



Serial No. N4815

NAFO SCS Doc. 03/7

SCIENTIFIC COUNCIL MEETING – JUNE 2003

Portuguese Research Report for 2002

by

J. Vargas, R. Alpoim, E. Santos and A. M. Ávila de Melo

Instituto de Investigação das Pescas e do Mar
Av. Brasília 1400 Lisboa Portugal

A. Status of the Fisheries

In 2002 the Portuguese nominal catches proceeding from NAFO Regulatory Area recorded 16 443 tons (Table I). The NAFO nominal catches decreased continuously from 1991 (75 000 tons) to 1997 (9 000 tons) with two major drops: first from 1991 to 1992 (less 36 220 tons) and second from 1994 to 1995 (less 11 441 tons). The lowest level of the nominal catches for the modern history of the Portuguese Northwest Atlantic fisheries was reached in 1997. In 1999 catches almost doubled the average level of the two precedent years (16 554 tons), oscillating afterwards between 13 000 ton and 15 000 tons from 2000 to 2001. In 2002 the nominal catches reached the same level of 1999 catches.

This last increase of the catch was obtained despite a decrease in the fishing effort in hours of the Portuguese fleet in 2002 (Table II-A). In fact, the number of fishing hours decreased 20%, due entirely to the decrease of fishing effort in Div. 3L and 3M (-37% and -51%, respectively). In Div. 3N and 3O, the fishing effort increased a lot, both in number of days (47% and 87%, respectively) and fishing hours (31% and 47%, respectively).

During 2002 only stern trawlers composed the Portuguese fleet (14 trawlers, one of them 9 days fishing for shrimp in Div. 3M).

From 2001 to 2002 catches decreased in Div. 3L (-24%) and 3M (-42%), but this decrease was balanced with an expressive increase of the catches in Div. 3N and 3O (+61% and +66%, respectively) due to the large contribution of the White hake (reported as Red hake in years before). The White hake catches were kept at very low levels in recent years but raised to 1 969 tons in 2002. In Div. 3O, the increase in the catches is also due to an increase in the redfish catches (3 535 tons in 2001 and 4 610 tons in 2002: +30%) (Table I-A).

Nevertheless, considering Sub Area 3 as a whole, catches of Greenland halibut and by-catches of species like witch flounder, yellowtail flounder, American plaice and cod were kept fairly constant from 2001 to 2002. The redfish catch in Sub Area 3 as a whole was increased (+21%).

Greenland halibut catches decreased in Div. 3L and 3M (-30% and -52%, respectively), but increased sharply in Div. 3N (+65%) and 3O. Since 1994, Greenland halibut has been the most important commercial species in Div. 3L and 3N, followed by skates and roughhead grenadier. Greenland halibut and roughhead grenadier represented 71% of the 3L catches in 2002, near the level observed years before. But in Div. 3N the relative weight of these two species has been declining from 76% in 1998 to 46% in 2002, while the importance of American plaice, yellowtail flounder and White hake (in 2002) catches increase (Table I-A).

Like in 2001, redfish was the most important catch in Div. 3M (60% of the catch in this division). In Div. 3O redfish has maintained its importance as well, representing now 65% of the catches in 2002 against 83% in 2001.

From the monitored fishing vessel Greenland halibut was the priority species for the Portuguese trawl fleet during 2002, accounting for 59.4% of the total directed effort (Table II-C, Fig. 1), less 8% than in 2001. Like 2001, in 2002 the majority of the observed fishing effort (64%) has been made north (Div. 3L and 3M-Flemish Cap). This level is slightly smaller than the one for 2001 due to the decrease of Div. 3L fishing effort directed to Greenland halibut.

B. Portuguese Annual Sampling Program

1. Catch and effort sampling

Effort and cpue data for 2002 Portuguese trawl fishery on the NAFO Regulatory Area were obtained through the revision of skipper logbooks from two trawlers, kindly supplied by its owners. 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 2002 logbooks available were processed in order to convert the 2002 Portuguese effort, reported in fishing days on the 2002 Portuguese STATLANT 21-B, into fishing hours (Table II-A/B).

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 (Table II-C).

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 Table III. Data regarding directed effort and catch rates are presented in Table II-C to IV-B, Fig. 1 and 2.

The Greenland halibut cpue series was updated with the 2002 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 130 mm 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 Div. 3L catch rates declined prior to the boom of the deep-water fishery (Table 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 (0.336 ton/h to 0.176 ton/h). From 1991 to 1994 catch rates remained stable at a low level. Since then catch rates gradually increased, reaching an upper level of 0.300 ton/h in 1999. Catch rates declined in 2001 to the 1997 level. In 2002, the catch rates slightly increased.

In Div. 3N no trend is apparent on Greenland halibut trawl cpue's till 1998. An increase was observed in 1999 and 2000, when a maximum of 0.303 ton/h was reached. In 2001 catch rate return to the level of 1999. In 2002, as in Div. 3L, the catch rates slightly increased (Table IV-A, Fig. 2).

For all three Divisions combined (Table 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.

2. Biological Sampling

In 2002 biological sampling was obtained from two stern trawler fishing in Div. 3L, 3M, 3N and 3O during all the year. Apart from species under moratoria, a priority to be sampled whenever they appear in the hauls, biological sampling was conducted for the two most abundant species in each haul, following the NAFO sampling recommendations.

Greenland halibut, redfish (*S. mentella*), roughhead grenadier, American plaice and witch flounder were sampled in Div. 3L, 3M, 3N and 3O (Table V). Cod, redfish (*S. marinus*), Atlantic halibut, white hake, thorny skate, spinytail skate were sampled in Div. 3N and 3O. Yellowtail flounder was sampled in Div. 3N. Monkfish was sampled in Div. 3O. Information on age composition of 3M redfish (*S. mentella*) and 3M American plaice catches was obtained using the respective age/length keys of the July 2002 EU survey (Vazquez, 2003). 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 XXXIX and Fig. 3 to 35.

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 (see appendix).

Some sets in Div. 3N and 3O were made with a trawl net with 200 and 300 mm mesh size in the codend. In these few sets American plaice was sampled. Length frequency for these catches, respective mean lengths and mean weights in the catch are presented for American plaice in Tables XVI-B, XVII-B/C and Figures 14, 16 and 17.

2.1. Comments on length and age composition of the 2002 trawl catches

2.1.1. Cod Div. 3N

Information on length composition of the cod by-catch in Div. 3N is available for April to December, except July (Table VI, Fig. 3) from 42 m to 851 m depth.

Lengths between 48cm and 57cm dominated the catch, with a mode at the classes 51 cm and 54 cm (mean length and weight of 53.5 cm and 1 395 g).

2.1.2. Cod Div. 3O

Information on length composition of the cod by-catch in Div. 3O is available for March to December, except July (Table VII, Fig. 4) from 103m to 645 m depth.

Lengths between 39 cm and 51 cm dominated the catch, with 45cm (mean length and weight of 49.3 cm and 1 143 g).

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

Information on length composition of the redfish (*S. mentella*) trawl by-catch in Div. 3L is available for January to May, and November (Table VIII, Fig. 5) from 604 m to 1 203 m depth.

Lengths between 28 cm and 31 cm dominated catches (mean length and weight of 30 cm and 405 g).

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

Information on length and age composition of the redfish (*S. mentella*) trawl catch in Div. 3M is available for January to May, and October (Table IX-A, Fig. 6A) from 368 m to 1 113 m depth.

Lengths between 28 cm and 31 cm dominated catches (mean length and weight of 30.3 cm and 412 g).

The 1990 year-class, 12 years old in 2002, was the most abundant in the trawl catch, followed by the ones from 1991-1994 (Table IX-B, Fig. 6B).

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

Information on length composition of the redfish (*S. mentella*) trawl by-catch in Div. 3N is available for April to November, except July (Table X, Fig. 7) from 125 to 1 177 m depth.

Lengths between 27 cm and 32 cm dominated catches (mean length and weight of 28.8 cm and 365 g).

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

Information on length composition of the redfish (*S. mentella*) trawl catch in Div. 3O is available for March to May, and August to December (Table XI, Fig. 8), from 103 m to 769 m depth.

Lengths between 21 cm and 24 cm dominated catches, with a clear mode at classes 22 cm and 23 cm (mean length and weight of 24 cm and 211 g).

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

Information on length composition of the redfish (*S. marinus*) trawl catch in Div. 3N is available only for September (Table XII, Fig. 9) from 164 m to 208 m depth.

The sampling is only from one month (2 samples, 373 fish measured), the lengths between 28 cm and 30 cm dominated catches, with a mode at 29 cm (mean length and weight of 29.9 cm and 395 g).

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

Information on length composition of the redfish (*S. marinus*) trawl by-catch in Div. 3O is available only for March (Table XIII, Fig. 10) from 199 m to 288 m depth.

The sampling is small (1 sample, 275 fish measured), the length frequency show three peaks at 24 cm, 30 cm and 38 cm, with a mode at 24 cm (mean length and weight of 27 cm and 313 g).

2.1.9. American plaice Div. 3L

Information on length composition of the American plaice by-catch in Div. 3L is available from February to May (Table XIV, Fig. 11) from 686 m to 1 203 m depth.

Lengths between 34 cm and 42 cm dominated catches, with a very clear mode at 38 cm (mean length and weight of 39.3 cm and 612 g).

2.1.10. American plaice Div. 3M

Information on length and age composition of the American plaice by-catch in Div. 3M is available from March to May (Table XV-A, Fig. 12A) from 938 m to 1 100 m.

Lengths between 34 cm and 42 cm dominated catches, with a mode at 36cm (mean length and weight of 40 cm and 656 g).

Ages 6 and 8 were the most abundant in the catch (Table XV-B, Fig. 12B).

2.1.11. American plaice Div. 3N

2.1.11.1. Common mesh size (135 mm)

Information on length composition of the American plaice by-catch in Div. 3N is available for April to December, except July (Table XVI-A, Fig. 13) from 42 m to 1 202 m depth.

Lengths between 36 cm and 44 cm dominated catches, with two modal classes at 36 cm and 38 cm (mean length and weight of 40.2 cm and 684 g).

2.1.11.2.200 mm mesh size

Information on length composition of the American plaice by-catch in Div. 3N is available only for March (Table XVI-B, Fig. 14) from 58 m to 67 m depth.

The sampling is small (1 sample, 95 fish measured), the length frequency show three peaks at 38 cm, 54 cm and 60 cm, with a mode at 54 cm (mean length and weight of 51.7 cm and 1 420 g).

2.1.12. American plaice Div. 3O

2.1.12.1. Common mesh size (135 mm)

Information on length composition of the American plaice by-catch in Div. 3O is available for March to December, except July (Table XVII-A, Fig. 15) from 124 m to 645 m depth.

Lengths between 34 cm and 44 cm dominated catches (mean length and weight of 39.6 cm and 659 g).

2.1.12.2.200 mm mesh size

Information on length composition of the American plaice by-catch in Div. 3O is available only for April (Table XVII-B, Fig. 16) from 182 m to 207 m depth.

The sampling is small (1 sample, 61 fish measured), the lengths between 52 cm and 58 cm dominated catches, with a mode at 52 cm (mean length and weight of 54.5 cm and 1 653 g).

2.1.12.3.300 mm mesh size

Information on length composition of the American plaice by-catch in Div. 3O is available only for November (Table XVII-C, Fig. 17) from 155 m to 224 m depth.

The sampling is very small (1 sample, 96 fish measured), the lengths between 60 cm and 64 cm dominated catches, with a clear mode at 62 cm (mean length and weight of 61.9 cm and 2 375 g).

2.1.13. Yellowtail flounder Div. 3N

Information on length composition of the yellowtail flounder in Div. 3N is available for April to December, except July (Table XVIII, Fig. 18) from 42 m to 750 m depth.

Lengths between 28 cm and 38 cm dominated catches, with a mode at 32 cm (mean length and weight of 35.2 cm and 888 g).

2.1.14. Greenland halibut Div. 3L

Information on length composition of the Greenland halibut in Div. 3L is available from January to November, except June and September (Table XIX, Fig. 19) from depths 604 m to 1 222 m.

Lengths between 38 cm and 48 cm dominated catches, with a clear mode at 42 cm (mean length and weight of 44.5cm and 760 g).

2.1.15. Greenland halibut Div. 3M

Information on length composition of the Greenland halibut in Div. 3M is available from January to November, except June and September (Table XX, Fig. 20) from 367 m to 1 113 m depth.

Lengths between 42 cm and 50 cm dominated catches, with a mode at 46 cm (mean length and weight of 47 cm and 898 g).

2.1.16. Greenland halibut Div. 3N

Information on length composition of the Greenland halibut in Div. 3N is available for March to November, except July (Table XXI, Fig. 21) from 437 m to 1 450 m depth.

Lengths between 40 cm and 48 cm dominated catches (mean length and weight of 44.8 cm and 803 g).

2.1.17. Greenland halibut Div. 3O

Information on length composition of the Greenland halibut in Div. 3O is available for October to December (Table XXII, Fig. 22) from 370 m to 769 m depth.

Lengths between 38 cm and 48 cm dominated catches, with a mode at 42 cm (mean length and weight of 44.3 cm and 750 g).

2.1.18. Roughhead grenadier Div. 3L

Information on length composition of the roughhead grenadier catches in Div. 3L is available from March to November, except June and September (Table XXIII, Fig. 23) from 707 m to 1 222 m depth.

Anal lengths between 10 cm and 14 cm dominated catches, with a mode at 12 cm (mean length and weight of 13.2 cm and 262 g).

2.1.19. Roughhead grenadier Div. 3M

Information on length composition of the roughhead grenadier catches in Div. 3M is available from February to November, except June and September (Table XXIV, Fig. 24) from 710 m to 1 104 m depth.

Anal lengths between 12 cm and 16 cm dominated catches, with a clear mode at 13 cm (mean length and weight of 14.6 cm and 331 g).

2.1.20. Roughhead grenadier Div. 3N

Information on length composition of the roughhead grenadier catches in Div. 3N is available for March to November, except July and October (Table XXV, Fig. 25) from 727 m to 1 450 m depth.

Anal lengths between 10 cm and 13 cm dominated catches, with a mode 12 cm (mean length and weight of 12.9 cm and 245 g).

2.1.21. Roughhead grenadier Div. 3O

Information on length composition of the roughhead grenadier catches in Div. 3O is available only for December (Table XXVI, Fig. 26) from 700 m to 769 m depth.

The sampling is small (1 sample, 224 fish measured), the anal lengths between 10 cm and 13 cm dominated catches, with a very clear mode at 12 cm (mean length and weight of 12.2 cm and 189 g).

2.1.22. Witch flounder Div. 3L

Information on length composition of the witch flounder catches in Div. 3L is available from February to May and October (Table XXVII, Fig. 27) from 809 m to 1 203 m depth.

Lengths between 36 cm and 44 cm dominated catches, with a clear mode at 40cm (mean length and weight of 40.7 cm and 483 g).

2.1.23. Witch flounder Div. 3M

Information on length composition of the witch flounder catches in Div. 3M is available from January to April (Table XXVIII, Fig. 28) from 873 m to 1 104 m depth.

Lengths between 38 cm and 44 cm dominated catches, with a very clear mode at 40 cm (mean length and weight of 41.7 cm and 523 g).

2.1.24. Witch flounder Div. 3N

Information on length composition of the witch flounder catches in Div. 3N is available for April to November, except July (Table XXIX, Fig. 29) from 70 m to 1 450 m depth.

Lengths between 36 cm and 42 cm dominated catches, with two equal modal classes at 38 cm and 40 cm (mean length and weight of 40.1cm and 467 g).

2.1.25. Witch flounder Div. 3O

Information on length composition of the witch flounder catches in Div. 3O is available from April to December, except June and July (Table XXX, Fig. 30) from 103 m to 645 m depth.

Lengths between 34 cm and 42 cm dominated catches, with a mode at 38 cm (mean length and weight of 38.4 cm and 407g).

2.1.26. Atlantic halibut Div. 3N

Information on length composition of the Atlantic halibut catches in Div. 3N is available for October and November (Table XXXI) from 446 m to 1 390 m depth.

The sampling is very small (2 samples, 10 fish measured). With the same value, the most abundant classes are at 76 cm, 94 cm and 142 cm (mean length of 114 cm).

2.1.27. Atlantic halibut Div. 3O

Information on length composition of the Atlantic halibut catches in Div. 3O is available for October and November (Table XXXII) from 181 m to 750 m depth.

The sampling is very small (8 samples, 28 fish measured), the lengths between 78 cm and 86 cm dominated catches (mean length of 87.8 cm).

2.1.28. White hake Div. 3N

Information on length composition of the white hake catches in Div. 3N is available for August to November, except October (Table XXXIII, Fig. 31) from 70 m to 237 m depth.

Lengths between 39 cm and 43 cm dominated catches, with a two clear modal classes at 39cm and 43cm (mean length 42.4 cm).

2.1.29. White hake Div. 3O

Information on length composition of the white hake catches in Div. 3O is available for April to December, except July (Table XXXIV, Fig. 32) from 127 m to 645 m depth.

Lengths between 38 cm and 43 cm dominated catches, with a mode at 40cm (mean length of 43.4 cm).

2.1.30. Thorny skate Div. 3N

Information on length composition of the thorny skate catches in Div. 3N is available for October to December (Table XXXV, Fig. 33) from 60 m to 1 450 m depth.

Lengths between 40 cm and 42 cm dominated catches, with a two modal classes at 40 cm and 42 cm (mean length of 40.4 cm).

2.1.31. Thorny skate Div. 3O

Information on length composition of the thorny skate catches in Div. 3O is available for October to December (Table XXXVI, Fig. 34) from 136 m to 496 m depth.

Lengths between 40 cm and 42 cm dominated catches, with a mode at 42 cm (mean length of 39.5 cm).

2.1.32. Spinytail skate Div. 3N

Information on length composition of the spinytail skate catches in Div. 3N is available for October and November (Table XXXVII) from 71 m to 1 450 m depth.

The sampling is very small (5 samples, 36 fish measured), the lengths at 70 cm and 74 cm dominated catches (mean length of 65.6 cm).

2.1.33. Spinytail skate Div. 3O

Information on length composition of the spinytail skate catches in Div. 3O is available only for December (Table XXXVIII) from 700 m to 769 m depth.

The sampling is very small (1 sample, 5 fish measured). Mean length of 65.7 cm.

2.1.33. Monkfish Div. 3O

Information on length composition of the monkfish catches in Div. 3O is available for October to December (Table XXXIX, Fig. 35) from 135 m to 750 m depth.

Lengths between 46 cm and 54 cm dominated catches, with the most abundant class at 40 cm (mean length of 49 cm).

3. Acknowledgements

This study was supported by the European Commission (DG XIV, Program for the collection of data in fisheries sector) and IPIMAR.

4. References

- ALPOIM, R., GODINHO, M. L., SANTOS, E. and ÁVILA de MELO, A. M. 1998. "Portuguese research Report for 1998". NAFO SCS Doc. 98/13 Ser. No N3025, 38p.
- ÁVILA de MELO, A. M., ALPOIM, R. 1995. "Portuguese Cod Fisheries in NAFO Divisions 3N and 3O, 1989-93". NAFO Sci. Coun. Studies 23: 65-84.
- ÁVILA de MELO, A. M., ALPOIM, R. 1996. "Greenland halibut deepwater fishery in Divisions 3L and 3N: an analysis of catch rate trends from Portuguese trawlers, 1988 -1995." NAFO SCR Doc. 96/33 Ser. No N2708,16p.
- VAZQUEZ, A., 2002. Informe de la campaña de investigación pesquera Flemish Cap 01 a bordo del B/O Cornide Saavedra, 24 de Junho a 30 de Julho 2001. Proyecto de Investigación: Estudio de las poblaciones explotadas de peces en Flemish Cap III. Proyecto de la UE: Estudio 00-028 de la DG XIV, para 2001. Consejo Superior de Investigaciones Científicas, Instituto de Investigacions Mariñas, Vigo.

TABLE I - A: PORTUGUESE NOMINAL TRAWL CATCHES (mt) IN NAFO AREA, 2002.

SPECIES	DIVISION				TOTAL
	3L	3M	3N	3O	2002
Cod	50.3	32	240.2	165.2	487.7
Redfish	102.7	1511.6	119.7	4609.6	6343.6
American plaice	122.9	71.4	229.3	206.9	630.5
Yellowtail	3.4		98.4	20	121.8
Witch flounder	73.5	95.6	95.4	168	432.5
Greenland halibut	1900.2	579.8	1639.7	199.4	4319.1
Atlantic halibut	8.5	0.9	21.3	15.4	46.1
Roughhead grenadier	219.1	81.6	201.1	6.1	507.9
Anarhichas spp.	28.8	5.5	32.2	20.8	87.3
Hadocck			23.8	53.8	77.6
Pollock					
White hake	2.3	2.1	712	1253	1969.4
Capelin					
Skates	439.2	36.2	528.7	356.8	1360.9
Monkfish					
Squid					
Shrimp		15.2			15.2
Unidentified	18	2.3	13.5	9.1	42.9
TOTAL	2968.9	2434.2	3955.3	7084.1	16442.5

TABLE I - B: PORTUGUESE NOMINAL TRAWL CATCHES (mt) IN NAFO SUBAREA 3.

SPECIES / YEAR	2002	2001	2000	1999	1998	1997	1996	1995
Cod	488	357	193	327	549	1546	1318	1353
Redfish	6344	5324	5743	6081	2368	1125	2152	2590
American plaice	631	633	402	719	357	389	298	175
Yellowtail flounder	122	351	153	426	85			
Witch flounder	433	579	228	508	381	347	236	375
Greenland halibut	4319	5026	4769	3995	3242	3343	3308	1814
Atlantic halibut	46	44	29	51	30	17	12	18
Roughhead grenadier(1)	508	610	396	1299	1089	762	784	1402
Anarhichas spp.	87	141	61	549	140	185	122	1401
Hadocck	78	23	13	10	6	39		2
Pollock								
White hake (2)	1969	273	41	77	18	56	124	230
Capelin								
Skates	1361	880	666	2168	1105	904	788	2068
Monkfish								2
Squid					1		3	
Shrimp	15	420	289	227	203	170		
Unidentified	43	41	3	117	40	116	22	14
TOTAL	16443	14701	12985	16554	9614	9000	9167	11441

TABLE I - B: cont.

SPECIES / YEAR	1994	1993	1992	1991	1990	1989	1988
Cod	2636	3651	5984	13357	15138	24129	12931
Redfish	8609	9828	6581	12163	17810	18870	17072
American plaice	344	347	451	1288	714	1821	1791
Yellowtail flounder			1	10	11	5	
Witch flounder	573	289	849	1982	2254	16	12
Greenland halibut	5967	8805	10539	13961	11170	3614	4194
Atlantic halibut	45	53	81	228	91		
Roughhead grenadier(1)	2223	1969	2000	4486	3211	290	914
Anarhichas spp.	3219	2302	1696	2843	1940		
Hadocck	10	10	166	83	17		
Pollock	13	41	28	421	11		
White hake (2)	267	366	466	1009	467		
Capelin					77		
Skates	6238	7626	7017	23301	13569	663	1097
Monkfish		8	37	10	2		
Squid							
Shrimp							
Unidentified	12	238	325	174	852		
TOTAL	30156	35532	36220	75314	67334	49408	38011

(1) Reported as Roundnose grenadier in years before.

(2) Reported as Red hake in years before.

TABLE II - A : PORTUGUESE TRAWL EFFORT IN FISHING DAYS AND FISHING HOURS IN NAFO AREA IN 2002 .

MONTH	DIVISION										MONTH
	3L		3M		3N		3O		TOTAL		
	DAYS	HOURS	DAYS	HOURS	DAYS	HOURS	DAYS	HOURS	DAYS	HOURS	
JAN.	71	624	33	398	22	83	47	298	173	1402	JAN.
FEB.	127	1326	54	707	17	64	16	101	214	2198	FEB.
MAR.	136	1795	52	556	22	83	21	133	231	2566	MAR.
APR.	88	1165	61	791	35	339	29	220	213	2515	APR.
MAY	36	477	1	11	90	1239	23	186	150	1912	MAY
JUN.					28	154	12	44	40	198	JUN.
JUL.	25	478	2	29	10	84	13	136	50	727	JUL.
AUG.	27	444	9	82	40	349	38	442	114	1317	AUG.
SEP.	22	326	9	126	68	575	54	610	153	1637	SEP.
OCT.	30	348	28	423	65	516	91	1014	214	2301	OCT.
NOV.	24	317	7	93	91	731	90	1206	212	2346	NOV.
DEC.	11	29	7	35	44	88	56	628	118	781	DEC.
TOTAL	597	7330	263	3250	532	4304	490	5019	1882	19902	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 - B: PORTUGUESE TRAWL EFFORT IN FISHING DAYS AND FISHING HOURS IN NAFO SUBAREA 3.

YEAR	GEAR				YEAR
	OT		GNS		
	DAYS	HOURS	DAYS	NETS	
2002	1882	19902			2002
2001	1870	24979			2001
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 - C: Breakdown of the 2002 sampled Portuguese directed trawl effort by species and division (%).

DIVISION	G.HALIBUT	SKATES	ROUGHHEAD G.	REDFISH	TOTAL/DIV.
3L	30.7	7.0	3.4		41.1
3M	18.5	0.5	2.0	2.0	23.0
3N	9.9	5.4	3.4		18.7
3O	0.2	7.0		9.9	17.2
TOTAL/SP	59.4	19.9	8.8	12.0	

TABLE III: Portuguese trawl fishery cpue's and bycatch by month and division for 2002.

