Northwest Atlantic Fisheries Organization

Serial No. N7393 **NAFO SCS Doc. 23/13**

SCIENTIFIC COUNCIL MEETING – JUNE 2023

PORTUGUESE RESEARCH REPORT FOR 2022

by

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A. Status of the fisheries

The 2022 Portuguese nominal catches in STATLANT are not available, so Table I-A is not available and Table I-B was not updated. In 2022, 9 bottom trawlers composed the Portuguese fleet that operated in the NAFO area.

Due to some constrains concerning EU Data Protection Law, Portugal has decided not to share STATLANT data to NAFO. Portugal considers that the level of aggregation of STATLANT data published on NAFO website will allow to identify single operators and, therefore, this data should not be made public. In any case, Portugal is also aware that NAFO Secretariat has already the data needed for scientific and control purposes (CESAG) and that STATLANT data is unnecessary.

B. Portuguese Annual Sampling Program

1. Catch and effort sampling.

Effort and CPUE data for 2022 Portuguese trawl fishery on the NAFO Regulatory Area were obtained through the revision of skipper logbooks from three 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 was supplied by the Portuguese administration. The update for the past years was extracted from Database STATLANT 21B, on May 21, 2017 (Table II).

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 cod, redfish, Greenland halibut and silver hake (Table III). 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 2022 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 standardize 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 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 1998-2000. 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 2006 to 2022, the catch rates reached, in this period, the highest values observed of the time series (0.767 tonnes/h in 2022, an average of 0.607 tonnes/h for this period).

Div. 3M catch rates, despite noisier, 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 2022, biological sampling was obtained from three stern trawlers fishing in Div. 3L, 3M, 3N and 3O during the second half of the year (except November). 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.

Redfish (S. mentella) was sampled in Div. 3L, 3M, 3N and 3O (Tab. V), Cod was sampled in Div. 3M and 3N. Greenland halibut was sampled in Div. 3L and 3M. Silver hake and white hake were sampled in Div. 3N and 3O. Witch flounder and American plaice where sampled only in Div. 3M. Thorny skate 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, pollock, wolffish and haddock. Mean weight and mean weight in the catch are derived from the length-weight relationships calculated from the commercial sampling in 2022 and are presented in Table VI. However, for species/stock with a low sampling level in 2022, the length-weight relationships calculated in previous years were used.

2.1. Catch and by-catch composition of the 2022 trawl fishery (130mm codend mesh size).

The regular mesh size in the codend used by the 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.

2.1.1. Cod Div. 3M

Information on length composition of the cod trawl catch in Div. 3M is available from June to September, except for August (Table VII, Fig. 2), from 237 m to 547 m depth.

Lengths between 48 cm and 54 cm and between 60 cm and 66 cm dominated the catch, with a modal class at 66 cm (mean length and weight of 62 cm and 2156 g).

2.1.2. Cod Div. 3N

Information on length composition of the cod trawl by-catch in Div. 3N is available for September and October (Table VIII, Fig. 3), from 167 m to 587 m depth.

Lengths between 48 cm and 57 cm dominated the catch, with a clear modal class at 51 cm (mean length and weight of 58.6 cm and 2059 g).

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

Information on length composition of the redfish (*S. mentella)* trawl catches in Div. 3L is available for September and December (Table IX, Fig. 4), from 279 m to 656 m depth.

Lengths between 23 cm and 30 cm dominated the catch, with two modal classes at 27 cm and 29 cm (mean length and weight of 27.2 cm and 391 g).

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

Information on length composition of the redfish (*S. mentella)* trawl catches in Div. 3M is available from June to September (except for August) and for December (Table X, Fig. 5), from 237 m to 772 m depth.

Lengths between 31 cm and 37 cm dominated the catch, with a modal class at 33 cm (mean length and weight of 33.8 cm and 633 g).

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 June, September and October (Table XI, Fig. 6), from 116 m to 629 m depth.

Lengths at 20 cm, between 23 cm and 28 cm and at 30 cm dominated the catch, with a clear modal class at 20 cm (mean length and weight of 25.7 cm and 334 g).

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

Information on length composition of the redfish (*S. mentella)* trawl catches in Div. 3O is available for June, September and October (Table XII, Fig. 7), from 118 m to 635 m depth.

Lengths between 23 cm and 29 cm dominated the catches, with a very modal class at 24 cm (mean length and weight of 26.7 cm and 268 g).

2.1.7. American plaice Div. 3M

Information on length composition of the American plaice by-catch in Div. 3M is available only for July (Table XIII, Fig. 8), from 240 m to 377 m depth.

Lengths at 24 cm, 38 cm, 44 cm and 50 cm dominated the catch, with no modal class (mean length and weight of 40.7 cm and 728 g).

2.1.8. Greenland halibut Div. 3L

Information on length composition of the Greenland halibut catches in Div. 3L is available for September and October (Table XIV, Fig. 9), from 1156 m to 1458 m depth.

Lengths between 44 cm and 52 cm dominated the catch, with a modal class at 50 cm (mean length and weight of 49.2 cm and 952 g).

2.1.9. Greenland halibut Div. 3M

Information on length composition of the Greenland halibut catches in Div. 3M is available for July and September (Table XV, Fig. 10), from 399 m to 2010 m depth.

Lengths between 42 cm and 50 cm dominated the catch, with a modal class at 48 cm (mean length and weight of 47.9 cm and 888 g).

2.1.10. Witch flounder Div. 3M

Information on length composition of the witch flounder by-catch in Div. 3M is available only for July (Table XVI, Fig. 11), from 240 m to 441 m depth.

Despite the small sampling (only 60 fishes measured, 9 samples), the data shows that lengths between of 42 cm and 46 cm dominated the catch, with a modal class at 46 cm (mean length and weight of 42.9 cm and 803 g).

2.1.11. White hake Div. 3N

Information on length composition of the white hake catches in Div. 3O is available only for September (Table XVII, Fig. 12), from 117 m to 122 m depth.

Despite the small sampling (1 sample, 105 fish measured), the data shows that lengths between 28 cm and 32 cm and at 50 cm and 52 cm dominated the catch (mean length and weight of 42 cm and 666 g).

2.1.12. White hake Div. 3O

Information on length composition of the white hake catches in Div. 3O is available for September and October (Table XVIII, Fig. 13), from 112 m to 236 m depth.

Lengths at 34 cm and 38 cm and between 44 cm and 56 cm dominated the catch, with no modal classes (mean length and weight of 46.1 cm and 864 g).

2.1.13. Thorny skate Div. 3O

Information on length composition of the thorny skate catches in Div. 3O is available only for October (Table XIX, Fig. 14), from 436 m to 517 m depth.

Despite the small sampling (1 sample, 96 fishes measured), the data shows that lengths at 72 cm, 74 cm, 80 cm and 82 cm dominated the catch (mean length and weight of 75.5 cm and 3700 g).

2.1.14. Silver hake Div. 3N

Information on length composition of the silver hake catches in Div. 3N is available only for September (Table XX, Fig. 15), from 117 m to 134 m depth.

Lengths between 27 cm and 32 cm dominated the catch, with a modal class at 28 cm (mean length and weight of 30.6 cm and 208 g).

2.1.15. Silver hake Div. 3O

Information on length composition of silver hake catches in Div. 3O is available from June, September and October (Table XXI, Fig. 16), from 110 m to 236 m depth.

Lengths between 28 cm and 34 cm dominated the catch, with a modal class at 30 cm (mean length and weight of 31.7 cm and 234 g).

3. Acknowledgements

This study was supported by the European Commission (Program for the Collection of Data in Fisheries Sector) and IPMA, I.P.

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TABLE I-A. PORTUGUESE NOMINAL TRAWL CATCHES (mt) IN NAFO AREA, 2022, not available, see text.

