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**ESCAPEMENT OF SOCKEYE AND OTHER  
SALMONIDS FOR SELECTED STREAM SYSTEMS  
IN THE SOUTHERN PART OF SOUTHEASTERN  
ALASKA, 1982-83**

**JULY 1984**

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ESCAPEMENT OF SOCKEYE SALMON AND OTHER SALMONIDS  
FOR SELECTED STREAM SYSTEMS IN THE SOUTHERN PART OF SOUTHEASTERN ALASKA,  
1982-83

by

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## ABSTRACT

As part of cooperative research between the United States and Canada, weirs were placed on eight stream systems in the southern part of southeastern Alaska in 1982 and on 11 stream systems in 1983. This report summarizes data collected at these weirs on escapement of salmonids (primarily sockeye salmon, Oncorhynchus nerka), water temperature, and water level.

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## INTRODUCTION

Salmon (Oncorhynchus spp.) bound for streams in the United States are caught by Canadian fishermen as the fish pass through Canadian waters. Fishermen from the United States also catch salmon in waters of the United States bound for Canadian streams. Discussions, information exchanges, and negotiations related to these interceptions have taken place between the United States and Canada for more than 20 yr. However, research designed specifically to determine interception rates for each species--information essential for an equitable settlement--has never been adequately funded, and information obtained before 1982 was insufficient to reach an agreement.

In 1982, the United States and Canada began cooperative research to determine interception rates, migration routes, timing of runs, and abundance of sockeye salmon (Oncorhynchus nerka) and pink salmon (O. gorbuscha) in the southern part of southeastern Alaska and northern British Columbia. As a part of this program, weirs were installed on stream systems to determine the number of fish returning (escapement) and recover salmon marked with Petersen disc tags.

This report summarizes the information collected at the weirs in the southern part of southeastern Alaska during 1982 and 1983.

### LOCATION AND OPERATION OF WEIRS

Streams were selected as weir sites based on geographical location and known (or speculated) run size. Weirs were placed on eight stream systems during 1982: Hetta, Hugh Smith, Karta, Kegan, Klawock, McDonald, Salmon Bay and Sarkar (Table 1). Eleven systems were weired in 1983: Hugh Smith, Naha, Karta, Kegan, Klakas, Klawock, McDonald, Salmon Bay, Sarkar, Tamgas and Warm Chuck (Figure 1; Table 1). Klakas,

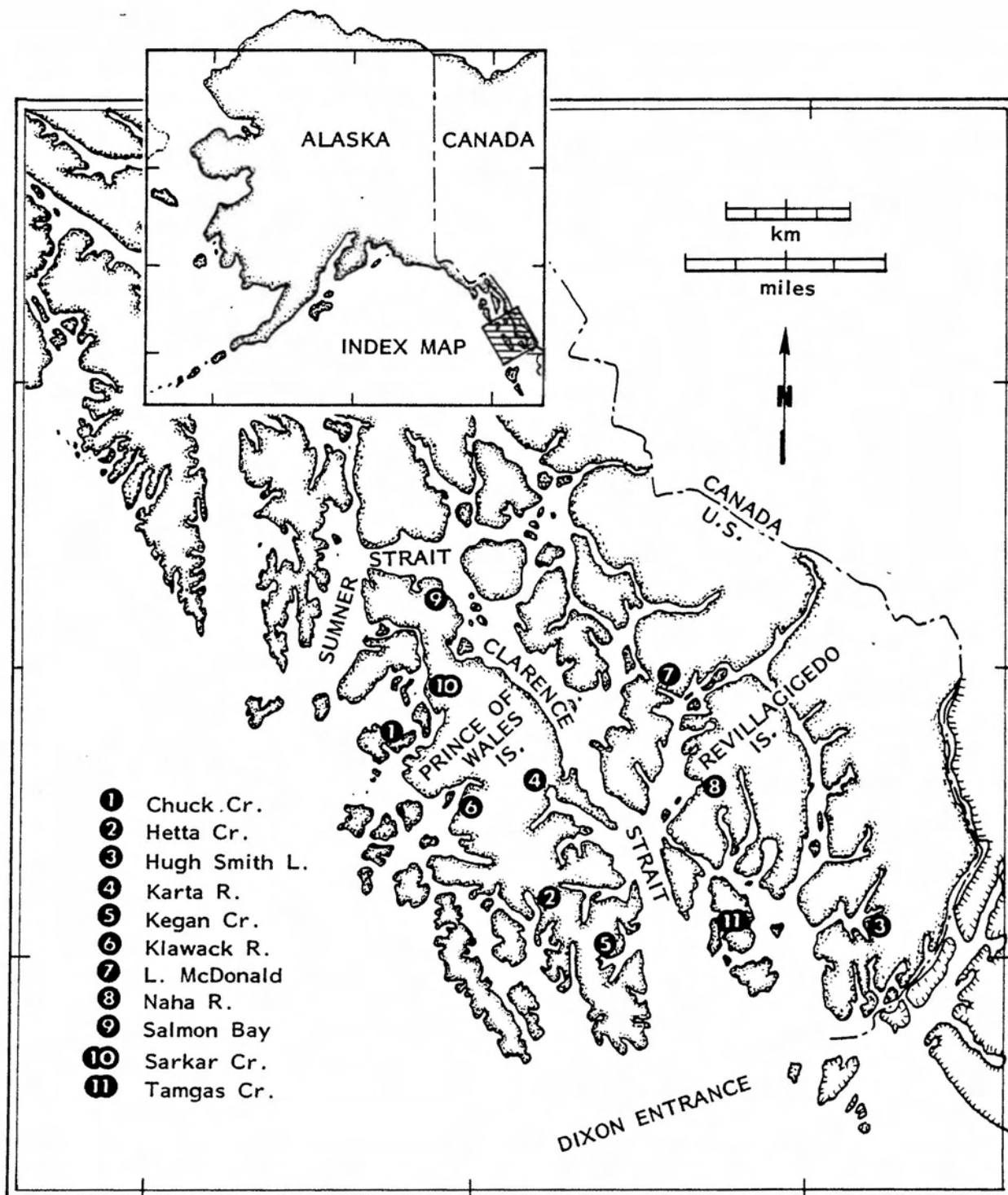


Figure 1. Location of weir sites used to record the escapement of sockeye salmon and other salmonids in the southern part of southeastern Alaska, 1982-83.

Tamgas and Warm Chuck weirs were operated independently of United States/Canada research in 1982. The weirs were located on the outlet stream between the estuary and the first lake in each system (Table 1), and, when possible, were constructed as close as possible to the upper reaches of high tides so that the sites could be readily accessed from boats.

The dates for installing and removing the weirs and the location of the weir sites were chosen to maximize the information collected for sockeye salmon, even if the information obtained for the other salmonids was incomplete. Weirs associated with hatcheries (Klawock and Tamgas) were operated longer so that brood stock for coho salmon (O. kisutch) and chum salmon (O. keta) could be taken.

The weirs were temporary structures and could be easily removed after data were collected. The design used was a modification of weirs previously used in Alaska and developed by the Alaska Department of Fish and Game (ADF&G). Wooden tripods, spaced approximately 2.4 m apart, supported cross pieces of heavy-gauge channel aluminum. Weir pickets consisting of 3.1-m lengths of steel EMT (electrical metallic tube) conduit 1.9-cm (3/4 in.) in diameter were inserted through holes in the channel and spaced at 5.4-cm intervals. The actual distance between pickets was 3.7-cm. One or two holding pens were built on each weir. The pens were 2.4-4.9 m long, 2.4-m wide, and had a drop gate so that fish could be held and recovered, if necessary, to collect samples and recover tags (Figure 2-5). Holding pens were not used at McDonald



Figure 2. Weir design used to determine sockeye escapement for stream systems in the southern part of southeastern Alaska, 1982-83.



Figure 3. A frontal view of the weir design used to determine sockeye salmon escapement for stream systems in southeastern Alaska, 1982-83





Figure 4. A rear view of the weir design used to determine sockeye salmon escapement for stream systems in southeastern Alaska, 1982-83.

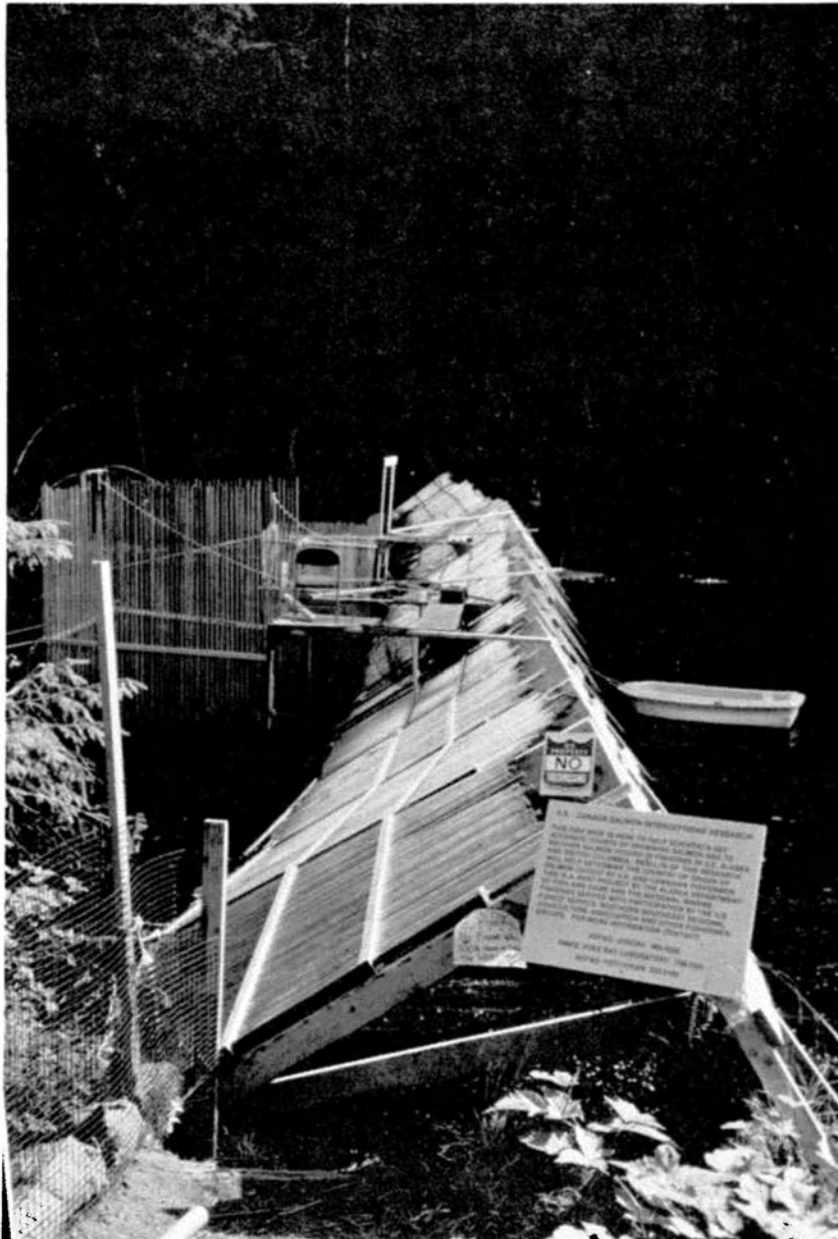


Figure 5. A side view of the weir design used to determine sockeye salmon escapement for stream systems in southeastern Alaska, 1982-83.

because of the large size and short duration of the run, and fish were counted as they passed through a gate in the weir. The number of marked and unmarked fish was recorded, and foot surveys were conducted on the spawning grounds to collect samples and recover tags.

