Northwest Atlantic Fisheries Organization

Serial No. N4366 **NAFO SCS Doc 01/9**

SCIENTIFIC COUNCIL MEETING – JUNE 2001

PORTUGUESE RESEARCH REPORT FOR 2000

by

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A. Status of the fisheries

In 2000 the Portuguese nominal catches proceeding from NAFO Regulatory Area recorded 12,985 ton (Tab. I). The nominal catches decreased continuously from 1991 (75,000 ton) to 1997 (9,000 ton), with two major drops, the first from 1991 to 1992 (less 36,220 ton) and a second from 1994 to 1995 (less 11,441 ton). The lowest level of the nominal catches for the modern history of the Portuguese Northwest Atlantic fisheries was reached in 1997. In 1999 the catches (16,554 ton) almost doubled the average level of the two precedent years. However in 2000, the nominal catches decreased again to a level of 13,000 ton.

This situation is related to the fact that the fishing effort of the Portuguese fleet also decreased in 2000 (Tab. II-A), both in number of days (13%) and fishing hours (24%). Less 249 fishing days in Divisions 3N and 3O caused this decrease. On divisions 3L and 3M, trawl fishing effort remained stable in 2000.

During 2000 only stern trawlers composed the Portuguese fleet (12 trawlers, one of them 66 days fishing for shrimp).

The nominal catches decreased in most divisions from 1999 to 2000: 9% in division 3L; 50% in division 3N; 21% in division 3O. In division 3L due to the decrease in the catches of skates and roughhead grenadier, in division 3N due to an overall decrease of the catches (except for Greenland halibut) and in division 3O due to the decrease in the catches of redfish and skates. Division 3M shows an increase in the catches from 1999 to 2000 (16%), mainly due to the increase of the redfish catches (96 ton to 916 ton). Nominal catches of skates recorded important declines in all divisions.

Greenland halibut catches increased in all divisions except in Division 3M. Since 1994 Greenland halibut has been the most important commercial species in Div. 3L and 3N, followed by roughhead grenadier and skates. Greenland halibut and roughhead grenadier represented 88% of the 3L catches in 2000, a similar level to the one observed in 1998 and 1999. But in division 3N the specific weight of these two species has been declining from 76% in 1998 to 50% in 2000.

In Div. 3M, redfish becomes the most importance catch, while in Div. 3O redfish has maintained its importance representing 87% of the catches.

From the monitored fishing vessel Greenland halibut was the priority species for the Portuguese trawl fleet during 2000, accounting for 72% of the total directed effort (Tab. II-B, Fig. 1). This value is above the 1999 one due to the decrease of 3O redfish fishing effort (22% in 2000 against 30% in 1999). In 2000 the majority of the trawl sampled fishing effort (64%) has been made north (division 3L and 3M-Flemish Cap).

B. Portuguese Annual Sampling Program

1. Catch and effort sampling.

Effort and cpue data for 2000 Portuguese trawl fishery on the NAFO Regulatory Area were obtained through the revision of skipper logbooks from one trawler, kindly supplied by its owner. All the information (round weight of the catch by species, fishing effort, positions and depths) has been recorded on a tow-by-tow basis. The vessel conversion factors were used to convert its processed landings in catches. Effort data obtained through the revision of the 2000 logbooks available were processed in order to convert the 2000 Portuguese effort, reported in fishing days on the 2000 Portuguese STATLANT 21-B, into fishing hours (Tab. II-A).

The daily catch and effort data from the logbooks were used to estimate the directed effort and CPUE for each of the target species/stock, as well as the main by-catch species and depth range of the different fisheries, on a monthly basis. As mentioned before, the majority of the fishing effort was directed towards Greenland halibut (Tab. II-B).

Following the September 1996 recommendation of the NAFO Scientific Council as regards the availability of witch flounder fishery data, a column with the by-catch of this species on the Greenland halibut fishery is included in Tab. III. Data regarding directed effort and catch rates are presented in Table II-B and Tab. III to IV-B, Fig. 1 and 2.

The Greenland halibut cpue series was update with the 2000 observed cpue's. The additive model (Ávila de Melo and Alpoim, 1995), was upgraded in 1998 (Alpoim et al., 1998), and used like in previous years to standardise the observed cpue's. From January 1988 till April 1995 each monthly observed cpue of this series was previously corrected for 130mm mesh size (Ávila de Melo and Alpoim, 1996). In this analysis, any observation corresponding to a month and a trawler with less than 10 hours of directed effort was rejected. The cpue's are presented in Tables IV and Fig. 2, with the associated standard errors (+/- 2 standard errors in the Figures) and coefficients of variation.

1.1. Comments on catch and effort data (based on the vessels sampled)

1.1.1. Greenland halibut in Div. 3L, 3M and 3N

In Division 3L catch rates declined prior to the boom of the deep-water fishery (Tab. IV-A, Fig. 2). However, it is from 1990 to 1991, *i.e*. from the first to the second year of this new fishery in the Regulatory Area, that cpue's fell by more than half (0.339 ton/h to 0.142 ton/h). From 1991 to 1994 catch rates remained stable at a low level. Since then catch rates gradually increased, reaching 0.291 ton/h in 1999 and remaining at this level in 2000 (0.294 ton/h).

In Division 3N no trend is apparent on Greenland halibut trawl cpue's till 1998, but a gradually increase is observed since then reaching a maximum of 0.308 ton/h in 2000.

For all three divisions combined (Tab. IV-A, Fig. 2) the observed catch rates series follows the same pattern as the one for Div. 3L, since this is the division of Sub Area 3 with the highest concentration of Greenland halibut fishing effort. But due to the highest Greenland halibut catch rate recorded in 2000 on division 3N, the combined series was still increasing in 2000 reaching a level near the one observed at the boom of the deep-water fishery in the regulatory area in 1990.

2. Biological Sampling

In 2000 biological sampling was obtained from one stern trawler fishing in Div. 3L, 3M, 3N and 3O during all the year. Apart from cod, a priority species always to be sampled whenever it appeared in the catch, biological sampling was conducted for the two most abundant species in each haul, following the NAFO sampling recommendations.

Cod, redfish (*S. mentella)*, American plaice, and witch flounder were sampled in Div. 3L, 3M, 3N and 3O (Tab. V). Redfish (*S. marinus)* was sampled in Div. 3M, 3N and 3O. Greenland halibut and roughhead grenadier were sampled in Div. 3L, 3M and 3N. Yellowtail flounder was sampled in Div. 3N and 3O. Information on age composition of 3M cod, 3M redfish (*S. mentella*) and 3M American plaice catches was obtained using the respective age/length keys of the July 2000 EU survey (Saborido Rey, 2000). For the above-mentioned species, length and age

structure of the catches, respective mean lengths, mean weights in the catch, mean length and mean weight at age by Division are presented in Tables VI to XXXII and Fig. 3 to 29.

Since 1996, all commercial information is representative of the catch as a whole, although sampling continues to be carried out by sex with the exception of cod. Mean length and weight at age are the mean of mean lengths and weights at age by sex, weighted by the abundance in the sampled catches of males and females at each age. For all species mean weight at age and mean weight in the catch are derived from the adopted length-weight relationships (appendix).

2.1. Comments on length and age composition of the 2000 trawl catches.

2.1.1. Cod Div. 3L

Biological information of cod catches in Div. 3L is available for July only, from 733m to 769m depth. Because the sampling is very small, the data don't have statistic prominence. But the sampling suggests that lengths around 36 cm dominated catches. The mean length and the mean weight in the catches are 37cm and 446g (Tab. VI, Fig. 3).

2.1.2. Cod Div. 3M

Biological information of cod catches in Div. 3M is available for April and July, from 198m to 314m depth. Lengths around 42 cm dominated catches, with no clear modal class. The mean length and the mean weight in the catches are 43cm and 729g (Tab. VII-A, Fig. 4A).

Age 3 followed by age 4 years old dominated the trawl catches (Tab. VII-B, Fig. 4B).

2.1.3. Cod Div. 3N

Information on length composition of the cod by-catch is available for April, August, October and November (Tab. VIII, Fig. 5) from 39m to 1035 m depth.

Lengths around 42cm dominated catches (modal class), with also two abundant classes around 39cm and 45cm (mean length and weight of 50cm and 1341g).

2.1.4. Cod Div. 3O

Information on length composition of the cod by-catch is available for April, June, August, October and November (Tab. IX, Fig. 6) from 68m to 596m depth.

Lengths between 36cm and 48 cm dominated catches, with a no clear modal class (mean length and weight of 48cm and 1132g).

2.1.5. Redfish (*S. mentella)* **Div. 3L**

Information on length composition of the redfish (*S. mentella)* trawl by-catch is available from February to April, June and July, from depths 703m to 1046m (Tab. X, Fig.7).

Lengths between 25cm and 34cm dominated catches, with three modal classes at 28cm, 29cm and 30cm (mean length and weight of 30cm and 389g).

2.1.6. Redfish (*S. mentella*) **Div. 3M**

Information on length and age composition of the redfish (*S. mentella)* trawl catch is available from February to April, June and July, from depths 198m to 1159m (Tab. XI-A, Fig.8A).

Lengths between 26cm and 32cm dominated catches, with three modal classes at 28cm, 29cm and 30cm (mean length and weight of 30cm and 401g).

The 1990 year-class, 10 years old in 2000, dominated the trawl catches, with a second mode at age 14 (Tab. XI-B, Fig. 8B).

2.1.7. Redfish (*S. mentella*) **Div. 3N**

Information on length composition of the redfish (*S. mentella)* trawl by-catch is available for April, June to August, October and November, from depths 85m to 1035m (Tab. XII, Fig.9).

Lengths between 27cm and 32cm dominated catches, with two modal classes at 29cm and 30cm (mean length and weight of 31cm and 454g).

2.1.8. Redfish (*S. mentella*) **Div. 3O**

Information on length composition of the redfish (*S. mentella)* trawl catch is available for April, June to August, October and November, from depths 73m to 610m (Tab. XIII, Fig.10).

Lengths between 20cm and 26cm dominated catches, with three modal classes mode at 23cm, 24cm and 25cm (mean length and weight of 24cm and 219g).

2.1.9. Redfish (*S. marinus*) **Div. 3M**

Information on length composition of the redfish (*S. marinus)* trawl catch is available for April, from depths 198m to 231m (Tab. XIV, Fig.11). Because the sampling is small, the data don't have statistic prominence. But the sampling suggests that lengths between 21cm and 29cm dominated catches, with no modal class (mean length and weight of 26cm and 274g).

2.1.10. Redfish (*S. marinus*) **Div. 3N**

Information on length composition of the redfish (*S. marinus)* trawl by-catch is available for July, October and November, from depths 94m to 595m (Tab. XV, Fig.12).

Lengths between 23cm and 26cm dominated catches (mean length and weight of 25cm and 244g).

2.1.11. Redfish (*S. marinus*) **Div. 3O**

Information on length composition of the redfish (*S. marinus)* trawl by-catch is available for April, June to August, October and November, from depths 73m to 610m (Tab. XVI, Fig.13).

Lengths between 16cm and 25cm dominated catches, with no clear modal class (mean length and weight of 21cm and 144g).

2.1.12. American plaice Div. 3L

Information on length composition of the American plaice by-catch is available from February to April from depths 779m to 1186m (Tab. XVII, Fig.14).

Lengths between 30cm and 44cm dominated catches (mean length and weight of 39cm and 615g).

2.1.13. American plaice Div. 3M

Information on length and age composition of the American plaice by-catch is available from February to April, from depths 887m to 1120m (Tab. XVIII-A, Fig.15A).

Lengths between 28cm and 52cm dominated catches, with no clear modal classes (mean length and weight of 39cm and 637g).

Age 6 (1994 year-class) was the most abundant in the catch (Tab. XVIII-B, Fig.15B)

2.1.14. American plaice Div. 3N

Information on length composition of the American plaice by-catch is available for April, July, August, October and November, from depths 39m to 1217m (Tab. XIX, Fig.16).

Lengths between 32cm and 44cm dominated catches, with no clear modal class (mean length and weight of 39cm and 640g).

2.1.15. American plaice Div. 3O

Information on length composition of the American plaice by-catch is available for April, August, October and November from depths 68m to 541m (Tab. XX, Fig.17).

Lengths between 32cm and 42cm dominated catches (mean length and weight of 39cm and 630g).

2.1.16. Yellowtail flounder Div. 3N

Information on length composition of the yellowtail flounder is available for April, July, August, October and November from depths 39m to 583m (Tab. XXI, Fig.18).

Lengths between 24cm and 40cm dominated catches, with most abundant classes between 28cm and 34cm (mean length and weight of 33cm and 692g).

2.1.17. Yellowtail flounder Div. 3O

Information on length composition of the yellowtail flounder is available for October and November from depths 69m to 262m (Tab. XXII, Fig.19).

Lengths between 26cm and 40cm dominated catches, with no clear modal class (mean length and weight of 33cm and 706g).

2.1.18. Greenland halibut Div. 3L

Information on length composition of the Greenland halibut is available from February to April and June to October from depths 753m to 1220m (Tab. XXIII, Fig. 20).

Lengths between 36cm and 46cm dominated catches, with two modal classes at 40cm and 42 cm (mean length and weight of 43cm and 687g).

2.1.19. Greenland halibut Div. 3M

Information on length composition of the Greenland halibut catches in Div. 3M is available from February to April, June and July from depths 314m to 1219m (Tab. XXIV, Fig. 21).

Lengths between 36cm and 46cm dominated catches, with two modal classes at 42cm and 44cm (mean length and weight of 44cm and 742g).

2.1.20. Greenland halibut Div. 3N

Information on length composition of the Greenland halibut is available for April and June to November from depths 57m to 1344m (Tab. XXV, Fig. 22).

Lengths between 36cm and 46cm dominated catches, with two modal classes at 40cm and 42cm (mean length and weight of 44cm and 764g).

2.1.21. Roughhead grenadier Div. 3L

Information on length composition of the roughhead grenadier catches in Div. 3L is available from February to April and June to October, from depths 753m to 1217m (Tab. XXVI, Fig. 23).

Anal lengths between 9cm and 14cm dominated catches, with a modal class at 12 cm (mean length and weight of 13cm and 220g).

2.1.22. Roughhead grenadier Div. 3M

Information on length composition of the roughhead grenadier catches in Div. 3M is available for February, March, June and July from depths 690m to 1219m (Tab. XXVII, Fig. 24).

Anal lengths between 9cm and 14cm dominated catches, with three modal classes at 10cm to 12 cm (mean length and weight of 13cm and 251g).

2.1.23. Roughhead grenadier Div. 3N

Information on length composition of the roughhead grenadier catches in Div. 3N is available for April and June to October from depths 156m to 1344m (Tab. XXVIII, Fig. 25).

Anal lengths between 9cm and 14cm dominated catches, with two modal classes at 10cm and 12cm (mean length and weight of 13cm and 230g).

2.1.24. Witch flounder Div. 3L

Information on length composition of the witch flounder catches in Div. 3L is available from February to April and July, from depths 786m to 1188m (Tab. XXIX, Fig. 26).

Lengths between 32cm and 42cm dominated catches, with a mode at 36cm (mean length and weight of 39cm and 431g).

2.1.25. Witch flounder Div. 3M

Information on length composition of the witch flounder catches in Div. 3M is available for February and April, from depths 1043m to 1105m (Tab. XXX, Fig. 27).

Lengths between 34cm and 44cm dominated catches, with a mode at 38cm (mean length and weight of 40cm and 474g).

2.1.26. Witch flounder Div. 3N

Information on length composition of the witch flounder catches in Div. 3N is available from July to November from depths 81m to 1150m (Tab. XXXI, Fig. 28).

Lengths between 32cm and 44cm dominated catches, with two modal classes at 36cm and 38cm (mean length and weight of 40cm and 478g).

2.1.27. Witch flounder Div. 3O

Information on length composition of the witch flounder catches in Div. 3O is available for April, October and November from depths 69m to 541m (Tab. XXXII, Fig. 29).

Lengths between 26cm and 46cm dominated catches, with no clear modal classes (mean length and weight of 38cm and 399g).

3. Acknowledgements

This study was supported by the European Commission (DG XIV, Study 98-048) and IPIMAR.

4. References

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TABLE I : PORTUGUESE NOMINAL TRAWL CATCHES (mt) IN NAFO AREA, 2000.

	DIVISION				TOTAL
SPECIES	3L	3M	3N	3O	2000
Cod	27.5	29.5	48.4	87.7	193.1
Redfish	102.8	916.2	91	4633	5743.0
American plaice	140.1	28	131.9	102.4	402.4
Yellowtail flounder	14.9		132.1	5.9	152.9
Witch flounder	68.3	28	84.7	46.5	227.5
Greenland halibut	3094.3	461.6	931.5	281.3	4768.7
Atlantic halibut	0.9	0.3	16.2	11.9	29.3
Roughhead grenadier (1)	210.9	59.1	112.3	13.5	395.8
Anarhichas spp.	17.1	6.2	34.5	3	60.8
Hadocck			5.4	7.1	12.5
Pollock					
Red hake	12.9	3	4.2	20.5	40.6
Capelin					
Skates	60.6	23.5	486.9	95.4	666.4
Monkfish					
Squid					
Shrimp		288.8			288.8
Unidentified	0.7	0.2	1.4	0.6	2.9
TOTAL	3751.0	1844.4	2080.5	5308.8	12984.7

(1) Reported as Roundnose grenadier in years before.

TABLE I : cont.

SPECIES / YEAR	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988
Cod	193	327	549	1546	1318	1353	2636	3651	5984	13357	15138	24129	12931
Redfish	5743	6081	2368	1125	2152	2590	8609	9828	6581	12163	17810	18870	17072
American plaice	402	719	357	389	298	175	344	347	451	1288	714	1821	1791
Yellowtail flounder	153	426	85						1	10	11	5	
Witch flounder	228	508	381	347	236	375	573	289	849	1982	2254	16	12
Greenland halibut	4769	3995	3242	3343	3308	1814	5967	8805	10539	13961	11170	3614	4194
Atlantic halibut	29	51	30	17	12	18	45	53	81	228	91		
Roughhead grenadier(1)	396	1299	1089	762	784	1402	2223	1969	2000	4486	3211	290	914
Anarhichas spp.	61	549	140	185	122	1401	3219	2302	1696	2843	1940		
Hadocck	13	10	6	39		2	10	10	166	83	17		
Pollock							13	41	28	421	11		
Red hake	41	77	18	56	124	230	267	366	466	1009	467		
Capelin											77		
Skates	666	2168	1105	904	788	2068	6238	7626	7017	23301	13569	663	1097
Monkfish						2		8	37	10	2		
Squid			1		3								
Shrimp	289	227	203	170									
Unidentified	3	117	40	116	22	14	12	238	325	174	852		
TOTAL	12985	16554	9614	9000	9167	11441	30156	35532	36220	75314	67334	49408	38011

TABLE II - A : PORTUGUESE TRAWL EFFORT IN FISHING DAYS AND FISHING HOURS IN NAFO AREA IN 2000.

