

International Commission for



the Northwest Atlantic Fisheries

Serial No. 3612  
(D.a. 74)

ICNAF Summ. Doc. 75/36  
(Corrigendum)

ANNUAL MEETING - JUNE 1975

Corrigendum

to

Federal Republic of Germany Research Report, 1974

In Fig. 1 on page 9 of Summ. Doc. 75/36, the last point on the Div. 2J catch trend (ie for 1974) should be adjusted upward to 28.4 thousand tons from 18.4 thousand tons, to correspond with the nominal catch of cod in Div. 2J as given in Tables 3 and 6.





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Federal Republic of Germany Research Report, 1974

Subarea 1 and East Greenland

by

A. Meyer

A. Status of the Fisheries

1. General Trends

Table 1 gives the nominal catch off West and East Greenland, taken by the Federal Republic of Germany fleet in 1963 and from 1968 to 1974. In 1974 there was only sporadic fishing off Greenland. The total catch amounted to 7 700 t, which is only 3% of the maximum catch in 1963. 2500 t were caught in Subarea 1, 5200 t off East Greenland.

Table 1.  
Subarea 1 and East Greenland: FRG nominal catches including industrial fish (tons), 1963 and 1968-1974

	Year	Days fishing	COD			REDFISH			TOTAL		
			Catch	Catch per day	% ind.	Catch	Catch per day	% ind.	Catch	Catch per day	% ind.
Subarea 1	1963	7,175	152,934	21.3	4.2	44,355	6.2	4.7	202,923	28.3	8.6
	1968	5,819	132,498	22.8	5.3	11,858	2.0	1.8	146,432	25.2	5.3
	1969	3,234	67,431	20.9	4.0	6,964	2.2	5.2	75,293	23.3	4.3
	1970	1,722	38,551	22.4	4.0	4,501	2.6	9.1	44,283	25.7	5.9
	1971	1,545	37,950	24.6	1.9	3,335	2.2	2.0	42,482	27.5	2.4
	1972	1,312	16,963	12.9	0.3	2,650	2.0	1.9	20,732	15.8	1.8
	1973	672	6,048	9.0	0.5	2,209	3.3	1.5	9,735	14.5	9.4
	1974	114	1,681	14.7	-	568	5.0	-	2,476	21.7	2.9
E.Greenland	1963	2,182	13,677	6.3	0.5	31,368	14.4	1.4	47,700	21.9	2.2
	1968	1,361	9,825	7.2	0.2	15,432	11.3	2.0	26,417	19.4	2.0
	1969	2,164	14,292	6.6	0.9	24,587	11.4	4.6	40,505	18.7	4.2
	1970	1,532	14,388	9.4	0.9	15,672	10.2	4.5	31,104	20.3	3.3
	1971	1,737	28,735	16.5	0.6	14,037	8.1	2.9	44,062	25.4	2.4
	1972	1,732	21,664	12.5	0.4	7,153	4.1	1.6	29,742	17.2	0.9
	1973	931	9,286	10.0	0.0	4,480	4.8	0.2	14,309	15.4	1.2
	1974	312	2,310	7.4	-	2,650	8.5	1.8	5,235	16.8	1.9
Total	1963	9,357	166,611	17.8	3.9	75,723	8.1	3.3	250,623	26.8	7.4
	1968	7,180	142,323	19.8	4.9	27,290	3.8	1.9	172,849	24.1	4.8
	1969	5,398	81,723	15.1	3.5	31,551	5.8	4.8	115,798	21.5	4.3
	1970	3,254	52,939	16.3	3.2	20,173	6.2	5.5	75,387	23.2	4.9
	1971	3,282	66,685	20.3	1.3	17,372	5.3	2.8	86,544	26.4	2.4
	1972	3,044	38,627	12.7	0.4	9,803	3.2	1.7	50,474	16.6	1.3
	1973	1,603	15,334	9.6	0.2	6,689	4.2	0.7	24,044	15.0	4.5
	1974	426	3,991	9.4	-	3,218	7.6	1.5	7,711	18.1	2.2

The reason, that there was so little interest in 1974 for German factory trawlers to fish in Subarea 1, although the German quota was 27 800 t, was twofold:

- a) the poor state of the Subarea 1 stock of cod
- b) the good cod and haddock fishery in the Northeast Arctic.