Several organizations were involved in collecting data (Table 2). The Commercial Fisheries Division of the ADF&G operated the weirs at Klakas, Salmon Bay, and Warm Chuck. The weirs at Klakas and Warm Chuck were run in conjunction with research being conducted on coho salmon. Fisheries Rehabilitation, Enhancement, and Development Division (FRED), ADF&G operated the weirs at Klawock and the two mainland systems (Hugh Smith and McDonald). Weirs at Hetta, Naha, Karta, Kegan, and Sarkar were operated by the Southern Southeast Regional Aquaculture Association (SSRAA) under contract to the National Marine Fisheries Service (NMFS). The Annette Island Council Reserve provided information from the weir at Tamgas Hatchery.

Total escapement (Table 3) and daily escapement (Tables 4-22) were recorded for salmonids moving upstream and downstream through the weirs. The number of fish that died at the weirs, and the number of fish killed for scientific samples or brood stock (at weirs associated with hatcheries) were recorded.

Information on water level and water temperature at the weirs was also recorded (see Tables 23-37). Because stream gradients and stream widths and depths vary, a relative measure of water level was taken from a staff gauge, which reflected changes in water level rather than actual depth. A standard reference point was picked when data collection was initiated to represent the 0-cm level.

Incomplete information was collected at the Tamgas, Klakas and Warm Chuck weirs during 1982. Although direct comparisons with the other weirs operated in 1982 and 1983 are not possible, the information does indicate the magnitude of the runs for these three systems. A total of 2,243 sockeye salmon were counted at Tamgas weir in 1982 (Daniel Romey, Manager, Tamgas Creek Hatchery, pers. comm.). Sockeye salmon were counted at Klakas and Warm Chuck during 1982 (Table 1), but the weirs were operated primarily for coho salmon (O. kisutch) and were put in too late to determine total escapement of sockeye salmon. The Klakas weir was completed on 30 July, and 2,065 sockeye salmon were counted. A total of 1,826 sockeye salmon were counted at the Warm Chuck weir, which started operating on 23 August. Age and size composition of sockeye salmon returning to southeastern Alaska in 1982 are summarized by McGregor (1983).

#### ACKNOWLEDGEMENTS

Many people contributed to the success of this project. We gratefully acknowledge Dr. J. Olsen (NMFS, Auke Bay Laboratory) and D. Cantillon, J. Clark, G. Gunstrom and M. Seibel (Commercial Fisheries Division, ADF&G) for their efforts in coordinating the United States/Canada Salmon Interception Research Program. Samuel Bertoni (FRED Division, ADF&G) was instrumental in developing the weir design used during this project. We thank J. Kinney, T. Dress, S. Bertoni, G. Reid (NMFS, Alaska Region Office), J. Ingalls (NMFS, Auke Bay Laboratory), and weir personnel from SSRAA for their help in setting up and constructing the weirs and weir camps at Karta, Kegan, Naha, Salmon Bay and Sarkar. We also thank Captain J. Whistler and the crew of the NOAA research vessel MURRE II for their assistance in transporting supplies

and personnel to and from the weir sites. Special acknowledgement is made to the FRED Division, ADF&G, and the Annette Island Council Reserve for maintaining weirs established before 1982 for use in the United States/Canada Salmon Interception Research Program.

## LITERATURE CITED

- McGregor, A. J. 1983. Age, sex and size of sockeye salmon (Oncorhynchus nerka Walbaum) catches and escapements in southeastern Alaska in 1982. Alaska Dep. Fish Game, Tech. Data Rep. 100, 123 p.

Table 1. The locations of weirs used to determine escapement of sockeye salmon and other salmonids in southeastern Alaska, 1982-83.

Name	Latitude	Longitude	Stream system	Associated lake
Hetta	55°10.1'	132°30.4'	Hetta Creek	Hetta Lake
Hugh Smith	55°55.0'	130°40.0'	Sockeye Creek	Hugh Smith Lake
Karta	55°33.5'	132°34.5'	Karta River	Karta Lake
Kegan	55°01.4'	132°10.0'	Kegan Creek	Kegan Lake
Klakas	55°00.5'	132°24.5'	Klakas Creek	Klakas Lake
Klawock	55°33.0'	133°05.0'	Klawock River	Klawock Lake
McDonald	55°57.7'	131°50.1'	Wolverine Creek	McDonald Lake
Naha	55°36.0'	131°39.5'	Naha River	Jordan Lake
Salmon Bay	56°16.4'	133°09.0'	Salmon Bay Creek	Salmon Bay Lake
Sarkar	55°57.2'	133°12.4'	Sarkar Creek	Sarkar Lake
Tamgas	55°03.0'	131°31.2'	Tamgas Creek	Tamgas Lake
Warm Chuck	55°44.8'	133°28.6'	Chuck Creek	Chuck Lake

Table 2. Organizations and personnel operating weirs in southeastern Alaska as part of the United States/Canada Salmon Interception Research, 1982-83.

Year	Organization	Supervisor	Weir	Weir operators
1982	Commercial Fisheries Division, ADF&G <sup>a</sup>	William Bergmann Sandra (Schonberg) Lucas	Salmon Bay	Louis Farley Sue Komarek
	FRED <sup>b</sup> Division, ADF&G <sup>a</sup>	Mike Haddix Gerry Downey	Hugh Smith	Margaret Cartwright Greg Jones Tim Zadina
			McDonald	Ron Olsen Charles Riviera
		Steve Hansen Ernest Seleg	Klawock	Robert Burnett Tom Coffin Ken Santi Lance Todd
	SSRAA <sup>c</sup>	Dave Berg	Hetta	Mike Bouchard Carol Savonen Scot Shelton Keith Sims Scot Dawkins <sup>d</sup> Stewart Mattison <sup>d</sup> Larry Strunk <sup>d</sup>
			Karta	Stewart Mattison Jay Richter Larry Strunk



Table 2 (continued). Organizations and personnel operating weirs in southeastern Alaska as part of the United States/Canada Salmon Interception Research, 1982-83.

Year	Organization	Supervisor	Weir	Weir operators
			Kegan	Scot Dawkins Mike Jaenicke Carol Savonen Mike Bouchard <sup>d</sup>
			Sarkar	Judy Dopp Mike Lindgren Ken Marvin Mike Bouchard <sup>d</sup>
1983	Annette Island Council Reserve	Daniel Roney	Tangas	Martin Dundas Steve Leask Tim Marsden Dave Nelson Gilmore White
	Commercial Fisheries Division, ADF&G <sup>a</sup>	William Bergmann Sandra (Schonberg) Lucas	Salmon Bay	Louis Farley Sue Komarek
		Jerold Koerner	Klakas	Dennis Abney James Gruber Larry Slawson
			Warm Chuck	Ronnie Baumer D. Tim Boyle Glenn Freeman
	FRED <sup>b</sup> Division, ADF&G <sup>a</sup>	Mike Haddix Gerry Downey	Hugh Smith	Margaret Cartwright Greg Jones Tim Zadina

Table 2 (continued). Organizations and personnel operating weirs in southeastern Alaska as part of the United States/Canada Salmon Interception Research, 1982-83.

Year	Organization	Supervisor	Weir	Weir operators
			McDonald	Ron Olsen Charles Riviera
		Steve Hansen Jean Cypher	Klawock	Dell Ackerley John Allen Robert Burnett Sam Nickerson
	SSRAA <sup>c</sup>	Mike Blanchard Stewart Mattison	Karta	Sharon Howard Jay Richter Brian Orysen <sup>d</sup> Jim Pertz <sup>d</sup>
			Kegan	Lane Johnson Sue Johnson Brian Orysen <sup>d</sup>
			Naha	Brigette Ellis Mike Jaenicke Brian Orysen <sup>d</sup>
			Sarkar	Mark Ruch Ken Santi Mike Sutter Brian Orysen <sup>d</sup>

<sup>a</sup> Alaska Department of Fish and Game

<sup>b</sup> Fisheries Rehabilitation, Enhancement, and Development

<sup>c</sup> Southern Southeast Regional Aquaculture Association

<sup>d</sup> Substitute Operator

Table 3. Escapement of salmonids through the weirs in the southern part of southeastern Alaska, 1982-83. Numbers in parentheses represent downstream migrants.

Year	System	Period of Operation	Salmon					Dolly Varden	Steelhead trout	Cutthroat trout
			Sockeye	Pink	Coho	Chum	Chinook			
1982	Hetta	16 June - 27 Aug.	5,387	19	9	1,006		6	4	3
	Hugh Smith	6 June - 26 Nov.	57,219 <sup>a</sup>	9,179	1,418	20				16(38)
	Karta	24 June - 22 Sept.	41,385 <sup>a,b</sup>	69,699	3,972(7)	41,164		13(10)	7	
	Kegan	19 June - 20 Sept.	14,385 <sup>b</sup>	45,246	616	459		67	2(7)	16
	Klawock	18 June - 10 Oct.	4,804(1) <sup>a</sup>	4,402 <sup>c</sup>	3,252(2) <sup>d,e</sup>	143 <sup>d</sup>				
	McDonald	2 July - 12 Sept.	16,587 <sup>b</sup>	55,754	1,266	106	1	17	14	
	Salmon Bay	26 June - 2 Sept.	15,973 <sup>b</sup>	250(2)	124			184		5
	Sarkar	14 June - 22 Aug.	8,157	7	4,976(9)			3		
1983	Hugh Smith	1 June - 30 Sept.	9,956 <sup>b</sup>	9,034	857	69		7	4(4)	
	Karta	18 June - 11 Sept.	22,432 <sup>b</sup>	115,609	3,011(1)	6,769	1	1 <sup>f</sup>	5	
	Kegan	15 June - 12 Sept.	8,651 <sup>b</sup>	51,273	1,107 <sup>e</sup>	33				
	Klakas	8 June - 11 Nov.	1,314 <sup>b</sup>	13,706	1,260			5	36(3)	
	Klawock	7 July - 10 Oct.	823(78) <sup>a</sup>	18,123(2) <sup>c</sup>	3,696 <sup>d,e</sup>	687(10) <sup>d,g</sup>		3 <sup>f</sup>		1
	McDonald	9 July - 1 Sept.	56,147	61,188	550	27	3	9(2)	10(3)	1
	Naha	13 June - 26 Aug.	4,580 <sup>b</sup>	293,123	169(1)	220		8	79(4) <sup>h</sup>	
	Salmon Bay	12 June - 26 Aug.	13,947 <sup>b</sup>	23,793	1,564			531		
	Sarkar	10 June - 19 Aug.	2,680	204,591	3,708					
	Tangas	17 June - 30 Sept.	922	6,940	5,626	1,062		60	1	7
Warm Chuck	19 June - 18 Oct.	3,295 <sup>b</sup>	6,281	1,265	21					

<sup>a</sup> Count does not include sockeye that were found dead:

- 5 sockeye salmon at Hugh Smith in 1982,
- 1 sockeye salmon at Karta in 1982,
- 8 sockeye salmon at Klawock in 1982, and
- 16 sockeye salmon at Klawock in 1983.

