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SOME MERISTIC AND MORPHOMETRIC CHARACTERS OF SALMON IN GREENLAND WATERS.

by Jens Møller Jensen.

The purpose of this paper is to give some meristic and morphometric characters, in the hope that some of them can be used to separate the populations of salmon in Greenland waters in two - one coming from North America and one from Europe.

The material used comprises 57 recaptures from Greenland waters caught in the autumn of 1967. Of these, 30 were tagged in Canada, 13 in U.S.A., 9 in Scotland, 3 in England, 1 in Sweden and 1 in Iceland.

Unfortunately all the salmon were gutted with head on, and sent frozen to the Greenland Fisheries Investigations.

All measurements taken are made in accordance with Hubbs and Lagler (1958), with the exception of the standard length, which was taken from the tip of snout to the base of the caudal fin. When counting the fin-rays, there has been no use of x-rays, but the counting included the rudimentary rays. The level for the significance used is 0.05.

The table shows the results of the measurements. There is no significant difference between salmon from Canada and U.S.A.. Between salmon from North America and United Kingdom there is no significant difference, except in the number of rays in the dorsal fins and in the predorsal length, (length from the tip of the snout to the anterior base of the dorsal fin).

About the differences in the predorsal length, it is known that the length of the head depends on the sex, which may be the explanation of the difference.

Considering the very limited number of salmon examined and the difficulties in counting especially the rudimentary rays in the dorsal fins without use of x-rays, it can not be said with certainty that the number of rays in the dorsal fins are usable in the endeavours to separate the salmon populations in subpopulations.

Another thing is that a number of the salmon in this material originated from hatcheries, and it is a question whether salmon have the same meristic and morphometric characters as wild smolts from the same area?

Whether it is possible or not to use the number of rays in the dorsal fin to make a separation, it will in any case be necessary to collect smolts from the native rivers in Europe and North America and investigate these for the number of rays in the dorsal fin.

Litt.: Fishes of the Great Lakes Region.

Cronbrook Inst. of Science, Bull.no.26,1958.

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Meristic characters	U.S.A.			Canada.			United Kingdom.			Sweden.	Iceland.
	No.	Mean /s	Min. Max.	No.	Mean /s	Min. Max.	No.	Mean /s	Min. Max.		
Fork length, cm	13	69.6 7.0	63 82	28	63.6 3.21	57 71	12	67 2.7	64 73	66	65
Standard length, mm	13	65.5 66.4	591 775	30	542 27.9	542 674	12	646 24.9	618 694	630	625
No. of rays in dorsal fin.	6	14.3 0.82	13 15	19	15.0 0.62	14 16	7	15.6 0.98	14 17	15	16
No. of rays in anal fin.	8	11.0 0.76	10 12	17	11.1 0.81	10 12	7	11.4 0.98	10 13	11	11
No. of rays in pectoral fin.	8	14.0 0.53	13 15	17	13.5 0.72	14 17	7	13.9 0.68	13 15	13	14
Morphometric characters in % of std. length.											
Predosal length.	13	42.2 1.09	40.5 44.5	30	42.0 1.59	39.5 46.5	12	43.2 1.51	41.0 46.5	42.0	41.0
Distance between dorsal- and adipose fin.	13	27.9 1.47	26.0 31.0	30	27.8 1.50	24.5 30.0	12	27.0 1.26	25.0 28.5	28.5	25.5
Head.	11	18.9 0.82	17.5 19.5	24	18.9 0.83	18.0 21.0	12	18.9 0.55	18.0 20.0	19.0	21.0
Snout.	12	5.9 0.47	5.1 6.6	25	5.9 0.56	5.1 6.9	12	6.1 0.49	5.6 7.3	5.9	7.1
Postorbital.	11	9.9 0.49	9.1 10.7	25	9.8 0.45	8.5 11.0	12	9.9 0.43	9.3 10.4	9.8	10.7
Horizontal diam. of orbit.	12	3.4 0.27	3.1 3.8	25	3.4 0.23	3.0 3.8	12	3.4 0.19	3.0 3.5	3.8	3.8

Table.1. Meristic and morphometric characters of salmon recaptured in Greenland waters 1967, tagged in U.S.A., Canada, U.K., Sweden and Iceland. The table gives the number of salmon, the mean, the standard deviations, the minimum and the maximum for, each character.