



Serial No. 3007
(B.g.14)

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(also ICES/ICNAF Salmon Doc. 73/18)

ANNUAL MEETING - JUNE 1973

Length composition in samples of commercial salmon catches taken by
observers during the International Salmon Tagging Experiment at
West Greenland, 1972

by

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Part of the instructions to the observers on board the commercial vessels were during the ISTE to take length measurements of salmon from the catches, if possible each week or every ten days.

The samples collected are either a single day's total catch or a fraction of about 200 salmon taken successively when coming on board.

The salmon were measured in total length to the cm below. The total number of salmon measured is 9560. There is no information about mesh sizes. The areas used (see Table II) are those established by Ole Christensen, ICES/ICNAF Salmon Doc. 72/75.

Table I gives the length frequencies in percent by week and by area, together with mean length and number measured.

Table II shows mean lengths and number measured by week and by area, together with overall length by week as well as overall length by area.

Table III and Figure I show the length composition and frequencies of all samples.

There is an increase in the mean length from south to north (Area VI to I, Table II). This increase from south to north has been demonstrated before (ICES/ICNAF Salmon Doc. 72/77), but inside each area it is impossible from this material to show an increase in the mean length as a function of time. In previous years 1969 and 1970 the increase in mean length or weight as a function of time has been demonstrated (ICES/ICNAF Salmon Doc. 71/6 and 72/77). But the material was bigger and taken over a longer period.

Table 1.

Length frequencies (%) of Salmon, West Greenland 1972.

Total length to cm below.

Area I: 68°40'N → North

Gear: Drift net.

Boats: Bakur, Leikur, Hvitanes, Polarlaks, Silpha, Susi-Ann.

Week no.	36	37	38	39
date	27.8.-2.9.	3.9.-9.9	10.9.-16.9.	17.9.-23.9.
Total length cm				
99	-	0.09	-	-
8	-	-	0.68	-
7	0.09	0.09	-	-
6	0.19	0.09	-	-
5	0.28	0.19	0.68	-
4	0.09	0.28	1.37	-
3	0.47	-	0.68	-
2	0.94	0.37	0.68	-
1	1.71	0.37	3.42	-
90	1.52	0.65	1.37	0.54
9	1.42	1.21	1.37	1.08
8	2.28	1.03	2.05	-
7	1.61	0.93	0.68	1.08
6	2.18	1.03	1.37	1.08
5	1.33	1.49	2.05	2.15
4	1.04	0.84	2.74	-
3	1.23	1.59	2.05	1.08
2	1.71	0.93	1.37	1.61
1	1.04	1.03	-	1.61
80	1.04	0.56	0.68	1.61
9	1.80	1.77	3.42	1.61
8	1.61	1.31	2.05	1.08
7	2.37	2.33	7.53	3.23
6	4.08	4.66	4.79	2.15
5	6.36	6.34	9.59	6.45
4	5.79	6.34	8.22	3.23
3	9.48	8.58	10.27	5.91
2	8.92	9.51	6.16	9.14
1	9.77	8.12	6.16	8.60
70	8.82	8.68	4.79	17.74
9	8.06	7.46	3.42	7.53
8	3.32	5.78	2.74	7.53
7	3.32	3.82	3.42	3.23
6	1.42	2.61	0.68	4.84
5	1.42	3.73	-	1.61
4	0.66	1.77	0.68	1.08
3	0.94	0.84	-	0.54
2	0.76	1.12	-	0.54
1	0.19	1.21	1.37	1.61
60	0.47	0.65	1.37	-
9	-	-	-	-
8	0.09	0.19	-	-
7	0.09	0.19	-	0.54
6	-	0.09	-	-
55	-	0.09	-	-
Total	99.91%	99.96%	99.90%	100.03%
Total number	1 054	1 072	146	136
Mean length	74.6	72.8	73.2	72.2
Standard deviation	7.14	6.52	7.60	5.69

Table 1 cont.