The fishery of wetfish trawlers in Division 1F and off East Greenland also decreased considerably. This was due to the poor state of the East Greenlandic cod stock (the good East Greenlandic year classes of 1961 to 1964 had lost in 1974 their commercial importance) as well to the interruption of the chain of fishing grounds for wetfish trawlers from 1F via East Greenland, Iceland, Rosengarden to the Faroes as<sup>a</sup> consequence of the "Icelandic-German fishery war", which keeps the wetfish trawlers more in the eastern parts of the Atlantic.

## 2. Forecast for 1975

German fishing activity in Subarea 1 will increase again in 1975 and possibly the 1975 cod quota of 12 000 t will be taken. This is not the consequence of better stock condition but the effect of the new quota regulation in the Northeast Atlantic. Fishing in East Greenland waters probably will remain as small as in 1974. The difficulties with Iceland are still going on and factory trawlers have little interest in freezing redfish off East Greenland.

## B. SPECIAL RESEARCH STUDIES

### 1. Environmental Studies

No hydrographic investigations were carried out in 1974.

### 2. Biological Studies

Subarea 1: Due to the very reduced fishing only 4 cod samples from factory trawlers and 1 sample from a wetfish trawler were available. The German R.V. Anton Dohrn on its way back from Labrador was only able to fish in 1F for 2 days in December. Table 2 gives the age composition of the 1974 samples, based on 1679 length measurements and 906 age determinations. The 1968 year class was the only year class of commercial importance in Subarea 1. Younger cod were only caught in November and December, but nothing can be said on the strength of the 1971 cod found in 1D and the 1973 cod found in 1F.

Table 2.

Subarea 1 and East Greenland: Age composition and av. length of some year classes of cod (‰,cm)

Age-group	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1C 1974 May				5	377 61.4	473 65.5	128 69.5	17						
1D November			462 46.6	217 52.1	97 61.5	195 70.1	22	7						
1E May				10	24	764 64.6	98 72.1	71	9	15	5	-	4	
1F June						933 58.0	67 62.7							
1F December (Research)	827 24.3	24	16	49	11	47 70.6	12	4	2	4	-	-	2	2
1F December					68	841 71.1	68			23				
S.E.Greenland January-February				1	9	402 64.6	121 67.5	138 73.8	41	161 82.4	101 85.3	13	11	2
Dohrnbank March			4	93	21	144 70.9	87 77.0	77 78.6	16	251 83.0	234 88.7	73 91.5		

B 4

- 3 -

East Greenland: In Table 2 is given the age composition for the East Greenland cod (1415 length measurements, 698 age determinations). The percentage of the good East Greenlandic cod year classes 1961, 1962, 1963, and 1964 decreased considerably in 1974. Only in the northern part of East Greenland (Dohrn Bank) these older year classes are still dominating. But they have become very weak, the catch per fishing day dropped to less than 50% of the peak year 1971. Off S.E.Greenland the 1968 year class is dominating. However this year class seems to be only of moderate size. Therefore we may presume that in 1976, when these East Greenlandic cod go for the first time for spawning the catches will not reach the 1971 to 1973 level.

### Subareas 2 and 3

by

J. Messtorff

#### A. Status of the Fisheries

##### 1. General Trends

In 1974 fishing by factory trawlers of the Federal Republic of Germany was carried out only during the first quarter of the year (January-March) and had to be abandoned after that because of increasingly severe ice conditions. In connection with the quota regulation the German fishery was restricted to Divisions 2GH and 2J + 3KL. The following report is given for Subareas 2 and 3 combined.

The nominal catches as well as the catches per day fished are given in detail in Table 3. An additional species break-down of the by-catches (summarized under "OTHER FINFISH" in Table 3) is shown in Table 4.

The fishing activity in the northern Divisions 2GH remained on a relatively low level, primarily due to continuous bad ice conditions, and took only place during January in Division 2H. The total catch consisting mainly of cod (88%), however, was significantly higher than in the previous two years, and the catch of cod per day fished was highest since 1969. Nevertheless only 17% of the 1974 national quota allocation of 4000 tons for cod in 2GH could be obtained. For comparison the course of the cod fishery conducted by the Federal Republic of Germany in Divisions 2GH during the last decade is given in detail in

**Table 3 :** Nominal catches (tons) in SA 2 and SA 3 in 1974  
(including industrial fish - converted to fish meal on board).

