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PORTUGUESE RESEARCH REPORT FOR 2021

by

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A. Status of the fisheries

The 2021 Portuguese nominal catches in STATLANT are incomplete, so Table I-A is not available and Table I-B was not updated. In 2021, 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 2021 Portuguese trawl fishery on the NAFO Regulatory Area were obtained through the revision of skipper logbooks from four 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 and Greenland halibut (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 2021 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 2021, the catch rates reached, in this period, the highest values observed of the time series (0.682 tonnes/h in 2021).

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 2021, biological sampling was obtained from four stern trawlers fishing in Div. 3L, 3M, 3N and 3O during the second and the third quarters of 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, American plaice and skates (thorny skate, skates spp. and smooth skate) were sampled in Div. 3L, 3M, 3N and 3O (Tab. V). Redfish (*S. norvegicus*) was sampled in Div. 3M, 3N and 3O. Roughhead grenadier was sampled in Div. 3L, 3M and 3N. Witch flounder and pollock were sampled in Div. 3L, 3N and 3O. Silver hake was sampled in Div. 3N and 3O. Yellowtail flounder was sampled only in Div. 3N. White hake was sampled only in Div. 3O. Red hake and wolffish (*Anarhichas spp.* and *Anarhichas minor*) were sampled only in Div. 3M.

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 2021 and are presented in Table VI. However, for species/stock with a low sampling level in 2021, the length-weight relationships calculated in previous years were used.

2.1. Catch and by-catch composition of the 2021 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. 3L

Information on length composition of the cod trawl by-catch in Div. 3L is available from June to August (Table VII, Fig. 2), from 256 m to 583 m depth.

Lengths between 33 cm and 45 cm dominated the catch, with a clear modal class at 45 cm (mean length and weight of 51.2 cm and 1690 g).

2.1.2. Cod Div. 3M

Information on length composition of the cod trawl catch in Div. 3M is available for June and July (Table VIII, Fig. 3), from 262 m to 647 m depth.

Lengths between 60 cm and 75 cm dominated the catch, with a modal class at 66 cm (mean length and weight of 70.4 cm and 3417 g).

2.1.3. Cod Div. 3N

Information on length composition of the cod trawl by-catch in Div. 3N is available for May, June and August (Table IX, Fig. 4), from 202 m to 650 m depth.

Lengths between 30 cm and 57 cm dominated the catch, with a clear modal class at 42 cm (mean length and weight of 45.3 cm and 1049 g).

2.1.4. Cod Div. 3O

Information on length composition of the cod trawl by-catch in Div. 3O is available from June to August (Table X, Fig. 5), from 125 m to 510 m depth.

Lengths between 48 cm and 54 cm dominated the catch, with a modal class at 51 cm (mean length and weight of 52.6 cm and 1386 g).

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

Information on length composition of the redfish (*S. mentella)* trawl catches in Div. 3L is available from June to August (Table XI, Fig. 6), from 256 m to 583 m depth.

Lengths between 25 cm and 35 cm dominated the catch, with a modal class at 30 cm (mean length and weight of 29.2 cm and 413 g).

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

Information on length composition of the redfish (*S. mentella)* trawl catches in Div. 3M is available only for July (Table XII, Fig. 7), from 270 m to 647 m depth.

Lengths between 31 cm and 34 cm dominated the catch, with a modal class at 33 cm (mean length and weight of 33cm and 533 g).

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

Information on length composition of the redfish (*S. mentella)* trawl by-catch in Div. 3N is available from May to August (Table XIII, Fig. 8), from 200 m to 650 m depth.

Lengths between 23 cm and 27 cm dominated the catch, with a modal class at 24 cm (mean length and weight of 26.8 cm and 309 g).

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

Information on length composition of the redfish (*S. mentella)* trawl catches in Div. 3O is available from May to August (Table XIV, Fig. 9), from 125 m to 657 m depth.

Lengths between 22 cm and 27 cm dominated the catches, with a modal class at 24 cm (mean length and weight of 25.3 cm and 239 g).

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

Information on length composition of the redfish (*S. norvegicus)* trawl catches in Div. 3M is available only for July (Table XV, no figure), from 395 m to 442 m depth.

The sampling is very small: 2 samples and 5 fishes measured with lengths of 42 cm, 47 cm and 51 cm.

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

Information on length composition of the redfish (*S. norvegicus)* trawl by-catch in Div. 3M is available only for July (Table XVI, no figure), from 381 m to 435 m depth.

The sampling is very small: 1 sample and 2 fishes measured with lengths of 60 cm and 66 cm.

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

Information on length composition of the redfish (*S. norvegicus)* trawl by-catch in Div. 3M is available only for July (Table XVII, no figure), from 300 m to 450 m depth.

The sampling is very small: 2 samples and 5 fishes measured with lengths of 22 cm, 23 cm and 25 cm.

2.1.12. American plaice Div. 3L

Information on length composition of the American plaice by-catch in Div. 3L is available for July and August (Table XVIII, Fig. 10), from 256 m to 403 m depth.

Lengths between 30 cm and 36 cm dominated the catch, with two modal classes at 32 cm and 36 cm (mean length and weight of 33.9 cm and 347 g).

2.1.13. American plaice Div. 3M

Information on length composition of the American plaice by-catch in Div. 3M is available only for July (Table XIX, Fig. 11), from 283 m to 586 m depth.