<sup>b</sup> Sockeye salmon taken for electrophoresis samples not included in counts:

- 95 sockeye salmon at Karta in 1982,
- 100 sockeye salmon at Kegan in 1982,
- 63 sockeye salmon at McDonald in 1982,
- 69 sockeye salmon at Salmon Bay in 1982,
- 102 sockeye salmon at Hugh Smith in 1983,
- 100 sockeye salmon at Karta in 1983,
- 100 sockeye salmon at Kegan in 1983,
- 99 sockeye salmon at Klakas in 1983,
- 99 sockeye salmon at Naha in 1983,
- 76 sockeye salmon at Salmon Bay in 1983, and
- 100 sockeye salmon at Warm Chuck in 1983.

<sup>c</sup> Count does not include pink salmon that were dead:

- 2 pink salmon at Klawock in 1982, and
- 1 pink salmon at Klawock in 1983.

<sup>d</sup> Count does not include fish taken for hatchery brood stock:

- 66 coho salmon and 27 chum salmon at Klawock in 1982, and
- 403 coho salmon and 201 chum salmon at Klawock in 1983.

<sup>e</sup> Count does not include coho salmon that were dead:

- 1 coho salmon at Klawock in 1982,
- 2 coho salmon at Kegan in 1983, and
- 1 coho salmon at Klawock in 1983.

<sup>f</sup> Count does not include 2 Dolly Varden that were dead.

<sup>g</sup> Count does not include 10 chum salmon that were dead.

<sup>h</sup> Count does not include 1 steelhead trout that was dead.

Table 4. Daily escapement of salmonids through the Hetta weir in south-eastern Alaska, 1982.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
June 16	143					2	
17							
18	42						
19	1						
20	13						
21	3						
22	5						
23							
24	4						
25	29						
26	15						
27	3						
28	3						
29	361						
30	16						
July 1	89						
2	3						
3							
4							
5	308				3		
6	146						
7							
8	98						
9	12						
10	1						
11	4						
12	1						
13	536		1		3		1
14							
15	8						
16	75						
17	20						
18	154					2	2
19	22						
20							
21	7						
22	124						
23							
24	9						
25	1						
26							
27	1						
28							
29							
30							
31							

Table 4 (continued). Daily escapement of salmonids through the Hetta weir in southeastern Alaska, 1982.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
Aug. 1							
2							
3							
4							
5	330	15					
6	1,718			6			
7	40						
8							
9	4						
10	2						
11	106						
12	691						
13	41						
14	20		1	2			
15	113	2		144			
16	21			84			
17				7			
18	6			231			
19	29			171			
20	9			144			
21							
22							
23				6			
24				9			
25				145			
26			1	2			
27		2		61			
Total	5,387	19	9	1,006	6	4	3

Table 5. Daily escapement of salmonids through the Hugh Smith weir in southeastern Alaska, 1982. Number of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
June 6							
7	2						
8	1						
9	66						
10	146						
11	359						
12	413 <sup>a</sup>						
13	601 <sup>b</sup>						
14	263						
15	221					(34)	
16	149						
17	546					(3)	
18	1,091						
19	932					(1)	
20	1,084						
21	1,078						
22	823						
23	965						
24	449						
25	511						
26	1,283						
27	1,650						
28	1,003						
29	1,982						
30	825						
July 1	1,486						
2	1,316						
3	2,316	2					
4	1,164						
5	715						
6	1,681						
7	1,939						
8	470						
9	1,234						
10	2,796						
11	2,463						
12	1,061						
13	4,107						3
14	655	1					1
15	1,074	1					
16	333	1					
17	836	7					
18	1,062	17					
19	464	2					
20	903	5					
21	530	1					

Table 5 (continued). Daily escapement of salmonids through the Hugh Smith weir in southeastern Alaska, 1982. Number of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
July 22	161	10					
23	440	2					
24	448						
25	5						
26	246	4					
27	40						
28	411	15					
29	692	27					
30	1,568	26					
31	890	100					
Aug. 1	475	50	1				
2	352	66					
3	167	45					
4	126	49					
5	111	39					
6	193	22					
7	477	69					
8	96	26					
9	258	27		1			
10	325	164					
11	181	75					
12	308	236	4				
13	443	204	5				
14	312	116	3				
15	370	86	5				
16	220	96	2				
17	130	43	4				
18	211	133	5				
19	88	23	4				
20	33	22	1				
21							
22	19	37	1				
23	1	2					
24	24	54	1	1			
25	2	6					
26	27	25	1				
27	16	43	2	1			
28	54	61	7				
29	39	117		1			
30	52	83	3				
31	32	95	1				
Sept. 1	270	956	66				
2	181	1,016	63				
3	98	456	22				
4	51	144	9				

Table 5 (continued). Daily escapement of salmonids through the Hugh Smith weir in southeastern Alaska, 1982. Number of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
Sept. 5	33	184	20	1			
6	76	943	50				
7	259	1,212	34	2			
8	38	250	12				
9	23	157	14				
10	22	38	14				
11	45	78	4				
12	35	76	14				
13	18	34	21				
14	6	47	14				
15	11	52	8				
16	10	71	39				
17	18	57	29				
18	8	45	18	1			
19	5	46	20				
20	7	39	8				
21	4	64	9	2			
22	13	45	5				
23	3	35	1				
24	7	107	3				
25	16	43	6	1			
26	4	58	6				
27	6	56	6				
28	17	36	4	1			
29	7	66	10				
30	33	97	10	1			
Oct. 1	71	84	5				
2	48	65	55	1			
3	11	26	11			1	
4	326	73	86				
5	71	19	25			1	
6	42	33	20				
7	12	17	28			1	
8	4	11	13			2	
9	6	7	11				
10 <sup>C</sup>							
11 <sup>C</sup>							
12 <sup>C</sup>	200		300				
13							
14							
15	7		17	2		1	
16	3	1	6				
17			19				
18			4				
19			36				



Table 5 (continued). Daily escapement of salmonids through the Hugh Smith weir in southeastern Alaska, 1982. Number of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
Oct. 20	2		21				
21			22			1	
22			11				
23			14				
24			2			1	
25	1		5				
26			5			1	
27			2			2	
28			3				
29			7				
30			2				
31			4				
Nov. 1			11				
2			3			2	
3			2			1	
4			4				
5			3				
6			1				
7			2				
8							
9			1				
10			3				
11			3			1	
12			1				
13							
14							
15			2			1	
16							
17							
18			8				
19			10				
20			1				
21			11				
22			4				
23			11				
24			7				
25							
26			7				
Total	57,219	9,179	1,418	20		16(38)	

- <sup>a</sup> Count does not include 1 sockeye salmon that was dead.  
<sup>b</sup> Count does not include 4 sockeye salmon that were dead.  
<sup>c</sup> Weir failure, counts estimated.

Table 6. Daily escapement of salmonids through the Karta weir in south-eastern Alaska, 1982. Number of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
June 24	105						
25	816 <sup>a</sup>				(7)		
26	1,421				9		
27	836						
28	478				4		
29	935			1			
30	762			1			
July 1	548			3			
2	501						
3	2,113			1			
4	2,083			11			
5	1,465			11	(3)		
6	2,617			9			
7	2,401						
8	1,000			13		1	
9	1,658			2(6)			
10	1,215			6			
11	431			3			
12	719			1(1)			
13	5,416			51		3	
14	708			5			
15	168			3			
16	236			4			
17	253						
18	396			4			
19	185 <sup>b</sup>			7			
20	718 <sup>b</sup>			31			
21	574 <sup>c</sup>			26			
22	522			4			
23	273			5			
24	705			31			
25	780			30			
26	558			2			
27	175			11			
28	492						
29	123			3			
30	37						
31	88			2			
Aug. 1	146			4			
2	134			1			
3	280			6			
4	96						
5	91			15			
6	248	10		70			
7	586	15		80			

Table 6 (continued). Daily escapement of salmonids through the Karta weir in southeastern Alaska, 1982. Number of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
Aug. 8	293	13	7				
9	261	44	82				
10	110	2	4				
11	73 <sup>d</sup>	20	80				
12	151	38	78				
13	23	7	61				
14	88	28	52				
15	437	50	138				
16	118	46	53				
17	56	221	53				
18	39	131	83				
19	100	46	32				
20	27	85	47	1			
21	73	38	27	11			
22	8	47	5	1			
23	6	12	2	4			
24	12	42	18	5			
25	76	68	13	3			
26	40	29	4	4			
27	20	54	6	7			
28	21	19	2	5			
29	72	133	13	4		1	
30	159	560	14	8			
31	20	463	28	22			
Sept. 1	584	3,293	341	152			
2	1,939	12,489	297	582		1	
3	265	3,799	131	211			
4	20	2,716	165	309			
5	26	2,975	147	2,050			
6	37	11,256	185	2,928			
7	72	10,072	222	9,580			
8							
9	9	2,229	142	2,021			
10	22	1,905	154	1,576			
11	1	2,923	68	3,678			
12	2	1,554	132	3,302			
13	9	1,437	108	1,629			
14	2	1,815	96	1,393			
15	5	1,934	79	3,267		1	

Table 6 (continued). Daily escapement of salmonids through the Karta weir in southeastern Alaska, 1982. Number of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
Sept. 16	4	2,040	76	2,674			
17	2	1,308	53	1,181			
18	3	996	92	974			
19	3	1,372	66	1,226			
20	4	820	26	839			
21	1	436	29	1,131			
22		109	4	386			
Total	41,385	69,699	3,972(7)	41,164	13(10)	7	

- a Count includes 700 sockeye salmon observed upstream from the weir.  
 b Count does not include 6 sockeye salmon taken for electrophoresis samples.  
 c Count does not include 94 sockeye salmon taken for electrophoresis samples.  
 d Count does not include 1 sockeye salmon that was dead.