Area II: 66°35'N - 68°40'N
Boats: Bakur, Leikur, Hvitanes. Gear Drift-net

Total length cm	Week no	36	38	40
	date	27.8- 2.9.	10.9- 16.9.	24.9- 30.9-
3		-	-	0.90
2		0.47	0.59	-
1		-	-	0.90
90		-	0.59	0.90
9		0.95	-	0.90
8		0.47	1.76	1.80
7		-	-	-
6		-	-	1.80
5		0.47	1.18	1.80
4		0.95	0.59	-
3		0.47	1.18	0.90
2		0.95	-	-
1		-	0.59	-
80		-	0.59	4.50
9		0.95	1.18	-
8		2.84	0.59	3.60
7		3.79	1.76	3.60
6		1.90	2.94	3.60
5		4.74	6.47	4.50
4		6.64	7.65	6.30
3		9.48	5.29	8.10
2		10.43	7.65	8.10
1		9.00	8.82	12.61
70		10.90	11.76	9.90
9		8.53	7.06	6.30
8		4.74	7.65	9.90
7		4.27	4.71	0.90
6		7.11	3.53	5.40
5		2.84	7.65	0.90
4		3.79	2.35	0.90
3		0.47	1.76	0.90
2		0.47	1.18	-
1		1.42	1.18	-
60		-	1.18	-
9		-	0.59	-
8		0.47	-	-
7		-	-	-
56		0.47	-	-
Total		99.98%	100.02%	99.91%
Total number		211	170	111
Mean length		71.2	71.1	73.3
Stand. dev.		5.18	5.71	6.06

Table 1 cont.....

Table 1 cont.

		Area III: 65°25'N - 66°35'N			Gear: Drift-net		
		Boats: Bakur, Leikur, Hvitanes, Polarlaks, Susi-Ann.					
Week no		32	33	34	35	39	40
date		30.7- 5.8.	6.8- 12.8.	13.8- 19.8.	20.8- 26.8.	17.9- 23.9.	24.9- 30.9.
Total length cm							
105	-	-	-	-	0.15	-	-
101	-	-	-	-	0.15	-	-
99	-	-	-	-	-	0.34	-
8	-	-	-	-	-	-	-
7	-	-	0.10	-	-	-	-
6	-	0.38	-	-	-	0.34	-
5	0.23	-	-	-	-	0.34	-
4	-	-	0.10	0.15	0.68	-	-
3	0.46	0.19	0.20	0.15	0.34	-	-
2	0.23	-	-	0.15	0.68	-	-
1	-	0.19	-	-	0.68	-	-
90	0.23	0.58	0.20	0.15	0.68	-	-
9	1.17	0.97	0.10	0.63	0.34	-	-
8	0.93	0.19	0.62	0.47	0.34	2.17	-
7	0.70	0.58	0.20	0.15	1.03	-	-
6	0.93	0.97	0.83	0.47	1.37	-	-
5	0.70	0.77	0.62	0.31	0.34	-	-
4	3.52	0.97	0.83	0.63	0.68	-	-
3	1.40	0.77	0.41	0.63	0.34	-	-
2	1.87	0.19	0.62	0.15	1.03	2.17	-
1	-	1.16	0.83	0.47	1.72	-	-
80	0.70	0.58	0.83	2.37	0.34	4.34	-
9	2.58	0.38	0.72	0.95	0.68	-	-
8	0.70	0.77	0.93	0.95	3.10	4.34	-
7	1.64	1.36	0.72	3.48	3.79	2.17	-
6	1.40	2.53	1.77	2.85	4.82	4.34	-
5	2.34	3.31	3.23	6.18	5.86	10.86	-
4	4.46	6.62	4.17	5.70	7.24	2.17	-
3	5.39	6.43	3.85	8.71	8.62	15.21	-
2	4.22	8.96	6.15	9.50	10.34	15.21	-
1	7.74	9.94	6.77	8.24	13.44	4.34	-
70	11.03	12.08	10.32	7.60	6.55	6.52	-
9	10.79	7.99	8.96	7.13	8.96	10.86	-
8	10.32	8.38	9.38	6.65	5.17	4.34	-
7	5.16	6.04	8.65	5.54	3.10	4.34	-
6	6.10	5.65	6.36	4.43	2.06	4.34	-
5	3.75	3.31	7.29	4.91	0.68	-	-
4	5.39	2.53	4.79	3.80	1.37	2.17	-
3	0.70	0.38	3.33	2.06	1.72	-	-
2	1.17	1.94	1.56	1.58	0.68	-	-
1	0.46	1.55	1.35	1.42	-	-	-
60	0.70	0.58	2.18	0.63	-	-	-
9	-	0.19	0.31	0.31	-	-	-
8	0.23	0.38	0.20	-	-	-	-
57	0.46	-	0.31	-	-	-	-
Total		99.80%	99.79%	99.79%	99.80%	99.79%	99.89%
Total number		426	513	959	631	290	46
Mean length		71.5	71.2	69.7	71.2	73.4	72.7
Stand.dev.		6.62	5.85	5.67	5.75	6.27	4.54