MONTH	DIVISION 3L		3M		3N		3O		TOTAL 2000		MONTH
	DAYS	HOURS	DAYS	HOURS	DAYS	HOURS	DAYS	HOURS	DAYS	HOURS	
JAN.	29	372	8	78	3	20	3	22	43	491	JAN.
FEB.	136	1742	50	485	6	40	4	29	196	2297	FEB.
MAR.	133	2213	78	558	39	259	62	453	312	3484	MAR.
APR.	81	1251	36	199	27	180	31	227	175	1856	APR.
MAY	20	318	3	34					23	351	MAY
JUN.	17	280	7	119	22	189	16	150	62	738	JUN.
JUL.	22	342	13	152	24	189	8	65	67	747	JUL.
AUG.	3	37	7	82	7	34	13	108	30	260	AUG.
SEP.	1	8			16	179	29	219	46	406	SEP.
OCT.	4	34	3	35	40	414	63	442	110	926	OCT.
NOV.	37	318	36	420	61	507	71	571	205	1817	NOV.
DEC.	51	439	8	93	54	449	29	233	142	1214	DEC.
TOTAL	534	7354	249	2256	299	2460	329	2519	1411	14588	TOTAL

Note: Fishing hours and number of nets estimated from their monthly rates to fishing days observed in the trawlers and gillnetters sampled by the IPIMAR.
Monthly effort of gillnetters is given by the sum of nets per fishing day

TABLE II - A: cont.

YEAR	GEAR OT		GNS		YEAR
	DAYS	HOURS	DAYS	NETS	
2000	1411	14588			2000
1999	1631	19234			1999
1998	1172	16517			1998
1997	1428				1997
1996	1912	27206	166		1996
1995	1425	19083	612	173833	1995
1994	1553	22065	676	166735	1994
1993	2496	32481	731	209536	1993
1992	2670	32662	672	266141	1992
1991	5297	74829	712	302407	1991
1990	5026	72536	714	238732	1990
1989	3850	54833	692	268885	1989

Table II - B : Breakdown of the 2000 sampled Portuguese directed trawl effort by species and division (%).

DIVISION	G.HALIBUT	ROUGHHEAD G.	SKATES	REDFISH	TOTAL/DIV.
3L	45.9	0.4	0.4		46.7
3M	15.7			1.3	17.0
3N	10.0		3.1		13.1
3O			1.3	21.8	23.1
TOTAL/SPECIES	71.6	0.4	4.8	23.1	

TABLE III: Portuguese trawl fishery cpue's and bycatch by month and division for 2000.

DIVISION	TARGET SPECIES	MONTH	DEPTH RANGE (m) MIN.	DEPTH RANGE (m) MAX.	CPUE (ton/hour)	MAIN BYCATCH SPECIES	MAIN BYCATCH %	WITCH FLOUNDER BYCATCH (%)	TOTAL BYCATCH (%)
3M	REDFISH	APR	198	231	0.625	COD	50.9		53.9
3M	REDFISH	JUL	175	320	0.199	G. HALIBUT	10.73		24.5
3O	REDFISH	APR	269	551	1.852	COD	3.7		7.6
3O	REDFISH	JUN	295	611	1.276	COD	0.8		2.5
3O	REDFISH	JUL	310	518	2.184	SPOTTED W.	0.4		0.5
3O	REDFISH	AUG	84	561	1.680	A.PLAICE	1.7		3.0
3O	REDFISH	OCT	95	660	2.162	A.PLAICE	1.9		4.3
3O	REDFISH	NOV	69	550	1.239	A.PLAICE	9.6		15.5
3L	G. HALIBUT	FEB	779	1125	0.279	A.PLAICE	5.6	1.3	13.7
3L	G. HALIBUT	MAR	703	1140	0.341	REDFISH	3.6	0.7	8.6
3L	G. HALIBUT	APR	786	1223	0.353	A.PLAICE	5.5	1.6	15.2
3L	G. HALIBUT	JUN	797	1180	0.295	ROUGHHEAD G.	5.6	0.0	8.4
3L	G. HALIBUT	JUL	733	1198	0.237	ROUGHHEAD G.	4.8	0.1	7.7
3L	G. HALIBUT	AUG	853	938	0.240	ROUGHHEAD G.	5.7	0.0	8.0
3L	G. HALIBUT	SEP	986	1150	0.140	ROUGHHEAD G.	4.0	0.0	4.0
3L	G. HALIBUT	OCT	985	1220	0.098	ROUGHHEAD G.	15.8	0.0	15.8
3M	G. HALIBUT	FEB	861	1105	0.271	ROUGHHEAD G.	2.9	1.2	7.0
3M	G. HALIBUT	MAR	866	1219	0.316	REDFISH	3.4	0.3	9.0
3M	G. HALIBUT	APR	800	1120	0.444	REDFISH	6.2	1.5	12.7
3M	G. HALIBUT	JUN	691	1201	0.227	ROUGHHEAD G.	9.3	0.0	14.2
3M	G. HALIBUT	JUL	241	1154	0.223	ROUGHHEAD G.	6.4	0.0	10.5
3N	G. HALIBUT	APR	860	1217	0.242	A.PLAICE	17.2	1.1	33.6
3N	G. HALIBUT	JUN	1038	1071	0.310	ROUGHHEAD G.	4.2	0.0	7.8
3N	G. HALIBUT	JUL	642	1012	0.250	WITCH FLOUNDER	11.0	11.0	25.7
3N	G. HALIBUT	AUG	447	1014	0.434	REDFISH	15.4	1.7	23.3
3N	G. HALIBUT	SEP	796	1358	0.228	ROUGHHEAD G.	14.3	2.4	17.7
3N	G. HALIBUT	OCT	156	1344	0.167	ROUGHHEAD G.	13.1	1.3	24.3
3L	ROUGHHEAD G.	JUN	1100	1120	0.069	G. HALIBUT	50.7		59.0
3L	SKATES	APR	819	839	0.053	G. HALIBUT	44.4		69.1
3N	SKATES	OCT	39	455	0.389	A.PLAICE	17.4		33.5
3N	SKATES	NOV	52	855	0.068	YELLOWTAIL F.	21.9		73.1
3O	SKATES	NOV	69	174	0.215	WITCH FLOUNDER	32.6		64.0

TABLE IV - A: GREENLAND HALIBUT TRAWL CATCH RATES, 1988-2000: mean annual cpue's corrected for the month, division and vessel of each observation.

	3L			3M			3N			3LMN			
	CPUE	ST.ERROR	C.V.	CPUE	ST.ERROR	C.V.	CPUE	ST.ERROR	C.V.	CPUE	ST.ERROR	C.V.	
1988	0.430	0.097	39.0							0.464	0.103	38.6	1988
1989	0.386	0.050	38.9							0.375	0.058	46.1	1989
1990	0.339	0.033	33.5	0.225			0.182			0.330	0.033	37.4	1990
1991	0.142	0.036	57.1				0.169	0.035	35.9	0.150	0.022	41.0	1991
1992	0.117	0.032	87.3				0.218	0.025	39.6	0.178	0.025	65.4	1992
1993	0.122	0.009	10.4				0.175	0.018	34.8	0.157	0.017	41.6	1993
1994	0.104	0.026	36.0				0.155	0.018	28.3	0.141	0.017	34.9	1994
1995	0.155	0.026	48.4	0.183	0.020	25.1	0.156	0.022	37.6	0.163	0.017	45.8	1995
1996	0.217	0.022	35.9	0.220	0.027	36.4	0.188	0.018	24.9	0.200	0.010	25.8	1996
1997	0.226	0.018	26.8	0.262	0.019	20.9	0.179	0.009	7.3	0.219	0.016	33.6	1997
1998	0.260	0.018	25.7	0.181	0.030	58.1	0.187	0.013	23.7	0.219	0.011	30.0	1998
1999	0.291	0.023	25.0	0.279	0.019	20.7	0.237	0.020	23.5	0.279	0.017	31.9	1999
2000	0.294	0.023	20.5	0.265	0.030	25.3	0.308	0.045	28.9	0.293	0.019	25.4	2000

TABLE IV - B: GREENLAND HALIBUT TRAWL CATCH RATES, 1988-2000: mean cpue's by division corrected for the year, month and vessel of each observation.

	CPUE	ST.ERROR	C.V.	
3L	0.248	0.009	37.8	3L
3M	0.229	0.013	40.5	3M
3N	0.196	0.008	33.6	3N
3LMN	0.227	0.006	38.8	3LMN

TABLE V: Intensity of the trawl sampling during 2000, by species, division and month.

SPECIES	DIV.	MONTH	Nº OF SAMPLES	Nº FISH MEASURED	SAMPLING WEIGHT(Kg)	OTOLITHS Nº	OTOLITHS LENGTH RANGE (cm)
COD	3L	JUL.	1	140	70	-	-
	3M	APR.	1	218	175	-	-
		JUL.	1	20	71	20	52 - 82
	3N	APR.	1	93	82	-	-
		AUG.	4	258	552	53	28 - 83
		OCT	8	309	1065	101	31 -102
		NOV	8	815	1248	147	29 -110
	3O	APR.	7	944	1270	157	30 - 97
		JUN	2	121	180	26	48 - 71
		AUG.	8	302	590	21	43 - 73
		OCT	6	229	301	8	45 - 76
		NOV	9	545	772	19	37 - 112
REDFISH (*S. mentella*)	3L	FEB.	2	442	163	50	26 - 39
		MAR.	25	5082	2007	98	24 - 40
		APR.	8	2089	764	-	-
		JUN.	5	885	336	67	21 - 39
		JUL.	1	120	47	-	-
	3M	FEB.	1	49	26	47	25 - 46
		MAR.	2	587	222	-	-
		APR.	5	1737	718	94	23 - 43
		JUN.	3	480	184	123	20 - 41
		JUL.	3	428	179	174	17 - 42
	3N	APR.	2	824	307	-	-
		JUN.	1	258	127	73	27 - 43
		JUL.	3	707	308	105	22 - 42
		AUG.	3	798	295	-	-
		OCT.	5	1267	588	159	23 - 43
		NOV.	3	616	222	121	21 - 39
	3O	APR.	7	2524	701	288	17 - 45
		JUN.	4	1165	329	220	19 - 45
		JUL.	1	245	53	50	20 - 38
		AUG.	11	3859	859	154	16 - 23
		OCT.	14	5033	1056	147	18 - 40
		NOV.	13	4609	951	50	17 - 27
REDFISH (*S. marinus*)	3M	APR.	1	252	110	-	-
	3N	JUL.	2	115	51	102	26 - 39
		OCT.	3	459	186	101	26 - 41
		NOV.	1	101	48	52	27 - 42
	3O	APR.	6	1656	421	-	-
		JUN.	4	515	165	100	21 - 41
		JUL.	1	76	19	50	21 - 34
		AUG.	11	1756	468	101	19 - 41
		OCT.	14	1932	525	132	18 - 42
		NOV.	11	1953	548	55	22 - 32
AMERICAN PLAICE	3L	FEB.	7	919	612	104	26 - 52
		MAR.	13	1422	827	-	-
		APR.	15	2784	1773	50	28 - 51
	3M	FEB.	1	177	87	-	-
		MAR.	2	203	97	-	-
		APR.	1	214	192	-	-
	3N	APR.	6	1506	966	50	30 - 60
		JUL.	3	777	437	101	15 - 47
		AUG.	6	1639	1024	121	30 - 70
		OCT	10	1942	1415	157	21 - 60
		NOV	8	1858	1246	233	17 - 65
	3O	APR.	6	1230	765	-	-
		AUG.	2	459	250	-	-
		OCT	7	1415	913	49	19 - 51
		NOV	7	1544	947	50	23 - 66

TABLE V: count.

SPECIES	DIV.	MONTH	Nº OF SAMPLES	Nº FISH MEASURED	SAMPLING WEIGHT(Kg)	OTOLITHS Nº	OTOLITHS LENGTH RANGE (Cm)
YELLOWTAIL FLOUNDER	3N	APR.	2	976	391	-	-
		JUL.	1	136	44	101	15 - 47
		AUG.	3	657	207	76	11 - 46
		OCT.	6	737	258	50	25 - 47
		NOV.	8	1548	647	112	20 - 51
	3O	OUT.	1	301	96	-	-
		NOV.	2	414	209	-	-
GREENLAND HALIBUT	3L	FEB.	10	2092	1686	181	31 - 87
		MAR.	31	8947	5925	285	22 - 92
		APR.	19	5913	4055	232	30 - 88
		JUN.	14	3805	3540	375	31 - 95
		JUL.	22	6032	5383	304	31 - 92
		AUG.	3	813	724	172	32 - 91
		SEP	1	289	262	-	-
		OCT	4	1010	829	-	-
	3M	FEB.	4	544	427	134	29 - 84
		MAR.	7	1761	1153	102	36 - 57
		APR.	6	1937	1202	-	-
		JUN.	7	1799	1870	207	36 - 91
		JUL.	12	2954	2803	210	33 - 90
	3N	APR.	3	871	605	51	32 - 88
		JUN.	1	273	195	-	-
		JUL.	3	697	705	112	34 - 82
		AUG.	2	569	478	-	-
		SEP	3	700	578	100	35 - 83
		OCT.	12	2839	2382	50	36 - 58
		NOV.	3	716	529	-	-
ROUGHHEAD GRENADIER	3L	FEB.	4	701	270	-	-
		MAR.	6	1124	482	-	-
		APR.	13	2765	1237	-	-
		JUN.	12	2477	1018	204	8.0 - 25
		JUL.	21	4156	1747	199	7.0 - 32.5
		AUG	3	437	206	150	6.5 - 30.0
		SEP.	1	164	47	-	-
		OCT.	3	726	226	-	-
	3M	FEB.	1	145	71	-	-
		MAR.	2	361	144	-	-
		JUN	8	1455	728	163	7.5 - 32.5
		JUL	10	2024	816	101	7.0 - 23
	3N	APR.	1	192	100	-	-
		JUN	1	243	97	-	-
		JUL	3	517	207	111	6.5 - 27.5
		AUG	2	429	220	-	-
		SEP.	3	481	226	58	9.0 - 28.5
		OCT.	10	2142	832	-	-
WITCH FLOUNDER	3L	FEB.	4	614	270	-	-
		MAR.	5	612	267	-	-
		APR.	8	1365	613	-	-
		JUL.	1	78	25	-	-
	3M	FEB.	1	124	56	-	-
		APR	1	202	97	-	-
	3N	JUL.	1	176	63	-	-
		AUG.	1	94	38	-	-
		SEP.	2	180	108	52	30 - 56
		OCT.	2	178	84	55	34 - 56
		NOV.	3	397	183	55	33 - 60
	3O	APR.	5	742	323	-	-
		OCT.	2	192	78	-	-
		NOV.	6	1132	503	-	-

TABLE VI: COD, DIV.3L, 2000: length composition of the trawl catches.

LENGTH GROUP	JUL =YEAR 2000	LENGTH GROUP
24	14.3	24
27	35.7	27
30	171.4	30
33	128.6	33
36	300.0	36
39	214.3	39
42	121.4	42
45	14.3	45
TOTAL	1000	
No. SAMPLES	1	
SAMPLING WEIGHT(kg)	70	
No. F.MEASURED	140	
MEAN LENGTH(cm)	37.1	
MEAN WEIGHT (g)	446	
DEPTH RANGE (m)	733/769	

TABLE VII - A: COD, DIV.3M, 2000: length composition of the trawl catches.

LENGTH GROUP	APR =2nd Q.	JUL =3rd Q.	TOTAL	LENGTH GROUP
33	27.5		27.0	33
36	178.9		175.4	36
39	302.8		296.8	39
42	344.0		337.3	42
45	123.9		121.4	45
48	9.2		9.0	48
51		50.0	1.0	51
54		50.0	1.0	54
57	4.6		4.5	57
60	4.6	150.0	7.4	60
63		150.0	2.9	63
66	4.6	250.0	9.4	66
69		50.0	1.0	69
72		250.0	4.9	72
75				75
78				78
81		50.0	1.0	81
TOTAL	1000	1000	1000	
No. SAMPLES	1	1	2	
SAMPLING WEIGHT(kg)	175	71	246	
No. F.MEASURED	218	20	238	
MEAN LENGTH(cm)	42.0	67.2	42.5	
MEAN WEIGHT (g)	694	2894	729	
DEPTH RANGE (m)	198/231	311/314	198/314	

TABLE VII - B:COD, DIV.3M, 2000: age composition (‰), mean length (cm) and mean weight (Kg) at age of the trawl catches.

AGE	APR.=2nd Q.			JUL.=3rd Q.			YEAR 2000			AGE
	AGE COMP.	MEAN LENGTH	MEAN WEIGHT	AGE COMP.	MEAN LENGTH	MEAN WEIGHT	AGE COMP.	MEAN LENGTH	MEAN WEIGHT	
3	757.0	40.5	0.619	30.1	52.3	1.315	745.2	40.5	0.620	3
4	230.5	43.4	0.753	91.3	57.6	1.790	228.3	43.5	0.760	4
5	4.1	59.3	1.929	76.1	59.4	1.946	5.2	59.3	1.933	5
6	6.8	63.9	2.442	586.3	67.7	2.908	16.2	66.1	2.715	6
7	1.6	62.5	2.282	199.6	71.6	3.475	4.8	68.6	3.083	7
8				16.7	82.0	5.138	0.3	82.0	5.138	8
TOTAL	1000			1000			1000			

TABLE VIII: COD, DIV.3N, 2000: length composition of the trawl catches.

LENGTH GROUP	APR	AUG	OCT	NOV	2nd Q.	3rd Q.	4th Q.	TOTAL	LENGTH GROUP
27		2.5		1.8		2.5	1.5	1.6	27
30		2.5	12.2	11.4		2.5	11.5	10.3	30
33	10.8	5.0	39.1	23.4	10.8	5.0	26.0	23.6	33
36	150.5	32.6	35.9	81.7	150.5	32.6	74.1	72.5	36
39	279.6	82.4	68.5	184.2	279.6	82.4	164.9	160.6	39
42	301.1	108.5	95.4	296.9	301.1	108.5	263.2	250.0	42
45	172.0	213.7	46.4	148.1	172.0	213.7	131.1	139.9	45
48	21.5	69.5	14.7	39.4	21.5	69.5	35.2	38.0	48
51	32.3	73.0	41.1	28.3	32.3	73.0	30.4	34.4	51
54		31.5	52.2	20.6		31.5	25.9	25.7	54
57	10.8	38.8	27.2	24.0	10.8	38.8	24.6	25.5	57
60	10.8	41.6	55.4	30.7	10.8	41.6	34.9	34.8	60
63	10.8	36.2	47.0	28.3	10.8	36.2	31.4	31.3	63
66		41.0	104.8	21.6		41.0	35.5	35.0	66
69		36.0	80.7	23.4		36.0	33.0	32.3	69
72		22.8	79.7	11.2		22.8	22.6	22.0	72
75		16.4	28.8	4.6		16.4	8.6	9.1	75
78		76.5	49.5	9.0		76.5	15.8	20.9	78
81		30.3	43.4	4.8		30.3	11.2	12.7	81
84		11.4	21.1	2.8		11.4	5.9	6.2	84
87		16.4	22.1	1.0		16.4	4.5	5.5	87
90			15.1				2.5	2.2	90
93		5.7	10.0	1.0		5.7	2.5	2.7	93
96		5.7	2.7			5.7	0.5	0.9	96
99			1.6				0.3	0.2	99
102			5.7				1.0	0.8	102
105				0.7			0.6	0.5	105
108				0.7			0.6	0.5	108
111									111
114				0.4			0.3	0.3	114
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	1	4	8	8	1	4	16	21	
SAMPLING WEIGHT(kg)	82	552	1065	1248	82	552	2314	2948	
No. F.MEASURED	93	258	309	815	93	258	1124	1475	
MEAN LENGTH(cm)	43.2	56.1	61.4	47.2	43.2	56.1	49.6	50.0	
MEAN WEIGHT (g)	713	1891	2492	1066	713	1891	1305	1341	
DEPTH RANGE (m)	860/1035	57/172	39/583	57/530	860/1035	57/172	39/583	39/1035	

TABLE IX: COD, DIV.3O, 2000: length composition of the trawl catches.