DIVISION	TARGET SPECIES	MONTH	DEPTH RANGE (m)		CPUE (ton/hour)	MAIN BYCATCH		WITCH FLOUNDER		TOTAL BYCATCH (%)
			MIN.	MAX.		SPECIES	%	BYCATCH (%)	BYCATCH (%)	
3M	REDFISH	JAN	791	904	0.128	G. HALIBUT	38.2	23.6	71.2	
3M	REDFISH	FEB	702	970	0.125	G. HALIBUT	27.1	12.9	67.3	
3M	REDFISH	MAR	713	1000	0.215	G. HALIBUT	41.2	1.7	54.0	
3M	REDFISH	APR	948	975	0.308	G. HALIBUT	31.7	15.8	73.8	
3O	REDFISH	MAR	300	513	0.240	COD	31.8	0.8	78.1	
3O	REDFISH	APR	324	518	0.125	A. PLAICE	26.1	6.8	77.6	
3O	REDFISH	MAY	269	520	0.466	WHITE HAKE	35.2	1.2	48.5	
3O	REDFISH	AUG	103	452	0.732	WHITE HAKE	15.0	0.7	31.6	
3O	REDFISH	SEP	145	570	0.531	WHITE HAKE	19.5	1.8	55.9	
3O	REDFISH	OCT	135	451	0.169	WHITE HAKE	25.3	1.7	64.8	
3O	REDFISH	NOV	119	750	0.169	WHITE HAKE	22.1	5.7	68.5	
3O	REDFISH	DEC	207	769	0.093	A. PLAICE	25.8	5.9	82.5	
3L	G. HALIBUT	JAN	714	1030	0.220	REDFISH	4.0	3.7	21.6	
3L	G. HALIBUT	FEB	604	1018	0.286	SKATES	13.9	3.5	54.1	
3L	G. HALIBUT	MAR	684	1218	0.214	SKATES	11.7	1.6	42.9	
3L	G. HALIBUT	APR	740	1203	0.221	SKATES	15.2	2.0	53.1	
3L	G. HALIBUT	MAY	815	1168	0.256	SKATES	17.9	1.8	57.6	
3L	G. HALIBUT	JUL	743	1029	0.243	ROUGHHEAD G.	7.3	0.0	12.0	
3L	G. HALIBUT	AUG	778	1222	0.167	ROUGHHEAD G.	18.7	0.0	26.9	
3L	G. HALIBUT	OCT	705	1185	0.160	ROUGHHEAD G.	8.7	2.8	17.3	
3L	G. HALIBUT	NOV	645	1105	0.334	ROUGHHEAD G.	6.3	0.5	9.9	
3L	G. HALIBUT	DEC	977	999	0.033	-	0.0	0.0	0.0	
3M	G. HALIBUT	JAN	630	1084	0.314	WITCH FLOUNDER	31.1	31.1	56.3	
3M	G. HALIBUT	FEB	702	1060	0.236	WITCH FLOUNDER	23.0	23.0	53.4	
3M	G. HALIBUT	MAR	713	1091	0.227	REDFISH	12.7	4.7	35.7	
3M	G. HALIBUT	APR	864	1184	0.278	ROUGHHEAD G.	12.2	2.9	36.3	
3M	G. HALIBUT	MAY	1024	1100	0.095	ROUGHHEAD G.	25.3	1.5	45.4	
3M	G. HALIBUT	JUL	868	1014	0.162	ROUGHHEAD G.	14.5	0.0	20.7	
3M	G. HALIBUT	AUG	829	1020	0.276	ROUGHHEAD G.	10.4	0.0	10.4	
3M	G. HALIBUT	OCT	345	950	0.214	ROUGHHEAD G.	6.7	0.0	12.1	
3M	G. HALIBUT	NOV	705	950	0.245	ROUGHHEAD G.	8.3	0.0	14.2	
3N	G. HALIBUT	MAR	1023	1121	0.125	ROUGHHEAD G.	32.0	0.0	72.8	
3N	G. HALIBUT	APR	868	1202	0.191	SKATES	32.3	2.4	81.5	
3N	G. HALIBUT	MAY	727	1299	0.340	SKATES	18.7	1.4	59.4	
3N	G. HALIBUT	JUN	1042	1048	0.376	SKATES	14.0	2.5	57.2	
3N	G. HALIBUT	AUG	149	1227	0.203	ROUGHHEAD G.	21.4	1.1	31.7	
3N	G. HALIBUT	SEP	763	1181	0.227	ROUGHHEAD G.	24.1	2.9	30.4	
3N	G. HALIBUT	NOV	750	1450	0.254	SKATES	11.7	5.6	50.6	
3O	G. HALIBUT	OCT	450	720	0.088	WITCH FLOUNDER	10.5	10.5	24.7	

TABLE III: count.

DIVISION	TARGET SPECIES	MONTH	DEPTH RANGE (m)		CPUE (ton/hour)	MAIN BYCATCH		WITCH FLOUNDER		TOTAL BYCATCH (%)
			MIN.	MAX.		SPECIES	%	BYCATCH (%)		
3L	ROUGHHEAD G.	FEB	682	1094	0.152	G. HALIBUT	26.5	2.6	81.0	
3L	ROUGHHEAD G.	MAR	684	1014	0.079	G. HALIBUT	31.3	2.9	84.2	
3L	ROUGHHEAD G.	APR	859	975	0.118	SKATES	26.7	7.6	88.8	
3L	ROUGHHEAD G.	MAY	815	924	0.117	G. HALIBUT	26.8	2.2	83.0	
3M	ROUGHHEAD G.	JAN	889	960	0.100	WITCH FLOUNDER	30.5	30.5	84.8	
3M	ROUGHHEAD G.	FEB	806	977	0.099	WITCH FLOUNDER	30.8	30.8	87.6	
3M	ROUGHHEAD G.	MAR	926	1091	0.131	G. HALIBUT	42.6	3.0	59.0	
3M	ROUGHHEAD G.	APR	987	1111	0.118	G. HALIBUT	44.2	3.0	71.3	
3M	ROUGHHEAD G.	JUL	998	1014	0.077	G. HALIBUT	40.4	0.0	60.3	
3N	ROUGHHEAD G.	MAR	1023	1121	0.148	G. HALIBUT	27.2	0.0	68.0	
3N	ROUGHHEAD G.	APR	965	998	0.146	SKATES	30.8	0.5	83.9	
3N	ROUGHHEAD G.	MAY	781	1299	0.178	G. HALIBUT	29.4	1.0	81.5	
3N	ROUGHHEAD G.	AUG	146	955	0.081	G. HALIBUT	28.8	0.8	61.2	
3N	ROUGHHEAD G.	SEP	1047	1181	0.185	G. HALIBUT	56.3	0.0	62.1	
3N	ROUGHHEAD G.	NOV	810	1100	0.096	G. HALIBUT	25.5	0.0	86.7	
3L	SKATES	FEB	686	1094	0.188	G. HALIBUT	24.9	2.8	76.0	
3L	SKATES	MAR	684	1014	0.131	G. HALIBUT	30.2	1.9	74.9	
3L	SKATES	APR	788	1031	0.218	THORNY SKATE	25.1	3.6	74.9	
3L	SKATES	MAY	815	958	0.184	G. HALIBUT	30.0	1.7	76.6	
3M	SKATES	FEB	980	989	0.112	G. HALIBUT	29.8	28.6	89.0	
3M	SKATES	APR	987	987	0.058	G. HALIBUT	33.2	4.7	85.4	
3N	SKATES	MAR	1023	1121	0.067	ROUGHHEAD G.	32.0	0.0	85.4	
3N	SKATES	APR	868	1202	0.370	THORNY SKATE	33.4	1.6	66.6	
3N	SKATES	MAY	675	1299	0.226	G. HALIBUT	31.2	1.2	76.1	
3N	SKATES	AUG	42.1	304	0.299	THORNY SKATE	32.1	2.8	67.9	
3N	SKATES	SEP	160	252	0.230	A. PLAICE	21.9	3.6	83.0	
3N	SKATES	NOV	93	1100	0.190	COD	19.8	1.8	85.1	
3O	SKATES	MAR	346	513	0.221	COD	25.5	0.8	83.6	
3O	SKATES	APR	345	517	0.072	A. PLAICE	22.9	5.9	90.2	
3O	SKATES	AUG	93.2	324	0.299	THORNY SKATE	27.0	3.2	73.0	
3O	SKATES	SEP	145	231	0.267	WHITE HAKE	24.4	2.8	77.8	
3O	SKATES	OCT	135	260	0.167	THORNY SKATE	28.9	4.2	71.1	
3O	SKATES	NOV	124	750	0.084	WHITE HAKE	19.4	6.2	82.8	
3O	SKATES	DEC	394	530	0.077	A. PLAICE	27.7	7.1	90.4	

TABLE IV - A: GREENLAND HALIBUT TRAWL CATCH RATES, 1988-2002: mean annual cpue's (ton/h) 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	0.401	0.084	41.8							0.415	0.096	46.1	1988
1989	0.375	0.047	37.5							0.369	0.057	46.1	1989
1990	0.336	0.034	35.1	0.238			0.189			0.329	0.034	38.4	1990
1991	0.176	0.025	31.2				0.178	0.031	29.9	0.177	0.017	27.2	1991
1992	0.105	0.032	96.2				0.223	0.025	38.8	0.172	0.023	65.2	1992
1993	0.101	0.022	30.5				0.180	0.018	34.1	0.149	0.018	46.1	1993
1994	0.096	0.026	39.1				0.148	0.023	37.8	0.130	0.016	35.3	1994
1995	0.159	0.026	46.0	0.178	0.017	21.2	0.158	0.023	38.7	0.163	0.016	42.9	1995
1996	0.211	0.021	35.9	0.215	0.021	29.6	0.188	0.019	26.6	0.193	0.009	24.8	1996
1997	0.224	0.017	25.5	0.263	0.025	26.7	0.173	0.004	3.3	0.214	0.016	33.8	1997
1998	0.258	0.018	25.6	0.190	0.029	53.9	0.181	0.013	23.1	0.225	0.010	28.0	1998
1999	0.300	0.022	22.8	0.294	0.023	23.8	0.234	0.020	26.0	0.282	0.017	32.8	1999
2000	0.294	0.020	18.0	0.283	0.024	19.3	0.296	0.047	31.8	0.291	0.019	25.5	2000
2001	0.236	0.028	30.9	0.217	0.010	12.2	0.211	0.014	14.3	0.219	0.012	24.0	2001
2002	0.249	0.016	21.7	0.199	0.022	37.4	0.257	0.028	24.5	0.226	0.013	31.1	2002

TABLE IV - B: GREENLAND HALIBUT TRAWL CATCH RATES, 1988-2002: mean cpue's (ton/h) by division corrected for the year, month and vessel of each observation.

	CPUE	ST.ERROR	C.V.	
3L	0.247	0.008	36.1	3L
3M	0.227	0.010	36.0	3M
3N	0.200	0.007	32.1	3N
3LMN	0.226	0.005	37.8	3LMN

TABLE V: Intensity of the trawl sampling during 2002, by species, division and month.

SPECIES	DIV.	MONTH	N° OF SAMPLES	N° FISH MEASURED	SAMPLING WEIGHT(Kg)	OTOLITHS	
						N°	LENGTH RANGE (cm)
COD	3N	APR	1	3	24	3	73 - 90
COD	3N	MAY	2	143	119	83	29 - 56
COD	3N	JUN	1	118	110	-	-
COD	3N	AUG	9	742	1018	131	30 - 76
COD	3N	SEP	12	1171	1491	-	-
COD	3N	OCT	3	170	283	82	40 - 64
COD	3N	NOV	15	2375	4113	208	35 - 71
COD	3N	DEC	1	29	230	29	44 - 108
COD	3O	MAR	2	178	310	75	37 - 118
COD	3O	APR	2	135	214	74	33 - 79
COD	3O	MAY	2	172	312	111	32 - 94
COD	3O	JUN	1	106	97	-	-
COD	3O	AUG	12	740	1023	190	29 - 85
COD	3O	SEP	11	1023	1222	-	-
COD	3O	OCT	6	196	358	103	34 - 74
COD	3O	NOV	17	981	1414	114	31 - 87
COD	3O	DEC	3	202	310	-	-
REDFISH (S. mentella)	3L	JAN	4	308	139	98	24 - 38
REDFISH (S. mentella)	3L	FEB	11	880	388	143	22 - 43
REDFISH (S. mentella)	3L	MAR	32	4285	1689	296	22 - 44
REDFISH (S. mentella)	3L	APR	20	2998	1188	245	20 - 42
REDFISH (S. mentella)	3L	MAY	10	1552	666	130	22 - 37
REDFISH (S. mentella)	3L	NOV	2	160	89	84	25 - 38
REDFISH (S. mentella)	3M	JAN	7	560	254	124	23 - 40
REDFISH (S. mentella)	3M	FEB	9	720	354	124	22 - 43
REDFISH (S. mentella)	3M	MAR	10	863	401	250	23 - 42
REDFISH (S. mentella)	3M	APR	14	1288	518	240	22 - 43
REDFISH (S. mentella)	3M	MAY	1	50	24	50	26 - 36
REDFISH (S. mentella)	3M	OCT	2	160	76	106	22 - 44
REDFISH (S. mentella)	3N	APR	1	90	47	90	22 - 38
REDFISH (S. mentella)	3N	MAY	17	3744	1522	127	21 - 38
REDFISH (S. mentella)	3N	JUN	1	321	120	-	-
REDFISH (S. mentella)	3N	AUG	4	1420	547	-	-
REDFISH (S. mentella)	3N	SEP	5	1564	530	-	-
REDFISH (S. mentella)	3N	OCT	1	50	13	50	21 - 37
REDFISH (S. mentella)	3N	NOV	2	931	276	-	-
REDFISH (S. mentella)	3O	MAR	2	745	155	-	-
REDFISH (S. mentella)	3O	APR	2	560	117	-	-
REDFISH (S. mentella)	3O	MAY	3	1004	215	-	-
REDFISH (S. mentella)	3O	AUG	11	3839	778	50	18 - 32
REDFISH (S. mentella)	3O	SEP	11	4586	1000	-	-
REDFISH (S. mentella)	3O	OCT	5	1601	397	-	-
REDFISH (S. mentella)	3O	NOV	17	4527	1091	103	7 - 35
REDFISH (S. mentella)	3O	DEC	4	908	257	-	-
REDFISH (S. marinus)	3N	SEP	2	373	159	-	-
REDFISH (S. marinus)	3O	MAR	1	275	85	-	-
AMERICAN PLAICE	3L	FEB	7	560	359	110	28 - 53
AMERICAN PLAICE	3L	MAR	20	2399	1536	255	25 - 66
AMERICAN PLAICE	3L	APR	22	2146	1354	258	21 - 52
AMERICAN PLAICE	3L	MAY	10	1084	685	160	21 - 66
AMERICAN PLAICE	3M	MAR	1	69	42	-	-
AMERICAN PLAICE	3M	APR	7	563	377	88	33 - 55
AMERICAN PLAICE	3M	MAY	1	51	34	51	29 - 52
AMERICAN PLAICE	3N	MAR	1	95	146	-	-
AMERICAN PLAICE	3N	APR	3	139	82	140	21 - 66
AMERICAN PLAICE	3N	MAY	21	2575	1610	224	21 - 56
AMERICAN PLAICE	3N	JUN	2	451	265	-	-
AMERICAN PLAICE	3N	AUG	8	2537	1756	116	20 - 55
AMERICAN PLAICE	3N	SEP	17	5872	3688	-	-
AMERICAN PLAICE	3N	OCT	3	215	183	138	21 - 56
AMERICAN PLAICE	3N	NOV	15	3336	2411	312	20 - 66
AMERICAN PLAICE	3N	DEC	1	135	110	-	-

TABLE V: count.

SPECIES	DIV.	MONTH	N° OF SAMPLES	N° FISH MEASURED	SAMPLING WEIGHT(Kg)	OTOLITHS	
						N°	LENGTH RANGE (cm)
AMERICAN PLAICE	3O	MAR	2	295	209	50	21 - 56
AMERICAN PLAICE	3O	APR	3	261	248	111	24 - 65
AMERICAN PLAICE	3O	MAY	3	271	227	100	23 - 69
AMERICAN PLAICE	3O	JUN	1	165	115	-	-
AMERICAN PLAICE	3O	AUG	12	2304	1569	50	25 - 66
AMERICAN PLAICE	3O	SEP	11	2454	1632	-	-
AMERICAN PLAICE	3O	OCT	6	474	444	100	27 - 67
AMERICAN PLAICE	3O	NOV	18	2985	2166	110	18 - 65
AMERICAN PLAICE	3O	DEC	3	334	232	-	-
YELLOWTAIL FLOUNDER	3N	APR	1	50	20	50	27 - 41
YELLOWTAIL FLOUNDER	3N	MAY	2	186	67	157	13 - 48
YELLOWTAIL FLOUNDER	3N	JUN	1	316	112	-	-
YELLOWTAIL FLOUNDER	3N	AUG	3	529	215	-	-
YELLOWTAIL FLOUNDER	3N	SEP	10	3937	1684	-	-
YELLOWTAIL FLOUNDER	3N	OCT	2	133	87	99	33 - 48
YELLOWTAIL FLOUNDER	3N	NOV	8	2609	1260	101	29 - 51
YELLOWTAIL FLOUNDER	3N	DEC	1	50	27	50	26 - 50
GREENLAND HALIBUT	3L	JAN	4	320	283	107	34 - 74
GREENLAND HALIBUT	3L	FEB	19	1520	1256	164	27 - 69
GREENLAND HALIBUT	3L	MAR	44	6279	5500	524	27 - 92
GREENLAND HALIBUT	3L	APR	25	4356	3473	436	29 - 85
GREENLAND HALIBUT	3L	MAY	10	2020	1771	343	26 - 89
GREENLAND HALIBUT	3L	JUL	23	6838	5868	471	25 - 94
GREENLAND HALIBUT	3L	AUG	16	4522	4113	369	24 - 93
GREENLAND HALIBUT	3L	OCT	5	400	386	-	-
GREENLAND HALIBUT	3L	NOV	9	720	569	135	30 - 64
GREENLAND HALIBUT	3M	JAN	9	720	672	127	35 - 69
GREENLAND HALIBUT	3M	FEB	14	1119	1109	139	32 - 67
GREENLAND HALIBUT	3M	MAR	16	1767	1566	189	31 - 69
GREENLAND HALIBUT	3M	APR	22	2773	2572	447	29 - 84
GREENLAND HALIBUT	3M	MAY	1	50	48	50	38 - 56
GREENLAND HALIBUT	3M	JUL	3	520	586	119	33 - 85
GREENLAND HALIBUT	3M	AUG	2	433	427	81	5 - 72
GREENLAND HALIBUT	3M	OCT	9	720	692	134	33 - 63
GREENLAND HALIBUT	3M	NOV	6	480	457	110	36 - 66
GREENLAND HALIBUT	3N	MAR	1	57	109	57	40 - 91
GREENLAND HALIBUT	3N	APR	2	151	187	151	24 - 79
GREENLAND HALIBUT	3N	MAY	19	4654	3805	344	25 - 85
GREENLAND HALIBUT	3N	JUN	1	326	281	-	-
GREENLAND HALIBUT	3N	AUG	15	3311	2944	368	26 - 88
GREENLAND HALIBUT	3N	SEP	6	2134	1820	-	-
GREENLAND HALIBUT	3N	OCT	1	19	14	19	24 - 55
GREENLAND HALIBUT	3N	NOV	5	1084	795	-	-
GREENLAND HALIBUT	3O	OCT	1	80	55	-	-
GREENLAND HALIBUT	3O	NOV	2	228	181	-	-
GREENLAND HALIBUT	3O	DEC	1	128	98	-	-
ROUGHHEAD GRENADIER	3L	MAR	17	3124	1418	209	2.5 - 31.5
ROUGHHEAD GRENADIER	3L	APR	15	2141	816	194	7.5 - 28.5
ROUGHHEAD GRENADIER	3L	MAY	10	1745	766	202	7 - 28.5
ROUGHHEAD GRENADIER	3L	JUL	23	4651	2239	358	6 - 30.5
ROUGHHEAD GRENADIER	3L	AUG	16	3898	2066	293	6 - 34
ROUGHHEAD GRENADIER	3L	OCT	4	320	203	108	11.5 - 24
ROUGHHEAD GRENADIER	3L	NOV	7	560	340	117	11 - 26
ROUGHHEAD GRENADIER	3M	FEB	1	80	36	52	11.5 - 21
ROUGHHEAD GRENADIER	3M	MAR	5	707	321	86	11 - 25
ROUGHHEAD GRENADIER	3M	APR	15	1963	1082	376	6 - 32
ROUGHHEAD GRENADIER	3M	MAY	1	50	37	50	10 - 27
ROUGHHEAD GRENADIER	3M	JUL	3	317	345	128	7.5 - 31.5
ROUGHHEAD GRENADIER	3M	AUG	2	392	181	51	6.5 - 17.5
ROUGHHEAD GRENADIER	3M	OCT	7	560	357	114	11 - 29.5
ROUGHHEAD GRENADIER	3M	NOV	6	480	296	100	11 - 27
ROUGHHEAD GRENADIER	3N	MAR	1	52	63	52	10.5 - 29
ROUGHHEAD GRENADIER	3N	APR	2	100	52	100	5 - 28
ROUGHHEAD GRENADIER	3N	MAY	18	4387	1723	209	7 - 28
ROUGHHEAD GRENADIER	3N	JUN	1	302	111	-	-
ROUGHHEAD GRENADIER	3N	AUG	15	3515	1898	283	4 - 32
ROUGHHEAD GRENADIER	3N	SEP	6	1875	871	-	-
ROUGHHEAD GRENADIER	3N	NOV	5	895	408	-	-
ROUGHHEAD GRENADIER	3O	DEC	1	224	82	-	-

TABLE V: count.

SPECIES	DIV.	MONTH	N° OF SAMPLES	N° FISH MEASURED	SAMPLING WEIGHT(Kg)	OTOLITHS	
						N°	LENGTH RANGE (cm)
WITCH FLOUNDER	3L	FEB	1	80	40	-	-
WITCH FLOUNDER	3L	MAR	12	1194	520	134	24 - 53
WITCH FLOUNDER	3L	APR	15	1187	528	151	24 - 55
WITCH FLOUNDER	3L	MAY	10	752	379	115	20 - 55
WITCH FLOUNDER	3L	OCT	1	80	36	-	-
WITCH FLOUNDER	3M	JAN	2	160	85	-	-
WITCH FLOUNDER	3M	FEB	4	320	167	-	-
WITCH FLOUNDER	3M	MAR	2	164	63	-	-
WITCH FLOUNDER	3M	APR	10	648	293	147	24 - 52
WITCH FLOUNDER	3N	APR	1	50	25	50	32 - 55
WITCH FLOUNDER	3N	MAY	18	1729	836	126	28 - 57
WITCH FLOUNDER	3N	JUN	1	174	86	-	-
WITCH FLOUNDER	3N	AUG	12	1117	563	68	37 - 55
WITCH FLOUNDER	3N	SEP	11	1683	764	-	-
WITCH FLOUNDER	3N	OCT	1	31	12	31	31 - 45
WITCH FLOUNDER	3N	NOV	6	726	346	-	-
WITCH FLOUNDER	3O	APR	2	165	79	50	33 - 51
WITCH FLOUNDER	3O	MAY	3	230	102	105	25 - 53
WITCH FLOUNDER	3O	AUG	12	1524	651	-	-
WITCH FLOUNDER	3O	SEP	11	1828	764	-	-
WITCH FLOUNDER	3O	OCT	7	542	237	-	-
WITCH FLOUNDER	3O	NOV	17	2040	770	138	26 - 54
WITCH FLOUNDER	3O	DEC	3	260	96	-	-
ATLANTIC HALIBUT	3N	OCT	1	7	228	7	91 - 166
ATLANTIC HALIBUT	3N	NOV	1	3	101	-	-
ATLANTIC HALIBUT	3O	OCT	1	4	39	4	83 - 119
ATLANTIC HALIBUT	3O	NOV	7	24	250	13	46 - 181
WHITE HAKE	3N	AUG	4	458	359	-	-
WHITE HAKE	3N	SEP	6	804	650	-	-
WHITE HAKE	3N	NOV	1	102	87	-	-
WHITE HAKE	3O	APR	2	155	147	-	-
WHITE HAKE	3O	MAY	3	189	218	100	30 - 70
WHITE HAKE	3O	JUN	1	143	102	-	-
WHITE HAKE	3O	AUG	12	1749	1435	179	22 - 92
WHITE HAKE	3O	SEP	11	2169	1737	-	-
WHITE HAKE	3O	OCT	6	408	591	107	34 - 71
WHITE HAKE	3O	NOV	17	1669	1658	137	25 - 77
WHITE HAKE	3O	DEC	3	180	162	-	-
THORNY SKATE	3N	OCT	1	26	76	-	-
THORNY SKATE	3N	NOV	11	316	1280	-	-
THORNY SKATE	3N	DEC	1	31	124	-	-
THORNY SKATE	3O	OCT	6	194	716	-	-
THORNY SKATE	3O	NOV	17	452	1744	-	-
THORNY SKATE	3O	DEC	2	52	202	-	-
SPINYTAIL SKATE	3N	OCT	1	4	34	-	-
SPINYTAIL SKATE	3N	NOV	4	32	365	-	-
SPINYTAIL SKATE	3O	DEC	1	5	52	-	-
MONKFISH	3O	OCT	5	115	379	-	-
MONKFISH	3O	NOV	17	292	960	-	-
MONKFISH	3O	DEC	2	28	90	-	-

TABLE VI: COD, DIV. 3N, 2002: length composition of the trawl catches.

