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A. Cod Fry and Small Cod in Coastal Waters and on the Offshore Banks of West Greenland in 1962

1. Occurrence of cod eggs and larvae

Hauls with 1 m stramin net (100-50 m wire out) were taken in the Godthåb Fjord and in the coastal area near Godthåb from medio January to ultimo July. The catches of cod eggs and larvae were small like in 1961.

The first catches of cod eggs were taken in the middle of March. Only in one single haul the number of eggs exceeded 1000, namely 1698 eggs, caught April 28th near a spawning place in the inner part of the fjord.

Three hauls (100-50 m wire out) were made the 27th of March on the Fylla Bank section. On the station west of the bank also a haul with 600 m wire out was taken. Cod eggs were only taken in the two hauls west of the bank, 19 eggs in the haul with 100-50 m wire out and 52 eggs in the haul with 600 m wire out.

Owing to engine trouble "Dana" could not work in Greenland waters in 1962 and no other vessels were available to replace it. Owing to these circumstances it was impossible to carry out research work on the distribution of cod fry in the Davis Strait.

2. Occurrence of small cod of age-groups I, II and III

Ten samples of small cod of age-groups I, II and III were collected in 1962. The length frequencies are given in Fig. 1, and date, position, gear and number of specimens in the samples are given in the following table.

<u>Sample</u>	<u>Date</u>	<u>Locality</u>	<u>Position</u>	<u>Gear</u>	<u>No.</u>
a	29 July	Christianshåb	68°50'N.	seine	907
b	24 "	Holsteinsborg	66°55'N.	"	927
c	8 Jan.	Godthåb dstr.	64°10'N.	shrimp-trawl	498
d	9 Feb.	" "	"	" "	1688
e	7 March	" "	"	" "	698
f	25 Apr.	" "	"	" "	117
g	29 June	" "	"	seine	403
h	6 July	" "	"	"	516
i	24 "	" "	"	"	439
j	10 Sep.	Julianehåb d.	60°45'N.	"	105

Age-group I (1961 year-class) occurred in five sample c-f and j, strongly predominating in f and j.

Age-group II (1960 year-class) was strongly represented in all samples except in f and j.

Age-group III (1959 year-class) was nearly absent in all samples.

There is reason to believe that 1959 is a poor year-class while 1960 is a rather rich year-class which will be of importance to the commercial fishery for the first time in 1965.

B. Cod Investigations in the Coastal Waters and on the Offshore Banks of West Greenland in 1962 (Commercial Fish)

1. Offshore banks

Otoliths of 675 cod were collected on the offshore banks. The stations where the samples were collected together with the age-compositions and length frequencies (in 3-cm-groups) in the samples are shown in Fig. 2. Samples 1 and 2 are from Subdivision 1 B and the samples 3 and 4 are from Subdivision 1 D (see Ann. Biol. XVI, p.115, Fig. 3). Samples 1 and 3 are from long-line catches and Samples 2 and 4 from hand-line catches.

The year-class 1957 predominates strongly in Samples 1, 2 and 3 while the year-class 1956 is the predominating year-class in 4.

2. Inshore waters and fjords

From the coastal area 2721 cod taken in 17 catches were aged. The results are shown in Fig. 3. According to subdivisions the samples were distributed as following:

<u>Subdivision</u>	<u>Sample Nos.</u>	<u>No. of Specimens</u>
1 A	5	100
1 B	6 - 12	1201
1 C	13	44
1 D	14 - 16	548
1 E	17 - 18	299
1 F	19 - 21	529

In all the samples from the northern Subdivisions 1 A - 1 D (Nos. 6 and 10 excepted) the year-class 1957 predominated with between 60-90%. In samples 6 and 10 the year-class 1953 predominated with 30.1% in each sample and the two older year-classes 1950 and 1947 were represented with 9.2% and 17.9%, in No. 6 and with 20% and 21% in No. 10.

