILITIES STREAM TEMPERATURES Warm range VALLEY DESCRIPTION DRAINAGE 8 square miles (polar planimeter). STREAM MOUTH IDENTIFICATION ANCHORAGE TRAILS AND SURVEY ROUTES AERIAL SURVEY NOTES GENERAL NOTES No escapement records. Not an important salmon stream.

OTHER SPECIES ESCAPEMENT MAGNITUDE

### INTERTIDAL ZONE

LENGTH GRADIENT AND VELOCITIES BOTTOM LOW TIDE LOCATION HIGH TIDE LOCATION SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

AVERAGE WIDTH/DEPTH

### UPSTREAM

LENGTH ACCESSIBLE GRADIENT AND VELOCITIES BOTTOM MARKER DISTANCE MARKER IDENTIFICATION BARRIERS TRIBUTARIES SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

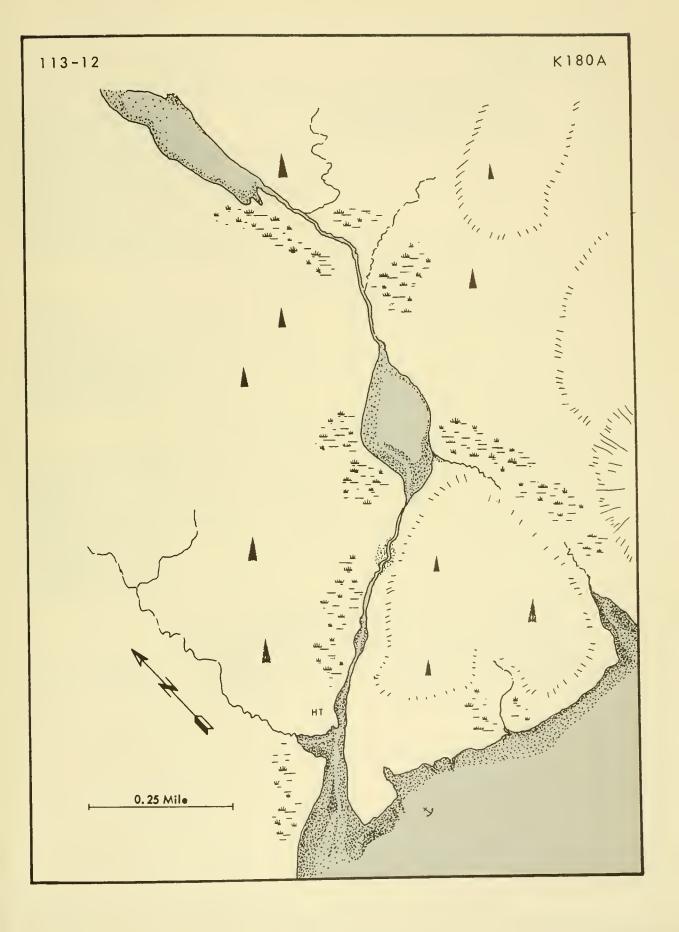
AVERAGE WIDTH/DEPTH

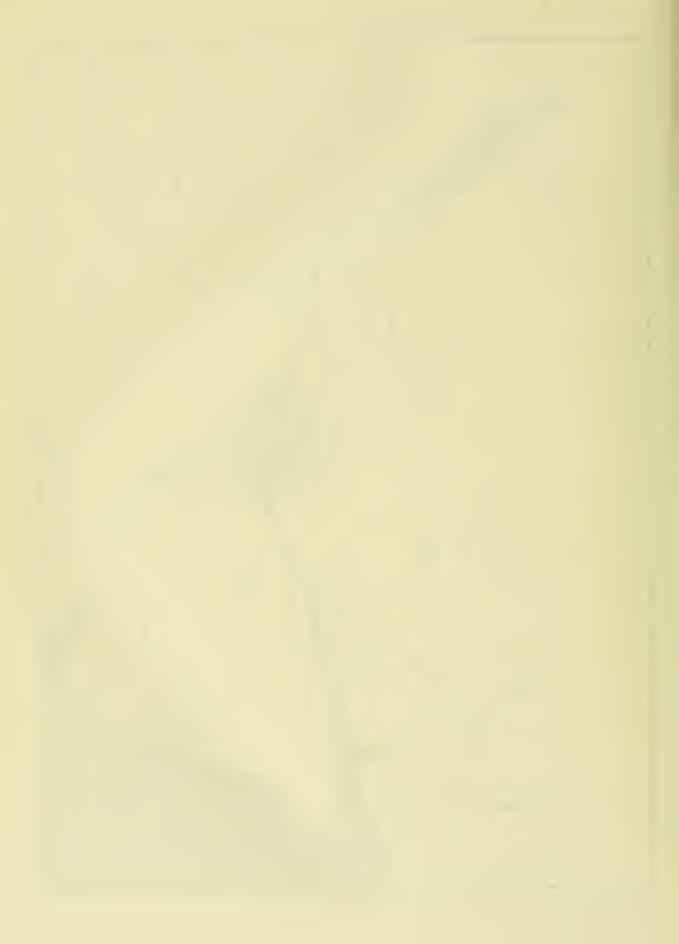
# ESCAPEMENT RECORD

[Counts made by ground surveys are designated by G. Aerial surveys by A]

