

**SCIENTIFIC COUNCIL MEETING – JUNE 2012****PORTUGUESE RESEARCH REPORT FOR 2011**

by

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

INSTITUTO NACIONAL DOS RECURSOS BIOLÓGICOS
INRB/L-IPIMAR

Av. BRASÍLIA 1449-006, LISBOA, PORTUGAL

A. Status of the fisheries

In 2011, the Portuguese provisional nominal catches proceeding from NAFO Regulatory Sub Area 3 reached 17 730 ton (Table 1-A). Over recent years, nominal catches increased continuously from 2000 to 2003, when they peaked at 21 300 ton, but declined sharply afterwards; between 2004 and 2008 catches stabilised between 11 500-13 000 ton. Catches in 2009 and 2010 were around 15 000 ton (Table I-B).

Based on provisional effort data, the number of fishing days, both in Div. 3L and 3O, decreased from 2010 to 2011, however the effort in Div. 3M and 3N increased significantly leading to an increase in total effort in 2011. In 2011, 11 trawlers composed the Portuguese fleet that operated in the NAFO area.

Due to the opening, in 2010, of the fishery for cod in Div. 3M (Flemish Cap), this species represent now 29% of the total catch in this division and almost 18% of the Portuguese catches from subarea 3. Catches of redfish remains stable in Div. 3O and fall by half in Div. 3N, but the total catch of this species was kept at the same level due to the increase observed in Div. 3M. Redfish continues to be by far the most important species in the Portuguese commercial catches from Sub Area 3, representing in recent years more than 50% of the overall catch.

The by-catch of American plaice in Div. 3N doubled from 2010 to 2011. The same increase was observed for the roughhead grenadier catch in Div. 3L and 3M. The shrimp fishery in Div. 3L, that in 2009 its catches reached 20% of the total catch in this division, declined significantly in 2010 and was reduced to zero in 2011.

Like in 2010, the Greenland halibut catch increased around 9% in 2011, but due to the increase observed in both Div. 3M and 3N (more than 50% increase for the two divisions combined) On Div. 3L, the bulk of the catch is again of Greenland halibut and redfish (around 90%).

The catches of other species remained more or less stables in all divisions.

The catch in Div. 3M (mainly cod and redfish) continue, like the most recent years, to represent around 50% of the total catch in 2011. This division is at present the most important ground for the Portuguese NAFO fishery. On both Div. 3M and 3O, redfish is the most important fishery, with an average of 75% of the total catch in each division. For the second year in Div. 3N, the redfish fishery is the most important fishery (53% of the total catch in 2011 against 84% in 2010, due to rising of the by-catch of American plaice), replacing the skate fishery that for several years represented 50-70% of the catch in this division.

B. Portuguese Annual Sampling Program

1. Catch and effort sampling.

Effort and CPUE data for 2011 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 in days and hours were supplied by the Portuguese administration, changes in the administration database make it possible since 2009 (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. From the data available, the majority of the fishing effort was directed towards redfish, Greenland halibut and cod. Data regarding directed effort and catch rates of the Greenland halibut fishery are presented in Table III to IV-B and Fig. 1.

The Greenland halibut CPUE series was updated with the 2011 observed CPUEs. 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 CPUEs, but excluding the vessel factor because the sampling program in recent years was carried out on vessels that were not sampled before. If the vessel factor is applied, these new vessels will increase a lot the noise. Because they are the only vessels sampled in the recent years, we assumed that all vessels belong to the same category what is realistic. From January 1988 till April 1995 each monthly observed CPUE of this series was previously corrected for 130mm mesh size (Ávila de Melo and Alpoim, 1996). In this analysis, any observation corresponding to a month and a trawler with less than 10 hours of directed effort was rejected. The CPUEs are presented in Tables IV and Fig. 1, 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, 3N and 3O

In Div. 3L catch rates declined prior to the boom of the deep-water fishery (Table IV-A, Fig. 1). 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 CPUEs fell by half. Between 1991 and 1994 catch rates remained stable at a low level. Since then, catch rates gradually increased, reaching an upper level in 1999-2000. Catch rates declined in 2001 and remained stable at that lower level in 2002 and 2003. In 2004 the catch rates decline again, reaching the lowest value since 1994. However, after 2004 the Greenland halibut catch rates recovered continuously and despite the high variability from 2007 to 2011 the catch rates reached the highest values observed since the monitoring of this fishery.

Div. 3M catch rates despite more noisy follows the same trend as the ones in Div. 3L.

For all Div. 3LMNO combined (Table IV-A, Fig. 1) the observed catch rates series follows the Div. 3L pattern, since this is the division of Sub Area 3 with the highest concentration of Greenland halibut fishing effort.

2. Biological Sampling

In 2011, biological sampling was obtained from two stern trawlers 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.

Cod, redfish (*S. mentella*), Greenland halibut and American plaice were sampled in Div. 3L, 3M, 3N and 3O (Tab. V). Thorny skate was sampled in Div. 3M, 3N and 3O. Roughhead grenadier was sampled in Div. 3L and 3M. Witch flounder was sampled in Div. 3N and 3O. Redfish (*S. marinus*) was sampled only in Div. 3M. Yellowtail flounder was sampled only in Div. 3N. White hake was sampled only in Div. 3O.

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, white hake, Atlantic halibut and haddock. Mean weight and mean weight in the catch are derived from the length-weight relationships calculated from the commercial sampling in 2011 (Table VI). However, due to some lack of sampling during 2011, for some stocks the length weight relationships used were the ones calculated in previous years.

2.1. Catch and bycatch composition of the 2011 trawl fishery (130mm codend mesh size).

The regular mesh size in the codend used by the monitored trawlers fishing groundfish was the 130mm and, when the mesh size is not mentioned it, means that the sample refers to the 130mm mesh size. Nevertheless, some sets in Div. 3N were made with a skate trawl net with 200mm/280mm mesh size in the codend, representing 4% in Div. 3N of the total effort sampled. In these sets the main species were sampled. The size of these catches within the overall sampled catch in Div. 3N is about 1% for cod, 25% for American plaice, 40% for yellowtail flounder and 64% for thorny skate.

2.1.1. Cod Div. 3L

Information on length composition of the cod by-catch in Div. 3L is available from May to August, except for July (Table VII, Fig. 2), from 342 m to 512 m depth.

Lengths between 36 cm and 45 cm dominated the catch, with a modal class at 39 cm (mean length and weight of 46.6 cm and 1020 g).

2.1.2. Cod Div. 3M

Information on length composition of the cod trawl catch in Div. 3M is available from February to October, except for April and July (Table VIII-A, Fig. 3a), from 210 m to 707 m depth.

Lengths between 42 cm and 54 cm dominated the catch, with a modal class at 54 cm (mean length and weight of 52.7 cm and 1489 g).

The Div. 3M cod age-length keys for the 3rd and 4th Trimester are presented in Table VIII-B and C. The 3rd Trimester age-length key was applied to the 1st and 2nd Trimesters length frequencies to derive the age frequencies.

The 2009-2005 year classes, 2 to 6 years old in 2011, dominated the trawl catches, being the 2008 year class the most represented (Tab. VIII-D, Fig. 3b).

2.1.3. Cod Div. 3N

Information on length composition of the cod by-catch in Div. 3N is available for February, May and June (Table IX-A, Fig. 4a), from 81 m to 596 m depth.

Lengths between 33 cm and 42 cm dominated the catch, with a two clear modal classes at 36 cm and 39 cm (mean length and weight of 40 cm and 710 g).

2.1.4. Cod Div. 3N (200mm codend mesh size)

Information on length composition of the 200mm mesh size cod by-catch in Div. 3N is available only for June (Table IX-B, Fig. 4b), from 50 m to 77 m depth.

Lengths at 57 cm, 60 cm and 81 cm dominated the catch (mean length and weight of 70.4 cm and 4615 g).

2.1.5. Cod Div. 3O

Information on length composition of the cod by-catch in Div. 3O is available for February, May and June (Table X, Fig. 5), from 95 m to 589 m depth.

Lengths between 39 cm and 48 cm dominated the catch, with a very clear modal class at 48 cm (mean length and weight of 48.4 cm and 1535 g).

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

Information on length composition of the redfish (*S. mentella*) trawl catches in Div. 3L is available for March, May, June and August (Table XI, Fig. 6), from 342 m to 549 m depth.

Lengths between 21 cm and 23 cm dominated the catch, with a modal class at 22 cm (mean length and weight of 25.2 cm and 248 g).

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

Information on length composition of the redfish (*S. mentella*) trawl catches in Div. 3M is available from February to June (except April) and for August and September (Table XII, Fig. 7), from 237 m to 1082 m depth.

Lengths between 21 cm and 23 cm and between 30 cm and 33 cm dominated the catch, with two modal classes at 22 cm and 32 cm (mean length and weight of 26.8 cm and 307 g).

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

Information on length composition of the redfish (*S. mentella*) trawl catches in Div. 3N is available for February, May and June (Table XIII, Fig. 8), from 220 m to 565 m depth.

Lengths between 21 cm and 23 cm dominated the catch, with a very clear modal class at 22 cm (mean length and weight of 23.3 cm and 192 g).

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

Information on length composition of the redfish (*S. mentella*) trawl catches in Div. 3O is available for February and from May to August, except for July (Table XIV, Fig. 9), from 230 m to 589 m depth.

Lengths between 19 cm and 22 cm dominated the catches, with a clear modal class at 21 cm (mean length and weight of 22 cm and 145 g).

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

Information on length composition of the redfish (*S. marinus*) trawl catches in Div. 3M is available from August to October (Table XV, Fig. 10), from 226 m to 737 m depth.

Lengths between 25 cm and 34 cm dominated the catch (mean length and weight of 30.9 cm and 441 g).

2.1.11. American plaice Div. 3L

Information on length composition of the American plaice by-catch in Div. 3L is available only for May (Table XVI, Fig. 11), from 455 m to 488 m depth.

Despite the small sampling (1 sample, 121 fish measured), data shows that the lengths between 22 cm and 30 cm dominated the catch (mean length and weight of 28.5 cm and 236 g).

2.1.12. American plaice Div. 3M

Information on length composition of the American plaice by-catch in Div. 3M is available only for September (Table XVII, Fig. 12), from 266 m to 316 m depth.

Despite the small sampling (1 sample, 127 fish measured), the data shows that the lengths between 26 and 32 cm dominated the catch (mean length and weight of 30.3 cm and 225 g).

2.1.13. American plaice Div. 3N

Information on length composition of the American plaice by-catch in Div. 3N is available for February, May and June (Table XVIII-A, Fig. 13a), from 85 m to 533 m depth.

Lengths between 24 cm and 28 cm dominated the catches, with a clear modal class at 26 cm (mean length and weight of 30 cm and 305 g).

2.1.14. American plaice Div. 3N (200 mm codend mesh size)

Information on length composition of the 200 mm mesh size American plaice by-catch in Div. 3N is available only for June (Table XVIII-B, Fig. 13b), from 50 m to 77 m depth.

Lengths between 26 cm and 42 cm dominated the catch, with a modal class at 32 cm (mean length and weight of 35.9 cm and 484 g).

2.1.15. American plaice Div. 3O

Information on length composition of the American plaice by-catch in Div. 3O is available for February, May and June (Table XIX, Fig. 14), from 95 m to 522 m depth.

Lengths between 30 cm and 36 cm dominated the catch, with a modal class at 32 cm (mean length and weight of 33.8 cm and 391 g).

2.1.16. Yellowtail flounder Div. 3N

Information on length composition of the yellowtail flounder catch in Div. 3N is available only for June (Table XX-A, Fig. 15a), from 85 m to 110 m depth.

Despite the small sampling (1 sample, 270 fish measured), the data shows that the length range of the catch was mainly between 30cm and 34 cm (mean length and weight of 33.3 cm and 336 g).

2.1.17. Yellowtail flounder Div. 3N (200 mm codend mesh size)

Information on length composition of the 200 mm mesh size Yellowtail flounder catch in Div. 3N is available only for June (Table XX-B, Fig. 15b), from 50 m to 60 m depth.

Despite the small sampling (1 sample, 188 fish measured), data show that 28-30 cm length classes dominated the catch (mean length and weight of 30.4 cm and 258 g).

2.1.18. Greenland halibut Div. 3L

Information on length composition of the Greenland halibut catches in Div. 3L is available from February to May (except April) and for August and September (Table XXI, Fig. 16), from 886 m to 1506 m depth.

Lengths between 38 cm and 50 cm dominated the catch, with a modal class at 44 cm (mean length and weight of 44.1 cm and 682 g).

2.1.19. Greenland halibut Div. 3M

Information on length composition of the Greenland halibut catches in Div. 3M is available for February, March, August and September (Table XXII, Fig. 17), from 277 m to 1540 m depth.

Lengths between 32 cm and 46 cm dominated the catch, with a clear modal class at 44 cm (mean length and weight of 42.2 cm and 602 g).