Div./month	days fished	COD			REDFISH			OTHER FINFISH*			TOTAL FINFISH		
		nom. catch	catch per day	% ind.	nom. catch	catch per day	% ind.	mom. catch	catch per day	% ind.	nom. catch	catch per day	% ind.
2 H Jan	25	678	27.1	-	33	1.3	-	59	2.4	-	770	30.8	-
2 J Jan	594	13950	23.5	.07	217	.4	19.8	2405	4.0	86.9	16572	27.9	12.9
2 J Feb	488	14112	28.9	-	230	.5	12.6	2191	4.5	80.0	16533	33.9	10.8
2 J Mar	14	307	21.9	-	2	.1	50.0	24	1.7	33.3	333	23.8	2.7
2 J Total	1096	28369	25.9	.04	449	.4	16.3	4620	4.2	83.3	33438	30.5	11.8
3 K Jan	29	308	10.6	-	3	.1	-	95	3.3	70.5	406	14.0	16.5
3 K Feb	204	5489	26.9	-	199	1.0	3.0	1132	5.5	61.3	6820	33.4	10.3
3 K Mar	329	1561	4.7	-	5811	17.7	1.8	2039	6.2	64.0	9411	28.6	15.0
3 K Total	562	7358	13.1	-	6013	10.7	1.7	3266	5.8	63.3	16637	29.6	13.1
3 L Mar	1	-	-	-	50	50.0	100	-	-	-	50	50.0	100
2 J + 3 KL	1659	35727	21.5	.03	6512	3.9	3.6	7886	4.8	75.0	50125	30.2	12.3
SA 2 Total	1121	29047	25.9	.03	482	.4	15.1	4679	4.2	82.3	34208	30.5	11.5
SA 3 Total	563	7358	13.1	-	6063	10.8	2.7	3266	5.8	63.3	16687	29.6	13.4

\*) Species break-down see Table 4

Table 4 : Nominal catches (tons) of "OTHER FINFISH" (Table 3)  
by species in SA 2 and SA 3 in 1974.

Div./month	Roundnose grenadier	American plaice	Witch	Greenland halibut	Atlantic halibut	not specified	Total
2 H Jan	-	-	41	18	-	-	59
2 J Jan	-	100	84	147	13	2061	2405
2 J Feb	4	66	234	91	17	1779	2191
2 J Mar	1	7	-	12	+	4	24
2 J Total	5	173	318	250	30	3844	4620
3 K Jan	-	1	11	11	+	72	95
3 K Feb	8	25	325	74	6	694	1132
3 K Mar	185	31	450	176	28	1169	2039
3 K Total	193	57	786	261	34	1935	3266
3 L Mar	-	-	-	-	-	-	-
2 J + 3 KL	198	230	1104	511	64	5779	7886
SA 2 Total	5	173	359	268	30	3844	4679
SA 3 Total	193	57	786	261	34	1935	3266

Table 5 : COD - 2 GH, nominal catches and catch per day fished (tons)  
1965 - 74.

year	2 G			2 H			2 G+H		
	days fished	nom. catch	catch per day	days fished	nom. catch	catch per day	days fished	nom. catch	catch per day
1965	113	3289	29.1	219	4895	22.4	332	8184	24.7
66	177	4660	26.3	767	22350	29.1	944	27010	28.6
67	11	239	21.7	447	11069	24.8	458	11308	24.7
68	15	157	10.5	163	6092	37.4	178	6249	35.1
69	-	-	-	298	11389	38.2	298	11389	38.2
70	-	-	-	189	4957	26.2	189	4957	26.2
71	11	277	25.2	79	1283	16.2	90	1560	17.3
72	-	-	-	6	113	18.8	6	113	18.8
73	-	-	-	7	120	17.1	7	120	17.1
74	-	-	-	25	678	27.1	25	678	27.1



Table 6 : COD - 2 J + 3 KL, nominal catches and catch per day fished (tons) 1965 - 74.

