

Serial No.459Document No.18ANNUAL MEETING - MAY 1957Cod. Relation Length - Weight

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During the later years a number of samples of cod have been reported by individual lengths and weights (by Denmark, France, Germany, Norway, Portugal and Spain). The largest part of the material is from Subarea 1, but it includes also some data from Subareas 2, 3 and 4.

Based on these data, the attached table gives the mean individual weights by 5-cm. groups.

Fig.1 shows the relation length-weight for the Subareas 1, 2, 3 and 4. Up to a length of 82 cm. the curves for the four subareas run very

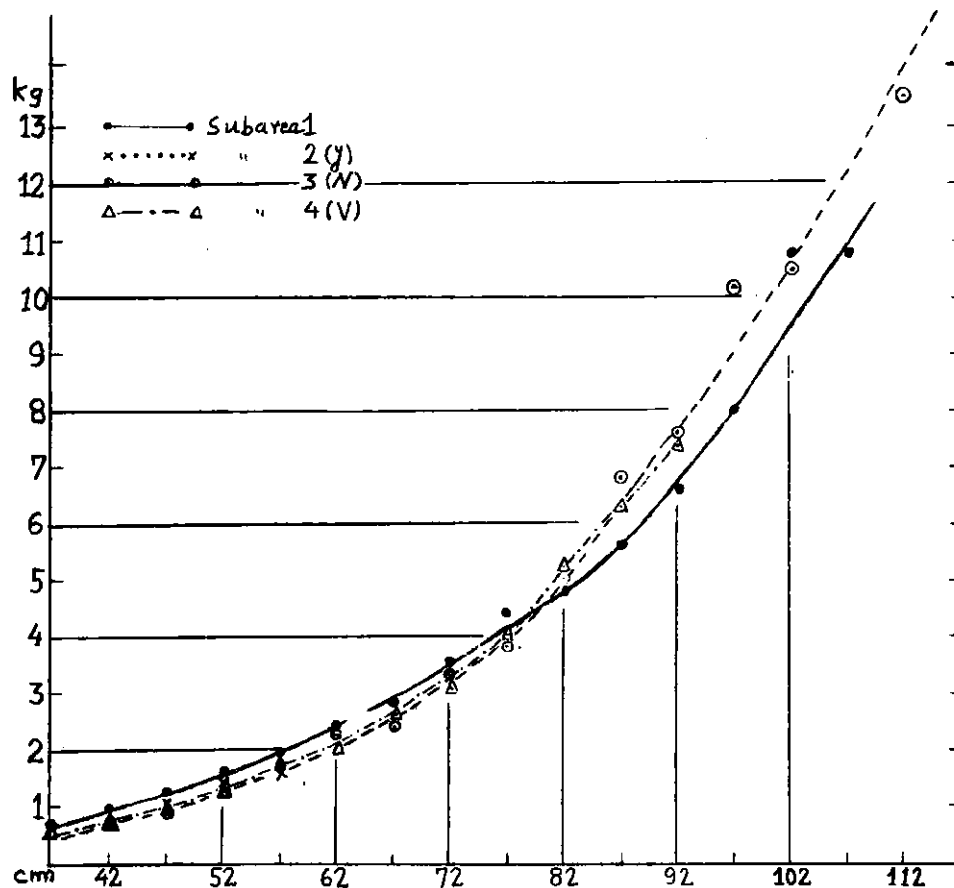


Fig.1. Relation Length-Weight (from Table 1).

close to one another. The curve for Subarea 1 is just a little over that for the other subareas (for Subarea 2 only observations for the length-groups 45-49, 50-54, and 55-59 are reported). The larger cod from West Greenland (over ca. 80 cm.) are, however, somewhat heavier than those from Subareas 3 and 4. Where comparing the cod from the size groups (62-87 cm.), those sizes investigated from all the subdivisions (last column of table), hardly any difference in individual weight appears between subareas (Subarea 1 - 3.93 kg., 3 - 3.92 kg. and 4 - 3.90 kg.).