2.1.20. Greenland halibut Div. 3N

Information on length composition of the Greenland halibut catches in Div. 3N is available only for February (Table XXIII, Fig. 18), from 798 m to 844 m depth.

Despite the small sampling (1 sample, 156 fish measured), the data shows that the lengths at 34 cm and 38 cm dominated the catch (mean length and weight of 38.8 cm and 429 g).

2.1.21. Greenland halibut Div. 3O

Information on length composition of the Greenland halibut catches in Div. 3O is available only for August (Table XXIV, Fig. 19), from 391 m to 531 m depth.

Lengths between 42 cm and 48 cm dominated the catch, with a modal class at 48 cm (mean length and weight of 47 cm and 823 g).

2.1.22. Roughhead grenadier Div. 3L

Information on length composition of the roughhead grenadier catches in Div. 3L is available from March, May, August and September (Table XXV, Fig. 20), from 886 m to 1492 m depth.

Anal fin lengths between 11 cm and 13 cm dominated the catch, with a very clear modal class at 12 cm (mean length and weight of 13.1 cm and 227 g).

2.1.23. Roughhead grenadier Div. 3M

Information on length composition of the roughhead grenadier catches in Div. 3M is available for August and September (Table XXVI, Fig. 21), from 685 m to 1222 m depth.

Anal fin lengths between 11 cm and 13 cm dominated the catch, with a very clear modal class at 12 cm (mean length and weight of 13.2 cm and 213 g).

2.1.24. Witch flounder Div. 3N

Information on length composition of the witch flounder by-catch in Div. 3N is available only for February (Table XXVII, Fig. 22), from 798 m to 844 m depth.

Despite the small sampling (1 samples, 136 fish measured), the data shows that lengths at 28 cm, 32 cm, 38 cm and 42 cm dominated the catch (mean length and weight of 36.5 cm and 536 g).

2.1.25. Witch flounder Div. 3O

Information on length composition of the witch flounder by-catch in Div. 3O is available for February, May and June (Table XXVIII, Fig. 23), from 95 m to 589 m depth.

Lengths between 26 cm and 32 cm dominated the catch, with a modal class at 28 cm (mean length and weight of 31.6 cm and 389 g).

2.1.26. Thorny skate Div. 3M

Information on length composition of the thorny skate catches in Div. 3M is available from May to September, except for July (Table XXIX, Fig. 24), from 260 m to 717 m depth.

The data shows that 60-62 cm length classes dominated the catch with a modal class at 60cm (mean length and weight of 62.2 cm and 3296 g).

2.1.27. Thorny skate Div. 3N (200 mm codend mesh size)

Information on length composition of the 200 mm mesh size thorny skate catches in Div. 3N is available only for June (Table XXX, Fig. 25), from 66 m to 77 m depth.

Data available come from only one sample (35 fish measured), length ranged from 32 cm to 82 cm with a modal class at 60cm (mean length and weight of 61.8 cm and 3274 g).

2.1.28. Thorny skate Div. 3O

Information on length composition of the thorny skate catches in Div. 3O is available for May and June (Table XXXI, Fig. 26), from 120 m to 265 m depth.

The data show that the length range was from 30 cm to 84 cm (mean length and weight of 61.9 cm and 3409 g).

2.1.41. White hake Div. 3O

Information on length composition of the white hake catches in Div. 3O is available for February, May and June (Table XXXII, Fig. 27), from 95 m to 589 m depth.

Despite the large range of lengths, the data show that lengths at 48 cm, 49 cm, 52 cm and 55 cm dominated the catch (mean length and weight of 50.1 cm and 1126 g).

3. Acknowledgements

This study was supported by the European Commission (Program for the Collection of Data in Fisheries Sector) and INRB/IPIMAR. We thank to Dr. A. Vázquez from Instituto Investigaci3n Mariñas, Vigo, Spain, for ageing 3M cod otoliths from the Portuguese commercial catches.

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.

TABLE I-A: PORTUGUESE NOMINAL TRAWL CATCHES (mt) IN NAFO AREA, 2011
(data extracted from NAFO Database Statlant 21A on 18 May 2012).

SPECIES	DIVISION				TOTAL 2011
	3L	3M	3N	3O	
Cod	114	2813	129	144	3200
Redfish	495	5777	872	3767	10911
American plaice	11	32	117	85	245
Yellowtail flounder				19	19
Witch flounder	9	16	21	68	114
Greenland halibut	1499	713	256	3	2471
Atlantic halibut	3	14	28	15	60
Roughhead grenadier	94	98	12		204
Roundnose grenadier	32	17	28		77
Anarhichas spp.		18	2	1	21
Hadocck		3		8	11
Pollock					
White hake				12	12
Red hake	15	11			26
Capelin					
Skates	38	66	159	47	310
Monkfish				1	1
Squid		1		2	3
Shrimp					
Unidentified	10	22	4	3	39
TOTAL	2320	9601	1628	4175	17724

TABLE I - B: PORTUGUESE NOMINAL TRAWL CATCHES (mt) IN NAFO DIV. 3LMNO (data extracted from NAFO Database Statlant 21A on 18 May 2012).

SPECIES / YEAR	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000
Cod	3200	1528	1003	434	255	177	105	281	602	488	361	192
Redfish	10911	10541	9361	7768	7204	7805	7338	5971	7804	6346	5331	5678
American plaice	245	160	298	355	443	376	371	517	748	634	636	400
Yellowtail flounder	19	27	71	145	124	134	188	68	287	123	350	151
Witch flounder	114	71	131	221	1976	141	150	591	485	436	576	230
Greenland halibut	2471	2257	2075	1976	1873	2326	2256	1888	4369	4318	5027	4688
Atlantic halibut	60	56	469	23	32	43	20	59	89	47	45	28
Roughhead grenadier	204	83	266	50	34	77	262	381	302	508	613	397
Roundnose grenadier	77	27	198	29	37	54						
Anarhichas spp.	21	13	41	25	16	28	32	45	112	88	142	61
Hadocck	11	1	3	1	2		6	23	141	78	22	12
Pollock								4	114			
White hake	12	17	24	55	62	102	157	1266	4090	1678		
Red hake	26	1		3	2	4	18	13	2	1968	273	43
Capelin												
Skates	310	304	1045	1252	1058	1003	576	1550	1942	1362	883	672
Monkfish	1	11	3	13	35	34	6	73	165	71		
Squid	3	2	29	5	2	17		11				
Shrimp		15	332					50		16	420	289
Unidentified	39	11	77	2	1	216	6	21	13	322	40	1
TOTAL	17724	15125	15426	12357	11180	12537	11491	12812	21265	18483	14719	12842

TABLE I - B: cont.

SPECIES / YEAR	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988
Cod	325	550	1545	1316	1670	2640	3657	5986	13362	15142	24130	12963
Redfish	6082	2370	1126	2152	3297	8614	9831	6584	12165	17803	19032	19137
American plaice	718	361	389	289	170	346	323	453	1183	715	1821	1813
Yellowtail flounder	428	87					21			11	5	
Witch flounder	509	381	350	238	385	579	291	851	1980	2257	15	10
Greenland halibut	3997	3245	3347	3313	1942	5970	8811	10547	13961	11171	3616	4194
Atlantic halibut	51	29	15	9	18	45	50	79	229	96		152
Roughhead grenadier	1302	1088	765	787	1377	2224	1996	2004	4053	3211	290	911
Roundnose grenadier												
Anarhichas spp.	552	139	184	121	1358	3219	2303	1697	2842	1941		
Hadocck	11	5	42		2	10	10	165	82	17		
Pollock						13	41	29	424	11		
White hake												8
Red hake	76	19	54	124	230	270	365	467	1010	469	104	
Capelin										14		
Skates	2168	1105	908	796	2062	6239	7604	7019	23304	13557	652	1075
Monkfish								37	7		15	
Squid		1		4							47	
Shrimp	227	203	170		17							
Unidentified	115	38	115	23	15	12	245	325	725	779	158	6
TOTAL	16561	9621	9010	9172	12543	30181	35548	36243	75327	67194	49885	40269

TABLE II-A: PORTUGUESE PROVISIONAL TRAWL EFFORT IN FISHING DAYS AND FISHING HOURS IN NAFO AREA IN 2011.

MONTH	DIVISION								TOTAL		MONTH
	3L		3M		3N		3O				
	DAYS	HOURS	DAYS	HOURS	DAYS	HOURS	DAYS	HOURS	DAYS	HOURS	
JAN.	19	266	5	45	19	141	13	57	56	508	JAN.
FEB.	37	540	30	275	56	296	26	127	149	1238	FEB.
MAR.	61	969	81	651	11	89	16	104	169	1812	MAR.
APR.	48	762	38	326	20	146	40	328	146	1561	APR.
MAY	40	699	100	1598	32	259	28	408	200	2964	MAY
JUN.	37	498	59	1057	15	194	3	37	114	1785	JUN.
JUL.	5	23	5	69	1	8	6	73	17	173	JUL.
AUG.	26	289	86	1200	21	211	52	574	185	2275	AUG.
SEP.	60	886	138	1872	25	583	16	221	239	3563	SEP.
OCT.	63	1084	109	1542	49	552	13	171	234	3349	OCT.
NOV.	26	456	74	1186	33	402	7	42	140	2086	NOV.
DEC.	3	25	33	465	23	242			59	733	DEC.
TOTAL	425	6495	758	10287	305	3123	220	2142	1708	22047	TOTAL

TABLE II - B: PORTUGUESE TRAWL EFFORT IN FISHING DAYS AND FISHING HOURS IN NAFO Div. 3LMNO.

YEAR	GEAR				YEAR
	OT		GNS		
	DAYS	HOURS	DAYS	NETS	
2011	1708	22047			2011
2010	1574	19681			2010
2009	1514	18507			2009
2008	1163	14247			2008
2007	1233	14455			2007
2006	1485	19666			2006
2005	1476	15744			2005
2004	1705	18856			2004
2003	2312	25175			2003
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 III: Portuguese trawl fishery cpue's and bycatch by month and division for 2011.

DIVISION	TARGET SPECIES	MONTH	DEPTH RANGE (m)		CPUE (ton/hour)	MAIN BYCATCH		WITCH FLOUNDER BYCATCH (%)	TOTAL BYCATCH (%)
			MIN.	MAX.		SPECIES	%		
3M	COD	FEB	342	519	5.706	RED	4.4	0.0	6.2
3M	COD	MAR	358	501	13.972	RED	2.1	0.0	2.6
3M	COD	MAY	237	494	3.345	RED	9.3	0.0	10.9
3M	COD	JUN	280	423	1.315	RED	31.8	0.0	38.1
3M	COD	AUG	245	428	0.459	RED	43.9	0.0	48.3
3M	COD	SEP	214	456	0.782	RED	34.6	0.0	35.9
3M	COD	OCT	205	610	0.673	RED	33.3	0.0	34.0
3L	RED	MAR	419	485	0.214	-	0.0	0.0	0.0
3L	RED	AUG	342	549	2.692	COD	49.6	0.0	50.0
3M	RED	MAY	295	494	0.834	COD	49.1	0.0	58.0
3M	RED	JUN	284	408	2.118	COD	34.3	0.0	39.2
3M	RED	AUG	245	516	1.218	COD	22.8	0.0	26.3
3M	RED	SEP	218	737	1.624	COD	23.1	0.0	23.6
3M	RED	OCT	209	610	1.157	COD	33.5	0.0	34.2
3N	RED	FEB	310	645	12.596	COD	7.3	0.0	7.9
3N	RED	MAY	233	836	5.715	COD	6.9	0.0	9.2
3N	RED	JUN	165	700	4.201	COD	11.6	0.0	13.1
3N	RED	OCT	92	347	7.718	COD	37.8	0.0	52.4
3O	RED	MAY	107	530	1.571	SKA	13.9	8.2	47.7
3O	RED	JUN	197	700	3.705	COD	14.2	9.2	51.4
3O	RED	AUG	315	531	3.654	GHL	0.2	0.0	0.4
3L	GHL	FEB	1192	1236	0.719	RHG	6.3	0.0	6.3
3L	GHL	MAR	1149	1465	0.531	RHG	18.5	0.0	19.7
3L	GHL	MAY	1201	1240	0.670	RHG	11.8	0.0	11.8
3L	GHL	AUG	886	1499	1.013	RHG	14.9	0.0	16.6
3L	GHL	SEP	1087	1506	0.752	RHG	20.7	0.0	21.7
3L	GHL	OCT	1057	1491	0.762	RHG	18.3	0.0	19.3
3L	GHL	NOV	1081	1272	0.940	RHG	13.2	0.0	13.9
3M	GHL	MAR	1139	1540	0.777	RHG	13.4	0.0	26.1
3M	GHL	AUG	877	1222	0.805	RHG	15.9	0.0	17.2
3M	GHL	SEP	685	1269	0.504	RHG	18.8	0.0	21.0
3M	GHL	OCT	1042	1151	0.527	RHG	25.9	0.0	27.7
3N	GHL	FEB	798	844	0.328	WIT	38.8	38.8	56.2
3L	RHG	SEP	1215	1400	0.322	GHL	45.8	0.0	48.6
3L	RHG	OCT	1377	1491	0.357	GHL	54.0	0.0	56.6
3M	RHG	OCT	1140	1151	0.243	GHL	51.0	0.0	55.4
3O	HKW	MAY	120	134	0.196	SKA	24.0	10.1	92.5
3O	HKW	JUN	197	700	0.603	RED	21.4	18.8	89.4
3M	SKA	MAY	295	298	0.121	RED	39.2	0.0	73.5
3O	SKA	MAY	107	151	0.745	RED	21.4	13.6	73.4
3O	SKA	JUN	197	700	0.639	RED	21.4	18.8	88.7

TABLE IV - A: GREENLAND HALIBUT TRAWL CATCH RATES, 1988-2011: mean annual cpue's corrected for the month, division and vessel of each observation.