LENGTH GROUP	APR	JUN	AUG	OCT	NOV	2nd Q.	3rd Q.	4th Q.	TOTAL	LENGTH GROUP
27	3.3		2.3		1.9	3.1	2.3	1.5	2.7	27
30	13.8	16.6	4.6		10.1	14.0	4.6	8.0	11.9	30
33	46.0	49.7	28.9	21.9	19.7	46.3	28.9	20.2	39.2	33
36	160.9	49.7	54.1	108.0	119.1	154.0	54.1	116.8	137.0	36
39	187.3	116.9	58.9	181.7	224.8	183.0	58.9	215.8	178.4	39
42	175.2	176.1	117.6	237.3	287.7	175.2	117.6	277.2	191.2	42
45	87.0	100.4	96.9	123.6	135.1	87.8	96.9	132.7	98.0	45
48	52.7	82.3	115.2	55.5	25.2	54.6	115.2	31.5	55.3	48
51	33.3	81.8	75.4	43.3	16.2	36.3	75.4	21.9	36.9	51
54	23.8	32.2	74.4	18.7	12.3	24.4	74.4	13.7	26.8	54
57	44.4	65.3	74.0	34.2	29.5	45.6	74.0	30.5	45.1	57
60	40.4	57.2	76.3	42.9	19.9	41.5	76.3	24.7	41.2	60
63	34.2	32.6	50.1	55.7	12.6	34.1	50.1	21.6	33.0	63
66	32.6	81.8	59.4	39.0	21.6	35.7	59.4	25.2	35.7	66
69	32.0	57.2	41.6	17.3	21.6	33.6	41.6	20.7	31.6	69
72	10.9		37.7	14.8	9.8	10.3	37.7	10.8	12.9	72
75	6.6		13.1	5.9	7.9	6.2	13.1	7.5	7.1	75
78	7.2		6.5		10.7	6.8	6.5	8.4	7.1	78
81	3.6		8.7		5.6	3.4	8.7	4.4	4.1	81
84	4.2				1.0	4.0		0.8	2.9	84
87										87
90			4.2				4.2		0.4	90
93										93
96	0.3				2.5	0.3		2.0	0.6	96
99					2.5			2.0	0.4	99
102										102
105										105
108										108
111					2.5			2.0	0.4	111
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	7	2	8	6	9	9	8	15	32	
SAMPLING WEIGHT(kg)	1270	180	580	301	772	1450	580	1073	3103	
No. F.MEASURED	944	121	302	229	545	1065	302	774	2141	
MEAN LENGTH(cm)	47.4	50.3	53.6	47.9	46.5	47.6	53.6	46.8	48.0	
MEAN WEIGHT (g)	1094	1259	1536	1081	1041	1104	1536	1049	1132	
DEPTH RANGE (m)	241/520	483/596	84/456	68/543	97/520	241/596	84/456	68/543	68/596	

TABLE X: REDFISH (*S.mentella*), DIV.3L, 2000: length composition of the trawl catches.

LENGTH GROUP	FEB	MAR	APR	JUN	JUL	1st Q.	2nd Q.	3rd Q.	TOTAL	LENGTH GROUP
20	2.3					0.3			0.2	20
21			0.6	2.2			0.8		0.3	21
22	2.3	0.2	4.3	4.9		0.4	4.4		1.9	22
23	2.3	3.0	8.6	16.4	8.3	3.0	9.5	8.3	5.4	23
24	23.1	5.6	17.3	23.9		7.6	18.1		11.5	24
25	80.7	22.6	48.3	54.2	8.3	29.2	49.0	8.3	36.5	25
26	89.3	53.1	90.0	77.8	41.7	57.2	88.6	41.7	68.9	26
27	112.2	98.3	122.8	83.6	108.3	99.9	118.4	108.3	106.9	27
28	120.5	168.2	202.2	193.7	158.3	162.8	201.3	158.3	177.1	28
29	160.0	177.8	165.9	153.1	150.0	175.8	164.5	150.0	171.5	29
30	136.7	200.0	142.6	130.3	166.7	192.8	141.2	166.7	173.5	30
31	116.8	99.1	87.0	76.2	141.7	101.1	85.8	141.7	95.6	31
32	71.4	50.0	35.2	50.2	116.7	52.4	36.8	116.7	46.9	32
33	44.7	48.3	23.9	45.1	25.0	47.9	26.2	25.0	39.7	33
34	28.9	36.7	25.4	35.1	41.7	35.8	26.5	41.7	32.4	34
35	4.4	18.6	13.6	17.8	8.3	17.0	14.1	8.3	15.9	35
36		5.0	4.5	14.0	8.3	4.4	5.5	8.3	4.8	36
37	2.3	4.3	1.7	4.7	8.3	4.1	2.1	8.3	3.4	37
38		2.3	0.8	3.7		2.0	1.1		1.7	38
39	2.1	2.9	1.1	4.0		2.8	1.4		2.3	39
40		0.6	0.1	7.1	8.3	0.5	0.9	8.3	0.7	40
41		0.6		1.0		0.5	0.1		0.4	41
42		1.4	0.4			1.2	0.3		0.9	42
43		0.7	2.2	1.0		0.6	2.1		1.1	43
44			0.4				0.3		0.1	44
45		0.2	1.1			0.1	1.0		0.5	45
46		0.3				0.3			0.2	46
47		0.2				0.2			0.1	47
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	2	25	8	5	1	27	13	1	41	
SAMPLING WEIGHT(kg)	163	2007	764	336	47	2169	1100	47	3316	
No. F.MEASURED	442	5082	2089	885	120	5524	2974	120	8618	
MEAN LENGTH(cm)	29.4	30.0	29.3	29.6	30.3	30.0	29.3	30.3	29.7	
MEAN WEIGHT (g)	375	401	372	389	411	398	374	411	389	
DEPTH RANGE (m)	779/888	703/1046	786/994	797/989	733/769	703/1046	786/994	733/769	703/1046	

TABLE XI - A: REDFISH (*S.mentella*), DIV.3M, 2000: length composition of the trawl catches.

LENGTH GROUP	FEB	MAR	APR	JUN	JUL	1st Q.	2nd Q.	3rd Q.	TOTAL	LENGTH GROUP
12					3.9			3.9	1.1	12
13					7.8			7.8	2.3	13
14										14
15					3.9			3.9	1.1	15
16										16
17					3.9			3.9	1.1	17
18					11.7			11.7	3.4	18
19					16.8			16.8	4.9	19
20			1.6	3.7	24.3		1.8	24.3	8.3	20
21			2.9		10.0		2.6	10.0	4.6	21
22			6.8		30.7		6.1	30.7	12.8	22
23		2.4	4.6	5.5	19.2	2.2	4.7	19.2	8.8	23
24		7.9	10.9	11.5	60.6	7.3	11.0	60.6	25.3	24
25	40.8	36.6	25.6	39.1	58.2	36.9	27.0	58.2	37.0	25
26	20.4	68.3	54.3	89.8	71.1	64.3	57.9	71.1	62.3	26
27		156.5	104.6	115.1	59.3	143.2	105.7	59.3	95.1	27
28	102.0	183.5	145.9	176.0	86.7	176.6	148.9	86.7	132.8	28
29	102.0	158.8	165.2	127.5	88.4	154.0	161.4	88.4	139.3	29
30	102.0	161.2	164.5	104.5	56.2	156.2	158.5	56.2	128.2	30
31	40.8	106.4	96.5	81.9	65.8	100.9	95.1	65.8	86.9	31
32	81.6	36.5	60.1	57.9	72.9	40.4	59.9	72.9	62.1	32
33	102.0	42.1	32.5	77.4	60.0	47.2	37.0	60.0	44.6	33
34	204.1	13.5	36.1	51.6	56.0	29.7	37.6	56.0	42.4	34
35	81.6	11.1	13.1	18.8	31.6	17.1	13.7	31.6	19.2	35
36	40.8	4.8	13.6	22.1	23.7	7.8	14.4	23.7	16.6	36
37	20.4	3.2	21.9	7.3	26.9	4.6	20.4	26.9	21.1	37
38		5.6	7.6		29.2	5.1	6.9	29.2	13.3	38
39	20.4	0.8	5.5	1.4	4.3	2.5	5.1	4.3	4.6	39
40		0.8	3.7	5.1	5.5	0.7	3.8	5.5	4.1	40
41			3.7	3.7	1.9		3.7	1.9	2.9	41
42			3.9		1.4		3.5	1.4	2.6	42
43	20.4		6.3		3.9	1.7	5.7	3.9	4.8	43
44			2.3		3.9		2.1	3.9	2.5	44
45			0.8				0.7		0.4	45
46	20.4		3.1			1.7	2.8		1.9	46
47			2.3				2.1		1.3	47
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	1	2	5	3	3	3	8	3	14	
SAMPLING WEIGHT(kg)	26	222	718	184	179	248	902	179	1329	
No. F.MEASURED	49	587	1737	480	428	636	2217	428	3281	
MEAN LENGTH(cm)	32.8	29.5	30.4	30.0	29.3	29.8	30.4	29.3	30.0	
MEAN WEIGHT (g)	522	374	417	397	395	386	413	395	401	
DEPTH RANGE (m)	861/1003	866/1145	198/993	704/1159	289/1026	861/1145	198/1159	289/1026	198/1159	

TABLE XI - B: REDFISH (*S.mentella*), DIV.3M, 2000: age composition (‰), mean length (cm) and mean weight (Kg) at age of the trawl catches.

AGE	FEB. AGE COMP.	FEB. MEAN LENGTH	FEB. MEAN WEIGHT	MAR. AGE COMP.	MAR. MEAN LENGTH	MAR. MEAN WEIGHT	APR. AGE COMP.	APR. MEAN LENGTH	APR. MEAN WEIGHT	JUN. AGE COMP.	JUN. MEAN LENGTH	JUN. MEAN WEIGHT	JUL. AGE COMP.	JUL. MEAN LENGTH	JUL. MEAN WEIGHT	AGE
2													11.7	13.2	0.035	2
3													9.2	17.0	0.075	3
4							0.2	20.5	0.128	0.4	20.5	0.128	16.0	19.0	0.103	4
5							4.6	21.7	0.153	2.7	20.6	0.130	43.5	20.7	0.133	5
6				4.0	24.3	0.213	10.8	23.2	0.187	7.7	23.9	0.202	48.5	22.9	0.180	6
7	20.0	26.2	0.266	33.3	26.6	0.278	27.0	26.2	0.266	32.0	26.3	0.268	65.9	24.9	0.229	7
8	28.2	27.7	0.312	110.5	27.5	0.306	86.1	27.7	0.313	101.9	27.5	0.304	80.4	26.9	0.288	8
9	92.8	29.6	0.379	178.0	29.4	0.374	172.3	29.6	0.379	148.9	29.3	0.368	99.4	29.5	0.375	9
10	262.2	29.6	0.379	494.2	29.0	0.358	434.9	29.2	0.365	430.3	28.8	0.354	286.8	28.5	0.344	10
11	93.2	32.6	0.504	76.7	31.4	0.450	81.5	31.6	0.460	77.7	31.9	0.472	71.3	32.1	0.481	11
12	54.7	34.2	0.577	13.8	32.9	0.518	17.8	33.2	0.532	26.8	33.6	0.546	24.9	33.5	0.546	12
13	29.1	35.9	0.665	1.9	35.4	0.641	7.2	36.0	0.671	9.0	35.6	0.648	14.8	36.1	0.675	13
14	214.9	34.3	0.583	57.7	33.4	0.538	70.4	33.8	0.559	106.3	33.9	0.563	109.2	34.1	0.574	14
15	10.7	34.5	0.598	6.7	32.4	0.493	7.1	32.3	0.491	5.4	32.7	0.508	6.6	32.2	0.485	15
16	17.9	34.5	0.591	1.9	35.8	0.660	5.2	36.3	0.690	3.4	35.1	0.624	8.2	35.8	0.661	16
17	13.3	36.9	0.720	0.5	36.5	0.698	3.6	37.2	0.736	3.1	36.9	0.719	7.3	36.9	0.723	17
18	8.2	36.5	0.698	3.7	38.2	0.801	3.6	37.8	0.776	1.9	36.5	0.698	28.7	38.2	0.799	18
19+	155.0	38.2	0.827	17.2	36.2	0.689	67.7	39.4	0.896	42.6	36.6	0.712	67.6	37.8	0.788	19+
TOTAL	1000			1000			1000			1000			1000			

AGE	1st Q. AGE COMP.	1st Q. MEAN LENGTH	1st Q. MEAN WEIGHT	2nd Q. AGE COMP.	2nd Q. MEAN LENGTH	2nd Q. MEAN WEIGHT	3rd Q. AGE COMP.	3rd Q. MEAN LENGTH	3rd Q. MEAN WEIGHT	YEAR 2000 AGE COMP.	YEAR 2000 MEAN LENGTH	YEAR 2000 MEAN WEIGHT	AGE
2							11.7	13.2	0.035	5.2	13.2	0.035	2
3							9.2	17.0	0.075	4.1	17.0	0.075	3
4				0.2	20.5	0.128	16.0	19.0	0.103	7.2	19.0	0.103	4
5				4.2	21.6	0.150	43.5	20.7	0.133	21.2	20.8	0.134	5
6	3.6	24.3	0.213	10.1	23.3	0.189	48.5	22.9	0.180	26.4	23.0	0.182	6
7	32.2	26.6	0.278	28.1	26.2	0.267	65.9	24.9	0.229	45.4	25.4	0.243	7
8	103.5	27.5	0.307	89.6	27.7	0.310	80.4	26.9	0.288	87.2	27.3	0.301	8
9	170.8	29.5	0.374	167.2	29.5	0.377	99.4	29.5	0.375	137.5	29.5	0.376	9
10	474.5	29.0	0.359	433.9	29.1	0.363	286.8	28.5	0.344	373.4	28.9	0.356	10
11	78.1	31.5	0.456	80.7	31.7	0.463	71.3	32.1	0.481	76.2	31.8	0.469	11
12	17.3	33.3	0.534	19.7	33.3	0.536	24.9	33.5	0.546	21.7	33.4	0.541	12
13	4.2	35.7	0.655	7.6	35.9	0.665	14.8	36.1	0.675	10.4	36.0	0.671	13
14	71.0	33.6	0.549	78.3	33.8	0.560	109.2	34.1	0.574	91.1	33.9	0.566	14
15	7.0	32.6	0.507	6.8	32.4	0.494	6.6	32.2	0.485	6.7	32.3	0.492	15
16	3.2	35.2	0.628	4.8	36.1	0.680	8.2	35.8	0.661	6.1	35.9	0.666	16
17	1.6	36.8	0.714	3.5	37.1	0.733	7.3	36.9	0.723	4.9	37.0	0.726	17
18	4.0	37.9	0.783	3.2	37.6	0.766	28.7	38.2	0.799	14.6	38.2	0.796	18
19+	28.9	37.1	0.752	62.2	39.0	0.869	67.6	37.8	0.788	60.5	38.3	0.822	19+
TOTAL	1000			1000			1000			1000			

TABLE XII: REDFISH (*S.mentella*), DIV.3N, 2000: length composition of the trawl catches.

LENGTH GROUP	APR	JUN	JUL	AUG	OCT	NOV	2nd Q.	3rd Q.	4th Q.	TOTAL	LENGTH GROUP
17			2.9					2.1		0.6	17
18			2.9					2.1		0.6	18
19			8.7	4.7				7.6		2.3	19
20	2.9		8.7	14.2			1.0	10.3		3.1	20
21	3.9		2.9	49.7		8.6	1.4	15.9	0.4	5.1	21
22	27.3		11.6	78.1		24.2	9.8	30.1	1.2	10.3	22
23	25.0	3.9	8.9	63.5	6.6	33.4	11.4	24.1	7.9	12.9	23
24	44.1	3.9	23.7	52.4	13.5	59.8	18.3	31.7	15.7	20.6	24
25	71.0		39.6	51.7	10.3	72.5	25.5	43.0	13.3	22.8	25
26	94.6	11.6	44.2	58.4	34.1	85.8	41.4	48.2	36.6	40.3	26
27	85.6	54.3	50.7	63.8	47.4	114.5	65.5	54.4	50.6	52.5	27
28	176.6	104.7	94.9	116.8	108.2	129.4	130.5	101.0	109.2	107.8	28
29	131.8	143.4	161.4	128.3	160.6	108.0	139.3	152.2	158.0	155.4	29
30	114.9	151.2	138.5	109.5	184.3	117.5	138.2	130.4	181.1	163.8	30
31	73.7	127.9	75.2	80.2	94.2	77.1	108.5	76.6	93.4	89.1	31
32	47.8	62.0	70.7	38.3	68.4	47.2	56.9	61.7	67.4	65.2	32
33	28.5	69.8	52.6	42.0	31.5	49.3	55.0	49.7	32.3	38.7	33
34	29.1	46.5	61.7	17.8	43.6	24.1	40.3	49.5	42.6	44.6	34
35	13.3	38.8	36.1	11.1	39.1	11.8	29.6	29.2	37.7	34.8	35
36	8.8	38.8	20.4	8.7	24.9	14.5	28.0	17.1	24.4	22.4	36
37	7.9	23.3	23.6	2.0	47.6	10.2	17.8	17.6	45.8	36.0	37
38	3.4	31.0	27.2	2.7	27.2	6.7	21.1	20.4	26.2	24.2	38
39	1.9	34.9	8.2	3.4	28.0	5.4	23.1	6.9	26.9	20.7	39
40	4.4	23.3	8.5	2.0	13.5		16.5	6.7	12.9	11.2	40
41	1.0	19.4	6.3		6.3		12.8	4.6	6.0	5.9	41
42	2.5	7.8	6.6		7.8		5.9	4.8	7.4	6.6	42
43		3.9	3.0		2.9		2.5	2.2	2.7	2.6	43
44				0.7				0.2		0.1	44
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	2	1	3	3	5	3	3	6	8	17	
SAMPLING WEIGHT(kg)	307	127	308	295	588	222	434	602	810	1846	
No. F.MEASURED	824	258	707	798	1267	616	1082	1505	1883	4470	
MEAN LENGTH(cm)	29.0	32.3	30.7	28.0	31.7	29.0	31.1	29.9	31.5	31.0	
MEAN WEIGHT (g)	366	505	443	336	478	367	455	413	473	454	
DEPTH RANGE (m)	860/1035	447/461	443/800	85/516	109/973	94/530	447/1035	85/800	94/973	85/1035	

TABLE XIII: REDFISH (*S.mentella*), DIV.3O, 2000: length composition of the trawl catches.