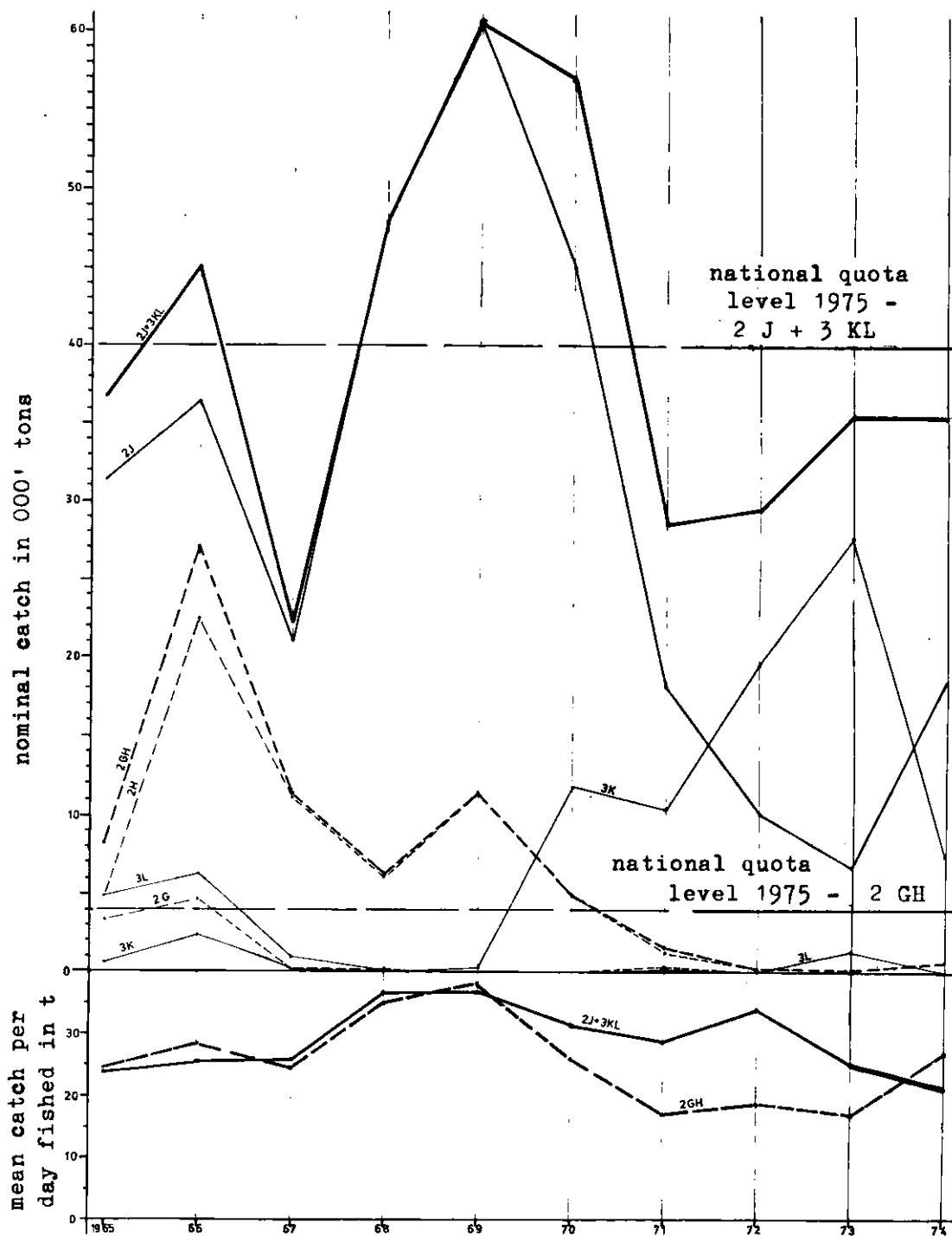
year	2 J			3 K			3 L			2 J + 3 KL		
	days fished	nom. catch	catch per day	days fished	nom. catch	catch per day	days fished	nom. catch	catch per day	days fished	nom. catch	catch per day
1965	990	31274	31.6	31	629	20.3	504	4921	9.8	1525	36824	24.1
66	1191	36395	30.6	132	2394	18.1	436	6303	14.5	1759	45092	25.6
67	776	21047	27.1	24	247	10.3	60	906	15.1	860	22200	25.8
68	1312	47868	36.5	-	-	-	-	-	-	1312	47868	36.5
69	1749	60391	34.5	6	229	38.2	-	-	-	1755	60620	34.5
70	1391	45050	32.4	414	11856	28.6	-	-	-	1805	56906	31.5
71	646	18120	28.0	341	10355	30.4	10	171	17.1	997	28646	28.7
72	340	10052	29.6	514	19465	37.9	11	16	1.5*	865	29533	34.1
73	383	6678	17.4	943	27654	29.3	84	1323	15.8	1410	35655	25.3
74	1096	28369	25.9	562	7358	13.1	-	-	-	1658	35727	21.5

\*) Mixed fishery: 16 t cod + 17 t redfish + 5 t other finfish!