TABLE I – B. PORTUGUESE NOMINAL TRAWL CATCHES (mt) IN NAFO DIV. 3LMNO (data extracted from NAFO Database STATLANT 21 on 27 April 2021), not updated, see text.

SPECIES / YEAR	2020*	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004
Cod	4234	6442	4836	5473	5699	4889	5504	4814	2946	2832	1528	1003	434	255	177	105	281
Redfish	13659	12619	10412	10300	9093	8800	9509	9504	8953	9983	10541	9361	7768	7204	7805	7338	5971
American plaice	458	351	206	359	322	291	275	407	468	198	160	298	355	443	376	371	517
Yellowtail flounder	199	15	31	280	13	35	31	94	267	71	27	71	145		134	188	68
Witch flounder	209	67	118	287	206	55	186	128	108	128	71	131	221	124	141	150	591
Greenland halibut	2419	2288	2072	1920	1583	1722	1938	2124	2051	2493	2257	2075	1976	1873	2326	2256	1888
Atlantic halibut	249	229	154	296	207	200	133	96	70	46	56	469	23	32	43	20	59
Roughhead grenadier	7	35	31	27	41	90	293	88	488	251	83	266	50	34	77	262	381
Roundnose grenadier	19	25	9	1	19	13	42	10	39	48	27	198	29	37	54		
Anarhichas spp.	2	13	3	2	5	5	4	4	6	18	13	41	25	16	28	32	45
Hadocck			2	15	153	30	181	78	64	13	1	3	1	2		6	23
Pollock								1									4
White hake	31	21	28	69	109	133	109	81	19	25	17	24	55	62	102	157	1266
Red hake						2		1	1	69	1		3	2	4	18	13
Silver hake	194	77	135	149	392	266	468	30	35								6
Capelin																	
Skates	300	117	70	246	359	360	452	496	427	435	304	1045	1252	1058	1003	576	1550
Monkfish			3	12	20	10	24	7	4	1	11	3	13	35	34	6	73
Squid	334	11	10	12						1	2	29	5	2	17		11
Shrimp									5		15	332					50
Others/Unidentified	1	322	201					48	160	29	11	77	2	1	216	6	15
TOTAL	22315	22632	18321	19448	18221	16901	19149	18011	16111	16641	15125	15426	12357	11180	12537	11491	12812

* 2020 STATLANT 21 provided by NAFO Secretariat in June 2021

TABLE I – B. Cont.

SPECIES / YEAR	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988
Cod	602	488	361	192	325	550	1545	1316	1670	2640	3657	5986	13362	15142	24130	12963
Redfish	7804	6346	5331	5678	6082	2370	1126	2152	3297	8614	9831	6584	12165	17803	19032	19137
American plaice	748	634	636	400	718	361	389	289	170	346	323	453	1183	715	1821	1813
Yellowtail flounder	287	123	350	151	428	87					21			11	5	
Witch flounder	485	436	576	230	509	381	350	238	385	579	291	851	1980	2257	15	10
Greenland halibut	4369	4318	5027	4688	3997	3245	3347	3313	1942	5970	8811	10547	13961	11171	3616	4194
Atlantic halibut	89	47	45	28	51	29	15	9	18	45	50	79	229	96		152
Roughhead grenadier	302	508	613	397	1302	1088	765	787	1377	2224	1996	2004	4053	3211	290	911
Roundnose grenadier																
Anarhichas spp.	112	88	142	61	552	139	184	121	1358	3219	2303	1697	2842	1941		
Hadocck	141	78	22	12	11	5	42		2	10	10	165	82	17		
Pollock	114									13	41	29	424	11		
White hake	4090	1678														8
Red hake	2	1968	273	43	76	19	54	124	230	270	365	467	1010	469	104	
Silver hake																
Capelin														14		
Skates	1942	1362	883	672	2168	1105	908	796	2062	6239	7604	7019	23304	13557	652	1075
Monkfish	165	71										37	7		15	
Squid						1		4							47	
Shrimp		16	420	289	227	203	170		17							
Others/Unidentified	13	322	40	1	115	38	115	23	15	12	245	325	725	779	158	6
TOTAL	21265	18483	14719	12842	16561	9621	9010	9172	12543	30181	35548	36243	75327	67194	49885	40269

TABLE II. PORTUGUESE TRAWL EFFORT IN FISHING DAYS IN NAFO Div. 3LMNO (data extracted from NAFO. (Database STATLANT 21B on 21 May 2017).

YEAR	3L	3M	3N	3O	TOTAL
2000	519	248	297	329	1393
2001	770	477	361	262	1870
2002	607	263	532	490	1892
2003	503	257	783	753	2296
2004	435	400	406	464	1705
2005	492	407	218	359	1476
2006	408	454	106	517	1485
2007	295	359	162	421	1237
2008	307	464	179	213	1163
2009	512	727	237	188	1664
2010	495	643	214	242	1594
2011	432	770	320	233	1755
2012	235	400	337	299	1271
2013	395	681	350	258	1684
2014	454	791	194	361	1800
2015	374	570	162	336	1442
2016 (a)	346	698	132	347	1523
2017 (a)	282	564	213	278	1337
2018 (a)	302	649	222	194	1367
2019 (a)	375	775	159	206	1515
2020 (a)	367	523	273	239	1402
2021 (a)	224	435	327	320	1306
2022 (a)	210	617	305	208	1340

a) not extracted from Database STATLANT 21B, provisional

TABLE III. Portuguese trawl fishery cpue's and bycatch by month and division for 2022.

DIVISION	TARGET SPECIES	MONTH	DEPTH RANGE (m)		CPUE (ton/hour)	MAIN BYCATCH		WITCH FLOUNDER BYCATCH (%)	TOTAL BYCATCH (%)
			MIN.	MAX.		SPECIES	%		
3M	COD	JUN	275	458	0.848	RED	5.5	0.0	7.9
3M	COD	JUL	200	652	1.277	RED	32.4	0.0	33.3
3M	COD	OCT	390	391	0.855	RED	36.7	0.0	36.7
3L	GHL	SEP	1135	1460	0.773	RHG	2.8	0.0	2.8
3L	GHL	OCT	1144	1407	0.666	RHG	2.7	0.0	2.7
3M	GHL	SEP	1125	1870	0.680	RHG	5.8	0.0	5.8
3M	GHL	OCT	952	1100	0.984	RHG	3.7	0.0	3.7
3L	RED	SEP	279	391	0.814	HAL	2.1	0.0	3.5
3L	RED	DEC	294	656	0.662	HAL	4.2	0.0	13.1
3M	RED	JUN	424	458	0.015	COD	46.9	0.0	71.4
3M	RED	JUL	228	772	1.231	COD	21.5	0.0	22.7
3M	RED	SEP	251	493	0.879	COD	7.7	0.0	8.1
3M	RED	OCT	341	374	0.635	COD	19.4	0.0	21.5
3M	RED	DEC	406	549	0.760	COD	1.3	0.0	3.1
3N	RED	JUN	177	425	5.834	HAL	1.8	0.0	2.7
3N	RED	AUG	264	341	0.923	HAL	9.1	0.0	9.1
3N	RED	SEP	194	587	3.070	HAL	1.1	0.0	1.8
3N	RED	OCT	116	629	2.595	COD	3.4	0.0	6.4
3O	RED	SEP	122	612	1.010	HAL	1.8	0.0	2.8
3O	RED	OCT	365	635	0.862	HAL	3.2	0.0	4.1
3O	HKW	JUN	120	199	0.104	HKS	31.5	0.0	35.9
3O	HKW	SEP	107	136	0.045	MON	34.9	0.0	59.3
3O	HKW	OCT	151	265	0.023	HAL	9.8	0.0	19.2
3N	HKS	SEP	117	140	1.989	HKW	0.2	0.0	0.4
3O	HKS	JUN	109	219	1.799	HKW	2.6	0.0	2.9
3O	HKS	AUG	136	286	1.510	HKW	1.7	0.0	2.1
3O	HKS	SEP	110	293	1.955	HKW	2.0	0.0	2.4
3O	HKS	OCT	136	422	1.494	HKW	2.0	0.0	2.7