Table 1 cont.....

Table 1 cont.

Area IV: 63°35'N - 65°25'N Gear: Drift-net
Boats: Bakur, Leikur, Hvitnes, Susi-Ann.

Total length cm	Week no	32	33	34	35	36
	date	30.7- 5.8.	6.8- 12.8.	13.8- 19.8.	20.8- 26.8.	27.8- 2.9.
4	-	-	0.67	-	-	-
3	-	-	-	-	-	-
2	-	-	-	-	-	-
1	0.96	-	-	-	-	-
90	1.92	0.67	0.91	0.32	0.50	0.50
9	-	2.01	1.83	0.32	1.01	1.01
8	0.96	0.67	1.83	-	0.25	0.25
7	-	2.01	-	-	0.25	0.25
6	0.96	1.34	0.91	0.65	-	-
5	1.92	1.34	-	0.65	0.25	0.25
4	1.92	2.01	-	-	0.50	0.50
3	0.96	0.67	0.91	-	0.75	0.75
2	-	2.01	-	-	0.50	0.50
1	-	2.68	0.91	0.32	0.25	0.25
80	1.92	-	0.91	0.32	1.01	1.01
9	1.92	1.34	0.91	0.65	0.75	0.75
8	0.96	2.68	0.91	0.65	0.75	0.75
7	-	2.01	1.83	1.62	1.51	1.51
6	1.92	0.67	4.58	2.28	3.28	3.28
5	6.73	3.35	3.66	5.53	5.05	5.05
4	5.76	2.01	3.66	5.53	6.81	6.81
3	3.84	6.71	6.42	9.12	6.56	6.56
2	12.49	6.71	9.17	10.09	11.11	11.11
1	8.65	9.39	13.76	9.12	8.08	8.08
70	7.69	8.05	4.58	11.40	8.83	8.83
9	5.76	6.04	9.17	6.18	8.08	8.08
8	10.57	7.38	6.42	6.84	6.31	6.31
7	6.73	5.36	5.50	6.51	5.05	5.05
6	5.76	8.05	7.33	8.14	6.81	6.81
5	2.88	5.36	3.66	6.18	6.31	6.31
4	1.92	4.02	1.83	1.95	2.02	2.02
3	3.84	2.01	2.75	1.95	2.77	2.77
2	-	0.67	2.75	1.62	1.01	1.01
1	-	0.67	1.83	1.30	1.01	1.01
60	-	0.67	0.91	0.65	0.75	0.75
9	-	0.67	-	-	0.75	0.75
8	0.96	-	-	-	0.25	0.25
7	-	-	-	-	0.25	0.25
Total	99.90%	99.90%	99.84%	99.89%	99.87%	
Total number	104	149	109	307	396	
Mean length	71.8	72.1	71.1	70.2	70.7	
Stand. dev.	6.27	7.08	6.08	4.45	5.47	

Table 1 cont.....

Table 1 cont.

Area V: 62°00'N - 63°35'N Gear: Drift-net
Boats: Leikur, Polarlaks, Silpha, Susi-Ann.