Table 7 : Offshore stock abundance of cod in Division 2 J after groundfish surveys, conducted in late autumn 1971-74. - Percentage changes against the 1972 whole area-total (=100 %) are given in brackets and are illustrated in Fig. 2.

year	1971			1972			1973			1974			
	depth- zone m	30 min. tows	mean catch in tons	stand. stock* in tons	30 min. tows	mean catch in tons	stand. stock* in tons	30 min. tows	mean catch in tons	stand. stock* in tons	30 min. tows	mean catch in tons	stand. stock* in tons
101-200	8266	-	-	-	6	.237	48976 (56)	15	.062	12812 (15)	15	.030	6200 (7)
201-300	10399	8	.169	43936 (51)	14	.095	24698 (29)	16	.159	41336 (48)	16	.059	15339 (18)
301-500	4708	-	-	-	2	.112	13182 (15)	11	.015	1766 (2)	6	.010	1177 (1)
WHOLE AREA	23373	8			22		86856 (100)	42		55914 (65)	37		22716 (26)

\*) Standing stock (tons) =  $\frac{\text{mean catch} \cdot \text{nm}^2}{.04 \text{ nm}^2 (= \text{swept area})}$ , assuming the gear efficiency coefficient q to be 1.0



**Figure 1 :** Nominal catches of cod and catches per day fished in Divisions 2 GH and 2 J + 3 KL by trawlers of the Fed. Rep. of Germany.

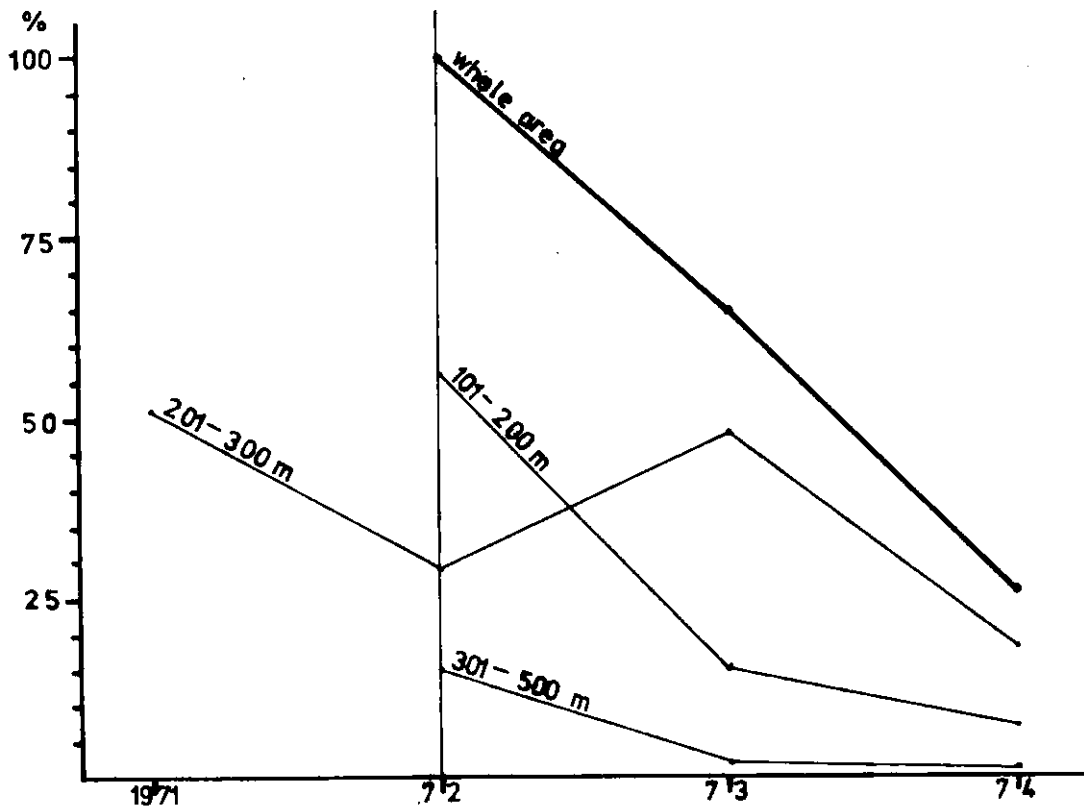
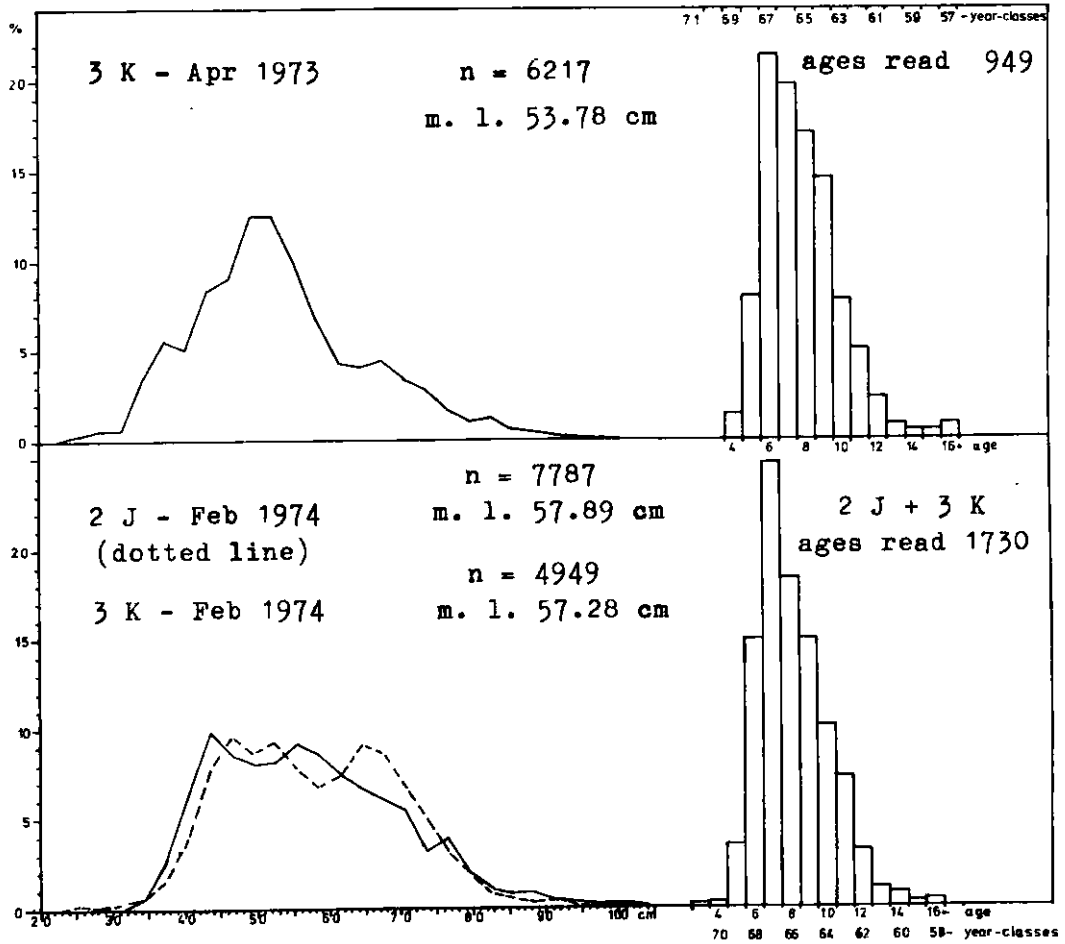