Despite the small sampling (6 samples, 18 fishes measured), we can conclude that the lengths between 40 cm and 48 cm dominated the catch, with a peak at 44 cm (mean length and weight of 49.8 cm and 1544 g).

2.1.14. American plaice Div. 3N

Information on length composition of the American plaice by-catch in Div. 3N is available for July and August (Table XX, Fig. 12), from 54 m to 339 m depth.

Lengths between 34 and 48 cm dominated the catch, without a clear mode (mean length and weight of 42.5 cm and 793 g).

2.1.15. American plaice Div. 3O

Information on length composition of the American plaice by-catch in Div. 3O is available for July and August (Table XXI, Fig. 13), from 213 m to 510 m depth.

Lengths between 40 and 44 cm dominated the catch, with a very clear modal class at 42 cm (mean length and weight of 41.2 cm and 671 g).

2.1.16. Greenland halibut Div. 3L

Information on length composition of the Greenland halibut catches in Div. 3L is available from June to August (Table XXII, Fig. 14), from 286 m to 1390 m depth.

Lengths between 44 cm and 56 cm dominated the catch, with a modal class at 50 cm (mean length and weight of 51.8 cm and 1268 g).

2.1.17. Greenland halibut Div. 3M

Information on length composition of the Greenland halibut catches in Div. 3M is available for July and August (Table XXIII, Fig. 15), from 359 m to 1183 m depth.

Lengths between 42 cm and 52 cm dominated the catch, with a modal class at 46 cm (mean length and weight of 51.3 cm and 1239 g).

2.1.18. Greenland halibut Div. 3N

Information on length composition of the Greenland halibut catches in Div. 3N is available from June to August (Table XXIV, Fig. 16), from 262 m to 453 m depth.

Lengths between 34 cm and 42 cm dominated the catch, with a clear modal class at 36 cm (mean length and weight of 39.8 cm and 551 g).

2.1.19. Greenland halibut Div. 3O

Information on length composition of the Greenland halibut catches in Div. 3M is available for July and August (Table XXV, Fig. 17), from 260 m to 510 m depth.

Lengths at 28 cm and 54 cm dominated the catch (mean length and weight of 44.2 cm and 1066 g).

2.1.20. Yellowtail flounder Div. 3N

Information on length composition of the yellowtail flounder by-catch in Div. 3N is available only for August (Table XXVI, Fig. 18), from 48 m to 62 m depth.

Lengths between 32 cm and 40 cm dominated the catch, without a clear mode (mean length and weight of 36.4 cm and 422 g).

2.1.21. Roughhead grenadier Div. 3L

Information on length composition of the roughhead grenadier catches in Div. 3L is available for June and July (Table XXVII, Fig. 19), from 850 m to 1339 m depth.

Anal fin lengths between 14 cm and 18 cm dominated the catch, with two modal classes at 15 cm and 17 cm (mean length and weight of 18.2 cm and 673 g).

2.1.22. Roughhead grenadier Div. 3M

Information on length composition of the roughhead grenadier catches in Div. 3M is available only for July (Table XXVIII, Fig. 20), from 414 m to 632 m depth.

Anal fin lengths between 16 cm and 19 cm dominated the catch, with a clear modal class at 17 cm (mean length and weight of 19.1 cm and 686g).

2.1.23. Roughhead grenadier Div. 3N

Information on length composition of the roughhead grenadier catches in Div. 3N is available for June and July (Table XXIX, Fig. 21), from 379 m to 435 m depth.

Anal fin lengths at 15 cm, 19 cm and 22 cm dominated the catch (mean length and weight of 20.2 cm and 820 g).

2.1.24. Witch flounder Div. 3L

Information on length composition of the witch flounder by-catch in Div. 3L is available only for July (Table XXX, no figure), from 407 m to 583 m depth.

The sampling is very small: 1 sample and 2 fishes measured with lengths of 42 cm and 44 cm.

2.1.25. Witch flounder Div. 3N

Information on length composition of the witch flounder by-catch in Div. 3N is available for July and August (Table XXXI, Fig. 22), from 279 m to 435 m depth.

Despite the small sampling (3 samples, 39 fish measured), the data show that lengths at 36 cm and between 42 cm and 46 cm dominated the catch (mean length and weight of 43.1 cm and 576 g).

2.1.26. Witch flounder Div. 3O

Information on length composition of the witch flounder by-catch in Div. 3O is available for July and August (Table XXXII, Fig. 23), from 260 m to 488 m depth.

Despite the small sampling (10 samples, but only 23 fish measured), the data show that lengths between 28 cm and 34 cm and at 38 cm dominated the catch (mean length and weight of 35.4 cm and 292 g).

2.1.27. White hake Div. 3O

Information on length composition of the white hake catches in Div. 3O is available from June to August (Table XXXIII, Fig. 24), from 1195 m to 580 m depth.

Lengths between 42 cm and 48 cm dominated the catch, with a clear modal class at 46 cm (mean length and weight of 47.1 cm and 847 g).

2.1.28. Silver hake Div. 3N

Information on length composition of the silver hake catches in Div. 3N is available only for August (Table XXXIV, Fig. 25), from 123 m to 134 m depth.

Despite the small sampling (1 sample, 123 fish measured) the data shows that lengths between 25 cm and 29 cm dominated the catch (mean length and weight of 28.6 cm and 155 g).