LENGTH GROUP	APR	MAY	JUN	AUG	SEP	OCT	NOV	DEC	2nd Q.	3rd Q.	4th Q.	YEAR	LENGTH GROUP
27		13.7		1.7					2.6	0.5		0.1	27
30		68.4		20.9	8.5		0.8		12.8	12.1	0.6	2.8	30
33		171.1	50.8	19.6	26.8		4.0		73.1	24.8	3.2	8.0	33
36		123.2	135.6	20.7	54.9		9.5		132.8	45.1	7.6	15.9	36
39		104.6	194.9	59.0	98.8	9.4	19.1		177.3	87.5	17.1	31.7	39
42		176.0	372.9	87.0	120.4		37.7	34.5	334.7	110.9	30.1	48.5	42
45		128.6	110.2	87.5	169.3	28.2	78.5	34.5	113.2	146.0	68.4	82.6	45
48		27.4	33.9	210.0	180.8	75.1	121.7	69.0	32.5	189.1	112.2	124.6	48
51		122.3	50.8	192.5	144.5	324.7	176.6	34.5	64.0	158.2	206.3	195.9	51
54		57.2		121.5	68.1	262.8	241.4	34.5	10.7	83.3	245.6	213.9	54
57		7.3	16.9	75.3	27.2	215.5	159.1	34.5	15.1	40.9	170.4	145.6	57
60			16.9	45.5	30.3	78.1	74.1		13.7	34.6	74.8	66.9	60
63			8.5	19.8	23.0	6.3	41.2	34.5	6.9	22.1	34.2	31.7	63
66				9.3	22.6		15.1	103.4		18.8	12.1	13.1	66
69			8.5	8.5	7.1		9.8		6.9	7.5	7.8	7.8	69
72	333.3			9.8	8.1		6.1	69.0	1.3	8.6	4.9	5.5	72
75				6.1	4.5		3.6			4.9	2.8	3.2	75
78				4.0	4.6			69.0		4.4	0.04	0.8	78
81				1.3	0.4					0.6		0.1	81
84								103.4				0.1	84
87								69.0			0.04	0.04	87
90	666.7						0.4		2.6		0.3	0.3	90
93							0.4	69.0			0.3	0.3	93
96							0.7	69.0			0.6	0.5	96
99							0.4				0.3	0.2	99
102								69.0			0.04	0.04	102
105								69.0			0.04	0.04	105
108								34.5			0.02	0.02	108
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	1	2	1	9	12	3	15	1	4	21	19	44	
SAMPLING WEIGHT(kg)	24	119	110	1018	1491	283	4113	230	253	2509	4627	7389	
No. F. MEASURED	3	143	118	742	1171	170	2375	29	264	1913	2574	4751	
MEAN LENGTH(cm)	85.5	42.3	43.6	51.0	49.0	54.9	54.4	78.5	43.5	49.5	54.5	53.5	
MEAN WEIGHT (g)	5788	703	750	1234	1105	1450	1460	5188	761	1141	1461	1395	
DEPTH RANGE (m)	67/71	123/851	55/56	42/304	54/237	80/550	60/241	60/60	55/851	42/304	60/550	42/851	

TABLE VII: COD, DIV. 3O, 2002: length composition of the trawl catches.

LENGTH GROUP	MAR	APR	MAY	JUN	AUG	SEP	OCT	NOV	DEC	1st Q.	2nd Q.	3rd Q.	4th Q.	YEAR	LENGTH GROUP
27					3.4	0.6						1.5		0.7	27
30			14.1	9.4	20.1	3.5		1.5			8.0	9.1	1.1	5.9	30
33	5.4	20.4	67.1	28.3	40.9	18.7	2.3		6.9	5.4	34.2	26.1	1.1	18.6	33
36	36.5	22.5	70.7	84.9	78.3	75.3	3.3	20.7	9.8	36.5	66.4	76.3	17.6	54.4	36
39	37.1	68.5	98.9	283.0	108.0	157.1	29.5	32.5	36.6	37.1	191.9	140.6	32.8	109.7	39
42	81.0	130.3	155.4	273.6	83.7	203.6	48.3	85.2	94.1	81.0	213.7	163.3	82.8	141.9	42
45	119.7	66.3	166.0	217.0	170.1	143.6	93.3	206.5	88.6	119.7	168.9	152.5	180.1	161.6	45
48	132.5	158.1	74.2	37.7	154.7	159.0	166.6	193.1	105.5	132.5	75.3	157.5	179.0	149.5	48
51	148.5	135.6	49.5	18.9	131.0	56.2	194.1	186.1	238.5	148.5	54.3	81.3	193.8	115.4	51
54	85.7	109.9	28.3	9.4	68.4	57.8	208.4	129.1	216.8	85.7	38.4	61.4	148.3	85.7	54
57	70.1	51.3	42.4		52.2	57.1	117.4	70.5	61.0	70.1	21.5	55.5	73.7	56.5	57
60	71.5	90.8	45.9	9.4	28.4	25.9	68.6	30.7	37.9	71.5	37.2	26.7	35.3	33.7	60
63	60.0	60.8	31.8		26.4	7.5	28.9	13.8	31.0	60.0	21.7	13.9	17.5	19.0	63
66	24.3	29.9	45.9	9.4	11.2	13.3	28.7	11.5	33.7	24.3	22.0	12.6	16.1	15.8	66
69	58.7	29.9	17.7	9.4	6.3	9.8	2.0	3.4	8.6	58.7	16.2	8.6	4.0	11.4	69
72	11.5	13.9	14.1	9.4	6.7	5.0	6.7	6.6	22.4	11.5	11.5	5.6	8.7	7.8	72
75	11.5		14.1		6.7	1.8	2.0	5.1	4.3	11.5	2.9	3.5	4.7	4.2	75
78		11.7	14.1		1.9	3.5		1.8		11.5	5.8	2.9	1.4	2.7	78
81	11.5		14.1					1.5	4.3	11.5	2.9		1.7	1.7	81
84	11.5		14.1		1.7	0.9				11.5	2.9	1.2		1.7	84
87							0.4						0.3	0.1	87
90			7.1								1.4			0.2	90
93			14.1								2.9			0.5	93
96	11.5									11.5				0.7	96
99															99
102															102
105															105
108															108
111															111
114															114
117	11.5									11.5				0.7	117
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	2	2	2	1	12	11	6	17	3	2	5	23	26	56	
SAMPLING WEIGHT(kg)	310	214	312	97	1023	1222	358	1414	310	310	623	2245	2082	5260	
No. F. MEASURED	178	135	172	106	740	1023	196	981	202	178	413	1763	1379	3733	
MEAN LENGTH(cm)	55.5	52.7	51.0	43.9	48.3	47.4	53.5	51.0	53.2	55.5	47.5	47.7	51.6	49.3	
MEAN WEIGHT (g)	1785	1392	1443	769	1073	996	1383	1209	1389	1785	1062	1022	1249	1143	
DEPTH RANGE (m)	199/322	484/518	193/520	209/223	103/452	150/422	136/451	124/645	230/484	199/322	193/520	103/452	124/645	103/645	

TABLE VIII: REDFISH (*S. mentella*), DIV. 3L, 2002: length composition of the trawl catches.

LENGTH GROUP	JAN	FEB	MAR	APR	MAY	NOV	1st Q.	2nd Q.	4th Q.	YEAR	LENGTH GROUP
18			1.0				0.6			0.4	18
19			1.2				0.7			0.4	19
20			2.1	3.7			1.3	3.0		1.9	20
21			6.3	12.2			3.8	9.9		5.9	21
22		1.1	19.3	14.9			11.9	12.1		11.7	22
23		7.7	24.8	22.4	3.1		17.7	18.8		17.7	23
24	3.4	42.7	44.0	34.2	6.5		42.8	29.0		36.9	24
25	3.4	36.3	58.4	57.4	34.2	9.6	48.9	53.0	9.6	49.5	25
26	41.0	84.3	69.3	81.0	64.7		74.6	77.9		74.2	26
27	73.7	92.2	84.5	89.3	72.2	31.7	87.3	86.1	31.7	85.7	27
28	191.0	114.4	109.5	93.2	114.3	27.9	112.8	97.2	27.9	105.5	28
29	84.1	101.8	112.8	116.2	142.3	5.8	108.0	121.2	5.8	110.6	29
30	150.1	92.1	102.5	110.2	132.3	97.9	99.3	114.4	97.9	104.7	30
31	218.0	112.4	88.3	109.8	126.3	38.8	100.0	112.9	38.8	103.3	31
32	141.4	97.7	86.9	108.8	113.8	80.8	92.0	109.7	80.8	98.1	32
33	73.6	86.7	62.4	77.9	92.1	242.1	72.0	80.6	242.1	78.6	33
34	6.9	66.7	55.4	33.1	52.0	197.1	58.9	36.7	197.1	53.8	34
35	3.5	31.7	32.8	16.9	33.8	162.5	31.9	20.1	162.5	30.4	35
36	4.6	21.1	15.9	9.1	11.5	71.3	17.7	9.6	71.3	15.9	36
37	1.1	3.3	12.2	4.8	0.9	12.5	8.5	4.0	12.5	7.0	37
38	4.5	2.0	5.0	4.0		22.1	3.8	3.2	22.1	4.0	38
39		0.7	1.4	0.6			1.1	0.5		0.8	39
40			1.0	0.4			0.6	0.3		0.5	40
41			0.5				0.3			0.2	41
42		2.5	1.0	0.1			1.6	0.0		1.0	42
43		2.5	0.4				1.2			0.8	43
44			1.2				0.7			0.4	44
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	4	11	32	20	10	2	47	30	2	79	
SAMPLING WEIGHT(kg)	139	388	1689	1188	666	89	2216	1853	89	4158	
No. F.MEASURED	308	880	4285	2998	1552	160	5473	4550	160	10183	
MEAN LENGTH(cm)	30.4	30.3	29.8	29.6	30.5	33.5	30.0	29.8	33.5	30.0	
MEAN WEIGHT (g)	414	416	398	389	420	551	405	395	551	405	
DEPTH RANGE (m)	714/1030	604/1012	696/1017	812/1203	825/1155	725/830	604/1030	812/1203	725/830	604/1203	

TABLE IX - A: REDFISH (*S. mentella*), DIV. 3M, 2002: length composition of the trawl catches.

LENGTH GROUP	JAN	FEB	MAR	APR	MAY	OCT	1st Q.	2nd Q.	4th Q.	YEAR	LENGTH GROUP
22				11.4		9.1		11.3	9.1	3.2	22
23	2.8	1.9	2.6	1.8		13.6	2.4	1.8	13.6	2.3	23
24	12.6	10.9	4.7	42.5		22.6	7.8	41.9	22.6	17.5	24
25	45.6	20.7	20.6	83.4		95.5	24.6	82.2	95.5	41.4	25
26	57.5	69.9	41.8	83.8	20.0	49.8	52.5	82.9	49.8	61.0	26
27	127.2	109.4	69.5	107.3		45.3	90.4	105.7	45.3	94.3	27
28	97.7	106.2	133.6	150.2	100.0	26.1	119.9	149.5	26.1	127.2	28
29	137.9	117.0	153.2	120.8	60.0	62.5	140.2	119.9	62.5	133.8	29
30	170.0	134.6	128.7	106.7	120.0	76.1	137.1	106.9	76.1	128.0	30
31	115.3	128.8	119.1	86.9	180.0	81.9	121.3	88.2	81.9	111.7	31
32	71.0	100.4	97.7	79.6	200.0	29.5	94.2	81.3	29.5	90.0	32
33	79.2	69.4	96.2	73.5	180.0	120.6	85.7	75.1	120.6	83.0	33
34	43.3	63.6	62.2	30.0	80.0	80.8	59.5	30.8	80.8	51.7	34
35	13.3	34.1	33.6	8.6	40.0	64.9	30.5	9.1	64.9	24.8	35
36	13.5	10.0	27.1	2.9	20.0	154.7	19.9	3.2	154.7	16.5	36
37	1.9	1.0	6.1	2.2		37.5	4.0	2.2	37.5	3.8	37
38	2.7	15.4	0.3	0.9		12.5	5.1	0.9	12.5	4.0	38
39	1.8	3.2	1.1	4.5		4.5	1.8	4.4	4.5	2.6	39
40	6.7		0.6			8.0	1.4		8.0	1.1	40
41				0.8				0.8		0.2	41
42			1.3				0.7			0.5	42
43		3.4		2.0			1.0	2.0		1.3	43
44						4.5			4.5	0.04	44
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	7	9	10	14	1	2	26	15	2	43	
SAMPLING WEIGHT(kg)	254	354	401	518	24	76	1008	542	76	1626	
No. F.MEASURED	560	720	863	1288	50	160	2143	1338	160	3641	
MEAN LENGTH(cm)	30.2	30.6	30.8	29.4	31.9	31.9	30.6	29.4	31.9	30.3	
MEAN WEIGHT (g)	405	425	431	377	474	492	425	378	492	413	
DEPTH RANGE (m)	630/1084	803/1030	766/1014	873/1113	1024/1100	368/754	630/1084	873/1113	368/754	368/1113	

TABLE IX - B: REDFISH (*S.mentella*), DIV.3M, 2002: age composition (%), mean length (cm) and mean weight (Kg) at age of the trawl catches.

AGE	JAN.			FEB.			MAR.			APR.			MAY			OUT.			AGE
	AGE COMP.	MEAN LENGTH	MEAN WEIGHT	AGE COMP.	MEAN LENGTH	MEAN WEIGHT	AGE COMP.	MEAN LENGTH	MEAN WEIGHT	AGE COMP.	MEAN LENGTH	MEAN WEIGHT	AGE COMP.	MEAN LENGTH	MEAN WEIGHT	AGE COMP.	MEAN LENGTH	MEAN WEIGHT	
4	0.0	0.0	0.000	0.0	0.0	0.000	0.0	0.0	0.000	0.0	22.5	0.163	0.0	0.0	0.000	0.6	22.5	0.163	4
5	0.6	24.1	0.200	1.0	24.3	0.206	0.6	24.0	0.200	4.4	23.9	0.196	0.0	0.0	0.000	5.1	23.2	0.179	5
6	19.3	25.1	0.227	11.3	24.9	0.223	9.0	25.0	0.224	47.4	24.7	0.217	0.0	0.0	0.000	52.7	24.8	0.219	6
7	41.7	25.6	0.240	29.0	25.7	0.244	20.6	25.6	0.241	86.2	25.3	0.234	4.4	26.5	0.267	72.3	25.3	0.233	7
8	97.0	27.4	0.296	91.4	27.4	0.297	74.6	27.8	0.308	118.4	27.3	0.292	26.6	27.9	0.313	55.3	26.6	0.272	8
9	139.5	28.2	0.324	128.2	28.2	0.323	119.0	28.5	0.335	148.3	28.2	0.323	56.9	29.0	0.354	59.0	28.0	0.317	9
10	84.7	30.0	0.390	79.5	30.0	0.391	77.3	29.8	0.383	74.6	29.8	0.381	50.4	30.1	0.393	37.2	30.2	0.398	10
11	106.2	31.7	0.460	124.8	31.7	0.463	110.2	31.8	0.468	87.9	31.6	0.458	173.4	32.2	0.481	88.9	32.1	0.481	11
12	346.3	30.3	0.404	324.8	30.4	0.408	370.1	30.4	0.410	300.2	30.1	0.397	387.7	31.3	0.445	203.9	31.1	0.437	12
13	71.1	33.9	0.565	68.0	33.6	0.550	92.0	34.0	0.571	56.0	33.4	0.540	149.4	33.8	0.557	155.7	35.2	0.633	13
14	15.7	33.7	0.551	24.4	33.9	0.563	28.2	33.6	0.550	17.1	33.5	0.543	44.2	33.6	0.548	25.0	35.3	0.637	14
15	24.2	34.3	0.584	32.4	34.4	0.588	39.0	35.0	0.620	19.7	34.3	0.586	47.2	34.0	0.569	87.3	35.7	0.660	15
16	5.9	35.7	0.656	11.1	35.8	0.664	16.5	35.8	0.664	3.5	35.6	0.651	10.0	35.5	0.645	66.7	36.2	0.686	16
17	21.9	31.4	0.448	26.5	32.3	0.494	17.4	32.4	0.495	16.4	31.6	0.457	15.7	33.8	0.562	15.3	33.2	0.535	17
18	0.9	38.5	0.824	1.1	38.5	0.824	0.1	38.5	0.824	0.1	38.5	0.824	0.0	0.0	0.000	4.2	38.5	0.824	18
19+	24.9	36.5	0.717	46.5	36.6	0.722	25.5	35.2	0.640	19.7	36.5	0.725	34.2	33.9	0.564	70.9	37.1	0.750	19+
TOTAL	1000			1000			1000			1000			1000			1000			

AGE	1st Q.			2nd Q.			4th Q.			YEAR			AGE
	AGE COMP.	MEAN LENGTH	MEAN WEIGHT	AGE COMP.	MEAN LENGTH	MEAN WEIGHT	AGE COMP.	MEAN LENGTH	MEAN WEIGHT	AGE COMP.	MEAN LENGTH	MEAN WEIGHT	
4	0.0	#DIV/0!	#DIV/0!	0.0	22.5	0.163	0.6	22.5	0.163	0.0	22.5	0.163	4
5	0.7	24.2	0.202	4.3	23.9	0.196	5.1	23.2	0.179	1.8	23.9	0.197	5
6	11.4	25.0	0.225	46.7	24.7	0.217	52.7	24.8	0.219	21.6	24.8	0.220	6
7	26.5	25.6	0.242	85.1	25.3	0.234	72.3	25.3	0.233	43.3	25.4	0.237	7
8	83.1	27.6	0.303	117.1	27.3	0.292	55.3	26.6	0.272	92.3	27.5	0.299	8
9	125.0	28.4	0.329	146.9	28.2	0.323	59.0	28.0	0.317	130.5	28.3	0.327	9
10	79.1	29.9	0.387	74.2	29.8	0.382	37.2	30.2	0.398	77.4	29.9	0.385	10
11	113.8	31.8	0.465	89.2	31.6	0.458	88.9	32.1	0.481	106.7	31.8	0.464	11
12	353.1	30.4	0.409	301.4	30.1	0.398	203.9	31.1	0.437	337.2	30.3	0.406	12
13	81.6	33.9	0.565	57.4	33.5	0.541	155.7	35.2	0.633	75.6	33.8	0.561	13
14	25.1	33.7	0.554	17.5	33.5	0.543	25.0	35.3	0.637	22.9	33.7	0.553	14
15	34.7	34.7	0.607	20.1	34.3	0.585	87.3	35.7	0.660	31.1	34.7	0.605	15
16	13.2	35.8	0.664	3.6	35.6	0.651	66.7	36.2	0.686	11.0	35.8	0.664	16
17	20.8	32.2	0.487	16.4	31.6	0.459	15.3	33.2	0.535	19.5	32.1	0.480	17
18	0.5	38.5	0.824	0.1	38.5	0.824	4.2	38.5	0.824	0.4	38.5	0.824	18
19+	31.5	36.0	0.685	19.9	36.5	0.721	70.9	37.1	0.750	28.6	36.1	0.694	19+
TOTAL	1000			1000			1000			1000			

TABLE X: REDFISH (*S. mentella*), DIV. 3N, 2002: length composition of the trawl catches.

LENGTH GROUP	APR	MAY	JUN	AUG	SEP	OCT	NOV	2nd Q.	3rd Q.	4th Q.	YEAR	LENGTH GROUP
16							1.2			1.0	0.3	16
17							4.6			3.9	1.0	17
18							2.3			1.9	0.5	18
19					0.5		8.1		0.2	6.7	1.9	19
20		1.8		11.4	2.5		26.6	1.5	7.2	22.2	9.0	20
21		4.5		32.4	21.0	40.0	59.9	3.8	27.1	56.6	25.9	21
22	11.1	8.5		64.5	53.0	20.0	119.1	8.1	59.1	102.6	51.0	22
23	11.1	14.3	18.7	63.4	48.0	80.0	139.9	14.3	56.2	129.9	59.5	23
24		21.6	28.0	55.0	50.1	60.0	127.8	20.2	52.7	116.5	57.0	24
25	33.3	35.1	68.5	62.8	61.9	100.0	75.1	37.4	62.4	79.3	57.3	25
26	33.3	61.6	105.9	50.1	61.0	140.0	58.8	62.3	55.2	72.4	62.4	26
27	11.1	94.7	137.1	66.3	71.1	180.0	73.3	90.3	68.5	91.1	82.8	27
28	22.2	110.5	168.2	46.2	115.2	100.0	69.3	106.9	78.3	74.4	88.2	28
29	55.6	95.0	118.4	70.9	105.5	80.0	50.7	93.2	87.0	55.6	81.1	29
30	111.1	112.7	105.9	78.5	126.8	40.0	63.2	112.1	101.0	59.3	94.3	30
31	111.1	113.5	87.2	114.1	104.5	80.0	54.2	111.4	109.6	58.5	96.9	31
32	111.1	140.3	59.2	108.3	60.8	40.0	25.2	131.9	86.2	27.7	88.3	32
33	111.1	91.0	59.2	93.5	64.5		15.6	90.5	80.0	13.0	66.5	33
34	111.1	47.0	24.9	34.4	27.8		5.5	51.1	31.3	4.6	31.9	34
35	111.1	29.2	18.7	38.0	14.0	20.0	5.5	35.7	26.9	7.9	25.3	35
36	88.9	8.4		3.2	5.2		3.5	14.9	4.1	2.9	7.9	36
37	44.4	4.2		2.6	2.3	20.0	2.3	7.5	2.5	5.3	5.1	37
38	22.2	2.5		2.6	2.7		2.3	4.1	2.7	1.9	3.0	38
39		1.6		0.9			3.5	1.3	0.5	2.9	1.4	39
40		0.9		0.5	1.8		1.2	0.8	1.1	1.0	0.9	40
41							1.2			1.0	0.3	41
42		0.7						0.6			0.2	42
43		0.4		0.3				0.3	0.1		0.2	43
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	1	17	1	4	5	1	2	19	9	3	31	
SAMPLING WEIGHT(kg)	47	1522	120	547	530	13	276	1689	1077	289	3055	
No. F.MEASURED	90	3744	321	1420	1564	50	931	4155	2984	981	8120	
MEAN LENGTH(cm)	32.6	30.3	29.1	28.9	28.8	27.6	26.1	30.4	28.9	26.3	28.8	
MEAN WEIGHT (g)	516	413	368	372	362	317	275	419	367	282	365	
DEPTH RANGE (m)	965/998	727/1161	1042/1048	125/917	160/1177	437/530	200/413	727/1161	125/1177	200/530	125/1177	

TABLE XI: REDFISH (*S. mentella*), DIV. 3O, 2002: length composition of the trawl catches.

LENGTH GROUP	MAR	APR	MAY	AUG	SEP	OCT	NOV	DEC	1st Q.	2nd Q.	3rd Q.	4th Q.	YEAR	LENGTH GROUP
15					0.5	3.4	0.1				0.2	0.5	0.2	15
16					2.2	3.8	1.5	2.0			0.8	1.8	1.0	16
17	2.0	5.9	2.6	1.3	8.0	3.8	3.2	1.3	2.0	3.3	3.9	3.2	3.6	17
18	2.0	10.2	3.6	8.7	13.2	8.0	4.9	10.5	2.0	5.0	10.4	5.5	8.5	18
19	6.8	24.9	14.0	33.7	23.6	18.0	14.8	19.4	6.8	16.4	29.8	15.3	24.5	19
20	42.7	73.6	35.5	75.0	48.1	38.1	38.2	56.1	42.7	43.9	64.7	38.7	55.8	20
21	121.0	153.8	141.5	150.6	121.8	91.2	83.4	121.9	121.0	144.2	139.5	85.6	125.1	21
22	144.0	187.9	198.1	211.5	175.1	134.1	166.0	190.8	144.0	195.9	197.5	162.8	187.2	22
23	218.7	206.8	193.2	169.3	162.3	126.9	170.0	138.6	218.7	196.2	166.6	163.6	169.0	23
24	159.1	97.8	139.4	132.7	118.4	122.7	155.4	104.1	159.1	130.2	127.2	149.7	134.0	24
25	158.4	63.6	112.0	92.2	81.4	124.3	115.0	82.0	158.4	101.4	88.1	115.1	97.6	25
26	55.9	57.9	51.7	57.4	51.3	58.8	83.8	40.5	55.9	53.1	55.0	79.3	61.4	26
27	32.0	57.4	35.4	36.7	42.1	31.8	56.5	28.7	32.0	40.2	38.8	52.5	42.5	27
28	19.2	22.7	23.7	14.7	48.7	36.0	27.2	24.1	19.2	23.5	27.8	28.2	27.4	28
29	15.7	20.4	17.1	7.3	31.4	48.1	21.1	39.6	15.7	17.8	16.5	25.1	18.9	29
30	19.2	13.4	7.8	4.3	30.0	57.3	13.4	36.1	19.2	9.1	14.2	19.6	15.3	30
31	1.5	3.7	8.5	2.4	16.7	31.6	12.5	25.6	1.5	7.4	7.9	15.3	9.7	31
32	2.0		1.8	1.9	12.2	9.3	11.3	24.6	2.0	1.4	5.9	11.5	7.0	32
33			2.9	0.3	5.3	17.8	5.5	23.3		2.3	2.2	7.6	3.6	33
34			2.9		2.6	8.0	2.9	15.9		2.3	1.0	3.9	1.9	34
35			0.9		2.4	8.2	5.0	8.9		0.7	0.9	5.6	2.1	35
36			1.8		1.0	5.5	3.6	3.0		1.4	0.4	3.8	1.4	36
37			2.9		0.7	4.2	2.2	1.5		2.3	0.3	2.4	1.0	37
38			2.9		0.7	3.0	2.1	1.5		2.3	0.3	2.2	0.9	38
39					0.2	2.1	0.6				0.1	0.7	0.2	39
40						1.8						0.2	0.1	40
41						1.1						0.1	0.04	41
42						1.1						0.14	0.04	42
43						0.2						0.02	0.01	43
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	2	2	3	11	11	5	17	4	2	5	22	26	55	
SAMPLING WEIGHT(kg)	155	117	215	778	1000	397	1091	257	155	332	1778	1745	4010	
No. F.MEASURED	745	560	1004	3839	4586	1601	4527	908	745	1564	8425	7036	17770	
MEAN LENGTH(cm)	24.1	23.6	24.0	23.4	24.3	25.4	24.6	24.9	24.1	23.9	23.8	24.7	24.0	
MEAN WEIGHT (g)	207	197	209	191	221	256	227	241	207	206	203	231	211	
DEPTH RANGE (m)	199/322	484/518	168/520	103/452	150/570	135/451	160/750	207/769	199/322	168/520	103/570	135/769	103/769	

TABLE XII: REDFISH (*S. marinus*), DIV. 3N, 2002:
length composition of the trawl catches.