In the five samples from Subdivisions 1 E and 1 F the year-class 1957 was very poor. In four samples the 1956 year-class predominated very strongly. In Sample 20, which if from a long-line catch, the year-class 1947 predominated with 38.5% while the 1956 year class was represented with 6.3%. The samples from the coastal region show the same pattern as the samples from the offshore banks according to age compositions, namely predominance of the year-class 1957 in the northern subdivisions and year-class 1956 in the southern subdivisions. The three old year-classes which have been of great value to commercial fishery some years ago, year-classes 1947, 1950 and 1953 have nearly disappeared from the catches. There is reason to consider the year-class 1957 as a real West Greenland year-class which originates from spawning on the banks in

the Davis Strait, while the year-class 1956 possibly originates from spawning grounds off East Greenland and Iceland. In 1959 these year-classes predominated in the stock of young cod, the 1957 year-class as II-group in the northern coastal areas of West Greenland and the 1956 year-class as III-group in Subdivision 1 F. (See Ann. Biol. Vol. XVI, pag. 114-115), (See ICNAF Ann. Proc. Vol. X, pag. 33-34). In 1958 the year-class 1957 was abundant among the small cod and predicted as a rich year-class. (See Ann. Biol. Vol. XV, pag. 85-86), (See ICNAF Ann. Proc. Vol. IX, pag. 33-34).

3. Tagging experiments with cod

A number of 5001 cod has been tagged in West Greenland waters (Subarea 1) in 1962. The taggings are distributed as follows:

<u>Subdivision</u>	<u>Coastal Waters</u>	<u>Offshore Banks</u>
B	608	608
C	-	-
D	2019	302
E	364	-
F	1100	-
Total	4091	910

2472 cod have been tagged with white Petersen discs, 1120 with Spaghetti tags, 708 with small blue plastic tags and 701 with hydrostatic tags.

All reports of tagged cod in 1962 have not yet been registered. A number of 608 recaptures of cod tagged in West Greenland waters have been received in 1961. The reports are distributed according to year of tagging and place of recapture as follows:

Recaptures from:

<u>Year of Tagging</u>	<u>W. Grl.</u>	<u>Icel.</u>	<u>East Grl. and Dohrn Bank</u>
1952	1	-	-
1953	1	-	-
1954	2	-	-
1955	1	-	-
1956	14	1	-
1957	57	5	-
1958	76	1	4
1959	89	-	5
1960	272	3	-
1961	76	-	-
Total	589	10	9

C. Cod Investigations in East Greenland Waters in 1962

Two samples of cod otoliths have been collected off

Skjoldungen (63°13'N.41°30'W.). The age compositions are given in Fig. 4. The year-class 1956 predominates with 52.7% in the sample from August and with 57.4% in the sample from September. It is obvious that the age compositions in these samples are very similar to those from South West Greenland.

D. Redfish Investigations in Godthåb Fjord (Table 1)

Ten hauls with shrimp trawl for small redfish have been taken in Pisigsarfik in Godthåb Fjord. The hauls were made every month except May and June and August. A number of 8067 redfish were caught and measured (see ICNAF Sampling Year-Book). Tagging experiments have been carried out in Qorqut in Godthåb Fjord in May. A number of 561 redfish were tagged with white Petersen discs fixed in front of the dorsal fin by means of stainless steel wire. All redfish used for tagging were caught in pound nets.

TABLE 1

Length Frequencies (cm) of Redfish Caught with Shrimp Trawl
by M/C "Adolf Jensen" in the Godthåb Fjord, 64°25'N - 50°19'W

Date	No. of hauls	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Jan.	1	-	-	-	2	7	13	4	8	13	39	67	70	29	32	56	89	77	60	54	37
Feb.	1	-	-	-	3	14	42	14	23	46	74	145	165	80	78	95	124	141	97	85	77
Mar.	1	-	-	-	1	13	32	12	24	24	49	80	115	43	56	78	96	132	91	72	72
April	1	9	2	4	1	11	32	22	10	24	48	103	125	57	36	42	77	94	61	67	55
April	1	-	-	1	-	-	1	-	1	3	6	16	12	5	3	8	18	6	5	12	7
July	2	-	-	-	-	-	4	6	2	-	1	2	6	3	1	1	-	2	3	2	2
Sept.	1	-	-	-	1	-	6	2	3	6	12	18	31	38	25	39	66	50	42	32	17
Oct.	2	-	1	-	7	3	1	9	12	12	12	23	42	60	52	33	37	65	67	49	39
Nov.	1	-	-	1	5	5	4	12	21	17	16	31	65	73	69	56	53	75	83	65	51
Dec.	1	-	-	4	7	12	3	10	24	10	13	29	46	84	63	32	27	34	31	35	28