TABLE IV-A. GREENLAND HALIBUT TRAWL CATCH RATES, 1988-2022: 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	0.453	0.095	42.1							0.390	0.093	47.8	1988
1989	0.417	0.071	51.4							0.359	0.072	59.8	1989
1990	0.366	0.039	36.8	0.153			0.173			0.302	0.037	45.5	1990
1991	0.216	0.044	45.1				0.127	0.031	42.2	0.187	0.037	55.7	1991
1992	0.145	0.028	61.7				0.258	0.032	42.8	0.252	0.038	71.5	1992
1993	0.175	0.014	10.9				0.172	0.021	41.8	0.261	0.025	35.7	1993
1994	0.111	0.003	3.8				0.111	0.017	36.9	0.192	0.036	52.8	1994
1995	0.122	0.020	46.6	0.120	0.016	30.8	0.123	0.024	50.9	0.152	0.023	69.0	1995
1996	0.178	0.022	43.9	0.199	0.025	37.6	0.172	0.019	29.6	0.178	0.016	48.6	1996
1997	0.196	0.018	30.9	0.232	0.031	37.9	0.130	0.009	9.2	0.186	0.019	48.1	1997
1998	0.269	0.016	22.2	0.235	0.021	31.7	0.210	0.019	30.4	0.266	0.014	32.6	1998
1999	0.301	0.020	20.8	0.346	0.042	36.3	0.261	0.020	23.0	0.319	0.020	35.0	1999
2000	0.258	0.026	26.2	0.275	0.030	24.6	0.303	0.043	28.2	0.277	0.031	44.8	2000
2001	0.208	0.030	38.7	0.207	0.014	17.9	0.193	0.017	20.1	0.217	0.021	43.0	2001
2002	0.233	0.018	25.5	0.226	0.029	42.2	0.269	0.032	23.6	0.231	0.022	47.6	2002
2003	0.211	0.036	54.1	0.209	0.024	33.0	0.205	0.021	24.6	0.218	0.025	55.1	2003
2004	0.122	0.015	36.2	0.106	0.022	61.1	0.142	0.010	19.5	0.150	0.018	64.5	2004
2005	0.250	0.012	7.0	0.295	0.129	61.7				0.234	0.040	34.4	2005
2006	0.460	0.055	29.0	0.246	0.027	19.1				0.347	0.041	35.2	2006
2007	0.644	0.087	33.1	0.409	0.077	37.6				0.513	0.063	38.8	2007
2008	0.425	0.028	16.1	0.429	0.020	9.1				0.388	0.019	15.8	2008
2009	0.712	0.102	42.9	0.641	0.051	22.4				0.651	0.053	34.8	2009
2010	0.430	0.035	25.4	0.389	0.014	6.1	0.474			0.399	0.030	28.6	2010
2011	0.789	0.086	27.1	0.616	0.086	31.6				0.681	0.062	30.4	2011
2012	0.401	0.061	21.8	0.266						0.331	0.048	25.9	2012
2013	0.470	0.046	24.5	0.296	0.020	13.9	0.387	0.040	14.9	0.396	0.032	28.8	2013
2014	0.459	0.068	41.0	0.252	0.020	14.2	0.416	0.205	88.8	0.411	0.063	57.4	2014
2015	0.599	0.058	32.3	0.642	0.133	48.6				0.576	0.057	40.4	2015
2016	0.831	0.180	72.5	0.825						0.779	0.164	73.9	2016
2017	0.583	0.096	43.1	0.549	0.108	41.9				0.537	0.072	45.3	2017
2018	0.531	0.056	34.0	0.387	0.110	61.3				0.452	0.052	44.6	2018
2019	0.831	0.096	28.2	0.655						0.749	0.081	29.0	2019
2020	0.695	0.021	7.5	0.454	0.052	17.8				0.573	0.044	22.6	2020
2021	0.684	0.090	29.0	0.568	0.189	51.6				0.606	0.074	32.8	2021
2022	0.767	0.033	6.7	0.990						0.810	0.117	27.5	2022

TABLE IV-B. GREENLAND HALIBUT TRAWL CATCH RATES, 1988-2022 mean cpue's by division corrected for the year, month and vessel of each observation.

	CPUE	ST.ERROR	C.V.	
3L	0.395	0.010	42.0	3L
3M	0.326	0.009	33.6	3M
3N	0.209	0.008	38.4	3N
3LMNO	0.334	0.006	43.0	3LMNO

TABLE V. Intensity of the trawl sampling during 2022, by species, division and month.

SPECIES	DIV.	MONTH	Nº OF SAMPLES	Nº FISH MEASURED	SAMPLING WEIGHT(Kg)	OTOLITHS Nº	OTOLITHS LENGTH RANGE (cm)
COD	3M	JUN	1	100	278.490	3	66-76
COD	3M	JUL	27	1564	3977.305	203	46-116
COD	3M	SEP	1	54	146.265	50	46-96
COD	3N	SEP	2	203	299.730	80	41-75
COD	3N	OCT	5	517	1052.195	101	46-90
REDFISH (*S. mentella*)	3L	SEP	6	642	281.660	135	22-40
REDFISH (*S. mentella*)	3L	DEC	17	1700	627.400	50	21-49
REDFISH (*S. mentella*)	3M	JUN	1	100	177.580	3	47-47
REDFISH (*S. mentella*)	3M	JUL	43	4221	2623.255	223	21-54
REDFISH (*S. mentella*)	3M	SEP	4	441	270.450	119	23-50
REDFISH (*S. mentella*)	3M	DEC	2	200	53.415	-	-
REDFISH (*S. mentella*)	3N	JUN	5	500	121.300	28	18-32
REDFISH (*S. mentella*)	3N	SEP	21	2221	560.235	284	20-38
REDFISH (*S. mentella*)	3N	OCT	25	2744	781.185	135	20-38
REDFISH (*S. mentella*)	3O	JUN	1	9	2.030	9	20-27
REDFISH (*S. mentella*)	3O	SEP	13	1416	372.165	128	19-40
REDFISH (*S. mentella*)	3O	OCT	14	1546	415.440	26	20-36
AMERICAN PLAICE	3M	JUL	10	115	107.565	10	39-56
GREENLAND HALIBUT	3L	SEP	7	700	674.860	131	39-60
GREENLAND HALIBUT	3L	OCT	2	200	188.425	66	38-62
GREENLAND HALIBUT	3M	JUL	4	151	150.910	5	47-63
GREENLAND HALIBUT	3M	SEP	1	100	87.995	37	35-54
WITCH FLOUNDER	3M	JUL	9	60	49.585	7	42-49
WHITE HAKE	3N	SEP	1	105	72.560	-	-
WHITE HAKE	3O	SEP	1	101	110.190	-	-
WHITE HAKE	3O	OCT	7	735	479.710	-	-
THORNY SKATE	3O	OCT	1	96	355.700	-	-
SILVER HAKE	3N	SEP	4	407	84.555	-	-
SILVER HAKE	3O	JUN	1	100	25.830	-	-
SILVER HAKE	3O	SEP	6	619	128.740	-	-
SILVER HAKE	3O	OCT	8	897	179.425	-	-

TABLE VI. Length-weight relationship by species, stock and sex in 2022.