LENGTH GROUP	APR	JUN	JUL	AUG	OCT	NOV	2nd Q.	3rd Q.	4th Q.	TOTAL	LENGTH GROUP
15	0.4				0.4	0.3	0.3		0.3	0.2	15
16	1.7			0.1	2.2	1.4	1.1	0.1	1.9	1.3	16
17	3.6			1.3	4.0	7.5	2.3	1.1	5.3	3.6	17
18	6.4	0.9		2.4	8.1	14.6	4.5	2.1	10.4	7.1	18
19	10.1	5.6	12.2	8.2	16.9	31.6	8.6	8.6	22.1	16.0	19
20	28.3	19.6	40.8	33.7	57.4	70.5	25.3	34.5	62.1	47.8	20
21	79.6	69.4	114.3	116.7	125.5	124.4	76.1	116.4	125.1	113.7	21
22	116.8	134.3	159.2	209.3	218.0	194.9	122.8	203.7	209.8	192.1	22
23	131.6	152.8	155.1	198.0	190.9	177.8	138.8	193.3	186.2	179.4	23
24	139.0	158.9	159.2	179.5	139.2	149.3	145.8	177.2	142.8	152.6	24
25	135.5	137.5	138.8	105.1	95.1	85.8	136.2	108.8	91.8	104.6	25
26	71.4	68.1	57.1	46.3	43.5	43.7	70.3	47.5	43.6	49.6	26
27	47.1	47.8	49.0	29.2	30.6	22.1	47.4	31.4	27.6	32.2	27
28	50.2	31.6	16.3	19.6	12.7	16.3	43.8	19.2	14.0	20.9	28
29	40.4	21.4	24.5	14.8	16.0	16.6	33.9	15.8	16.2	19.4	29
30	45.8	10.5	24.5	7.4	11.0	13.7	33.7	9.3	12.0	15.3	30
31	30.6	13.6	24.5	5.3	7.4	10.3	24.8	7.4	8.4	11.2	31
32	17.9	10.7		4.3	5.5	5.3	15.5	3.8	5.4	6.8	32
33	9.9	11.5	8.2	4.7	3.8	4.7	10.4	5.1	4.1	5.5	33
34	7.8	10.3	4.1	2.7	2.2	2.2	8.6	2.9	2.2	3.6	34
35	4.3	9.4		1.2	0.6	1.6	6.0	1.1	1.0	1.9	35
36	4.8	17.6		3.3	3.5	2.3	9.2	3.0	3.0	4.2	36
37	3.9	15.5		2.3	2.2	0.6	7.9	2.1	1.6	2.9	37
38	3.0	16.3	8.2	3.3	2.6	1.0	7.6	3.8	2.0	3.5	38
39	2.7	10.1	4.1	1.2	0.4	1.2	5.3	1.5	0.7	1.8	39
40	2.5	8.9			0.4	0.3	4.7		0.4	1.1	40
41	2.3	7.9					4.3			0.8	41
42	1.2	5.0		0.2			2.5	0.2		0.5	42
43	0.6	2.9					1.4			0.3	43
44	0.4	0.8					0.5			0.1	44
45	0.2	0.8					0.4			0.1	45
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	7	4	1	11	14	13	11	12	27	50	
SAMPLING WEIGHT(kg)	701	329	53	859	1056	951	1030	912	2007	3950	
No. F.MEASURED	2524	1165	245	3859	5033	4609	3689	4104	9642	17435	
MEAN LENGTH(cm)	25.6	26.2	24.7	24.1	23.8	23.7	25.8	24.2	23.8	24.3	
MEAN WEIGHT (g)	262	290	229	212	205	203	272	214	204	219	
DEPTH RANGE (m)	282/551	326/610	343/493	84/514	246/554	73/520	282/610	84/514	73/554	73/610	

TABLE XIV: REDFISH (*S.marinus*), DIV.3M, 2000: length composition of the trawl catches.

LENGTH GROUP	APR =YEAR 2000	LENGTH GROUP
18	4.0	18
19	15.9	19
20	19.8	20
21	47.6	21
22	79.4	22
23	154.8	23
24	127.0	24
25	119.0	25
26	99.2	26
27	142.9	27
28	71.4	28
29	55.6	29
30	23.8	30
31	11.9	31
32	19.8	32
33	7.9	33
TOTAL	1000	
No. SAMPLES	1	
SAMPLING WEIGHT(kg)	110	
No. F.MEASURED	252	
MEAN LENGTH(cm)	25.6	
MEAN WEIGHT (g)	274	
DEPTH RANGE (m)	198/231	

TABLE XV: REDFISH (*S.marinus*), DIV.3N, 2000: length composition of the trawl catches.

LENGTH GROUP	JUL	OCT	NOV	3rd Q.	4th Q.	TOTAL	LENGTH GROUP
17		3.2			3.0	2.5	17
18		29.0			26.9	22.7	18
19		33.1			30.7	25.9	19
20		29.2			27.1	22.9	20
21	15.0	47.4	9.9	15.0	44.7	40.1	21
22	35.8	85.1	79.2	35.8	84.7	77.0	22
23	92.7	173.4	39.6	92.7	163.7	152.6	23
24	212.4	170.2	118.8	212.4	166.4	173.6	24
25	173.5	128.8	198.0	173.5	133.8	140.0	25
26	164.7	103.7	99.0	164.7	103.4	112.9	26
27	66.2	56.4	148.5	66.2	63.1	63.6	27
28	72.0	65.8	89.1	72.0	67.5	68.2	28
29	74.6	21.2	69.3	74.6	24.7	32.5	29
30	23.8	12.5	39.6	23.8	14.4	15.9	30
31	21.2	7.2	49.5	21.2	10.3	12.0	31
32	30.0	13.0	19.8	30.0	13.5	16.0	32
33	3.1	10.2	9.9	3.1	10.2	9.1	33
34	15.0	5.6		15.0	5.2	6.7	34
35		3.6	19.8		4.8	4.0	35
36		1.3			1.2	1.0	36
37			9.9		0.7	0.6	37
TOTAL	1000	1000	1000	1000	1000	1000	
No. SAMPLES	2	3	1	2	4	6	
SAMPLING WEIGHT(kg)	51	186	48	51	234	285	
No. F.MEASURED	115	459	101	115	560	675	
MEAN LENGTH(cm)	26.4	24.8	27.0	26.4	25.0	25.2	
MEAN WEIGHT (g)	274	233	297	274	238	244	
DEPTH RANGE (m)	443/545	109/595	94/102	443/545	94/595	94/595	

TABLE XVI: REFISH (*S.marinus*), DIV.3O, 2000: length composition of the trawl catches.

LENGTH GROUP	APR	JUN	JUL	AUG	OCT	NOV	2nd Q.	3rd Q.	4th Q.	TOTAL	LENGTH GROUP
10	2.9						2.5			0.7	10
11	2.5						2.2			0.6	11
12	11.4						10.0			2.9	12
13	17.1			1.3	0.4	1.8	15.0	1.3	1.1	5.2	13
14	32.4			7.0	6.0	2.7	28.4	6.9	4.3	11.9	14
15	46.8	6.7		22.1	29.8	23.6	41.9	21.8	26.6	30.1	15
16	94.9	14.0	13.2	70.2	63.7	66.0	85.0	69.4	64.9	71.7	16
17	154.5	71.6	26.3	113.7	133.3	105.7	144.3	112.4	119.1	125.1	17
18	126.9	94.5	144.7	146.4	134.7	141.6	122.9	146.4	138.3	135.5	18
19	106.0	154.3	223.7	143.9	139.5	126.9	111.9	145.1	133.0	129.4	19
20	96.1	130.0	131.6	126.2	106.3	132.8	100.3	126.3	119.9	115.5	20
21	69.1	77.8	118.4	73.9	65.8	93.4	70.2	74.6	80.0	76.0	21
22	40.5	58.4	78.9	41.9	48.3	64.6	42.7	42.5	56.7	49.6	22
23	38.7	83.9	78.9	69.0	51.6	40.4	44.3	69.1	45.8	50.2	23
24	36.0	68.0	39.5	55.9	64.2	45.1	39.9	55.6	54.4	50.4	24
25	38.8	67.7	52.6	46.4	55.0	49.0	42.3	46.5	51.9	48.0	25
26	23.8	51.6	39.5	35.1	33.6	31.4	27.3	35.2	32.5	31.5	26
27	20.3	32.4	39.5	12.1	18.9	21.1	21.8	12.5	20.0	19.0	27
28	11.3	27.5		10.8	11.2	8.9	13.3	10.7	10.0	11.1	28
29	8.1	33.1	13.2	4.7	13.6	8.2	11.2	4.8	10.8	9.7	29
30	3.4	10.5		6.5	9.6	5.3	4.3	6.4	7.4	6.3	30
31	5.0	9.0		3.9	6.1	7.9	5.5	3.9	7.0	5.9	31
32	3.1	1.6		1.3	1.1	7.7	2.9	1.3	4.5	3.4	32
33	3.7	4.9		4.2	4.3	8.6	3.8	4.2	6.5	5.2	33
34	2.0			1.7		2.6	1.8	1.7	1.3	1.5	34
35	1.4			0.6	0.6	2.8	1.2	0.6	1.7	1.4	35
36	1.0	1.6		0.7	0.8	1.0	1.1	0.7	0.9	0.9	36
37	1.7				1.3	0.8	1.5		1.1	1.0	37
38	0.6	1.1					0.7			0.2	38
39				0.4		0.2		0.4	0.1	0.1	39
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	6	4	1	11	14	11	10	12	25	47	
SAMPLING WEIGHT(kg)	421	165	19	468	525	548	586	487	1074	2147	
No. F.MEASURED	1656	515	76	1756	1932	1953	2171	1832	3885	7888	
MEAN LENGTH(cm)	19.9	22.3	21.4	20.8	20.9	21.1	20.2	20.8	21.0	20.7	
MEAN WEIGHT (g)	131	176	151	142	147	151	136	142	149	144	
DEPTH RANGE (m)	318/551	326/610	343/493	84/514	246/554	73/474	318/610	84/514	73/554	73/610	

TABLE XVII: AMERICAN PLAICE, DIV.3L, 2000: length composition of the trawl catches.

LENGTH GROUP	FEB	MAR	APR	1st Q.	2nd Q.	TOTAL	LENGTH GROUP
20	1.3	0.2	0.6	0.5	0.6	0.6	20
22							22
24		0.9	0.8	0.6	0.8	0.7	24
26	9.8	4.4	7.2	6.1	7.2	6.6	26
28	30.0	33.5	29.2	32.4	29.2	30.8	28
30	42.0	89.3	67.7	74.3	67.7	71.0	30
32	80.9	143.3	105.3	123.5	105.3	114.4	32
34	97.3	131.7	129.3	120.8	129.3	125.0	34
36	96.2	129.8	129.7	119.1	129.7	124.4	36
38	105.0	91.1	108.8	95.5	108.8	102.1	38
40	92.4	118.0	142.0	109.8	142.0	125.8	40
42	85.6	105.0	110.9	98.8	110.9	104.9	42
44	89.2	58.6	62.3	68.3	62.3	65.3	44
46	99.5	31.4	40.3	53.0	40.3	46.7	46
48	65.5	29.0	27.7	40.6	27.7	34.2	48
50	66.1	19.6	20.6	34.3	20.6	27.5	50
52	27.3	6.9	10.7	13.4	10.7	12.0	52
54	6.2	4.7	4.8	5.2	4.8	5.0	54
56	5.8	1.9	1.3	3.1	1.3	2.2	56
58		0.8	0.4	0.5	0.4	0.4	58
60							60
62			0.6		0.6	0.3	62
TOTAL	1000	1000	1000	1000	1000	1000	
No. SAMPLES	7	13	15	20	15	35	
SAMPLING WEIGHT(kg)	612	827	1773	1439	1773	3212	
No. F.MEASURED	919	1422	2784	2341	2784	5125	
MEAN LENGTH(cm)	41.0	38.2	38.9	39.1	38.9	39.0	
MEAN WEIGHT (g)	725	579	606	625	606	615	
DEPTH RANGE (m)	779/1125	782/993	835/1186	779/1125	835/1186	779/1186	

TABLE XVIII - A: AMERICAN PLAICE, DIV.3M, 2000: length composition of the trawl catches.

LENGTH GROUP	FEB	MAR	APR	1st Q.	2nd Q.	TOTAL	LENGTH GROUP
22	5.6			2.3		1.3	22
24							24
26		9.7		5.7		3.2	26
28	90.4	72.4		79.7		45.2	28
30	101.7	126.7	28.0	116.5	28.0	78.2	30
32	186.4	159.9	14.0	170.7	14.0	102.8	32
34	146.9	129.9	79.4	136.8	79.4	112.0	34
36	84.7	176.7	79.4	139.3	79.4	113.3	36
38	146.9	103.6	112.1	121.2	112.1	117.3	38
40	84.7	106.8	126.2	97.9	126.2	110.1	40
42	73.4	78.9	88.8	76.7	88.8	81.9	42
44	56.5	12.3	102.8	30.3	102.8	61.7	44
46	5.6	5.4	121.5	5.5	121.5	55.8	46
48	5.6	15.0	93.5	11.2	93.5	46.8	48
50		2.7	70.1	1.6	70.1	31.3	50
52	11.3		70.1	4.6	70.1	33.0	52
54			9.3		9.3	4.0	54
56			4.7		4.7	2.0	56
TOTAL	1000	1000	1000	1000	1000	1000	
No. SAMPLES	1	2	1	3	1	4	
SAMPLING WEIGHT(kg)	87	97	192	184	192	376	
No. F.MEASURED	177	203	214	380	214	594	
MEAN LENGTH(cm)	36.4	36.1	43.4	36.2	43.4	39.3	
MEAN WEIGHT (g)	492	478	838	484	838	637	
DEPTH RANGE (m)	906/1073	887/1044	1103/1120	887/1073	1103/1120	887/1120	

TABLE XVIII - B: AMERICAN PLAICE, DIV.3M, 2000: age composition (‰), mean length (cm) and mean weight (Kg) at age of the trawl catches.

AGE	FEB.			MAR.			APR.			AGE
	AGE COMP.	MEAN LENGTH	MEAN WEIGHT	AGE COMP.	MEAN LENGTH	MEAN WEIGHT	AGE COMP.	MEAN LENGTH	MEAN WEIGHT	
2	3.8	23.0	0.115							2
3	1.9	23.0	0.115							3
4	167.9	30.2	0.266	170.7	30.2	0.265	18.2	31.1	0.289	4
5	185.5	34.1	0.389	208.5	34.5	0.403	75.1	35.9	0.453	5
6	289.6	36.6	0.484	316.2	37.1	0.503	147.4	39.1	0.587	6
7	104.3	38.6	0.560	103.4	38.3	0.547	82.8	39.2	0.590	7
8	32.6	40.2	0.645	28.0	39.6	0.617	50.2	42.3	0.751	8
9	97.0	41.3	0.696	83.8	40.4	0.654	179.6	43.9	0.838	9
10	61.3	39.9	0.632	53.3	39.3	0.609	137.4	44.0	0.854	10
11	32.2	41.5	0.717	20.1	39.9	0.647	100.2	45.4	0.930	11
12	11.2	42.9	0.803	9.8	43.1	0.817	69.5	48.2	1.120	12
13	5.6	51.1	1.319	2.6	48.4	1.107	45.7	51.2	1.318	13
14	1.3	46.8	1.037	1.0	49.1	1.164	26.2	50.5	1.274	14
15	2.1	51.2	1.327	1.3	48.9	1.148	26.8	51.8	1.370	15
16	1.2	52.4	1.409	0.5	49.0	1.147	10.4	52.2	1.400	16
17	0.5	53.0	1.456	0.1	51.0	1.295	6.3	52.5	1.414	17
18	1.5	53.0	1.456	0.1	51.0	1.295	13.2	52.9	1.446	18
19	0.2	49.0	1.147	0.6	49.3	1.172	5.3	49.9	1.217	19
20	0.5	53.0	1.456	0.1	51.0	1.295	5.6	52.1	1.384	20
TOTAL	1000			1000			1000			

AGE	1st Q.			2nd Q.			YEAR 2000			AGE
	AGE COMP.	MEAN LENGTH	MEAN WEIGHT	AGE COMP.	MEAN LENGTH	MEAN WEIGHT	AGE COMP.	MEAN LENGTH	MEAN WEIGHT	
2	1.5	23.0	0.115				0.9	23.0	0.115	2
3	0.8	23.0	0.115				0.4	23.0	0.115	3
4	169.6	30.2	0.266	18.2	31.1	0.289	104.0	30.3	0.267	4
5	199.1	34.3	0.398	75.1	35.9	0.453	145.4	34.7	0.410	5
6	305.4	36.9	0.496	147.4	39.1	0.587	236.9	37.5	0.520	6
7	103.7	38.4	0.552	82.8	39.2	0.590	94.7	38.7	0.566	7
8	29.9	39.9	0.629	50.2	42.3	0.751	38.7	41.2	0.698	8
9	89.2	40.8	0.672	179.6	43.9	0.838	128.4	42.7	0.773	9
10	56.6	39.6	0.619	137.4	44.0	0.854	91.6	42.5	0.772	10
11	25.0	40.7	0.684	100.2	45.4	0.930	57.6	44.2	0.869	11
12	10.4	43.0	0.811	69.5	48.2	1.120	36.0	47.3	1.070	12
13	3.8	50.0	1.234	45.7	51.2	1.318	21.9	51.1	1.310	13
14	1.1	48.0	1.102	26.2	50.5	1.274	12.0	50.4	1.265	14
15	1.6	50.1	1.240	26.8	51.8	1.370	12.6	51.7	1.360	15
16	0.8	51.1	1.312	10.4	52.2	1.400	4.9	52.1	1.392	16
17	0.3	52.6	1.421	6.3	52.5	1.414	2.9	52.5	1.414	17
18	0.7	52.8	1.442	13.2	52.9	1.446	6.1	52.9	1.446	18
19	0.4	49.3	1.167	5.3	49.9	1.217	2.5	49.9	1.213	19
20	0.3	52.6	1.421	5.6	52.1	1.384	2.6	52.1	1.386	20
TOTAL	1000			1000			1000			

TABLE XIX: AMERICAN PLAICE, DIV.3N, 2000: length composition of the trawl catches.

LENGTH GROUP	APR	JUL	AUG	OCT	NOV	2nd Q.	3rd Q.	4th Q.	TOTAL	LENGTH GROUP
14		1.0					0.3		0.1	14
16		7.3			2.8		1.8	1.8	1.7	16
18		1.0			8.8		0.3	5.8	2.7	18
20			0.5	0.8	20.1		0.4	13.5	6.3	20
22	1.0		1.0	1.9	11.3	1.0	0.7	8.1	4.1	22
24	2.0	6.5	6.8	2.3	5.5	2.0	6.7	4.4	5.5	24
26	5.7	6.5	8.5	3.9	4.2	5.7	8.0	4.1	6.2	26
28	16.1	21.9	17.6	16.5	15.5	16.1	18.7	15.9	17.3	28
30	51.7	45.6	43.9	41.5	59.8	51.7	44.3	53.5	48.8	30
32	61.7	105.8	119.0	50.6	83.5	61.7	115.8	72.2	94.0	32
34	97.5	139.3	102.7	75.6	109.2	97.5	111.7	97.7	104.8	34
36	138.1	164.0	148.8	108.1	95.7	138.1	152.5	99.9	128.2	36
38	135.7	109.2	129.8	124.5	93.5	135.7	124.7	104.1	115.9	38
40	176.8	131.4	173.2	137.7	139.4	176.8	162.9	138.8	152.6	40
42	96.8	104.1	110.1	102.8	120.1	96.8	108.6	114.1	110.6	42
44	47.0	67.1	59.6	69.4	94.7	47.0	61.4	86.0	71.9	44
46	42.5	51.3	27.3	91.9	59.0	42.5	33.2	70.3	50.3	46
48	57.0	17.3	26.5	56.5	29.5	57.0	24.2	38.7	32.1	48
50	17.1	18.7	10.8	42.3	16.3	17.1	12.8	25.2	18.6	50
52	16.8		4.0	22.8	9.7	16.8	3.0	14.2	8.6	52
54	10.9		5.2	18.4	5.4	10.9	3.9	9.9	6.9	54
56	16.7		2.9	8.8	4.7	16.7	2.2	6.1	4.5	56
58	3.6		0.4	8.2	4.6	3.6	0.3	5.8	2.9	58
60	3.4	2.1		9.7	1.9	3.4	0.5	4.6	2.5	60
62	1.8			5.9	3.1	1.8		4.1	1.9	62
64			0.8		1.7		0.6	1.1	0.8	64
66					0.2			0.1	0.1	66
68			0.3				0.2		0.1	68
70			0.3				0.2		0.1	70
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	6	3	6	10	8	6	9	18	33	
SAMPLING WEIGHT(kg)	966	437	1024	1415	1246	966	1461	2661	5088	
No. F.MEASURED	1506	777	1639	1942	1858	1506	2416	3800	7722	
MEAN LENGTH(cm)	40.3	38.5	38.8	41.8	39.2	40.3	38.7	40.1	39.4	
MEAN WEIGHT (g)	684	586	600	767	642	684	596	685	640	
DEPTH RANGE (m)	54/1217	60/1084	57/172	39/583	57/530	54/1217	57/1084	39/583	39/1217	

TABLE XX: AMERICAN PLAICE, DIV.3O, 2000: length composition of the trawl catches.