(cont'd p. 6)

TABLE 1 (cont'd)

Length Frequencies (cm) of Redfish Caught with Shrimp Trawl
by M/C "Adolf Jensen" in the Godthåb Fjord, 64°25'N - 50°19'W

Date	No. of hauls	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	> 40	No. of fish
Jan.	1	23	15	17	12	14	9	2	3	5	4	2	1	7	2	4	4	14	795
Feb.	1	46	25	22	21	23	30	45	33	43	52	36	49	61	64	58	72	136	2119
March	1	51	42	35	29	22	22	21	24	9	27	19	27	12	26	16	18	48	1438
April	1	40	28	17	18	10	14	7	3	5	4	2	2	1	-	1	2	3	1037
April	1	6	6	2	2	-	1	-	-	-	-	-	-	-	-	-	-	-	121
July	2	1	2	1	-	-	2	-	1	-	1	-	-	1	-	1	2	4	51
Sept.	1	14	13	11	3	2	5	4	2	2	2	1	3	1	-	1	3	1	456
Oct.	2	44	22	15	5	7	7	1	2	2	-	1	-	-	-	-	1	1	632
Nov.	1	38	39	18	15	7	11	6	2	7	6	3	4	4	1	-	-	5	868
Dec.	1	13	11	5	6	3	3	1	1	1	1	2	1	1	4	1	-	4	550
Total																			8067

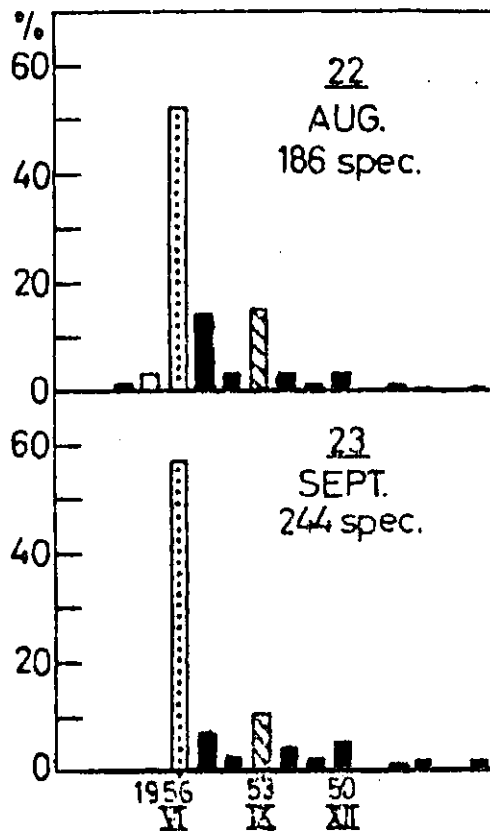


Figure 4. Percentage age distribution of cod from Skjoldungen, East Greenland.