Week no date	32 30.7- 5.8-	33 6.8- 12.8	34 13.8- 19.8.	35 20.8- 26.8	39 17.9- 23.9	40 24.9- 30.9	41 1.10- 7.10	42 8.10- 14.10
8	-	-	0.07	-	-	-	-	-
7	-	-	0.07	-	-	-	-	-
6	-	0.20	0.07	-	-	-	-	-
5	1.29	-	0.07	-	-	-	-	-
4	-	-	0.22	-	-	0.60	-	-
3	-	-	-	0.25	-	-	1.78	-
2	-	-	0.07	0.25	-	-	-	-
1	-	0.41	0.07	0.25	-	-	-	-
90	1.29	1.03	0.30	-	-	1.20	1.78	-
9	1.29	-	0.15	0.50	-	0.60	-	-
8	-	-	0.30	-	-	-	-	-
7	-	0.20	0.22	-	-	-	-	-
6	-	0.82	0.30	0.50	-	0.60	-	-
5	1.29	0.82	0.30	0.25	-	-	1.78	-
4	-	-	0.30	0.25	-	0.60	1.78	-
3	1.29	0.82	0.30	-	1.05	0.60	-	-
2	1.29	2.07	0.15	-	-	-	-	1.85
1	1.29	1.03	0.37	-	-	-	-	-
80	-	0.82	0.75	0.25	2.10	0.60	1.78	-
9	-	1.03	1.43	-	4.21	1.80	-	-
8	-	0.82	1.13	-	6.31	2.40	-	1.85
7	-	1.45	2.12	1.77	5.26	6.02	3.57	1.85
6	-	2.07	2.95	1.51	1.05	7.22	3.57	1.85
5	5.19	2.07	4.99	3.54	10.52	7.22	5.35	14.81
4	3.89	4.77	5.60	2.53	9.47	9.03	7.14	-
3	9.09	4.97	7.65	6.83	10.52	4.81	5.35	7.40
2	14.28	10.37	10.75	6.07	10.52	6.02	3.57	7.40
1	12.98	9.75	9.24	7.34	8.42	10.84	5.35	14.81
70	-	9.95	11.21	6.58	11.57	6.02	12.49	11.11
9	14.28	8.50	8.40	6.58	2.10	7.22	7.14	9.25
8	5.19	4.97	6.59	6.32	1.05	6.02	8.92	11.11
7	6.49	6.01	6.21	6.32	2.10	3.61	7.14	11.11
6	3.89	4.14	3.56	5.82	4.21	6.02	3.57	1.85
5	5.19	6.84	4.31	8.60	2.10	1.80	7.14	-
4	2.59	4.56	2.65	8.10	4.21	3.61	3.57	-
3	2.59	3.94	2.04	6.32	-	1.80	3.57	1.85
2	1.29	3.11	1.96	5.56	-	2.40	-	-
1	1.29	0.82	1.21	3.29	2.10	0.60	1.78	-
60	1.29	0.62	1.13	2.53	-	0.60	-	-
9	-	0.20	0.30	0.75	1.05	-	1.78	-
8	-	0.41	0.15	0.25	-	-	-	-
7	1.29	-	0.15	0.25	-	-	-	-
6	-	0.20	-	0.25	-	-	-	1.85
5	-	-	-	0.25	-	-	-	-
Total	99.84%	99.79%	99.81%	99.86%	99.92%	99.86%	99.90%	99.95%
Total number	77	482	1 320	395	95	166	56	54
Mean length	70.9	70.4	70.7	68.2	72.2	71.9	71.0	70.8
Stand.dev.	6.34	5.89	5.21	5.47	4.59	5.60	6.54	3.98

Table 1 cont.....

Table 1 cont.

Area VI: 62°00'N - 60°30'N Gear: Drift-net
 Boat: Hvitanes.