2.1.29. Silver hake Div. 3O

Information on length composition of silver hake catches in Div. 3O is available from June to August (Table XXXV, Fig. 26), from 117 m to 575 m depth.

Lengths between 26 cm and 31 cm dominated the catch, with a modal class at 27 cm (mean length and weight of 30.3 cm and 193 g).

2.1.30. Red hake Div. 3M

Information on length composition of red hake catches in Div. 3M is available for July (Table XXXVI, no figure), from 587 m to 612 m depth.

Because the sampling is very small, no comments are made on lengths.

2.1.31. Thorny skate Div. 3M

Information on length composition of the thorny skate catches in Div. 3M is available only for July (Table XXXVII, Fig. 27), from 414 m to 647 m depth.

Due to the small sampling (3 samples, 39 fish measured) no conclusions are drawn about the lengths of the catch (mean length and weight of 52.4 cm and 1390 g).

2.1.32. Thorny skate Div. 3N

Information on length composition of the thorny skate catches in Div. 3N is available for August (Table XXXVIII, Fig. 28), from 45 m to 650 m depth.

Lengths between 50 cm and 78 cm dominated the catch, without a clear mode (mean length and weight of 61.0 cm and 2462 g).

2.1.33. Thorny skate Div. 3O

Information on length composition of the thorny skate catches in Div. 3O is available from May to July (Table XXXIX, Fig. 29), from 158 m to 491 m depth. The August sample (Table V) was not considered because it was too small, creating false peaks when raised to the total catches observed in that month.

Lengths between 70 cm and 84 cm dominated the catch, with a mode at 80 cm (mean length and weight of 72.8 cm and 3904 g).

2.1.34. Skate spp. Div. 3L

Information on length composition of the skate spp. catches in Div. 3L is available for July (Table XL, no figure), from 286 m to 340 m depth.

Because the sampling is very small, no comments are made on lengths.

2.1.35. Skate spp. Div. 3N

Information on length composition of the skate spp. catches in Div. 3N is available for August (Table XLI, no figure), from 279 m depth.

Because the sampling is very small, no comments are made on lengths.

2.1.36. Smooth skate Div. 3O

Information on length composition of the smooth skate catches in Div. 3O is available for August (Table XLII, no figure), from 295 m to 301 m depth.

The sampling is very small: 1 sample and 2 fishes measured with lengths of 62 cm and 64 cm.

2.1.36. Wolffish (*Anarhichas spp.*) Div. 3M

Information on length composition of the wolffish (*Anarhichas spp*.) catches in Div. 3M is available for July (Table XLIII, no figure), from 464 m to 472 m depth.

The sampling is very small: 1 sample and 1 fish measured with length of 29 cm.

2.1.36. Wolffish (*Anarhichas minor*) Div. 3M

Information on length composition of the wolffish (*Anarhichas minor*) catches in Div. 3M is available for July (Table XLIV, no figure), from 368 m to 467 m depth.

Lengths between 45 cm and 68 cm dominated the catch, with a mode at 51 cm (mean length and weight of 56.4 cm and 1881 g).

2.1.37. Pollock Div. 3L

Information on length composition of the pollock catches in Div. 3L is available for June (Table XLV, no figure), from 1206 m to 1295 m depth.

Lengths between 39 cm and 50 cm dominated the catch, without a clear mode (mean length and weight of 44.0 cm and 891 g).

2.1.38. Pollock Div. 3N

Information on length composition of the pollock catches in Div. 3N is available for August (Table XLVI, no figure), from 309 m to 650 m depth.

The sampling is very small: 3 samples and 4 fish measured with lengths of 49, 50 and 51 cm.

2.1.39. Pollock Div. 3O

Information on length composition of the pollock catches in Div. 3O is available for July (Table XLVII, no figure), from 294 m to 322 m depth.

The sampling is very small: 1 sample and 1 fish measured with length of 57 cm.

3. Acknowledgements

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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.

NOBLE, V.R., and CLARK, D. S., 2019. Seasonal length:weight relationships of the fish species caught by Fisheries and Oceans Canada Maritimes Region Ecosystem Surveys from 2001-2014 and deep water species from 2001-2017. Can. Data Rep. Fish. Aquat. Sci.1292: iv + 43 p.

VARGAS, J., ALPOIM, R., SANTOS, E. and ÁVILA de MELO, A. M. 2011. "Portuguese research report for 2010" NAFO SCS Doc. 11/05 Ser. No N5881, 54p.

VARGAS, J., ALPOIM, R., SANTOS, E. and ÁVILA de MELO, A. M. 2019. "Portuguese research report for 2018" NAFO SCS Doc. 19/09 Ser. No N6921, 32p.

VARGAS, J., ALPOIM, R., SANTOS, E. and ÁVILA de MELO, A. M. 2021. "Portuguese research report for 2020" NAFO SCS Doc. 21/05 Ser. No N7161, 24p.

TABLE I-A. PORTUGUESE NOMINAL TRAWL CATCHES (mt) IN NAFO AREA, 2021, 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

a) not extracted from Database STATLANT 21B, provisional

TABLE III. Portuguese trawl fishery cpue's and bycatch by month and division for 2021.

