

Northwest Atlantic



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Revisions of Catch Statistics, Catch in Numbers by Age, Mean Weight

at Age and Estimates of F for Cod at West Greenland, 1986

by

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1. Introduction

The ICES Working Group on Cod Stocks off East Greenland met in January-February 1987 and at that occasion evaluated also the status of the West Greenland cod stock on the basis of samples and provisional statistics for 1986. An extract of the working group report, containing the information on the West Greenland stock, was compiled by A. Schumacher and presented to the June 1987 Meeting of the NAFO Scientific Council as SCR Doc. 87/55.

In the time between the January meeting of the ICES Working Group and the June meeting of the Scientific Council, further information on catch statistics for 1986 has become available and although still provisional, necessitates revision of some of the tables in the report from the January Meeting of the ICES Working Group. The revisions necessary for carrying out assessment of the West Greenland cod together with a revised assessment table are presented in this document which may be considered as an addendum to the extract of the ICES report.

2. Nominal catch, 1986

In the provisional statistics for Greenland for 1986 as presented to NAFO on STATLANT 21A forms shortly before the June 1987 Meeting of the Scientific Council, the figures for nominal catch of cod in Subarea 1 by Greenland (including negligible quantities in joint venture arrangements) is reported as 6,501 tons, an increase of 1,254 tons over the figure available in January. With the figure of 37 tons by the Federal Republic of Germany, the new provisional figure for total catch of cod in Subarea 1 in 1986 becomes 6,538 tons.

The following tables in SCR Doc. 87/55 should be revised accordingly.

Table 6.1.1. Nominal catches of cod in NAFO Subarea 1 (1977-86)

1986 (provisional data)	
Federal Republic of Germany	37
Greenland	6,501 (including 31 tons by chartered vessels)
TOTAL	6,538

No information was available at the time of the June Meeting in respect to distribution of the additional catch of 1,254 tons on gears and months, and although provisional statistics supplied by Greenland has information on distribution on divisions, it was found that until final statistics are available, the additional catch could best be placed under miscellaneous gears, division and month

unknown (NK). It does, however, seem likely that the additional catch was taken by non-trawlers.

Table 6.1.2. thereafter, reads as follows:

Div.	Otter-trawl offshore	Longline offshore	Gillnet inshore and offshore	Miscellaneous gear inshore and offshore	Pound Net inshore	TOTAL
1A	-	-	-	53	-	53
1B	-	-	-	367	207	574
1C	-	-	-	157	72	229
1D	-	-	459	46	250	755
1E	908	-	1,032	-	158	2,098
1F	140	-	865	144	40	1,189
1NK	24	362	-	1,254	-	1,640
TOTAL	1,072	362	2,356	2,021	727	6,538

For Table 6.1.3 the figures for month NK, Div. 1NK becomes 1,616, total for Div. 1NK 1,629 and total for month NK 1,627. Grand total 6,538 tons.

For Table 6.1.4, figures for 1986 read:

Trawlers	1 (provisional)
Other	6 "
Total	7 "
TAC	12.5

Catch in numbers had to be changed. Given no information on gear (except not likely to be trawl) and month, the catch applied to the non-trawl samples on the worksheet used to allocate samples to various parts of the fishery was raised by a factor of $\frac{6538-1072}{5284-1072}$ (1072 being catch by trawlers).

At the same time, a revision was made of the mean weight by age in some of the basic samples on the worksheet since for some samples proper conversion of gutted weight to weight for whole fish had not been made previously.

The new, still very rough estimate of numbers caught by age is as follows with former figures also given.

Table 6.2.1. 1986 (nos. caught, 000s)

	(As in SCR 87/55)	(Revised June 87)
Age 3	11	11
4	70	112
5	539	701
6	289	317
7	1,024	1,185
8	11	12
9	277	330
10	65	80
11	11	13
12	27	35
13	1	1
14	0	0
15+	0	0
TOTAL	2,334	2,797

For a breakdown of these numbers in the periods January-October and November-December, the previous figures were raised to the new total assuming that all trawl catches (1,072 tons) were taken in the first part of the year.

Table 6.2.2. hereafter reads:

Age	Jan-Oct	Nov-Dec	TOTAL
3	9	4	13
4	80	16	96
5	555	107	662
6	285	57	342
7	1,007	199	1,206
8	9	2	11
9	283	55	338
10	68	12	80
11	11	2	13
12	28	5	33
13	1	-	1
14	-	-	-
Total	2,336	459	2,795

(Difference in total as compared to Table 6.2.1. due to rounding of figures.)

The revision of mean weight by age leads to the following figures with total weighted according to catches in Table 6.1.2.

Table 6.3. Mean weight at age, SA 1 Cod, 1986.

Age	Trawl	Miscellaneous gear	Longline	Gillnet	Pound net	Weighted total
3	0.79	-	0.64	0.61	0.60	0.65
4	1.08	0.99	1.02	1.12	0.92	1.04
5	1.39	2.44	1.62	2.02	1.41	1.86
6	2.25	2.13	2.05	2.31	1.46	2.09
7	2.81	2.40	2.59	3.14	2.19	2.71
8	3.46	(6.11)	2.78	-	-	3.16
9	4.50	5.06	3.89	-	-	4.59
10+	-	-	4.71	-	-	4.71

The above mentioned revisions necessitate a revision also of the assessment table as follows:

Table 6.7 (Revised 03.06.87) NAFO SUBAREA 1 COD, ASSESSMENT TABLE 1986

AGE	YEAR CLASS	SURVEY STOCK	CATCH NOV-DEC	STOCK SIZE		CATCH 1986	Z	F	M	E	LOSSES due to	
				1 JAN V	31 DEC						M	E
				(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
3	1983	3 667	4	1 001	3 543	11	-1.264	0.005	0.2	-1.464	402	-2 955
4	1982	574	16	618	539	112	0.137	0.194	0.2	-0.257	116	-149
5	1981	7 621	107	7 137	7 266	701	-0.018	0.097	0.2	-0.315	1 490	-2 270
6	1980	920	57	2 360	834	317	1.040	0.216	0.2	0.624	293	916
7	1979	3 088	199	5 845	2 791	1 185	0.739	0.287	0.2	0.252	826	1 043
8	1978	104	2	281	99	12	1.043	0.069	0.2	0.774	25	135
9+	<1978	516	74	628	426	459	0.388	0.882	0.2	-0.694	104	-361
TOTAL 3+				17 870	15 478	2 797	0.295	0.250	0.2	-0.155	3 216	-3 641
TOTAL 6+				9 114	4 150	1 973	0.803	0.364	0.2	0.239	1 258	1 733

Also the text table (page 10 of SCR Doc: 87/55) has to be revised as follows:

Year	SSB	F ₍₆₋₉₎	Catch
1983	110	0.46	58
1984	55	0.54	31
1985	15	0.69	15
1986	22	0.36	7
1987	26	-	-

Weights in 000 tons:
SSB refers to the beginning of the year.