Species	Stock	Sex	a	b	n	*r2*	Length interval (cm)	Ref.
COD	3M	T	0.0033	3.2224	647	0.996	44-116	
COD	3NO	T	0.0093	3.0028	530	0.996	41-90	
GHL	2J3KLMNO	F	0.0051	3.1254	260	0.975	43-62	
GHL	2J3KLMNO	M	0.0072	3.0168	740	0.954	35-59	
GHL	2J3KLMNO	T	0.0034	3.2156	1009	0.989	35-63	
REB	3LN	F	0.1400	2.3799	1176	0.939	15-49	
REB	3LN	M	0.1266	2.4173	2821	0.946	15-48	
REB	3LN	T	0.1229	2.4250	3997	0.951	15-49	
REB	3M	F	0.1490	2.3747	359	0.947	14-52	
REB	3M	M	0.1509	2.3529	552	0.970	16-61	
REB	3M	T	0.1861	2.3031	911	0.969	14-61	
REB	3O	F	0.0154	2.9618	393	0.997	20-40	
REB	3O	M	0.0337	2.7218	283	0.987	19-39	
REB	3O	T	0.0193	2.8949	676	0.992	19-40	
HKW	3LMNO	T	0.0012	3.4786	520	0.993	24-70	
HKS	3LMNO	T	0.0036	3.1935	1452	0.973	20-53	
RJR	3LMNO	F	0.0023	3.3096	68	0.868	50-84	
RJR	3LMNO	M	0.0000	4.1967	28	0.982	55-91	
RJR	3LMNO	T	0.0003	3.7305	96	0.903	50-91	
Length-weight relationships calculated in previous years								
WIT	2J3KL	F	0.0910	2.4068	78	0.953	28-49	SCS 11/05
WIT	2J3KL	M	0.0687	2.4792	66	0.960	28-49	SCS 11/05
WIT	2J3KL	T	0.0709	2.4730	144	0.954	28-49	SCS 11/05
PLA	3M	F	0.0029	3.3206	75	0.979	38-61	SCS 21/05
PLA	3M	M	0.0124	2.9359	45	0.935	36-57	SCS 21/05
PLA	3M	T	0.0018	3.4707	1219	0.996	33-61	SCS 21/05

TABLE VII. COD, DIV. 3M, 2022: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUN	JUL	SEP	2nd Q.	3rd Q.	YEAR	LENGTH GROUP
42		1.9			1.8	1.7	42
45		15.1	37.0		15.3	14.5	45
48		113.3	55.6		112.9	107.4	48
51	10.0	130.7	111.1	10.0	130.6	124.7	51
54	40.0	112.3	129.6	40.0	112.4	108.9	54
57	30.0	74.4		30.0	73.8	71.7	57
60	160.0	102.0	92.6	160.0	101.9	104.7	60
63	80.0	109.3	129.6	80.0	109.4	108.0	63
66	190.0	153.3	55.6	190.0	152.6	154.4	66
69	180.0	78.7	37.0	180.0	78.4	83.3	69
72	160.0	33.0	166.7	160.0	34.0	40.1	72
75	50.0	37.6	37.0	50.0	37.6	38.2	75
78	20.0	16.7	18.5	20.0	16.7	16.9	78
81	40.0	2.9	37.0	40.0	3.1	4.9	81
84	40.0	7.2		40.0	7.1	8.7	84
87		3.8	37.0		4.0	3.8	87
90		4.9	18.5		5.0	4.7	90
93		1.4	18.5		1.5	1.4	93
96		0.6	18.5		0.7	0.7	96
99		0.4			0.4	0.4	99
102							102
105		0.3			0.3	0.3	105
108		0.1			0.1	0.1	108
111							111
114		0.1			0.1	0.1	114
TOTAL	1000	1000	1000	1000	1000	1000	
No. SAMPLES	1	27	1	1	28	29	
SAMPLING WEIGHT(kg)	278	3977	146	278	4124	4402	
No. F.MEASURED	100	1564	54	100	1618	1718	
MEAN LENGTH(cm)	68.9	61.6	66.1	68.9	61.6	62.0	
MEAN WEIGHT (g)	2910	2113	2774	2910	2117	2156	
DEPTH RANGE (m)	413/421	237/547	335/350	413/421	237/547	237/547	

TABLE VIII. COD, DIV. 3N, 2022: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	SEP =3rd Q.	OCT =4th Q.	YEAR	LENGTH GROUP
39	9.9		1.7	39
42	82.6		14.5	42
45	187.2	26.0	54.3	45
48	208.2	132.2	145.5	48
51	161.9	189.1	184.3	51
54	133.2	156.9	152.7	54
57	74.1	107.9	101.9	57
60	69.8	78.1	76.7	60
63	14.6	51.2	44.8	63
66	19.7	68.2	59.7	66
69	19.7	66.2	58.0	69
72	14.6	45.5	40.0	72
75	4.7	19.9	17.2	75
78		26.6	21.9	78
81		6.5	5.4	81
84		12.9	10.6	84
87		6.9	5.7	87
90		6.0	5.0	90
TOTAL	1000	1000	1000	
No. SAMPLES	2	5	7	
SAMPLING WEIGHT(kg)	300	1052	1352	
No. F.MEASURED	203	517	720	
MEAN LENGTH(cm)	52.6	59.9	58.6	
MEAN WEIGHT (g)	1448	2189	2059	
DEPTH RANGE (m)	278/587	167/480	167/587	

TABLE IX. REDFISH (*S. mentella*), DIV. 3L, 2022: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	SEP =3rd Q.	DEC =4th Q.	YEAR	LENGTH GROUP
15		4.6	3.8	15
16		12.8	10.5	16
17		30.4	24.9	17
18		25.2	20.6	18
19		51.7	42.5	19
20		39.9	32.7	20
21		42.6	35.0	21
22	1.9	39.9	33.1	22
23	3.5	73.6	61.0	23
24	7.7	66.8	56.2	24
25	42.6	77.6	71.3	25
26	31.7	71.4	64.3	26
27	155.6	86.1	98.6	27
28	107.5	72.1	78.4	28
29	183.1	77.0	96.0	29
30	141.7	52.5	68.5	30
31	46.7	45.3	45.6	31
32	56.9	38.4	41.8	32
33	34.0	25.2	26.8	33
34	34.6	17.5	20.5	34
35	95.1	12.2	27.1	35
36	11.8	9.9	10.2	36
37	37.7	6.1	11.7	37
38	4.4	6.4	6.0	38
39	2.3	2.4	2.4	39
40	1.2	3.4	3.0	40
41		2.7	2.2	41
42		2.1	1.7	42
43		1.0	0.8	43
44		0.3	0.3	44
45		0.7	0.6	45
46		1.8	1.5	46
47				47
48		0.2	0.2	48
49		0.2	0.2	49
TOTAL	1000	1000	1000	
No. SAMPLES	6	17	23	
SAMPLING WEIGHT(kg)	282	627	909	
No. F.MEASURED	642	1700	2342	
MEAN LENGTH(cm)	30.5	26.5	27.2	
MEAN WEIGHT (g)	492	369	391	
DEPTH RANGE (m)	279/367	294/656	279/656	