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Fig.2 shows the length-weight relation for the years 1953-56 (Subarea 1). In 1953 and 1956 the cod were heavier than in 1954 and 1955.

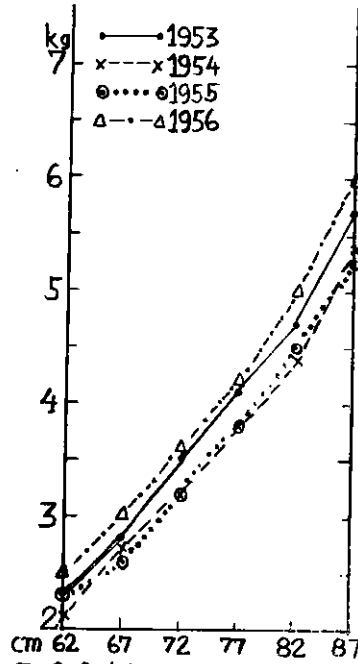


Fig.2. Cod, Subarea 1. Length-weight by years

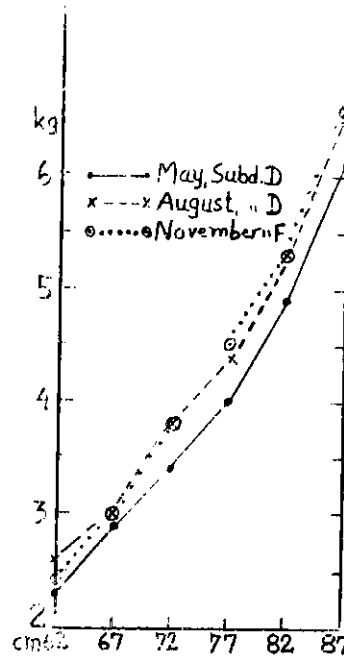


Fig.3. Cod, Subarea 1. Length-weight by months

Fig.3 shows, also for Subarea 1 an improvement in condition from May, the spawning or just after spawning period, to August and November. A 72 cm. cod weighs in May 3.4 kg. and a cod of the same length weighs in Aug.-Nov. 3.8 kg.; an increase in weight of 12%.

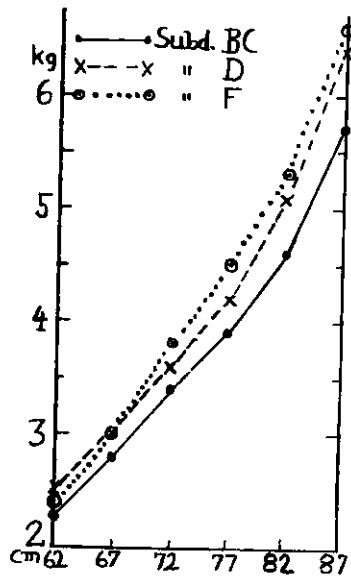


Fig.4. Cod, Subarea 1 Length-weight by subdivisions

Fig.4 illustrates the relations length-weight for various subdivisions of Subarea 1.

A general improvement in conditions is observed from North to South. A 72 cm. cod weighs in Subdivisions BC 3.4 kg., in D 3.6 kg., and in F 3.8 kg.

The comparisons made in Figs.2, 3 and 4 are, of course, not quite reliable as they do not comprise the same months and subdivisions every year. Thus (see the following survey) the decrease in individual weight from 1953 to 1954 may be caused by the sample from 1954 being taken three weeks closer to the spawning period than that of 1953. The Norwegian research reports, however, mention a general decrease in condition between 1953 and 1954. The increase in weight during summer (Fig.3) is corroborated by the figures for the same Subdivision D in one and the same year for May (3.93 kg.) and Aug. (4.28 kg.). The increase in weight from North to South (Fig.4) becomes evident, when comparing B+C and D for the latter half of August (3.96 and 4.28 kg. respectively).

	Mean Individual Weight of Cod					
	1953	1954	1955		1956	
	29/31 July	9 July	5/6 July	July/Aug.	20/28 May	15/30 Aug.
BC	3.85	3.60	3.42	3.52	3.93	4.28
BCD						3.96
D						
F						4.27