DIVISION	TARGET SPECIES	MONTH	DEPTH RANGE (m)		CPUE	MAIN BYCATCH		WITCH FLOUNDER	TOTAL
			MIN.	MAX.	(ton/hour)	SPECIES	%	BYCATCH (%)	BYCATCH (%)
3M	COD	JUN	347	445	4.055	RED	3.0	0.0	3.8
3M	COD	JUL	355	517	0.913	RED	13.8	0.0	16.0
3L	GHL	JUN	850	1390	0.736	RHG	8.1	0.0	11.6
3L	GHL	JUL	842	1247	0.807	RNG	0.8	0.0	2.0
3L	GHL	AUG	860	1294	0.490	RNG	8.1	0.0	16.4
3M	GHL	JUL	566	1204	0.669	RNG	5.2	0.0	8.6
3M	GHL	AUG	915	1120	0.354	RNG	13.4	0.0	28.0
3O	GHL	JUN	1010	1033	0.108	DGX	27.0	0.0	27.0
3L	RED	JUN	306	575	1.324	HAL	2.0	0.0	5.4
3L	RED	JUL	261	583	0.935	COD	7.8	0.0	12.6
3L	RED	AUG	252	331	0.442	CAT	4.5	0.3	19.8
3M	RED	JUL	250	655	1.050	COD	5.1	0.0	8.1
3N	RED	MAY	200	518	1.534	HAL	5.5	0.0	9.4
3N	RED	JUN	202	542	1.111	HAL	2.1	0.0	7.9
3N	RED	JUL	220	581	2.076	HAL	2.9	0.1	7.5
3N	RED	AUG	200	650	1.543	RHG	1.7	0.3	6.2
3O	RED	MAY	242	505	0.199	HKW	10.9	0.0	29.8

TABLE IV-A. GREENLAND HALIBUT TRAWL CATCH RATES, 1988-2021: 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	0.450	0.095	42.4							0.387	0.093	48.2	1988
1989	0.415	0.071	51.7							0.356	0.072	60.3	1989
1990	0.369	0.039	36.6	0.148			0.173			0.303	0.036	44.7	1990
1991	0.214	0.044	45.6				0.127	0.031	42.2	0.183	0.037	56.6	1991
1992	0.142	0.028	62.8				0.258	0.032	42.8	0.248	0.037	72.3	1992
1993	0.173	0.014	11.1				0.172	0.021	41.8	0.256	0.025	36.2	1993
1994	0.109	0.003	3.9				0.111	0.017	36.9	0.187	0.035	53.7	1994
1995	0.124	0.022	50.1	0.128	0.025	43.9	0.123	0.024	50.9	0.153	0.023	67.9	1995
1996	0.180	0.021	43.1	0.202	0.024	35.1	0.172	0.019	29.6	0.180	0.016	46.7	1996
1997	0.197	0.019	31.2	0.236	0.028	33.3	0.130	0.009	9.2	0.187	0.019	47.5	1997
1998	0.269	0.015	21.2	0.230	0.021	32.3	0.210	0.019	30.4	0.264	0.013	32.2	1998
1999	0.300	0.019	20.0	0.341	0.042	36.8	0.261	0.020	23.0	0.318	0.020	34.9	1999
2000	0.258	0.024	24.7	0.270	0.030	25.0	0.303	0.043	28.2	0.278	0.031	43.9	2000
2001	0.208	0.030	38.1	0.202	0.014	18.3	0.193	0.017	20.1	0.215	0.021	42.2	2001
2002	0.232	0.018	25.6	0.227	0.029	42.7	0.269	0.032	23.6	0.231	0.021	47.4	2002
2003	0.211	0.036	54.2	0.213	0.031	41.6	0.205	0.021	24.6	0.220	0.025	55.2	2003
2004	0.122	0.015	37.2	0.101	0.022	63.9	0.142	0.010	19.5	0.150	0.018	66.1	2004
2005	0.256	0.003	1.7	0.324	0.096	41.7				0.248	0.035	28.1	2005
2006	0.461	0.053	28.1	0.241	0.027	19.4				0.347	0.040	34.3	2006
2007	0.642	0.087	33.2	0.404	0.077	38.0				0.511	0.063	38.9	2007
2008	0.422	0.028	16.2	0.425	0.020	9.2				0.385	0.020	16.0	2008
2009	0.712	0.102	43.1	0.637	0.051	22.6				0.649	0.053	34.9	2009
2010	0.432	0.036	26.1	0.384	0.014	6.2	0.474			0.399	0.031	28.9	2010
2011	0.793	0.087	27.0	0.625	0.084	30.3				0.688	0.061	29.7	2011
2012	0.408	0.051	18.1	0.328						0.350	0.039	19.5	2012
2013	0.471	0.047	25.0	0.291	0.020	14.1	0.387	0.040	14.9	0.396	0.032	29.0	2013
2014	0.460	0.070	41.9	0.247	0.020	14.4	0.416	0.205	88.8	0.410	0.063	57.9	2014
2015	0.600	0.059	32.6	0.637	0.133	49.0				0.577	0.058	40.7	2015
2016	0.832	0.178	71.9	0.821						0.780	0.162	73.2	2016
2017	0.590	0.095	42.2	0.561	0.107	40.7				0.545	0.072	44.4	2017
2018	0.535	0.054	32.6	0.399	0.099	53.8				0.457	0.049	42.1	2018
2019	0.832	0.093	27.3	0.651						0.750	0.079	28.3	2019
2020	0.692	0.021	7.5	0.449	0.052	18.0				0.570	0.044	22.5	2020
2021	0.682	0.090	29.1	0.564	0.189	52.0				0.604	0.074	32.9	2021

TABLE IV-B. GREENLAND HALIBUT TRAWL CATCH RATES, 1988-2021 mean cpue's by division corrected for the year, month and vessel of each observation.