TABLE X. REDFISH (*S. mentella*), DIV. 3M, 2022: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUN	JUL	SEP	DEC	2nd Q.	3rd Q.	4th Q.	YEAR	LENGTH GROUP
14				6.6			6.6	0.3	14
15									15
16				32.8			32.8	1.4	16
17				56.9			56.9	2.4	17
18				23.1			23.1	1.0	18
19				80.3			80.3	3.3	19
20				60.7			60.7	2.5	20
21		0.8		56.2		0.8	56.2	3.1	21
22		0.6		63.8		0.5	63.8	3.2	22
23		6.8	4.2	93.4		6.7	93.4	10.3	23
24		7.4	10.6	86.6		7.5	86.6	10.8	24
25		4.4	23.0	83.4		5.0	83.4	8.2	25
26		10.1	17.6	59.7		10.4	59.7	12.4	26
27		29.1	48.7	56.9		29.6	56.9	30.8	27
28		34.0	107.8	69.3		36.1	69.3	37.5	28
29		53.9	108.1	56.2		55.5	56.2	55.5	29
30		39.1	87.3	30.0		40.5	30.0	40.1	30
31		78.1	61.4	57.2		77.6	57.2	76.7	31
32		87.4	63.6	13.4		86.7	13.4	83.6	32
33		119.2	77.1	6.9		118.0	6.9	113.3	33
34	20.0	117.0	67.5	6.6	20.0	115.6	6.6	111.0	34
35		97.2	72.3			96.5		92.4	35
36		98.4	73.5			97.6		93.5	36
37	20.0	73.4	50.6		20.0	72.8		69.7	37
38		56.7	35.9			56.1		53.8	38
39	50.0	34.2	8.9		50.0	33.5		32.1	39
40	30.0	17.4	10.8		30.0	17.2		16.5	40
41		10.7	16.7			10.9		10.4	41
42	60.0	6.9	5.6		60.0	6.9		6.6	42
43	50.0	4.6	16.8		50.0	4.9		4.8	43
44	70.0	2.8	7.5		70.0	2.9		2.8	44
45	60.0	1.3	7.5		60.0	1.5		1.5	45
46	130.0	1.6	5.6		130.0	1.7		1.7	46
47	60.0	1.5	5.6		60.0	1.6		1.6	47
48	40.0	2.1	1.9		40.0	2.1		2.0	48
49	100.0	1.1	1.9		100.0	1.1		1.1	49
50	50.0	0.6			50.0	0.6		0.6	50
51	70.0	0.9	1.9		70.0	0.9		0.9	51
52	10.0	0.2			10.0	0.2		0.2	52
53	10.0	0.3			10.0	0.2		0.2	53
54	70.0	0.1			70.0	0.1		0.2	54
55	50.0				50.0			0.02	55
56									56
57	30.0				30.0			0.01	57
58	10.0				10.0			0.005	58
59	10.0				10.0			0.005	59
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	1	43	4	2	1	47	2	50	
SAMPLING WEIGHT(kg)	178	2623	270	53	178	2894	53	3125	
No. F.MEASURED	100	4221	441	200	100	4662	200	4962	
MEAN LENGTH(cm)	47.7	34.2	33.1	24.3	47.7	34.2	24.3	33.8	
MEAN WEIGHT (g)	1402	648	610	292	1402	647	292	633	
DEPTH RANGE (m)	275/280	237/772	285/493	408/425	275/280	237/772	408/425	237/772	

TABLE XI. REDFISH (*S. mentella*), DIV. 3N, 2022: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUN =2nd Q.	SEP =3rd Q.	OCT =4th Q.	YEAR	LENGTH GROUP
18	7.2			0.5	18
19	36.4			2.8	19
20	52.4	270.3	2.2	175.6	20
21	59.3	81.0	5.1	57.3	21
22	119.0	38.5	15.2	37.8	22
23	122.4	67.6	57.1	68.7	23
24	153.3	85.5	98.7	94.5	24
25	100.0	74.8	88.5	80.7	25
26	129.5	85.4	117.7	98.2	26
27	113.6	66.1	140.0	91.2	27
28	56.6	76.9	132.0	91.4	28
29	37.5	32.8	81.2	47.2	29
30	10.5	42.3	156.5	73.2	30
31		19.9	53.2	28.1	31
32	2.2	19.9	35.8	23.2	32
33		21.0	10.8	16.4	33
34		6.4	3.4	5.1	34
35		6.3	0.3	4.1	35
36		2.5	0.4	1.7	36
37		1.6	0.3	1.1	37
38		1.1	1.5	1.1	38
TOTAL	1000	1000	1000	1000	
No. SAMPLES	5	21	25	51	
SAMPLING WEIGHT(kg)	121	560	781	1463	
No. F.MEASURED	500	2221	2744	5465	
MEAN LENGTH(cm)	24.7	24.9	27.8	25.7	
MEAN WEIGHT (g)	297	311	394	334	
DEPTH RANGE (m)	177/425	194/587	116/629	116/629	

TABLE XII. REDFISH (*S. mentella*), DIV. 3O, 2022: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUN =2nd Q.	SEP =3rd Q.	OCT =4th Q.	YEAR	LENGTH GROUP
19		1.1		0.6	19
20	111.1	1.1	1.4	1.3	20
21	111.1	11.0	7.6	9.5	21
22		52.5	31.8	43.2	22
23	111.1	111.5	96.0	104.6	23
24	333.3	158.1	169.9	163.4	24
25		125.6	143.8	133.8	25
26	111.1	123.4	109.0	116.9	26
27	222.2	133.8	103.3	120.1	27
28		92.6	114.9	102.6	28
29		77.2	90.2	83.1	29
30		47.1	46.6	46.8	30
31		25.6	37.8	31.1	31
32		21.6	34.5	27.4	32
33		8.9	7.9	8.4	33
34		4.3	2.8	3.7	34
35		2.4	1.6	2.0	35
36		0.8	0.4	0.6	36
37		0.7		0.4	37
38					38
39		0.7		0.4	39
40			0.5	0.2	40
TOTAL	1000	1000	1000	1000	
No. SAMPLES	1	13	14	28	
SAMPLING WEIGHT(kg)	2	372	415	790	
No. F.MEASURED	9	1416	1546	2971	
MEAN LENGTH(cm)	24.5	26.6	26.8	26.7	
MEAN WEIGHT (g)	208	264	272	268	
DEPTH RANGE (m)	118/135	163/612	365/635	118/635	

TABLE XIII. AMERICAN PLAICE, DIV. 3M, 2022: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUL =YEAR	LENGTH GROUP
20	27.9	20
22	5.3	22
24	127.4	24
26	27.9	26
28		28
30	48.7	30
32		32
34		34
36	44.0	36
38	122.2	38
40	82.7	40
42	75.3	42
44	132.6	44
46	64.1	46
48	35.5	48
50	106.9	50
52	58.2	52
54	25.8	54
56	11.0	56
58	4.6	58
TOTAL	1000	
No. SAMPLES	10	
SAMPLING WEIGHT(kg)	108	
No. F.MEASURED	115	
MEAN LENGTH(cm)	40.7	
MEAN WEIGHT (g)	728	
DEPTH RANGE (m)	240/377	

TABLE XIV. GREENLAND HALIBUT, DIV. 3L, 2022: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	SEP =3rd Q.	OCT =4th Q.	YEAR	LENGTH GROUP
38	1.4	5.4	2.1	38
40	1.1	10.8	2.9	40
42	28.3	46.1	31.6	42
44	76.6	107.6	82.4	44
46	223.4	247.1	227.7	46
48	263.6	187.6	249.5	48
50	268.4	258.5	266.5	50
52	101.2	99.2	100.8	52
54	18.9	21.5	19.4	54
56	12.6		10.3	56
58	1.0	10.8	2.8	58
60	3.6		2.9	60
62		5.4	1.0	62
TOTAL	1000	1000	1000	
No. SAMPLES	7	2	9	
SAMPLING WEIGHT(kg)	675	188	863	
No. F.MEASURED	700	200	900	
MEAN LENGTH(cm)	49.3	48.9	49.2	
MEAN WEIGHT (g)	956	936	952	
DEPTH RANGE (m)	1156/1458	1181/1407	1156/1458	