LENGTH GROUP	APR	AUG	OCT	NOV	2nd Q.	3rd Q.	4th Q.	TOTAL	LENGTH GROUP
16				2.2			1.4	1.1	16
18			0.7	4.3			3.1	2.5	18
20			1.1	7.5			5.3	4.2	20
22	0.9		0.4	14.7	0.9		9.8	7.9	22
24	2.3		1.2	14.8	2.3		10.1	8.3	24
26	7.3	1.6	6.4	12.9	7.3	1.6	10.6	9.4	26
28	26.7	10.8	18.8	31.2	26.7	10.8	26.9	25.2	28
30	48.2	54.4	49.5	63.3	48.2	54.4	58.5	57.1	30
32	71.3	128.9	71.5	86.0	71.3	128.9	81.0	85.1	32
34	94.6	127.8	88.0	106.9	94.6	127.8	100.4	102.7	34
36	137.2	172.3	138.4	137.0	137.2	172.3	137.5	141.1	36
38	103.7	118.7	160.1	119.8	103.7	118.7	133.6	129.2	38
40	149.4	129.7	169.4	133.3	149.4	129.7	145.7	144.4	40
42	100.6	102.5	98.7	103.9	100.6	102.5	102.1	102.0	42
44	71.8	100.7	49.9	59.9	71.8	100.7	56.5	62.6	44
46	75.4	30.1	31.7	27.6	75.4	30.1	29.0	33.6	46
48	41.7	13.1	46.4	19.3	41.7	13.1	28.6	28.2	48
50	30.9	9.5	32.8	12.9	30.9	9.5	19.7	19.7	50
52	24.7		13.2	10.9	24.7		11.7	11.7	52
54	7.3		8.4	6.9	7.3		7.4	6.6	54
56	5.8		6.0	6.5	5.8		6.3	5.6	56
58			1.6	3.1			2.6	2.1	58
60			1.9	3.7			3.1	2.5	60
62			3.8	3.4			3.5	2.8	62
64				7.9			5.2	4.1	64
66				0.2			0.1	0.1	66
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	6	2	7	7	6	2	14	22	
SAMPLING WEIGHT(kg)	765	250	913	947	765	250	1860	2875	
No. F.MEASURED	1230	459	1415	1544	1230	459	2959	4648	
MEAN LENGTH(cm)	40.2	38.6	40.0	38.5	40.2	38.6	39.0	39.1	
MEAN WEIGHT (g)	675	580	663	615	675	580	631	630	
DEPTH RANGE (m)	282/541	310/460	68/494	69/435	282/541	310/460	68/494	68/541	

TABLE XXI: YELLOWTAIL FLOUNDER, DIV.3N, 2000: length composition of the trawl catches.

LENGTH GROUP	APR	JUL	AUG	OCT	NOV	2nd Q.	3rd Q.	4th Q.	TOTAL	LENGTH GROUP
10	1.1		1.7			1.1	1.6		0.9	10
12	7.5		4.8			7.5	4.4		3.4	12
14	9.7		14.1		0.1	9.7	12.7	0.1	7.4	14
16	4.3	7.4	15.1	0.9	0.3	4.3	14.4	0.4	7.1	16
18	9.7		15.1	16.4	6.2	9.7	13.7	8.1	10.8	18
20	21.0	14.7	22.8	13.8	14.2	21.0	22.0	14.2	18.9	20
22	28.3	22.1	39.1	29.3	19.0	28.3	37.5	20.9	29.4	22
24	58.7	44.1	70.8	48.2	28.1	58.7	68.3	32.0	52.8	24
26	61.7	73.5	81.9	65.9	50.3	61.7	81.1	53.3	66.8	26
28	80.8	147.1	158.5	146.2	100.3	80.8	157.4	109.2	123.6	28
30	147.8	132.4	159.8	161.2	119.6	147.8	157.3	127.6	144.3	30
32	139.3	205.9	159.8	164.2	125.0	139.3	164.1	132.5	147.2	32
34	72.7	154.4	119.0	134.7	151.9	72.7	122.4	148.6	121.7	34
36	69.3	117.6	79.3	82.0	120.3	69.3	82.9	112.9	91.2	36
38	62.8	44.1	20.6	49.0	70.1	62.8	22.8	66.0	47.1	38
40	91.0	29.4	22.7	38.0	77.0	91.0	23.3	69.4	54.5	40
42	53.3		7.3	23.4	63.0	53.3	6.6	55.3	34.4	42
44	33.1	7.4	3.2	16.5	27.3	33.1	3.6	25.2	17.8	44
46	18.4		4.4	7.7	15.5	18.4	4.0	14.0	10.7	46
48	13.7			2.0	7.1	13.7		6.1	5.1	48
50	7.1			0.3	4.9	7.1		4.0	3.0	50
52	6.5			0.3		6.5		0.1	1.4	52
54	2.2					2.2			0.4	54
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	2	1	3	6	8	2	4	14	20	
SAMPLING WEIGHT(kg)	391	44	207	258	647	391	251	906	1548	
No. F.MEASURED	976	136	657	737	1548	976	793	2285	4054	
MEAN LENGTH(cm)	33.7	32.2	30.5	32.4	34.6	33.7	30.7	34.2	32.6	
MEAN WEIGHT (g)	807	620	542	654	822	807	549	790	692	
DEPTH RANGE (m)	54/61	60/61	57/120	39/583	57/530	54/61	57/120	39/583	39/583	

TABLE XXII: YELLOWTAIL FLOUNDER, DIV.3O, 2000: length composition of the trawl catches.

LENGTH GROUP	OCT	NOV	4th Q. =YEAR 2000	LENGTH GROUP
16	13.3		11.2	16
18	23.3		19.7	18
20	23.3	7.7	20.9	20
22	39.9	4.8	34.5	22
24	43.2	22.0	39.9	24
26	93.0	35.9	84.2	26
28	93.0	70.6	89.6	28
30	192.7	77.3	174.9	30
32	159.5	86.8	148.3	32
34	103.0	96.1	101.9	34
36	36.5	151.6	54.3	36
38	43.2	112.3	53.8	38
40	103.0	106.5	103.5	40
42	13.3	106.4	27.6	42
44	3.3	58.6	11.8	44
46	6.6	43.4	12.3	46
48	6.6	20.1	8.7	48
50	3.3		2.8	50
TOTAL	1000	1000	1000	
No. SAMPLES	1	2	3	
SAMPLING WEIGHT(kg)	96	209	305	
No. F.MEASURED	301	414	715	
MEAN LENGTH(cm)	32.0	37.1	32.8	
MEAN WEIGHT (g)	647	1028	706	
DEPTH RANGE (m)	204/206	69/262	69/262	

TABLE XXIII: GREENLAND HALIBUT, DIV. 3L, 2000: length composition of the trawl catches.

LENGTH GROUP	FEB	MAR	APR	JUN	JUL	AUG	SEP	OCT	1st Q.	2nd Q.	3rd Q.	4th Q.	TOTAL	LENGTH GROUP
22		0.2							0.1				0.1	22
24														24
26														26
28		0.3	0.4		0.2				0.3	0.2	0.2		0.3	28
30	0.6	3.0	3.0	1.3	1.8	3.1	3.5	5.1	2.6	2.5	1.9	5.1	2.5	30
32	6.8	7.5	6.9	5.1	6.8	16.0	13.8	10.7	7.4	6.3	7.8	10.7	7.1	32
34	14.6	27.8	22.2	18.2	21.9	49.0	27.7	31.7	25.7	20.9	24.8	31.7	23.9	34
36	48.3	94.1	73.3	64.0	51.9	105.3	58.8	67.6	86.7	70.1	57.6	67.6	76.2	36
38	116.7	172.8	170.2	98.6	93.8	138.8	121.1	130.4	163.7	145.8	98.9	130.4	147.0	38
40	221.1	228.9	227.6	162.6	164.3	186.0	173.0	205.2	227.6	205.5	166.7	205.2	210.1	40
42	280.6	219.9	213.6	161.3	166.8	158.6	166.1	175.5	229.7	195.8	165.9	175.5	207.5	42
44	131.7	116.9	133.5	153.6	152.3	102.3	141.9	124.5	119.3	140.3	146.9	124.5	131.0	44
46	73.9	65.6	77.4	115.1	113.3	81.5	114.2	78.2	67.0	90.2	110.0	78.2	81.9	46
48	27.8	24.4	34.8	53.8	61.7	34.5	34.6	43.1	25.0	41.3	58.5	43.1	36.1	48
50	19.9	14.4	9.6	44.1	34.6	24.7	31.1	35.4	15.2	21.3	33.5	35.4	20.4	50
52	12.6	7.5	9.0	28.5	28.8	25.1	27.7	17.9	8.3	15.6	28.4	17.9	14.1	52
54	10.4	4.0	3.1	20.4	27.1	20.7	6.9	25.3	5.0	9.0	26.1	25.3	9.9	54
56	6.4	3.8	2.6	21.0	18.0	7.3	6.9	17.3	4.2	8.8	16.7	17.3	7.9	56
58	9.1	3.4	3.5	11.1	14.8	5.6	17.3	14.0	4.3	6.1	13.9	14.0	6.5	58
60	4.2	1.6	1.8	9.8	13.3	9.8	20.8	6.8	2.0	4.5	13.0	6.8	4.6	60
62	7.4	1.5	2.0	7.2	8.3	12.6	3.5	1.6	2.5	3.8	8.7	1.6	3.9	62
64	1.4	0.9	1.3	5.2	5.0	4.0	6.9	2.2	1.0	2.6	4.9	2.2	2.2	64
66	0.8	0.1	0.7	5.2	5.5	3.9		2.2	0.2	2.3	5.3	2.2	1.7	66
68	0.7	0.5	0.3	3.6	2.5	2.4	10.4	2.2	0.5	1.4	2.6	2.2	1.2	68
70	1.2	0.2	0.6	1.8	1.2	1.9		0.8	0.4	1.0	1.3	0.8	0.7	70
72	0.4	0.1	0.4	2.3	1.3	2.3	3.5		0.1	1.1	1.4		0.7	72
74	1.0	0.1	0.8	2.4	1.5	1.6	3.5	0.8	0.3	1.3	1.5	0.8	0.8	74
76	0.9	0.1	0.2	0.6	0.6	1.6			0.2	0.3	0.7		0.3	76
78			0.3	1.1	1.0	0.4	3.5	0.8		0.6	0.9	0.8	0.4	78
80		0.2	0.4	0.5	0.6			0.8	0.2	0.5	0.5	0.8	0.3	80
82	0.4	0.1	0.2	0.3	0.4	0.4	3.5		0.2	0.2	0.4		0.2	82
84	0.4			0.6	0.3				0.1	0.2	0.3		0.1	84
86	0.8				0.2				0.1		0.2		0.1	86
88			0.3	0.3	0.2					0.3	0.2		0.1	88
90						0.4					0.0		0.0	90
92		0.1		0.2	0.1				0.1	0.1	0.1		0.1	92
94				0.2						0.1			0.03	94
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	10	31	19	14	22	3	1	4	41	33	26	4	104	
SAMPLING WEIGHT(kg)	1686	5925	4055	3539	5383	724	262	829	7611	7594	6369	829	22403	
No. F.MEASURED	2092	8947	5913	3805	6032	813	289	1010	11039	9718	7134	1010	28901	
MEAN LENGTH(cm)	43.4	42.1	42.5	45.1	45.2	43.4	44.7	43.7	42.3	43.4	45.0	43.7	43.1	
MEAN WEIGHT (g)	704	617	642	827	826	732	816	728	631	705	816	728	687	
DEPTH RANGE (m)	811/1125	753/1120	786/1196	821/1180	820/1188	853/924	986/1150	985/1220	753/1125	786/1196	820/1188	985/1220	753/1220	

TABLE XXIV: GREENLAND HALIBUT, DIV.3M, 2000: length composition of the trawl catches.

LENGTH GROUP	FEB	MAR	APR	JUN	JUL	1st Q.	2nd Q.	3rd Q.	TOTAL	LENGTH GROUP
28	1.2					0.4			0.1	28
30			0.7		1.7		0.3	1.7	0.6	30
32	3.4	3.9	12.1	4.0	7.1	3.7	7.8	7.1	6.4	32
34	9.4	11.5	27.6	21.0	20.9	10.8	24.1	20.9	19.3	34
36	32.6	49.6	98.9	53.8	62.5	43.4	75.2	62.5	62.4	36
38	111.6	173.2	199.5	104.8	109.4	150.9	149.7	109.4	139.9	38
40	188.8	240.7	225.7	167.4	163.0	221.9	195.0	163.0	195.0	40
42	269.2	246.1	195.2	190.4	179.1	254.5	192.6	179.1	207.8	42
44	163.8	144.2	115.7	153.3	135.9	151.3	135.5	135.9	140.3	44
46	103.9	79.1	67.6	101.6	94.0	88.1	85.5	94.0	88.4	46
48	36.9	28.9	28.1	52.9	51.6	31.8	41.2	51.6	41.0	48
50	10.8	10.1	10.2	29.6	37.9	10.4	20.4	37.9	21.8	50
52	22.4	8.7	5.6	27.5	22.3	13.7	17.1	22.3	17.4	52
54	16.6	1.2	3.6	17.0	20.6	6.8	10.6	20.6	12.0	54
56	7.2	2.6	2.0	13.0	17.4	4.3	7.8	17.4	9.2	56
58	8.2		2.1	11.8	19.3	3.0	7.2	19.3	9.0	58
60		0.3	2.2	10.9	14.4	0.2	6.8	14.4	6.7	60
62	1.2		1.6	6.6	11.3	0.4	4.3	11.3	4.9	62
64	1.2		0.7	8.3	3.9	0.4	4.7	3.9	3.2	64
66	2.5		0.4	4.9	10.3	0.9	2.8	10.3	4.1	66
68	1.2			4.1	3.4	0.4	2.1	3.4	1.9	68
70			0.6	2.2	2.8		1.4	2.8	1.4	70
72	5.1			1.0	2.1	1.9	0.5	2.1	1.3	72
74				1.2	4.0		0.7	4.0	1.3	74
76	1.2			2.6	1.4	0.4	1.4	1.4	1.1	76
78				1.8	1.0		0.9	1.0	0.7	78
80				2.7	0.9		1.4	0.9	0.8	80
82				1.9	0.4		1.0	0.4	0.6	82
84	1.2			0.2	0.2	0.4	0.1	0.2	0.2	84
86				0.9	0.1		0.4	0.1	0.2	86
88				0.8			0.4		0.2	88
90				2.0	0.4		1.0	0.4	0.6	90
92					0.4			0.4	0.1	92
94										94
96					0.2			0.2	0.04	96
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	4	7	6	7	12	11	13	12	36	
SAMPLING WEIGHT(kg)	427	1153	1202	1870	2803	1580	3072	2803	7455	
No. F.MEASURED	544	1761	1937	1799	2954	2305	3736	2954	8995	
MEAN LENGTH(cm)	44.0	42.4	41.8	45.2	45.3	43.0	43.6	45.3	43.8	
MEAN WEIGHT (g)	730	623	604	852	850	661	734	850	742	
DEPTH RANGE (m)	861/1105	866/1219	800/1120	720/1201	314/1065	861/1219	720/1201	314/1065	314/1219	

TABLE XXV: GREENLAND HALIBUT, DIV.3N, 2000: length composition of the trawl catches.

LENGTH GROUP	APR	JUN	JUL	AUG	SEP	OCT	NOV	2nd Q.	3rd Q.	4th Q.	TOTAL	LENGTH GROUP
28						0.9				0.7	0.3	28
30	2.6		1.0	7.5		3.7		2.0	2.8	3.2	2.8	30
32	12.1	7.3	5.3	23.9	0.6	5.8	3.8	10.9	9.8	5.5	8.4	32
34	29.0	11.0	15.8	41.7	16.8	22.8	30.2	24.5	25.0	23.9	24.5	34
36	75.4	58.6	53.4	76.6	66.3	46.1	52.1	71.2	66.5	47.0	60.1	36
38	155.7	216.1	79.4	92.3	100.1	73.4	117.1	170.9	92.0	79.9	105.4	38
40	207.2	234.4	159.2	170.3	182.1	170.8	178.1	214.0	172.1	171.9	181.6	40
42	232.8	183.2	149.2	225.0	174.1	195.0	205.5	220.3	185.0	196.6	197.5	42
44	127.5	98.9	146.6	119.2	140.5	155.9	166.8	120.3	134.8	157.5	140.2	44
46	74.2	73.3	93.4	86.9	107.5	116.4	96.8	73.9	96.8	113.5	98.0	46
48	32.7	25.6	62.5	26.7	64.8	56.3	54.4	30.9	51.2	56.0	48.4	48
50	11.6	29.3	63.7	35.7	47.7	41.3	38.0	16.1	47.8	40.8	37.8	50
52	15.3	22.0	31.5	21.3	21.2	29.9	18.4	17.0	23.9	28.2	24.0	52
54	7.4	7.3	32.2	23.3	19.0	15.4	15.4	7.4	23.9	15.4	16.9	54
56	1.6	14.7	32.7	5.5	9.2	18.3	11.5	4.9	14.1	17.3	13.2	56
58	5.8	7.3	14.3	8.2	18.4	21.6	8.2	6.2	13.9	19.6	14.3	58
60	2.6		12.2	9.6	1.1	8.4	2.4	2.0	6.9	7.5	6.0	60
62	2.1	3.7	9.6	1.4	5.2	4.9	1.2	2.5	5.0	4.3	4.2	62
64			15.4	5.5	5.2	4.0			8.0	3.4	4.4	64
66	1.1	7.3	7.5	6.9	2.9	3.8		2.6	5.4	3.2	3.9	66
68			3.7	2.7	2.3	0.8			2.8	0.7	1.4	68
70	1.1		4.8	5.5	0.6	2.8		0.8	3.4	2.4	2.4	70
72			1.0	1.4	7.5	0.9			3.7	0.7	1.7	72
74	1.1		4.3		2.3			0.8	2.0		1.0	74
76												76
78				1.4	2.3	0.3			1.4	0.2	0.6	78
80			0.5						0.1		0.1	80
82			0.5	1.4	2.3				1.5		0.6	82
84						0.3				0.2	0.1	84
86						0.3				0.2	0.1	86
88	1.1							0.8			0.2	88
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	3	1	3	2	3	12	3	4	8	15	27	
SAMPLING WEIGHT(kg)	605	195	705	478	578	2382	529	799	1762	2911	5472	
No. F.MEASURED	871	273	697	569	700	2839	716	1144	1966	3555	6665	
MEAN LENGTH(cm)	42.5	42.9	46.2	43.8	44.9	44.9	43.7	42.6	44.8	44.7	44.3	
MEAN WEIGHT (g)	650	671	896	746	811	795	702	655	811	781	764	
DEPTH RANGE (m)	860/1217	1038/1071	642/1091	794/1014	796/1150	98/1344	57/92	860/1217	642/1150	57/1344	57/1344	

TABLE XXVI: ROUGHHEAD GRENADIER, DIV.3L, 2000: length composition of the trawl catches.