Table 7. Daily escapement of salmonids through the Kegan weir in southeastern Alaska, 1982. Numbers of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
June 19	6						
20	23					1	
21	1						
22	2				1		
23	131						
24	177						
25	49					(1)	
26	114						
27	49						
28	27						
29	127						
30	61						
July 1	245				2	(1)	
2	268				4		
3	201					(5)	
4	112						
5	417				5		
6	185						
7	296				4		
8	25						
9	270				2		
10	145				1		
11	93				1		
12	371				12		
13	568				6		
14	275				6		
15	182				1		
16	82						
17	246						
18	76						
19	518						
20	232				2		
21	141				2		
22	0 <sup>a</sup>						
23	126 <sup>b</sup>				1		
24	151				2		
25							
26	31						
27	53				2		
28	122						
29	249				2		
30	59				1		
31	38				4		

Table 7 (continued). Daily escapement of salmonids through the Kegan weir in southeastern Alaska, 1982. Numbers of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
Aug. 1	18						
2	15				2		
3	75	5			1		
4	38						
5	21						
6	315	7					
7	19	1					
8	93	2					
9	361	9					
10	412	15					
11	142	3					
12	317	3	2				
13	258	4	13				
14	142	3	1				3
15	531	20	10				
16	336	37	5				
17	313	54	3	2			
18	354	173	1				
19	18	21	1				
20	147	129	4				
21	210	108	9		2		
22	228	372	7				
23	354	659	6				
24	132	418	6				
25	205	436	5				
26	303	540	13				
27	299	1,595	12				
28	188	1,159	8				1
29	87	1,205	2				
30	121	1,951	2				
31	96	1,501	5	1			
Sept. 1	88	2,730	10	2			2
2	66	1,919	19	1			2
3	126	1,994	9	4			8
4	112	1,342	10	6			
5	155	976	22	6			
6	126	636	42	4			
7	227	1,353	73	10			
8	168	1,129	50	5	1		
9	58	535	41	6			
10	61	995	24	14			
11	197	3,748	72	21			

Table 7 (continued). Daily escapement of salmonids through the Kegan weir in southeastern Alaska, 1982. Numbers of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
Sept. 12	37	1,631	15	6			
13	35	2,670	17	12			
14	52	2,463	35	66			
15	18	1,133	7	36			
16	33	1,391	15	62			
17	30	1,422	10	41			
18	51	2,415	14	48		1	
19	30	1,957	7	50			
20	23	2,377	9	56			
Total	14,385	45,246	616	459	67	2(7)	16

<sup>a</sup> Count does not include 56 sockeye salmon taken for electrophoresis samples.

<sup>b</sup> Count does not include 44 sockeye salmon taken for electrophoresis samples.

Table 8. Daily escapement of salmonids through the Klawock weir in southeastern Alaska, 1982. Number of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
June 28	7						
29							
30							
July 1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12	50						
13	27 <sup>a</sup>						
14							
15	4						
16	19			2			
17	6						
18							
19	15						
20	9			1			
21	14			2			
22	6			1			
23	2						
24	1						
25	9						
26	3						
27							
28	14						
29	7			(2) <sup>b</sup>	1		
30	34			2			
31	62			2			
Aug. 1	146			5			
2	15			3			
3	37			3			
4	48	1		1			
5	114			2 <sup>d</sup>			
6	25 <sup>c</sup>			0 <sup>d</sup>			
7	71 <sup>c</sup>			2 <sup>d</sup>			
8	137			11 <sup>d</sup>			
9	30			0 <sup>d</sup>			
10	8			2 <sup>d</sup>			
11	468			18 <sup>d</sup>			



Table 8 (continued). Daily escapement of salmonids through the Klawock weir in southeastern Alaska, 1982. Number of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
Aug. 12							
13	9						
14	15		4				
15	19		9				
16	112		25				
17	172		74				
18	64		16				
19	3		2				
20							
21							
22							
23							
24	4		12				
25			12				
26	5	1					
27	52		34	1			
28	340	3	82				
29	53		3	2			
30	12		13	3			
31	7	1	20 <sup>d</sup>				
Sept. 1	2,095	52	448 <sup>d</sup>	15			
2	243	161	161	2			
3	62	235	173	1			
4	9	268	118				
5	109	181	157	15			
6	5	180	254	1			
7	14	553	130	4			
8	3	306	172				
9	1	214	54	2			
10		50	36				
11		46	51	6			
12	5	1,355	334	51			
13	(1)	167	38	2			
14							
15			4	2			
16		0 <sup>e</sup>	6 <sup>d</sup>	4			
17			0 <sup>d</sup>				
18		9	0 <sup>d</sup>	6			
19		12	0 <sup>d</sup>	10			
20			5	4			
21			3				
22			5				
23		1	2				
24							
25							

Table 8 (continued). Daily escapement of salmonids through the Klawock weir in southeastern Alaska, 1982. Number of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
Sept. 26							
27							
28		2					
29		0 <sup>e</sup>					
30							
Oct. 1							
2		118	16	3			
3	2						
4		55	57	0 <sup>d</sup>			
5		220	413				
6	1	122	108	2			
7							
8							
9		57	116	2			
10		32	28	4			
Total	4,804(1)	4,402	3,252	143			

<sup>a</sup> Count does not include 6 sockeye salmon that were dead.

<sup>b</sup> Count does not include 1 coho salmon that was dead.

<sup>c</sup> Count does not include 2 sockeye salmon that were dead.

<sup>d</sup> Count does not include fish taken for hatchery brood stock:

- 1 coho salmon on August 6,
- 3 coho salmon on August 7,
- 2 coho salmon on August 9,
- 3 coho salmon on August 10,
- 18 coho salmon on August 11,
- 1 coho salmon on September 1,
- 5 coho salmon on September 17,
- 16 coho salmon on September 18,
- 17 coho salmon on September 19, and
- 27 chum salmon on October 4.

<sup>e</sup> Count does not include 1 pink salmon that was dead.

Table 9. Daily escapement of salmonids through the McDonald weir in southeastern Alaska, 1982.

Date	Salmon					Dolly Varden	Steelhead	Cutthroat
	Sockeye	Pink	Coho	Chum	Chinook			
July 2	3	5				2		
3	3	4						
4	3	1				1	1	
5	4	1					3	
6		8					1	
7	1	8				3		
8	1	19				1		
9	3	44				1		
10	4	35						
11		15						
12	1	18						
13		15						
14	1	26	1				1	
15	1	9				1		
16	1	20						
17	2	14				1		
18	2	13				2		
19		5				2		
20	5	49						
21	50	366	1					
22	43	368	2					
23	1	223						
24	1 <sup>a</sup>	302						
25	45 <sup>b</sup>	1,189	2			1	1	
26	60	1,052						
27	313	797						
28	83	1,571	1					
29	16	584				2		
30	9	1,105	2					
31	46	1,095	2					
Aug. 1	1	412						
2	5	1,574						
3	10	1,805						
4	6	197						
5	2	534						
6	3	909						
7	64	1,419	7					
8	13	675	4					
9	19	1,620	1				1	
10	20	1,472	4				1	
11	169	1,628	7				1	
12	292	1,890	19					
13	125	3,705	7					
14	31	2,165	8					
15	2	737						
16	12	2,117	3					

Table 9 (continued). Daily escapement of salmonids through the McDonald weir in southeastern Alaska, 1982.

Date	Salmon					Dolly Varden	Steelhead	Cutthroat
	Sockeye	Pink	Coho	Chum	Chinook			
Aug. 17	133	2,091	2					
18	44	644						
19	71	827	3				1	
20	43	969	3					
21	2	748	3					
22	31	1,328	3					
23	21	1,135	2				1	
24	22	828	5					
25	44	1,592	23					
26	133	1,074	16					
27	1,547	3,056	57	3				
28	169	2,549	17					
29	34	1,228	11					
30	11	695	3	3				
31	262	952	10					
Sept. 1	4,261	1,415	20					
2	525	1,392	13	2				
3	117	460	17	5				
4	121	464	49	6				
5	51	269	36	6				
6	7,220	218	345	38				
7	249		287	5			1	
8			52	7	1		1	
9			72	2				
10			16	12				
11			57	13				
12			73	4				
Total	16,587	55,754	1,266	106	17	14		1

<sup>a</sup> Count does not include 20 sockeye salmon taken for electrophoresis samples.

<sup>b</sup> Count does not include 43 sockeye salmon taken for electrophoresis samples.

Table 10. Daily escapement of salmonids through the Salmon Bay weir in southeastern Alaska, 1982. Number of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
June 26	3						1
27	1						
28	1						
29	1 <sup>a</sup>						
30	1						
July 1	7						
2	18						
3	3				1		
4	8						
5							
6	3						
7	21				1		
8	4						
9							
10	12						
11	4						
12	15						
13	695				1		4
14	108						
15	91				5		
16							
17	23						
18	59						
19	312				1		
20	13						
21	27						
22							
23	676						
24	218						
25	190 <sup>b</sup>						
26	0 <sup>b</sup>						
27	0 <sup>c</sup>						
28	11						
29							
30	8						
31	27						
Aug. 1	12				1		
2	121				4		
3	11				7		
4	26				4		
5	5				1		
6	1				5		
7	5				4		
8	68				11		

Table 10 (continued). Daily escapement of salmonids through the Salmon Bay weir in southeastern Alaska, 1982. Number of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
Aug. 9	184				6		
10	5						
11	5,564	1					
12	742				4		
13	27						
14	10						
15	42				19		
16	3				10		
17	82				4		
18	1,531	12			2		
19	18						
20	17						
21	168	8			2		
22	125	2			12		
23	123	4(2)			10		
24	188	36			5		
25	40	3			1		
26	1,162	20			4		
27	575	11			12		
28	66	2			4		
29	182	3			6		
30	195	7			9		
31	1,036	121	12		4		
Sept. 1	616 <sup>d</sup>	12	61		14		
2	463 <sup>d</sup>	8	51		10		
Total	15,973	250(2)	124		184		5

<sup>a</sup> Count does not include 1 sockeye salmon that was dead.

<sup>b</sup> Count does not include 43 sockeye salmon taken for electrophoresis samples.

<sup>c</sup> Count does not include 26 sockeye salmon taken for electrophoresis samples.

<sup>d</sup> Count includes an estimate of 100 sockeye salmon observed downstream from the weir.

Table 11. Daily escapement of salmonids through the Sarkar weir in southeastern Alaska, 1982. Number of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
June 14	6						
15	3						
16	940						
17							
18	54						
19	250						
20	3						
21	150						
22	19						
23	14						
24	24						
25	1,625						
26	19						
27							
28	35						
29	27						
30	7						
July 1	802						
2							
3	114				1		
4	53						
5	1,221						
6	338						
7							
8							
9	293						
10							
11	12				2		
12	130						
13	345						
14	15						
15	684						
16	100			2			
17	72						
18 <sup>a</sup>							
19 <sup>a</sup>							
20 <sup>a</sup>							
21 <sup>a</sup>							
22 <sup>a</sup>							
23 <sup>a</sup>							
24	500						
25							
26							
27							

Table 11 (continued). Daily escapement of salmonids through the Sarkar weir in southeastern Alaska, 1982. Number of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
Aug. 28							
29							
30							
31							
1							
2	1		102				
3	3		134				
4							
5	35		551				
6	66		1,000				
7	2		189				
8	23		501				
9			(9)				
10	21		270				
11			40				
12	17		621				
13	26		501				
14	2		79				
15	91		381				
16	1		73				
17	2		15				
18							
19	1		126				
20	1	3	152				
21	10	4	230				
22			9				
Total	8,157	7	4,976(9)		3		

<sup>a</sup> Weir failure.