LENGTH GROUP	SEP =YEAR	LENGTH GROUP
24	10.3	24
25	25.8	25
26	72.1	26
27	78.5	27
28	161.9	28
29	228.0	29
30	136.3	30
31	94.4	31
32	78.4	32
33	49.8	33
34	36.5	34
35	22.7	35
36	5.2	36
TOTAL	1000	

No. SAMPLES	2
SAMPLING WEIGHT(kg)	159
No. F.MEASURED	373
MEAN LENGTH(cm)	29.9
MEAN WEIGHT (g)	395
DEPTH RANGE (m)	164/208

TABLE XIII: REDFISH (*S. marinus*), DIV. 3O, 2002:
length composition of the trawl catches.

LENGTH GROUP	MAR =YEAR	LENGTH GROUP
18	3.6	18
19		19
20	10.9	20
21	54.5	21
22	109.1	22
23	130.9	23
24	145.5	24
25	109.1	25
26	43.6	26
27	36.4	27
28	25.5	28
29	69.1	29
30	101.8	30
31	43.6	31
32	25.5	32
33	3.6	33
34	7.3	34
35	7.3	35
36	3.6	36
37	18.2	37
38	21.8	38
39	10.9	39
40	7.3	40
41	7.3	41
42	3.6	42
TOTAL	1000	

No. SAMPLES	1
SAMPLING WEIGHT(kg)	85
No. F.MEASURED	275
MEAN LENGTH(cm)	27.0
MEAN WEIGHT (g)	313
DEPTH RANGE (m)	199/288

TABLE XIV: AMERICAN PLAICE, DIV. 3L, 2002: length composition of the trawl catches.

LENGTH GROUP	FEB	MAR	APR	MAY	1st Q.	2nd Q.	YEAR	LENGTH GROUP
20				0.2		0.1	0.03	20
22		0.1	0.5	1.0	0.1	0.6	0.3	22
24		0.2	1.7	0.5	0.2	1.4	0.7	24
26		1.6	4.3	2.8	1.0	4.0	2.4	26
28	2.5	4.4	22.4	6.8	3.7	18.6	10.4	28
30	29.9	19.7	40.1	24.5	23.4	36.3	29.2	30
32	46.4	36.7	75.5	71.6	40.2	74.6	55.7	32
34	121.8	160.4	85.5	101.4	146.3	89.3	120.7	34
36	220.3	158.9	150.9	145.9	181.3	149.7	167.1	36
38	179.1	192.5	175.1	218.8	187.6	185.6	186.7	38
40	185.2	150.2	147.6	132.3	163.0	144.0	154.4	40
42	95.3	160.0	156.1	143.4	136.4	153.1	143.9	42
44	68.4	54.6	74.5	73.5	59.6	74.2	66.2	44
46	39.5	32.3	35.8	55.4	34.9	40.6	37.5	46
48	8.1	13.7	14.8	10.4	11.7	13.7	12.6	48
50		10.9	7.7	3.2	6.9	6.6	6.8	50
52	3.3	2.5	3.8	6.4	2.8	4.4	3.5	52
54		0.5	2.3	0.2	0.3	1.8	1.0	54
56		0.3	1.4		0.2	1.0	0.6	56
58								58
60								60
62								62
64								64
66		0.3		1.6	0.2	0.4	0.3	66
TOTAL	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	7	20	22	10	27	32	59	
SAMPLING WEIGHT(kg)	359	1536	1354	685	1895	2038	3933	
No. F.MEASURED	560	2399	2146	1084	2959	3230	6189	
MEAN LENGTH(cm)	39.1	39.4	39.3	39.6	39.3	39.3	39.3	
MEAN WEIGHT (g)	598	614	613	623	608	616	612	
DEPTH RANGE (m)	686/1007	724/1105	788/1203	825/1155	686/1105	788/1203	686/1203	

TABLE XV-A: AMERICAN PLAICE, DIV. 3M, 2002: length composition of the trawl catches.

LENGTH GROUP	MAR	APR	MAY	1st Q.	2nd Q.	YEAR	LENGTH GROUP
26	14.5	1.6		14.5	1.5	2.4	26
28	14.5	6.2	19.6	14.5	7.6	8.0	28
30	14.5	14.7	19.6	14.5	15.2	15.1	30
32	101.4	33.0	19.6	101.4	31.7	36.4	32
34	101.4	124.5	156.9	101.4	127.8	126.0	34
36	101.4	206.7	137.3	101.4	199.7	193.2	36
38	130.4	162.5	156.9	130.4	162.0	159.8	38
40	188.4	141.4	176.5	188.4	144.9	147.8	40
42	173.9	142.3	98.0	173.9	137.9	140.3	42
44	101.4	59.0	78.4	101.4	60.9	63.7	44
46	29.0	39.6	58.8	29.0	41.5	40.7	46
48	29.0	31.4	58.8	29.0	34.2	33.8	48
50		15.6			14.1	13.1	50
52		16.9	19.6		17.2	16.0	52
54		4.3			3.9	3.6	54
TOTAL	1000	1000	1000	1000	1000	1000	
No. SAMPLES	1	7	1	1	8	9	
SAMPLING WEIGHT(kg)	42	377	34	42	410	453	
No. F.MEASURED	69	563	51	69	614	683	
MEAN LENGTH(cm)	39.6	40.0	40.2	39.6	40.0	40.0	
MEAN WEIGHT (g)	630	656	667	630	658	656	
DEPTH RANGE (m)	938/1014	946/1092	1024/1100	938/1014	946/1100	938/1100	

TABLE XV - B: AMERICAN PLAICE, DIV.3M, 2002: age composition (%), mean length (cm) and mean weight (Kg) at age of the trawl

AGE	MAR.			APR.			MAY			AGE
	AGE COMP.	MEAN LENGTH	MEAN WEIGHT	AGE COMP.	MEAN LENGTH	MEAN WEIGHT	AGE COMP.	MEAN LENGTH	MEAN WEIGHT	
3	21.7	29.7	0.234	10.3	29.8	0.235	19.6	29.0	0.213	3
4	43.5	31.0	0.275	32.6	33.1	0.338	49.0	33.4	0.346	4
5	65.2	36.8	0.470	170.5	36.8	0.471	88.2	36.3	0.452	5
6	249.5	36.3	0.458	228.9	37.4	0.506	237.1	37.7	0.514	6
7	141.0	41.8	0.732	120.0	41.6	0.720	95.0	41.0	0.694	7
8	306.1	41.5	0.708	223.2	41.3	0.699	248.2	41.2	0.696	8
9	12.8	41.1	0.710	21.0	41.4	0.718	23.6	42.0	0.760	9
10	46.3	40.8	0.708	47.5	40.5	0.693	60.1	41.2	0.730	10
11	41.3	44.2	0.892	47.0	44.7	0.942	61.2	44.8	0.941	11
12	30.1	44.1	0.882	31.4	45.0	0.961	38.2	45.0	0.952	12
13	29.0	44.8	0.928	34.6	46.5	1.069	45.0	45.8	1.017	13
14	5.0	48.4	1.173	10.6	50.0	1.312	10.7	48.7	1.199	14
15	4.4	49.0	1.219	8.5	50.4	1.342	10.3	49.5	1.267	15
16	1.8	49.0	1.219	6.1	51.6	1.458	6.9	50.9	1.396	16
17	1.4	47.0	1.062	4.9	50.9	1.410	4.3	48.9	1.226	17
18	0.9	49.0	1.219	2.8	51.4	1.435	2.5	50.1	1.319	18
TOTAL	1000			1000			1000			

AGE	1st Q.			2nd Q.			YEAR			AGE
	AGE COMP.	MEAN LENGTH	MEAN WEIGHT	AGE COMP.	MEAN LENGTH	MEAN WEIGHT	AGE COMP.	MEAN LENGTH	MEAN WEIGHT	
3	21.7	29.7	0.234	11.3	29.7	0.231	12.0	29.7	0.231	3
4	43.5	31.0	0.275	34.3	33.2	0.339	34.9	33.0	0.334	4
5	65.2	36.8	0.470	162.3	36.8	0.470	155.8	36.8	0.470	5
6	249.5	36.3	0.458	229.7	37.5	0.507	231.0	37.4	0.503	6
7	141.0	41.8	0.732	117.5	41.5	0.718	119.1	41.5	0.719	7
8	306.1	41.5	0.708	225.7	41.3	0.699	231.1	41.3	0.699	8
9	12.8	41.1	0.710	21.3	41.4	0.723	20.7	41.4	0.723	9
10	46.3	40.8	0.708	48.8	40.6	0.698	48.6	40.6	0.699	10
11	41.3	44.2	0.892	48.4	44.7	0.942	47.9	44.7	0.939	11
12	30.1	44.1	0.882	32.1	45.0	0.960	31.9	45.0	0.955	12
13	29.0	44.8	0.928	35.6	46.4	1.062	35.2	46.3	1.055	13
14	5.0	48.4	1.173	10.6	49.8	1.300	10.3	49.8	1.296	14
15	4.4	49.0	1.219	8.7	50.3	1.333	8.4	50.2	1.329	15
16	1.8	49.0	1.219	6.2	51.5	1.451	5.9	51.5	1.446	16
17	1.4	47.0	1.062	4.8	50.7	1.394	4.6	50.7	1.387	17
18	0.9	49.0	1.219	2.8	51.2	1.425	2.7	51.2	1.420	18
TOTAL	1000			1000			1000			

TABLE XVI-A: AMERICAN PLAICE, DIV. 3N, 2002: length composition of the trawl catches.

LENGTH GROUP	APR	MAY	JUN	AUG	SEP	OCT	NOV	DEC	2nd Q.	3rd Q.	4th Q.	YEAR	LENGTH GROUP
16					0.8					0.4		0.3	16
18					1.2		1.2			0.7	1.0	0.7	18
20	10.6	0.2		0.8	2.1	1.8	2.8		1.3	1.5	2.6	1.9	20
22	18.7	2.0		0.9	4.0		4.7	7.4	3.7	2.7	4.0	3.2	22
24	11.5	7.1		5.7	7.4	1.8	11.4	14.8	7.3	6.7	9.8	7.8	24
26	33.5	7.7	4.2	40.4	14.7	1.8	20.5	22.2	10.4	25.5	17.3	21.4	26
28	64.3	16.3	18.4	38.4	36.8		24.0	29.6	21.7	37.4	20.0	30.3	28
30	83.0	42.1	28.5	45.5	57.7	1.8	29.7	59.3	46.0	52.6	25.4	43.2	30
32	99.6	63.6	115.1	44.2	79.4	12.7	57.7	81.5	69.9	64.6	50.3	60.5	32
34	115.3	107.3	131.1	76.5	109.9	12.7	76.8	103.7	109.2	95.9	66.2	87.6	34
36	153.9	158.1	215.3	132.1	131.4	64.3	108.5	103.7	160.2	131.7	100.8	124.5	36
38	110.8	161.2	170.8	112.6	152.0	52.5	109.1	96.3	156.1	135.5	99.1	125.8	38
40	45.3	165.8	132.3	76.0	113.7	190.2	104.0	37.0	151.0	97.9	117.8	109.3	40
42	69.5	138.0	91.0	101.8	92.0	90.5	101.7	51.9	128.4	96.1	99.0	100.1	42
44	56.5	60.3	34.1	114.9	64.4	186.7	130.5	51.9	58.7	85.6	139.0	100.2	44
46	67.0	45.5	29.1	88.5	42.3	204.3	97.3	74.1	47.2	61.7	115.4	77.5	46
48	48.3	17.8	8.3	44.3	32.6	91.1	46.1	59.3	20.8	37.5	54.1	41.3	48
50	0.9	3.3	11.0	23.2	15.1	78.4	23.2	37.0	3.4	18.5	32.9	21.7	50
52	10.6	3.1	6.2	21.7	14.1	6.3	15.9	59.3	4.1	17.3	14.9	15.3	52
54	0.9		4.7	6.8	9.6	1.8	10.1	29.6	0.3	8.4	9.0	7.8	54
56		0.2		7.1	7.1	1.8	7.1	37.0	0.2	7.1	6.6	6.3	56
58				7.2	5.2		7.7	14.8		6.0	6.5	5.6	58
60		0.3		7.1	2.8		5.1	14.8	0.2	4.6	4.4	4.1	60
62				2.3	2.3		2.3	14.8		2.3	2.1	2.0	62
64				0.4	1.3		1.9			0.9	1.6	1.0	64
66				1.4	0.2		0.4			0.7	0.4	0.5	66
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	3	21	2	8	17	3	15	1	26	25	19	70	
SAMPLING WEIGHT(kg)	82	1610	265	1756	3688	183	2411	110	1957	5444	2705	10106	
No. F.MEASURED	139	2575	451	2537	5872	215	3336	135	3165	8409	3686	15260	
MEAN LENGTH(cm)	37.2	39.0	38.3	40.4	39.1	44.1	40.9	41.7	38.8	39.7	41.5	40.2	
MEAN WEIGHT (g)	545	601	569	705	633	862	724	811	594	663	749	684	
DEPTH RANGE (m)	67/1202	51/1161	55/1048	42/304	54/217	70/550	71/750	60/60	51/1202	42/304	60/750	42/1202	

TABLE XVI-B: AMERICAN PLAICE, DIV. 3N, 2002: length composition of the 200mm trawl catches.

LENGTH GROUP	MAR =YEAR	LENGTH GROUP
34	10.5	34
36	31.6	36
38	94.7	38
40	31.6	40
42	10.5	42
44		44
46	31.6	46
48	42.1	48
50	115.8	50
52	189.5	52
54	200.0	54
56	126.3	56
58	31.6	58
60	73.7	60
62	10.5	62
TOTAL	1000	
No. SAMPLES	1	
SAMPLING WEIGHT(kg)	146	
No. F.MEASURED	95	
MEAN LENGTH(cm)	51.7	
MEAN WEIGHT (g)	1420	
DEPTH RANGE (m)	58/67	

TABLE XVII-A: AMERICAN PLAICE, DIV. 30, 2002: length composition of the trawl catches.

LENGTH GROUP	MAR	APR	MAY	JUN	AUG	SEP	OCT	NOV	DEC	1st Q.	2nd Q.	3rd Q.	4th Q.	YEAR	LENGTH GROUP
14								0.7					0.6	0.2	14
16								2.7					2.2	0.8	16
18						0.7		3.4				0.4	2.8	1.3	18
20	8.3					0.4	0.7	4.4		8.3		0.3	3.6	2.0	20
22			4.2		0.2	2.5	4.2	10.7			1.5	1.7	9.0	4.3	22
24	4.1	66.4	20.9		3.4	3.4	2.9	16.9		4.1	42.4	3.4	14.0	9.4	24
26	15.7	74.9	25.5		22.6	9.7	37.9	32.6	2.8	15.7	48.5	14.5	29.0	21.7	26
28	15.7	25.1	20.9		27.1	21.2	65.7	58.6	6.6	15.7	20.9	23.4	52.2	33.5	28
30	28.6	41.7	18.9	12.1	38.3	46.2	50.6	81.9	26.6	28.6	30.1	43.2	73.2	52.8	30
32	62.4	25.1	20.8	66.7	72.4	86.1	55.8	84.1	43.1	62.4	28.0	80.9	77.4	75.8	32
34	91.0	20.4	61.9	115.2	91.8	152.9	91.9	105.6	117.3	91.0	46.0	129.9	106.5	114.5	34
36	134.5	58.7	76.9	127.3	131.2	128.7	58.8	101.9	150.8	134.5	72.8	129.7	106.1	118.3	36
38	96.6	86.8	158.8	90.9	124.1	124.9	74.7	91.9	127.4	96.6	113.9	124.6	95.6	111.5	38
40	139.0	90.6	69.4	139.4	107.8	103.3	68.1	90.8	88.2	139.0	88.0	105.0	89.3	100.4	40
42	63.3	114.9	93.6	145.5	116.6	85.7	48.3	94.5	114.9	63.3	110.3	97.4	94.9	95.1	42
44	104.9	28.5	71.9	90.9	79.4	97.2	64.6	71.9	137.8	104.9	51.3	90.5	80.1	85.5	44
46	80.4	116.2	83.4	103.0	88.3	50.9	75.9	47.3	112.3	80.4	102.6	65.0	57.2	65.0	46
48	98.4	83.0	115.7	66.7	34.7	42.9	75.3	33.4	22.8	98.4	93.3	39.8	34.1	44.0	48
50	31.8	84.7	26.9	18.2	25.4	18.4	47.5	16.9	15.8	31.8	56.1	21.0	18.3	22.4	50
52	10.6	16.6	41.0	12.1	11.4	9.6	45.2	14.5	10.3	10.6	25.1	10.3	15.4	13.0	52
54	7.4	33.2	38.0	6.1	1.6	6.1	53.2	12.2	12.2	7.4	32.1	4.4	14.2	9.6	54
56	7.4	33.2	26.2	6.1	4.1	3.5	22.5	7.7	2.8	7.4	27.7	3.7	7.8	6.7	56
58			8.4		7.3	3.6	25.1	7.7	2.8		3.1	5.0	7.9	5.7	58
60			8.4		8.7	0.8	18.0	4.3	5.6		3.1	3.8	5.1	4.0	60
62			8.4		2.4	0.4	6.7	1.5			3.1	1.2	1.6	1.3	62
64						0.7	4.9	1.9				0.4	1.8	0.9	64
66					1.3		1.4					0.5	0.1	0.3	66
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	2	2	3	1	12	11	6	17	3	2	6	23	26	57	
SAMPLING WEIGHT(kg)	209	135	227	115	1569	1632	444	1892	232	209	477	3201	2567	6455	
No. F.MEASURED	295	200	271	165	2304	2454	474	2889	334	295	636	4758	3697	9386	
MEAN LENGTH(cm)	40.8	41.2	42.7	41.3	40.2	39.4	42.3	38.4	41.0	40.8	41.8	39.7	38.9	39.6	
MEAN WEIGHT (g)	707	773	840	717	685	636	850	617	708	707	792	655	640	659	
DEPTH RANGE (m)	199/322	484/518	168/520	209/223	125/324	150/327	135/246	124/645	230/484	199/322	168/520	125/327	124/645	124/645	

TABLE XVII-B: AMERICAN PLAICE, DIV. 30, 2002:
length composition of the 200mm trawl catches.

LENGTH GROUP	APR =YEAR	LENGTH GROUP
36	16.4	36
38	16.4	38
40	32.8	40
42	32.8	42
44	16.4	44
46		46
48	82.0	48
50	82.0	50
52	147.5	52
54	131.1	54
56	131.1	56
58	131.1	58
60	65.6	60
62	65.6	62
64	49.2	64
TOTAL	1000	
No. SAMPLES	1	
SAMPLING WEIGHT(kg)	113	
No. F.MEASURED	61	
MEAN LENGTH(cm)	54.5	
MEAN WEIGHT (g)	1653	
DEPTH RANGE (m)	182/207	

TABLE XVII-C: AMERICAN PLAICE, DIV. 30, 2002:
length composition of the 300mm trawl catches.

LENGTH GROUP	NOV =YEAR	LENGTH GROUP
40	10.4	40
42	10.4	42
44	31.3	44
46		46
48		48
50		50
52	10.4	52
54	10.4	54
56	20.8	56
58	52.1	58
60	218.8	60
62	312.5	62
64	270.8	64
66	31.3	66
68	10.4	68
70	10.4	70
TOTAL	1000	
No. SAMPLES	1	
SAMPLING WEIGHT(kg)	274	
No. F.MEASURED	96	
MEAN LENGTH(cm)	61.9	
MEAN WEIGHT (g)	2375	
DEPTH RANGE (m)	155/224	

TABLE XVIII: YELLOWTAIL FLOUNDER, DIV. 3N, 2002: length composition of the trawl catches.

LENGTH GROUP	APR	MAY	JUN	AUG	SEP	OCT	NOV	DEC	2nd Q.	3rd Q.	4th Q.	YEAR	LENGTH GROUP
12		5.4							3.0			0.7	12
14							0.6				0.5	0.1	14
16					0.8		1.6			0.8	1.2	0.7	16
18		10.7	12.7		1.9		5.2		11.6	1.7	3.9	4.7	18
20		10.7	19.0		7.5		6.0		14.4	7.0	4.6	8.1	20
22		32.2	19.0	0.3	15.5		12.0		26.2	14.4	9.1	15.9	22
24		65.0	41.1	9.3	33.7		17.5		54.1	32.0	13.3	32.4	24
26	20.0	119.2	72.8	21.0	47.8		32.2	40.0	98.1	45.9	25.9	53.2	26
28	40.0	129.6	126.6	93.8	108.2		73.5	60.0	128.0	107.2	58.1	99.3	28
30	80.0	124.0	151.9	117.1	127.5		89.7	60.0	136.4	126.8	70.4	114.2	30
32	140.0	96.5	180.4	175.8	140.1	13.5	104.3	120.0	134.3	142.5	86.5	125.7	32
34	280.0	85.7	142.4	130.5	111.4	37.5	116.7	180.0	111.6	112.7	102.9	109.9	34
36	260.0	80.1	94.9	136.3	98.5	198.1	124.1	100.0	87.2	101.1	138.3	107.6	36
38	160.0	96.5	34.8	141.0	102.4	164.2	124.9	80.0	69.0	105.1	131.2	103.3	38
40		53.4	50.6	57.4	83.9	162.8	79.3	60.0	52.0	82.1	95.6	78.4	40
42	20.0	37.4	34.8	55.2	42.8	293.6	59.1	120.0	36.2	43.6	108.9	59.1	42
44		32.1	6.3	31.2	23.2	28.3	62.8	100.0	20.4	23.7	57.1	31.8	44
46		16.0	3.2	5.9	21.4	99.8	38.4	40.0	10.2	20.3	50.9	26.0	46
48		5.3	6.3	3.9	16.9	2.1	21.6	20.0	5.7	16.0	17.6	14.0	48
50			3.2	11.6	7.0		18.3	20.0	1.4	7.3	14.7	7.9	50
52				4.7	5.8		7.0			5.7	5.3	4.2	52
54				4.7	2.8		3.8			2.9	2.9	2.2	54
56					1.0		1.3			0.9	1.0	0.7	56
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	1	2	1	3	10	2	8	1	4	13	11	28	
SAMPLING WEIGHT(kg)	20	67	112	215	1684	87	1260	27	199	1899	1374	3472	
No. F.MEASURED	50	186	316	529	3937	133	2609	50	552	4466	2792	7810	
MEAN LENGTH(cm)	35.3	32.9	32.7	35.8	35.0	40.9	36.8	37.8	32.8	35.0	37.7	35.2	
MEAN WEIGHT (g)	811	714	676	900	867	1337	1034	1094	697	870	1098	888	
DEPTH RANGE (m)	67/71	51/60	55/56	42/98	54/217	70/550	71/750	60/60	51/71	42/217	60/750	42/750	

TABLE XIX: GREENLAND HALIBUT, DIV. 3L, 2002: length composition of the trawl catches.

LENGTH GROUP	JAN	FEB	MAR	APR	MAY	JUL	AUG	OCT	NOV	1st Q.	2nd Q.	3rd Q.	4th Q.	YEAR	LENGTH GROUP	
24						0.5	0.4					0.5		0.05	24	
26		1.4	0.1			0.5	0.6			0.5		0.5		0.3	26	
28			0.9	1.1	0.6	2.7	0.6			0.6	0.9	2.0		0.8	28	
30		4.7	4.2	5.4	2.4	7.3	2.6		2.5	4.2	4.5	5.8	2.1	4.2	30	
32			31.2	11.7	12.0	10.4	19.7	16.4	3.1	9.0	17.1	11.5	18.6	8.0	14.5	32
34	8.0	39.1	23.0	23.7	14.2	41.6	37.8	9.7	35.7	27.3	20.8	40.4	31.4	27.3	34	
36	8.7	54.6	44.7	52.6	35.4	68.8	53.1	17.1	48.9	46.3	47.2	63.8	43.7	48.0	36	
38	72.1	115.9	89.4	84.5	98.5	96.7	74.2	105.9	104.1	96.7	88.8	89.6	104.4	94.7	38	
40	87.0	115.8	145.1	166.4	175.0	122.1	118.8	87.6	137.0	134.0	169.1	121.1	128.9	142.3	40	
42	158.5	151.9	161.8	174.4	191.2	132.3	136.2	97.8	203.6	158.7	179.6	133.5	186.2	165.8	42	
44	175.3	131.6	169.7	139.9	137.7	106.4	115.6	162.7	130.4	158.5	139.2	109.3	135.7	144.9	44	
46	155.1	139.2	135.0	132.6	121.5	103.3	112.9	114.9	139.1	137.0	129.1	106.3	135.1	131.3	46	
48	142.5	94.1	94.5	86.5	79.2	92.0	84.2	139.6	61.9	96.2	84.2	89.5	74.6	89.2	48	
50	135.1	64.8	55.1	53.3	52.5	63.4	64.3	110.4	85.7	61.1	53.0	63.7	89.7	62.7	50	
52	15.7	37.8	27.9	26.9	36.8	48.4	47.5	61.6	27.0	30.4	30.0	48.1	32.7	32.4	52	
54	7.0	8.3	16.2	13.7	12.4	23.9	28.7	53.6	3.7	13.5	13.3	25.4	11.9	14.4	54	
56	1.7	3.0	5.7	11.8	8.5	25.5	31.0	18.0	6.6	4.7	10.8	27.3	8.4	9.3	56	
58	8.3	2.1	5.1	5.5	6.5	12.7	12.2	9.5		4.4	5.8	12.5	1.6	5.3	58	
60	8.3		2.6	2.5	4.6	4.4	11.6	8.5	2.3	2.1	3.2	6.7	3.3	3.0	60	
62	4.2	2.2	1.8	1.2	3.2	7.8	11.9		0.8	2.0	1.8	9.1	0.7	2.5	62	
64			1.6	0.5	3.9	5.1	11.7		1.9	1.1	1.6	7.2	1.6	1.9	64	
66	4.2	0.2	1.5	1.8	1.5	3.0	7.1			1.2	1.7	4.3		1.5	66	
68	4.2	2.1	1.0	0.4	0.9	3.2	4.0			1.5	0.6	3.5		1.2	68	
70			0.5	0.4	1.2	2.1	4.5			0.3	0.6	2.9		0.6	70	
72			0.2	0.4	0.8	1.2	3.2			0.1	0.5	1.8		0.4	72	
74	4.2		0.2	0.7	0.8	1.3	1.9			0.3	0.8	1.5		0.5	74	
76			0.2	0.7	0.3	1.2	2.1			0.1	0.6	1.5		0.4	76	
78			0.1	0.2		1.0	1.1			0.1	0.1	1.1		0.2	78	
80			0.1	0.4		0.7	0.8			0.04	0.3	0.7		0.2	80	
82			0.02			0.4	1.0			0.01		0.6		0.1	82	
84			0.02	0.4			0.9			0.01	0.3	0.3		0.1	84	
86					0.1	0.1					0.04	0.1		0.02	86	
88							0.5					0.1		0.02	88	
90							0.9					0.3		0.03	90	
92			0.1			0.4	0.2			0.04		0.3		0.1	92	
94						0.1						0.1		0.01	94	
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
No. SAMPLES	4	19	44	25	10	23	16	5	9	67	35	39	14	155		
SAMPLING WEIGHT(kg)	283	1256	5500	3473	1771	5868	4113	386	569	7039	5244	9981	955	23220		
No. F.MEASURED	320	1520	6279	4356	2020	6838	4522	400	720	8119	6376	11360	1120	26975		
MEAN LENGTH(cm)	46.3	43.8	44.5	44.3	44.6	45.1	46.3	46.5	44.0	44.3	44.4	45.5	44.4	44.5		
MEAN WEIGHT (g)	859	720	752	749	764	831	925	871	720	747	753	861	745	760		
DEPTH RANGE (m)	714/1030	604/1040	696/1127	788/1203	825/1155	831/1029	778/1222	714/1052	707/1105	604/1127	788/1203	778/1222	707/1105	604/1222		

TABLE XX: GREENLAND HALIBUT, DIV. 3M, 2002: length composition of the trawl catches.