REMARKS SURVEYED PINK CHUM OTHER SPECIES Miles By Live Dead Live Adjective rating Date Live Dead







KETCHIKAN, CLARENCE STRAIT, KASAAN BAY, E. shore 2.7 miles from N. head

MAJOR SPECIES ESCAPEMENT TIMING SPAWNING FACILITIES STREAM TEMPERATURES Warm range. VALLEY DESCRIPTION DRAINAGE O.S square mile (polar planimeter). STREAM MOUTH IDENTIFICATION ANCHORAGE TRAILS AND SURVEY ROUTES AERIAL SURVEY NOTES GENERAL NOTES No escapement records. Not an important salmon stream.

OTHER SPECIES ESCAPEMENT MAGNITUDE

### INTERTIDAL ZONE

LENGTH GRADIENT AND VELOCITIES BOTTOM LOW TIDE LOCATION HIGH TIDE LOCATION SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

UPSTREAM

LENGTH ACCESSIBLE GRADIENT AND VELOCITIES BOTTOM MARKER DISTANCE MARKER IDENTIFICATION BARRIERS TRIBUTARIES SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

AVERAGE WIDTH/DEPTH

AVERAGE WIDTH/DEPTH

### ESCAPEMENT RECORD

[Counts made by ground surveys are designated by G. Aerial surveys by A]

**SUR VEYED** CHUM OTHER SPECIES REMARKS PINK Date Miles By Live Dead Live Dead Live Adjective rating

KETCHIKAN, CLARENCE STRAIT, KASAAN BAY, N. shore 7.8 miles from N. head

MAJOR SPECIES ESCAPEMENT TIMING SPAWNING FACILITIES STREAM TEMPERATURES Warm range. VALLEY DESCRIPTION DRAINAGE 2 square miles (polar planimeter). STREAM MOUTH IDENTIFICATION ANCHORAGE TRAILS AND SURVEY ROUTES AERIAL SURVEY NOTES GENERAL NOTES No record of escapement or physical features. Not important as a salmon stream.

OTHER SPECIES ESCAPEMENT MAGNITUDE

INTERTIDAL ZONE

LENGTH GRADIENT AND VELOCITIES BOTTOM LOW TIDE LOCATION HIGHT TIDE LOCATION SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

AVERAGE WIDTH/DEPTH

UPSTREAM

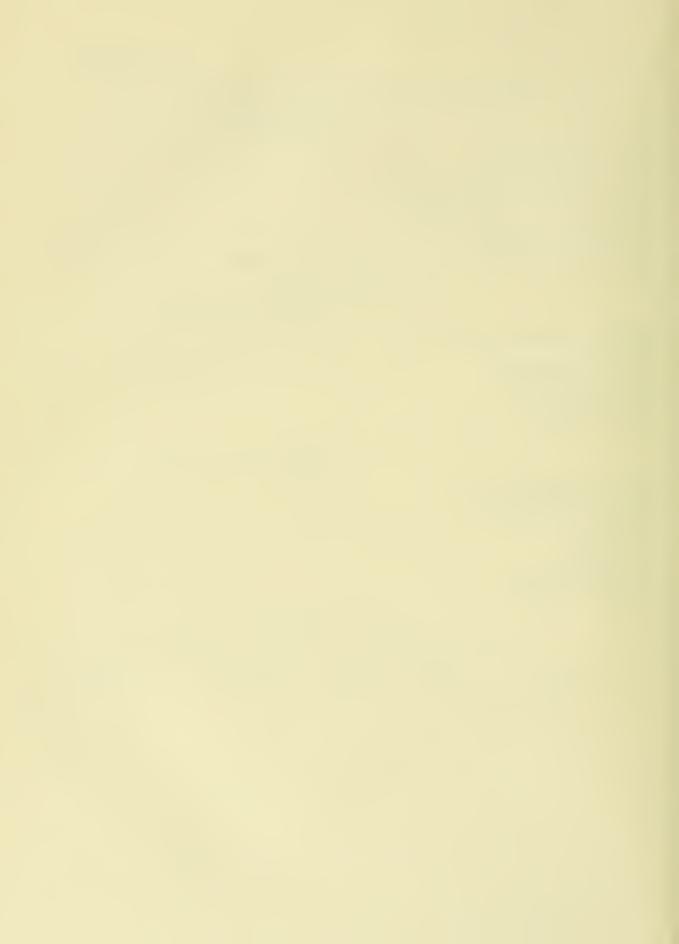
LENGTH ACCESSIBLE GRADIENT AND VELOCITIES BOTTOM MARKER DISTANCE MARKER IDENTIFICATION BARRIERS TRIBUTARIES SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