Week no date	34 13.8.-19.8.
Total length cm	
7	2.85
6	-
5	-
4	-
3	-
2	2.85
1	-
80	-
9	-
8	-
7	2.85
6	-
5	5.71
4	-
3	5.71
2	8.57
1	5.71
70	2.85
9	11.42
8	5.71
7	8.57
6	8.57
5	5.71
4	5.71
3	8.57
2	2.85
1	-
60	2.85
9	-
8	-
7	-
6	2.85
Total	99.91%
Total number	35
Mean length	68.7
St.dev.	6.00

Week no	32	33	34	35	36	37	38	39	40	41	42	Total							
DATE	30.7- 5:8	6.8- 12.8	13.8- 19.8	20.8- 26.8	27.8- 2.9	3.9- 9.9	10.9- 16.9	17.9- 23.9	24.9- 30.9	1.10- 7.10	8.10- 14.10								
AREA																			
I 68°40'N- North	71.5 +6.6 426	71.2 +5.8 513	69.6 +5.7 959	71.2 +5.8 631	70.2 +4.4 307	70.7 +5.5 396	71.1 +6.1 109	71.1 70.2	68.1 +5.5 395	70.4 +5.9 482	70.7 +5.2 1 320	71.0 +6.3 77	72.2 +4.6 95	71.8 +5.6 166	71.0 +6.5 56	70.8 +4.0 54	70.4 +5.5 2 645		
nos.																			
II 66°35'N- 68°40'N	71.8 +6.3 104	72.1 +7.1 149	71.1 +6.1 109	70.2 +4.4 307	70.7 +5.5 396	71.2 +6.1 109	71.0 +5.7 170	71.2 +5.2 211	71.2 +5.2 211	71.0 +5.7 170	71.0 +5.7 170	71.0 +5.7 170	71.0 +5.7 170	73.3 +6.1 111	73.3 +6.1 111	72.2 +5.7 186	72.2 +5.7 186	71.6 +5.6 492	
nos.																			
III 65°25'N- 66°35'N	71.5 +6.6 426	71.2 +5.8 513	69.6 +5.7 959	71.2 +5.8 631	70.2 +4.4 307	70.7 +5.5 396	71.1 +6.1 109	71.2 +6.1 109	71.2 +5.8 631	71.2 +5.8 631	71.2 +5.8 631	71.2 +5.8 631	71.2 +5.8 631	71.2 +5.8 631	71.2 +5.8 631	71.2 +5.8 631	71.2 +5.8 631	71.2 +5.8 631	71.2 +5.8 631
nos.																			
IV 63°35'N- 65°25'N	71.8 +6.3 104	72.1 +7.1 149	71.1 +6.1 109	70.2 +4.4 307	70.7 +5.5 396	71.1 +6.1 109	71.1 +6.1 109	71.1 +6.1 109	71.1 +6.1 109	71.1 +6.1 109	71.1 +6.1 109	71.1 +6.1 109	71.1 +6.1 109	71.1 +6.1 109	71.1 +6.1 109	71.1 +6.1 109	71.1 +6.1 109	71.1 +6.1 109	71.1 +6.1 109
nos.																			
V 62°00'N- 63°35'N	70.9 +6.3 77	70.4 +5.9 482	70.7 +5.2 1 320	68.1 +5.5 395	70.4 +5.9 482	70.7 +5.2 1 320	68.1 +5.5 395	70.4 +5.9 482	70.7 +5.2 1 320	68.1 +5.5 395	70.4 +5.9 482	70.7 +5.2 1 320	68.1 +5.5 395	70.4 +5.9 482	70.7 +5.2 1 320	68.1 +5.5 395	70.4 +5.9 482	70.7 +5.2 1 320	68.1 +5.5 395
nos.																			
VI 60°30'N- 62°00'N																			
nos.																			
Total	607	1 144	2 423	1 333	1 661	1 072	316	571	323	56	54	9 560							

Table II: The mean total length of salmon measured from the commercial catches at West Greenland, 1972, per area per week, per area total, and per week total.