LENGTH GROUP	JAN	FEB	MAR	APR	MAY	JUL	AUG	OCT	NOV	1st Q.	2nd Q.	3rd Q.	4th Q.	YEAR	LENGTH GROUP
28			0.1	0.3			5.8			0.05	0.3	3.8		0.2	28
30			0.5	2.5			5.8			0.2	2.5	3.8		1.0	30
32		0.3	1.0	5.9		7.5	23.1	1.3		0.5	5.9	17.7	0.8	2.8	32
34	2.4	2.3	3.0	9.8		41.6	9.7			2.6	9.7	20.8		5.1	34
36	0.9	7.7	23.4	18.1		57.4	31.1	11.1	1.8	11.6	17.9	40.2	7.3	13.7	36
38	20.9	14.9	42.5	44.5	20.0	62.5	56.6	25.1	36.1	26.4	44.2	58.7	29.6	34.0	38
40	88.4	73.0	83.8	99.5	80.0	88.5	109.0	84.1	99.0	80.9	99.3	101.9	90.1	89.6	40
42	106.1	120.5	151.3	162.7	160.0	94.5	146.5	92.6	113.8	128.0	162.7	128.4	101.1	135.4	42
44	148.9	156.3	135.8	138.4	180.0	88.9	138.5	147.4	144.8	147.0	138.9	121.3	146.3	143.4	44
46	158.1	187.9	145.2	170.7	140.0	99.0	132.9	165.5	166.5	164.8	170.3	121.1	165.9	166.1	46
48	164.5	134.1	138.7	155.1	120.0	74.4	68.5	153.0	171.6	143.5	154.7	70.5	160.5	149.1	48
50	159.3	121.3	132.0	82.3	140.0	58.2	52.6	146.6	140.2	134.9	83.0	54.6	144.0	116.3	50
52	83.9	88.2	78.7	56.0	100.0	45.2	27.2	108.8	68.9	83.7	56.4	33.4	92.7	74.6	52
54	39.9	43.1	41.2	28.0	20.0	50.5	42.5	32.8	44.1	41.6	27.9	45.3	37.4	36.0	54
56	11.5	29.1	5.5	11.4	40.0	61.7	25.1	9.5	4.1	16.1	11.7	37.8	7.3	13.3	56
58	6.6	12.3	2.7	4.5		25.5	23.2	17.5	4.1	7.4	4.5	24.0	12.1	7.6	58
60	3.3	3.4	10.9	2.9		48.9	21.1	3.0		6.0	2.9	30.8	1.8	4.6	60
62	0.5	2.8	2.6	2.4		15.0	21.2	1.7	2.5	2.1	2.4	19.1	2.0	2.6	62
64	2.6	1.8	0.2	1.7		25.9	21.1			1.4	1.6	22.8		1.7	64
66		1.0	0.2	0.4		1.2	9.6		2.5	0.5	0.4	6.7	1.0	0.7	66
68	2.2		0.7	1.3		23.4	3.8			0.8	1.3	10.6		1.0	68
70				0.1		6.6	21.1				0.1	16.1		0.4	70
72				0.5		6.6	3.8				0.5	4.8		0.3	72
74				0.3							0.3			0.1	74
76				0.3		3.3					0.3	1.1		0.1	76
78				0.1		3.3					0.1	1.1		0.1	78
80						2.1						0.7		0.02	80
82				0.1		4.2					0.1	1.4		0.1	82
84				0.1		4.2					0.1	1.4		0.1	84
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	9	14	16	22	1	3	2	9	6	39	23	5	15	82	
SAMPLING WEIGHT(kg)	672	1109	1566	2572	48	586	427	692	457	3346	2621	1013	1149	8129	
No. F.MEASURED	720	1119	1767	2773	50	520	433	720	480	3606	2823	953	1200	8582	
MEAN LENGTH(cm)	47.7	47.8	46.9	46.3	47.3	49.1	47.4	47.7	47.2	47.4	46.3	48.0	47.5	47.0	
MEAN WEIGHT (g)	931	939	888	851	906	1158	996	932	900	919	852	1052	919	898	
DEPTH RANGE (m)	630/984	803/1030	766/1091	864/1113	1024/1100	868/1014	829/1020	367/939	710/948	630/1091	864/1113	829/1020	367/948	367/1113	

TABLE XXI: GREENLAND HALIBUT, DIV. 3N, 2002: length composition of the trawl catches.

LENGTH GROUP	MAR	APR	MAY	JUN	AUG	SEP	OCT	NOV	1st Q.	2nd Q.	3rd Q.	4th Q.	YEAR	LENGTH GROUP
24		19.8	0.4				52.6			0.9		0.2	0.7	24
26			0.6		4.1					0.6	2.7		0.9	26
28		4.2	2.0		3.7		105.3			2.0	2.4	0.3	2.0	28
30		12.6	8.7		13.4					8.6	8.7		8.2	30
32		24.0	23.9	9.2	28.9	10.0		8.8		23.4	22.2	8.8	22.5	32
34		49.7	40.5	33.7	61.1	25.8	105.3	40.8		40.6	48.6	41.0	41.7	34
36			35.3	41.6	24.5	73.2	47.5	66.0		40.9	64.1	65.9	45.3	36
38	17.5	66.5	70.6	46.0	82.4	82.2		97.7	17.5	69.8	82.3	97.4	72.8	38
40	52.6	97.6	132.5	104.3	131.0	131.7	52.6	155.8	52.6	130.8	131.2	155.5	131.9	40
42		90.5	148.5	171.8	123.0	146.5		177.3		147.7	131.3	176.7	146.5	42
44	140.4	74.9	143.0	184.0	100.3	125.6	210.5	137.3	140.4	142.5	109.3	137.6	137.6	44
46	87.7	96.4	132.5	199.4	93.9	120.6		117.6	87.7	133.5	103.4	117.3	128.4	46
48	157.9	69.0	107.3	73.6	69.7	111.2	157.9	96.8	157.9	105.4	84.4	97.0	102.1	48
50	157.9	83.3	69.7	58.3	47.1	66.4	105.3	49.3	157.9	69.7	53.9	49.4	66.7	50
52	105.3	86.3	35.1	21.5	38.7	53.7	52.6	26.4	105.3	35.9	44.0	26.4	36.8	52
54	35.1	36.6	12.2	27.6	29.9	24.9	105.3	14.7	35.1	13.2	28.1	14.9	15.4	54
56	35.1	12.6	5.5	12.3	16.7	23.3		5.3	35.1	5.9	19.0	5.3	7.8	56
58	35.1	39.5	3.9	15.3	21.3	12.0		5.1	35.1	5.1	18.0	5.1	7.0	58
60		24.0	3.9	3.1	15.7	4.9		1.1		4.4	11.9	1.1	5.3	60
62	35.1	12.6	1.9	6.1	11.7	6.5			35.1	2.3	9.9		3.3	62
64	17.5	12.6	1.3	3.1	7.6	5.5			17.5	1.6	6.8		2.3	64
66		8.4	2.9	3.1	4.6	0.8				3.1	3.3		3.0	66
68	17.5	8.4	2.0	3.1	3.6	0.8			17.5	2.1	2.6		2.1	68
70	17.5	15.6	2.5		2.7				17.5	2.7	1.8		2.5	70
72		4.2	2.8		0.8					2.8	0.5		2.3	72
74			0.3		6.0					0.3	3.9		0.8	74
76	35.1		0.4		3.6				35.1	0.4	2.3		0.7	76
78	35.1	15.6			2.9				35.1	0.4	1.9		0.6	78
80			1.3		1.6					1.2	1.0		1.1	80
82			0.8		0.1					0.7	0.1		0.6	82
84			1.5		0.5					1.5	0.3		1.2	84
86														86
88					0.05						0.03		0.004	88
90	17.5								17.5				0.03	90
92					0.1						0.1		0.01	92
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	1	2	19	1	15	6	1	5	1	22	21	6	50	
SAMPLING WEIGHT(kg)	109	187	3805	281	2944	1820	14	795	109	4274	4764	809	9956	
No. F.MEASURED	57	151	4654	326	3311	2134	19	1084	57	5131	5445	1103	11736	
MEAN LENGTH(cm)	53.5	47.4	44.7	45.5	45.1	45.5	43.3	43.8	53.5	44.8	45.2	43.8	44.8	
MEAN WEIGHT (g)	1560	1043	792	817	866	821	756	712	1560	799	850	712	803	
DEPTH RANGE (m)	1023/1121	965/1202	727/1161	1042/1048	762/1227	763/1181	437/530	750/1450	1023/1121	727/1202	762/1227	437/1450	437/1450	

TABLE XXII: GREENLAND HALIBUT, DIV. 30, 2002: length composition of the trawl catches.

LENGTH GROUP	OCT	NOV	DEC	4th Q.	YEAR	LENGTH GROUP
28	12.5			5.5	5.5	28
30						30
32		20.6	23.4	12.0	12.0	32
34	50.0	51.2	46.9	50.2	50.2	34
36	50.0	68.6	70.3	60.7	60.7	36
38	187.5	57.5	62.5	114.8	114.8	38
40	37.5	136.8	132.8	93.0	93.0	40
42	212.5	96.7	109.4	148.7	148.7	42
44	150.0	123.8	125.0	135.4	135.4	44
46	125.0	150.0	125.0	136.1	136.1	46
48	37.5	139.3	148.4	96.0	96.0	48
50	37.5	63.1	62.5	51.8	51.8	50
52	75.0	47.8	39.1	58.6	58.6	52
54	12.5	7.7	23.4	11.6	11.6	54
56	12.5	6.5	15.6	10.2	10.2	56
58		17.4	15.6	9.6	9.6	58
60		3.2		1.4	1.4	60
62		9.7		4.3	4.3	62
TOTAL	1000	1000	1000	1000	1000	
No. SAMPLES	1	2	1	4	4	
SAMPLING WEIGHT(kg)	55	181	98	335	335	
No. F.MEASURED	80	228	128	436	436	
MEAN LENGTH(cm)	43.7	44.8	44.7	44.3	44.3	
MEAN WEIGHT (g)	711	783	773	750	750	
DEPTH RANGE (m)	548/720	370/477	700/769	370/769	370/769	

TABLE XXIII: ROUGHHEAD GRENADIER, DIV. 3L, 2002: length composition of the trawl catches.

LENGTH GROUP	MAR	APR	MAY	JUL	AUG	OCT	NOV	1st Q.	2nd Q.	3rd Q.	4th Q.	YEAR	LENGTH GROUP
6				0.6	2.5					1.7		0.3	6
7	0.8	2.6	2.0	1.6	6.7			0.8	2.2	4.6		2.1	7
8	10.3	15.4	11.1	10.1	14.8			10.3	12.6	12.9		10.9	8
9	64.9	73.0	43.6	49.2	43.8			64.9	54.1	46.1		49.8	9
10	167.2	156.7	143.1	131.9	134.3			167.2	148.0	133.3		135.2	10
11	183.0	200.3	192.2	181.3	180.1	7.4	12.7	183.0	195.1	180.6	11.3	171.1	11
12	206.2	274.2	211.9	190.6	197.4	94.1	124.8	206.2	234.2	194.6	116.9	207.7	12
13	141.5	133.6	121.7	136.8	127.4	139.8	131.7	141.5	126.0	131.3	133.8	131.7	13
14	97.8	71.6	109.9	104.5	84.5	179.6	160.6	97.8	96.2	92.8	165.5	102.8	14
15	49.4	27.9	57.2	58.0	53.4	195.1	132.3	49.4	46.8	55.4	148.6	59.2	15
16	21.6	19.8	39.4	45.2	36.0	99.2	127.0	21.6	32.4	39.8	119.8	39.8	16
17	10.7	8.2	19.4	22.0	23.6	102.5	108.2	10.7	15.4	22.9	106.7	24.8	17
18	6.2	2.4	8.6	15.7	16.9	81.0	102.8	6.2	6.4	16.4	97.1	17.3	18
19	4.0	2.6	4.5	10.7	15.3	37.1	40.6	4.0	3.9	13.4	39.7	9.3	19
20	4.9	2.1	8.1	8.3	9.6	31.9	20.3	4.9	6.0	9.1	23.3	8.0	20
21	5.5	1.6	7.4	5.5	12.2	6.5	17.2	5.5	5.3	9.4	14.5	7.1	21
22	6.7	3.8	5.9	5.5	9.8	4.3	11.0	6.7	5.2	8.0	9.3	6.5	22
23	6.2	1.4	7.6	4.2	11.6	10.8	6.7	6.2	5.4	8.5	7.8	6.5	23
24	3.1	0.5	2.1	5.0	8.8	10.8	3.0	3.1	1.5	7.2	5.0	3.4	24
25	2.8	1.8	1.2	4.7	3.0			2.8	1.4	3.7		2.1	25
26	2.2		2.3	3.6	1.8		1.0	2.2	1.5	2.5	0.8	1.8	26
27	1.9			2.2	2.8			1.9		2.6		1.0	27
28	2.0	0.3	0.8	1.8	1.5			2.0	0.6	1.6		1.1	28
29				0.5	1.5					1.1		0.2	29
30	0.5			0.6	0.2			0.5		0.3		0.2	30
31	0.7				0.3			0.7		0.1		0.2	31
32													32
33													33
34					0.2					0.1		0.02	34
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	17	15	10	23	16	4	7	17	25	39	11	92	
SAMPLING WEIGHT(kg)	1418	816	766	2239	2066	203	340	1418	1582	4305	543	7848	
No. F.MEASURED	3124	2141	1745	4651	3898	320	560	3124	3886	8549	880	16439	
MEAN LENGTH(cm)	12.8	12.3	13.0	13.3	13.4	15.8	15.8	12.8	12.8	13.4	15.8	13.2	
MEAN WEIGHT (g)	243	204	249	271	286	409	410	243	233	280	409	262	
DEPTH RANGE (m)	728/1127	812/1203	825/1155	831/1029	778/1222	714/980	707/1105	728/1127	812/1203	778/1222	707/1105	707/1222	

TABLE XXIV: ROUGHHEAD GRENADIER, DIV. 3M, 2002: length composition of the trawl catches.

LENGTH GROUP	FEB	MAR	APR	MAY	JUL	AUG	OCT	NOV	1st Q.	2nd Q.	3rd Q.	4th Q.	YEAR	LENGTH GROUP
6			1.0			5.0				0.9	3.3		0.5	6
7			0.8		7.0					0.8	2.4		0.5	7
8		3.1	5.2		6.1	4.4			1.2	5.1	5.0		3.1	8
9		6.8	16.7		36.3	29.7			2.5	16.4	32.0		9.7	9
10		33.5	50.7	40.0	90.1	152.1			12.4	50.5	130.5		32.6	10
11	112.5	38.0	84.2	80.0	75.5	194.2	4.7	1.2	85.0	84.2	152.9	3.1	78.1	11
12	175.0	94.0	137.0	80.0	88.6	192.7	80.6	78.7	145.1	135.9	156.4	79.7	134.4	12
13	362.5	194.0	146.6	160.0	85.9	157.3	134.1	183.3	300.4	146.8	132.5	157.4	207.3	13
14	162.5	110.4	102.0	200.0	94.2	109.3	140.4	164.0	143.3	103.9	104.1	151.6	124.0	14
15	100.0	231.0	167.2	80.0	55.7	44.9	206.8	218.2	148.3	165.5	48.7	212.2	160.6	15
16	50.0	140.1	131.4	60.0	73.4	33.4	167.4	118.9	83.2	130.0	47.3	144.5	111.2	16
17		96.1	69.8	100.0	67.1	24.7	124.2	99.0	35.5	70.4	39.4	112.3	60.2	17
18		18.1	29.4	60.0	13.7	19.6	48.5	73.2	6.7	30.0	17.6	60.1	23.6	18
19	25.0	13.8	16.8		11.0	8.7	25.2	35.4	20.9	16.4	9.5	30.0	19.4	19
20		13.8	13.3		4.0	4.4	50.4	9.5	5.1	13.1	4.2	31.1	11.6	20
21	12.5	0.7	11.5	20.0	12.4	6.5	7.0	2.4	8.1	11.7	8.6	4.8	9.6	21
22		1.2	4.9	20.0	32.0		3.3	14.9	0.4	5.2	11.1	8.8	3.8	22
23			3.9	40.0	45.9		1.2			4.6	16.0	0.6	2.7	23
24			2.6	20.0	51.6	6.5	3.3			2.9	22.2	1.8	2.1	24
25		4.7	1.5		55.6		1.6		1.7	1.4	19.4	0.9	1.9	25
26		0.5	1.3	20.0	37.6	2.2			0.2	1.7	14.5		1.3	26
27			0.7	20.0	22.6	2.2		1.1		1.1	9.3	0.5	0.8	27
28			0.9		22.6	2.2				0.9	9.3		0.7	28
29			0.4		5.6		1.2			0.4	2.0	0.6	0.3	29
30														30
31					5.6						2.0		0.05	31
32			0.1							0.1			0.1	32
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	1	5	15	1	3	2	7	6	6	16	5	13	40	
SAMPLING WEIGHT(kg)	36	321	1082	37	345	181	357	296	358	1119	526	653	2655	
No. F.MEASURED	80	707	1963	50	317	392	560	480	787	2013	709	1040	4549	
MEAN LENGTH(cm)	13.9	14.9	14.7	15.9	17.0	13.1	15.9	15.6	14.2	14.7	14.5	15.7	14.6	
MEAN WEIGHT (g)	274	343	338	455	624	251	408	385	300	341	381	397	331	
DEPTH RANGE (m)	961/1017	785/1091	864/1104	1024/1100	868/1014	829/1020	715/939	710/948	785/1091	864/1104	829/1020	710/948	710/1104	

TABLE XXV: ROUGHHEAD GRENADIER, DIV. 3N, 2002: length composition of the trawl catches.

LENGTH GROUP	MAR	APR	MAY	JUN	AUG	SEP	NOV	1st Q.	2nd Q.	3rd Q.	4th Q.	YEAR	LENGTH GROUP
4					0.8					0.5		0.1	4
5		14.5			1.7				0.8	1.0		0.8	5
6					1.8					1.0		0.1	6
7		20.0	2.5		3.4	2.0	2.9		3.5	2.8	2.9	3.4	7
8		45.5	12.8	13.2	8.3	10.3	13.3		14.7	9.1	13.3	13.8	8
9		123.6	45.9	56.3	30.3	36.1	41.2		50.7	32.7	41.2	47.6	9
10	19.2	120.0	162.5	175.5	111.4	135.8	127.0	19.2	160.3	121.4	127.0	153.1	10
11	38.5	143.6	202.5	271.5	198.5	210.9	187.2	38.5	201.0	203.6	187.2	200.0	11
12	153.8	156.4	241.3	245.0	199.9	232.4	247.3	153.8	236.4	213.3	247.3	233.1	12
13	57.7	105.5	131.2	139.1	128.1	131.0	144.2	57.7	130.0	129.3	144.2	129.9	13
14	115.4	69.0	85.8	49.7	69.0	60.3	97.0	115.4	83.8	65.4	97.0	81.8	14
15	96.2	69.0	46.8	29.8	42.5	51.8	52.1	96.2	47.6	46.3	52.1	47.8	15
16	57.7	29.0	23.8	16.6	25.9	45.5	24.6	57.7	23.9	34.0	24.6	25.5	16
17	19.2	5.5	8.9	3.3	15.7	18.3	9.3	19.2	8.6	16.8	9.3	9.8	17
18	38.5	14.5	3.9		18.2	15.1	8.3	38.5	4.4	16.9	8.3	6.5	18
19	57.7	11.0	7.4		19.5	9.9	11.4	57.7	7.4	15.6	11.4	9.0	19
20	19.2	20.0	3.9		18.1	11.6	8.3	19.2	4.7	15.4	8.3	6.4	20
21		5.5	3.5		19.9	6.0	10.4		3.6	14.2	10.4	5.2	21
22	38.5		3.7		23.8	6.4	6.6	38.5	3.4	16.6	6.6	5.5	22
23	57.7	31.0	4.0		21.0	4.8	3.9	57.7	5.4	14.4	3.9	6.9	23
24	57.7	11.0	2.2		12.4	3.0	0.9	57.7	2.6	8.6	0.9	3.7	24
25	38.5		3.4		13.5	5.0	2.0	38.5	3.1	10.0	2.0	4.2	25
26	19.2		1.1		6.3	2.1	0.9	19.2	1.0	4.6	0.9	1.6	26
27	57.7		1.8		4.6	0.4		57.7	1.6	2.9		2.1	27
28	38.5	5.5	0.9		2.2	0.8		38.5	1.1	1.6		1.4	28
29	19.2				3.1	0.4		19.2		2.0		0.4	29
30			0.2		0.1		0.9		0.2	0.1	0.9	0.2	30
31													31
32					0.2					0.1		0.01	32
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	1	2	18	1	15	6	5	1	21	21	5	48	
SAMPLING WEIGHT(kg)	63	52	1723	111	1898	871	408	63	1886	2769	408	5126	
No. F.MEASURED	52	100	4387	302	3515	1875	895	52	4789	5390	895	11126	
MEAN LENGTH(cm)	18.4	12.9	12.7	12.1	14.1	13.1	13.0	18.4	12.7	13.7	13.0	12.9	
MEAN WEIGHT (g)	734	268	230	185	346	257	244	734	231	309	244	245	
DEPTH RANGE (m)	1023/1121	965/1202	727/1161	1042/1048	762/1227	763/1181	750/1450	1023/1121	727/1202	762/1227	750/1450	727/1450	

TABLE XXVI: ROUGHHEAD GRENADIER, DIV. 30, 2002:
length composition of the trawl catches.

LENGTH GROUP	DEC =YEAR	LENGTH GROUP
7	4.5	7
8	8.9	8
9	35.7	9
10	142.9	10
11	241.1	11
12	312.5	12
13	151.8	13
14	75.9	14
15	22.3	15
16	4.5	16
TOTAL	1000	
No. SAMPLES	1	
SAMPLING WEIGHT(kg)	82	
No. F.MEASURED	224	
MEAN LENGTH(cm)	12.2	
MEAN WEIGHT (g)	189	
DEPTH RANGE (m)	700/769	

TABLE XXVII: WITCH FLOUNDER, DIV. 3L, 2002: length composition of the trawl catches.

LENGTH GROUP	FEB	MAR	APR	MAY	OCT	1st Q.	2nd Q.	4th Q.	YEAR	LENGTH GROUP
20				2.2			1.2		0.3	20
22		0.7		0.8		0.3	0.4		0.3	22
24		4.1	6.2	8.0		1.8	7.2		2.9	24
26		3.5	3.4	8.6		1.5	6.2		2.5	26
28		4.6	12.3	8.6		2.0	10.3		3.8	28
30		11.9	8.9	24.8		5.1	17.5		7.7	30
32		96.2	42.9	20.7	112.5	41.4	30.8	112.5	41.0	32
34	50.0	73.0	93.9	73.4	75.0	59.9	82.7	75.0	65.4	34
36	112.5	172.4	147.3	127.4	200.0	138.3	136.5	200.0	139.6	36
38	175.0	149.3	168.0	146.7	125.0	163.9	156.4	125.0	161.2	38
40	312.5	105.5	187.7	189.7	75.0	223.3	188.8	75.0	211.7	40
42	125.0	127.3	165.6	181.1	137.5	126.0	174.0	137.5	136.9	42
44	125.0	127.0	95.1	96.2	150.0	125.8	95.7	150.0	119.8	44
46	75.0	65.7	47.2	40.2	62.5	71.0	43.4	62.5	64.7	46
48	25.0	49.7	12.6	22.2	62.5	35.7	17.9	62.5	32.5	48
50		4.3	2.3	31.4		1.9	18.1		5.4	50
52		4.6	4.3	12.3		2.0	8.7		3.4	52
54		0.2	2.3	4.8		0.1	3.6		0.9	54
56				0.8			0.4		0.1	56
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	1	12	15	10	1	13	25	1	39	
SAMPLING WEIGHT(kg)	40	520	528	379	36	560	906	36	1503	
No. F.MEASURED	80	1194	1187	752	80	1274	1939	80	3293	
MEAN LENGTH(cm)	41.3	40.2	40.0	40.6	40.4	40.8	40.3	40.4	40.7	
MEAN WEIGHT (g)	499	469	455	490	474	486	474	474	483	
DEPTH RANGE (m)	978/1040	809/1082	812/1203	825/1155	1002/1052	809/1082	812/1203	1002/1052	809/1203	

TABLE XXVIII: WITCH FLOUNDER, DIV. 3M, 2002: length composition of the trawl catches.