Figure 2 : Percentage changes in stock abundance of cod in Division 2J (offshore) against 1972 based on groundfish survey data 1971-74



**Figure 3**: Cod - length frequencies and age compositions in commercial trawl catches of the Fed. Rep. of Germany.

Table 5 and is illustrated in Figure 1.

The fishing season in Divisions 2J and 3KL lasted for the first three months only and the largest amounts were taken in January and February with 84% of the total catch of all species. But although the effort (days fished) had been increased by 15% against 1973, the total catch remained almost the same. Thus, there was some decline in the catch per day from 25.3 to 21.5 tons (15%).

Whereas cod amounted to 99% of the total catches in 1969-71 and to 97% in 1972, the proportion decreased to 80% in 1973 and to only 71% in 1974. 83% of the allocated national quota for 1974 of 43 000 tons could be obtained.

There was also a shift in main fishing areas against last year as shown by the percentage distribution of cod catches per Division and year:

	1973	1974
2J	19	79
3K	77	21
3L	4	-

The development of the cod fishery conducted by the Federal Republic of Germany in Divisions 2J and 3KL during the last decade is shown in Table 6, and illustrated in Figure 1. Summarized there are several indications which seem to confirm a recent serious reduction in apparent stock size:

- a) continued decline of catch per day fished, especially in 1973 and 1974 to the lowest level since 1965;
- b) sharp decline of total catch in spite of increased effort;
- c) continuous reduction of the proportion of cod in total catches since 1972.

## 2. Forecast for 1975

In view of the recent adverse trend in the commercial fishery and coinciding results of recent research vessel surveys an improvement

of fishing conditions is hardly to be expected for 1975. Very rough preliminary estimates on the fishing activity of the Federal Republic of Germany during the first quarter of 1975 indicate total catches of approximately the same amount as in 1974.