	3L			3M			3N			3LMN			
	CPUE	ST.ERROR	C.V.	CPUE	ST.ERROR	C.V.	CPUE	ST.ERROR	C.V.	CPUE	ST.ERROR	C.V.	
1988	0.449	0.083	37.2							0.412	0.089	43.3	1988
1989	0.430	0.072	50.1							0.389	0.072	55.8	1989
1990	0.364	0.037	35.6	0.146			0.161			0.312	0.036	43.2	1990
1991	0.237	0.048	45.4				0.123	0.030	42.6	0.183	0.034	53.1	1991
1992	0.170	0.030	56.7				0.254	0.032	43.4	0.245	0.032	62.7	1992
1993	0.118	0.006	7.1				0.171	0.019	37.9	0.223	0.025	41.2	1993
1994	0.098	0.003	4.4				0.109	0.016	36.6	0.150	0.031	58.3	1994
1995	0.131	0.016	34.4	0.159	0.012	17.0	0.136	0.021	40.1	0.152	0.017	50.0	1995
1996	0.174	0.020	41.4	0.186	0.022	35.5	0.164	0.020	32.6	0.167	0.012	37.5	1996
1997	0.192	0.013	22.3	0.242	0.022	26.1	0.119	0.009	10.1	0.185	0.014	34.6	1997
1998	0.269	0.017	24.1	0.234	0.024	36.0	0.213	0.016	25.0	0.251	0.012	30.2	1998
1999	0.290	0.025	26.9	0.340	0.038	33.9	0.260	0.020	23.5	0.297	0.018	33.0	1999
2000	0.271	0.020	19.2	0.289	0.020	15.6	0.297	0.042	28.4	0.277	0.021	31.1	2000
2001	0.204	0.023	30.1	0.202	0.011	14.6	0.198	0.011	12.6	0.203	0.015	32.2	2001
2002	0.223	0.017	25.1	0.222	0.030	45.4	0.260	0.032	24.4	0.219	0.017	39.7	2002
2003	0.223	0.025	35.5	0.217	0.031	41.0	0.206	0.023	27.3	0.220	0.020	43.7	2003
2004	0.117	0.015	37.7	0.101	0.024	71.3	0.135	0.010	20.9	0.134	0.015	59.5	2004
2005	0.244	0.024	13.8	0.300	0.084	39.9				0.246	0.022	18.1	2005
2006	0.441	0.049	27.4	0.252	0.045	30.8				0.343	0.046	39.9	2006
2007	0.653	0.084	31.4	0.400	0.065	32.4				0.520	0.068	41.6	2007
2008	0.440	0.036	19.9	0.425	0.028	13.2				0.405	0.021	16.4	2008
2009	0.714	0.091	38.0	0.632	0.047	21.1				0.646	0.050	32.5	2009
2010	0.422	0.036	26.7	0.367	0.021	10.1	0.470			0.399	0.027	25.5	2010
2011	0.787	0.073	42.8	0.631	0.082	50.2				0.687	0.061	51.0	2011

TABLE IV - B: GREENLAND HALIBUT TRAWL CATCH RATES,
1988-2011 mean cpue's by division corrected for the year, month
and vessel of each observation.

	CPUE	ST.ERROR	C.V.	
3L	0.315	0.008	35.4	3L
3M	0.286	0.008	31.3	3M
3N	0.197	0.006	30.9	3N
3LMN	0.275	0.005	37.8	3LMN

TABLE V: Intensity of the trawl sampling during 2011, by species, division and month.

SPECIES	DIV.	MONTH	N° OF SAMPLES	N° FISH MEASURED	SAMPLING WEIGHT(Kg)	OTOLITHS	
						N°	LENGTH RANGE (cm)
COD	3L	MAY	2	451	721	-	-
COD	3L	JUN	1	268	361	-	-
COD	3L	AUG	1	138	155	-	-
COD	3M	FEB	6	722	2152	-	-
COD	3M	MAR	17	1971	5132	-	-
COD	3M	MAY	15	3049	4400	-	-
COD	3M	JUN	11	3110	4951	-	-
COD	3M	AUG	33	5033	10040	249	22-115
COD	3M	SEP	28	3062	4949	253	30-114
COD	3M	OCT	20	1593	2308	303	15-115
COD	3N	FEB	7	560	472	-	-
COD	3N	MAY	13	1848	1897	-	-
COD	3N	JUN	16	2722	2968	-	-
COD	3O	FEB	2	85	201	-	-
COD	3O	MAY	5	468	1009	-	-
COD	3O	JUN	2	305	462	-	-
REDFISH (S. mentella)	3L	MAR	1	124	44	-	-
REDFISH (S. mentella)	3L	MAY	2	573	108	-	-
REDFISH (S. mentella)	3L	JUN	1	423	83	-	-
REDFISH (S. mentella)	3L	AUG	2	663	172	-	-
REDFISH (S. mentella)	3M	FEB	7	866	429	-	-
REDFISH (S. mentella)	3M	MAR	17	2094	888	-	-
REDFISH (S. mentella)	3M	MAY	15	4085	695	-	-
REDFISH (S. mentella)	3M	JUN	11	4561	900	-	-
REDFISH (S. mentella)	3M	AUG	17	7384	2319	-	-
REDFISH (S. mentella)	3M	SEP	6	2472	710	-	-
REDFISH (S. mentella)	3N	FEB	7	1634	288	-	-
REDFISH (S. mentella)	3N	MAY	13	3856	581	-	-
REDFISH (S. mentella)	3N	JUN	14	5297	963	-	-
REDFISH (S. mentella)	3O	FEB	2	180	91	-	-
REDFISH (S. mentella)	3O	MAY	2	568	89	-	-
REDFISH (S. mentella)	3O	JUN	2	958	191	-	-
REDFISH (S. mentella)	3O	AUG	10	909	135	151	16-36
REDFISH (S. marinus)	3M	AUG	17	1711	759	237	17-46
REDFISH (S. marinus)	3M	SEP	23	2038	800	263	16-54
REDFISH (S. marinus)	3M	OCT	19	1500	543	237	15-50
AMERICAN PLAICE	3L	MAY	1	121	18	-	-
AMERICAN PLAICE	3M	SEP	1	127	35	-	-
AMERICAN PLAICE	3N	FEB	2	132	24	-	-
AMERICAN PLAICE	3N	MAY	13	1631	320	-	-
AMERICAN PLAICE	3N	JUN	13	2777	690	-	-

TABLE V (cont.).

SPECIES	DIV.	MONTH	N° OF SAMPLES	N° FISH MEASURED	SAMPLING WEIGHT(Kg)	OTOLITHS	
						N°	LENGTH RANGE (cm)
AMERICAN PLAICE	3O	FEB	1	142	65	-	-
AMERICAN PLAICE	3O	MAY	4	943	232	-	-
AMERICAN PLAICE	3O	JUN	2	512	145	-	-
YELLOWTAIL FLOUNDER	3N	JUN	2	458	119	-	-
GREENLAND HALIBUT	3L	FEB	3	469	431	-	-
GREENLAND HALIBUT	3L	MAR	9	1489	1613	-	-
GREENLAND HALIBUT	3L	MAY	1	148	166	-	-
GREENLAND HALIBUT	3L	AUG	7	2098	1532	-	-
GREENLAND HALIBUT	3L	SEP	19	5268	4083	-	-
GREENLAND HALIBUT	3M	FEB	1	114	105	-	-
GREENLAND HALIBUT	3M	MAR	1	144	181	-	-
GREENLAND HALIBUT	3M	AUG	5	808	606	113	25-64
GREENLAND HALIBUT	3M	SEP	9	1529	1163	181	38-74
GREENLAND HALIBUT	3N	FEB	1	156	92	-	-
GREENLAND HALIBUT	3O	AUG	7	491	404	107	30-69
ROUGHHEAD GRENADIER	3L	MAR	1	123	57	-	-
ROUGHHEAD GRENADIER	3L	MAY	1	132	53	-	-
ROUGHHEAD GRENADIER	3L	AUG	2	502	241	-	-
ROUGHHEAD GRENADIER	3L	SEP	3	846	368	-	-
ROUGHHEAD GRENADIER	3M	AUG	1	291	124	-	-
ROUGHHEAD GRENADIER	3M	SEP	2	351	188	56	11.5-39
WITCH FLOUNDER	3N	FEB	1	136	55	-	-
WITCH FLOUNDER	3O	FEB	2	278	62	-	-
WITCH FLOUNDER	3O	MAY	3	733	162	-	-
WITCH FLOUNDER	3O	JUN	2	580	110	-	-
WHITE HAKE	3O	FEB	1	63	83	-	-
WHITE HAKE	3O	MAY	2	192	243	-	-
WHITE HAKE	3O	JUN	2	309	341	-	-
THORNY SKATE	3M	MAY	3	61	204	-	-
THORNY SKATE	3M	JUN	3	81	289	-	-
THORNY SKATE	3M	AUG	1	14	51	-	-
THORNY SKATE	3M	SEP	1	67	108	-	-
THORNY SKATE	3N	JUN	1	35	111	-	-
THORNY SKATE	3O	MAY	1	42	213	-	-
THORNY SKATE	3O	JUN	2	48	141	-	-

TABLE VI: Length-weight relationship by species, stock and sex in 2011.

Species	Stock	Sex	a	b	n	r^2	Length interval (cm)
COD	3M	T	0.0058	3.0950	933	0.991	15-115
COD	3NO	T	0.0042	3.2386	34	0.969	54-102
GHL	2J3KLMNO	F	0.0007	3.6095	231	0.991	28-74
GHL	2J3KLMNO	M	0.0006	3.6566	192	0.991	25-73
GHL	2J3KLMNO	T	0.0007	3.6218	423	0.993	25-74
RHG	3LMNO	F	0.0698	3.0620	31	0.951	12.5-32
RHG	3LMNO	M	0.0880	2.9962	21	0.984	11.5-30
RHG	3LMNO	T	0.0885	2.9867	52	0.977	11.5-32
REB	3O	F	0.0371	2.6493	112	0.930	16-36
REB	3O	M	0.0281	2.7549	107	0.957	16-32
REB	3O	T	0.0480	2.5736	219	0.935	16-36
REG	3M	F	0.0187	2.9053	468	0.995	15-60
REG	3M	M	0.0156	2.9610	417	0.995	16-52
REG	3M	T	0.0181	2.9168	885	0.996	15-60
RJR	3LMNO	F	0.0520	2.6612	104	0.978	32-84
RJR	3LMNO	M	0.0210	2.8778	120	0.949	33-83
RJR	3LMNO	T	0.0239	2.8322	281	0.961	32-84

TABLE VII: COD, DIV. 3L, 2011: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	MAY	JUN	AUG	2nd Q.	3rd Q.	YEAR	LENGTH GROUP
27	12.1			8.0		6.2	27
30	19.4	3.7	14.5	14.0	14.5	14.1	30
33	96.5	37.3	14.5	76.3	14.5	62.3	33
36	156.2	97.0	144.9	136.0	144.9	138.0	36
39	140.7	138.1	333.3	139.8	333.3	183.5	39
42	26.9	272.4	217.4	110.7	217.4	134.8	42
45	96.3	201.5	152.2	132.2	152.2	136.7	45
48	97.4	82.1	50.7	92.2	50.7	82.8	48
51	93.6	18.7	7.2	68.0	7.2	54.3	51
54	72.6	18.7	14.5	54.2	14.5	45.2	54
57	35.8	26.1	7.2	32.5	7.2	26.8	57
60	41.1	14.9	7.2	32.2	7.2	26.5	60
63	19.7	41.0	14.5	27.0	14.5	24.2	63
66	16.8	7.5	7.2	13.6	7.2	12.2	66
69	12.3	11.2		11.9		9.2	69
72	26.9	22.4		25.4		19.7	72
75	7.4	7.5	14.5	7.4	14.5	9.0	75
78	6.0			3.9		3.0	78
81	13.6			8.9		6.9	81
84	7.4			4.9		3.8	84
87	1.5			1.0		0.7	87
TOTAL	1000	1000	1000	1000	1000	1000	
No. SAMPLES	2	1	1	3	1	4	
SAMPLING WEIGHT(kg)	721	361	155	1083	155	1238	
No. F.MEASURED	451	268	138	719	138	857	
MEAN LENGTH(cm)	48.0	46.5	43.5	47.5	43.5	46.6	
MEAN WEIGHT (g)	1161	969	764	1095	764	1020	
DEPTH RANGE (m)	380/488	433/512	342/356	380/512	342/356	342/512	

