

4.

Contribution to Practical Studies in Faroe Herring.

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Previously some information on samples of herring caught in the Faroe Area has been presented, viz., in the Administrative Report of the North-Western Area for 1934 and 1937 (Rapp. et Proc.-Verb. Vol. No. 94, II, p. 14—15, 1935, and Vol. No. 107, II, p. 11, 1938) and the question was discussed at the meetings of our Committee in 1937 and 1938.

Rather few analyses on Faroe herring being available before, the following new analysis may be of some value for further studies of this little known community of herring.

During 1938 three samples of Faroe herring were obtained through the kindness of the skipper of an Aberdeen liner, who called at the Faroes for bait supplies. A summary of the analysis is given in the following tables.

**Herring from the Sounds off Eide
("Eide Fjord"), 1938.**

Size Distribution:

Sample No.	I	II	III
Date	Febr. 28th.	March 16th.	Nov. 5th.
21 cm.	—	·7	—
22 —	3·7	8·6	—
23 —	14·6	18·2	—
24 —	28·2	21·7	2·2
25 —	22·6	20·5	10·0
26 —	15·3	13·2	19·7
27 —	10·6	10·0	29·3
28 —	4·3	6·4	27·1
29 —	·7	·5	8·9
30 —	—	—	2·2
31 —	—	—	·7
—	—	—	—
36 —	—	·2	—
Total No. of Fish	301	419	270

Maturities:

Stage I.	72·1	84·0	20·0
— II	12·7	6·2	62·6
— III	8·9	2·2	16·3
— IV	6·3	6·2	·7
— V	—	·5	—
— VI	—	·7	—
— VII	—	·2	—
— VII—II	—	—	·4

Age Composition:

2 winter rings	·7	1·4	5·9
3 —	89·1	87·0	89·6
4 —	9·9	10·7	4·5
5 —	·3	·7	—
—	—	—	—
11 —	—	·2	—

Counts of vertebrae and keeled scales (K_2) were remarkably similar in all three samples, as may be seen from the next two tables.

Vertebrae:

Sample No.	I %	II %	III %
55	—	·2	1·5
56	15·2	17·5	15·6
57	65·6	63·7	61·8
58	18·6	17·7	20·4
59	·6	·9	·7
Mean	57·05	57·02	57·03
No. of Fish	302	418	270

Keeled Scales: K_2 .

12	2·3	2·2	4·2
13	35·2	32·9	32·5
14	51·9	54·8	51·6
15	10·6	9·9	11·7
16	—	·2	—
Mean	13·71	13·73	13·71
No. of Fish	301	411	264

According to these results, the herring examined consisted mainly, if not exclusively, of *spring spawning herring*, characterised by a *relatively high number of vertebrae and a very low number of keeled scales*.

Comparison with the large herring which spawn in February and March on the slope north and north-west of Shetland is instructive. Many samples of these Shetland spring spawners have been examined and the extreme range in the mean number of vertebrae has been from 56·95 to 57·03 and of the K_2 from 13·86 to 13·93. The mean K_2 of the Faroe spring spawners is significantly lower — the lowest so far recorded in the Scottish investigations — and it will be recognised that again this character has a special value in the distinguishing of different communities within the same race.