

ANNUAL MEETING - JUNE 1967Length, ages, growth of cod in Subareas 2 and 3 (1966)

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The present report is based on observations made on board commercial trawlers by one member of the "Bochorno" ship of the Cod Fishery Company PYSBE in subareas 2 and 3. The samples were taken, at random, for data on length and age composition, and sex ratio.

For the age-length key we have used a subsample obtained from the initial random samples by choosing a number of otoliths, in each 3- cm length classes.

SUBAREA 2.

I. Cod

Samples were obtained in Div. 2 H and 2 J; in march (2H) and january, february, april, may, june, september and october (2J). In january, april and september the number of samples was so scarce in 2J that in the present report are not considered.

For Div. 2H: (Fig. 2)

<u>Sample n°</u>	<u>Date</u>	<u>N° lengths</u>	<u>N° Aged</u>
1-9	7-18 march	2.662	13

a. Lengths ranged from 31 to 85 cm classes. The mean length is: 53'17 cm.

b. Ages

The age-group VI (1960 year class) is dominant followed by the VII (1959 year class) in this month of March.

c. Growth is shown in the following table of average lengths:

TABLE I

<u>Age group</u>	<u>1st Quarter (March)</u> <u>Mean length in cm</u>
V	43 cm
VI	47'5 cm
VII	56 "
VIII	-
IX	61 "
X	72 "
XI	70 "
XVI	88 "

d. Sex ratio There were 39'5 % of males and 60'5 % of females.

For division 2 J: (Fig. 1)

Samples were taken from division 2J from 1 february to 23 October, as follows:

<u>Sample Group</u>	<u>Sample nº</u>	<u>Date</u>	<u>Nº lengths</u>	<u>Nº Aged</u>
A	10 - 19	1-19 febr.	2.569	13
B	20 - 51	1-30 may	11.080	15
C	52 - 57	2 - 7 june	1.683	10
D	58-59	9-23 october	<u>3.650</u>	<u>9</u>
			18.982	47

a. Lengths

In division 2J lengths ranged from 25 cm to 115 cm classes: (February from 34 to 115; May from 25 to 100; June from 31 to 76 and October from 31 to 82 cm)

Mean lengths were: A = 58'32 cm; B = 52'5 cm; C = 51'9 cm ; D = 52'4 cm.

b. Ages

In division 2J the age-group VI (1960 year class) is dominant, followed by age-group VII (1959 year class)

c. Growth

TABLE II

<u>Age group</u>	<u>1rst Quarter</u> (february)	<u>2nd Quarter</u> (may) (june)		<u>4th Quarter</u> (october)
IV	45 cm	43	-	-
V	52	54	42	51
VI	55	-	49	52
VII	43 ?	51	-	62
VIII	60	64	56'5	70
IX	-	68	56'5	-
X	70	76	-	63
XI	75	-	64	60
XII	-	73	-	-
XIII	-	82	-	-
XIV	69	-	-	-
XVIII	-	77	-	-

d. Sex ratio

There were: in February 37'4 % of males and 62'6 % of females; in May 27'3 % of males and 72'7 of females; in June 66'2 % of males and 33'8 of females; and in October: 48'3 % of males and 51'7 % of females.

SUBAREA 3

I. Cod

Samples were taken from landings from 20 March to 29 November in Division 3 L and from 4 to 25 August in Div. 3 M as follows:

For Div. 3 L: (Fig. 1)

<u>Samples group</u>	<u>Sample Nº</u>	<u>Date</u>	<u>Nº Lengths</u>	<u>Nº Aged</u>
A	60 - 73	20-30 March	4.606	26
B	74 - 90	8 -26 April	5.711	17
C	91 - 93	14-26 July	3.410	17
D	94 - 96	4-10 September	2.401	14
E	97 -102	15-29 November	<u>3.483</u>	<u>18</u>
			19.611	92

a. Lengths

In division 3L lengths ranged from 19 to 121 cm in March -that is the month with the largest range of length; in April ranged from 28 to 106 cm; in July from 31 to 103 cm; in September from 31 to 97 cm and in November from 31 to 91 cm.