	CPUE	ST.ERROR	C.V.	
3L	0.393	0.010	42.3	3L
3M	0.322	0.009	34.3	3M
3N	0.209	0.008	38.4	3N
3LMNO	0.331	0.006	43.3	3LMNO

TABLE V. Intensity of the trawl sampling during 2021, by species, division and month.

SPECIES	DIV.	MONTH	Nº OF SAMPLES	Nº FISH MEASURED	SAMPLING WEIGHT(Kg)	OTOLITHS	
						Nº	LENGTH RANGE (cm)
COD	3L	JUN	2	27	57	21	42-81
COD	3L	JUL	6	121	195	83	30-111
COD	3L	AUG	4	118	68	59	29-64
COD	3M	JUN	7	489	1516	151	51-93
COD	3M	JUL	104	3617	12913	481	40-125
COD	3N	MAY	3	54	61	31	30-90
COD	3N	JUN	5	57	73	49	28-80
COD	3N	AUG	8	258	237	43	30-89
COD	3O	JUN	3	12	26	12	46-86
COD	3O	JUL	2	7	10	7	45-68
COD	3O	AUG	6	8	9	7	41-62
REDFISH (*S. mentella*)	3L	JUN	8	439	172	106	16-39
REDFISH (*S. mentella*)	3L	JUL	7	409	173	159	13-39
REDFISH (*S. mentella*)	3L	AUG	4	255	85	147	19-48
REDFISH (*S. mentella*)	3M	JUL	144	13949	7755	658	18-52
REDFISH (*S. mentella*)	3N	MAY	7	188	54	65	18-54
REDFISH (*S. mentella*)	3N	JUN	16	1037	303	157	20-56
REDFISH (*S. mentella*)	3N	JUL	8	989	284	159	20-37
REDFISH (*S. mentella*)	3N	AUG	13	1367	407	186	21-67
REDFISH (*S. mentella*)	3O	MAY	3	88	24	46	22-34
REDFISH (*S. mentella*)	3O	JUN	33	2228	552	191	18-36
REDFISH (*S. mentella*)	3O	JUL	5	469	98	131	16-34
REDFISH (*S. mentella*)	3O	AUG	41	2621	633	249	17-41
REDFISH (*S. norvegicus*)	3M	JUL	3	5	9	5	42-51
REDFISH (*S. norvegicus*)	3N	JUL	1	2	11	-	-
REDFISH (*S. norvegicus*)	3O	AUG	2	5	1	-	-
AMERICAN PLAICE	3L	JUL	3	52	15	35	27-46
AMERICAN PLAICE	3L	AUG	4	92	30	87	23-45
AMERICAN PLAICE	3M	JUL	6	18	22	18	34-65
AMERICAN PLAICE	3N	JUL	1	63	80	48	42-57
AMERICAN PLAICE	3N	AUG	4	243	170	139	26-65
AMERICAN PLAICE	3O	JUL	2	16	11	-	-
AMERICAN PLAICE	3O	AUG	12	72	46	15	25-50

TABLE V. Cont.

SPECIES	DIV.	MONTH	Nº OF SAMPLES	Nº FISH MEASURED	SAMPLING WEIGHT(Kg)	OTOLITHS Nº	OTOLITHS LENGTH RANGE (cm)
GREENLAND HALIBUT	3L	JUN	7	321	435	156	26-85
GREENLAND HALIBUT	3L	JUL	15	634	860	257	30-78
GREENLAND HALIBUT	3L	AUG	3	353	519	230	39-80
GREENLAND HALIBUT	3M	JUL	10	233	239	183	37-72
GREENLAND HALIBUT	3M	AUG	7	863	1355	308	36-97
GREENLAND HALIBUT	3N	JUN	1	11	7	10	35-49
GREENLAND HALIBUT	3N	JUL	2	27	11	-	-
GREENLAND HALIBUT	3N	AUG	3	109	63	16	26-68
GREENLAND HALIBUT	3O	JUL	2	14	4	-	-
GREENLAND HALIBUT	3O	AUG	7	34	53	-	-
YELLOWTAIL FLOUNDER	3N	AUG	4	350	146	129	24-47
ROUGHHEAD GRENADIER	3L	JUN	4	144	97	97	11.5-35.5
ROUGHHEAD GRENADIER	3L	JUL	5	45	35	11	13-32.5
ROUGHHEAD GRENADIER	3M	JUL	4	70	50	63	12.5-32
ROUGHHEAD GRENADIER	3N	JUN	1	25	21	25	12.5-28
ROUGHHEAD GRENADIER	3N	JUL	2	32	18	5	16.5-25.5
WITCH FLOUNDER	3L	JUL	1	2	1	-	-
WITCH FLOUNDER	3N	JUL	2	20	8	-	-
WITCH FLOUNDER	3N	AUG	1	19	13	-	-
WITCH FLOUNDER	3O	JUL	1	2	1	-	-
WITCH FLOUNDER	3O	AUG	9	21	7	-	-
WHITE HAKE	3O	JUN	6	235	271	-	-
WHITE HAKE	3O	JUL	2	237	195	-	-
WHITE HAKE	3O	AUG	29	507	467	29	22-90
SILVER HAKE	3N	AUG	1	123	21	-	-
SILVER HAKE	3O	JUN	3	199	36	-	-
SILVER HAKE	3O	JUL	1	166	32	-	-
SILVER HAKE	3O	AUG	17	1869	390	64	25-61
RED HAKE	3M	JUL	1	7	39	-	-

TABLE V. Cont.