TABLE XV.....GREENLAND HALIBUT, DIV. 3M, 2022: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUL	SEP	3rd Q. =YEAR	LENGTH GROUP
26	7.4		0.1	26
28				28
30				30
32				32
34		10.0	9.9	34
36	14.8		0.1	36
38	36.9		0.4	38
40	71.4		0.7	40
42	100.9	100.0	100.0	42
44	98.5	190.0	189.1	44
46	160.0	180.0	179.8	46
48	133.0	260.0	258.8	48
50	142.9	210.0	209.4	50
52	61.6	30.0	30.3	52
54	32.0	10.0	10.2	54
56	19.8		0.2	56
58	32.1		0.3	58
60	19.7		0.2	60
62	19.7	10.0	10.1	62
64	9.9		0.1	64
66	9.9		0.1	66
68	9.9		0.1	68
70	4.9		0.05	70
72	4.9		0.05	72
74	4.9		0.05	74
76	4.9		0.05	76
TOTAL	1000	1000	1000	
No. SAMPLES	4	1	5	
SAMPLING WEIGHT(kg)	151	88	239	
No. F.MEASURED	151	100	251	
MEAN LENGTH(cm)	49.1	47.9	47.9	
MEAN WEIGHT (g)	1030	886	888	
DEPTH RANGE (m)	399/772	1108/2010	399/2010	

TABLE XVI. WITCH FLOUNDER, DIV. 3M, 2022: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUL =YEAR	LENGTH GROUP
28	76.2	28
30	25.7	30
32	73.2	32
34	60.7	34
36		36
38	37.0	38
40		40
42	160.1	42
44	179.7	44
46	227.5	46
48	60.7	48
50	32.4	50
52	36.4	52
54	30.4	54
TOTAL	1000	
No. SAMPLES	9	
SAMPLING WEIGHT(kg)	50	
No. F.MEASURED	60	
MEAN LENGTH(cm)	42.9	
MEAN WEIGHT (g)	803	
DEPTH RANGE (m)	240/441	

TABLE XVII. WHITE HAKE, DIV. 3N, 2022: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	SEP =YEAR	LENGTH GROUP
26	19.0	26
28	114.3	28
30	142.9	30
32	85.7	32
34	19.0	34
36	57.1	36
38	47.6	38
40	47.6	40
42	9.5	42
44	38.1	44
46	47.6	46
48	38.1	48
50	114.3	50
52	95.2	52
54	19.0	54
56	76.2	56
58		58
60	19.0	60
62		62
64	9.5	64
TOTAL	1000	
No. SAMPLES	1	
SAMPLING WEIGHT(kg)	73	
No. F.MEASURED	105	
MEAN LENGTH(cm)	42.0	
MEAN WEIGHT (g)	666	
DEPTH RANGE (m)	117/122	

TABLE XVIII. WHITE HAKE, DIV. 3O, 2022: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	SEP =3rd Q.	OCT =4th Q.	YEAR	LENGTH GROUP
22		0.5	0.4	22
24		3.4	3.1	24
26		12.4	11.3	26
28	9.9	20.1	19.2	28
30	79.2	36.6	40.4	30
32	59.4	55.5	55.8	32
34		77.8	70.8	34
36	39.6	49.8	48.9	36
38	9.9	73.9	68.2	38
40	19.8	36.9	35.4	40
42	9.9	30.0	28.2	42
44	19.8	74.7	69.8	44
46	39.6	74.5	71.3	46
48	99.0	83.5	84.9	48
50	79.2	84.3	83.8	50
52	188.1	72.9	83.2	52
54	89.1	70.4	72.1	54
56	89.1	68.5	70.4	56
58	39.6	28.0	29.0	58
60	29.7	22.4	23.1	60
62	19.8	7.5	8.6	62
64	39.6	7.8	10.6	64
66	19.8	1.5	3.1	66
68	19.8	0.4	2.2	68
70		6.4	5.9	70
72				72
74		0.4	0.4	74
TOTAL	1000	1000	1000	
No. SAMPLES	1	7	8	
SAMPLING WEIGHT(kg)	110	480	590	
No. F.MEASURED	101	735	836	
MEAN LENGTH(cm)	50.0	45.7	46.1	
MEAN WEIGHT (g)	1130	838	864	
DEPTH RANGE (m)	112/135	153/236	112/236	

TABLE XIX. THORNY SKATE, DIV. 3O, 2022: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	OCT =YEAR	LENGTH GROUP
50	10.4	50
52		52
54	10.4	54
56	20.8	56
58		58
60	20.8	60
62	10.4	62
64	10.4	64
66	31.3	66
68	62.5	68
70	83.3	70
72	135.4	72
74	156.3	74
76	62.5	76
78	83.3	78
80	104.2	80
82	104.2	82
84	41.7	84
86	20.8	86
88	20.8	88
90	10.4	90
TOTAL	1000	
No. SAMPLES	1	
SAMPLING WEIGHT(kg)	356	
No. F.MEASURED	96	
MEAN LENGTH(cm)	75.5	
MEAN WEIGHT (g)	3700	
DEPTH RANGE (m)	436/517	

TABLE XX. SILVER HAKE, DIV. 3N, 2022: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	SEP =YEAR	LENGTH GROUP
20	3.4	20
21		21
22		22
23		23
24	6.9	24
25	11.0	25
26	35.0	26
27	107.9	27
28	159.2	28
29	150.7	29
30	148.6	30
31	120.2	31
32	83.1	32
33	44.8	33
34	48.7	34
35	26.7	35
36	6.6	36
37	26.3	37
38	10.4	38
39	0.7	39
40	0.7	40
41	4.2	41
42		42
43	3.4	43
44		44
45		45
46		46
47		47
48		48
49		49
50	0.7	50
51	0.7	51
TOTAL	1000	
No. SAMPLES	4	
SAMPLING WEIGHT(kg)	85	
No. F.MEASURED	407	
MEAN LENGTH(cm)	30.6	
MEAN WEIGHT (g)	208	
DEPTH RANGE (m)	117/134	

TABLE XXI. SILVER HAKE, DIV. 3O, 2022: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUN	SEP	OCT	2nd Q.	3rd Q.	4th Q.	YEAR	LENGTH GROUP
20		1.5			1.5		0.5	20
21		9.0			9.0		3.4	21
22		1.5	2.8		1.5	2.8	1.2	22
23		9.6			9.6		3.6	23
24		7.3	1.0		7.3	1.0	2.9	24
25		5.4	6.8		5.4	6.8	3.6	25
26		58.2	32.1		58.2	32.1	29.1	26
27	30.0	71.3	70.6	30.0	71.3	70.6	54.7	27
28	40.0	139.8	117.6	40.0	139.8	117.6	95.0	28
29	80.0	182.3	135.5	80.0	182.3	135.5	130.9	29
30	120.0	153.9	149.0	120.0	153.9	149.0	139.3	30
31	100.0	125.6	129.1	100.0	125.6	129.1	116.2	31
32	130.0	95.1	126.6	130.0	95.1	126.6	116.1	32
33	130.0	44.5	66.7	130.0	44.5	66.7	83.6	33
34	120.0	34.0	58.3	120.0	34.0	58.3	73.8	34
35	70.0	25.7	31.2	70.0	25.7	31.2	44.6	35
36	60.0	11.8	28.1	60.0	11.8	28.1	34.7	36
37	50.0	9.5	17.5	50.0	9.5	17.5	27.5	37
38	30.0	10.0	9.6	30.0	10.0	9.6	17.9	38
39		0.1	5.7		0.1	5.7	1.3	39
40	20.0	0.6	4.1	20.0	0.6	4.1	9.1	40
41		1.5	4.3		1.5	4.3	1.5	41
42		0.7	0.7		0.7	0.7	0.4	42
43		0.05			0.05		0.02	43
44								44
45			1.0			1.0	0.2	45
46	20.0	0.3	1.7	20.0	0.3	1.7	8.5	46
47		0.3			0.3		0.1	47
48		0.3			0.3		0.1	48
49		0.05			0.05		0.02	49
50								50
51								51
52								52
53		0.3			0.3		0.1	53
TOTAL	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	1	6	8	1	6	8	15	
SAMPLING WEIGHT(kg)	26	129	179	26	129	179	334	
No. F.MEASURED	100	619	897	100	619	897	1616	
MEAN LENGTH(cm)	33.3	30.3	31.3	33.3	30.3	31.3	31.7	
MEAN WEIGHT (g)	273	201	222	273	201	222	234	
DEPTH RANGE (m)	122/142	110/137	145/236	122/142	110/137	145/236	110/236	