TABLE VIII-A: COD, DIV. 3M, 2011: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	FEB	MAR	MAY	JUN	AUG	SEP	OCT	1st Q.	2nd Q.	3rd Q.	4th Q.	YEAR	LENGTH GROUP
15							3.2					3.2	15
18						0.5	17.2			0.3	17.2	1.7	18
21					0.4	1.4	20.8			1.0	20.8	2.2	21
24					1.4	5.7	29.9				3.8	29.9	24
27			2.3		4.6	12.4	65.9		1.7	9.0	65.9	8.6	27
30		1.6	7.8		8.1	25.4	71.3	1.3	5.9	18.0	71.3	12.7	30
33	3.2	10.0	28.8	9.1	8.6	29.6	72.2	8.7	23.9	20.5	72.2	23.4	33
36	9.7	23.7	84.1	21.1	17.5	54.4	71.5	21.0	68.6	38.5	71.5	49.4	36
39	13.7	55.1	121.8	54.5	24.1	85.5	62.0	47.3	105.3	59.1	62.0	75.8	39
42	69.0	82.5	123.2	89.2	69.7	90.5	57.7	79.9	114.8	81.6	57.7	93.2	42
45	95.7	114.9	161.8	97.7	92.0	120.3	58.9	111.2	146.0	108.1	58.9	120.8	45
48	107.6	117.9	75.7	79.7	76.2	153.6	57.8	116.0	76.7	120.3	57.8	93.8	48
51	162.6	135.0	87.1	129.9	106.7	84.2	51.0	140.2	97.6	93.9	51.0	105.8	51
54	176.8	145.8	128.3	233.0	137.2	76.8	47.4	151.7	154.0	102.7	47.4	135.1	54
57	53.7	60.6	44.7	100.5	90.1	58.5	51.6	59.3	58.5	72.1	51.6	60.1	57
60	70.4	37.0	30.9	35.2	83.6	39.9	51.4	43.3	32.0	58.7	51.4	41.5	60
63	50.8	43.2	14.8	27.9	77.8	38.8	43.2	44.6	18.0	55.6	43.2	34.5	63
66	39.6	37.3	14.1	21.1	38.4	26.3	42.0	37.7	15.8	31.5	42.0	27.6	66
69	34.4	32.8	9.9	12.9	24.6	19.2	29.4	33.1	10.6	21.5	29.4	21.1	69
72	29.6	21.0	18.0	19.1	27.9	18.2	18.5	22.6	18.3	22.4	18.5	20.3	72
75	28.7	22.8	13.4	15.4	29.5	16.0	21.1	23.9	13.9	21.8	21.1	18.9	75
78	22.9	19.9	12.8	17.5	25.2	14.1	12.8	20.5	14.0	18.9	12.8	16.6	78
81	13.9	13.6	8.4	15.5	22.4	11.5	12.6	13.6	10.1	16.1	12.6	12.4	81
84	9.6	7.8	7.8	6.4	11.8	4.3	11.7	8.2	7.5	7.5	11.7	8.1	84
87	3.2	8.3	2.9	6.8	7.8	3.9	4.4	7.3	3.9	5.5	4.4	5.3	87
90	3.0	2.9	1.5	5.1	4.6	2.8	5.0	2.9	2.4	3.6	5.0	3.0	90
93		4.1		1.4	4.1	2.0	3.3	3.4	0.3	2.9	3.3	2.0	93
96	0.4		0.1	1.0	4.2	2.4	1.9	0.1	0.3	3.2	1.9	0.8	96
99	1.6	1.8			1.0	1.4	1.1	1.7		1.3	1.1	0.8	99
102		0.5			0.3		1.6	0.4		0.1	1.6	0.3	102
105					0.1	0.3				0.2		0.03	105
108						0.3	0.8			0.1	0.8	0.1	108
111					0.1					0.0		0.01	111
114					0.1	0.1	0.8			0.1	0.8	0.1	114
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	6	17	15	11	33	28	20	23	26	61	20	130	
SAMPLING WEIGHT(kg)	2152	5132	4400	4951	10040	4949	2308	7284	9351	14989	2308	33932	
No. F.MEASURED	722	1971	3049	3110	5033	3062	1593	2693	6159	8095	1593	18540	
MEAN LENGTH(cm)	56.9	55.2	50.0	54.7	57.6	51.4	48.5	55.5	51.1	54.1	48.5	52.7	
MEAN WEIGHT (g)	1774	1666	1239	1589	1911	1398	1387	1686	1325	1619	1387	1489	
DEPTH RANGE (m)	342/478	391/483	237/494	269/423	253/427	218/707	210/522	342/483	237/494	218/707	210/522	210/707	

TABLE VIII-B: COD, DIV. 3M, 2011: 3rd Trimester age length key.

LENGTH GROUP	AGES												TOTAL	LENGTH GROUP		
	1	2	3	4	5	6	7	8	9	10	11	12				
15																15
18																18
21	1														1	21
24																24
27		3													3	27
30		30													30	30
33		32													32	33
36		23	1												24	36
39		9	5												14	39
42		1	15												16	42
45			22	1											23	45
48			25	1	2										28	48
51			10	13	3										26	51
54			5	13	6	1									25	54
57			1	8	17	1									27	57
60				4	18	5									27	60
63					15	8									23	63
66					15	12									27	66
69					12	18									30	69
72				4	22	1									27	72
75				1	18	2									21	75
78				1	8	2									11	78
81					3	6		1							10	81
84					2	4		1							7	84
87						4		1	1						6	87
90					1	6		1							8	90
93						3		1							4	93
96						2	1	7		1					11	96
99						1		5							6	99
102																102
105								1		1					2	105
108												1			1	108
111								1							1	111
114											2				2	114

TABLE VIII-C: COD, DIV. 3M, 2011: 4th Trimestre age length key.

LENGTH GROUP	AGES												TOTAL	LENGTH GROUP	
	1	2	3	4	5	6	7	8	9	10	11	12			
15	6													6	15
18	15													15	18
21	15													15	21
24	5	9												14	24
27		14												14	27
30		15												15	30
33		15												15	33
36		15												15	36
39		4	11											15	39
42			15											15	42
45			15											15	45
48			14	1										15	48
51			13	1										14	51
54			2	9	1									12	54
57			1	6	6	1								14	57
60				2	9	1								12	60
63				4	8	1								13	63
66					9	1								10	66
69					7	2								9	69
72					1	5								6	72
75						3								3	75
78						5	1							6	78
81						2	1							3	81
84						4	1	1	1					7	84
87						1	1							2	87
90							1							1	90
93										2				2	93
96															96
99												1		1	99
102									1					1	102
105															105
108												1		1	108
111															111
114												1		1	114
TOTAL	41	72	71	23	41	26	5	1	4			3		287	

TABLE VIII-C: COD, DIV. 3M, 2011: age composition (0/000), mean length (cm) and mean weight (kg) at age, of the 130mm trawl catches.

AGE GROUP	1st Q.			2nd Q.			3rd Q.			4th Q.			YEAR			AGE GROUP
	%	MEAN LENGTH	MEAN WEIGHT	%	MEAN LENGTH	MEAN WEIGHT	%	MEAN LENGTH	MEAN WEIGHT	%	MEAN LENGTH	MEAN WEIGHT	%	MEAN LENGTH	MEAN WEIGHT	
1							2.6	23.3	0.102	51.9	21.3	0.078	5.5	21.4	0.080	1
2	65.6	38.3	0.472	172.1	37.7	0.450	130.1	36.0	0.398	316.7	32.5	0.294	146.6	36.5	0.413	2
3	389.1	47.5	0.927	426.7	46.4	0.861	369.3	47.0	0.896	274.9	46.4	0.867	391.3	46.8	0.887	3
4	182.0	54.0	1.353	160.0	54.1	1.366	139.4	54.3	1.385	87.0	57.3	1.642	156.6	54.3	1.379	4
5	196.8	60.2	1.949	141.2	58.8	1.804	197.0	60.5	1.961	154.9	64.0	2.304	168.5	60.1	1.930	5
6	129.0	70.5	3.173	76.3	70.7	3.218	122.0	70.3	3.149	86.5	74.6	3.755	100.7	70.9	3.233	6
7	29.5	84.2	5.396	19.6	83.4	5.206	29.7	84.3	5.407	15.6	86.0	5.736	23.8	84.0	5.352	7
8	0.0	97.0	8.238	0.03	97.0	8.238	0.3	97.0	8.238	1.9	86.2	5.757	0.2	88.8	6.353	8
9	6.4	89.9	6.623	3.3	86.1	5.748	8.0	91.3	6.947	7.8	94.4	7.664	5.4	89.8	6.611	9
10	1.2	88.0	6.094	0.7	88.0	6.094	0.9	88.0	6.094				0.8	88.0	6.094	10
11	0.4	102.9	9.890	0.03	97.0	8.238	0.6	101.7	9.645	2.8	107.0	11.303	0.5	104.8	10.588	11
12							0.1	109.0	11.819				0.02	109.0	11.819	12
TOTAL	1000			1000			1000			1000			1000			

TABLE IX-A: COD, DIV. 3N, 2011: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	FEB	MAY	JUN	1st Q.	2nd Q.	YEAR	LENGTH GROUP
21			1.3		0.9	0.7	21
24	2.2	1.4	2.9	2.2	2.4	2.3	24
27	26.6	8.8	14.2	26.6	12.4	15.0	27
30	95.1	20.4	59.8	95.1	46.7	55.7	30
33	303.4	108.4	113.3	303.4	111.7	147.1	33
36	177.4	280.2	276.8	177.4	278.0	259.4	36
39	109.6	246.9	295.9	109.6	279.7	248.2	39
42	87.1	136.9	138.8	87.1	138.2	128.7	42
45	41.4	81.8	51.3	41.4	61.4	57.7	45
48	55.5	43.7	24.1	55.5	30.6	35.2	48
51	21.1	34.5	11.2	21.1	18.9	19.3	51
54	27.5	15.4	7.5	27.5	10.1	13.3	54
57	11.7	16.1	2.3	11.7	6.9	7.7	57
60	6.4	3.3	0.6	6.4	1.5	2.4	60
63	19.0			19.0		3.5	63
66	3.7	0.9		3.7	0.3	0.9	66
69	6.6	0.3		6.6	0.1	1.3	69
72		0.9			0.3	0.3	72
75	5.8			5.8		1.1	75
TOTAL	1000	1000	1000	1000	1000	1000	
No. SAMPLES	7	13	14	7	27	34	
SAMPLING WEIGHT(kg)	472	1897	2708	472	4605	5077	
No. F.MEASURED	560	1848	2634	560	4482	5042	
MEAN LENGTH(cm)	39.9	41.1	39.5	39.9	40.0	40.0	
MEAN WEIGHT (g)	775	767	659	775	695	710	
DEPTH RANGE (m)	339/550	253/533	81/596	339/550	81/596	81/596	

TABLE IX-B: COD, DIV. 3N, 2011: length composition (0/000) of the 200mm trawl catches.