SPECIES	DIV.	MONTH	Nº OF SAMPLES	Nº FISH MEASURED	SAMPLING WEIGHT(Kg)	OTOLITHS	
						Nº	LENGTH RANGE (cm)
THORNY SKATE (*Amblyraja radiata*)	3M	JUL	3	39	58	-	-
THORNY SKATE (*Amblyraja radiata*)	3N	AUG	8	573	1506	-	-
THORNY SKATE (*Amblyraja radiata*)	3O	MAY	2	34	132	-	-
THORNY SKATE (*Amblyraja radiata*)	3O	JUN	3	70	262	-	-
THORNY SKATE (*Amblyraja radiata*)	3O	JUL	1	23	85	-	-
THORNY SKATE (*Amblyraja radiata*)	3O	AUG	2	3	11	-	-
SKATE (unidentified)	3L	JUL	1	7	20	-	-
SKATE (unidentified)	3N	AUG	1	18	32	-	-
SMOOTH SKATE (Malacoraja senta)	3O	AUG	1	2	1	-	-
WOLFFISH (*Anarhichas spp.*)	3M	JUL	1	1	0.2	1	29-29
WOLFFISH (*Anarhichas minor*)	3M	JUL	2	37	69	-	-
POLLOCK	3L	JUN	1	27	24	-	-
POLLOCK	3N	AUG	3	4	6	2	49-51
POLLOCK	3O	AUG	1	1	2	1	57-57

TABLE VI. Length-weight relationship by species, stock and sex in 2021.

Species	Stock	Sex	a	b	n	*r2*	Length interval (cm)	Ref.
COD	2J3KL	T	0.0107	2.9717	266	0.995	24-111	
COD	3M	T	0.0050	3.1437	3721	0.994	19-125	
COD	3NO	T	0.0105	2.9747	394	0.971	18-90	
GHL	2J3KLMNO	F	0.0027	3.2907	1897	0.994	26-97	
GHL	2J3KLMNO	M	0.0033	3.2254	692	0.993	21-64	
GHL	2J3KLMNO	T	0.0025	3.3073	2590	0.995	21-97	
WIT	3NO	F	0.0010	3.5143	24	0.969	32-50	
WIT	3NO	M	0.0001	4.1114	32	0.989	28-46	
WIT	3NO	T	0.0002	3.9234	56	0.985	28-50	
PLA	3LNO	F	0.0023	3.3720	406	0.994	23-65	
PLA	3LNO	M	0.0177	2.7867	120	0.965	19-45	
PLA	3LNO	T	0.0046	3.1921	526	0.987	19-65	
YEL	3LNO	F	0.0081	3.0076	226	0.989	19-47	
YEL	3LNO	M	0.0058	3.1069	124	0.990	22-41	
YEL	3LNO	T	0.0083	3.0018	350	0.993	19-47	
SKA	3LMNO	F	0.1865	2.4786	6	0.997	34-52	
SKA	3LMNO	M	0.0250	2.9818	19	0.991	29-56	
SKA	3LMNO	T	0.0252	2.9855	25	0.990	29-56	
RHG	3LMNO	F	0.0912	2.9824	140	0.994	11.5-35.5	
RHG	3LMNO	M	0.4072	2.4784	175	0.946	9.5-23	
RHG	3LMNO	T	0.1762	2.7794	316	0.982	9.5-35.5	
REB	3LN	F	0.0122	3.0710	1290	0.996	12-67	
REB	3LN	M	0.0079	3.1948	1575	0.997	12-56	
REB	3LN	T	0.0093	3.1521	2867	0.997	12-67	
REB	3M	F	0.0221	2.8847	1404	0.995	18-52	
REB	3M	M	0.0208	2.8890	2336	0.995	18-44	
REB	3M	T	0.0191	2.9225	3742	0.996	18-52	
REB	3O	F	0.0336	2.7395	1977	0.986	18-41	
REB	3O	M	0.0259	2.8193	1912	0.995	14-40	
REB	3O	T	0.0316	2.7569	3889	0.992	14-41	
HKW	3LMNO	F	0.0012	3.4690	152	0.992	25-90	
HKW	3LMNO	M	0.0017	3.3604	132	0.990	25-74	
HKW	3LMNO	T	0.0021	3.3145	917	0.992	18-108	
HKS	3LMNO	F	0.0034	3.1971	593	0.993	24-61	
HKS	3LMNO	M	0.0043	3.1171	475	0.994	22-36	
HKS	3LMNO	T	0.0017	3.3950	1868	0.991	20-61	
RJR	3LMNO	F	0.0088	3.0139	332	0.996	32-91	
RJR	3LMNO	M	0.0046	3.1642	366	0.989	14-100	
RJR	3LMNO	T	0.0054	3.1294	698	0.995	14-100	
POK	3LMNO	F	0.0003	3.9374	23	0.988	40-51	
POK	3LMNO	M	0.0066	3.1177	8	0.879	39-50	
POK	3LMNO	T	0.0006	3.7385	32	0.991	39-57	
CAS/CAT	3LMNO	F	0.0046	3.1724	21	0.987	44-79	
CAS/CAT	3LMNO	M	0.0021	3.3640	16	0.990	31-81	
CAS/CAT	3LMNO	T	0.0024	3.3358	37	0.993	31-81	

TABLE VI. Cont.