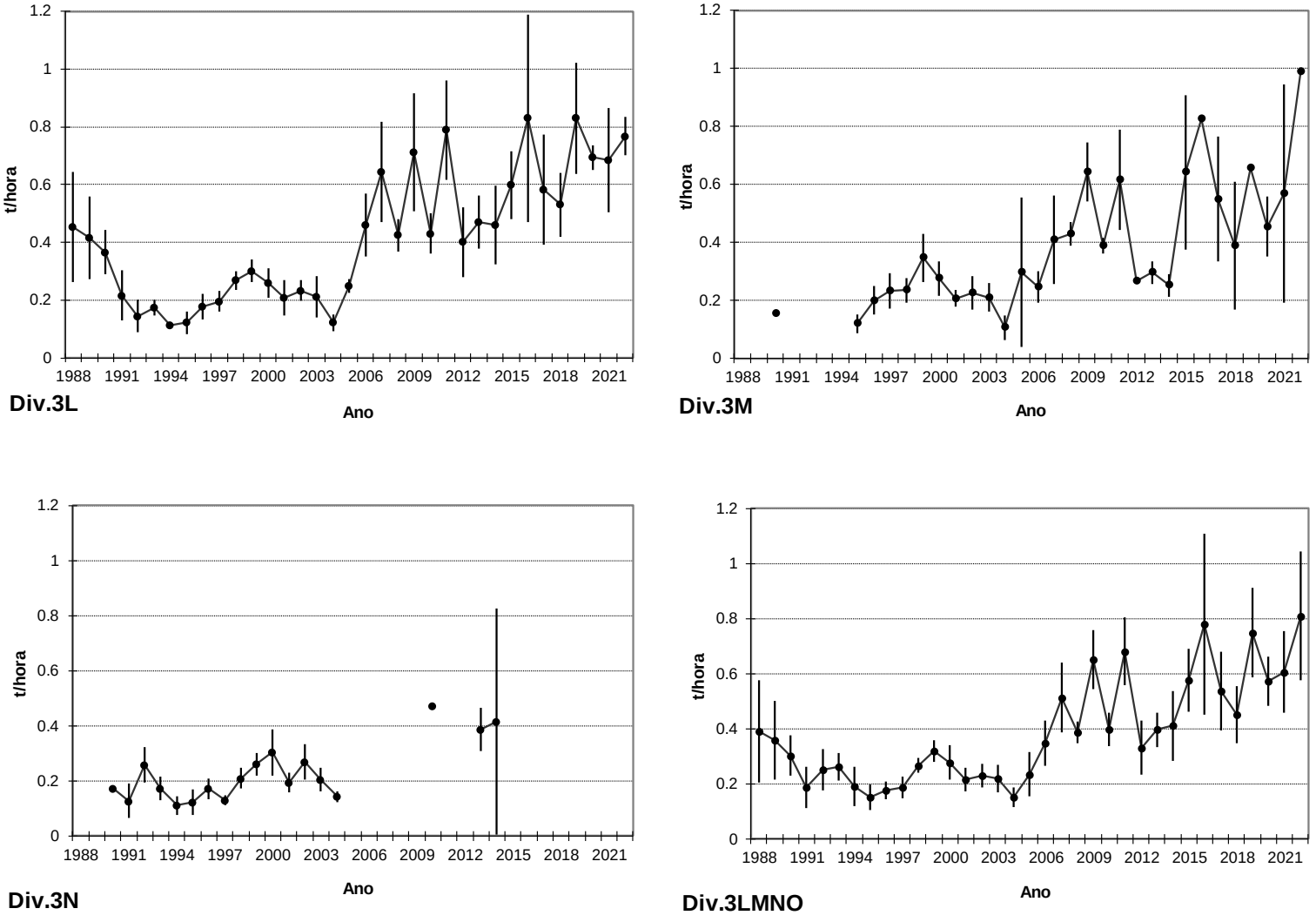

Fig. 1: Greenland halibut trawl catch rates by division, 1988 - 2022.

Fig. 2 - Annual length composition of Cod on Division 3M 130mm trawl fishery in 2022

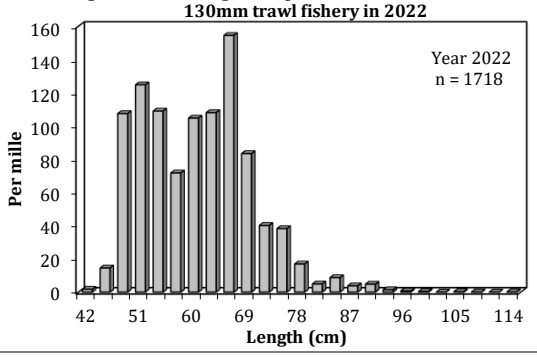

Fig. 3 - Annual length composition of Cod on Division 3N 130mm trawl fishery in 2022

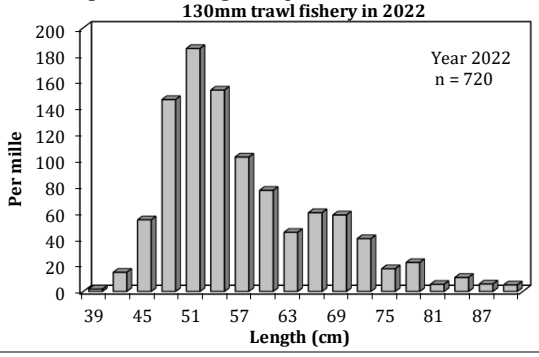

Fig. 4 - Annual length composition of redfish (*S. mentella*) on Division 3L 130mm trawl fishery in 2022

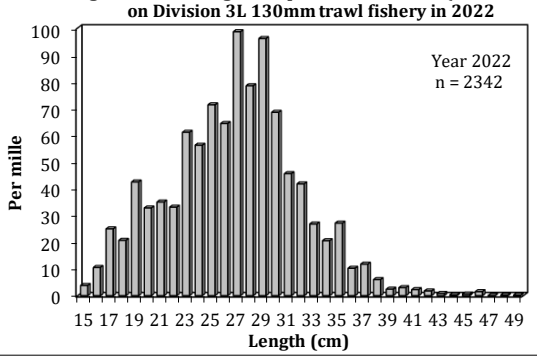

Fig. 5 - Annual length composition of redfish (*S. mentella*) on Division 3M 130mm trawl fishery in 2022

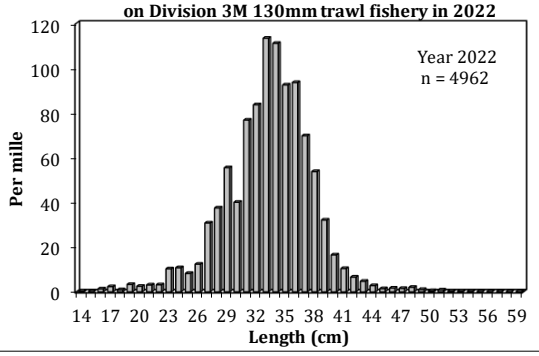

Fig. 6 - Annual length composition of redfish (*S. mentella*) on Division 3N 130mm trawl fishery in 2022