LENGTH GROUP	FEB	MAR	APR	JUN	JUL	AUG	SEP	OCT	1st Q.	2nd Q.	3rd Q.	4th Q.	TOTAL	LENGTH GROUP
6			0.5		0.2	1.4				0.2	0.3		0.2	6
7		3.3	2.0	3.9	2.7	1.4	6.1	3.6	2.2	3.1	2.6	3.6	2.9	7
8	20.5	31.2	20.8	19.5	28.6	27.0	30.5	40.3	27.7	20.0	28.4	40.3	27.0	8
9	80.4	101.4	86.6	98.5	87.5	68.7	73.2	78.9	94.5	93.6	85.3	78.9	89.5	9
10	148.5	137.7	150.6	174.8	182.1	207.1	195.1	178.1	141.2	164.8	185.0	178.1	166.4	10
11	170.6	164.1	160.7	161.4	172.9	164.9	195.1	170.0	166.3	161.1	172.3	170.0	166.5	11
12	292.2	213.3	225.5	177.5	196.6	168.1	292.7	244.4	239.2	197.5	194.9	244.4	213.7	12
13	152.5	168.7	143.3	147.0	143.2	150.4	158.5	172.9	163.4	145.4	144.2	172.9	153.5	13
14	65.8	95.4	100.5	93.0	78.3	77.8	36.6	59.7	85.7	96.1	77.6	59.7	83.5	14
15	26.5	34.8	30.8	46.0	41.0	44.2	12.2	36.2	32.1	39.7	41.0	36.2	37.7	15
16	16.4	8.1	16.1	17.8	14.4	21.4		9.8	10.8	17.1	14.9	9.8	14.0	16
17	4.5	3.9	15.7	15.8	11.3	13.4		5.1	4.1	15.8	11.3	5.1	10.3	17
18	7.9	9.6	10.5	13.1	9.3			0.5	9.0	12.0	8.1	0.5	8.6	18
19	2.9	3.5	8.0	7.7	4.7	1.4		0.5	3.3	7.8	4.3	0.5	4.8	19
20	1.7	1.6	5.8	5.6	2.7	11.6			1.6	5.7	3.6		3.4	20
21		5.1	4.4	7.0	3.9	11.0			3.5	5.9	4.6		4.1	21
22		3.3	3.2	4.2	2.6	10.2			2.2	3.8	3.4		2.7	22
23	2.4	5.1	4.6	3.8	2.6	6.5			4.3	4.1	3.0		3.3	23
24	1.2	1.6	2.9	2.7	4.1	5.1			1.5	2.8	4.1		2.4	24
25	2.4	3.3	1.5	0.3	2.2	1.9			3.0	0.8	2.2		1.5	25
26	1.2	1.6	2.2	0.2	1.5	1.4			1.5	1.0	1.5		1.1	26
27			1.4		1.3					0.6	1.1		0.5	27
28			0.3	0.2	0.6	4.1				0.2	0.9		0.3	28
29	1.2	0.4	0.5		2.5				0.7	0.2	2.2		0.8	29
30		1.2	0.6		1.1	1.4			0.8	0.3	1.1		0.6	30
31	1.2	1.6	0.5		0.9				1.5	0.2	0.8		0.6	31
32			0.3		0.7					0.1	0.6		0.2	32
33			0.3		0.5					0.1	0.4		0.1	33
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	4	6	13	13	21	3	1	3	10	26	25	3	64	
SAMPLING WEIGHT(kg)	270	482	1237	1103	1746	206	47	226	752	2340	1998	226	5317	
No. F.MEASURED	701	1124	2765	2636	4156	437	164	726	1825	5401	4757	726	12709	
MEAN LENGTH(cm)	12.4	12.5	12.7	12.6	12.5	12.8	11.8	12.0	12.5	12.6	12.6	12.0	12.5	
MEAN WEIGHT (g)	209	224	235	224	231	244	173	185	219	228	231	185	220	
DEPTH RANGE (m)	884/1125	753/1120	930/1215	821/1180	800/1188	853/924	986/1150	985/1217	753/1125	821/1215	800/1188	985/1217	753/1217	

TABLE XXVII: ROUGHHEAD GRENADIER, DIV.3M, 2000: length composition of the trawl catches.

LENGTH GROUP	FEB	MAR	JUN	JUL	1st Q.	2nd Q.	3rd Q.	TOTAL	LENGTH GROUP
6				0.3			0.3	0.1	6
7	6.9		4.9	4.4	2.3	4.9	4.4	4.3	7
8	34.5	21.5	20.1	22.4	25.8	20.1	22.4	21.8	8
9	48.3	99.0	82.8	88.9	82.1	82.8	88.9	85.1	9
10	124.1	193.2	167.5	181.9	170.2	167.5	181.9	173.5	10
11	179.3	141.5	162.7	186.3	154.1	162.7	186.3	170.6	11
12	206.9	161.0	178.6	177.0	176.3	178.6	177.0	177.6	12
13	117.2	152.0	144.0	130.3	140.4	144.0	130.3	138.1	13
14	69.0	110.7	90.7	78.1	96.8	90.7	78.1	86.7	14
15	82.8	32.5	33.2	42.0	49.2	33.2	42.0	39.0	15
16	27.6	17.2	21.3	24.2	20.7	21.3	24.2	22.3	16
17	13.8	7.5	18.5	17.4	9.6	18.5	17.4	16.7	17
18	13.8	20.7	14.2	9.9	18.4	14.2	9.9	13.2	18
19	6.9	9.5	3.9	8.7	8.6	3.9	8.7	6.5	19
20	20.7	3.7	14.3	5.6	9.4	14.3	5.6	10.2	20
21	13.8	11.2	9.7	8.6	12.1	9.7	8.6	9.7	21
22	6.9	3.7	5.6	2.6	4.8	5.6	2.6	4.3	22
23			12.0	2.7		12.0	2.7	6.6	23
24	6.9	11.2	1.8	2.2	9.8	1.8	2.2	3.2	24
25		3.7	1.2	3.0	2.5	1.2	3.0	2.1	25
26			0.4	0.8		0.4	0.8	0.5	26
27	6.9		2.5	1.2	2.3	2.5	1.2	2.0	27
28			2.5	0.7		2.5	0.7	1.4	28
29	6.9		2.5		2.3	2.5		1.5	29
30	6.9		1.0		2.3	1.0		0.8	30
31			1.2	0.4		1.2	0.4	0.7	31
32			2.1			2.1		1.0	32
33			0.8	0.4		0.8	0.4	0.5	33
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	1	2	7	10	3	7	10	20	
SAMPLING WEIGHT(kg)	71	144	642	816	215	642	816	1673	
No. F.MEASURED	145	361	1296	2024	506	1296	2024	3826	
MEAN LENGTH(cm)	13.4	12.7	13.0	12.6	12.9	13.0	12.6	12.8	
MEAN WEIGHT (g)	291	236	268	229	254	268	229	251	
DEPTH RANGE (m)	1067/1105	982/1219	720/1174	690/1065	982/1219	720/1174	690/1065	690/1219	

TABLE XXVIII: ROUGHHEAD GRENADIER, DIV.3N, 2000: length composition of the trawl catches.

LENGTH GROUP	APR	JUN	JUL	AUG	SEP	OCT	2nd Q.	3rd Q.	4th Q.	TOTAL	LENGTH GROUP
6			2.0	2.6				1.0		0.4	6
7	5.2		2.0	25.9		4.8	3.2	5.6	4.8	5.0	7
8	20.8	16.5	24.4	37.9	18.9	31.4	19.2	24.0	31.4	27.5	8
9	72.9	98.8	101.8	83.0	91.4	101.2	82.9	92.4	101.2	96.3	9
10	161.5	193.4	197.5	156.0	179.7	193.4	173.8	179.6	193.4	186.4	10
11	114.6	135.8	165.2	116.2	168.8	172.9	122.7	157.6	172.9	162.8	11
12	187.5	234.6	173.8	207.8	177.1	190.3	205.6	182.2	190.3	188.5	12
13	125.0	193.4	143.4	131.5	126.0	139.2	151.3	131.5	139.2	137.2	13
14	83.3	78.2	79.7	78.3	76.6	71.0	81.4	77.7	71.0	74.5	14
15	46.9	37.0	42.6	30.5	32.1	35.9	43.1	34.5	35.9	35.9	15
16	31.3	4.1	10.0	23.9	17.1	14.9	20.8	16.6	14.9	16.1	16
17	31.3		21.1	29.8	15.9	16.1	19.2	19.9	16.1	17.8	17
18	20.8	8.2	9.8	9.9	19.8	5.9	16.0	15.3	5.9	10.4	18
19	15.6		5.8	6.0	17.8	4.3	9.6	12.4	4.3	7.9	19
20	20.8		5.5	7.9	7.5	4.4	12.8	7.1	4.4	6.2	20
21	26.0		5.8	8.0	15.1	6.6	16.0	11.3	6.6	9.2	21
22	5.2		4.0	7.3	10.9	1.4	3.2	8.4	1.4	4.3	22
23	20.8		2.0	4.6	5.6	3.2	12.8	4.5	3.2	4.5	23
24	5.2		1.8	4.6	12.3	0.2	3.2	8.1	0.2	3.5	24
25				2.0	1.4	1.3		1.2	1.3	1.1	25
26				5.3		0.5		1.0	0.5	0.7	26
27			1.8	2.6				1.0		0.4	27
28				2.0	4.8	0.9		3.0	0.9	1.7	28
29				2.6				0.5		0.2	29
30				2.0	1.4			1.2		0.4	30
31	5.2			8.7			3.2	1.7		0.9	31
32											32
33				2.6				0.5		0.2	33
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	1	1	3	2	3	10	2	8	10	20	
SAMPLING WEIGHT(kg)	100	97	207	220	226	832	197	654	832	1683	
No. F.MEASURED	192	243	517	429	481	2142	435	1427	2142	4004	
MEAN LENGTH(cm)	13.5	12.1	12.4	13.0	13.0	12.3	13.0	12.9	12.3	12.6	
MEAN WEIGHT (g)	298	190	215	286	265	207	256	256	207	230	
DEPTH RANGE (m)	912/1217	1038/1071	642/1084	794/1014	1000/1150	156/1344	912/1217	642/1150	156/1344	156/1344	

TABLE XXIX: WITCH FLOUNDER, DIV.3L, 2000: length composition of the trawl catches.

LENGTH GROUP	FEB	MAR	APR	JUL	1st Q.	2nd Q.	3rd Q.	TOTAL	LENGTH GROUP
26		3.9	0.5		2.8	0.5		1.6	26
28	3.6	0.8	4.9	12.8	1.6	4.9	12.8	3.6	28
30	42.0	48.5	26.0	76.9	46.7	26.0	76.9	38.1	30
32	102.9	85.9	67.1	115.4	90.8	67.1	115.4	80.6	32
34	135.3	176.7	113.9	230.8	164.8	113.9	230.8	143.3	34
36	188.9	218.7	208.9	205.1	210.1	208.9	205.1	209.4	36
38	186.5	164.9	168.0	166.7	171.1	168.0	166.7	169.5	38
40	129.4	90.8	152.9	89.7	101.9	152.9	89.7	125.3	40
42	110.2	88.6	96.7	25.6	94.8	96.7	25.6	93.2	42
44	35.6	32.9	40.5	25.6	33.7	40.5	25.6	36.6	44
46	20.4	27.4	38.7	25.6	25.4	38.7	25.6	31.6	46
48	16.8	21.8	26.4	12.8	20.4	26.4	12.8	22.9	48
50	14.8	10.8	26.1	12.8	11.9	26.1	12.8	18.6	50
52	8.7	22.3	18.9		18.4	18.9		18.0	52
54	3.0	5.9	1.4		5.0	1.4		3.1	54
56	1.8		9.3		0.5	9.3		4.6	56
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	4	5	8	1	9	8	1	18	
SAMPLING WEIGHT(kg)	270	267	613	25	538	613	25	1176	
No. F.MEASURED	614	612	1365	78	1226	1365	78	2669	
MEAN LENGTH(cm)	38.7	38.6	39.7	37.2	38.6	39.7	37.2	39.1	
MEAN WEIGHT (g)	412	412	456	355	412	456	355	431	
DEPTH RANGE (m)	883/1091	831/1120	786/1186	1103/1188	831/1120	786/1186	1103/1188	786/1188	

TABLE XXX: WITCH FLOUNDER, DIV.3M, 2000: length composition of the trawl catches.

LENGTH GROUP	FEB = 1st Q.	APR = 2nd Q.	TOTAL	LENGTH GROUP
28		5.0	3.2	28
30	24.2	14.9	18.1	30
32	48.4	29.7	36.1	32
34	88.7	89.1	89.0	34
36	201.6	148.5	166.8	36
38	177.4	227.7	210.4	38
40	129.0	153.5	145.0	40
42	137.1	123.8	128.4	42
44	80.6	123.8	108.9	44
46	40.3	24.8	30.1	46
48	40.3	29.7	33.4	48
50	8.1	9.9	9.3	50
52	16.1	9.9	12.0	52
54	8.1	9.9	9.3	54
TOTAL	1000	1000	1000	
No. SAMPLES	1	1	2	
SAMPLING WEIGHT(kg)	56	97	153	
No. F.MEASURED	124	202	326	
MEAN LENGTH(cm)	40.2	40.5	40.4	
MEAN WEIGHT (g)	470	476	474	
DEPTH RANGE (m)	1067/1105	1043/1048	1043/1105	

TABLE XXXI: WITCH FLOUNDER, DIV.3N, 2000: length composition of the trawl catches.

LENGTH GROUP	JUL	AUG	SEP	OCT	NOV	3rd Q.	4th Q.	TOTAL	LENGTH GROUP
22					2.5		1.8	1.1	22
24				2.7	12.4		9.6	5.8	24
26				10.9	17.4		15.5	9.3	26
28	11.4	31.9		8.2	14.9	14.4	12.9	13.5	28
30	68.2	63.8	20.8	16.3	22.9	58.4	20.9	35.8	30
32	119.3	53.2	45.1	35.3	95.9	89.0	77.9	82.3	32
34	210.2	74.5	50.1	97.1	79.9	146.6	85.0	109.5	34
36	164.8	223.4	127.5	164.5	124.8	172.7	136.6	150.9	36
38	170.5	234.0	124.6	93.1	162.3	178.0	141.8	156.2	38
40	119.3	106.4	110.3	127.0	120.7	114.4	122.6	119.3	40
42	51.1	95.7	131.1	121.5	115.1	77.1	117.0	101.1	42
44	34.1	85.1	101.7	79.5	56.7	59.4	63.5	61.8	44
46	17.0	10.6	62.3	52.6	45.1	23.8	47.3	38.0	46
48	17.0	10.6	53.7	68.7	41.9	22.2	49.9	38.9	48
50	11.4	10.6	62.3	41.8	28.3	20.5	32.3	27.6	50
52	5.7		74.5	29.6	30.8	16.9	30.5	25.1	52
54			17.9	26.9	12.9	3.3	17.1	11.6	54
56			17.9	24.2	8.0	3.3	12.8	9.0	56
58									58
60					7.5		5.2	3.2	60
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	1	1	2	2	3	4	5	9	
SAMPLING WEIGHT(kg)	63	38	108	84	183	208	266	475	
No. F.MEASURED	176	94	180	178	397	450	575	1025	
MEAN LENGTH(cm)	37.6	38.5	42.9	41.8	40.2	38.8	40.7	39.9	
MEAN WEIGHT (g)	373	402	606	560	495	423	514	478	
DEPTH RANGE (m)	642/800	794/836	796/1150	871/1118	81/530	642/1150	81/1118	81/1150	

TABLE XXXII: WITCH FLOUNDER, DIV.3O, 2000: length composition of the trawl catches.

LENGTH GROUP	APR	OCT	NOV	2nd Q.	4th Q.	TOTAL	LENGTH GROUP
22			6.9		6.6	5.6	22
24	2.2		26.5	2.2	25.5	21.9	24
26	4.9		65.5	4.9	63.0	53.9	26
28	1.0		57.2	1.0	55.1	46.6	28
30	38.8	33.7	50.4	38.8	49.8	48.1	30
32	59.8	68.6	111.1	59.8	109.5	101.8	32
34	103.3	143.0	108.2	103.3	109.5	108.5	34
36	184.9	210.3	127.7	184.9	130.8	139.3	36
38	179.1	139.1	108.6	179.1	109.8	120.6	38
40	154.6	155.3	86.0	154.6	88.6	99.0	40
42	105.8	109.4	79.0	105.8	80.2	84.2	42
44	74.7	45.3	64.9	74.7	64.1	65.8	44
46	38.6	31.1	69.6	38.6	68.2	63.6	46
48	18.9	21.4	10.3	18.9	10.7	12.0	48
50	17.9	21.4	9.9	17.9	10.3	11.5	50
52	8.0	7.1	12.6	8.0	12.4	11.7	52
54	3.2	7.1	3.9	3.2	4.0	3.9	54
56	4.4	7.1	1.6	4.4	1.9	2.2	56
TOTAL	1000	1000	1000	1000	1000	1000	
No. SAMPLES	5	2	6	5	8	13	
SAMPLING WEIGHT(kg)	323	78	503	323	580	903	
No. F.MEASURED	742	192	1132	742	1324	2066	
MEAN LENGTH(cm)	39.6	39.4	37.3	39.6	37.4	37.7	
MEAN WEIGHT (g)	447	441	388	447	390	399	
DEPTH RANGE (m)	269/541	98/459	69/474	269/541	69/474	69/541	

Fig. 1A - Breakdown of the 2000 Portuguese trawl directed effort by species.