Species	Stock	Sex	a	b	n	*r2*	Length interval (cm)	Ref.
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
REG	3LN	F	0.0194	2.8953	170	0.994	26-39	SCS 19/09
REG	3LN	M	0.0166	2.9369	112	0.974	24-34	SCS 19/09
REG	3LN	T	0.0191	2.8993	282	0.995	24-39	SCS 19/09
REG	3M	F	0.0041	3.3200	194	0.987	23-48	SCS 19/09
REG	3M	M	0.0558	2.5843	176	0.799	21-44	SCS 19/09
REG	3M	T	0.0202	2.8812	370	0.890	21-48	SCS 19/09
REG	3O	F	0.0011	3.7105	197	0.989	20-40	SCS 11/05
REG	3O	M	0.0010	3.7430	142	0.985	19-36	SCS 11/05
REG	3O	T	0.0013	3.6821	339	0.990	19-40	SCS 11/05
Other length-weight relationships								
HKR	3LMNO	T	0.0048	3.1980	3640	0.990	Max length - 56cm	Noble, V.R., and Clark, D. S., 2019
RJS	3LMNO	T	0.0041	3.0320	1119	0.990	Max length - 72cm	Noble, V.R., and Clark, D. S., 2019

TABLE VII. COD, DIV. 3L, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUN	JUL	AUG	2nd Q.	3rd Q.	YEAR	LENGTH GROUP
24			30.2		3.1	2.8	24
27			83.7		8.6	7.8	27
30		24.8	141.1		36.8	33.3	30
33		106.8	181.8		114.5	103.7	33
36		92.1	212.1		104.4	94.6	36
39		100.5	180.8		108.7	98.4	39
42	26.9	129.0	105.4	26.9	126.6	117.1	42
45	13.4	188.2	29.8	13.4	171.9	156.9	45
48	17.9	41.9	7.5	17.9	38.3	36.4	48
51	189.3		7.5	189.3	0.8	18.6	51
54	4.5	15.8	8.1	4.5	15.0	14.0	54
57	4.5	80.4	3.8	4.5	72.5	66.1	57
60		21.1	4.4		19.4	17.5	60
63		26.3	3.8		24.0	21.7	63
66	184.8	31.5		184.8	28.3	43.1	66
69		21.1			18.9	17.1	69
72		36.8			33.1	29.9	72
75	374.0	5.2		374.0	4.7	39.6	75
78		20.9			18.7	17.0	78
81	184.8			184.8		17.5	81
84		15.8			14.1	12.8	84
87		21.0			18.8	17.0	87
90		5.2			4.7	4.2	90
93		10.5			9.5	8.6	93
96							96
99							99
102							102
105							105
108							108
111		5.2			4.7	4.2	111
TOTAL	1000	1000	1000	1000	1000	1000	
No. SAMPLES	2	6	4	2	10	12	
SAMPLING WEIGHT(kg)	57	195	68	57	262	320	
No. F.MEASURED	27	121	118	27	239	266	
MEAN LENGTH(cm)	69.5	50.6	37.1	69.5	49.2	51.2	
MEAN WEIGHT (g)	3421	1622	531	3421	1510	1690	
DEPTH RANGE (m)	306/575	261/583	256/331	306/575	256/583	256/583	

TABLE VIII. COD, DIV. 3M, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUN	JUL	2nd Q.	3rd Q.	YEAR	LENGTH GROUP
18		0.3		0.3	0.2	18
21						21
24						24
27						27
30						30
33						33
36						36
39		1.1		1.1	0.7	39
42		5.1		5.1	3.1	42
45		8.3		8.3	5.0	45
48		3.3		3.3	2.0	48
51	2.4	4.0	2.4	4.0	3.4	51
54	7.2	11.1	7.2	11.1	9.6	54
57	68.9	42.8	68.9	42.8	53.0	57
60	123.1	83.3	123.1	83.3	98.8	60
63	166.5	130.6	166.5	130.6	144.6	63
66	199.1	139.3	199.1	139.3	162.6	66
69	150.8	135.0	150.8	135.0	141.1	69
72	117.8	130.7	117.8	130.7	125.7	72
75	48.9	93.7	48.9	93.7	76.2	75
78	43.5	72.4	43.5	72.4	61.1	78
81	27.0	39.2	27.0	39.2	34.4	81
84	17.1	38.1	17.1	38.1	29.9	84
87	16.6	22.0	16.6	22.0	19.9	87
90	8.0	25.4	8.0	25.4	18.6	90
93	3.1	6.3	3.1	6.3	5.0	93
96		3.4		3.4	2.1	96
99		2.9		2.9	1.7	99
102		0.5		0.5	0.3	102
105		0.3		0.3	0.2	105
108		0.4		0.4	0.2	108
111		0.2		0.2	0.1	111
114		0.2		0.2	0.1	114
117						117
120		0.1		0.1	0.04	120
123		0.2		0.2	0.1	123
TOTAL	1000	1000	1000	1000	1000	
No. SAMPLES	7	104	7	104	111	
SAMPLING WEIGHT(kg)	1516	12913	1516	12913	14429	
No. F.MEASURED	489	3617	489	3617	4106	
MEAN LENGTH(cm)	69.0	71.3	69.0	71.3	70.4	
MEAN WEIGHT (g)	3161	3580	3161	3580	3417	
DEPTH RANGE (m)	347/445	262/647	347/445	262/647	262/647	