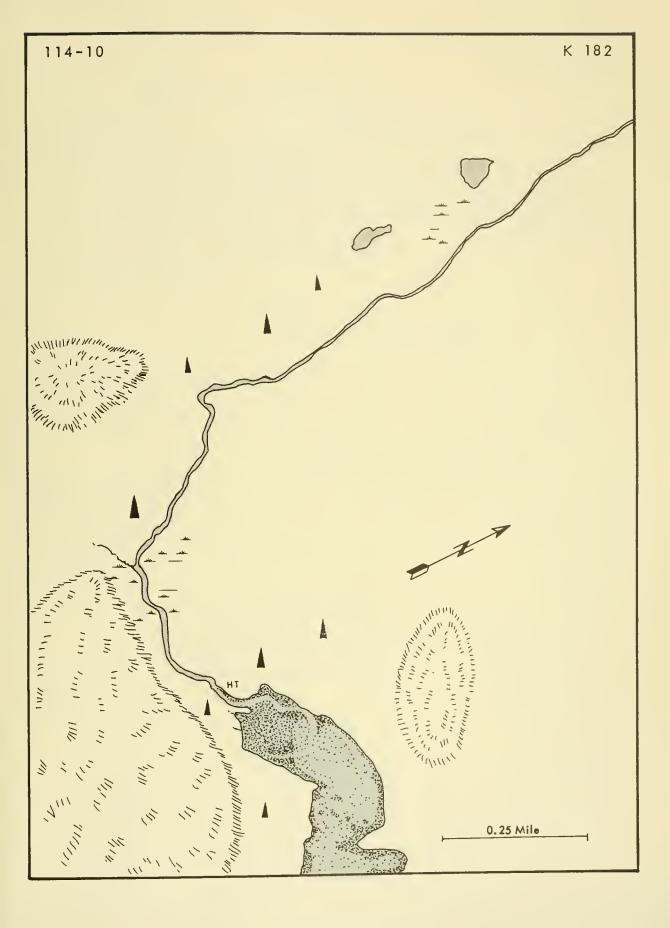
AVERAGE WIDTH/DEPTH

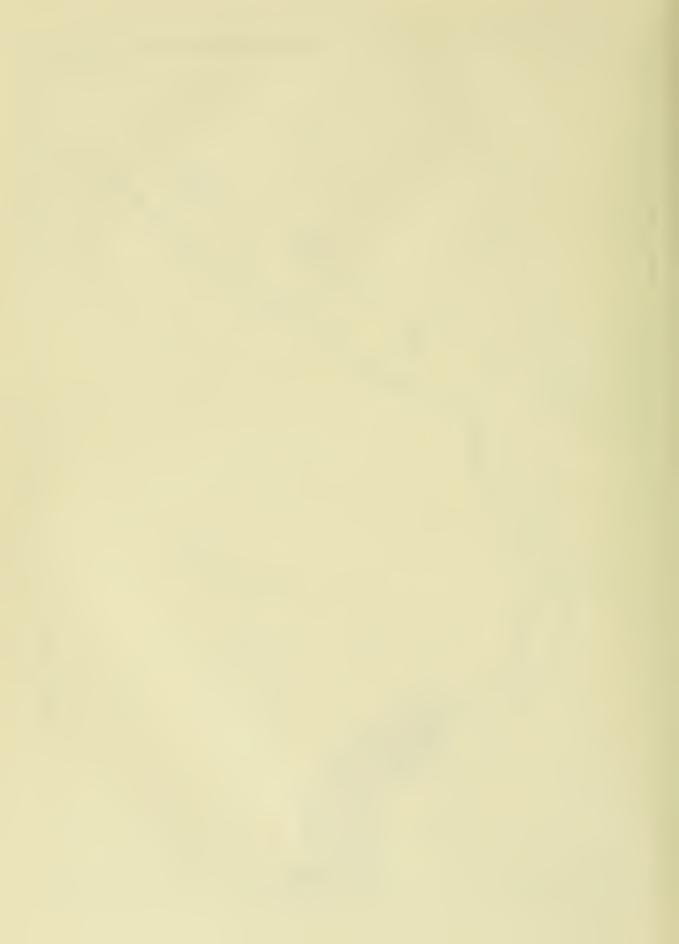
# ESCAPEMENT RECORD

[Counts made by ground surveys are designated by G. Aerial surveys by A]

REMARK' SUR VEYED PINK CHUM OTHER SPECIES Adjective rating Miles By Live Dead Live Dead Live Date







114-10 55°35.7' N. 132°21.5' W. K 182 Previous No. 147

KETCHIKAN, CLARENCE STRAIT, WINDFALL HARBOR, Head

MAJOR SPECIES

OTHER SPECIES

ESCAPEMENT TIMING Late (estimated).

ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES

STREAM TEMPERATURES Warm range (estimated).

VALLEY DESCRIPTION A wide valley of glacial origin. The most prominent mountains follow the S. side of the valley. Near the creek the gradient is moderate.

DRAINAGE 7 square miles (polar planimeter). Precipitation fed. Snowmelt from snowfields N. and S. of the valley contributes at certain times of the year. A few small lakes and muskeg areas in the upper valley.

STREAM MOUTH IDENTIFICATION The mouth lies at the head of Windfall Harbor. The main channel runs along the N. shore.

ANCHORAGE This harbor is a poor anchorage and should be avoided by all except small craft. Lyman anchorage, 4 miles S.E. of the harbor offers excellent shelter in all weather.

TRAILS AND SURVEY ROUTES AERIAL SURVEY NOTES

GENERAL NOTES Scant survey records.

### INTERTIDAL ZONE

LENGTH
GRADIENT AND VELOCITIES
BOTTOM Gravel.
LOW TIDE LOCATION
HIGH TIDE LOCATION
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES

AVERAGE WIDTH/DEPTH

#### UPSTREAM

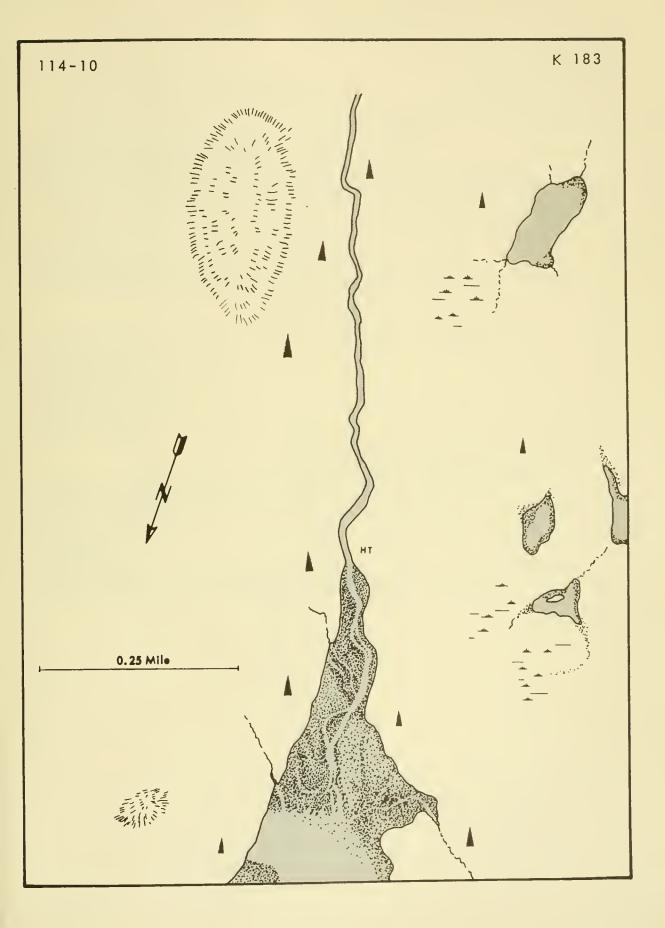
AVERAGE WIDTH/DEPTH 101/3"

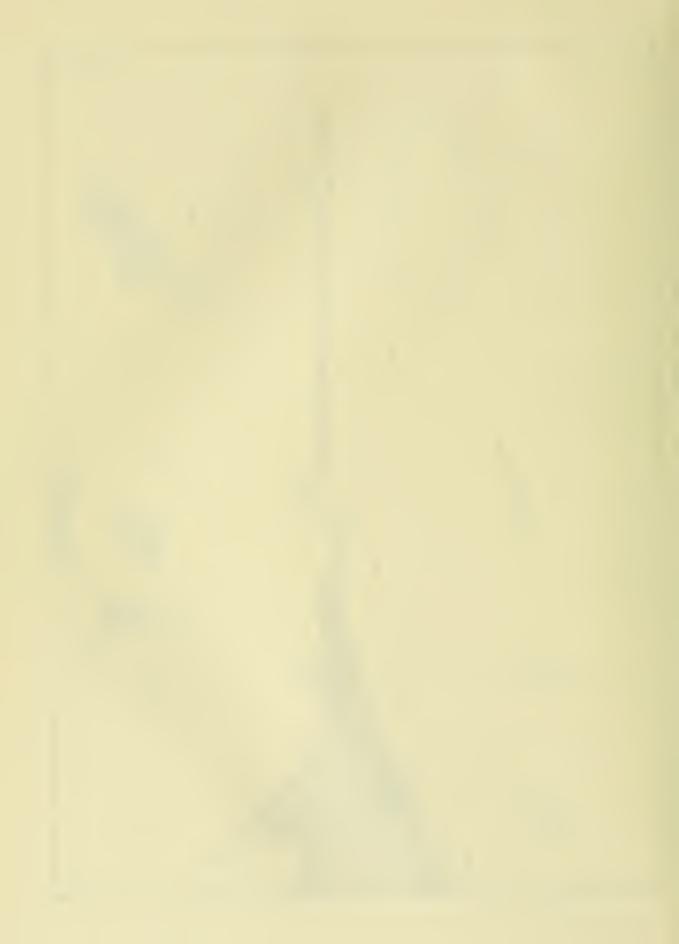
LENGTH ACCESSIBLE
GRADIENT AND VELOCITIES
BOTTOM Large gravel and rock.
MARKER DISTANCE
MARKER IDENTIFICATION
BARRIERS None
TRIBUTARIES
SCHOOLING AREAS
SPAWNING AREAS
GENERAL NOTES