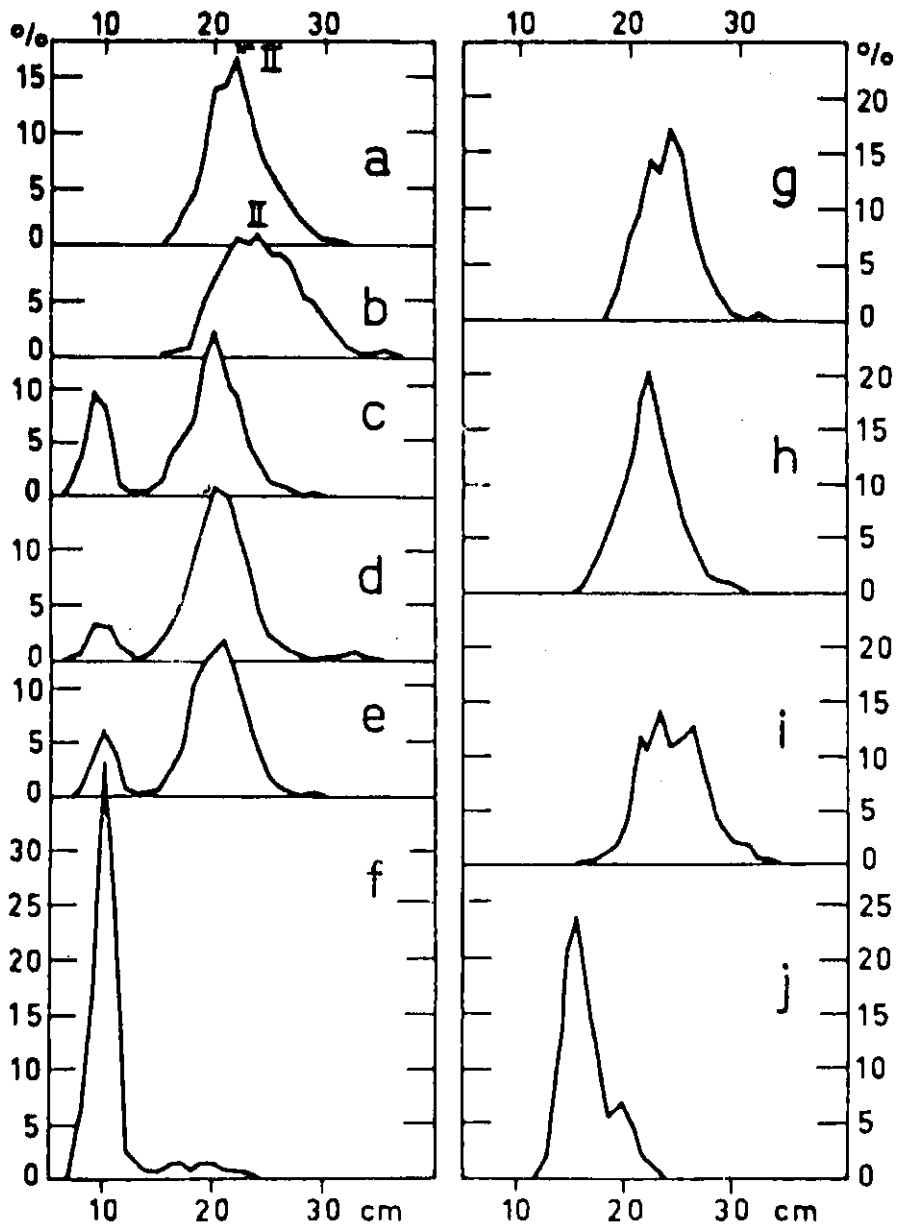