LENGTH GROUP	JUN =YEAR	LENGTH GROUP
48	25.5	48
51	25.5	51
54	71.4	54
57	127.6	57
60	181.1	60
63	91.8	63
66	38.3	66
69		69
72	53.6	72
75	38.3	75
78	79.1	78
81	117.3	81
84	38.3	84
87	30.6	87
90		90
93	40.8	93
96	15.3	96
99	25.5	99
TOTAL	1000	
No. SAMPLES	2	
SAMPLING WEIGHT(kg)	260	
No. F.MEASURED	88	
MEAN LENGTH(cm)	70.4	
MEAN WEIGHT (g)	4615	
DEPTH RANGE (m)	50/77	

TABLE X: COD, DIV. 30, 2011: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	FEB	MAY	JUN	1st Q.	2nd Q.	YEAR	LENGTH GROUP
24			3.5		2.4	2.4	24
27			6.9		4.9	4.8	27
30			13.9		9.8	9.5	30
33		9.0	139.0		100.5	97.7	33
36	37.4	90.4	90.3	37.4	90.4	88.9	36
39		114.9	141.6		133.7	130.0	39
42	87.3	70.3	148.6	87.3	125.4	124.3	42
45	25.0	143.4	114.8	25.0	123.2	120.5	45
48	97.6	127.3	163.1	97.6	152.5	151.0	48
51	170.3	58.7	25.2	170.3	35.1	38.9	51
54	194.8	40.8	39.6	194.8	39.9	44.2	54
57	66.2	65.5	27.8	66.2	39.0	39.7	57
60	68.4	53.4	27.8	68.4	35.4	36.3	60
63	55.9	24.7	12.2	55.9	15.9	17.0	63
66	58.1	16.9	9.1	58.1	11.4	12.7	66
69	12.5	35.3		12.5	10.5	10.5	69
72	60.2	28.9	9.1	60.2	15.0	16.2	72
75	43.4	41.1	6.1	43.4	16.5	17.2	75
78	10.3	24.5	9.1	10.3	13.7	13.6	78
81	12.5	21.3	6.1	12.5	10.6	10.7	81
84		3.2			1.0	0.9	84
87		13.1	3.0		6.0	5.9	87
90		7.9	3.0		4.5	4.4	90
93		0.5			0.2	0.1	93
96		4.2			1.2	1.2	96
99		4.2			1.2	1.2	99
102		0.5			0.2	0.1	102
TOTAL	1000	1000	1000	1000	1000	1000	
No. SAMPLES	2	5	2	2	7	9	
SAMPLING WEIGHT(kg)	201	1009	462	201	1471	1672	
No. F.MEASURED	85	468	305	85	773	858	
MEAN LENGTH(cm)	57.0	54.1	45.7	57.0	48.2	48.4	
MEAN WEIGHT (g)	2303	2222	1215	2303	1514	1535	
DEPTH RANGE (m)	455/589	95/332	121/252	455/589	95/332	95/589	

TABLE XI: REDFISH (*S. mentella*), DIV. 3L, 2011: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	MAR	MAY	JUN	AUG	1st Q.	2nd Q.	3rd Q.	YEAR	LENGTH GROUP
12				1.8			1.8	0.7	12
13		2.6		5.9		1.6	5.9	3.4	13
14		8.7		7.7		5.4	7.7	6.3	14
15		4.3		28.4		2.7	28.4	13.3	15
16	8.1	24.2		19.0	8.1	15.1	19.0	16.6	16
17	16.1	15.6		33.8	16.1	9.7	33.8	19.8	17
18	24.2	16.5	2.4	31.4	24.2	11.2	31.4	19.8	18
19	32.3	37.2		58.0	32.3	23.3	58.0	37.8	19
20	72.6	66.7	4.7	90.2	72.6	43.4	90.2	63.3	20
21	129.0	99.6	7.1	141.3	129.0	64.9	141.3	97.6	21
22	153.2	163.7	26.0	175.5	153.2	112.0	175.5	139.0	22
23	112.9	155.0	11.8	152.4	112.9	101.3	152.4	122.7	23
24	80.6	90.9	21.3	80.7	80.6	64.8	80.7	71.7	24
25	48.4	27.7	28.4	44.4	48.4	28.0	44.4	35.1	25
26	48.4	39.8	40.2	16.4	48.4	40.0	16.4	30.3	26
27	32.3	10.4	59.1	12.8	32.3	28.7	12.8	22.1	27
28	64.5	39.0	63.8	10.6	64.5	48.3	10.6	32.9	28
29	16.1	13.0	70.9	26.6	16.1	34.7	26.6	31.1	29
30	80.6	32.0	70.9	9.5	80.6	46.6	9.5	31.8	30
31	32.3	40.7	137.1	10.6	32.3	76.9	10.6	48.6	31
32	8.1	55.4	156.0	5.3	8.1	93.2	5.3	55.3	32
33	16.1	35.5	132.4	14.7	16.1	71.8	14.7	47.2	33
34	16.1	9.5	52.0	8.8	16.1	25.5	8.8	18.4	34
35	8.1	9.5	44.9	4.1	8.1	22.8	4.1	14.8	35
36		2.6	21.3	3.5		9.6	3.5	6.9	36
37			9.5	3.6		3.5	3.6	3.5	37
38			18.9	1.2		7.1	1.2	4.5	38
39			4.7	1.8		1.8	1.8	1.8	39
40			7.1			2.7		1.5	40
41			4.7			1.8		1.0	41
42			2.4			0.9		0.5	42
43			2.4			0.9		0.5	43
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	1	2	1	2	1	3	2	6	
SAMPLING WEIGHT(kg)	44	108	83	172	44	191	172	407	
No. F.MEASURED	124	573	423	663	124	996	663	1783	
MEAN LENGTH(cm)	24.7	24.5	31.1	22.8	24.7	27.0	22.8	25.2	
MEAN WEIGHT (g)	224	225	421	181	224	298	181	248	
DEPTH RANGE (m)	419/485	380/488	433/512	342/549	419/485	380/512	342/549	342/549	

TABLE XII: REDFISH (*S. mentella*), DIV. 3M, 2011: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	FEB	MAR	MAY	JUN	AUG	SEP	1st Q.	2nd Q.	3rd Q.	YEAR	LENGTH GROUP
11			0.1			0.4		0.04	0.1	0.05	11
12					0.1	0.3			0.2	0.1	12
13			1.9	0.3	0.7	2.8		1.0	1.0	1.0	13
14		0.9	5.3	2.0	2.0	5.1	0.6	3.4	2.5	2.8	14
15		5.8	14.6	4.8	5.6	9.4	4.1	9.1	6.2	7.3	15
16		8.5	17.2	8.9	10.1	8.5	5.9	12.5	9.9	10.8	16
17	0.3	13.0	19.4	10.5	10.2	17.4	9.1	14.4	11.3	12.4	17
18	2.4	31.8	28.3	14.9	19.7	23.9	22.8	20.8	20.4	20.6	18
19	6.9	28.5	46.6	13.1	25.6	48.6	21.9	27.7	29.2	28.4	19
20	12.3	42.5	73.4	28.1	48.1	87.0	33.2	47.8	54.2	51.1	20
21	23.1	78.6	101.4	50.6	66.9	135.1	61.6	72.7	77.5	75.2	21
22	34.2	114.9	129.8	81.4	109.5	182.8	90.2	102.5	120.9	112.8	22
23	28.4	128.8	138.4	81.0	87.1	119.5	98.0	106.0	92.2	97.8	23
24	72.5	74.1	75.9	51.3	45.9	54.1	73.6	62.0	47.2	53.7	24
25	53.7	61.5	41.8	40.6	26.8	39.2	59.1	41.1	28.7	34.4	25
26	62.6	47.0	36.3	30.7	24.3	23.5	51.8	33.1	24.2	28.4	26
27	60.4	54.1	28.7	31.0	22.0	20.2	56.1	30.0	21.8	25.9	27
28	74.1	54.9	25.8	32.3	36.2	23.9	60.8	29.5	34.3	33.1	28
29	127.2	44.2	29.5	41.6	41.7	21.0	69.6	36.4	38.5	38.5	29
30	123.5	49.5	41.2	69.7	74.0	16.4	72.1	57.3	65.0	62.2	30
31	72.5	43.8	27.3	82.1	78.9	28.6	52.6	58.2	71.0	65.5	31
32	62.3	31.9	43.0	99.8	88.9	39.9	41.2	75.1	81.3	77.8	32
33	62.8	29.6	31.3	89.9	76.4	42.1	39.8	64.4	71.0	67.6	33
34	41.4	19.8	16.6	49.7	35.2	26.3	26.4	35.3	33.8	34.2	34
35	23.3	11.3	10.3	28.6	21.5	11.0	15.0	20.6	19.8	20.0	35
36	14.3	7.5	4.6	18.5	12.9	8.1	9.6	12.4	12.1	12.2	36
37	18.8	8.3	4.6	15.1	7.6	1.3	11.5	10.5	6.6	8.3	37
38	15.4	4.5	5.0	9.3	7.9	2.7	7.9	7.4	7.1	7.2	38
39	2.1	3.7	0.5	7.3	5.2	0.3	3.2	4.4	4.4	4.4	39
40	2.9	1.1	1.1	3.7	4.6	0.6	1.7	2.5	4.0	3.3	40
41	1.4		0.2	2.3	2.5		0.4	1.4	2.1	1.8	41
42	1.0			0.6	1.0		0.3	0.4	0.9	0.7	42
43					0.2				0.1	0.1	43
44				0.4	0.5			0.2	0.4	0.3	44
45											45
46					0.2				0.1	0.1	46
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	7	17	15	11	17	6	24	26	23	73	
SAMPLING WEIGHT(kg)	429	888	695	900	2319	710	1317	1595	3029	5941	
No. F.MEASURED	866	2094	4085	4561	7384	2472	2960	8646	9856	21462	
MEAN LENGTH(cm)	29.3	25.7	24.6	28.3	27.4	24.4	26.8	26.7	26.9	26.8	
MEAN WEIGHT (g)	373	265	237	355	324	230	298	303	310	307	
DEPTH RANGE (m)	342/1082	391/483	237/494	260/423	281/370	264/342	342/1082	237/494	264/370	237/1082	

TABLE XIII: REDFISH (*S. mentella*), DIV. 3N, 2011: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	FEB	MAY	JUN	1st Q.	2nd Q.	YEAR	LENGTH GROUP
11	0.6	0.2	0.3	0.6	0.3	0.3	11
12	1.2	0.4	0.6	1.2	0.5	0.6	12
13	8.0	4.4	3.3	8.0	4.0	4.8	13
14	11.6	7.3	6.1	11.6	6.8	7.8	14
15	15.8	14.9	10.5	15.8	13.0	13.6	15
16	19.9	19.7	12.2	19.9	16.4	17.2	16
17	25.4	17.3	23.2	25.4	19.9	21.1	17
18	55.2	29.1	27.2	55.2	28.3	34.0	18
19	66.4	49.3	46.4	66.4	48.1	51.9	19
20	105.9	83.2	88.2	105.9	85.4	89.7	20
21	138.2	150.5	132.6	138.2	142.8	141.8	21
22	187.6	190.2	210.3	187.6	198.9	196.5	22
23	131.5	124.5	144.2	131.5	133.0	132.7	23
24	68.4	73.0	61.8	68.4	68.2	68.2	24
25	41.0	36.6	41.2	41.0	38.6	39.1	25
26	31.7	22.7	24.5	31.7	23.5	25.2	26
27	20.0	20.6	22.1	20.0	21.2	21.0	27
28	20.9	21.5	27.0	20.9	23.9	23.2	28
29	15.4	22.9	19.2	15.4	21.3	20.0	29
30	10.6	21.3	21.6	10.6	21.4	19.1	30
31	7.2	27.0	18.8	7.2	23.4	20.0	31
32	7.9	27.0	21.4	7.9	24.6	21.1	32
33	7.4	14.7	14.4	7.4	14.6	13.0	33
34	1.5	8.7	9.1	1.5	8.8	7.3	34
35	0.8	4.7	6.1	0.8	5.3	4.3	35
36		3.1	4.0		3.5	2.8	36
37		2.1	1.5		1.8	1.4	37
38		2.0	1.9		2.0	1.6	38
39		0.4			0.2	0.2	39
40		0.6	0.2		0.4	0.3	40
41		0.2			0.1	0.1	41
TOTAL	1000	1000	1000	1000	1000	1000	
No. SAMPLES	7	13	14	7	27	34	
SAMPLING WEIGHT(kg)	288	581	963	288	1544	1832	
No. F.MEASURED	1634	3856	5297	1634	9153	10787	
MEAN LENGTH(cm)	22.4	23.5	23.5	22.4	23.5	23.3	
MEAN WEIGHT (g)	168	198	197	168	198	192	
DEPTH RANGE (m)	339/550	246/565	220/530	339/550	220/565	220/565	