Total length, cm	No.	%
105	1	0.01
101	1	0.01
9	2	0.02
8	2	0.02
7	4	0.04
6	8	0.08
5	11	0.12
4	15	0.16
3	15	0.16
2	23	0.24
1	38	0.40
90	57	0.60
9	67	0.70
8	69	0.72
7	51	0.53
6	81	0.85
5	76	0.79
4	75	0.78
3	75	0.78
2	75	0.78
1	66	0.69
80	86	0.90
9	119	1.24
8	121	1.27
7	214	2.24
6	286	2.99
5	488	5.10
4	527	5.51
3	697	7.29
2	850	8.89
1	850	8.89
70	910	9.52
9	762	7.97
8	621	6.53
7	510	5.33
6	423	4.42
5	412	4.31
	282	2.95
3	189	1.98
2	148	1.55
1	106	1.11
60	85	0.89
9	21	0.22
8	16	0.17
7	15	0.16
6	5	0.05
5	2	0.02
Total number	9 560	99.98
mean length	71.5	
standard deviation	±6.2	

Table III: Length composition both in number and percentages.
From commercial catches at West Greenland, 1972.

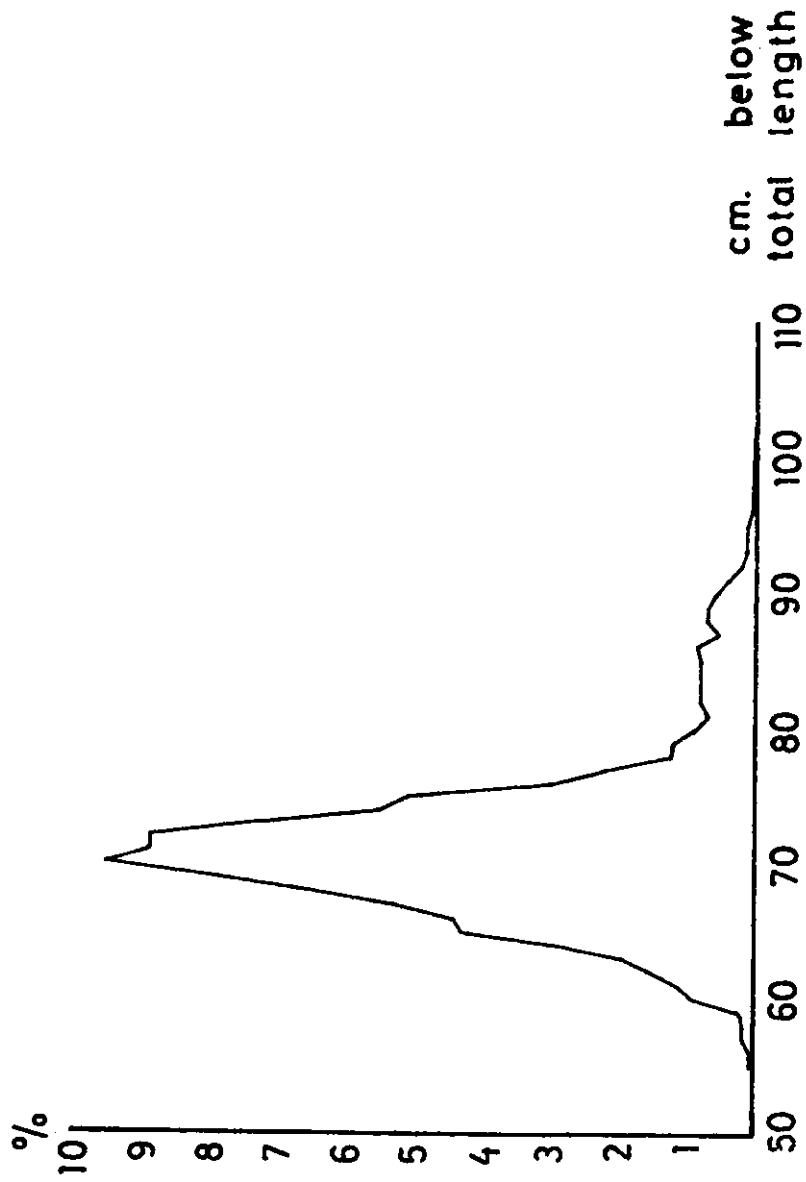


Fig. 1. Length frequencies of 9560 salmon from commercial catches, West Greenland 1972. Mean length 71.5 cm \pm 6.2.