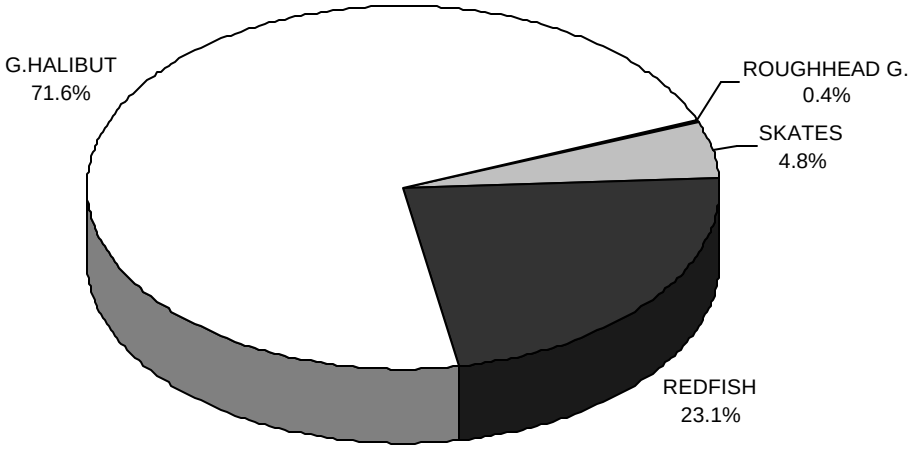
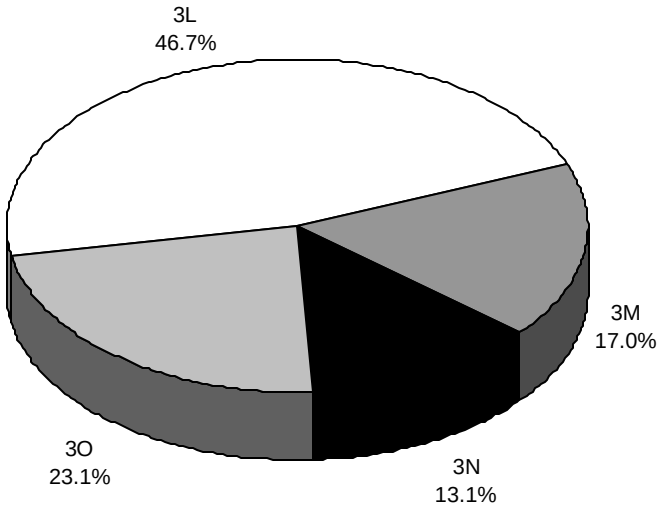
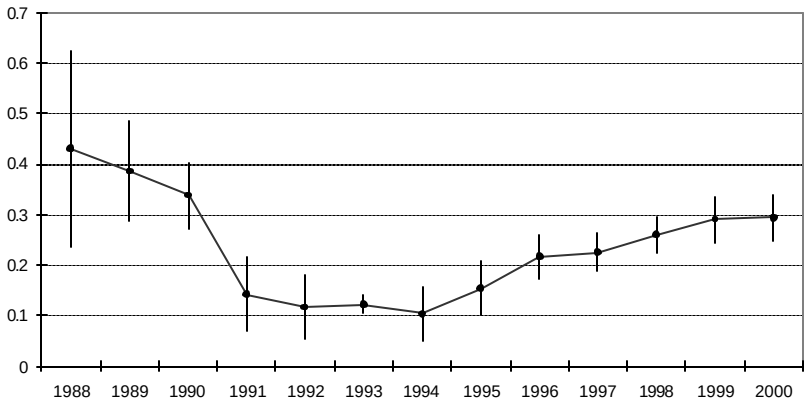
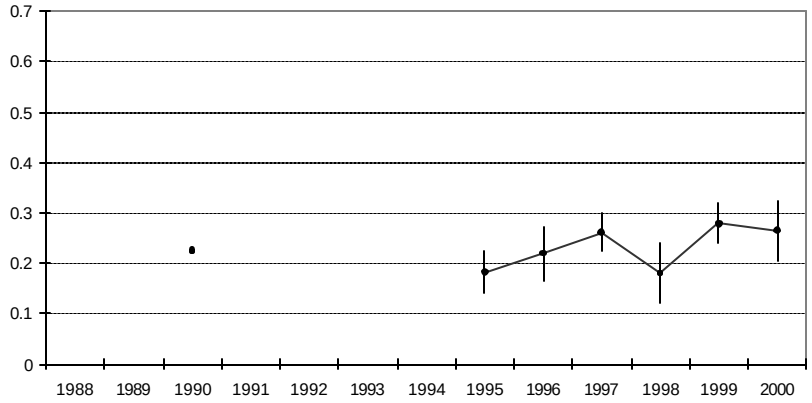


Fig. 1B - Breakdown of the 2000 Portuguese trawl directed effort by divisions.

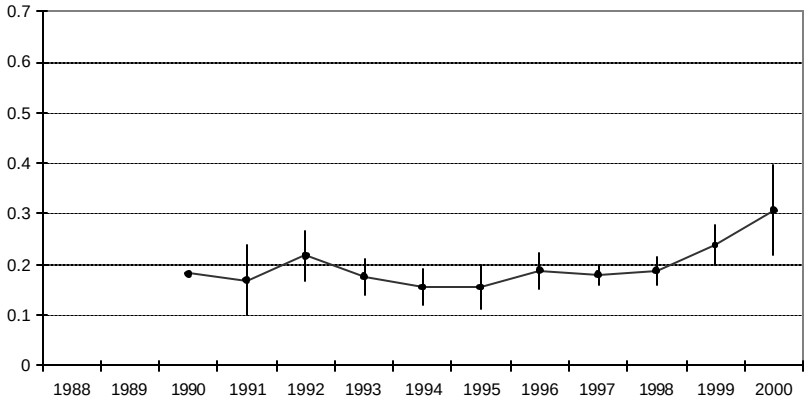




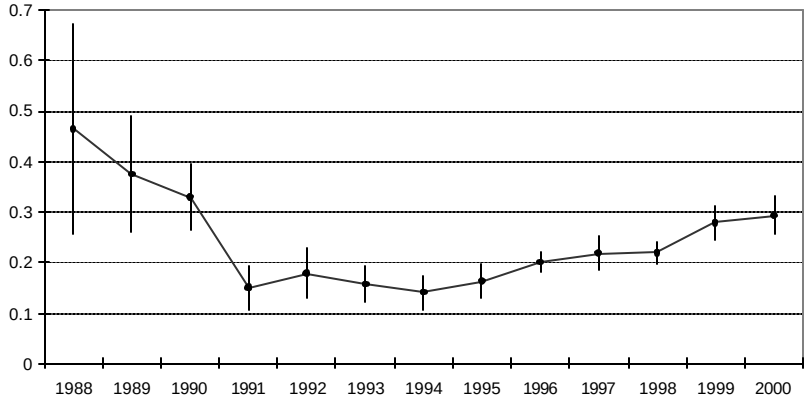
Div.3L



Div.3M



Div.3N



Div.3LMN

Fig. 2 : Greenland halibut trawl catch rates by division, 1988 - 2000.

Fig. 3 - Annual length composition of Cod on Division 3L trawl fishery in 2000.

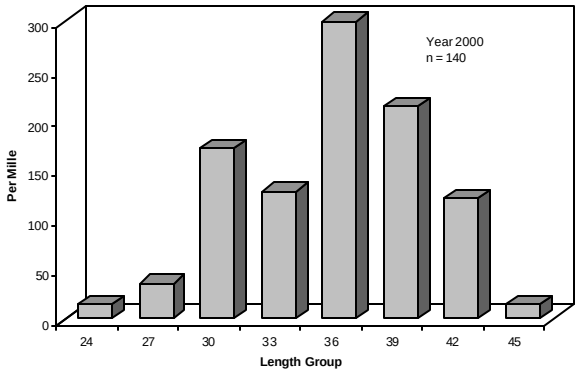


Fig. 4A - Annual length composition of Cod on Division 3M trawl fishery in 2000.

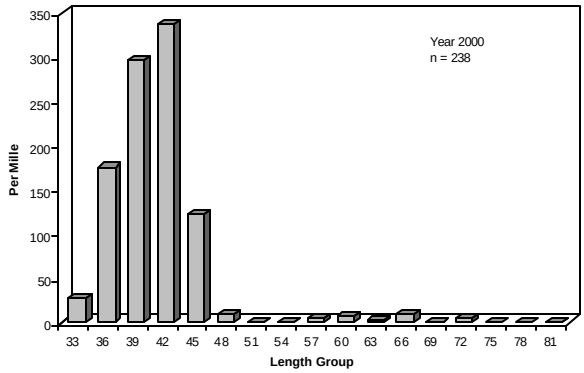


Fig. 5 - Annual length composition of Cod on Division 3N trawl fishery in 2000.

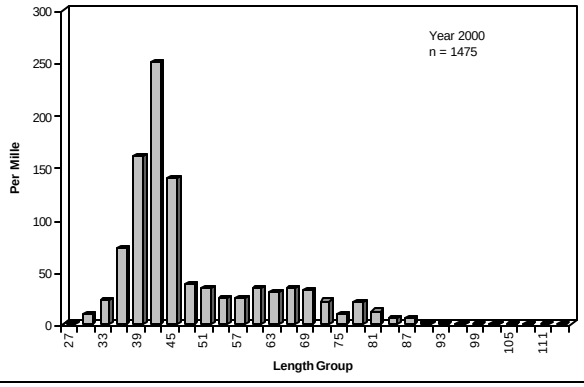


Fig. 4B - Annual age composition of Cod on Division 3M trawl fishery in 2000.

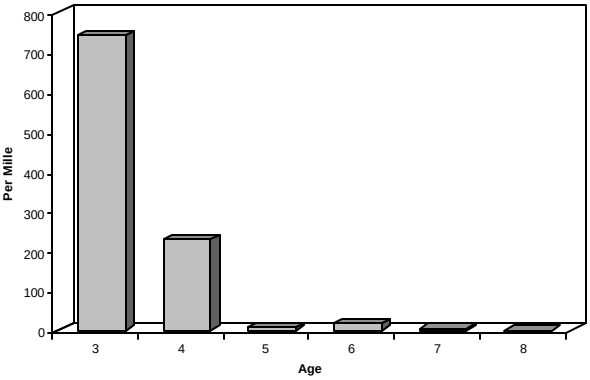


Fig. 6 - Annual length composition of Cod on Division 3O trawl fishery in 2000.

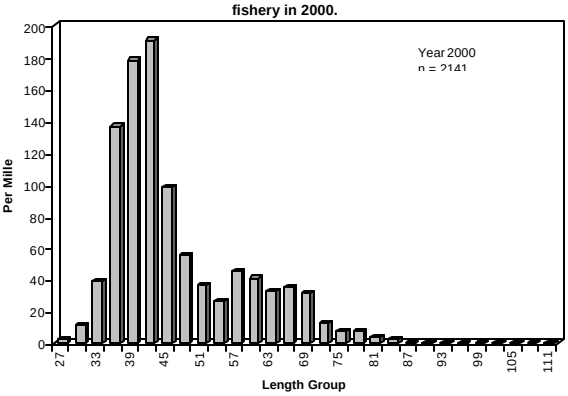


Fig. 7 - Annual length composition of Redfish (*S.mentella*) on Division 3L trawl fishery in 2000.

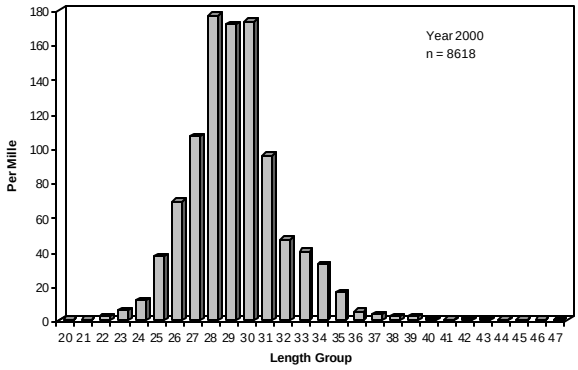


Fig. 8A - Annual length composition of Redfish (*S.mentella*) on Division 3M trawl fishery in 2000.

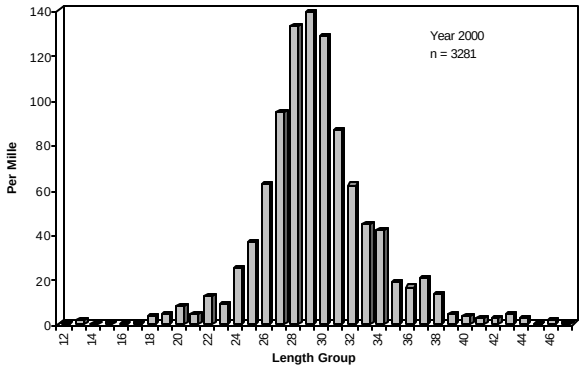


Fig. 9 - Annual length composition of Redfish (*S.mentella*) on Division 3N trawl fishery in 2000.

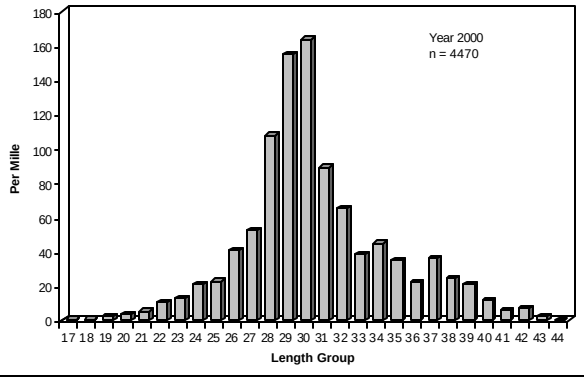


Fig. 8B - Annual age composition of Redfish (*S.mentella*) on Division 3M trawl fishery in 2000.

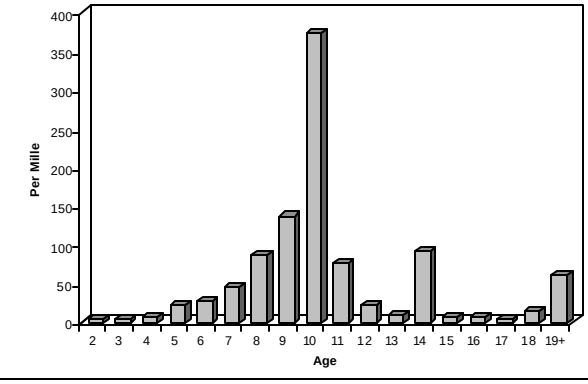


Fig. 10 - Annual length composition of Redfish (*S.mentella*) on Division 3O trawl fishery in 2000.

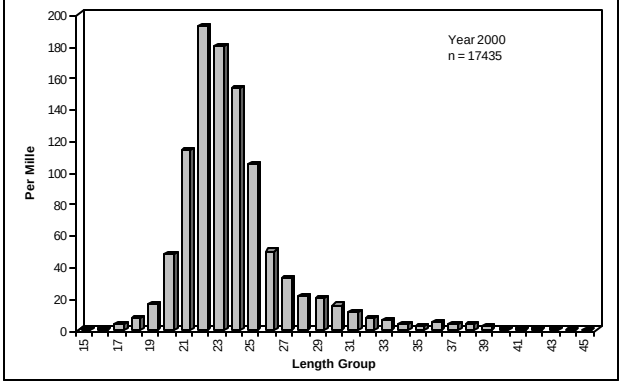


Fig. 11 - Annual length composition of Redfish (*S.marinus*) on Division 3M trawl fishery in 2000.

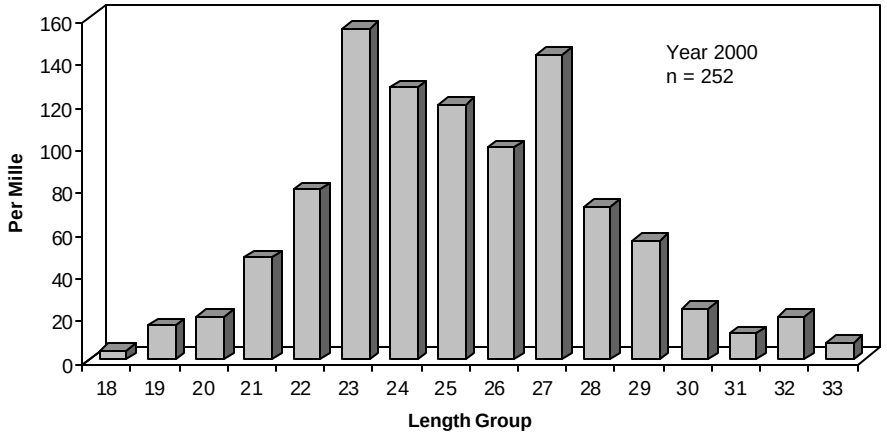


Fig. 12 - Annual length composition of Redfish (*S.marinus*) on Division 3N trawl fishery in 2000.

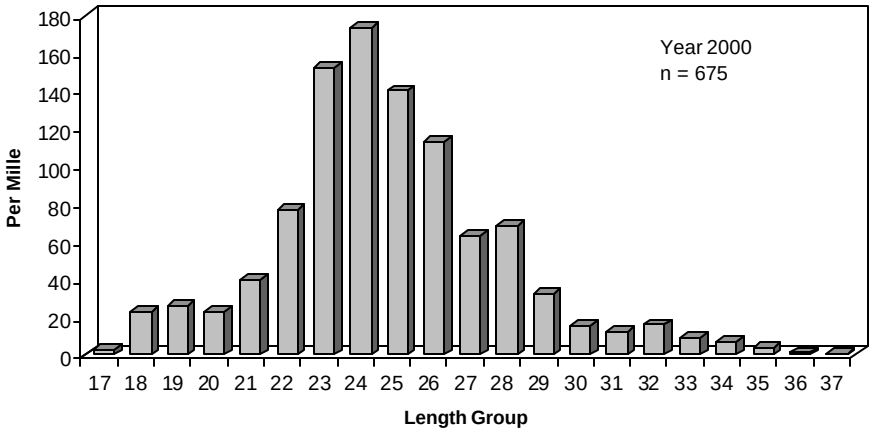


Fig. 13 - Annual length composition of Redfish (*S.marinus*) on Division 3O trawl fishery in 2000.

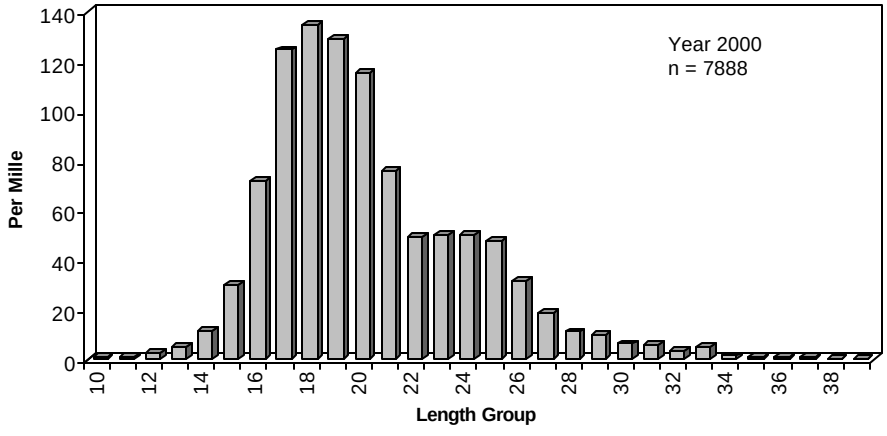


Fig. 14 - Annual length composition of American plaice on Division 3L trawl fishery in 2000.

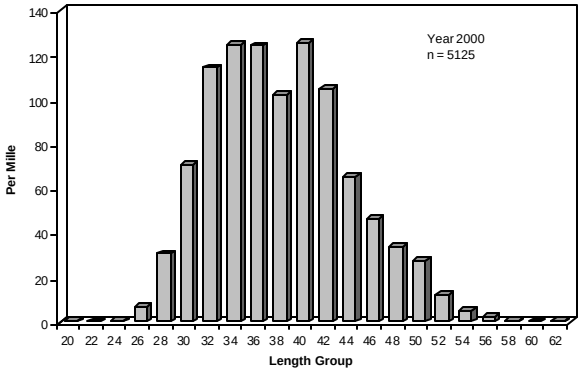


Fig. 15A - Annual length composition of American plaice on Division 3M trawl fishery in 2000.

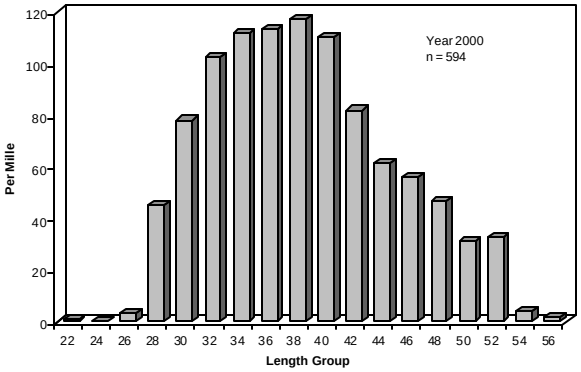


Fig. 16 - Annual length composition of American plaice on Division 3N trawl fishery in 2000.