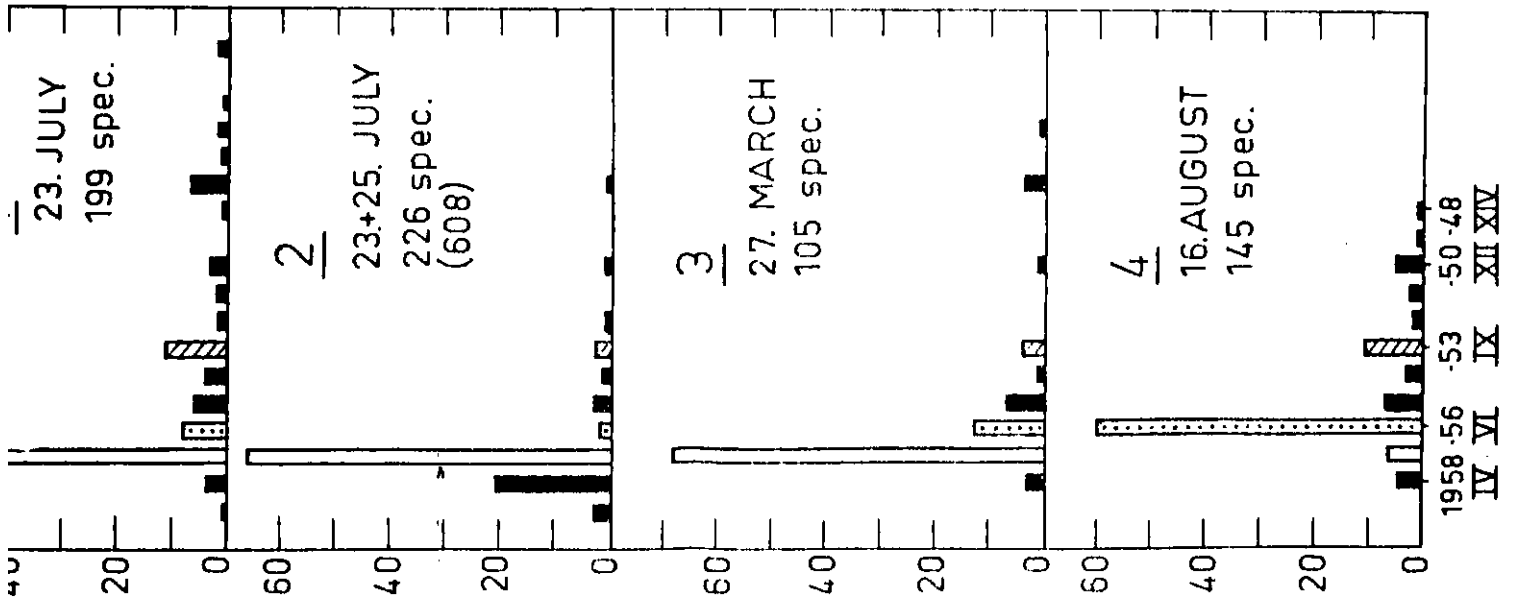
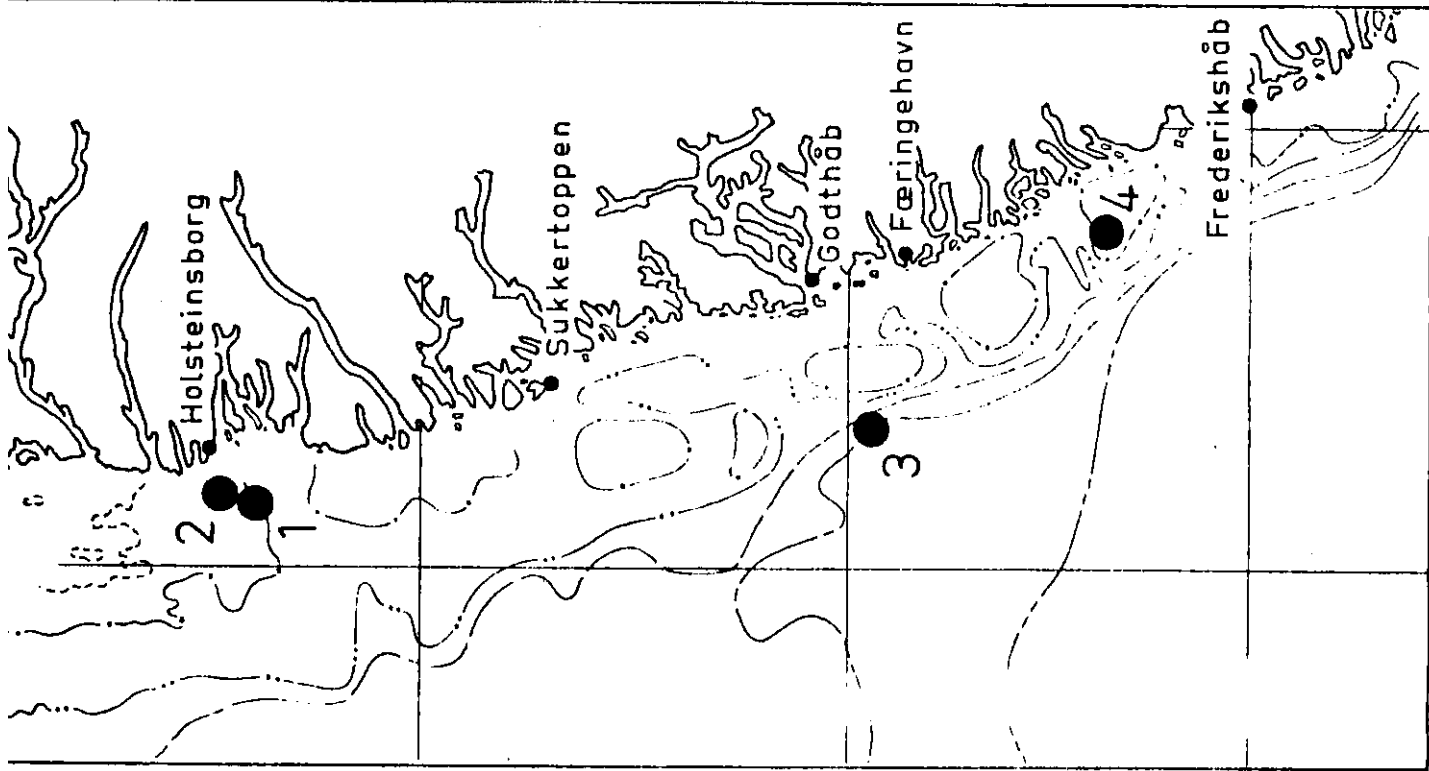