### ESCAPEMENT RECORD

Date	SURVEYED Miles	Ву	PIN Live	K Dead	CHI Live	UM Dead	OTHER SPECIES Live	REMARKS Adjective rating
1981 Sep 22	G 0.3	FRI	0	0	109	SS		250 pink at mouth







### KETCHIKAN, CLARENCE STRAIT, TOLSTOI BAY, Head

MAJOR SPECIES Pink, chum

OTHER SPECIES

ESCAPEMENT TIMING Late (estimated)

ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Fair to good.

STREAM TEMPERATURES Warm range (No observed temperatures).

VALLEY DESCRIPTION Stream-cut. A steep-sided valley running N. and S. Heavily wooded.

DRAINAGE 7 square miles (polar planimeter). Precipitation fed. A few small lakes are found within the valley.

STREAM MOUTH IDENTIFICATION The mouth lies at the head of Tolstoi Bay and runs across a tide flat 0.5 mile in length, entering the flat from the S.E. corner. A smaller stream enters the flat from the S.W. corner.

ANCHORAGE Anchorage is found in 10 to 15 fathoms in midchannel westward of the wooded islet at the head of the bay. Protected from all except northerly winds.

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES Brushy banks and dark water make aerial survey difficult and unsatisfactory. GENERAL NOTES Has good escapements of both pink and chum.

### INTERTIDAL ZONE

LENGTH 0.6 mile GRADIENT AND VELOCITIES BOTTOM Gravel. LOW TIDE LOCATION HIGH TIDE LOCATION SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

# UPSTREAM

LENGTH ACCESSIBLE 0.5 mile GRADIENT AND VELOCITIES Slow to moderate BOTTOM Sand, gravel, and small rock. MARKER DISTANCE MARKER IDENTIFICATION BARRIERS TRIBUTARIES SCHOOLING AREAS

SPAWNING AREAS The lower part of this section is utilized the most.

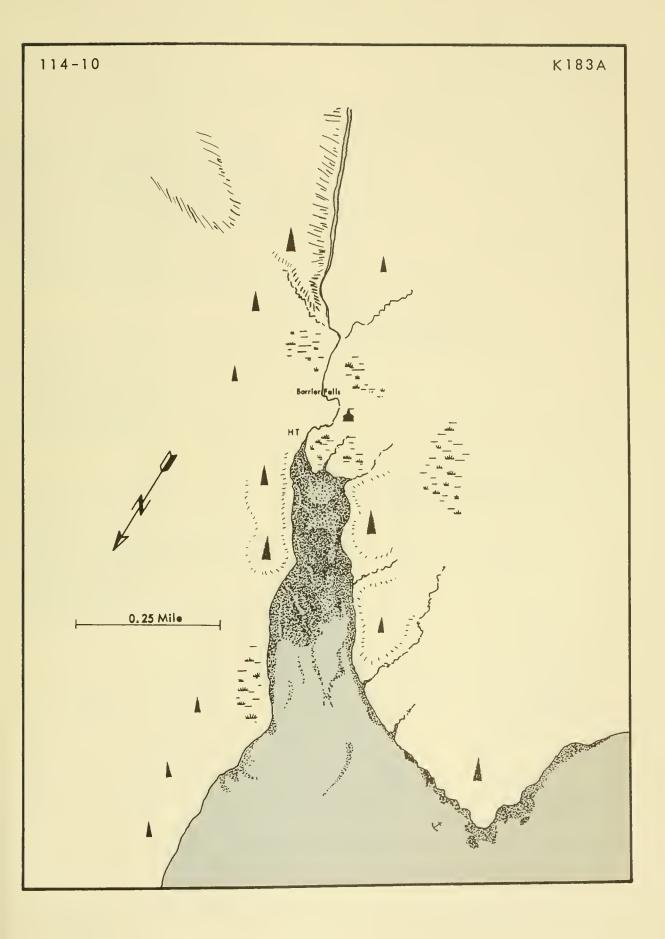
GENERAL NOTES This stream is not a large stream but it has a very good spawning bed.