Table 12. Daily escapement of salmonids through the Hugh Smith weir in southeastern Alaska, 1983. Number of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
June 1	1					2	
2							
3							
4							
5							
6	1						
7	4					1	
8	4						
9	1						
10	9						
11	9				2		
12	7				1		
13	5						
14	3						
15	10						
16	11						
17	15						
18	22					(2)	
19	11						
20	18						
21	9						
22	27						
23	25						
24	5						
25	19						
26	18						
27							
28	9						
29	1				1		
30	27				1		
July 1	42						
2	102		1		1		
3	17						
4	7						
5	2						
6	13				1		
7	15						
8	108						
9	64						
10	222					(2)	
11	739						
12	222						
13	229	3					
14	176	5					
15	116	1					

Table 12 (continued). Daily escapement of salmonids through the Hugh Smith weir in southeastern Alaska, 1983. Number of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
July 16	98	3					
17	214	1					
18	222	2					
19	110						
20	79	1	1				
21	52	2					
22	25	1	1				
23	38						
24	56	5					
25	57	1					
26	57						
27	57 <sup>a</sup>	5					
28	42 <sup>a</sup>	1					
29	35 <sup>a</sup>	1					
30	125	9	3				
31	400 <sup>a</sup>	26	1				
Aug. 1	186 <sup>a</sup>	63	3				
2	122	68	1				
3	171	77	3				
4	82	56					
5	29 <sup>a</sup>	33					
6	47	33	5				
7	91 <sup>a</sup>	36	6				
8	51	67	6				
9	87	40	3				
10	144	94	2				
11	200	251	5				
12	161	326	3				
13	230	1,518	15				
14	135	537	11				
15	61 <sup>a</sup>	852	7				
16	103	538	2	1			
17	86	310	9	1			
18	38 <sup>a</sup>	89	1				
19	117	208	5				
20	181	256	15				
21	73	238	2				
22	144	101	12				
23	123	118	16				
24	130	98	22				
25	194	174	21				
26	132	84	10				
27	111	177	8	1			
28	179	346	9	1			
29	36	55	10	1			
30	63	56	12	1			

Table 12 (continued). Daily escapement of salmonids through the Hugh Smith weir in southeastern Alaska, 1983. Number of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
Aug. 31	54	46	3	1			
Sept. 1	37	106	10	1			
2	79	45	10				
3	98	125	11	1			
4	93	138	8	1			
5	68	215	7	1			
6	144	159	24				
7	52	67	23	2			
8	71	81	48				
9	33	94	40				
10	26	101	34	2			
11	30	31	28	1			
12	22	66	22	1			
13	31	77	29	2			
14	44	47	15	3			
15	14	39	28	5			
16	16	58	20	1			
17	20	55	19	1			
18	15	63	18	5			
19	26	85	12	1			
20	9	75	30	2			
21	41	24	38	1			
22	33	46	24				
23	48	46	13	3			
24 <sup>b</sup>	1,302	97	48	10			
25 <sup>b</sup>	22	4	2				
26 <sup>c</sup>							
27	2	10	3	4			
28	1	37	23	4		1	
29	1	23	21	4			
30	5	8	15	6			
Total	9,956	9,034	857	69	7	4(4)	

<sup>a</sup> Sockeye salmon taken for electrophoresis samples not included in count:

- 1 sockeye salmon on July 28,
- 30 sockeye salmon on July 29,
- 4 sockeye salmon on July 31,
- 2 sockeye salmon on August 1,
- 1 sockeye salmon on August 5,
- 4 sockeye salmon on August 7,
- 20 sockeye salmon on August 15, and
- 40 sockeye salmon on August 18.

<sup>b</sup> Incomplete counts; water too high to estimate numbers.

<sup>c</sup> Weir failure.

Table 13. Daily escapement of salmonids through the Karta weir in southeastern Alaska, 1983. Number of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
June 18	168						
19	166						
20	109						
21	990				1		
22	280						
23	1,737		2				
24	481		2		0 <sup>a</sup>		
25	947				0 <sup>a</sup>		
26	170						
27	545		3				
28	916		6				
29	703		24				
30	513		37				
July 1	715		24				
2	1,045		30				
3	523		21				
4	962		7				
5	552		3			1	
6	599		17				
7	859						
8	205		20				
9	138		6(1)				
10	470	1	38				
11	350		41				
12	248	4	51				
13	592	20	77	1			
14	227	5	96				
15	584	14	43				
16	48	22	74				
17	502	42	64				
18	698	51	32				
19	410	11	6				
20	502	21	7				
21	249	25	24				
22	237	164	38				
23	0 <sup>b</sup>	7	1			2	
24	116 <sup>b</sup>	308	145				
25	120 <sup>b</sup>	421	25				
26	105 <sup>b</sup>	361	30				
27	356	728	65				
28	135	893	56				

Table 13 (continued). Daily escapement of salmonids through the Karta weir in southeastern Alaska, 1983. Number of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
July 29	130	1,497	60				
30	73	677	59				
31	337 <sup>b</sup>	2,144	66				
Aug. 1	133	2,241	20	1			
2	88	1,841	27			1	
3	65	2,370	36				
4	97	2,788	86	1			
5	73	4,482	71				
6	74	2,353	25				
7	110	2,270	67				
8	200	3,419	105				
9	477	7,447	103	2			
10	84	6,051	39				
11	65	3,253	80				
12	129	5,789	39				
13	50	3,373	44	1			
14	37	4,885	38	1			
15	330	6,403	99	35			
16	115	3,880	31	3			
17	74	4,304	26	1			
18	43	1,915	19	11			
19 <sup>c</sup>	20	75	1				
20	77	6,858	31	42			
21	46	3,192	12	16		1	
22	38	2,321	14	9			
23	70	2,361	17	53			
24	23	3,044	19	23			
25	31	2,361	21	41			
26	15	1,977	23	141			
27 <sup>d</sup>	11	1,780	7	87			
28 <sup>d</sup>							1
29	11	1,718	37	88			
30	5	673	21	61			
31	5	1,002	42	212			
Sept. 1	2	575	26	239			
2		784	27	348			
3	4	1,402	91	289			
4	1	1,425	61	599			
5	2	1,752	67	650			
6		1,724	48	1,136			
7	3	1,322	31	565			

Table 13 (continued). Daily escapement of salmonids through the Karta weir in southeastern Alaska, 1983. Number of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
Sept. 8	5	826	45	286			
9	2	878	45	822			
10	2	593	33	612			
11	3	486	37	393			
Total	22,432	115,609	3,011(1)	6,769	1	5	1

<sup>a</sup> Count does not include 1 Dolly Varden that was dead.

<sup>b</sup> Sockeye salmon taken for electrophoresis samples not included in count:

- 11 sockeye salmon on July 23,
- 39 sockeye salmon on July 24,
- 21 sockeye salmon on July 25,
- 20 sockeye salmon on July 26, and
- 9 sockeye salmon on July 31.

<sup>c</sup> Incomplete counts; water too high to estimate numbers.

<sup>d</sup> Weir failure.

Table 14. Daily escapement of salmonids through the Kegan weir in south-eastern Alaska, 1983.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
June 15							
16							
17							
18							
19							
20	12						
21	11						
22	10						
23	11						
24	9						
25	15						
26	24						
27	28						
28	31						
29	25						
30	16						
July 1	57						
2	309						
3	175						
4	214						
5	223						
6	115						
7	261	1					
8	152						
9	81						
10	66						
11	34	1					
12	150						
13	58						
14	186						
15	135						
16	48						
17	444			1			
18	209	3		1			
19	78	6					
20	187	4					
21	70	5					
22	159 <sup>a</sup>	19					
23	27 <sup>a</sup>						
24	51 <sup>b</sup>	2					
25	77	2					
26	297	33	1				

Table 14 (continued). Daily escapement of salmonids through the Kegan weir in southeastern Alaska, 1983.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
July 27	63	16	2				
28	118	52	1				
29	123	64	5				
30	119	113	9				
31	290	397	5				
Aug. 1	138	558	10				
2	187	439	2				
3	126	338	10				
4	143	704	6 <sup>c</sup>				
5	143	376	14				
6	172	871	16				
7	161	1,124	19				
8	263	1,225	39				
9	173	1,104	18				
10	186	1,532	3				
11	123	1,429	6				
12	176	1,534	14				
13	110	1,164	7				
14	285	2,119	9				
15	213	900	8				
16	206	1,981	23				
17	77	1,351	41				
18	107	827	26				
19	199	2,466	46				
20	79	2,447	14				
21	84	2,313	36				
22	62	2,611	13				
23	36	1,454	14				
24	66	2,872	53				
25	19	1,855	20				
26	20	1,424	39				
27	1	325	10				
28							
29							
30	1	1,189	36				
31	11	882	26				
Sept. 1	14	420	21	3			
2	32	1,038	38	9			
3	13	1,078	43	2			
4	26	1,252	65	2			
5	47	1,398	114	1			
6	41	848	49	6			



Table 14 (continued). Daily escapement of salmonids through the Kegan weir in southeastern Alaska, 1983.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
Sept. 7	39	1,539	53	4			
8	22	690	38				
9	25	578	33	1			
10	15	559	41	3			
11	4 <sup>d</sup>	166 <sup>e</sup>	6	2			
12	38 <sup>d</sup>	1,575 <sup>e</sup>	3				
Total	8,651	51,273	1,107	33			

<sup>a</sup> Count does not include 40 sockeye salmon taken for electrophoresis samples.

<sup>b</sup> Count does not include 60 sockeye salmon taken for electrophoresis samples.

<sup>c</sup> Count does not include 2 coho salmon that were dead.

<sup>d</sup> Count includes an estimate of 35 sockeye salmon observed downstream from the weir.

<sup>e</sup> Count includes an estimate of 1,500 pink salmon observed downstream from the weir.

Table 15. Daily escapement of salmonids through the Klakas weir in south-eastern Alaska, 1983. Number of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
June 8							
9							
10							
11							
12							
13							
14							
15						(2)	
16							
17							
18							
19							
20							
21	3				1		
22							
23	3				1	1	
24	1				1		
25	2				1		
26	4				1		
27							
28	3					1	
29							
30	23						
July 1	8						
2	10						
3	10						
4							
5	6						
6	11						
7	13						
8	31						
9	27						
10	18						
11	60						
12	38						
13	59						
14	66			4			
15	21			1			
16							
17							
18	1						
19	20						
20	9						
21	6					1	
22	2						

Table 15 (continued). Daily escapement of salmonids through the Klakas weir in southeastern Alaska, 1983. Number of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
July 23	3						
24	14		1			1(1)	
25	97		2			2	
26	153		4				
27	99		4				
28	54		7			1	
29	68		5				
30	9		3				
31	9						
Aug. 1	42		17			1	
2	35		6				
3	16 <sup>a</sup>		4				
4	0 <sup>a</sup>	1	8				
5	2 <sup>a</sup>	1	12				
6	0 <sup>a</sup>	1	9			1	
7	0 <sup>a</sup>	2	7			1	
8	0 <sup>a</sup>	2	8			1	
9	39		39			1	
10	27		32				
11	42	211	44				
12	24	110	33				
13	12	213	14			2	
14	22	465	24				
15	14	457	30				
16	5	503	41			1	
17	6	147	31				
18	4	33	16				
19	4	31	11			1	
20		31	11				
21	2	28	13				
22	3	80	9			1	
23	5	31	21				
24	1	7	2				
25	4	11	12				
26	9	10	14			1	
27							
28							
29	2	9	9			1	
30	2	5	23				
31	2	11	27				
Sept. 1	2	12	41			1	
2		19	26				
3	1	31	22				
4	1	17	12				
5	1	20	6				
6	3	98	5			1	

Table 15 (continued). Daily escapement of salmonids through the Klakas weir in southeastern Alaska, 1983. Number of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
Sept. 7	2	58	7				
8	3	74	21				
9	2	206	39			1	
10	3	519	53				
11	2	321	32			1	
12	4	361	59				
13		499	14				
14		313	26				
15	2	393	33			1	
16		179	19			1	
17	1	766	7				
18		445	4				
19	1	610	3				
20		1,856	39				
21		368	21			1	
22		422	29			1	
23		308	8				
24		503	41			1	
25		152	42			1	
26		113	12				
27		205	9			1	
28		247					
29		395	2				
30		282					
Oct. 1		212					
2		202					
3		270	7				
4	1	183	7				
5		171	5				
6		37					
7		105	13				
8		59	13				
9							
10		36	7				
11		44	6				
12		57					
13		58					
14		67				1	
15							
16							
17							
18							
19							
20							
21							
22							

Table 15 (continued). Daily escapement of salmonids through the Klakas weir in southeastern Alaska, 1983. Number of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
Oct. 23		2	4			2	
24							
25		7	5			1	
26		2					
27							
28							
29							
30		2					
31							
Nov. 1							
2							
3			1				
4							
5							
6							
7							
8			1			1	
9						1	
10			1				
Total	1,314	13,706	1,260		5	36(3)	

<sup>a</sup> Sockeye salmon taken for electrophoresis samples not included in count:

- 19 sockeye salmon on August 4,
- 21 sockeye salmon on August 5,
- 9 sockeye salmon on August 6,
- 16 sockeye salmon on August 7, and
- 34 sockeye on salmon August 8.