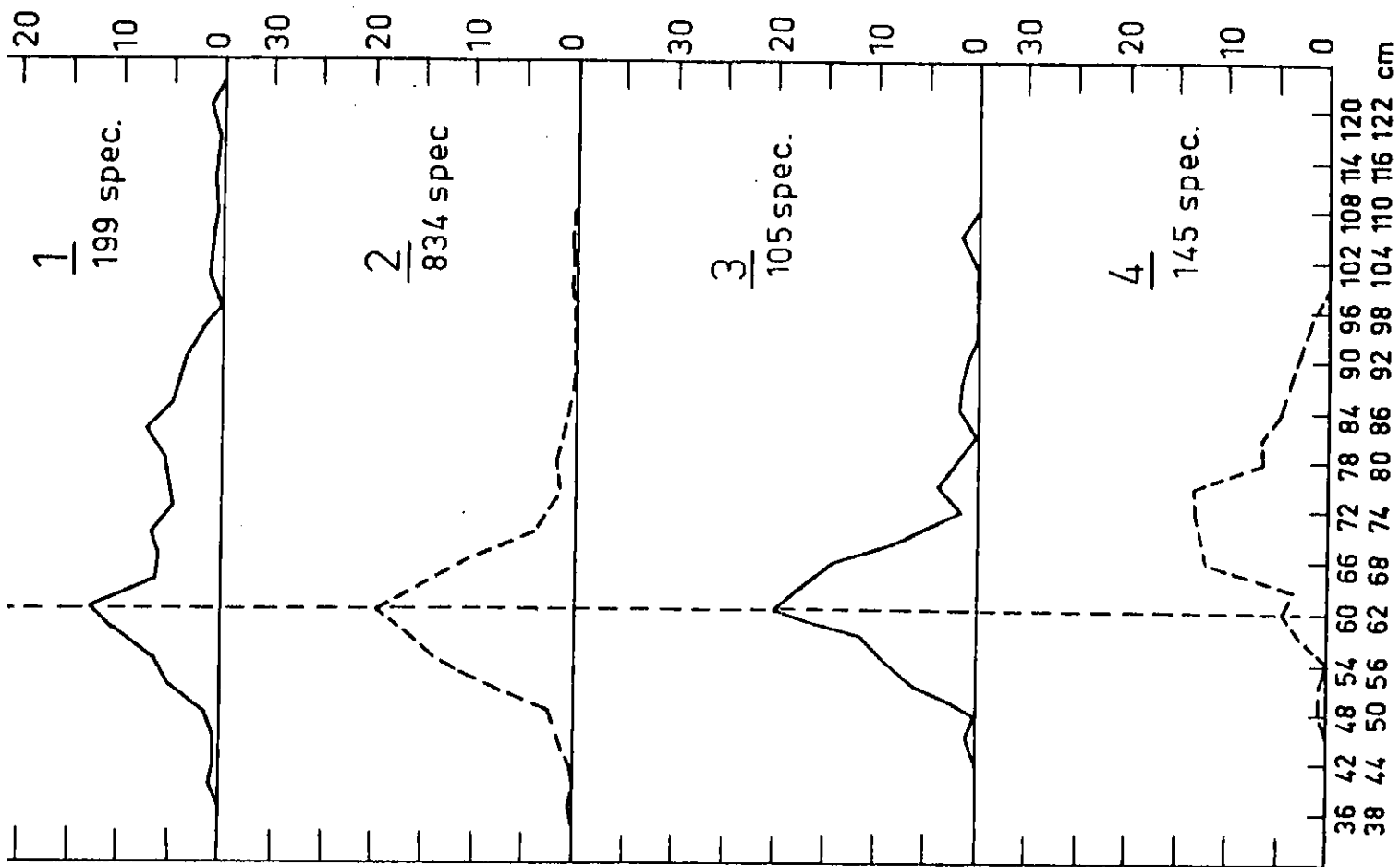