AVERAGE WIDTH/DEPTH

AVERAGE WIDTH/DEPTH 30'-40'/12"-15"

# ESCAPEMENT RECORD

Date	SUR VEY		PIN: Live		CH	UM Dead	OTHER SPECIES	REMARKS
Date	1411103	Бу	LIVE	Dedd L	ive	Dead	Live	Adjective rating
1937								
Oct 7	G	FWS						Very good escapement
1940								very good escapement
Oct 1	G 1.0	FWS	10,000	1,	000			Excellent
1941								
Oct 11	G0.8	FWS	12,000					Excellent. Chum showing
1943								
Sep 28	G 1.0	FWS	5,000	10,	000			Fair. Many dead chum
1946								•
Oct 4	G 1.0	FWS	8,500	1,	500			Good
1953								
Oct 2	G 0. 4	FWS	40		270	20		Poor. Few chum at mouth
1960								
Sep 2	A	ADF&G	0		0			None at mouth
1961								
Aug 18	A	ADF&G						None observed
1961 Aug 18	Α	AD <b>F</b> &G						None observed





KETCHIKAN, CLARENCE STRAIT, TOLSTOI BAY, E. shore 1.8 miles from head

MAJOR SPECIES Pink, chum

OTHER SPECIES

ESCAPEMENT TIMING Late (estimated)

ESCAPEMENT MAGNITUDE

SPAWNING FACILITIES Fair to good.

STREAM TEMPERATURES Worm range.

VALLEY DESCRIPTION Stream-cut. The main valley runs toward the E., and a smaller valley comes into it from the N. The northern slope has the steepest gradient.

DRAINAGE 3.5 square miles (polar planimeter). Precipitation fed.

STREAM MOUTH IDENTIFICATION Enters the E. side of Tolstoi bay 1.5 miles from its head.

ANCHORAGE See (K 183).

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES Not surveyed from the air.

GENERAL NOTES Appears to have a run nearly the same size as K 183.

### INTERTIDAL ZONE

LENGTH GRADIENT AND VELOCITIES BOTTOM LOW TIDE LOCATION HIGH TIDE LOCATION SCHOOLING AREAS SPAWNING AREAS

AVERAGE WIDTH/DEPTH

AVERAGE WIDTH/DEPTH 12'-15'/6"-10"

### UPSTREAM

LENGTH ACCESSIBLE GRADIENT AND VELOCITIES BOTTOM MARKER DISTANCE MARKER IDENTIFICATION TRIBUTARIES

BARRIERS An 8' falls 260' above high tide mark.

SCHOOLING AREAS

GENERAL NOTES

SPAWNING AREAS

GENERAL NOTES Spawning area above falls is poor.

## ESCAPEMENT RECORD

SURVEYED		PIN	PINK		JM	OTHER SPECIES	REMARKS	
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating
1940								
Oct 1	G 0.5	FWS	2,000		500			Excellent
1941								
Oct 11	G 0. S	FWS	2,500		500			Excellent
1943								
Sep 27	G 1.0	FWS	5,000		8,000			Fair. 1,000 fish off mouth







K 184 Previous No. 149

KETCHIKAN, CLARENCE STRAIT, THORNE BAY, N. head

MAJOR SPECIES Pink, chum

OTHER SPECIES Coho, red ESCAPEMENT MAGNITUDE

ESCAPEMENT TIMING Late. Sept. -Oct.

SPAWNING FACILITIES Good to excellent.

STREAM TEMPERATURES Warm range (Observed temperatures: S0° F., 9/12/49).

VALLEY DESCRIPTION A large glacial valley with numerous tributary valleys. The tributary valleys are both glacial and stream cut. Large muskég areas scattered throughout.

DRAINAGE 210 square miles (polar planimeter). Many lakes and streams are found within this system and are the streams major water source. Snowfields are found in the valley also.

STREAM MOUTH IDENTIFICATION The stream enters the head of the N.W. arm of Thorne Bay. A long tidal flat about 1.5 miles in length is exposed at low tide.

ANCHORAGE Enter Thorne Bay on the N. side of the large island obstructing its mouth, keep a midchannel course. Anchorage is available about 2 miles from the head of the bay. In the past floats have been available for moorage.

TRAILS AND SURVEY ROUTES At high tide a skiff may be taken about 3 miles upstream. Travel from here is best along the stream bank. The stream is too large for adequate ground survey.

AERIAL SURVEY NOTES The water in this stream is discolored and aerial visibility is poor, especially in the lower parts.

## INTERTIDAL ZONE

LENGTH 4 miles

GRADIENT AND VELOCITIES

BOTTOM Gravel and large rocks.