## B. Special Research Studies

### 1. Environmental Studies

Hydrographic observations were carried out during a groundfish survey by R.V. Anton Dohrn in Division 2J between 29 November and 8 December 1974. The oceanographic data routinely obtained consist of surface- and near bottom water temperatures and salinities as well as BT-records from all fishing stations. Additionally a hydrographic section from off Seal Island across Hamilton Inlet Bank had been occupied. The results are given and discussed in ICNAF Res.Doc.75/29.

### 2. Biological Studies

R.V. Anton Dohrn conducted a groundfish survey in Division 2J between 29 November and 8 December 1974. 43 trawling stations were selected at random based on the ICNAF Stratification Scheme for Subarea 2. A standard bottom trawl with small meshed liner inside the codend was used throughout the survey. Towing time and speed were 30 minutes at 4 knots. Priority species, especially cod and redfish, were sampled for length frequencies and age composition. All finfish species were at least recorded by number and weight.

Results on stock abundance of cod in Division 2J after groundfish surveys conducted in the same way and at the same time of the year since 1971 are given in Table 7. The severe reduction in abundance of cod observed in all parts of the survey area since 1972 is illustrated in Figure 2. The trend is almost the same as that observed in the commercial cod fishery in spring (catch per day fished, compare Fig.1).

Sampling of commercial catches was carried out on board of a factory trawler in Divisions 2J and 3K in February 1974. Cod length frequencies and age composition in commercial catches of 1973 and 1974 are illustrated in Figure 3. In both years the 1967 year class dominated, followed by the 1966 year class.

Subareas 4 and 5

by

H.Dornheim

A. Status of the Fisheries

1. General Trends

In 1974 a total of 2078 t was fished in Subarea 4 and 24 799 t in Subarea 5 by German (F.R.) freezer trawlers. Most of the effort in both areas was directed to the herring fishery which yielded 835 t in Subarea 4 and 24 312 t in Subarea 5. More detailed information is given in Table 8. No fishing took place in Statistical Area 6.

2. Forecast for 1975

Fishing activities in Subareas 4 and 5 will be directed in 1975 mainly to herring in the Georges Bank/Gulf of Maine area during July to October. Presumably the total herring quota (5Z: 23 750 t, 5Y: 500 t) will be taken. Catches in Division 5Z will consist mainly of the 1970 year class.

B. Special Research Studies

1. Environmental Studies

Measurements of water temperature and salinity were taken throughout the water column at 86 stations during the FRG Juvenile Herring Survey by R.V. Walther Herwig in Divisions 4X and 5Z in March-April 1974. Results are given in Research Document 74/115 by E.D.Anderson and H. Dornheim.

In November temperature and salinity measurements were carried out during the Anton Dohrn ICNAF Larval herring cruise in the Georges Bank/Gulf of Maine areas (see ICNAF Res.Doc. 75/67).

2. Biological Studies

Herring investigations were made in March-April during the FRG Juvenile Herring Survey by R.V. Walther Herwig in Divisions 4X and 5Z and on board of two stern trawlers in September during the main herring fishing season in Division 5Z. Results (Table 9) show that almost exclusively the 1971



Table 8. Nominal catch (tons), effort (days fished), catch-per-unit effort (tons) and discards (tons) of FRG freezer trawlers in Subareas 4 and 5, 1974.

Div.	Month	Nominal catch							Total
		Her	Mac	Cod	Pol	Silv.Hake	Redf	O.F.	
4Vn	I	21	-	233	-	-	-	32	286
	X	1	-	14	-	-	38	-	53
4Vs	IX	412	-	-	-	-	-	-	412
	X	148	-	5	-	53	-	+	206
	XI	56	-	-	-	-	-	-	56
4W	IX	96	-	-	-	13	-	19	128
4X	IX	76	273	-	117	139	3	88	696
	X	17	110	15	-	76	-	-	218
	XI	8	-	-	+	15	-	-	23
<b>SA 4 Total</b>		<b>835</b>	<b>383</b>	<b>267</b>	<b>117</b>	<b>296</b>	<b>41</b>	<b>139</b>	<b>2078</b>
5Y	VII	25	-	-	-	-	-	-	25
	VIII	2359	142	-	-	-	4	-	2505
5Ze	VII	496	-	-	-	-	-	-	496
	VIII	9329	5	-	-	3	-	-	9337
	IX	11206	101	7	31	31	-	9	11385
	X	287	133	4	-	12	-	-	436
5Zw	VIII	610	5	-	-	-	-	-	615
<b>SA 5 Total</b>		<b>24312</b>	<b>386</b>	<b>11</b>	<b>31</b>	<b>46</b>	<b>4</b>	<b>9</b>	<b>24799</b>

Average gross registered tonnage of FRG trawlers fishing with pelagic trawls, Subarea 4 and 5; 3055 GRT (1568-3600).