TABLE XIV: REDFISH (*S. mentella*), DIV. 3O, 2011: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	FEB	MAY	JUN	AUG	1st Q.	2nd Q.	3rd Q.	YEAR	LENGTH GROUP
6			1.1			0.5		0.1	6
7									7
8			2.3			1.0		0.2	8
9			3.4			1.6		0.3	9
10			1.1			0.5		0.1	10
11			3.2			1.5		0.3	11
12			2.3			1.0		0.2	12
13		3.3	5.5			4.3		0.8	13
14		5.2	11.7			8.2		1.5	14
15		13.8	14.2			14.0		2.5	15
16		19.8	12.9	12.1		16.7	12.1	12.9	16
17		14.1	12.9	64.0		13.5	64.0	54.8	17
18		33.1	46.2	93.9		39.1	93.9	83.9	18
19		72.2	98.2	116.3		84.1	116.3	110.4	19
20		132.0	116.7	139.2		125.0	139.2	136.5	20
21		209.1	199.2	144.6		204.6	144.6	155.3	21
22	6.6	193.7	187.3	120.4	6.6	190.8	120.4	133.0	22
23	19.9	118.5	98.2	74.6	19.9	109.2	74.6	80.8	23
24		52.9	44.7	60.8		49.2	60.8	58.6	24
25	26.6	32.5	18.9	49.6	26.6	26.3	49.6	45.3	25
26	20.4	44.4	28.1	42.7	20.4	36.9	42.7	41.7	26
27	13.3	8.8	16.4	26.3	13.3	12.3	26.3	23.7	27
28	83.9	12.1	15.2	20.7	83.9	13.5	20.7	19.5	28
29	98.2	16.5	17.1	16.0	98.2	16.8	16.0	16.3	29
30	202.5	5.5	18.0	9.0	202.5	11.2	9.0	9.6	30
31	157.0	3.3	9.9	5.2	157.0	6.3	5.2	5.5	31
32	77.2	7.2	8.3	1.4	77.2	7.7	1.4	2.6	32
33	47.0	1.9	2.1	0.7	47.0	2.0	0.7	1.0	33
34	86.4		4.9	1.9	86.4	2.2	1.9	2.0	34
35	48.0				48.0			0.05	35
36	34.2			0.5	34.2		0.5	0.5	36
37	23.5				23.5			0.02	37
38	13.8				13.8			0.01	38
39	17.4				17.4			0.02	39
40	20.4				20.4			0.02	40
41	3.6				3.6			0.004	41
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	2	2	2	10	2	4	10	16	
SAMPLING WEIGHT(kg)	91	89	191	135	91	280	135	505	
No. F.MEASURED	180	568	958	909	180	1526	909	2615	
MEAN LENGTH(cm)	31.7	22.2	22.1	22.0	31.7	22.2	22.0	22.0	
MEAN WEIGHT (g)	379	146	147	144	379	147	144	145	
DEPTH RANGE (m)	455/589	246/332	230/265	354/471	455/589	230/332	354/471	230/589	

TABLE XV: REDFISH (*S. marinus*), DIV. 3M, 2011: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	AUG	SEP	OCT	3rd Q.	4th Q.	YEAR	LENGTH GROUP
15			0.4		0.4	0.1	15
16		0.9	3.2	0.5	3.2	0.9	16
17	0.2	2.6	10.4	1.5	10.4	3.0	17
18	0.7	4.0	27.1	2.6	27.1	6.5	18
19	1.1	10.3	33.8	6.2	33.8	10.7	19
20	4.4	17.3	61.4	11.7	61.4	19.6	20
21	4.0	19.0	42.7	12.5	42.7	17.3	21
22	8.1	25.8	55.2	18.1	55.2	24.0	22
23	12.1	44.3	53.5	30.3	53.5	34.0	23
24	17.7	60.9	60.5	42.1	60.5	45.0	24
25	24.6	61.4	75.6	45.4	75.6	50.2	25
26	33.1	70.5	58.2	54.2	58.2	54.8	26
27	42.3	63.7	60.6	54.4	60.6	55.4	27
28	64.5	70.6	59.2	67.9	59.2	66.5	28
29	64.2	69.6	54.4	67.2	54.4	65.2	29
30	74.5	66.9	34.4	70.2	34.4	64.5	30
31	79.7	58.8	42.9	67.9	42.9	63.9	31
32	83.5	52.7	27.9	66.1	27.9	60.0	32
33	69.4	50.1	32.9	58.5	32.9	54.4	33
34	74.1	41.6	25.2	55.8	25.2	50.9	34
35	62.8	33.0	30.0	46.0	30.0	43.4	35
36	55.3	42.3	36.4	48.0	36.4	46.1	36
37	59.3	29.2	25.1	42.3	25.1	39.6	37
38	48.8	31.2	26.7	38.9	26.7	36.9	38
39	40.6	26.0	22.3	32.3	22.3	30.7	39
40	23.9	15.8	16.8	19.3	16.8	18.9	40
41	17.3	14.1	9.8	15.5	9.8	14.6	41
42	15.9	8.7	6.0	11.8	6.0	10.9	42
43	10.9	4.2	3.3	7.1	3.3	6.5	43
44	3.4	0.8	0.8	1.9	0.8	1.7	44
45	3.3		1.6	1.4	1.6	1.5	45
46	0.3	1.0	0.5	0.7	0.5	0.6	46
47		0.02		0.01		0.01	47
48		0.7	0.9	0.4	0.9	0.5	48
49							49
50		0.3	0.2	0.1	0.2	0.2	50
51		0.5		0.3		0.2	51
52		0.3		0.1		0.1	52
53							53
54		0.9		0.5		0.4	54
55							55
56							56
57							57
58							58
59							59
60		0.3		0.1		0.1	60
TOTAL	1000	1000	1000	1000	1000	1000	
No. SAMPLES	17	23	19	40	19	59	
SAMPLING WEIGHT(kg)	759	800	543	1559	543	2102	
No. F.MEASURED	1711	2038	1500	3749	1500	5249	
MEAN LENGTH(cm)	33.0	30.2	28.2	31.4	28.2	30.9	
MEAN WEIGHT (g)	516	413	351	458	351	441	
DEPTH RANGE (m)	249/516	236/737	226/446	236/737	226/446	226/737	

TABLE XVI: AMERICAN PLAICE, DIV. 3L, 2011: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	MAY =YEAR	LENGTH GROUP
18	24.8	18
20	8.3	20
22	124.0	22
24	165.3	24
26	124.0	26
28	214.9	28
30	140.5	30
32	66.1	32
34	82.6	34
36	24.8	36
38	24.8	38
TOTAL	1000	
No. SAMPLES	1	
SAMPLING WEIGHT(kg)	18	
No. F.MEASURED	121	
MEAN LENGTH(cm)	28.5	
MEAN WEIGHT (g)	236	
DEPTH RANGE (m)	455/488	

TABLE XVII: AMERICAN PLAICE, DIV. 3M, 2011: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	SEP =YEAR	LENGTH GROUP
18	7.9	18
20	23.6	20
22	31.5	22
24	39.4	24
26	102.4	26
28	236.2	28
30	252.0	30
32	189.0	32
34	78.7	34
36	23.6	36
38	7.9	38
40	7.9	40
TOTAL	1000	
No. SAMPLES	1	
SAMPLING WEIGHT(kg)	35	
No. F.MEASURED	127	
MEAN LENGTH(cm)	30.3	
MEAN WEIGHT (g)	225	
DEPTH RANGE (m)	266/316	

TABLE XVIII-A: AMERICAN PLAICE, DIV. 3N, 2011: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	FEB	MAY	JUN	1st Q.	2nd Q.	YEAR	LENGTH GROUP
14		1.1	0.3		0.6	0.5	14
16	10.8	1.3	3.8	10.8	3.0	3.3	16
18	21.6	13.1	22.6	21.6	19.6	19.7	18
20	68.2	38.6	28.5	68.2	31.8	33.4	20
22	87.0	101.0	65.8	87.0	77.1	77.5	22
24	222.0	152.1	147.2	222.0	148.8	152.0	24
26	176.8	218.9	194.2	176.8	202.1	201.0	26
28	232.2	191.6	163.6	232.2	172.5	175.2	28
30	115.9	128.0	77.2	115.9	93.4	94.4	30
32	25.0	89.2	33.2	25.0	51.0	49.9	32
34	26.3	36.0	16.4	26.3	22.7	22.8	34
36	9.4	18.9	23.2	9.4	21.8	21.2	36
38	4.7	7.4	33.4	4.7	25.1	24.2	38
40		2.0	19.6		13.9	13.3	40
42		0.5	27.6		19.0	18.1	42
44		0.5	72.7		49.6	47.4	44
46			49.6		33.8	32.3	46
48			11.5		7.8	7.5	48
50			1.9		1.3	1.2	50
52			5.7		3.9	3.7	52
54			1.9		1.3	1.2	54
TOTAL	1000	1000	1000	1000	1000	1000	
No. SAMPLES	2	13	11	2	24	26	
SAMPLING WEIGHT(kg)	24	320	482	24	802	827	
No. F.MEASURED	132	1631	2125	132	3756	3888	
MEAN LENGTH(cm)	27.0	28.0	31.2	27.0	30.1	30.0	
MEAN WEIGHT (g)	197	223	350	197	310	305	
DEPTH RANGE (m)	390/491	253/533	85/530	390/491	85/533	85/533	

TABLE XVIII-B: AMERICAN PLAICE, DIV. 3N, 2011: length composition (0/000) of the 200mm trawl catches.

LENGTH GROUP	JUN =YEAR	LENGTH GROUP
18	1.3	18
20		20
22	3.9	22
24	19.3	24
26	75.0	26
28	99.5	28
30	136.3	30
32	144.2	32
34	68.3	34
36	91.6	36
38	99.5	38
40	54.3	40
42	99.5	42
44	35.5	44
46	30.7	46
48	9.6	48
50	4.4	50
52	15.3	52
54	6.6	54
56	5.3	56
TOTAL	1000	
No. SAMPLES	2	
SAMPLING WEIGHT(kg)	208	
No. F.MEASURED	652	
MEAN LENGTH(cm)	35.9	
MEAN WEIGHT (g)	484	
DEPTH RANGE (m)	50/77	

TABLE XIX: AMERICAN PLAICE, DIV. 30, 2011: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	FEB	MAY	JUN	1st Q.	2nd Q.	YEAR	LENGTH GROUP
16			5.2		1.9	1.8	16
18			1.2		0.4	0.4	18
20	7.0		16.0	7.0	5.7	5.8	20
22	21.1	0.7	19.0	21.1	7.3	7.9	22
24	21.1	6.6	63.8	21.1	27.2	26.9	24
26	105.6	27.5	115.4	105.6	59.1	61.1	26
28	162.0	61.5	149.5	162.0	93.1	96.1	28
30	239.4	130.2	227.7	239.4	165.2	168.5	30
32	133.8	197.2	164.0	133.8	185.3	183.0	32
34	35.2	227.4	65.7	35.2	169.3	163.5	34
36	91.5	170.8	37.7	91.5	123.0	121.6	36
38	49.3	77.2	35.0	49.3	62.0	61.5	38
40	21.1	33.9	67.8	21.1	46.1	45.0	40
42	56.3	26.2	13.8	56.3	21.8	23.3	42
44	28.2	27.8	6.4	28.2	20.1	20.5	44
46	7.0	4.4	2.8	7.0	3.8	4.0	46
48		2.1	1.2		1.8	1.7	48
50	14.1	2.1	5.2	14.1	3.2	3.7	50
52	7.0	2.2	1.2	7.0	1.9	2.1	52
54		1.4	1.2		1.4	1.3	54
56		0.7			0.4	0.4	56
TOTAL	1000	1000	1000	1000	1000	1000	
No. SAMPLES	1	4	2	1	6	7	
SAMPLING WEIGHT(kg)	65	232	145	65	377	442	
No. F.MEASURED	142	943	512	142	1455	1597	
MEAN LENGTH(cm)	33.1	35.0	31.7	33.1	33.8	33.8	
MEAN WEIGHT (g)	381	425	331	381	391	391	
DEPTH RANGE (m)	512/522	95/316	121/269	512/522	95/316	95/522	

TABLE XX-A: YELLOWTAIL FLOUNDER, DIV. 3N, 2011: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUN =YEAR	LENGTH GROUP
20	3.7	20
22	11.1	22
24	11.1	24
26	51.9	26
28	96.3	28
30	188.9	30
32	177.8	32
34	244.4	34
36	118.5	36
38	63.0	38
40	22.2	40
42	3.7	42
44	7.4	44
TOTAL	1000	
No. SAMPLES	1	
SAMPLING WEIGHT(kg)	83	
No. F.MEASURED	270	
MEAN LENGTH(cm)	33.3	
MEAN WEIGHT (g)	336	
DEPTH RANGE (m)	85/110	

TABLE XX-B: YELLOWTAIL FLOUNDER, DIV. 3N, 2011: length composition (0/000) of the 200mm trawl catches.