LOW TIDE LOCATION

HIGH TIDE LOCATION Just below the small canyon 4. 2 miles upstream.

SCHOOLING AREAS Numerous pools and sloughs are scattered throughout.

SPAWNING AREAS Spawning occurs throughout most of this zone, but the largest numbers of spawners utilize the upper half. Conditions for observations are limited in the lower half.

GENERAL NOTES Visibility is inhibited by discolored water.

### UPSTREAM

LENGTH ACCESSIBLE

AVERAGE WIDTH/DEPTH 70'-100'/12"-24"

AVERAGE WIDTH/DEPTH 100'-150'/20"-36"

GRADIENT AND VELOCITIES Slow to moderate

BOTTOM Sand, gravel, and some slate and bedrock.

MARKER DISTANCE

MARKER IDENTIFICATION

BARRIERS None reported.

TRIBUTARIES Many tributaries run in from the numerous lakes in this system. Most are utilized for spawning.

SCHOOLING AREAS There are many pools scattered throughout the length of this stream which are available for schooling.

SPAWNING AREAS Spawning occurs in all riffle areas.

GENERAL NOTES Thorne River is one of the best spawning streams in S.E. Alaska. It is a large stream with very good spawning facilities, and is reported to be unobstructed for over 10 miles.

# ESCAPEMENT RECORD

_	SURVEYE		PIN			UM	OTHER S		REMARKS
Date	Miles	Ву	Live	Dead	Live	Dead	Live	:	Adjective rating
19 <b>37</b> Oct 8		FWS							River high and discolored. Good escape- ment presumed from fish seen dead on banks
1940 Oct 2	G 3. 0	FWS							Good. Good showing live & dead fish
1941	G 3. 0	1 113							Good. Good showing live & dedd lish
Aug 17 Oct 12	G 3. 0 G 3. 0	FWS FWS							Fish just starting to come in Good. Many dead fish. Water high and muddy
1943 Sep 28	G 0.5	FWS							Fair. 15,000 off mouth. No est. in stream
1946 Oct 4	G 2.0	FWS							No estimate possible
1947 Oct 9	G 1.0	ASI							Poor. Few fish. Water discolored
1948	0 1.0								
Aug 14	G 3.0	ASI			200		S00 red 300 red		
Aug 21 Sep 11	G 3. 0 G 0. S	ASI ASI			200		200 rea		Water too high and discolored
Sep 17	G 1.0	ASI							Many chum, coho, & pink spawning
Oct 1	G 1. S	ASI							Many chum and pink
Oct 8		ASI							River too high
Aug 30	A 5. 3	FRI							Occasional jumps in lower river & off mouth
Sep 12	G 1.0	FRI	5,889	18	1, 275	73			Survey terminated just above Thorne River Club camp site
19 <b>53</b> Oct 2	G 0. S	FWS							Poor. Little showing, pink, few chum. Visibility poor. Resident reports good early red run, pink & chum run poor
19\$4									•
Aug 24	A 2.0	FRI	3,S00	0					>3,000 in mouth
Sep 8	A 8.0	FRI							Many pink. Poor visibility. Salmon present
Sep 17 1956	A 2.0	FRI	3,000	200	4,000	800			Est. 10,000 above marker
July 24		FWS					S00 coho,	10,000 re	ed. 400 coho at mouth
Aug 14		FWS	2,000						
Aug 19		FWS							Some chum, 3,000 pink at mouth
Aug 20		FWS FWS	S,000						Some chum, 10,000 fish at mouth 10,000 chum and pink
Aug 21 Aug 22		FWS	15,000				Few coho		Few chum
Sep 9 1987	A 2.0	FRI	>40,000				Tew cono		Est. 3-S times more in pool
June 1		FWS					2,000 red		
July 1		FWS					S, 000 red		
July 25		FWS					200 coho		
Aug 9		FWS	250		250				
Sep 16	G 1.0	FWS	2,000		3,000				Few jumps in bay
Sep 16		FWS	200		13,000				
Sep 27 1959	A 3.0	FRI			15,000 1	10,000			Some dead pink. No fish observed off mouth
June 30	A	FWS	0		0		200 red		None at mouth. No jumpers in bay
Aug 6 1960	Α	FWS	S00		0		200 coho,	500 red	None at mouth
Sep 16	A	ADF&G	0		0				None at mouth. Water dark

Date	SURVEYEL Miles	Ву	PIN Live	K Dead	CHU Live	IM Dead	OTHER SPECIES Live	REMARKS Adjective rating
1961 Sep 18	G	ADF&G	500		1,500			Forest Service



114-10 SS 42' N. 132° 34.8' W. GRAVELLY CREEK

K 184-1 No previous No.