Table 8. (Continued)

Effort Catch per day									Discards		
D.F.	Her	Mac	God	Pol	Silv.Hake	Redf	O.F.	Total	Her	O.F.	Total
17	1.2	-	13.7	-	-	-	1.9	16.8	-	-	-
1	1.0	-	14.0	-	-	38.0	-	53.0	-	-	-
12	34.3	-	-	-	-	-	-	34.3	-	-	-
5	29.6	-	1.0	-	10.6	-	+	41.2	-	-	-
3	18.7	-	-	-	-	-	-	18.7	-	-	-
2	48.0	-	-	-	6.5	-	9.5	64.0	-	-	-
11	6.9	24.8	-	10.6	12.6	0.3	8.0	63.3	12	-	12
4	4.2	27.5	3.8	-	19.0	-	-	54.5	-	-	-
1	8.0	-	-	+	15.0	-	-	23.0	-	-	-
56	14.9	6.8	4.8	2.1	5.3	0.7	2.5	37.1	12	-	12
2	12.5	-	-	-	-	-	-	12.5	-	-	-
76	31.0	1.9	-	-	-	0.1	-	33.0	42	-	42
24	20.7	-	-	-	-	-	-	20.7	-	-	-
211	44.2	+	-	-	+	-	0.1	44.3	36	13	49
263	42.6	0.4	+	0.1	0.1	-	+	43.3	20	-	20
17	16.9	7.8	0.2	-	0.7	-	-	25.6	-	-	-
20	30.5	0.3	-	-	-	-	-	30.8	13	-	13
613	39.7	0.6	+	0.1	0.1	+	+	40.5	111	13	124

Table 9: Age composition (%) of herring sampled in 1974.

Year-class	Area 4X		Area 5Z	
	Month	Mar.	Mar.	Apr.
1973	1	-	-	-
72	2	-	-	-
71	3	414	49	80
70	4	576	896	900
69	5	5	39	20
68	6	-	14	-
67	7	-	1	-
66	8	-	1	-
65	9	-	-	-
<65	>9	5	-	-
Total		1000	1000	1000
n		198	792	200
Mean length mm		258	275	275
n		1100	4847	1331

Table 10: Stages of maturity (%) of herring sampled in 1974.

Stages of maturity	Area 4X		Area 5Z	
	Month	Mar.	Mar.	Apr.
1	-	-	-	-
2	370	49	80	12
3	70	21	20	1
4	-	1	-	29
5	5	1	-	744
6	-	-	-	135
7	-	-	-	67
8	555	928	900	12
Total		1000	1000	1000
n		200	800	200

and 1970 year class occurred in March catches in Division 4X. In 5Z, however, only the 1970 year class predominated, as well in the research catches in March-April as in the commercial catches in September. All other year classes were of minor importance. This indicates that in 5Z the 1971 and 1972 year classes are considerably smaller than the 1970 year class, upon which the total herring fishery in 5Z was largely dependent in 1974.

The difference of mean length between March-April (275 mm) and September (297 mm) in 5Z points out a growth increase of 22 mm from spring to fall. Stages of maturity (Table 10) indicate that almost all herring caught in spring and fall in 4X and 5Z were autumn-spawners.

Results of both 1973 and 1974 FRG Juvenile Herring Surveys in spring show the usefulness of these surveys to predict the strength of recruiting year classes and the catch composition by age in the commercial fishery in fall.

Within the scope of the ICNAF Joint Larval Herring Survey program the distribution and abundance of herring larvae on Georges Bank and in Nantucket Shoals area was studied by R.V. Anton Dohrn during November 16 - 23. A total of 75 out of 124 standard stations have been worked up according to recommended standard methods. Results have been summarized in ICNAF Res.Doc. 75/67. The distribution of larvae was similar compared to previous years. Total production seems to correspond more to that of 1973 than to the obviously lower production in 1971 and 1972. This has to be confirmed by comparison of results from all cruises carried out within this scope during fall 1974.

### 3. Selectivity Studies

R.V. Anton Dohrn conducted a survey in April/May in the Gulf of St. Lawrence to continue gear selectivity experiments. In ICNAF Division 4R as well as in 4T no differences were found between the selectivity of codends made of CAPRON and polyamide standard. This result is in line with that obtained in 1973 in the same area.