LENGTH GROUP	JAN	FEB	MAR	APR	1st Q.	2nd Q.	YEAR	LENGTH GROUP
22			1.0	2.8	0.1	2.8	0.1	22
24			2.0	10.3	0.1	10.3	0.4	24
26			3.0	9.8	0.2	9.8	0.5	26
28		7.9	3.0	30.1	3.9	30.1	4.6	28
30		4.9	5.9	35.2	2.7	35.2	3.6	30
32	6.3	10.9	37.4	60.3	10.7	60.3	12.0	32
34	50.3	53.3	132.0	85.4	57.6	85.4	58.3	34
36	87.4	75.7	259.5	115.0	94.3	115.0	94.8	36
38	168.5	138.9	169.4	175.1	154.6	175.1	155.1	38
40	212.3	298.6	240.1	184.7	255.0	184.7	253.2	40
42	149.7	113.7	70.2	79.5	127.0	79.5	125.8	42
44	168.7	115.1	70.7	128.0	136.4	128.0	136.2	44
46	100.5	85.1	1.0	62.0	86.1	62.0	85.5	46
48	37.5	69.7	3.0	11.2	50.2	11.2	49.2	48
50	12.6	14.4	1.0	3.2	12.6	3.2	12.4	50
52	6.2	8.4	1.0	4.7	6.9	4.7	6.8	52
54		3.4			1.6		1.6	54
56				2.8		2.8	0.1	56
TOTAL	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	2	4	2	10	8	10	18	
SAMPLING WEIGHT(kg)	85	167	63	293	314	293	607	
No. F.MEASURED	160	320	164	648	644	648	1292	
MEAN LENGTH(cm)	42.0	41.9	38.8	39.4	41.8	39.4	41.7	
MEAN WEIGHT (g)	535	534	404	442	525	442	523	
DEPTH RANGE (m)	920/966	954/1008	938/1027	873/1104	920/1027	873/1104	873/1104	

TABLE XXIX: WITCH FLOUNDER, DIV. 3N, 2002: length composition of the trawl catches.

LENGTH GROUP	APR	MAY	JUN	AUG	SEP	OCT	NOV	2nd Q.	3rd Q.	4th Q.	YEAR	LENGTH GROUP
16							1.3			1.2	0.1	16
18												18
20					1.5				0.9		0.5	20
22					3.6		1.3		2.4	1.2	1.3	22
24		0.4		2.5	4.8		2.5	0.3	4.0	2.5	2.4	24
26		1.8		7.2	6.4		4.7	1.5	6.7	4.7	4.5	26
28		3.8		14.6	23.2		12.5	3.2	20.2	12.3	12.8	28
30		10.1	5.7	33.5	38.6	32.3	46.8	8.8	36.9	46.6	27.3	30
32	60.0	26.1	5.7	50.2	65.5	161.3	76.0	28.7	60.2	77.3	50.2	32
34	100.0	77.4	97.7	85.6	118.0	161.3	110.5	80.6	106.8	111.3	97.4	34
36	160.0	172.3	103.4	117.4	145.8	258.1	108.6	168.0	136.0	110.9	145.2	36
38	200.0	196.5	195.4	181.5	124.5	258.1	177.3	196.8	144.2	178.6	168.3	38
40	160.0	166.9	258.6	188.1	174.8	64.5	117.5	170.2	179.4	116.7	168.5	40
42	100.0	149.8	149.4	111.8	110.4	32.3	94.2	144.7	110.9	93.2	121.7	42
44	40.0	96.4	132.2	77.5	99.7	32.3	68.1	92.2	92.0	67.6	89.2	44
46	40.0	39.7	17.2	65.1	35.1		73.7	38.8	45.5	72.5	46.1	46
48	60.0	21.1	17.2	24.9	18.3		63.4	24.9	20.6	62.4	27.1	48
50	40.0	20.4	17.2	21.5	13.8		22.2	22.2	16.5	21.8	19.3	50
52		14.8		10.7	9.1		12.3	12.6	9.7	12.1	11.1	52
54	40.0	1.7		6.0	2.8		4.7	5.5	3.9	4.6	4.6	54
56		1.0		1.9	2.3		2.3	0.8	2.2	2.3	1.7	56
58					0.4				0.3		0.1	58
60					0.5				0.3		0.2	60
62					0.9				0.6		0.3	62
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	1	18	1	12	11	1	6	20	23	7	50	
SAMPLING WEIGHT(kg)	25	836	86	563	764	12	346	946	1327	357	2631	
No. F.MEASURED	50	1729	174	1117	1683	31	726	1953	2800	757	5510	
MEAN LENGTH(cm)	40.9	40.6	40.7	40.2	39.3	37.1	40.0	40.6	39.6	40.0	40.1	
MEAN WEIGHT (g)	507	480	479	473	443	342	475	483	454	473	467	
DEPTH RANGE (m)	1065/1202	740/1161	1042/1048	94/955	70/1177	437/530	93/1450	740/1202	70/1177	93/1450	70/1450	

TABLE XXX: WITCH FLOUNDER, DIV. 3O, 2002: length composition of the trawl catches.

LENGTH GROUP	APR	MAY	AUG	SEP	OCT	NOV	DEC	2nd Q.	3rd Q.	4th Q.	YEAR	LENGTH GROUP
16						0.2				0.2	0.1	16
18					0.9	0.4				0.4	0.3	18
20				0.9	4.3	0.5			0.6	1.0	0.8	20
22				4.8	6.0	1.8	1.7		2.8	2.3	2.3	22
24		4.7	0.8	3.4	13.7	2.9	9.4	2.5	2.3	4.8	3.8	24
26		9.3	3.8	11.5	16.0	12.8	29.8	5.0	8.3	14.6	11.9	26
28	3.2	4.7	24.5	25.3	17.5	45.7	53.9	4.0	25.0	42.7	34.4	28
30	1.6	12.7	37.1	48.6	44.9	67.2	69.3	7.6	43.9	64.5	54.2	30
32	30.8	41.1	87.4	75.6	105.5	96.2	135.9	36.3	80.5	100.5	89.9	32
34	42.2	72.0	121.2	151.6	108.3	131.6	145.9	58.2	139.0	129.8	128.4	34
36	135.0	172.6	128.4	140.9	119.0	144.0	109.2	155.2	135.8	138.0	138.3	36
38	162.6	229.3	159.1	151.3	118.0	168.8	175.8	198.4	154.5	162.8	162.3	38
40	229.4	185.9	176.4	114.9	103.8	136.1	73.8	206.0	140.3	127.0	136.3	40
42	187.2	122.2	131.8	89.7	143.9	89.0	72.1	152.2	107.1	94.7	102.4	42
44	99.2	74.7	64.7	78.1	93.5	49.2	59.9	86.0	72.6	55.7	63.2	44
46	47.1	48.4	34.0	51.9	55.7	27.7	21.1	47.8	44.5	30.8	36.4	46
48	24.3	4.7	12.5	24.7	32.2	11.4	14.8	13.8	19.7	14.3	16.1	48
50	35.8	8.5	8.3	11.9	11.8	6.9	25.8	21.2	10.4	9.1	10.2	50
52	1.6	9.3	5.8	6.9	3.4	2.7		5.7	6.5	2.6	4.1	52
54			3.0	4.5	0.9	5.0			3.9	4.1	3.7	54
56			1.1	2.5	0.9		1.7		1.9	0.2	0.8	56
58				0.9					0.5		0.2	58
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	2	3	12	11	7	17	3	5	23	27	55	
SAMPLING WEIGHT(kg)	79	102	651	764	237	770	96	181	1416	1103	2699	
No. F.MEASURED	165	230	1524	1828	542	2040	260	395	3352	2842	6589	
MEAN LENGTH(cm)	41.2	39.8	39.1	38.8	38.9	37.8	37.2	40.4	38.9	37.9	38.4	
MEAN WEIGHT (g)	501	446	425	427	433	386	372	472	426	391	407	
DEPTH RANGE (m)	484/518	168/520	103/452	150/327	135/530	124/645	230/484	168/520	103/452	124/645	103/645	

TABLE XXXII: ATLANTIC HALIBUT, DIV. 3O, 2002:

length composition of the trawl catches.				
LENGTH GROUP	OCT	NOV	4th Q. =YEAR	LENGTH GROUP
46		29.6	25.1	46
//				//
66		58.2	49.4	66
68				68
70				70
72		53.8	45.7	72
74				74
76		83.4	70.9	76
78		117.4	99.7	78
80		113.0	96.0	80
82		500.0	124.7	82
84				84
86		169.7	144.2	86
88		71.5	60.8	88
90		58.2	49.4	90
92		29.6	25.1	92
94		29.6	25.1	94
96		53.8	45.7	96
98				98
100		250.0	37.6	100
102		102		102
104		104		104
106		106		106
//				//
142		333.3	149.1	142
//				//
148		142.9	79.0	148
//				//
180		180		180
TOTAL	1000	1000	1000	

TABLE XXXI: ATLANTIC HALIBUT, DIV. 3N, 2002:

length composition of the trawl catches.				
LENGTH GROUP	OCT	NOV	4th Q. =YEAR	LENGTH GROUP
76		333.3	149.1	76
//				//
90	142.9		79.0	90
92				92
94		333.3	149.1	94
96				96
98	142.9		79.0	98
100				100
102				102
104	142.9		79.0	104
106	142.9		79.0	106
//				//
130	142.9		79.0	130
//				//
142		333.3	149.1	142
//				//
148	142.9		79.0	148
//				//
166	142.9		79.0	166
TOTAL	1000	1000	1000	
No. SAMPLES	1	1	2	
SAMPLING WEIGHT(kg)	228	101	330	
No. F.MEASURED	7	3	10	
MEAN LENGTH(cm)	121.3	105.0	114.0	
DEPTH RANGE (m)	446/547	1150/1390	446/1390	

No. SAMPLES	1	7	8
SAMPLING WEIGHT(kg)	39	250	289
No. F.MEASURED	4	24	28
MEAN LENGTH(cm)	96.5	86.2	87.8
DEPTH RANGE (m)	246/246	181/750	181/750

TABLE XXXIII: WHITE HAKE, DIV. 3N, 2002: length composition of the trawl catches.

LENGTH GROUP	AUG	SEP	NOV	3rd Q.	4th Q.	YEAR	LENGTH GROUP
27		4.8		3.5		3.3	27
28	0.7	0.3		0.4		0.4	28
29	0.7	3.4		2.7		2.5	29
30		7.8		5.7		5.4	30
31		12.1		8.8		8.3	31
32		4.3		3.1		3.0	32
33	6.6	17.0		14.2		13.4	33
34	2.5	28.9		21.7		20.5	34
35	5.9	47.6	9.8	36.3	9.8	34.8	35
36	35.5	16.2	29.4	21.5	29.4	21.9	36
37	49.5	53.2	49.0	52.2	49.0	52.0	37
38	68.5	61.4	88.2	63.3	88.2	64.7	38
39	125.7	97.8	107.8	105.3	107.8	105.5	39
40	111.7	54.0	107.8	69.6	107.8	71.7	40
41	105.3	85.4	68.6	90.8	68.6	89.6	41
42	76.6	102.6	68.6	95.5	68.6	94.1	42
43	79.3	108.7	88.2	100.7	88.2	100.0	43
44	43.3	53.7	68.6	50.9	68.6	51.9	44
45	58.9	25.0	68.6	34.2	68.6	36.1	45
46	91.7	40.5	58.8	54.4	58.8	54.6	46
47	41.7	14.0	49.0	21.5	49.0	23.0	47
48	28.1	43.8	49.0	39.5	49.0	40.0	48
49	11.7	28.7	19.6	24.1	19.6	23.8	49
50	22.3	18.6	29.4	19.6	29.4	20.1	50
51	16.3	10.4	29.4	12.0	29.4	13.0	51
52	7.1	16.2	9.8	13.7	9.8	13.5	52
53		5.3		3.9		3.6	53
54	6.9	7.0		7.0		6.6	54
55		6.2		4.5		4.3	55
56	3.4	1.1		1.8		1.7	56
57		6.1		4.5		4.2	57
58		8.1		5.9		5.6	58
59		0.6		0.4		0.4	59
60		2.8		2.0		1.9	60
61		0.3		0.2		0.2	61
62		2.3		1.7		1.6	62
63		1.4		1.0		0.9	63
64		1.2		0.8		0.8	64
65		1.2		0.8		0.8	65
TOTAL	1000	1000	1000	1000	1000	1000	
No. SAMPLES	4	6	1	10	1	11	
SAMPLING WEIGHT(kg)	359	650	87	1010	87	1097	
No. F.MEASURED	458	804	102	1262	102	1364	
MEAN LENGTH(cm)	42.6	42.3	43.0	42.4	43.0	42.4	
DEPTH RANGE (m)	125/209	70/237	200/203	70/237	200/203	70/237	

TABLE XXXIV: WHITE HAKE, DIV. 3O, 2002: length composition of the trawl catches.

LENGTH GROUP	APR	MAY	JUN	AUG	SEP	OCT	NOV	DEC	2nd Q.	3rd Q.	4th Q.	YEAR	LENGTH GROUP
20				0.6						0.2		0.1	20
21				0.6						0.2		0.1	21
22				0.8	0.9		0.2			0.9	0.2	0.5	22
23					0.9		1.1			0.6	0.9	0.5	23
24				0.8	1.2		0.2			1.1	0.2	0.7	24
25				0.8	0.6		1.5			0.7	1.1	0.6	25
26			7.0		3.4		2.3	7.0	3.5	2.2	2.2	2.4	26
27				1.8	1.2		0.2			1.4	0.2	0.9	27
28			14.0	0.8	2.5	4.0	1.9		7.0	1.8	2.2	2.9	28
29					3.9	1.3	2.8	7.0		2.5	2.8	2.0	29
30		4.8		0.8	5.6	8.0	1.7	6.6	2.2	3.8	3.1	3.3	30
31		4.8	7.0	1.6	5.1	5.9	2.8		5.7	3.8	3.1	4.1	31
32		19.3	7.0	4.9	7.9	1.4	2.8		12.5	6.8	2.4	7.0	32
33	2.2	7.1	14.0	10.9	11.2	2.5	4.0	14.1	10.4	11.1	4.3	9.6	33
34	20.7	24.1	35.0	14.8	14.8	11.5	5.1	13.7	29.4	14.8	6.7	16.1	34
35	10.3	16.9	28.0	12.4	24.0	8.0	4.5	20.7	22.2	19.7	6.0	17.4	35
36	35.4	79.5	62.9	30.5	33.3	1.1	12.5		69.6	32.2	9.8	35.2	36
37	51.7	82.0	49.0	56.0	48.2	4.7	23.1	9.8	64.4	51.1	19.2	47.3	37
38	64.2	77.2	83.9	87.8	74.4	8.4	40.7	28.8	80.1	79.3	34.4	70.4	38
39	79.0	72.0	153.8	104.5	64.5	27.1	43.7	39.8	113.2	79.2	40.6	78.1	39
40	87.7	55.2	139.9	128.4	97.3	38.0	82.2	41.6	98.7	108.7	72.4	99.4	40
41	129.1	101.2	83.9	114.9	84.7	29.5	71.3	74.2	93.5	95.8	64.2	88.9	41
42	87.1	76.9	42.0	87.2	55.8	38.8	62.4	81.6	59.8	67.3	59.3	64.2	42
43	62.7	98.6	62.9	77.2	56.1	45.7	77.5	99.8	79.5	63.9	73.2	68.9	43
44	35.4	40.6	49.0	57.1	42.1	35.7	80.2	70.6	44.6	47.6	72.0	51.9	44
45	100.3	42.9	28.0	40.1	55.2	59.6	92.5	65.8	37.5	49.7	85.4	54.5	45
46	83.4	21.5	49.0	23.4	38.3	43.0	69.9	25.7	37.4	32.8	62.9	39.8	46
47	12.5	35.8	21.0	18.5	40.5	56.4	63.2	58.6	27.6	32.5	61.8	37.4	47
48	27.9	19.0	7.0	16.6	59.8	78.8	63.0	91.2	13.3	44.0	67.2	42.6	48
49	4.4	7.1	14.0	10.6	38.0	65.7	32.0	63.0	10.5	28.0	39.5	26.8	49
50	22.9	6.9	7.0	10.5	30.7	49.7	24.7	41.8	7.5	23.3	30.0	21.5	50
51	14.7	4.6	14.0	9.9	19.8	25.2	19.6	49.3	9.7	16.2	22.1	16.1	51
52	29.5	9.5	7.0	8.6	13.8	28.8	34.3	27.3	9.0	11.9	32.9	15.6	52
53	2.2	9.7		5.8	12.5	38.5	15.8	13.7	4.6	10.0	19.6	10.9	53
54	12.5	24.0	14.0	6.1	8.0	30.0	10.4	7.0	18.6	7.3	13.6	10.8	54
55	4.4	4.6		1.6	5.1	30.1	7.4	6.6	2.3	3.8	11.3	5.0	55
56	2.2	4.6		3.0	4.3	23.9	4.4	20.7	2.2	3.8	8.7	4.5	56
57	6.6			3.0	4.1	12.8	2.9	7.0	0.2	3.7	4.8	3.2	57
58	4.4	2.3		3.8	4.5	24.1	5.4		1.2	4.2	8.4	4.5	58
59	2.2	2.3		2.8	3.3	26.8	4.5	7.0	1.1	3.1	8.5	3.8	59
60		6.9		4.8	4.6	7.2	1.5		3.2	4.7	2.4	3.9	60
61		4.8		3.7	2.8	6.9	5.9		2.2	3.1	5.7	3.5	61
62				3.0	3.1	26.4	3.3			3.1	7.1	3.3	62
63	2.2	7.1		4.6	1.4	12.9	1.3		3.4	2.6	3.2	2.9	63
64	2.2	2.3		3.1	4.4	14.9	2.0		1.1	3.9	4.2	3.4	64
65		2.3		1.0	2.1	15.1	0.5		1.1	1.7	3.0	1.8	65
66		4.6		2.2	2.2	17.8	2.6		2.1	2.2	5.1	2.8	66
67		4.8		4.1	1.2	9.6	0.8		2.2	2.2	2.3	2.2	67
68		4.8		4.8		0.6	3.0		2.2	1.8	2.4	2.0	68
69		4.8		1.0	0.6	5.8	1.5		2.2	0.7	2.2	1.3	69
70		2.3				11.5			1.1		2.0	0.6	70
71				0.2		5.8	0.5			0.1	1.4	0.3	71
72							0.5				0.4	0.1	72
73				1.8			0.5			0.7	0.4	0.5	73
74							0.8				0.6	0.1	74
75													75
76				1.8						0.7		0.4	76
77							0.5				0.4	0.1	77
78													78
79													79
80				0.2						0.1		0.05	80
81													81
82													82
83				1.8						0.7		0.4	83
84													84
85				0.8						0.3		0.2	85
86													86
87													87
88													88
89													89
90													90
91													91
92				1.8						0.7		0.4	92
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	2	3	1	12	11	6	17	3	6	23	26	55	
SAMPLING WEIGHT(kg)	147	218	102	1435	1737	591	1658	162	467	3172	2410	6050	
No. F.MEASURED	155	189	143	1749	2169	408	1669	180	487	3918	2257	6662	
MEAN LENGTH(cm)	43.2	42.7	40.8	42.8	43.3	50.0	45.1	45.1	41.8	43.2	46.0	43.4	
DEPTH RANGE (m)	484/518	168/520	209/223	127/405	150/327	136/451	160/645	207/530	168/520	127/405	136/645	127/645	

TABLE XXXV: THORNY SKATE, DIV. 3N, 2002: length composition of the trawl catches.

LENGTH GROUP	OCT	NOV	DEC	4th Q. =YEAR	LENGTH GROUP
13		0.7		0.7	13
14					14
15					15
16					16
17					17
18					18
19					19
20					20
21					21
22					22
23		2.3		2.2	23
24		5.0		4.8	24
25		0.7		0.7	25
26	76.9	3.9	32.3	5.8	26
27		16.9		16.3	27
28	38.5	12.2	32.3	13.1	28
29			32.3	0.7	29
30	76.9	25.8		26.1	30
31		18.2		17.5	31
32	76.9	15.5	64.5	17.6	32
33	76.9	25.5		25.8	33
34	76.9			1.3	34
35	76.9	4.9	32.3	6.7	35
36	76.9	39.8	32.3	40.2	36
37	115.4	65.8	64.5	66.6	37
38	115.4	59.5		59.1	38
39	38.5	47.3	96.8	48.3	39
40	38.5	156.9	129.0	154.2	40
41		125.7	193.5	125.1	41
42	76.9	153.0	129.0	151.1	42
43	38.5	8.5		8.8	43
44		75.1	96.8	74.3	44
45		2.0		1.9	45
46		56.2		53.9	46
47		17.5	32.3	17.5	47
48		23.7	32.3	23.5	48
49		1.6		1.6	49
50		16.3		15.7	50
51		15.1		14.5	51
52		1.1		1.0	52
53					53
54					54
55					55
56		1.6		1.6	56
57					57
58					58
59					59
60					60
61		1.6		1.6	61
TOTAL	1000	1000	1000	1000	
No. SAMPLES	1	11	1	13	
SAMPLING WEIGHT(kg)	76	1280	124	1480	
No. F.MEASURED	26	316	31	373	
MEAN LENGTH(cm)	35.5	40.5	39.5	40.4	
DEPTH RANGE (m)	446/547	71/1450	60/60	60/1450	

TABLE XXXVI : THORNY SKATE, DIV. 30, 2002: length composition of the trawl catches

LENGTH GROUP	OCT	NOV	DEC	4th Q. =YEAR	LENGTH GROUP
18	3.6			1.5	18
19		2.0		1.1	19
20		2.0		1.1	20
21	9.5	5.3		6.7	21
22		8.3		4.6	22
23		2.0		1.1	23
24	3.6	15.0		9.7	24
25	9.9			4.0	25
26	17.0	15.4	28.6	16.7	26
27	13.1	8.3		9.8	27
28	15.0	17.0		15.4	28
29	9.5	6.5		7.4	29
30	15.5	18.5	12.4	17.0	30
31	7.3	3.7	28.6	6.3	31
32	29.9	19.3	28.6	24.0	32
33	22.3	25.4	53.3	25.5	33
34	3.6	13.0	41.0	10.6	34
35	35.2	14.2		22.0	35
36	19.0	44.4	106.6	37.2	36
37	107.7	71.1	28.6	83.8	37
38	49.1	52.6	53.3	51.2	38
39	82.8	61.7	37.1	69.0	39
40	95.3	138.0	180.1	122.8	40
41	102.0	113.8	94.3	108.1	41
42	149.7	162.1	172.3	157.6	42
43	47.3	27.5		34.1	43
44	44.6	58.0	53.3	52.4	44
45	15.0	7.8	28.6	11.7	45
46	54.5	35.6		41.5	46
47	26.0	10.8	41.0	18.4	47
48	11.9	13.9	12.4	13.0	48
49		1.6		0.9	49
50		8.4		4.6	50
51		3.8		2.1	51
52		1.6		0.9	52
53		8.0		4.4	53
54					54
55					55
56		1.7		1.0	56
57		1.6		0.9	57
TOTAL	1000	1000	1000	1000	
No. SAMPLES	6	17	2	25	
SAMPLING WEIGHT(kg)	716	1744	202	2663	
No. F.MEASURED	194	452	52	698	
MEAN LENGTH(cm)	39.3	39.5	39.4	39.5	
DEPTH RANGE (m)	136/367	160/496	207/484	136/496	

TABLE XXXVII: SPINYTAIL SKATE, DIV. 3N, 2002:
length composition of the trawl catches.

LENGTH GROUP	OCT	NOV	4th Q. =YEAR	LENGTH GROUP
29	250.0		27.8	29
30				30
31				31
32				32
33	250.0		27.8	33
34		31.3	27.8	34
35				35
36		31.3	27.8	36
37				37
38		31.3	27.8	38
39				39
40				40
41		31.3	27.8	41
42				42
43				43
44		31.3	27.8	44
45				45
46				46
47				47
48				48
49				49
50				50
51				51
52		31.3	27.8	52
53				53
54				54
55		62.5	55.6	55
56				56
57				57
58		62.5	55.6	58
59				59
60				60
61		31.3	27.8	61
62		62.5	55.6	62
63		31.3	27.8	63
64				64
65				65
66		31.3	27.8	66
67				67
68				68
69				69
70		93.8	83.3	70
71		31.3	27.8	71
72		31.3	27.8	72
73		31.3	27.8	73
74		93.8	83.3	74
75				75
76	250.0		27.8	76
77				77
78		31.3	27.8	78
79				79
80				80
81	250.0		27.8	81
82				82
83		62.5	55.6	83
84				84
85				85
86		62.5	55.6	86
87				87
88		31.3	27.8	88
89				89
90				90
91				91
92				92
93		31.3	27.8	93
94		31.3	27.8	94
TOTAL	1000	1000	1000	
No. SAMPLES	1	4	5	
SAMPLING WEIGHT(kg)	34	365	398	
No. F.MEASURED	4	32	36	
MEAN LENGTH(cm)	55.3	66.9	65.6	
DEPTH RANGE (m)	446/547	71/1450	71/1450	

TABLE XXXVIII: SPINYTAIL SKATE, DIV. 3O, 2002
length composition of the trawl catches.

LENGTH GROUP	DEC =YEAR	LENGTH GROUP
36	200.0	36
//		//
41	200.0	41
//		//
70	200.0	70
//		//
83	200.0	83
//		//
96	200.0	96
TOTAL	1000	
No. SAMPLES	1	
SAMPLING WEIGHT(kg)	52	
No. F.MEASURED	5	
MEAN LENGTH(cm)	65.7	
DEPTH RANGE (m)	700/769	

TABLE XXXIX: MONKFISH, DIV. 30, 2002: length composition of the trawl catches.