Figure 1. Length distribution of small cod in coastal areas.

Figure 2. Percentage age and length distribution of cod from the West Greenland banks in 1962.



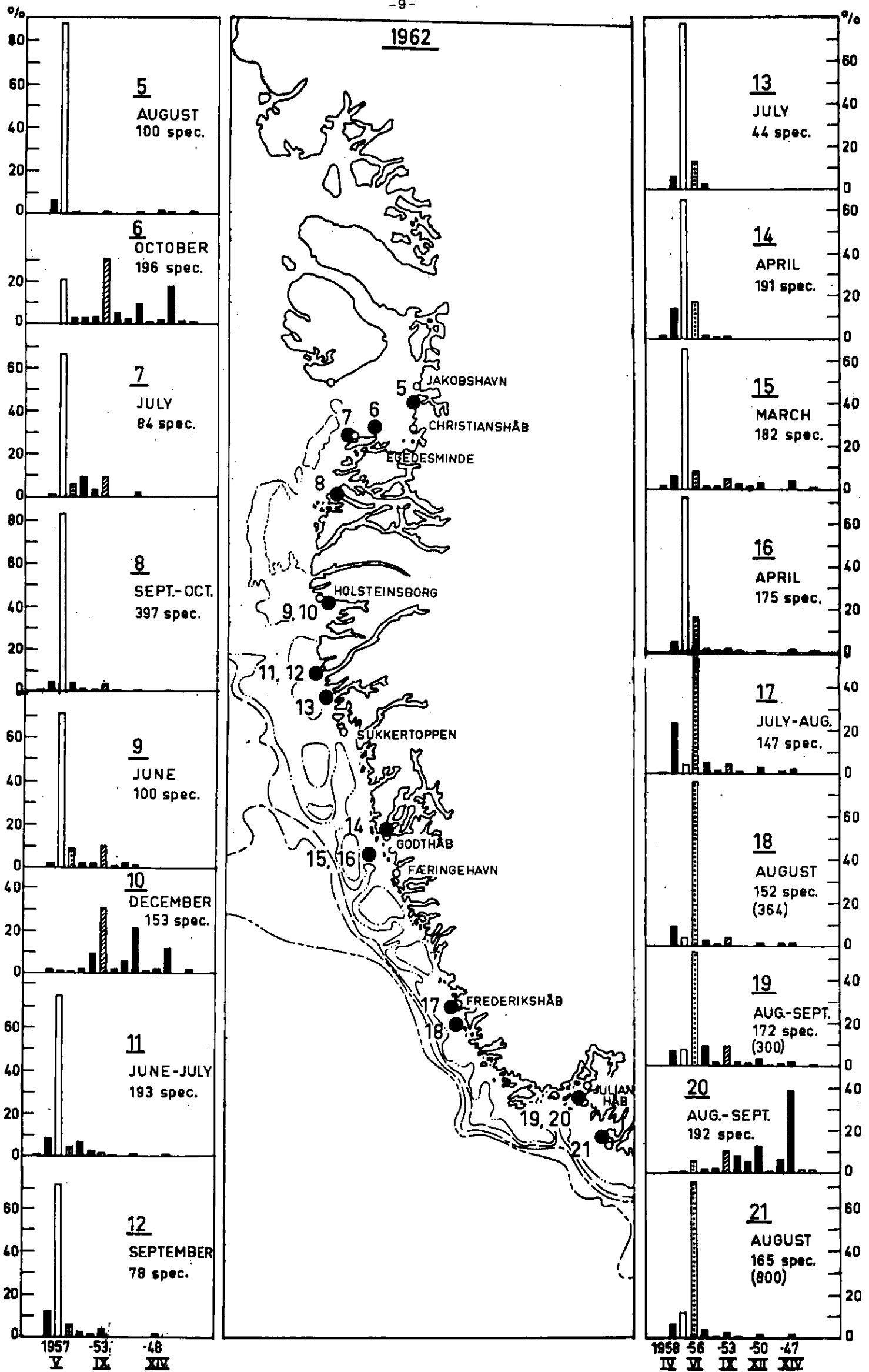


Figure 3. Percentage age distribution of cod from coastal waters, West Greenland.