LENGTH GROUP	JUN =YEAR	LENGTH GROUP
18	10.6	18
20	21.3	20
22	37.2	22
24	53.2	24
26	133.0	26
28	223.4	28
30	303.2	30
32	74.5	32
34	42.6	34
36	10.6	36
38	37.2	38
40	10.6	40
42	31.9	42
44	5.3	44
46	5.3	46
TOTAL	1000	
No. SAMPLES	1	
SAMPLING WEIGHT(kg)	36	
No. F.MEASURED	188	
MEAN LENGTH(cm)	30.4	
MEAN WEIGHT (g)	258	
DEPTH RANGE (m)	50/60	

TABLE XXI: GREENLAND HALIBUT, DIV. 3L, 2011: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	FEB	MAR	MAY	AUG	SEP	1st Q.	2nd Q.	3rd Q.	YEAR	LENGTH GROUP
18					0.2			0.1	0.1	18
20					0.9			0.6	0.5	20
22				1.3	2.6			2.2	1.8	22
24		2.8		5.1	8.7	2.4		7.6	6.6	24
26	1.7	6.3		10.6	14.5	5.6		13.4	11.9	26
28	11.0	17.9		14.8	24.2	16.9		21.3	20.4	28
30	23.0	28.6		22.6	31.4	27.8		28.7	28.4	30
32	41.1	47.5	6.8	35.9	47.0	46.6	6.8	43.6	44.0	32
34	63.0	63.3	20.3	46.5	49.6	63.3	20.3	48.7	51.2	34
36	59.7	61.3	40.5	46.8	49.7	61.1	40.5	48.8	51.0	36
38	169.2	106.8	40.5	82.2	60.6	116.2	40.5	67.1	75.8	38
40	133.6	106.6	74.3	87.5	69.8	110.7	74.3	75.2	81.5	40
42	104.2	82.1	216.2	129.2	99.9	85.4	216.2	108.8	105.2	42
44	61.2	97.8	229.7	139.9	116.4	92.3	229.7	123.6	118.5	44
46	75.5	84.7	81.1	73.2	114.9	83.3	81.1	102.2	98.7	46
48	38.6	64.5	101.4	73.7	96.1	60.6	101.4	89.3	84.2	48
50	60.2	47.7	54.1	94.2	76.2	49.6	54.1	81.7	75.8	50
52	48.2	48.6	47.3	44.9	46.8	48.5	47.3	46.2	46.6	52
54	23.3	28.1	13.5	22.7	28.0	27.4	13.5	26.4	26.5	54
56	29.7	33.1	40.5	16.1	19.4	32.6	40.5	18.4	21.0	56
58	31.1	39.8	13.5	21.5	21.3	38.4	13.5	21.3	24.3	58
60	17.7	23.0	13.5	14.4	14.0	22.2	13.5	14.1	15.6	60
62	7.9	8.1	6.8	11.3	5.8	8.1	6.8	7.5	7.6	62
64		1.4		2.5	2.0	1.1		2.1	1.9	64
66				2.3	0.1			0.8	0.6	66
68				0.6				0.2	0.1	68
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	3	9	1	7	19	12	1	26	39	
SAMPLING WEIGHT(kg)	431	1613	166	1532	4083	2043	166	5615	7824	
No. F.MEASURED	469	1489	148	2098	5268	1958	148	7366	9472	
MEAN LENGTH(cm)	43.6	44.1	45.8	44.4	44.0	44.0	45.8	44.1	44.1	
MEAN WEIGHT (g)	653	690	730	692	677	684	730	682	682	
DEPTH RANGE (m)	1192/1364	1185/1475	1201/1240	886/1466	1126/1506	1185/1475	1201/1240	886/1506	886/1506	

TABLE XXI: GREENLAND HALIBUT, DIV. 3M, 2011: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	FEB	MAR	AUG	SEP	1st Q.	3rd Q.	YEAR	LENGTH GROUP
20			1.9	2.7		2.4	1.9	20
22			3.2	3.7		3.5	2.9	22
24			11.7	13.0		12.5	10.2	24
26	8.8		15.6	35.5	3.4	28.0	23.4	26
28	52.6		37.7	38.3	20.7	38.1	34.8	28
30	26.3	20.8	54.7	38.6	23.0	44.6	40.6	30
32	35.1	27.8	78.2	72.4	30.7	74.6	66.4	32
34	140.4	27.8	77.0	50.7	72.0	60.6	62.7	34
36	87.7	41.7	100.5	75.7	59.8	85.0	80.3	36
38	122.8	62.5	122.4	74.1	86.2	92.3	91.2	38
40	87.7	20.8	79.0	106.6	47.1	96.2	87.0	40
42	35.1	76.4	54.7	75.7	60.2	67.8	66.4	42
44	149.1	180.6	97.4	115.5	168.2	108.7	119.8	44
46	61.4	111.1	79.0	82.7	91.6	81.3	83.2	46
48	52.6	97.2	25.5	69.9	79.7	53.2	58.2	48
50	43.9	76.4	27.1	51.8	63.6	42.5	46.5	50
52	26.3	76.4	31.0	20.6	56.7	24.5	30.5	52
54	35.1	69.4	38.7	29.0	55.9	32.7	37.0	54
56	17.5	20.8	23.0	17.0	19.5	19.3	19.3	56
58	8.8	41.7	15.7	10.9	28.7	12.7	15.7	58
60	8.8	20.8	10.6	6.0	16.1	7.7	9.3	60
62		13.9	13.2	3.3	8.4	7.0	7.3	62
64		6.9	2.0	2.1	4.2	2.1	2.5	64
66		6.9		0.6	4.2	0.3	1.1	66
68				2.1		1.3	1.1	68
70				0.8		0.5	0.4	70
72				0.3		0.2	0.1	72
74				0.3		0.2	0.1	74
TOTAL	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	1	1	5	9	2	14	16	
SAMPLING WEIGHT(kg)	105	181	606	1163	286	1769	2055	
No. F.MEASURED	114	144	808	1529	258	2337	2595	
MEAN LENGTH(cm)	41.6	47.2	41.3	41.7	45.0	41.5	42.2	
MEAN WEIGHT (g)	552	848	567	575	732	572	602	
DEPTH RANGE (m)	966/1082	1219/1540	371/1203	277/1220	966/1540	277/1220	277/1540	

TABLE XXIII: GREENLAND HALIBUT, DIV. 3N, 2011: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	FEB =YEAR	LENGTH GROUP
26	19.2	26
28	57.7	28
30	76.9	30
32	83.3	32
34	147.4	34
36	109.0	36
38	166.7	38
40	70.5	40
42	32.1	42
44	70.5	44
46	51.3	46
48	38.5	48
50	19.2	50
52	38.5	52
54	12.8	54
56	6.4	56
TOTAL	1000	

No. SAMPLES	1
SAMPLING WEIGHT(kg)	92
No. F.MEASURED	156
MEAN LENGTH(cm)	38.8
MEAN WEIGHT (g)	429
DEPTH RANGE (m)	798/844

TABLE XXIV: GREENLAND HALIBUT, DIV. 3O, 2011: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	AUG =YEAR	LENGTH GROUP
24	2.1	24
26	2.1	26
28	2.3	28
30	12.3	30
32	19.5	32
34	21.1	34
36	21.7	36
38	46.2	38
40	78.3	40
42	104.5	42
44	138.1	44
46	131.8	46
48	152.6	48
50	80.9	50
52	60.3	52
54	31.6	54
56	28.2	56
58	19.6	58
60	17.2	60
62	1.9	62
64	13.0	64
66	11.0	66
68	3.7	68
TOTAL	1000	

No. SAMPLES	7
SAMPLING WEIGHT(kg)	404
No. F.MEASURED	491
MEAN LENGTH(cm)	47.0
MEAN WEIGHT (g)	823
DEPTH RANGE (m)	391/531

TABLE XXV: ROUGHHEAD GRENADIER, DIV. 3L, 2011: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	MAR	MAY	AUG	SEP	1st Q.	2nd Q.	3rd Q.	YEAR	LENGTH GROUP
7			4.0	1.9			2.3	2.0	7
8	8.1	22.7	14.0	16.3	8.1	22.7	15.8	14.7	8
9	32.5	60.6	17.9	42.2	32.5	60.6	37.3	36.7	9
10	40.7	106.1	79.7	79.4	40.7	106.1	79.5	73.8	10
11	203.3	159.1	215.2	169.1	203.3	159.1	178.4	182.0	11
12	374.0	393.9	342.6	344.6	374.0	393.9	344.2	348.9	12
13	122.0	113.6	129.4	174.7	122.0	113.6	165.5	158.8	13
14	56.9	45.5	31.9	46.8	56.9	45.5	43.8	45.8	14
15	24.4	15.2	33.8	41.4	24.4	15.2	39.9	37.4	15
16	48.8	30.3	21.9	19.3	48.8	30.3	19.8	24.2	16
17	24.4		10.0	15.8	24.4		14.6	16.0	17
18	8.1	15.2	15.9	11.4	8.1	15.2	12.3	11.7	18
19	16.3		10.0	2.5	16.3		4.0	5.8	19
20	8.1	15.2	13.9	4.7	8.1	15.2	6.6	6.9	20
21	8.1	7.6	8.0	8.5	8.1	7.6	8.4	8.3	21
22	24.4		6.0		24.4		1.2	4.6	22
23		7.6	11.9			7.6	2.4	2.1	23
24			10.0	3.9			5.2	4.4	24
25		7.6	6.0	5.4		7.6	5.5	4.7	25
26			2.0	3.4			3.1	2.6	26
27			4.0	4.7			4.6	3.9	27
28			8.0	1.3			2.6	2.2	28
29				2.7			2.1	1.8	29
30			2.0				0.4	0.3	30
31									31
32			2.0				0.4	0.3	32
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	1	1	2	3	1	1	5	7	
SAMPLING WEIGHT(kg)	57	53	241	368	57	53	609	719	
No. F.MEASURED	123	132	502	846	123	132	1348	1603	
MEAN LENGTH(cm)	13.3	12.7	13.5	13.0	13.3	12.7	13.1	13.1	
MEAN WEIGHT (g)	223	198	262	220	223	198	228	227	
DEPTH RANGE (m)	1214/1393	1201/1240	886/1435	1141/1492	1214/1393	1201/1240	886/1492	886/1492	

TABLE XXVI: ROUGHHEAD GRENADIER, DIV. 3M, 2011: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	AUG	SEP	3rd Q. =YEAR	LENGTH GROUP
8	3.4	15.0	11.2	8
9	13.7	11.2	12.1	9
10	41.2	52.4	48.7	10
11	182.1	93.9	122.9	11
12	336.8	408.6	384.9	12
13	147.8	289.1	242.5	13
14	92.8	67.8	76.0	14
15	79.0	20.3	39.7	15
16	37.8	4.7	15.6	16
17	10.3	12.0	11.5	17
18	10.3	4.7	6.5	18
19	6.9	4.4	5.2	19
20	13.7	4.1	7.3	20
21	3.4	0.7	1.6	21
22		0.9	0.6	22
23		4.0	2.7	23
24	3.4	3.7	3.6	24
25	10.3	0.3	3.6	25
26	3.4	0.7	1.6	26
27	3.4	0.3	1.3	27
28		0.4	0.3	28
29		0.3	0.2	29
30		0.3	0.2	30
31				31
32		0.1	0.1	32
33				33
34				34
35				35
36				36
37				37
38				38
39		0.1	0.1	39
TOTAL	1000	1000	1000	
No. SAMPLES	1	2	3	
SAMPLING WEIGHT(kg)	124	188	312	
No. F.MEASURED	291	351	642	
MEAN LENGTH(cm)	13.5	13.0	13.2	
MEAN WEIGHT (g)	236	202	213	
DEPTH RANGE (m)	1203/1222	685/1160	685/1222	

TABLE XXVII: WITCH FLOUNDER, DIV. 3N, 2011: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	FEB =YEAR	LENGTH GROUP
22	7.4	22
24	7.4	24
26	44.1	26
28	117.6	28
30	66.2	30
32	169.1	32
34	80.9	34
36	80.9	36
38	147.1	38
40	58.8	40
42	132.4	42
44	14.7	44
46	51.5	46
48	7.4	48
50	7.4	50
52	7.4	52
TOTAL	1000	
No. SAMPLES	1	
SAMPLING WEIGHT(kg)	55	
No. F.MEASURED	136	
MEAN LENGTH(cm)	36.5	
MEAN WEIGHT (g)	536	
DEPTH RANGE (m)	798/844	

TABLE XXVIII: WITCH FLOUNDER, DIV. 3O, 2011: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	FEB	MAY	JUN	1st Q.	2nd Q.	YEAR	LENGTH GROUP
16			3.4		1.4	0.8	16
18	4.3		3.4	4.3	1.4	2.6	18
20	17.8	5.6	30.9	17.8	16.2	16.9	20
22	91.2	16.4	30.0	91.2	22.1	51.1	22
24	106.9	28.1	27.4	106.9	27.8	60.9	24
26	162.7	62.0	137.7	162.7	93.7	122.6	26
28	223.9	164.5	156.0	223.9	160.9	187.3	28
30	118.7	178.2	227.5	118.7	198.8	165.2	30
32	61.4	182.3	141.9	61.4	165.4	121.8	32
34	41.2	112.7	64.0	41.2	92.4	70.9	34
36	54.7	63.5	35.4	54.7	51.8	53.0	36
38	59.9	58.5	63.2	59.9	60.4	60.2	38
40	34.4	27.9	32.2	34.4	29.7	31.7	40
42	4.6	19.6	36.8	4.6	26.8	17.5	42
44	13.8	26.3	2.3	13.8	16.3	15.3	44
46	4.6	16.4	5.7	4.6	11.9	8.9	46
48		22.9	2.3		14.3	8.3	48
50		10.1			5.9	3.4	50
52		5.0			2.9	1.7	52
TOTAL	1000	1000	1000	1000	1000	1000	
No. SAMPLES	2	3	2	2	5	7	
SAMPLING WEIGHT(kg)	62	162	110	62	272	334	
No. F.MEASURED	278	733	580	278	1313	1591	
MEAN LENGTH(cm)	30.1	33.6	31.5	30.1	32.7	31.6	
MEAN WEIGHT (g)	345	446	383	345	420	389	
DEPTH RANGE (m)	512/589	95/134	232/274	512/589	95/274	95/589	