LENGTH GROUP	OCT	NOV	DEC	4th Q. =YEAR	LENGTH GROUP
16	4.4			1.6	16
17					17
18					18
19					19
20					20
21		1.3		0.8	21
22					22
23					23
24			29.0	1.7	24
25		10.0		5.7	25
26					26
27		1.3		0.8	27
28		5.0		2.9	28
29	38.5	13.2		21.8	29
30	17.0	24.3		20.2	30
31					31
32		14.1		8.0	32
33		15.0		8.6	33
34		6.4		3.6	34
35		2.9		1.7	35
36	4.4	16.3		11.0	36
37	17.0	16.8		15.9	37
38	21.4	22.0	29.0	22.2	38
39	13.2	27.6		20.7	39
40	81.0	59.0	102.7	69.7	40
41	33.8	40.3	29.0	37.2	41
42	8.8	15.7		12.2	42
43	21.4	9.3	29.0	14.9	43
44	42.6	23.5	58.1	32.5	44
45	51.0	21.3	44.6	33.6	45
46	78.6	19.6	29.0	42.0	46
47	42.6	37.7	118.3	44.2	47
48	18.3	61.1	29.0	43.4	48
49	64.7	43.9		49.1	49
50	57.2	43.1	133.8	53.6	50
51	38.2	73.6	29.0	57.9	51
52	38.2	50.3	29.0	44.6	52
53	65.9	63.6	73.7	65.1	53
54	40.8	49.3	44.6	45.9	54
55	32.8	23.8	73.7	30.0	55
56	4.4	22.1		14.3	56
57	29.9	20.8		23.0	57
58	7.4	9.1	29.0	9.6	58
59	22.6	9.9		14.0	59
60	32.2	36.8	44.6	35.5	60
61	16.1	12.6		13.2	61
62		12.2		7.0	62
63		14.5		8.3	63
64		3.5		2.0	64
65	9.5	2.6		5.0	65
66	4.4	2.1		2.8	66
67					67
68		1.8	44.6	3.6	68
69					69
70		3.6		2.0	70
71		3.5		2.0	71
72	29.4	8.8		15.9	72
73		1.8		1.1	73
74					74
75		5.0		2.9	75
76					76
77					77
78		2.6		1.5	78
79		5.0		2.9	79
80		3.2		1.8	80
81	12.4			4.6	81
82		1.8		1.1	82
83		5.0		2.9	83
TOTAL	1000	1000	1000	1000	
No. SAMPLES	5	17	2	24	
SAMPLING WEIGHT(kg)	379	960	90	1429	
No. F.MEASURED	115	292	28	435	
MEAN LENGTH(cm)	49.0	49.1	49.1	49.0	
DEPTH RANGE (m)	135/367	160/750	230/530	135/750	

Fig. 1A - Breakdown of the 2002 Portuguese trawl directed effort by species.

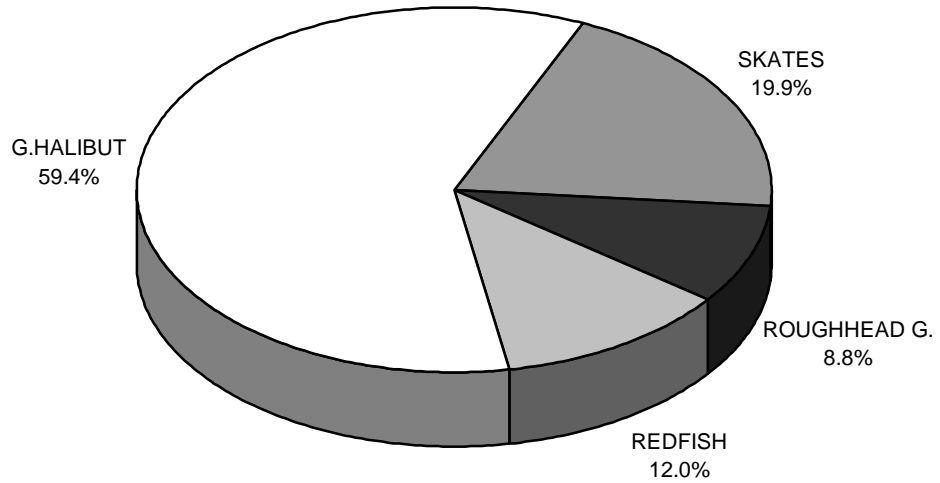
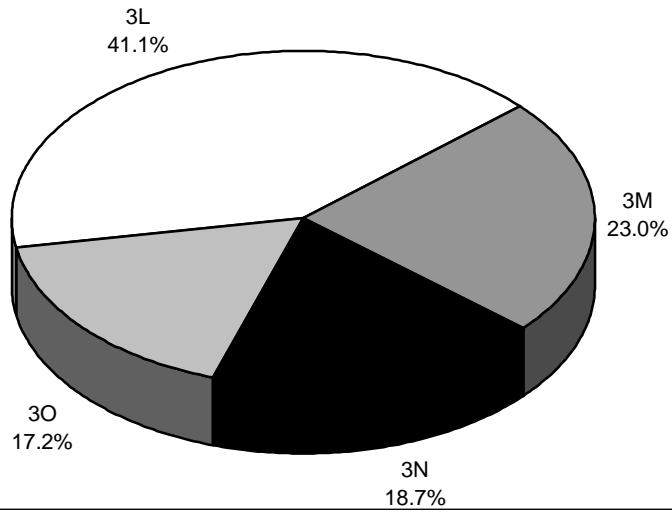
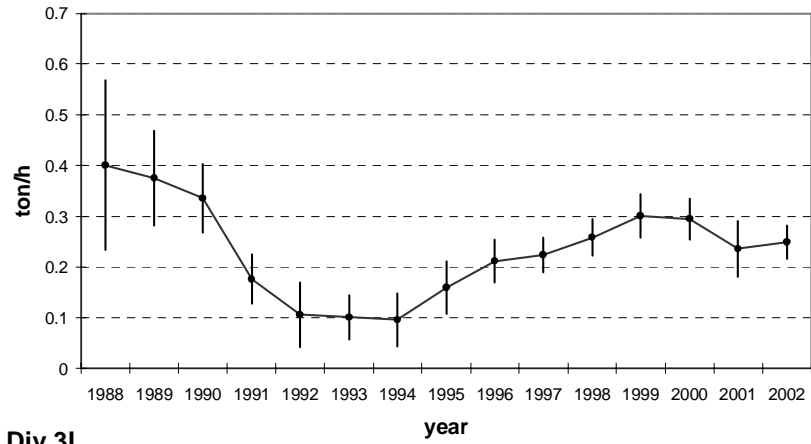
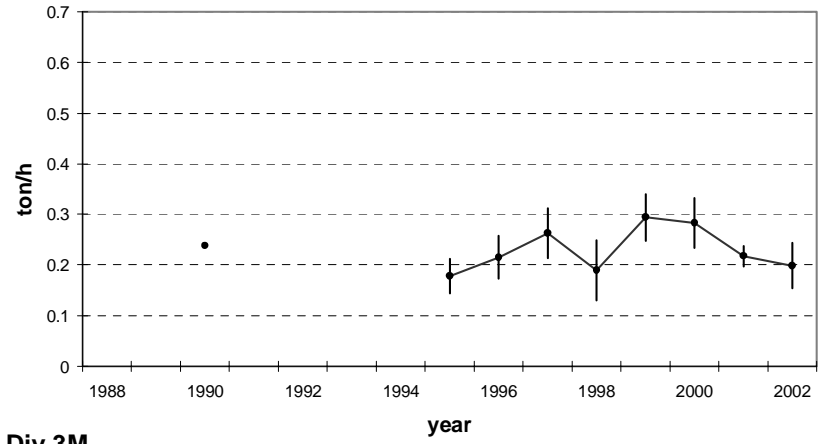


Fig. 1B - Breakdown of the 2002 Portuguese trawl directed effort by divisions.

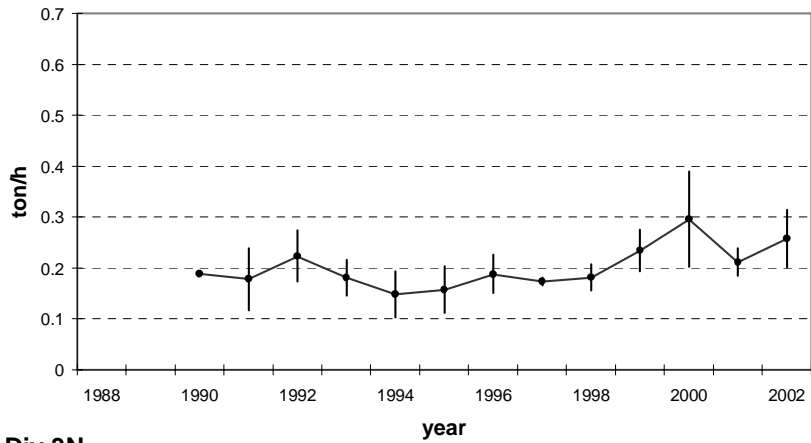




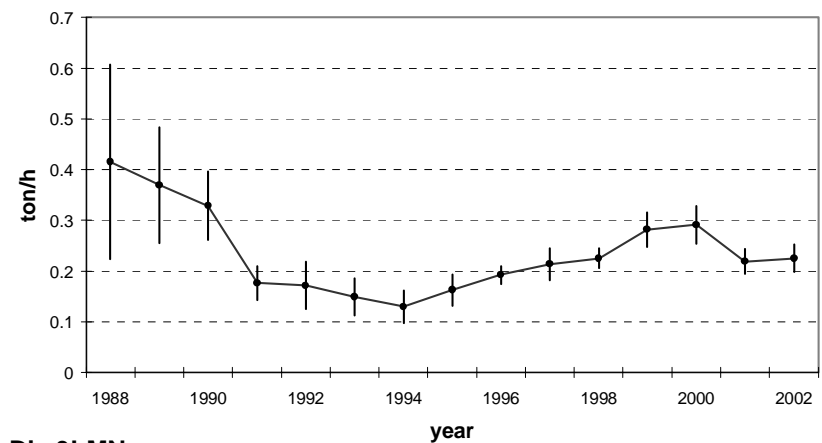
Div.3L



Div.3M



Div.3N



Div.3LMN

Fig. 2 : Greenland halibut trawl catch rates by division, 1988 - 2002.

Fig. 3 - Annual length composition of Cod on Division 3N trawl fishery in 2002.

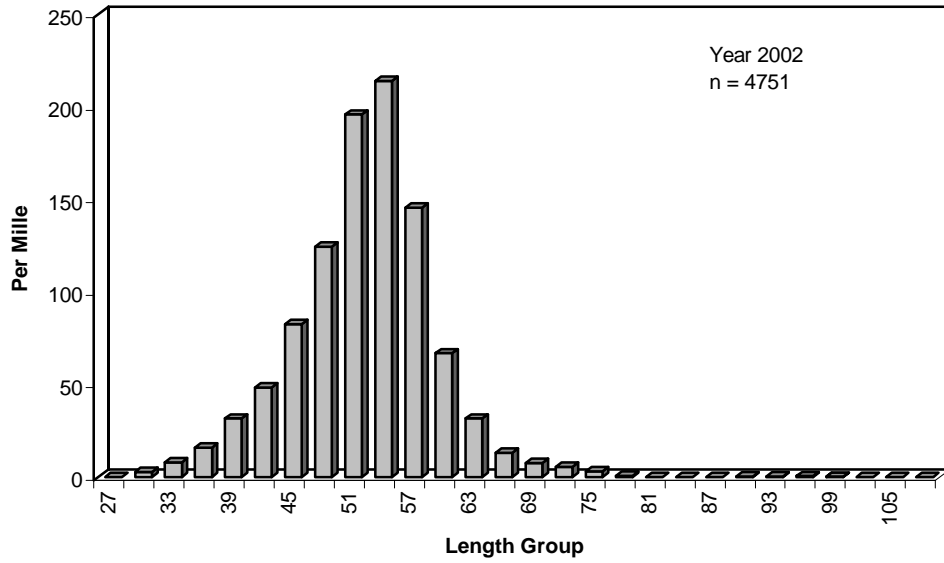
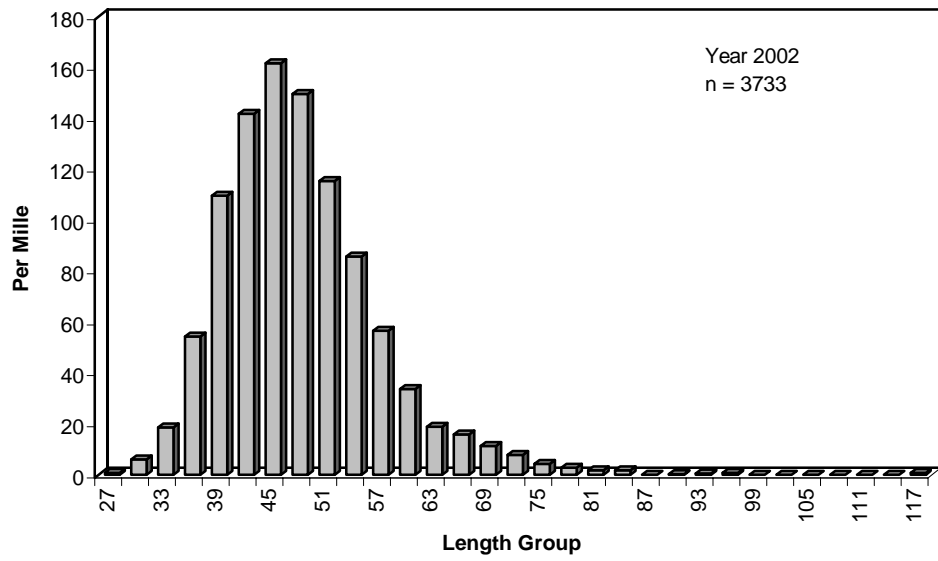


Fig. 4 - Annual length composition of Cod on Division 3O trawl fishery in 2002.



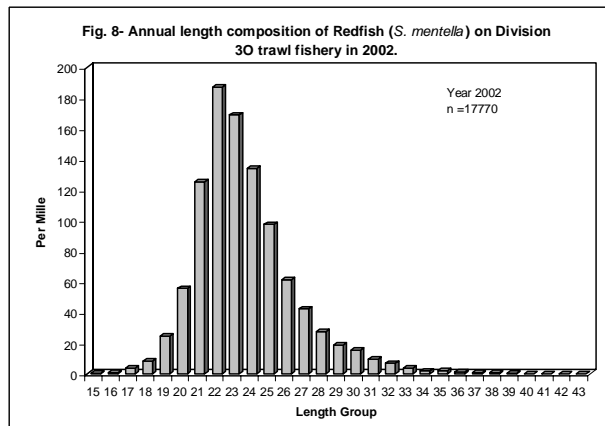
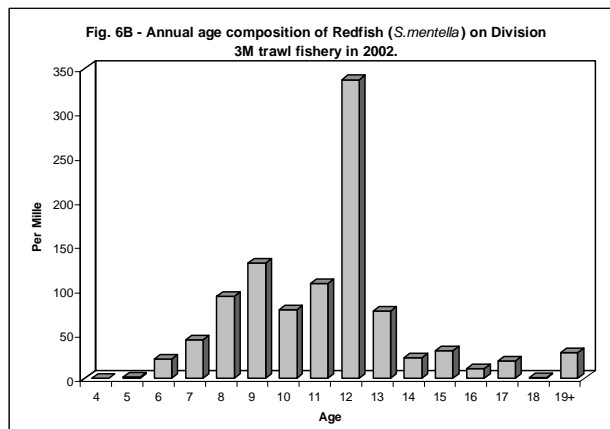
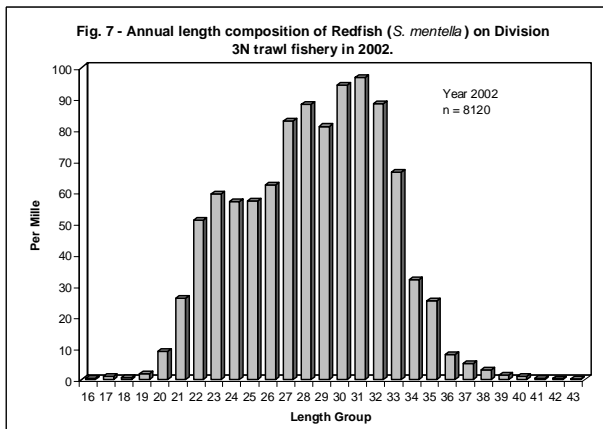
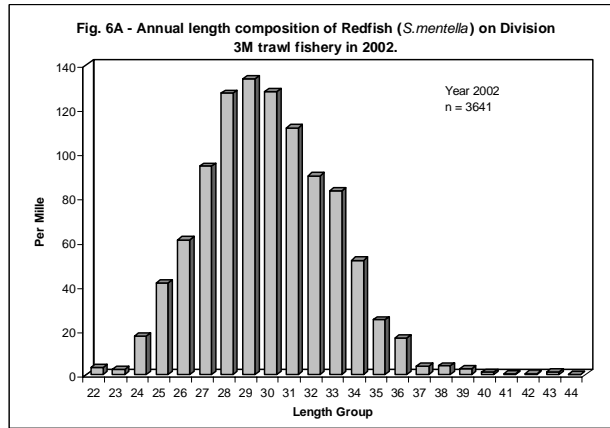
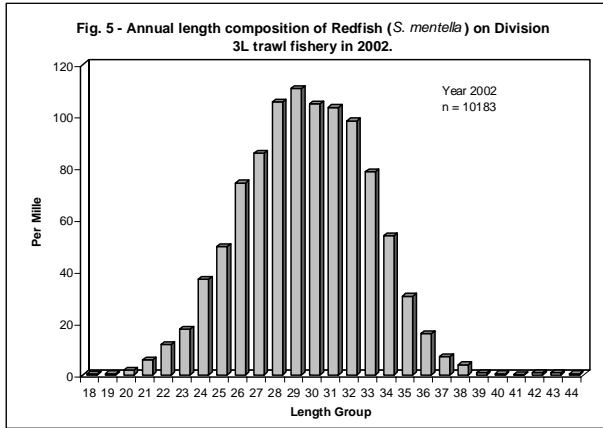


Fig. 9- Annual length composition of Redfish (*S. marinus*) on Division 3N trawl fishery in 2002.

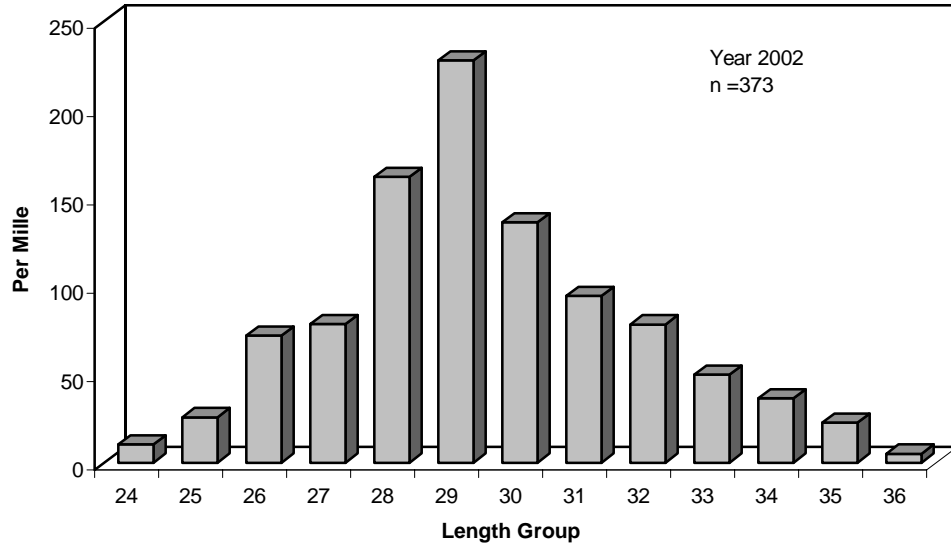


Fig. 10- Annual length composition of Redfish (*S. marinus*) on Division 3O trawl fishery in 2002.

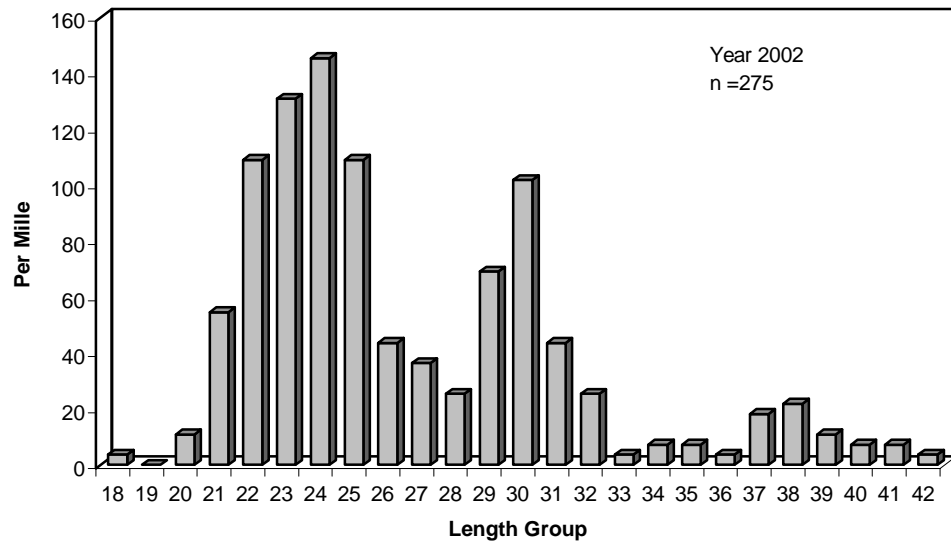


Fig. 11- Annual length composition of American plaice on Division 3L trawl fishery in 2002.

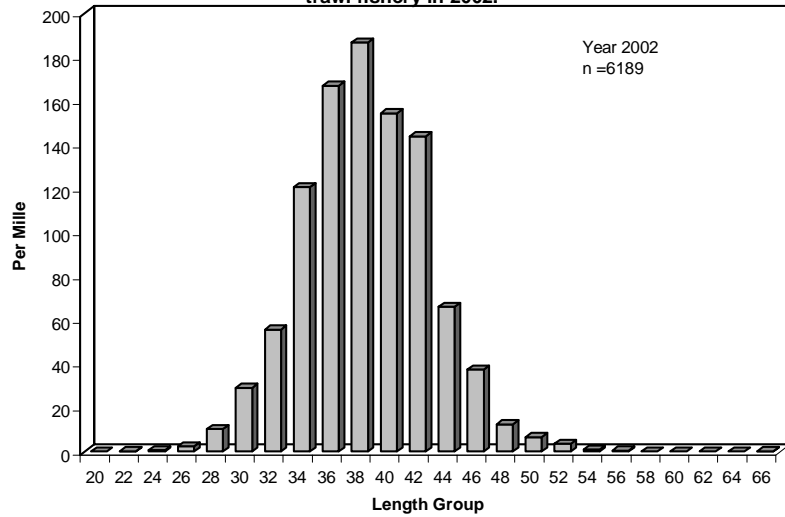


Fig. 12A- Annual length composition of American plaice on Division 3M trawl fishery in 2002.

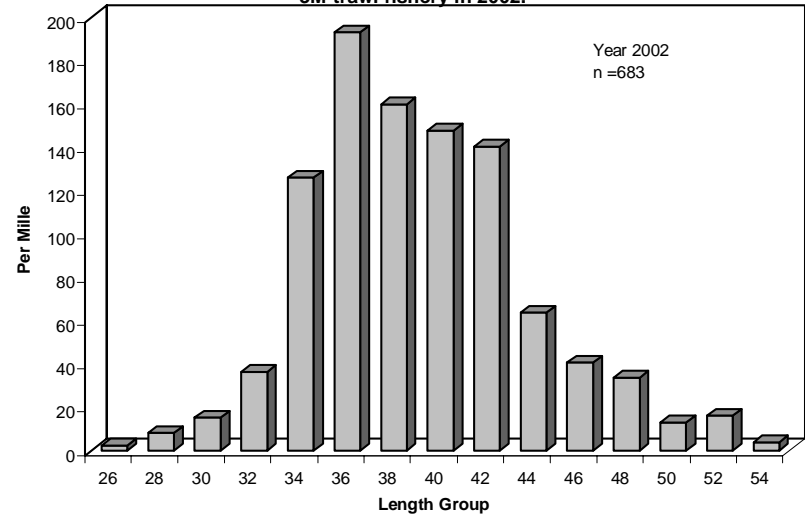


Fig. 13- Annual length composition of American plaice on Division 3N trawl fishery in 2002.