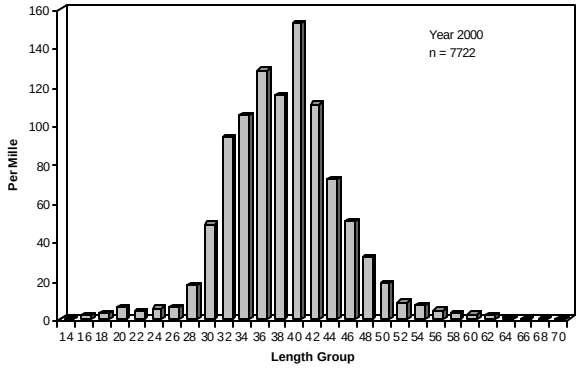


Fig. 15B - Annual age composition of American plaice on Division 3M trawl fishery in 2000.

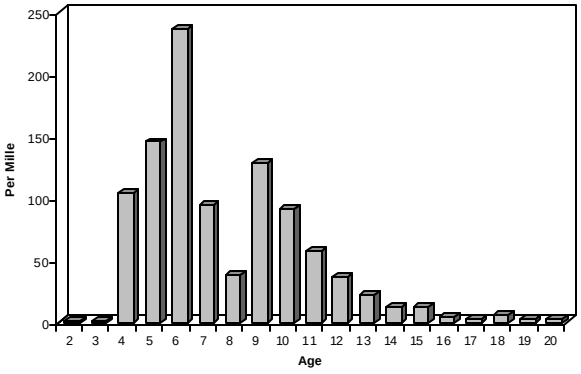


Fig. 17 - Annual length composition of American plaice on Division 3O trawl fishery in 2000.

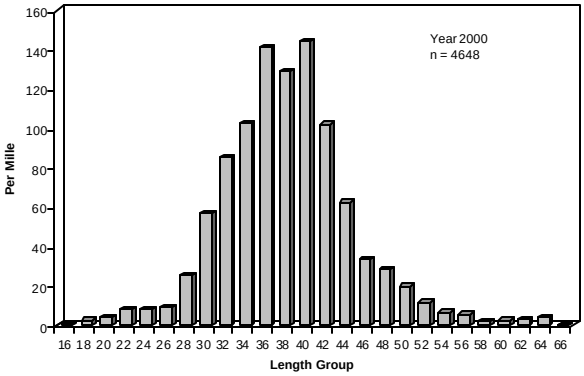


Fig. 18 - Annual length composition of Yellowtail flounder on Division 3N trawl fishery in 2000.

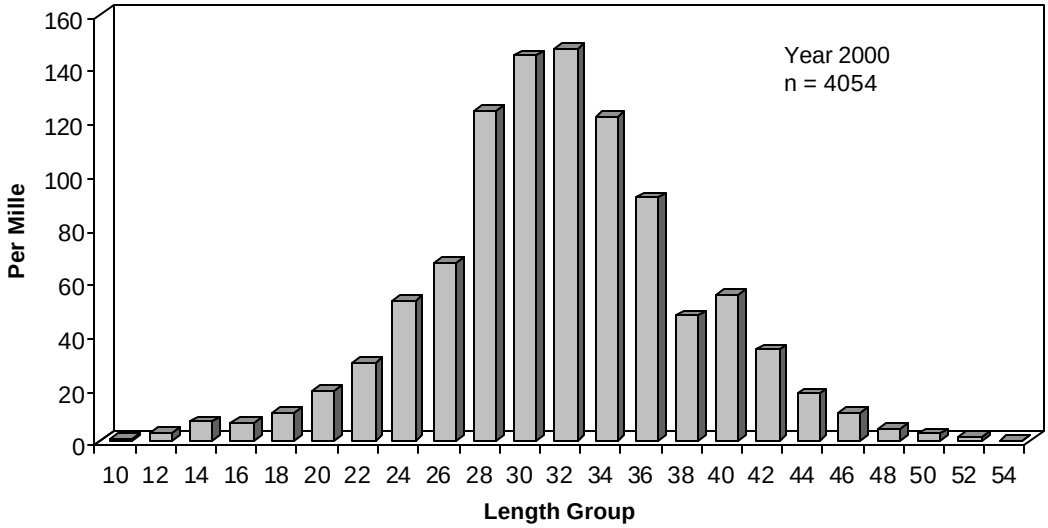


Fig. 19 - Annual length composition of Yellowtail flounder on Division 3O trawl fishery in 2000.

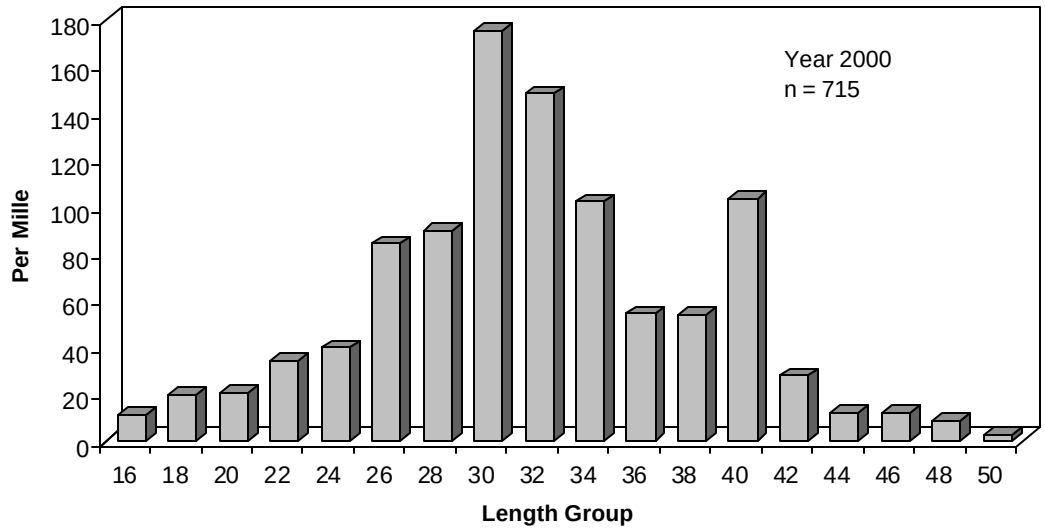


Fig. 20 - Annual length composition of Greenland halibut on Division 3L trawl fishery in 2000.

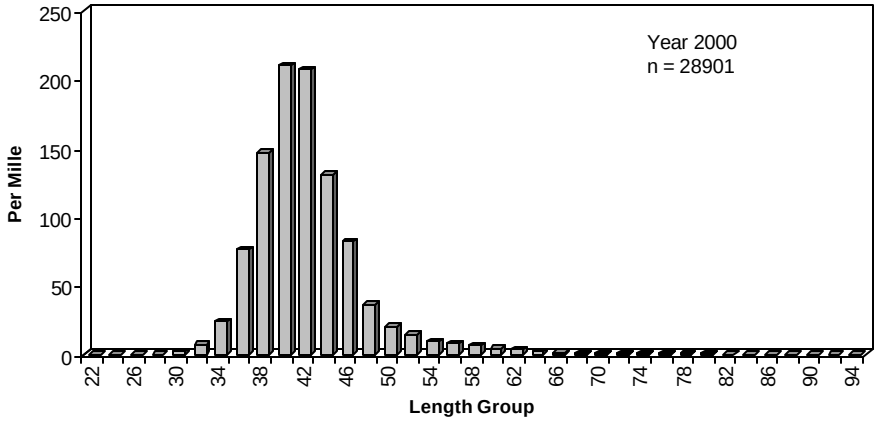


Fig. 21 - Annual length composition of Greenland halibut on Division 3M trawl fishery in 2000.

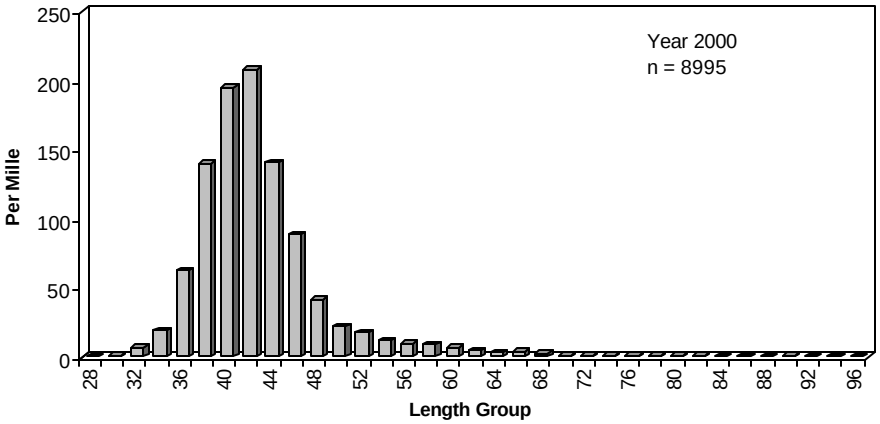


Fig. 22 - Annual length composition of Greenland halibut on Division 3N trawl fishery in 2000.

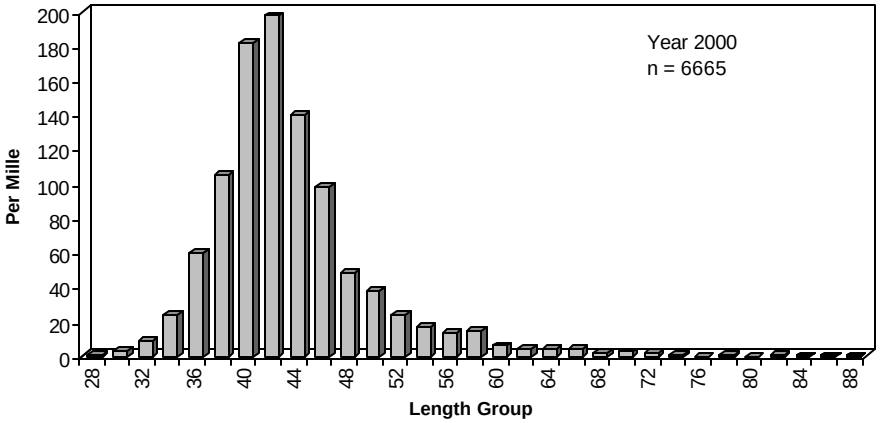


Fig. 23 - Annual length composition of Roughhead grenadier on Division 3L trawl fishery in 2000.

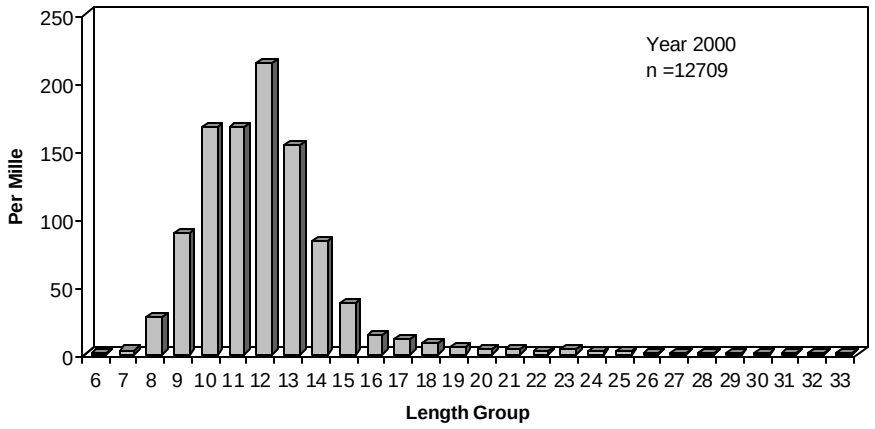


Fig. 24 - Annual length composition of Roughhead grenadier on Division 3M trawl fishery in 2000.

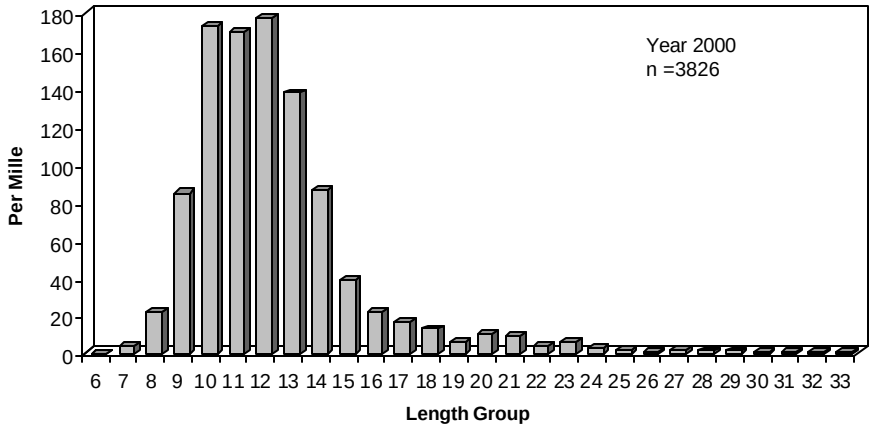


Fig. 25 - Annual length composition of Roughhead grenadier on Division 3N trawl fishery in 2000.

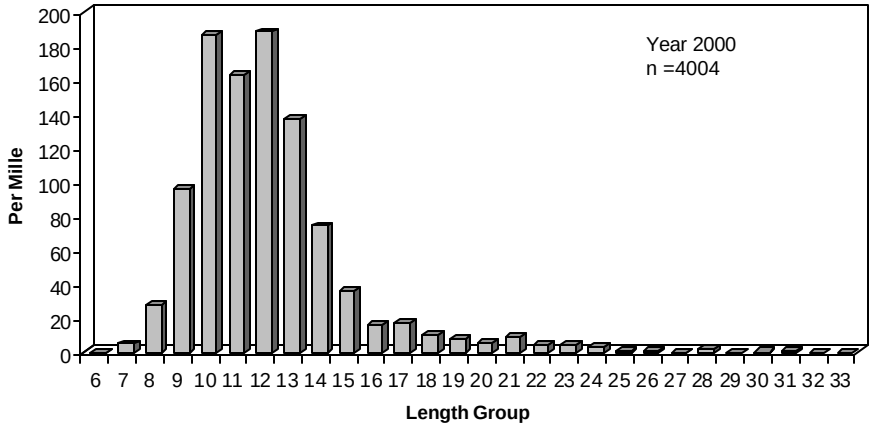


Fig. 26 - Annual length composition of Witch flounder on Division 3L trawl fishery in 2000.

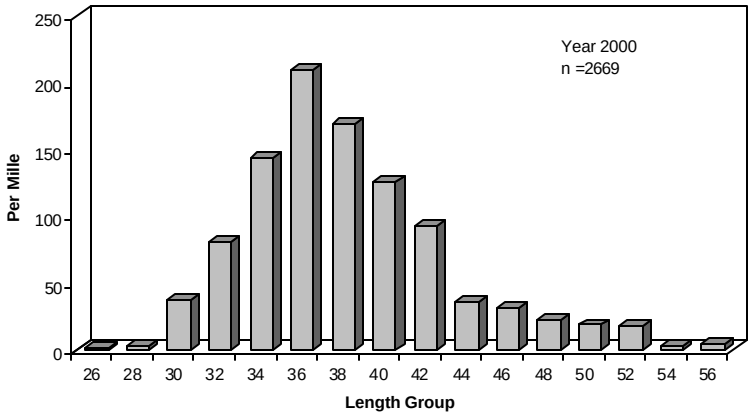


Fig. 27 - Annual length composition of Witch flounder on Division 3M trawl fishery in 2000.

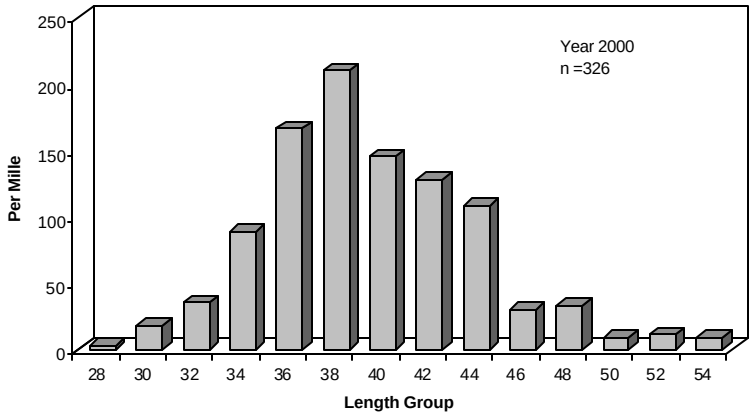


Fig. 28 - Annual length composition of Witch flounder on Division 3N trawl fishery in 2000.

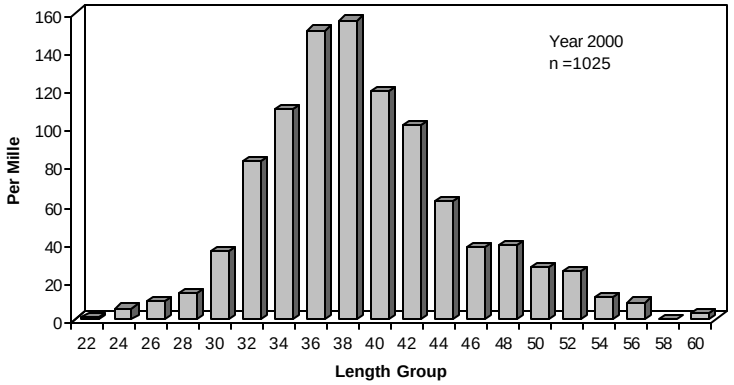
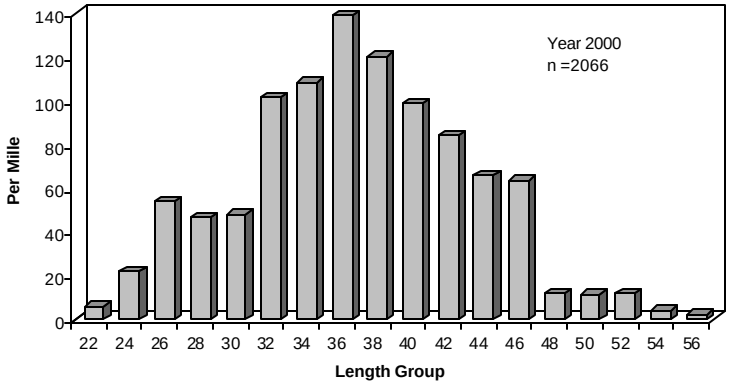


Fig. 29 - Annual length composition of Witch flounder on Division 3O trawl fishery in 2000.



APPENDIX

COD, divisions 3L, 3N and 3O

$\log w = -5.2106+3.0879 \log l$ (Hodder, 1964)

COD, division 3M

$w = 0.0082 * l^{3.029}$ (Vazquez, 2000)

REDFISH, divisions 3L, 3N and 3O

males $w = 0.01659 * l^{2.9548}$

females $w = 0.01372 * l^{3.0210}$ (Power and Atkinson, 1990)

REDFISH (*S.mentella*), division 3M

$w = 0.018 * l^{2.937}$ (Saborido Rey, pers.comm. 2000)

REDFISH (*S.marinus*), division 3M

$w = 0.016 * l^{3.001}$ (Saborido Rey, pers.comm. 2000)

AMERICAN PLAICE, divisions 3L, 3N and 3O

$\text{Log } w = -5.080+3.041 \log l$ (Pitt, 1978)

AMERICAN PLAICE, division 3M

$w = 0.0082 * l^{3.0444}$ (Vazquez, 2000)

YELLOWTAIL FLOUNDER, divisions 3N and 3O

$\log w = -5.434+3.443 \log l$ (Pitt, 1978)

GREENLAND HALIBUT, divisions 3L, 3M, 3N and 3O

$w = 0.002184 * l^{3.3454}$ (Bowering and Stansbury, 1984)

WITCH FLOUNDER, divisions 3L, 3N and 3O

$w = 0.001083 * l^{3.497}$ (Bowering and Stansbury, 1984)