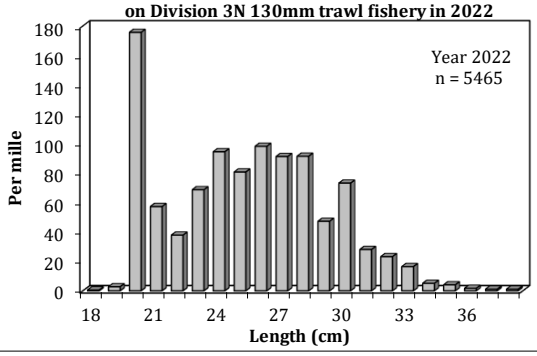

Fig. 7 - Annual length composition of redfish (*S. mentella*) on Division 3O 130mm trawl fishery in 2022

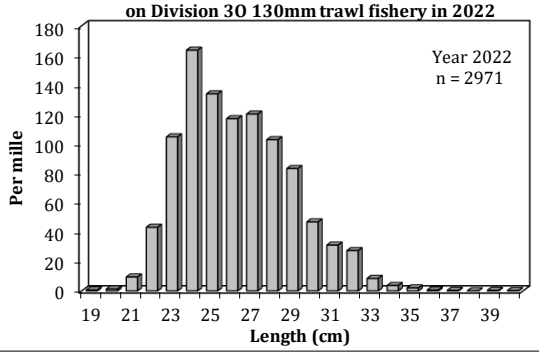

Fig. 8 - Annual length composition of American plaice on Division 3M 130mm trawl fishery in 2022

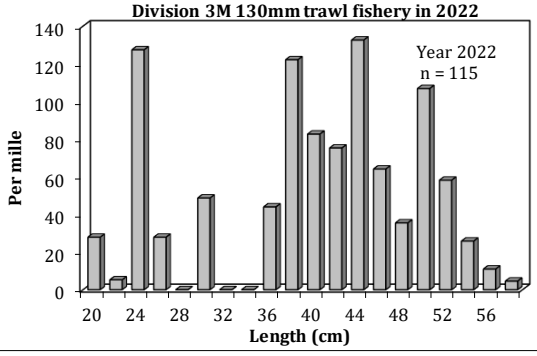

Fig. 9 - Annual length composition of Greenland halibut on Division 3L 130mm trawl fishery in 2022

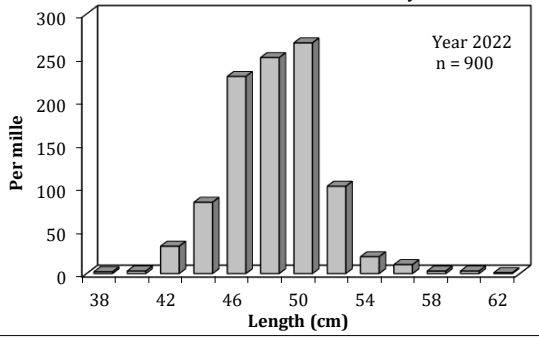

Fig. 10 - Annual length composition of Greenland halibut on Division 3M 130mm trawl fishery in 2022

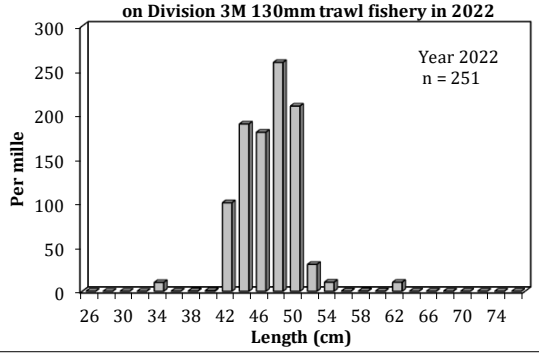

Fig. 11 - Annual length composition of witch flounder on Division 3M 130mm trawl fishery in 2022

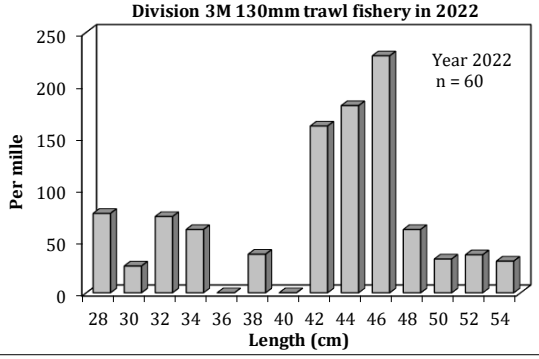

Fig. 12 - Annual length composition of white hake on Division 3N 130mm trawl fishery in 2022

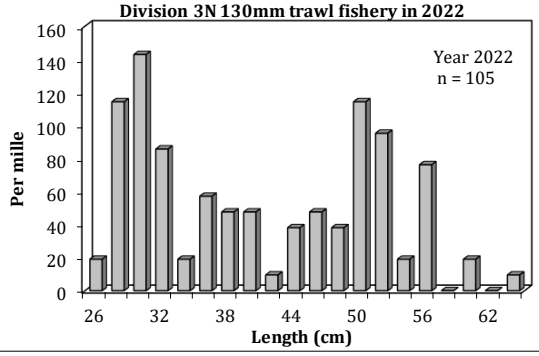

Fig. 13 - Annual length composition of white hake on Division 3O 130mm trawl fishery in 2022

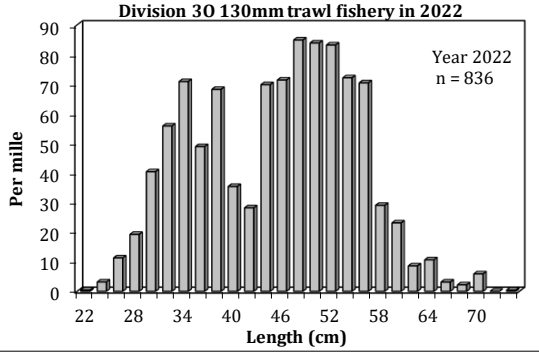

Fig. 14 - Annual length composition of thorny skate on Division 3O 130mm trawl fishery in 2022

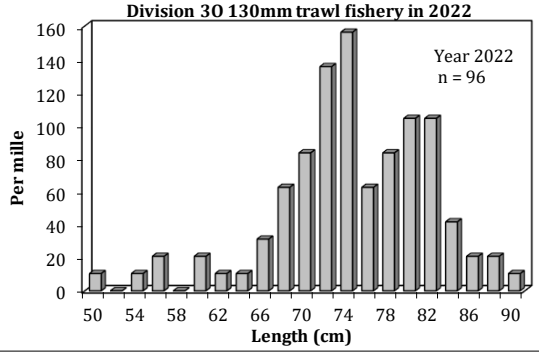

Fig. 15 - Annual length composition of silver hake on Division 3N 130mm trawl fishery in 2022

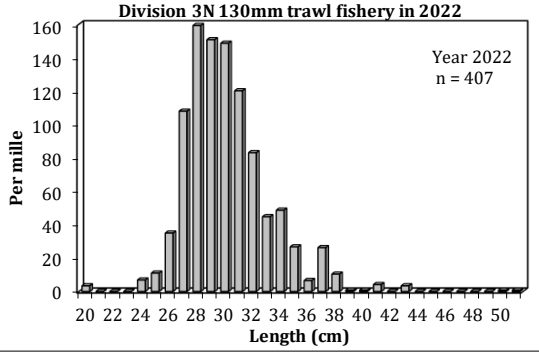

Fig. 16 - Annual length composition of silver hake on Division 3O 130mm trawl fishery in 2022