Table 16. Daily escapement of salmonids through the Klawock weir in southeastern Alaska, 1983. Number of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
July 7							
8							
9							
10							
11							
12							
13							
14	0 <sup>a</sup>						
15	(6)						
16	(15)						
17	0 <sup>b</sup>						
18	(22)						
19	0 <sup>b</sup>						
20	3 <sup>b</sup> (35)				0 <sup>c</sup>		
21	1						
22							
23							
24	48 <sup>d</sup>		1				
25	8 <sup>d</sup>		5				
26							
27	6						
28	1		1				
29	20						
30	1		10				
31	9 <sup>e</sup>	40	32	2	0 <sup>c</sup>		1
Aug. 1			10				
2			10				
3	3	1	7				
4	5 <sup>b</sup>	10 <sup>f</sup>	26				
5	1		9		2		

Table 16 (continued). Daily escapement of salmonids through the Klawock weir in southeastern Alaska, 1983. Number of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
Aug. 6	1	1(1)	13		1		
7		14	15				
8		2	4				
9	18	28	30				
10	14	58	17				
11	41	183	66				
12	6	728	6				
13	2	136	16				
14		11	2	(10)			
15	259	1,327	447	20			
16	18	1,010	124	9			
17	14	717	106	4			
18	3	417	80	2			
19	75	687	174	15			
20	32	475	86	6			
21	3	365	24				
22	2	753	109	2			
23	11	2,004	302	9			
24	16	2,143	252	15			
25	14	2,152	270	14			
26	22	379	165	16			
Aug. 27	35	981	236	25			
28	12	1,281	110	9			
29	2	538	142	15			
30	4	159(1)	72	1			
31		15	9	1			
Sept. 1							
2							
3	1	35	13	1			

Table 16 (continued). Daily escapement of salmonids through the Klawock weir in southeastern Alaska, 1983. Number of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
Sept. 4	2	128	14	5			
5		46	0 <sup>g</sup>	2			
6		200	0 <sup>g</sup>	0 <sup>g</sup>			
7							
8	3	132	0 <sup>g,h</sup>	0 <sup>g</sup>			
9	2	14	0 <sup>g</sup>	1			
10		52	0 <sup>g</sup>	0 <sup>g</sup>			
11	1	46	0 <sup>g</sup>	0 <sup>g</sup>			
12	1	2	0 <sup>g</sup>	0 <sup>g</sup>			
13	3	54	38 <sup>g</sup>	0 <sup>g</sup>			
14	1	7	0 <sup>g</sup>	0 <sup>g</sup>			
15	11	32	40 <sup>g</sup>	11 <sup>g</sup>			
16	12	43	0 <sup>g</sup>	0 <sup>g</sup>			
17	9	18	29	5			
18	4	21	0 <sup>g</sup>	0 <sup>g</sup>			
19	1	5	3 <sup>g</sup>	0 <sup>g</sup>			
20	24	116	15 <sup>g</sup>	58			
21	22	107	4 <sup>g</sup>	28			
22	2	38	438 <sup>g,i</sup>	32			
23	3	28	2 <sup>g</sup>	0 <sup>g</sup>			
24	9	110	6 <sup>g</sup>	46			
25		45	0 <sup>g</sup>	15 <sup>g</sup>			
Nov. 26	1	31	0 <sup>g</sup>				
27		25	6	41			
28		15	1	28			
29	1	16	7				
30		15	1	36			
Oct. 1							
2		18	0 <sup>g</sup>	0 <sup>g</sup>			
3		10	7	10			



Table 16 (continued). Daily escapement of salmonids through the Klawock weir in southeastern Alaska, 1983. Number of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
Oct. 4		26	52	138 <sup>j</sup>			
5		20	13	15			
6		28	17	21			
7		22	1	28			
8							
9			0 <sup>g</sup>	0 <sup>g</sup>			
10		3	1	1			
Total	823(78)	18,123(2)	3,696	687(10)	3		1

<sup>a</sup> Count does not include 4 sockeye salmon that were dead.

<sup>b</sup> Count does not include 1 sockeye salmon that was dead.

<sup>c</sup> Count does not include 1 Dolly Varden that was dead.

<sup>d</sup> Count does not include 2 sockeye salmon that were dead.

<sup>e</sup> Count does not include 5 sockeye salmon that were dead.

<sup>f</sup> Count does not include 1 pink salmon that was dead.

<sup>g</sup> Count does not include fish taken for hatchery brood stock:

23 coho salmon on September 5,

17 coho salmon and 7 chum salmon on September 6,

35 coho salmon and 5 chum salmon on September 8,

15 coho salmon on September 9,

33 coho salmon and 5 chum salmon on September 10,

34 coho salmon and 7 chum salmon on September 11,

16 coho salmon and 6 chum salmon on September 12,

34 coho salmon and 9 chum salmon on September 13,

11 coho salmon and 6 chum salmon on September 14,

33 coho salmon and 13 chum salmon on September 15,

32 coho salmon and 9 chum salmon on September 16,

Table 16 (continued). Daily escapement of salmonids through the Klawock weir in southeastern Alaska, 1983. Number of downstream migrants in parentheses.

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23 coho salmon and 8 chum salmon on September 18,  
15 coho salmon and 5 chum salmon on September 19,  
215 coho salmon on September 20,  
35 coho salmon on September 21,  
57 coho salmon on September 22,  
19 coho salmon and 64 chum salmon on September 23,  
139 coho salmon on September 24,  
43 coho salmon and 8 chum salmon on September 25,  
14 chum salmon on September 26,  
7 coho salmon and 33 chum salmon on October 2, and  
1 coho salmon and 2 chum salmon on October 9.

- h Count does not include 1 coho salmon that was dead.  
i Count includes 434 coho salmon that escaped from the hatchery's  
j holding pen.  
Count does not include 10 chum salmon that were dead.

Table 17. Daily escapement of salmonids through the McDonald weir in southeastern Alaska, 1983. Number of downstream migrants in parentheses.

Date	Salmon					Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum	Chinook			
July 9	7	2						
10	9	3						
11	10	20						
12	11	13				1	1	
13	21	18				1	1	
14	37	108				1		
15	22	79						
16	170	239						
17	146	217						
18	60	205	1				1	1
19	41	118				1		
20	35	140	2			2		
21	19	123						
22	18	505	1	2				
23	95	189						
24	17	129	2	1				
25	110	146	2				1	
26	51	109	2					
27	55	184	2			1		
28	573	597	5					
29	668	385	1					
30	2,081	428	2					
31	15,265	1,377	20		1	(2)	5(1)	
Aug. 1	1,020	676	1					
2	359	967	1					
3	1,359	862	5					
4	337	599	6					
5	383	4,665	5	1	1	1		
6	2,169	892						
7	575	2,166	6					
8	689	3,642	6		1			
9	966	1,853	1					
10	67	1,040	2	1			1	
11	72	2,135	5	1				
12	27	1,362	1					
13	53	1,022	2	2				
14	49	787	3					
15	23,661	8,130	32	1				
16	837	2,461	14	2				
17	88	1,606	10	2				
18	145	2,781	10	1				
19	1,608	2,686	20				(1)	
20	178	2,340	22	3		1		
21	71	2,548	7					
22	67	1,988	28					

Table 17 (continued). Daily escapement of salmonids through the McDonald weir in southeastern Alaska, 1983. Number of downstream migrants in parentheses.

Date	Salmon					Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum	Chinook			
Aug. 23	157	993	7					
24	947	1,203	18	2			(1)	
25	244	1,174	19	1				
26	144	440	7	1				
27	140	866	16					
28	125	917	59	2				
29	58	1,108	42	3				
30	22	856	44					
31	3	442	11					
Sept. 1	6	647	100	1				
Total	56,147	61,188	550	27	3	9(2)	10(3)	1

Table 18. Daily escapement of salmonids through the Naha weir in south-eastern Alaska, 1983. Number of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
June 13							
14							
15	1						
16	4					(3)	
17	4					1	
18	4						
19	13						
20	16				1		
21	11						
22	10					1	
23	18						
24	35						
25	28						
26	32						
27	20						
28	41						
29	33						
30	46						
July 1	31						
2	129						
3	57						
4	5						
5	23						
6	34		2				
7	37		2				
8	7						
9	197		1				
10	663		5(1)			(1)	
11	27						
12	69	2					
13	87	5					
14	31		1				
15	44	5	3				
16	37	5	4				
17	51	1	2				
18	467	5	9	1			
19	279	4				4	
20	133	4					
21	38						
22	22	4					
23	15	8				0 <sup>a</sup>	
24	53 <sup>b</sup>	42				3	
25	12 <sup>b</sup>	4					
26	108	17				4	
27	44	20					

Table 18 (continued). Daily escapement of salmonids through the Naha weir in southeastern Alaska, 1983. Number of downstream migrants in parentheses.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
July 28	271 <sub>b</sub>	1,353		1		2	
29	150 <sub>b</sub>	4,242		2		5	
30	131	1,718				1	
31	136	1,031		3		3	
Aug. 1	205	4,201	1	11			
2	77	2,165	2	6		2	
3	55	1,080	1	4		3	
4	13 <sub>b</sub>	917	1	3		3	
5	11 <sub>b</sub>	14,355		15		3	
6	6	3,861	1				
7	26	21,231	2	10		3	
8	26	15,214	3	7	1	3	
9	78 <sub>b</sub>	19,455	6	11	2	2	
10	13 <sub>b</sub>	11,995	1	1	1	1	
11	48	18,700	1			1	
12	53	15,225	6			3	
13	40	17,786	5	1		2	
14	78	19,524	9	9		6	
15	29	19,152	5	15		3	
16	23	17,512	5	20		1	
17	15	19,534	9	14	3	1	
18	17	29,923	13	29		11	
19							
20	2	547		8		1	
21	27	9,941	30	32		3	
22	25	18,410	35	13		2	
23	8	3,820	4	3		1	
24 <sup>c</sup>							
25 <sup>c</sup>							
26	1	105		1			
Total	4,580	293,123	169(1)	220	8	79(4)	

<sup>a</sup> Count does not include 1 steelhead trout that was dead.