Mean lengths were: 57'36 cm in March; 55'6 cm in April; 52'15 cm in July; 52'5 cm in September and 52'06 cm in November.

b. Ages

In division 3L the IV age-group (1962 year class) is dominant followed by the VII age-group (1959 year class)

c. Growth

Age group	<u>1rst Quarter</u> (March)	<u>2nd Quarter</u> (April)	<u>3rd Quarter</u> (July)	<u>4th Quarter</u> (September)	<u>4rth Quarter</u> (November)
II	-	-	-	-	31
III	45	-	33'5	39	38'3
IV	38'5	47'5	45'25	44'5	-
V	-	58	49	58	-
VI	56'5	65'8	58	55	-
VII	65'5	72'5	83	68'3	-
VIII	72	88	77'5	69'5	78
IX	78	-	-	-	70
-	-	-	-	-	-
XI	-	85	-	-	80
XII	-	95	91	-	-
XIII	96	-	97	-	-
XIV	95'5	-	-	-	-
XV	115	-	-	-	-
XVI	113	-	-	-	-
XVII	120	-	-	-	-
XVIII	110	-	-	-	-
XIX	102	-	-	-	-
XX	130	-	-	-	-

d. Sex ratio

In March there were 43'8 % of males and 56'2 % of females; in April there were 46'7 % of males and 53'3 % of females; in July 42'5 % of males and 57'5 % of females; in September 68'3 % of males and 31'7 % of females and in November 71'6 % of males and 28'3 % of females.

For division 3 M: (Fig. 2)

<u>Sample n°</u>	<u>Date</u>	<u>N° Lengths</u>	<u>N° Aged</u>
103 - 110	4 to 25 August	3.934	16

a. Lengths

In division 3 M lengths ranged from 31 to 103 cm; Mean length was 54'5 cm.

b. Ages

The VI age-group (1960 year class) is dominant.

c. Growth

Age group	<u>3rd. Quarter</u> (August)
III	44'2
-	-
VI	63
-	-
VIII	76
IX	79

d. Sex ratio

In this division and month there was a 21'5 % of males and 68'5 % of females.

