RESTRICTED

INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

Serial No.2180
(B.g.14)

ICES/ICNAF Salmon Doc.69/4
(also ICNAF Res.Doc.69/42)

ANNUAL MEETING - JUNE 1969

Results of the Examination of Scale Samples from Salmon taken off Faroe, 1968

by W. R. Munro and I. J. R. Hynd

This brief report records the results of the examination of scale samples from 84 salmon, part of a total of 182 salmon taken by longline off the Faroe Islands by the 'Jens Chr. Svabo' during an experimental salmon fishing cruise between 8th and 23rd April 1968. We are indebted to Dr. J. S. Joensen of Fiskirannsoknarstovan, Torshavn for providing us with the opportunity to examine this material.

Table 1 gives the numerical and percentage age composition of the sample. Four fish could not be assigned to a particular smolt age class because of damage to the centres of the scales but have been included, in a separate category, because their sea age could be identified.

The length at the end of each winter of life was calculated for all maiden fish except those whose scales had damaged centres. In some cases only the total length of the fish was recorded and for these fish the fork length was calculated on the basis of the accepted relationship between these two parameters and checked against the values for fish of the same size in the present sample, for which both lengths had been recorded.

Table 2 gives complete details of average calculated lengths for each age class of maiden fish and the average observed length, average length attained at the end of each sea winter and average plus growth for maiden fish which had spent one or two winters in the sea. All but one maiden fish, the largest (observed length 86 cm.) showed at least some evidence of current year's growth (plus growth) on their scales, the values for individual fish varying from a trace to 7.5 cm.

The six previous spawners not included in Table 2 averaged 70.9 cm. in length. All had spawned only once (during the winter of 1967/68), three as grilse, one after two winters in the sea, one as a summer fish after 2+ years in the sea and one after three winters in the sea. The age classification and average lengths of these six fish were as follows:

Age Class	Number	Observed Length (cm.)
2.1+SM+	2	60.5[a]
4.1+SM+	1	63.5
3.2.SM	1	72.0
2.2+SM	1	81.0
2.3SM	1	88.0

[a] Average

Because of the small size of the sample it is perhaps unwise to speculate on the origins or subsequent movements of these fish (had they not been caught) but it is perhaps worth noting that the percentage distribution of smolt ages is much closer to that reported for two Scottish rivers (ICES/ICNAF Salmon Document 69/2) than that reported for fish caught at sea off Northern Norway (ICES/ICNAF Salmon Document 69/3).

(over)

Table 1 — Age Distribution in Sample

Smolt Age	Sea Winters 1	Sea Winters 2	Previous Spawners	Overall
1	4 (4.8)[a]	-	-	4 (4.8)
2	41 (48.8)	2 (2.4)	4 (4.8)	47 (56.0)
3	14 (16.7)	7 (8.3)	1 (1.2)	22 (26.2)
4	4 (4.8)	2 (2.4)	1 (1.2)	7 (8.3)
?[b]	2 (2.4)	2 (2.4)	-	4 (4.8)
Overall	65 (77.4)	13 (15.5)	6 (7.1)	84

[a] Numbers in brackets are the percentage of the total sample.

[b] Smolt age unreadable.

Table 2 — Calculated Lengths

Age Class	No. in Sample	Average Observed Length (cm.)	Freshwater Winters 1	2	3	4	Sea Winters 1	2	Plus Growth (cm.)
1.1+	4	51.9	10.8				48.1		3.8
2.1+	41	53.5	5.1	12.8			49.1		4.4
3.1+	14	51.1	3.6	8.2	12.8		46.7		4.5
4.1+	4	52.1	3.1	6.5	9.6	13.5	46.6		5.5
?1+[a]	2	54.2	-	-	-	-	-		-
Overall	65	52.8					48.4[b]		4.4[b]
2.2+	2	75.0	4.8	10.8			44.5	71.0	4.0
3.2+	7	77.9	3.5	7.9	12.3		46.4	75.4	2.5
4.2+	2	81.5	3.2	7.0	10.8	14.2	48.5	77.0	4.5
?2+[a]	2	74.8	-	-	-	-	-	-	-
Overall	13	77.5					46.4[c]	74.9[c]	3.1[c]

[a] Smolt age unreadable.

[b] 63 fish.

[c] 11 fish.