<sup>b</sup> Sockeye salmon taken for electrophoresis samples not included in count:

- 40 sockeye salmon on July 25,
- 13 sockeye salmon on July 29,
- 20 sockeye salmon on August 5, and
- 26 sockeye salmon on August 10.

<sup>c</sup> Weir failed; water too high to estimate numbers.

Table 19. Daily escapement of salmonids through the Salmon Bay weir in southeastern Alaska, 1983.

Date	Salmon				Dolly Varden	Steelhead trout	Cutthroat trout
	Sockeye	Pink	Coho	Chum			
June 12	4						
13	5						
14	1						
15	4						
16	4						
17	14				4		
18	17				2		
19	14				1		
20	14				1		
21	9				4		
22	29				6		
23	15						
24	35				1		
25	40				7		
26	33				1		
27	40				6		
28	16						
29	37						
30	30				1		
July 1	10						
2	10						
3	7				1		
4	3				5		
5							
6	11				1		
7	39				1		
8	28				3		
9	58				1		
10	455				52		
11	160				35		
12	133				16		
13	127				15		
14	112				15		
15	119				8		
16	43				12		
17	37				2		
18	15						
19	357				9		
20	303				3		
21	67				10		
22	101				3		
23	338				5		
24	65				1		
25	336				2		
26	200				7		

Table 27 (continued). Water temperature and relative water level at the Klawock weir in southeastern Alaska, 1982.

Date	Temperature (°C)	Level (cm)	Date	Temperature (°C)	Level (cm)
Sept. 17	14.0	23			
18	13.7	18			
19	14.0	16			
20	14.0	14			
21	14.0	12			
22	14.0	10			
23	14.0	9			
24	14.0	7			
25	14.0	7			
26	14.0	6			
27	14.0	6			
28	13.0	5			
29	13.0	5			
30	13.5	5			
Oct. 1	13.5	5			
2	13.5	6			
3	13.0	19			
4	13.0	43			
5	12.5	61			
6	12.0	76			
7					
8					
9					
10	11.5	116			



Table 28. Water temperature and relative water level at the McDonald weir in southeastern Alaska, 1982.

Date	Temperature (°C)	Level (cm)	Date	Temperature (°C)	Level (cm)
July 1	13.0	87	Aug. 14	16.0	49
2	13.0	86	15	15.0	43
3	14.0	71	16	16.0	38
4	15.0	70	17	15.0	34
5	14.0	64	18	15.5	33
6	13.5	60	19	15.0	31
7	14.5	56	20	15.0	27
8	14.0	56	21	15.5	23
9	14.0	57	22	16.0	20
10	14.0	67	23	16.0	18
11	14.0	67	24	16.0	17
12	14.0	69	25	16.0	15
13	14.0	93	26	16.5	15
14	13.0	106	27	15.0	45
15	13.0	107	28	15.5	59
16	14.0	94	29	16.0	58
17	12.0	84	30	15.0	52
18	13.0	87	31	14.0	53
19	12.0	110	Sept. 1	15.0	91
20	13.0	103	2	13.0	126
21	14.0	88	3	14.0	121
22	14.0	74	4	14.0	96
23	14.0	63	5	14.0	88
24	15.5	55	6	14.0	105
25	16.0	49	7	12.0	177
26	16.0	45	8	13.0	151
27	16.0	42	9	12.5	121
28	17.0	39	10	13.0	95
29	16.0	36	11	12.0	113
30	16.0	33	12	12.0	111
31	17.5	31			
Aug. 1	15.0	29			
2	17.0	27			
3	18.0	26			
4	16.0	24			
5	16.0	23			
6	16.5	27			
7	16.0	31			
8	15.5	32			
9	16.0	31			
10	17.0	29			
11	16.0	32			
12	15.0	42			
13	16.0	52			

Table 29. Water temperature and relative water level at the Salmon Bay weir in southeastern Alaska, 1982.

Date	Temperature (°C)	Level (cm)	Date	Temperature (°C)	Level (cm)
June 29		31	Aug. 15	16.5	21
30		31	16	16.6	21
July 1		31	17	16.3	21
2		27	18	15.6	21
3	19.0	31	19	18.0	18
4	18.0	27	20		18
5	17.0	27	21		18
6	17.0	27	22		15
7	18.0	24	23		15
8	16.5	24	24	16.4	15
9	15.0	24	25	16.0	15
10	16.5	24	26	15.3	21
11	16.7	24	27	15.9	21
12	16.0	34	28	15.6	21
13	16.5	52	29	17.0	21
14	16.0	46	30	15.9	21
15	17.9	46	31	14.5	24
16	14.0	40	Sept. 1		43
17	16.0	40			
18	15.4	40			
19	16.1	40			
20	16.0	40			
21	17.4	37			
22	18.2	37			
23	19.4	37			
24	18.7	34			
25	19.8	34			
26	19.0	31			
27	18.8	31			
28	19.4	31			
29	20.0	27			
30	19.0	27			
31	19.5	27			
Aug. 1	18.1	24			
2	17.6	24			
3	17.8	24			
4	16.8	21			
5	16.9	21			
6	16.5	21			
7	19.0	21			
8	18.3	21			
9	17.0	24			
10	15.5	24			
11	16.4	24			
12	16.7	24			
13	19.0	21			
14	19.0	21			

Table 30. Water temperature and relative water level at the Sarkar weir in southeastern Alaska, 1982.

Date	Temperature (°C)	Level (cm)	Date	Temperature (°C)	Level (cm)
June 17	18.3	43	Aug. 3	17.3	42
18	19.2	44	4	17.2	53
19	18.4	48	5	16.2	49
20	17.6	55	6	15.7	48
21	18.3	58	7		48
22	19.1	64	8	16.3	49
23	22.0	63	9	16.7	46
24	19.6	62	10	16.2	45
25	20.5	60	11	16.4	46
26	20.2	60	12	18.1	46
27	20.5	59	13	18.8	46
28	20.7	58	14	18.4	47
29	20.7	55	15	17.6	45
30	19.3	44	16	16.4	54
July 1	18.1	44	17	16.1	56
2	19.2	45	18	16.1	56
3	20.3	44	19	15.7	58
4	19.5	45			
5	19.8	48			
6	17.2	50			
7	15.9	50			
8	15.4	53			
9	15.0	53			
10	15.1	53			
11	15.0	48			
12	14.2	50			
13	13.1	53			
14	14.5	55			
15	15.2	56			
16	15.9	58			
17	16.6	59			
18					
19					
20	17.4				
21					
22	17.2				
23	17.0				
24	18.7				
25	18.9	53			
26	20.5	52			
27	20.5	50			
28	20.5	39			
29	20.5	39			
30	20.5	39			
31	20.5	37			
Aug. 1	20.5	39			
2	18.0	39			

Table 31. Water temperature and relative water level at the Hugh Smith weir in southeastern Alaska, 1983.

Date	Temperature (°C)	Level (cm)	Date	Temperature (°C)	Level (cm)
June 1	11.5	23	July 18	16.0	13
2	12.0	19	19	16.0	10
3	12.5	18	20	17.0	7
4	13.0	17	21	16.0	4
5	13.0	15	22	17.5	3
6	13.0	14	23	17.0	1
7	13.0	12	24	17.0	2
8	13.5	9	25	17.0	7
9	14.0	13	26	17.5	6
10	14.0	14	27	17.0	5
11	14.5	16	28	17.0	4
12	14.0	16	29	17.5	2
13	14.5	14	30	17.5	7
14	15.0	12	31	18.0	20
15	15.5	12	Aug. 1	17.0	25
16	15.0	17	2	17.0	26
17	15.0	19	3	16.5	29
18	15.0	19	4	16.0	26
19	15.0	17	5	16.0	20
20	15.0	17	6	16.5	21
21	15.0	15	7	17.0	24
22	15.0	14	8	17.0	21
23	15.5	12	9	17.0	17
24	16.0	10	10	17.0	13
25	16.0	8	11	17.0	11
26	16.0	6	12	17.0	10
27	16.0	5	13	17.0	26
28	15.0	4	14	17.0	29
29	16.0	3	15	17.0	46
30	14.5	4	16	16.0	83
July 1	16.0	4	17	15.5	73
2	16.0	3	18	15.5	53
3	16.0	2	19	15.0	80
4	16.0	1	20	15.0	77
5	16.0	0	21	14.0	59
6	16.5	0	22	15.0	45
7	16.0	2	23	14.5	34
8	16.0	13	24	15.0	42
9	16.0	17	25	15.0	48
10	16.0	32	26	15.5	54
11	15.0	59	27	15.0	67
12	14.5	55	28	14.0	76
13	15.0	47	29	15.0	63
14	15.0	37	30	14.5	51
15	15.0	29	31	14.0	40
16	16.0	23	Sept. 1	14.5	32
17	16.0	18	2	14.5	26

Table 31 (continued). Water temperature and relative water level at the Hugh Smith weir in southeastern Alaska, 1983.

Date	Temperature (°C)	Level (cm)	Date	Temperature (°C)	Level (cm)
Sept. 3	14.5	33			
4	14.0	40			
5	14.0	38			
6	14.0	46			
7	13.5	46			
8	13.5	38			
9	13.0	31			
10	13.5	24			
11	13.5	20			
12	13.5	17			
13	13.5	20			
14	13.5	21			
15	13.0	24			
16	13.0	23			
17	12.5	21			
18	12.5	19			
19	13.0	14			
20	12.5	17			
21	12.5	23			
22	13.0	20			
23	13.0	17			
24	13.0	49			
25	12.5	81			
26	11.0	135			
27	10.0	93			
28	10.0	67			
29	10.0	49			
30	10.0	37			

Table 32. Water temperature and relative water level at the Kegan weir in southeastern Alaska, 1983.

Date	Temperature (°C)	Level (cm)	Date	Temperature (°C)	Level (cm)
June 15	14.6	37	Aug. 1	16.7	49
16	13.0	42	2	16.6	49
17	13.5	48	3	16.0	52
18	14.7	50	4	16.4	54
19	14.6	50	5	17.0	54
20	14.8	49	6	16.5	53
21	14.7	48	7	16.4	53
22	15.5	47	8	16.8	52
23	16.4	45	9		
24	15.5	44	10	17.2	51
25	15.5	42	11	17.9	51
26	15.7	41	12	16.8	46
27	15.2	40	13	17.3	46
28	15.4	40	14	17.1	46
29	15.5	40	15	16.5	47
30	15.8	42	16	17.0	49
July 1	16.6	40	17	17.3	48
2	16.8	40	18	16.1	50
3	16.3	38	19	16.5	54
4	16.3	38	20	16.3	55
5	16.5	40	21	16.6	53
6	16.6	39	22	16.6	52
7	16.9	38	23	16.0	53
8	17.0	36	24	15.8	55
9	16.0	38	25	15.8	59
10	16.4	40	26	15.4	63
11	16.2	41	27	14.8	69
12	16.2	40	28	14.5	82
13	16.8	39	29	14.8	81
14	17.8	39	30	14.7	74
15	17.8	38	31	14.5	70
16	18.4	39	Sept. 1	14.9	63
17	18.8	38	2	15.2	62
18	19.5	37	3	15.2	62
19	19.4	37	4	15.0	60
20	19.4	36	5	14.6	60
21	18.9	36	6	14.6	57
22	18.6	35	7	14.2	57
23	18.2	34			
24	18.4	36			
25	18.5	35			
26	18.5	34			
27	18.7	36			
28	18.2	36			
29	17.3	36			
30	16.1	42			
31	17.5	48			

Table 33. Water temperature and relative water level at the Klakas weir in southeastern Alaska, 1983.