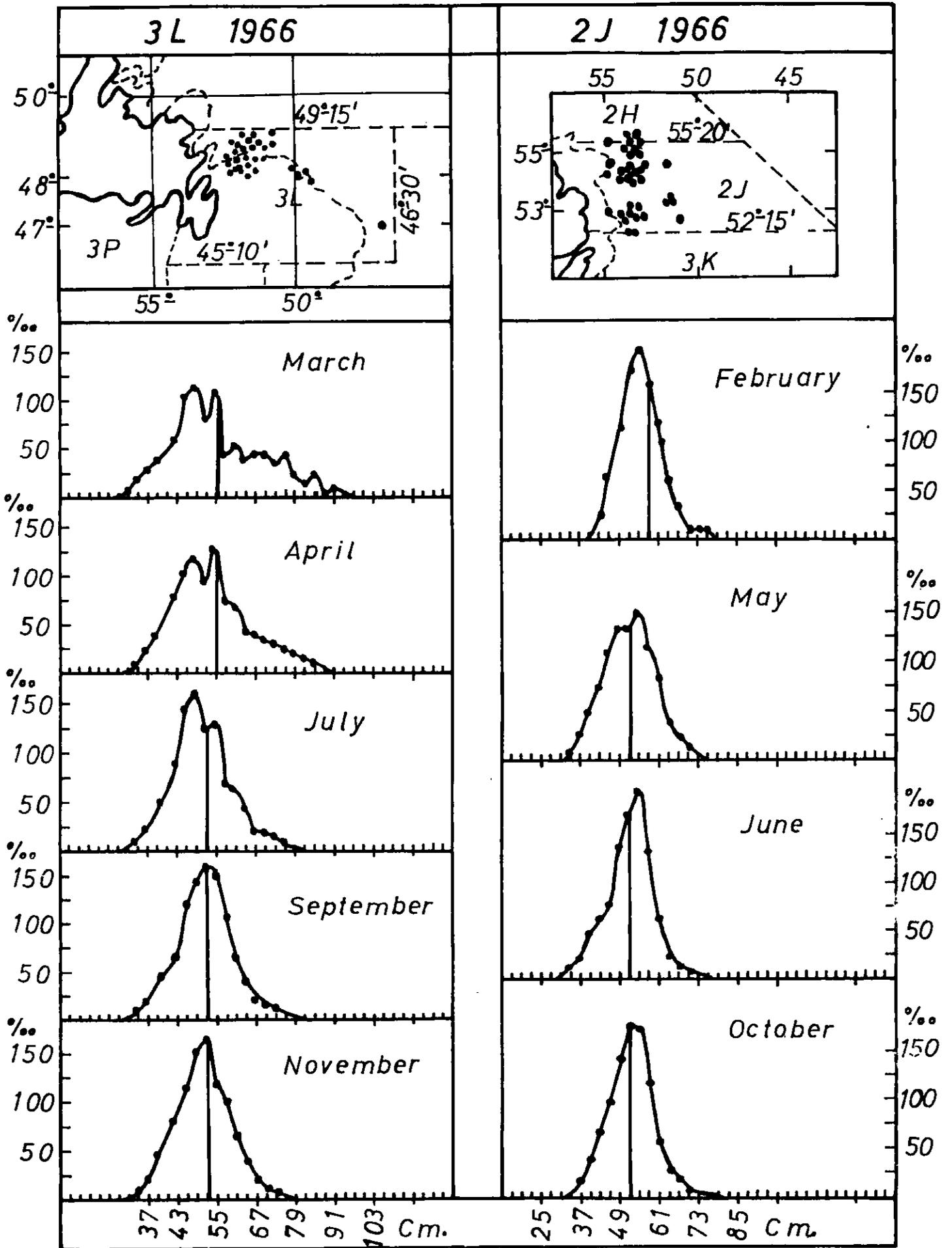


Figure 1.

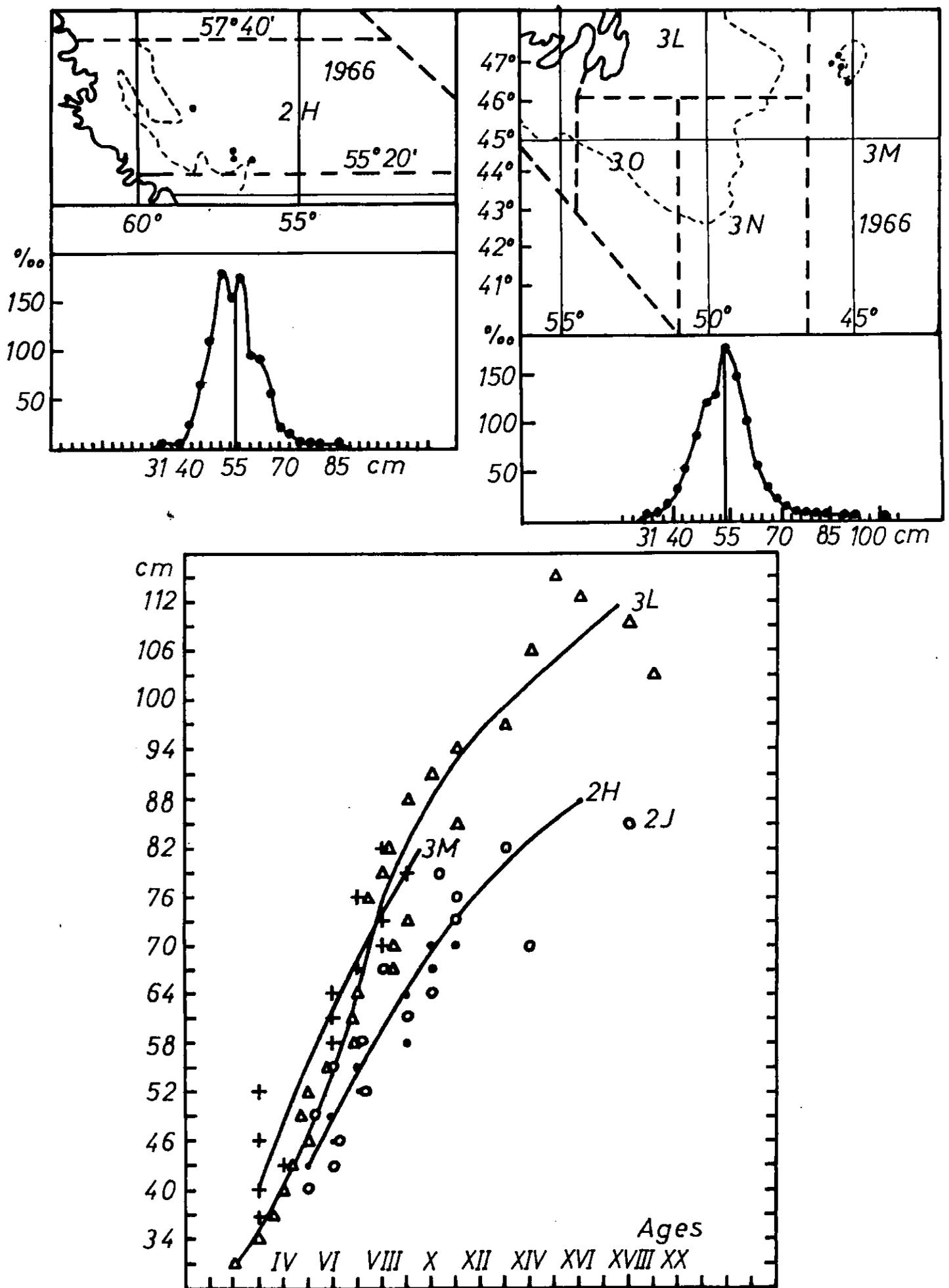


Figure 2.