KETCHIKAN, CLARENCE STRAIT, THORNE BAY, 1 mile upstream Thorne River, N. E. shore

MAJOR SPECIES ESCAPEMENT TIMING SPAWNING FACILITIES

OTHER SPECIES ESCAPEMENT MAGNITUDE

AVERAGE WIDTH/DEPTH

STREAM TEMPERATURES Colder than Thorne River.

VALLEY DESCRIPTION Narrow.

DRAINAGE 11.5 square miles (polar planimeter).

STREAM MOUTH IDENTIFICATION Flows into Thorne River from the left bank at approximately the high tide mark.

ANCHORAGE

TRAILS AND SURVEY ROUTES

AERIAL SURVEY NOTES

### INTERTIDAL ZONE

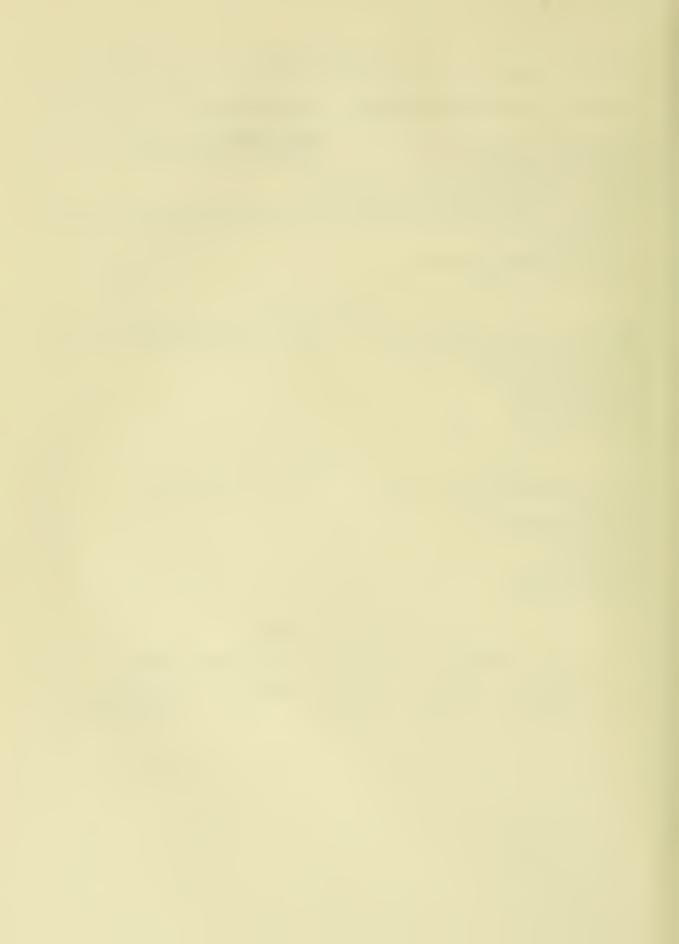
LENGTH AVERAGE WIDTH/DEPTH 301/10" GRADIENT AND VELOCITIES Steep, 5% grade for first 2,000°, then 2% grade. BOTTOM Large boulders and large gravel. LOW TIDE LOCATION HIGH TIDE LOCATION SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

### UPSTREAM

LENGTH ACCESSIBLE GRADIENT AND VELOCITIES 2% grade BOTTOM MARKER DISTANCE MARKER IDENTIFICATION BARRIERS TRIBUTARIES SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

### ESCAPEMENT RECORD

	SUR VEYED	SUR VEYED PINK		CHUM		OTHER SPECIES	REMARKS	
Date	Miles	Ву	Live	Dead	Live	Dead	Live	Adjective rating



KETCHIKAN, CLARENCE STRAIT, 2 miles N. of Forss Cove

MAJOR SPECIES ESCAPEMENT TIMING SPAWNING FACILITIES STREAM TEMPERATURES Warm range. VALLEY DESCRIPTION DRAINAGE STREAM MOUTH IDENTIFICATION ANCHORAGE TRAILS AND SURVEY ROUTES AERIAL SURVEY NOTES GENERAL NOTES No escapement records. Not an important salmon stream.

OTHER SPECIES ESCAPEMENT MAGNITUDE

INTERTIDAL ZONE

LENGTH GRADIENT AND VELOCITIES BOTTOM LOW TIDE LOCATION HIGH TIDE LOCATION SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

AVERAGE WIDTH/DEPTH

UPSTREAM

LENGTH ACCESSIBLE GRADIENT AND VELOCITIES BOTTOM MARKER DISTANCE MARKER IDENTIFICATION BARRIERS TRIBUTARIES SCHOOLING AREAS SPAWNING AREAS GENERAL NOTES

AVERAGE WIDTH/DEPTH

### ESCAPEMENT RECORD

[Counts made by ground surveys are designated by G. Aerial surveys by A]

CHUM OTHER SPECIES REMARKS **SURVEYED** PINK Adjective rating Date Miles By Live Dead Live Dead Live

GPO 999928