Date	Temperature (°C)	Level (cm)	Date	Temperature (°C)	Level (cm)
June 8	14.0	46	July 22	19.0	46
9	15.0	50	23	18.5	47
10	14.5	55	24	17.5	65
11	14.5	55	25	18.0	61
12	14.5	52	26	18.0	62
13	14.5	52	27	17.5	53
14	15.0	62	28	17.5	52
15	12.0	74	29	17.0	55
16	13.5	107	30	17.0	91
17	13.0	133	31	14.0	104
18	12.5	95	Aug. 1	16.0	83
19	13.0	74	2	16.5	72
20	14.0	64	3	15.0	86
21	16.0	57	4	15.0	88
22	16.0	52	5	15.0	70
23	17.5	50	6	15.5	64
24	19.5	48	7	16.0	57
25	16.0	47	8	17.0	53
26	16.0	46	9	17.0	51
27	17.0	46	10	17.0	48
28	17.0	48	11	15.5	48
29	17.0	55	12	17.0	50
30	16.0	56	13	17.0	52
July 1	17.5	53	14	15.0	51
2	16.0	51	15	16.0	66
3	17.0	48	16	15.0	74
4	16.5	50	17	16.0	65
5	17.0	51	18	15.0	74
6	16.5	51	19	14.0	99
7	16.5	50	20	14.5	79
8	16.5	51	21	15.0	66
9	16.0	55	22	15.0	60
10	13.5	71	23	14.5	70
11	15.0	66	24	15.0	81
12	15.5	60	25	15.5	80
13	16.5	56	26	14.5	94
14	16.5	53	27	14.5	102
15	17.0	50	28	14.5	142
16	18.0	48	29	14.5	99
17	18.5	47	30	15.0	74
18	19.5	46	31	15.5	62
19	19.5	45	Sept. 1	15.0	61
20	19.5	43	2	13.0	65
21	18.5	45	3	14.5	64

Table 33 (continued). Water temperature and relative water level at the Klakas weir in southeastern Alaska, 1983.

Date	Temperature (°C)	Level (cm)	Date	Temperature (°C)	Level (cm)
Sept. 4	13.5	60	Oct. 18	9.5	152
5	15.0	60	19	10.5	121
6	13.5	70	20	9.0	102
7	13.5	64	21	9.0	117
8	14.0	58	22	8.5	105
9	14.0	55	23	8.5	97
10	14.0	52	24	9.0	116
11	14.5	50	25	7.5	108
12	14.0	48	26	7.0	91
13	15.0	48	27	7.0	81
14	13.5	50	28	7.5	109
15	13.0	52	29	7.5	113
16	12.5	51	30	7.5	90
17	13.0	48	31	7.5	74
18	13.0	48	Nov. 1	7.0	64
19	12.5	50	2	7.0	80
20	13.0	69	3	7.0	80
21	13.5	65	4	7.0	72
22	13.5	60	5	6.5	70
23	13.0	56	6	6.5	65
24	12.0	90	7	6.5	58
25	12.0	91	8	6.5	55
26	12.0	79	9	6.5	53
27	11.5	67	10	6.5	57
28	11.5	61			
29	11.5	58			
30	11.5	56			
Oct. 1	11.5	55			
2	11.5	55			
3	11.0	64			
4	11.0	74			
5	11.5	69			
6	11.0	61			
7	11.0	67			
8	11.5	78			
9	11.0	66			
10	11.0	61			
11	11.0	57			
12	11.0	53			
13	10.5	51			
14	10.0	50			
15	10.0	48			
16	9.5	58			
17	9.5	66			



Table 34. Water temperature and relative water level at the Klawock weir in southeastern Alaska, 1983.

Date	Temperature (°C)	Level (cm)	Date	Temperature (°C)	Level (cm)
July 7	16.5	14	Aug. 20	15.8	87
8	16.5	14	21	15.9	69
9	16.5	14	22	15.1	67
10	16.5	15	23	15.0	73
11	16.5	16	24	15.0	95
12	16.0	16	25	15.0	97
13	15.5	16	26	15.0	102
14	15.0	17	27	14.9	91
15	15.0	16	28	15.0	80
16	15.0	13	29	15.0	60
17	15.0	12	30	15.0	52
18	16.0	10	31	14.5	41
19	16.0	10	Sept. 1	15.0	45
20	16.2	9	2	15.0	48
21	16.1	9	3	15.0	52
22	17.0	10	4	14.5	54
23	17.4	15	5		
24	17.0	9	6		
25	17.0	25	7	15.0	37
26	17.0	23	8	14.5	35
27	17.0	26	9	14.0	30
28	17.0	24	10	14.0	25
29	17.0	35	11	14.0	22
30	17.0	37	12	14.0	21
31			13		
Aug. 1			14	13.5	26
2			15	13.5	29
3			16	14.0	28
4			17	14.0	2
5	16.5	31	18	13.5	21
6	16.6	26	19	13.0	23
7			20	13.0	31
8			21	13.0	37
9	16.5	17	22	13.5	27
10	16.5	17	23	13.4	30
11	16.0	19	24	13.2	81
12	16.7	19	25	13.0	67
13	17.0	17	26	12.5	61
14			27	12.0	50
15	16.0	57	28	12.0	40
16	16.0	46	29	12.3	63
17	16.5	35	30	12.0	31
18	16.0	76	Oct. 1	12.1	31
19	16.0	88	2	12.0	32

Table 34 (continued). Water temperature and relative water level at the Klawock weir in southeastern Alaska, 1983.

Date	Temperature (°C)	Level (cm)	Date	Temperature (°C)	Level (cm)
Oct. 3	12.0	58			
4	12.0	64			
5	12.0	58			
6					
7	11.5	39			
8					
9	11.0	27			
10	11.0	6			

Table 35. Water temperature and relative water level at the McDonald weir in southeastern Alaska, 1983.

Date	Temperature (°C)	Level (cm)	Date	Temperature (°C)	Level (cm)
July 11	15.0	111	Aug. 24	13.0	156
12	13.5	113	25	12.5	180
13	13.5	102	26	12.5	179
14	15.0	83	27	12.0	189
15	15.0	69	28	12.0	188
16	17.0	56	29	12.0	144
17	17.0	49	30	12.5	108
18	17.0	42	31	12.5	80
19	17.5	38	Sept. 1	13.0	67
20	17.5	33			
21	17.5	30			
22	16.0	37			
23	17.5	45			
24	17.0	46			
25	16.5	49			
26	18.0	50			
27	16.0	49			
28	16.5	62			
29	15.0	71			
30	16.0	80			
31	15.0	143			
Aug. 1	15.0	140			
2	15.0	121			
3	14.0	133			
4	14.0	116			
5	15.0	94			
6	14.5	87			
7	14.5	91			
8	15.0	80			
9	15.0	66			
10	14.0	54			
11	15.0	47			
12	16.0	42			
13	15.5	40			
14	16.5	37			
15	13.5	81			
16	14.0	134			
17	14.0	126			
18	14.0	104			
19	13.0	140			
20	13.5	139			
21	13.0	116			
22	13.5	102			
23	13.0	89			

Table 36. Water temperature and relative water level at the Salmon Bay weir in southeastern Alaska, 1983.

Date	Temperature (°C)	Level (cm)	Date	Temperature (°C)	Level (cm)
June 12	16.6	18	July 26	18.3	13
13	15.1	18	27	16.7	14
14	17.2	17	18	17.5	25
15	15.8	24	29	18.1	23
16	14.0	35	30	17.2	25
17	16.5	39	31	17.1	41
18	14.4	48	Aug. 1	16.6	46
19	14.5	52	2	17.5	43
20	14.9	47	3	17.4	50
21	16.5	42	4	18.3	45
22	18.8	38	5	17.0	41
23	19.0	34	6	17.3	38
24	18.8	31	7	17.4	35
25	17.6	28	8	18.7	35
26	16.9	27	9	19.3	32
27	18.5	26	10	18.5	33
28	18.0	25	11	18.7	32
29	18.8	24	12	18.2	29
30	16.8	24	13	18.7	27
July 1	18.0	24	14	17.0	32
2	18.3	24	15	15.6	76
3	18.8	22	16	16.9	66
4	19.2	21	17	17.4	55
5	19.6	19	18	15.0	80
6	20.2	18	19	15.0	102
7	21.0	17	20	15.6	81
8	18.6	16	21	15.6	70
9	16.5	16	22	15.7	62
10	17.5	27	23	15.2	84
11	18.0	28	24	15.4	73
12	17.8	26	25	15.9	64
13	19.5	25			
14	17.8	23			
15	19.6	21			
16	19.8	20			
17	20.3	19			
18	20.1	18			
19	19.7	16			
20	20.2	15			
21	18.1	14			
22	18.5	14			
23	17.9	14			
24	18.7	14			
25	18.6	13			

Table 37. Water temperature and relative water level at the Tamgas weir in southeastern Alaska, 1983.

Date	Temperature (°C)	Level (cm)	Date	Temperature (°C)	Level (cm)
June 20	14.0	61	Aug. 3		
21	14.0	58	4		91
22	15.0	52	5		76
23	15.0	49	6		67
24	15.0	49	7		61
25			8		56
26			9		52
27	15.0	46	10		49
28	16.0	46	11		46
29	16.0	46	12	18.0	43
30	16.0	37	13	17.0	55
July 1	16.0	34	14	17.0	52
2			15	17.0	73
3			16	17.0	104
4	16.0	24	17	16.0	92
5	16.0	24	18		107
6	16.0	21	19	15.0	107
7	16.0	21	20	15.0	98
8	17.0	20	21	15.0	82
9	15.0	20	22	16.0	73
10	15.0	73	23	15.0	70
11	15.0	70	24		131
12	15.0	67	25		149
13	16.0	61	26		
14	16.0	58	27		
15	17.0	58	28		
16	18.0	52	29		76
17	19.0	52	30		
18	19.0	49	31		
19	19.0	61	Sept. 1		
20			2		
21			3		
22			4		
23			5		
24			6		
25			7		
26			8		76
27			9		70
28			10		64
29			11		61
30			12		61
31			13		61
Aug. 1			14		61
2			15		61

Table 37 (continued). Water temperature and relative water level at the Tamgas weir in southeastern Alaska, 1983.

Date	Temperature (°C)	Level (cm)	Date	Temperature (°C)	Level (cm)
Sept. 16		58			
17		52			
18		52			
19		52			
20		76			
21		73			
22		67			

Figure 1. Location of weir sites used to record the escapement of sockeye salmon and other salmonids in the southern part of southeastern Alaska, 1982-83.

Figure 2. Weir design used to determine sockeye escapement from stream systems in the southern part of southeastern Alaska, 1982-83.