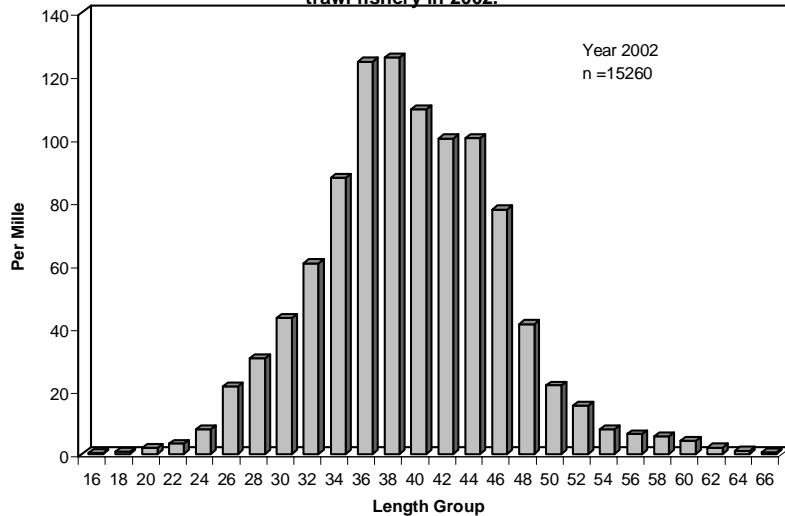
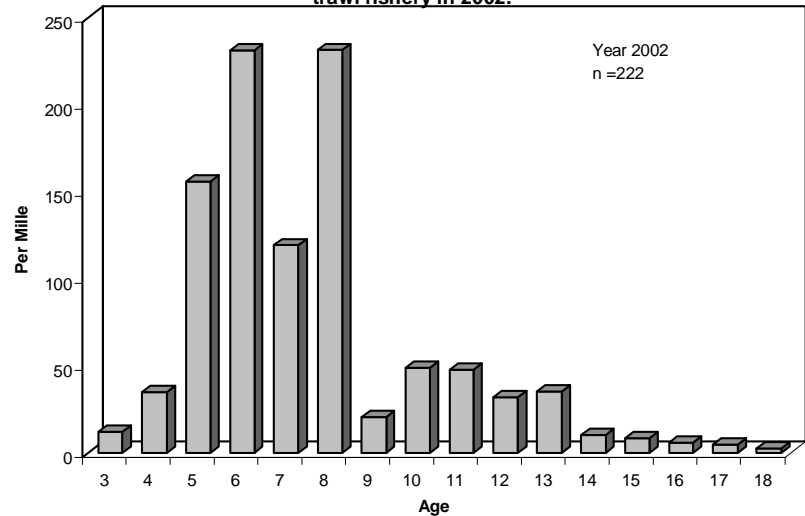


Fig. 12B- Annual age composition of American plaice on Division 3M trawl fishery in 2002.



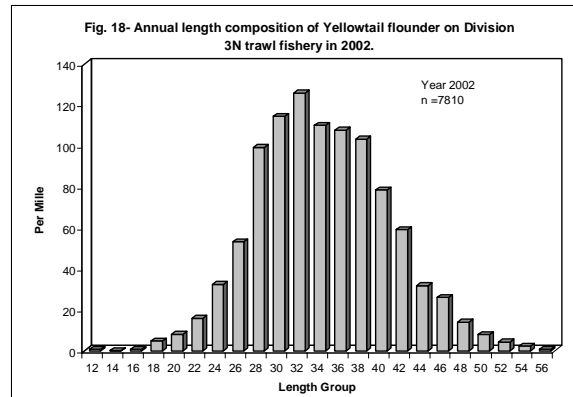
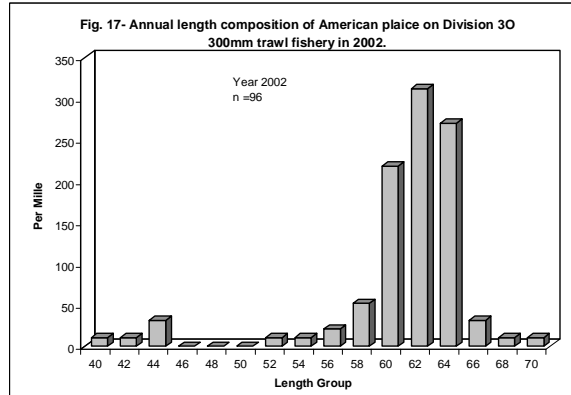
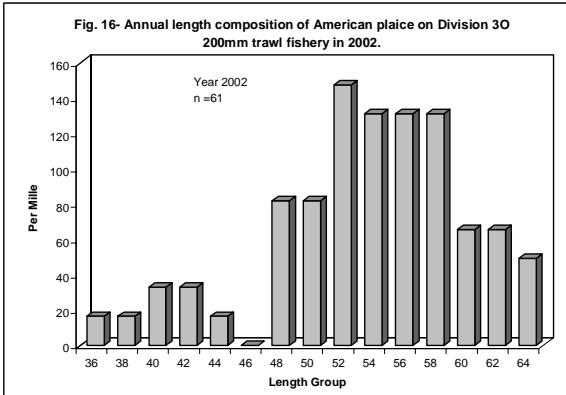
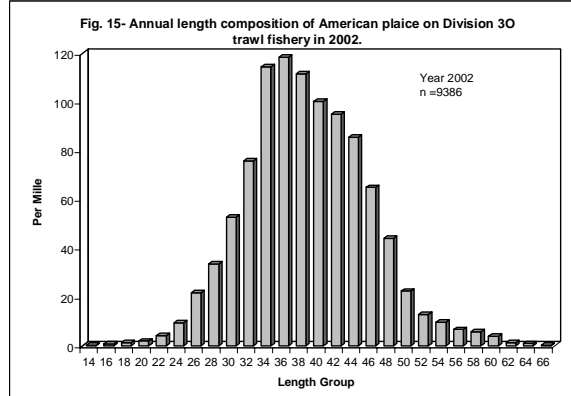
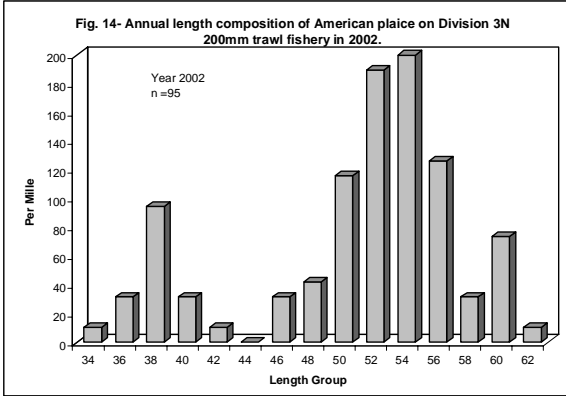


Fig. 19- Annual length composition of Greenland halibut on Division 3L trawl fishery in 2002.

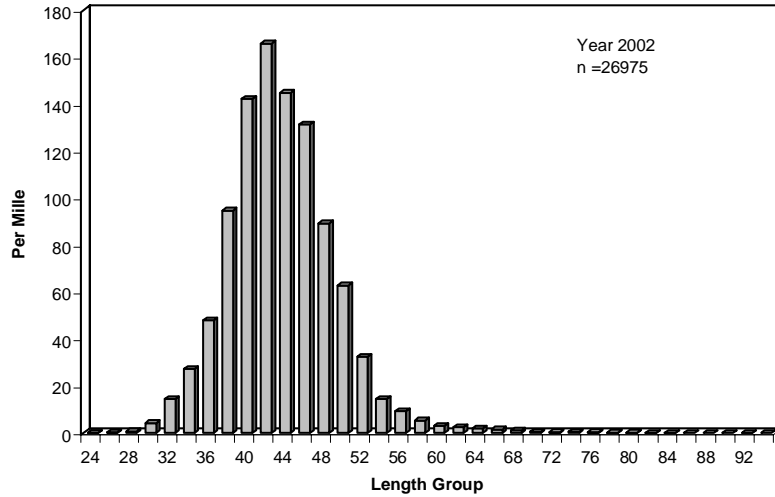


Fig. 20- Annual length composition of Greenland halibut on Division 3M trawl fishery in 2002.

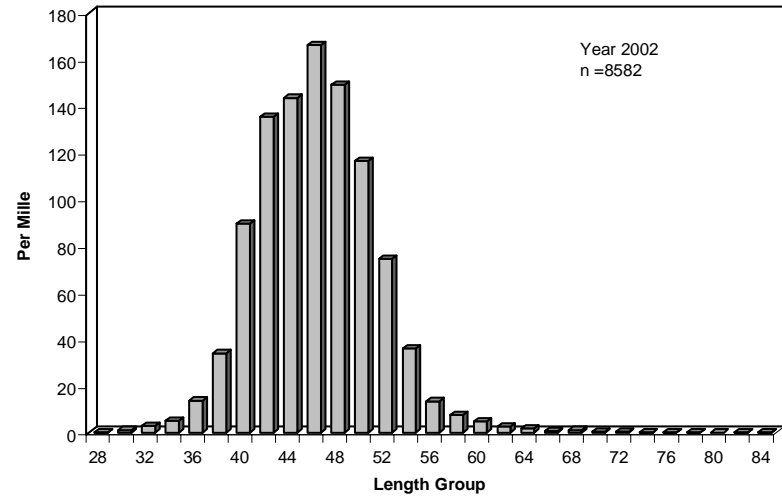


Fig. 21- Annual length composition of Greenland halibut on Division 3N trawl fishery in 2002.

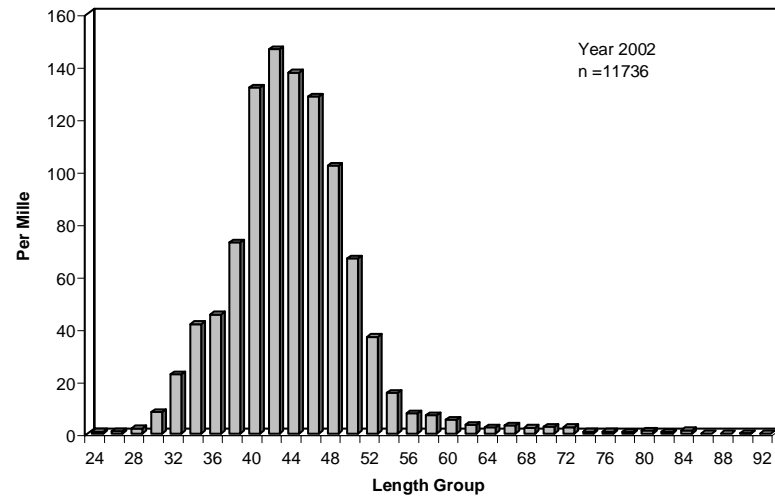


Fig. 22- Annual length composition of Greenland halibut on Division 3O trawl fishery in 2002.

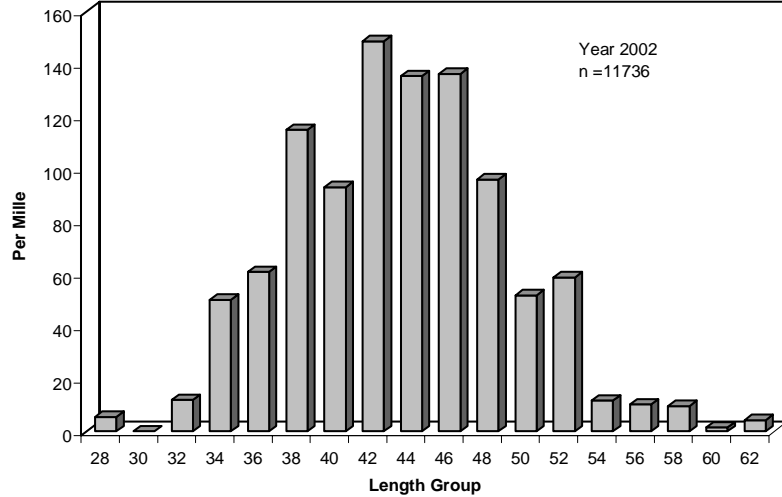


Fig. 23- Annual length composition of Roughhead grenadier on Division 3L trawl fishery in 2002.

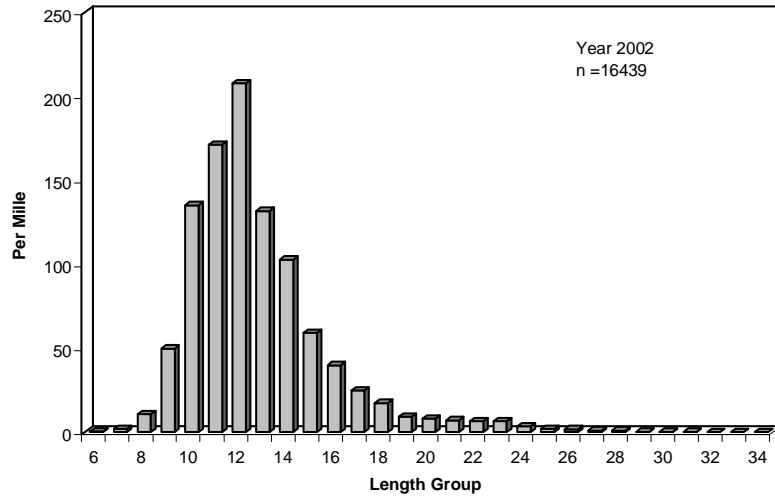


Fig. 24- Annual length composition of Roughhead grenadier on Division 3M trawl fishery in 2002.

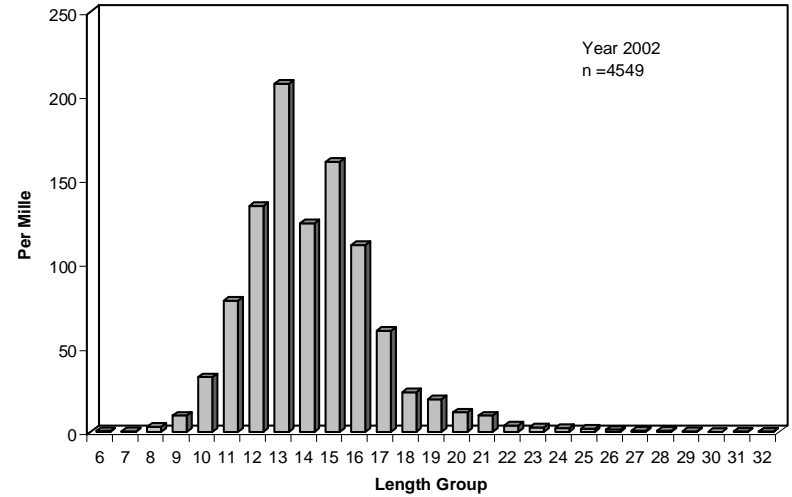


Fig. 25- Annual length composition of Roughhead grenadier on Division 3N trawl fishery in 2002.

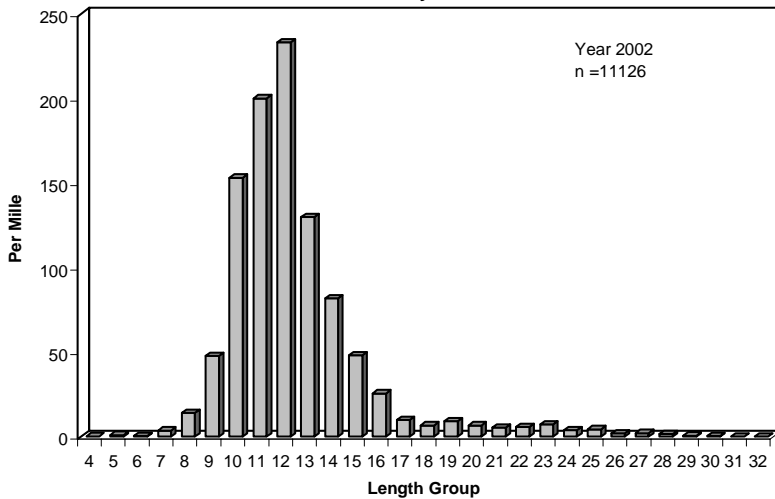


Fig. 26- Annual length composition of Roughhead grenadier on Division 3O trawl fishery in 2002.

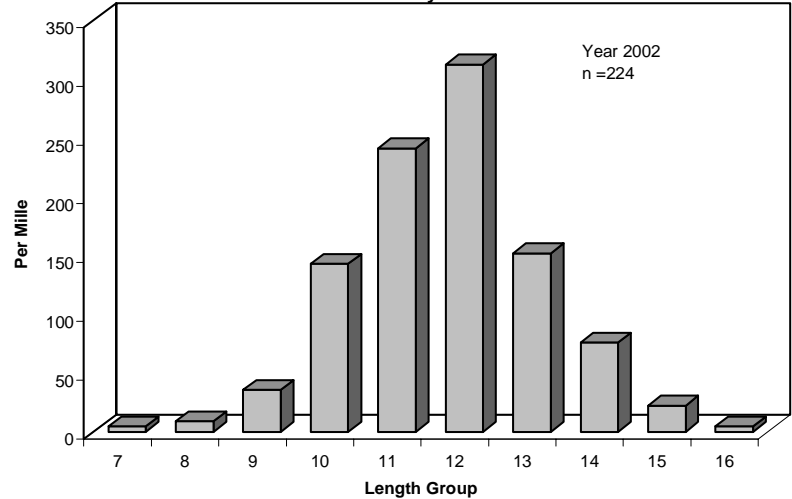


Fig. 27- Annual length composition of Witch flounder on Division 3L trawl fishery in 2002.

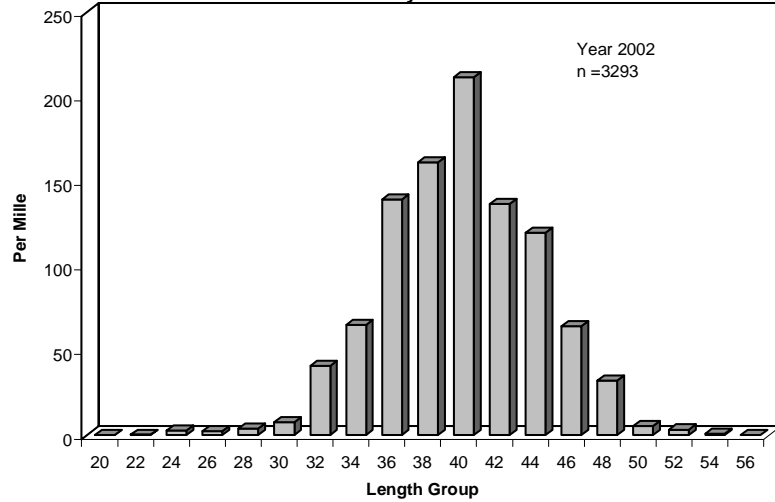


Fig. 28- Annual length composition of Witch flounder on Division 3M trawl fishery in 2002.

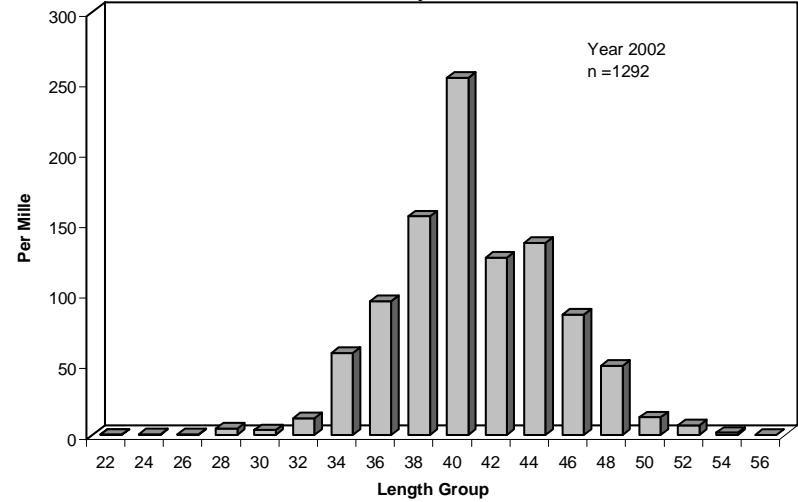


Fig. 29- Annual length composition of Witch flounder on Division 3N trawl fishery in 2002.

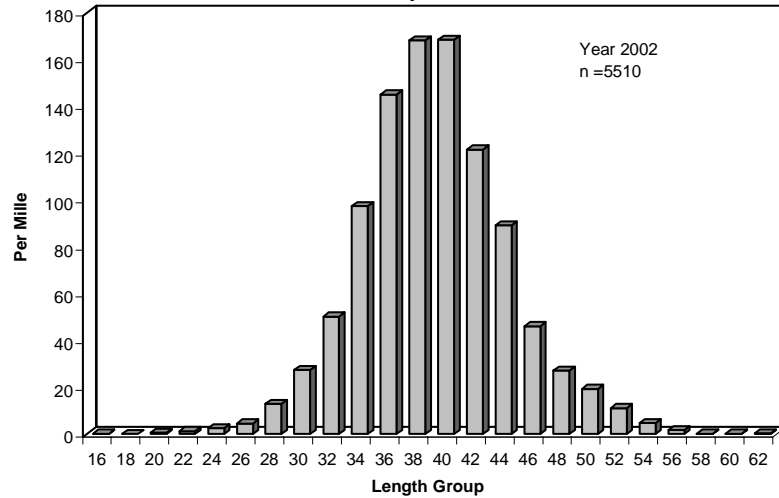
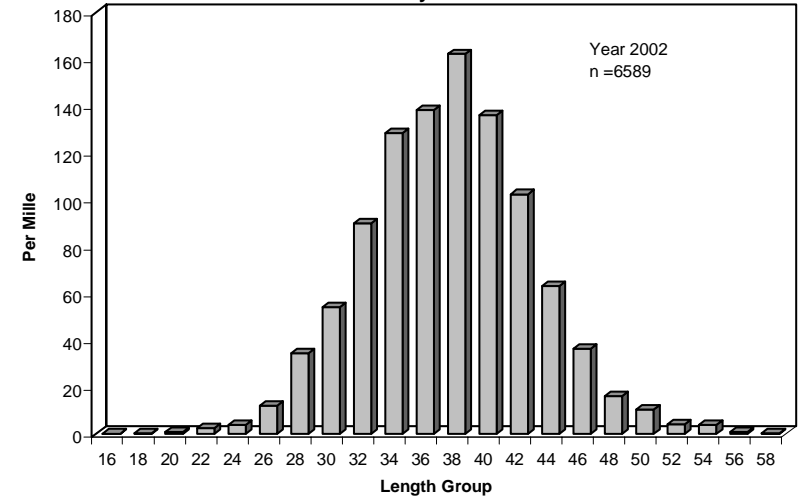
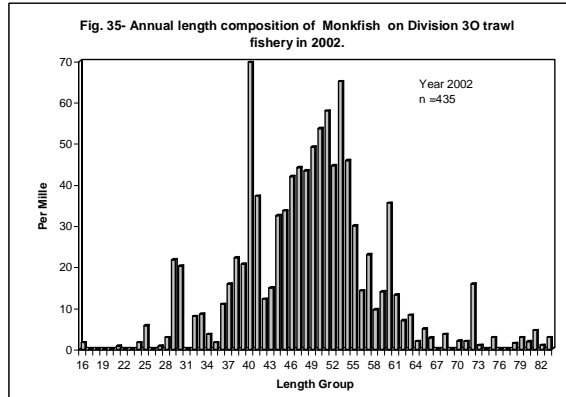
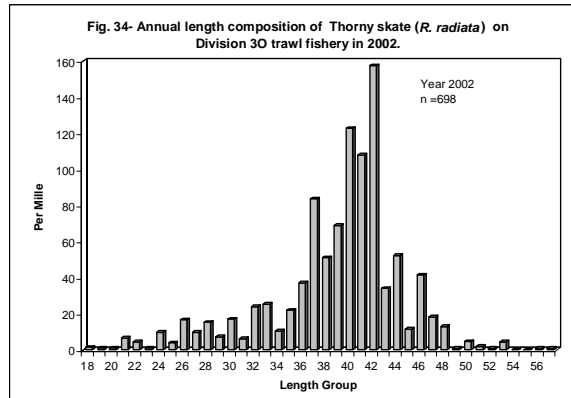
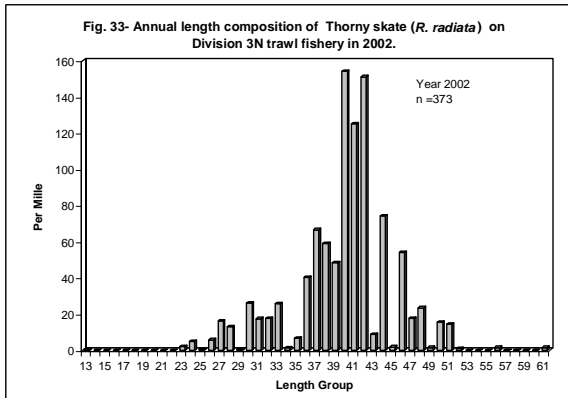
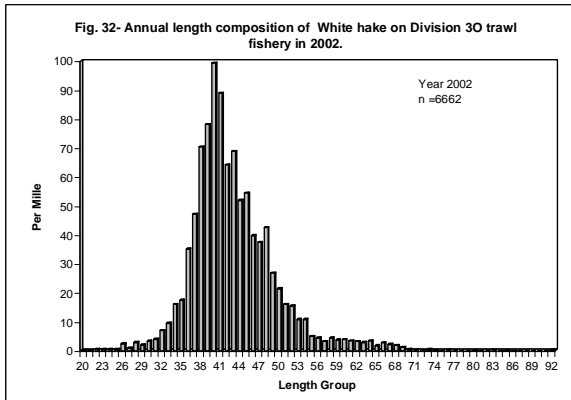
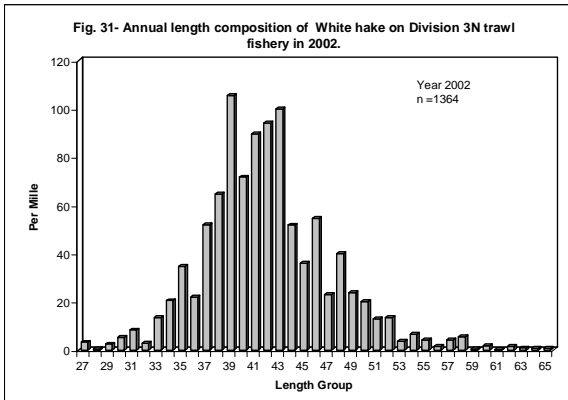


Fig. 30- Annual length composition of Witch flounder on Division 3O trawl fishery in 2002.





APPENDIX

COD, divisions 3L, 3N and 3O

$$\log w = -5.2106 + 3.0879 \log l \quad (\text{Hodder, 1964})$$

COD, division 3M

$$w = 0.0077 * l^{3.039} \quad (\text{Vazquez, 2002})$$

REDFISH, divisions 3L, 3N and 3O

$$\text{males} \quad w = 0.01659 * l^{2.9548}$$

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

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

$$w = 0.0136 * l^{3.0159} \quad (\text{Saborido Rey, pers.comm. 2002})$$

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

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

AMERICAN PLAICE, division 3M

$$w = 0.0029 * l^{3.324} \quad (\text{Vazquez, 2002})$$

YELLOWTAIL FLOUNDER, divisions 3N and 3O

$$\log w = -5.434 + 3.443 \log l \quad (\text{Pitt, 1978})$$

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

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

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

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