TABLE XXIX: THORNY SKATE, DIV. 3M, 2011: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	MAY	JUN	AUG	SEP	2nd Q.	3rd Q.	YEAR	LENGTH GROUP
34				29.9		8.4	2.0	34
36				29.9		8.4	2.0	36
38		10.6			5.9		4.5	38
40	4.3	21.2		14.9	13.7	4.2	11.5	40
42	13.6			59.7	6.0	16.7	8.6	42
44	31.6	37.2		14.9	34.7	4.2	27.5	44
46	17.9	21.1		44.8	19.7	12.6	18.0	46
48	95.2	32.2	71.4	14.9	60.0	55.6	58.9	48
50	81.7	47.8	71.4		62.7	51.4	60.0	50
52	104.5	47.8		149.3	72.8	41.8	65.4	52
54	31.6	37.3	142.9	89.6	34.8	127.9	57.0	54
56	22.2	10.6		74.6	15.7	20.9	17.0	56
58	4.3	32.2	71.4	119.4	19.9	84.9	35.4	58
60	131.6	132.9	71.4	134.3	132.3	89.1	122.0	60
62	108.8	63.9	142.9	44.8	83.7	115.4	91.2	62
64	36.5	101.1		29.9	72.6	8.4	57.3	64
66	17.9	85.1	142.9	44.8	55.5	115.4	69.7	66
68		31.7		44.8	17.7	12.6	16.5	68
70	12.9	37.2	142.9	44.8	26.5	115.4	47.6	70
72	113.7	47.8			76.8		58.5	72
74	36.5	26.6		14.9	31.0	4.2	24.6	74
76	40.8	53.3	71.4		47.8	51.4	48.7	76
78	45.1				19.9		15.1	78
80	8.6	53.3	71.4		33.6	51.4	37.9	80
82	36.5	42.2			39.7		30.2	82
84	4.3	26.7			16.8		12.8	84
TOTAL	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	3	3	1	1	6	2	8	
SAMPLING WEIGHT(kg)	204	289	51	108	493	158	651	
No. F.MEASURED	61	81	14	67	142	81	223	
MEAN LENGTH(cm)	61.3	63.5	63.1	55.8	62.5	61.0	62.2	
MEAN WEIGHT (g)	3207	3499	3372	2259	3370	3060	3296	
DEPTH RANGE (m)	362/484	260/361	303/307	706/717	260/484	303/717	260/717	

TABLE XXX: THORNY SKATE, DIV. 3N, 2011: length composition (0/000) of the 200mm trawl catches.

LENGTH GROUP	JUN =YEAR	LENGTH GROUP
32	28.6	32
34		34
36		36
38		38
40		40
42	57.1	42
44		44
46	28.6	46
48	57.1	48
50		50
52	28.6	52
54	85.7	54
56	28.6	56
58	28.6	58
60	200.0	60
62	28.6	62
64	85.7	64
66	57.1	66
68		68
70	85.7	70
72	28.6	72
74	57.1	74
76		76
78		78
80	85.7	80
82	28.6	82
TOTAL	1000	
No. SAMPLES	1	
SAMPLING WEIGHT(kg)	111	
No. F.MEASURED	35	
MEAN LENGTH(cm)	61.8	
MEAN WEIGHT (g)	3274	
DEPTH RANGE (m)	66/77	

TABLE XXXI: THORNY SKATE, DIV. 3O, 2011: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	MAY	JUN	2nd Q. =YEAR	LENGTH GROUP
30	23.8		11.1	30
32		21.0	11.2	32
34				34
36		41.3	22.0	36
38		42.1	22.4	38
40		62.3	33.2	40
42		62.7	33.4	42
44		62.7	33.4	44
46	23.8	20.6	22.1	46
48	23.8	41.3	33.1	48
50	47.6	41.7	44.5	50
52	71.4	21.0	44.6	52
54	23.8	20.6	22.1	54
56	23.8	41.7	33.3	56
58	47.6	21.0	33.5	58
60	23.8	125.0	77.7	60
62	47.6		22.3	62
64	71.4	41.7	55.6	64
66	95.2	21.0	55.7	66
68	23.8	21.0	22.3	68
70	71.4	41.3	55.4	70
72	71.4	62.3	66.6	72
74	23.8	20.6	22.1	74
76	119.0	41.7	77.8	76
78	47.6		22.3	78
80	47.6	62.7	55.7	80
82	47.6	62.3	55.5	82
84	23.8		11.1	84
TOTAL	1000	1000	1000	
No. SAMPLES	1	2	3	
SAMPLING WEIGHT(kg)	213	141	354	
No. F.MEASURED	42	48	90	
MEAN LENGTH(cm)	66.2	58.1	61.9	
MEAN WEIGHT (g)	3919	2963	3409	
DEPTH RANGE (m)	120/134	230/265	120/265	

TABLE XXXI: WHITE HAKE, DIV. 30, 2011: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	FEB	MAY	JUN	1st Q.	2nd Q.	YEAR	LENGTH GROUP
24			2.9		1.8	1.6	24
25							25
26							26
27							27
28							28
29							29
30			5.8		3.6	3.1	30
31			2.9		1.8	1.6	31
32							32
33	31.7		20.4	31.7	12.5	15.0	33
34	79.4	4.4	5.8	79.4	5.3	14.8	34
35	15.9	4.4	2.9	15.9	3.5	5.1	35
36	79.4	13.2	14.6	79.4	14.1	22.4	36
37	15.9	33.3	5.8	15.9	16.5	16.4	37
38	15.9	30.8	35.7	15.9	33.8	31.5	38
39			30.5		18.7	16.3	39
40	31.7	18.1	53.4	31.7	39.7	38.7	40
41		37.7	31.0		33.6	29.3	41
42		50.0	2.9		21.2	18.4	42
43		91.1	24.7		50.4	44.0	43
44	31.7	56.8	9.4	31.7	27.8	28.3	44
45	15.9	13.7	57.2	15.9	40.4	37.2	45
46		4.4	60.4		38.7	33.7	46
47		11.3	35.1		25.8	22.5	47
48	79.4	63.2	64.9	79.4	64.2	66.2	48
49	111.1	53.3	78.1	111.1	68.5	74.0	49
50	47.6	26.9	45.6	47.6	38.3	39.5	50
51		17.6	13.0		14.8	12.9	51
52	111.1	62.1	57.2	111.1	59.1	65.8	52
53	31.7	4.4	36.1	31.7	23.8	24.8	53
54		13.7	46.0		33.5	29.2	54
55	15.9	15.7	109.9	15.9	73.4	66.0	55
56	95.2	15.7	61.0	95.2	43.4	50.1	56
57	47.6	45.0	25.1	47.6	32.8	34.7	57
58	47.6	100.8	17.3	47.6	49.7	49.4	58
59	15.9	37.7	6.5	15.9	18.6	18.2	59
60		8.8	7.2		7.8	6.8	60
61		40.1	10.1		21.7	19.0	61
62	31.7	15.7	2.9	31.7	7.9	10.9	62
63	31.7	4.4	3.6	31.7	3.9	7.5	63
64			10.1		6.2	5.4	64
65	15.9	17.6		15.9	6.8	8.0	65
66		8.8	3.6		5.6	4.9	66
67							67
68		4.4			1.7	1.5	68
69							69
70							70
71		8.8			3.4	3.0	71
72		4.4			1.7	1.5	72
73							73
74							74
75		8.8			3.4	3.0	75
76		8.8			3.4	3.0	76
77							77
78		17.6			6.8	6.0	78
79		8.8			3.4	3.0	79
80		8.8			3.4	3.0	80
81							81
82		4.4			1.7	1.5	82
83		4.4			1.7	1.5	83
TOTAL	1000	1000	1000	1000	1000	1000	
No. SAMPLES	1	2	2	1	4	5	
SAMPLING WEIGHT(kg)	83	243	341	83	584	667	
No. F.MEASURED	63	192	309	63	501	564	
MEAN LENGTH(cm)	48.9	52.3	49.0	48.9	50.3	50.1	
MEAN WEIGHT (g)	1051	1326	1017	1051	1137	1126	
DEPTH RANGE (m)	530/589	95/134	232/274	530/589	95/274	95/589	

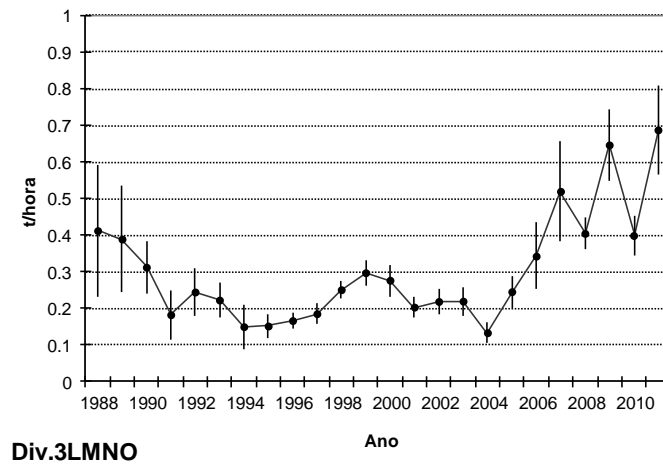
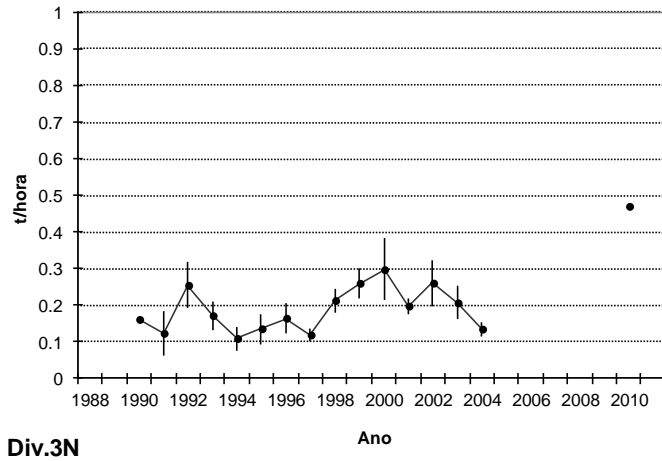
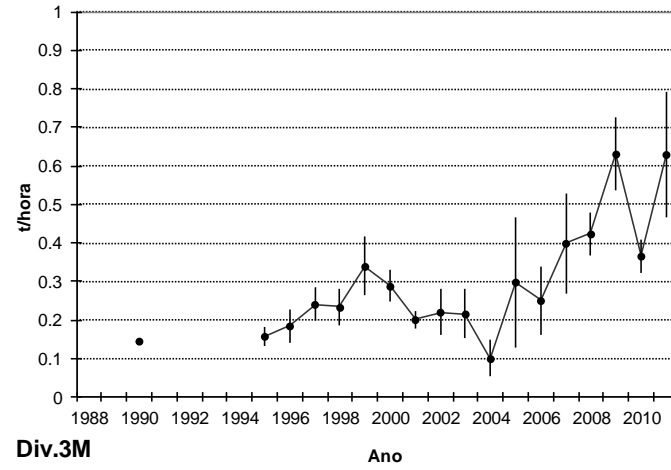
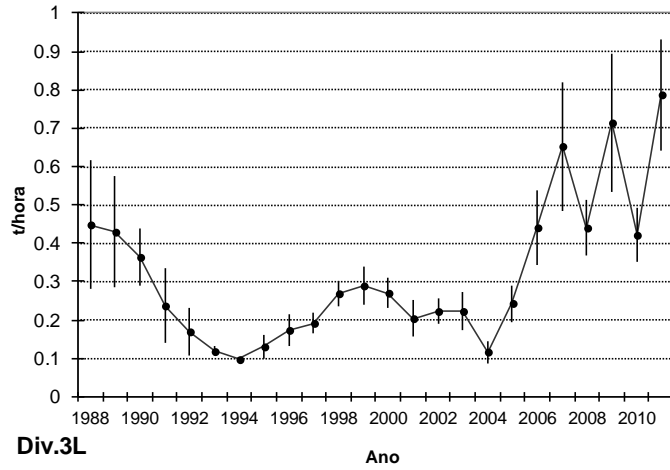


Fig. 1: Greenland halibut trawl catch rates by division, 1988 - 2011.