TABLE IX. COD, DIV. 3N, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	MAY	JUN	AUG	2nd Q.	3rd Q.	YEAR	LENGTH GROUP
18			3.0		3.0	1.0	18
21							21
24							24
27		64.3	16.6	49.5	16.6	38.9	27
30	19.3	104.1	55.7	84.6	55.7	75.3	30
33	208.0	58.8	160.5	93.1	160.5	114.8	33
36	38.6	41.7	157.3	40.9	157.3	78.5	36
39	28.9	103.4	160.4	86.3	160.4	110.2	39
42	125.3	264.0	107.2	232.1	107.2	191.8	42
45	57.8	58.8	67.8	58.5	67.8	61.5	45
48	128.1	60.6	61.7	76.1	61.7	71.5	48
51	28.9	8.6	19.6	13.3	19.6	15.3	51
54	19.3	121.2	36.7	97.8	36.7	78.1	54
57	198.4	17.2	57.5	58.8	57.5	58.4	57
60	28.9	1.8	50.6	8.0	50.6	21.8	60
63	9.6	1.8	11.4	3.6	11.4	6.1	63
66	99.2	81.4	3.7	85.5	3.7	59.1	66
69		7.1	4.5	5.4	4.5	5.1	69
72			3.0		3.0	1.0	72
75			1.9		1.9	0.6	75
78		5.3	12.9	4.1	12.9	6.9	78
81			1.9		1.9	0.6	81
84			3.0		3.0	1.0	84
87			3.0		3.0	1.0	87
90	9.6			2.2		1.5	90
TOTAL	1000	1000	1000	1000	1000	1000	
No. SAMPLES	3	5	8	8	8	16	
SAMPLING WEIGHT(kg)	61	73	237	134	237	371	
No. F.MEASURED	54	57	258	111	258	369	
MEAN LENGTH(cm)	49.1	44.9	44.0	45.9	44.0	45.3	
MEAN WEIGHT (g)	1313	1018	970	1086	970	1049	
DEPTH RANGE (m)	236/465	202/412	262/650	202/465	262/650	202/650	

TABLE X. COD, DIV. 3O, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUN	JUL	AUG	2nd Q.	3rd Q.	YEAR	LENGTH GROUP
39			1.6		1.6	1.6	39
42							42
45	166.4	258.9	32.7	166.4	34.3	34.8	45
48	256.9	223.3	237.5	256.9	237.4	237.5	48
51	153.5	258.9	394.4	153.5	393.4	392.6	51
54		223.3	333.2		332.5	331.3	54
57							57
60			0.5		0.5	0.5	60
63	256.9			256.9		0.9	63
66		35.6			0.3	0.3	66
69							69
72	83.2			83.2		0.3	72
75							75
78							78
81							81
84	83.2			83.2		0.3	84
TOTAL	1000	1000	1000	1000	1000	1000	
No. SAMPLES	3	2	6	3	8	11	
SAMPLING WEIGHT(kg)	26	10	9	26	19	45	
No. F.MEASURED	12	7	8	12	15	27	
MEAN LENGTH(cm)	58.3	51.5	52.6	58.3	52.6	52.6	
MEAN WEIGHT (g)	2107	1321	1383	2107	1383	1386	
DEPTH RANGE (m)	286/393	260/356	125/510	286/393	125/510	125/510	

TABLE XI. REDFISH (*S. mentella*), DIV. 3L, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUN	JUL	AUG	2nd Q.	3rd Q.	YEAR	LENGTH GROUP
12		9.8			8.8	5.5	12
13		6.4			5.8	3.6	13
14							14
15		1.8	2.6		1.9	1.2	15
16	2.3			2.3		0.8	16
17	2.3	1.8		2.3	1.6	1.9	17
18	2.3	8.2	2.6	2.3	7.6	5.6	18
19	2.3	4.5	10.5	2.3	5.1	4.0	19
20	2.7	18.9	34.0	2.7	20.5	13.9	20
21	35.2	16.5	49.7	35.2	20.0	25.7	21
22	25.9	10.7	52.3	25.9	15.1	19.1	22
23	46.9	20.0	44.7	46.9	22.6	31.6	23
24	59.7	30.8	48.4	59.7	32.6	42.7	24
25	92.1	72.3	77.1	92.1	72.8	80.0	25
26	97.9	76.9	87.5	97.9	78.0	85.4	26
27	91.5	54.0	108.5	91.5	59.7	71.5	27
28	87.0	95.5	121.7	87.0	98.3	94.1	28
29	77.9	50.5	87.6	77.9	54.4	63.1	29
30	68.4	114.6	113.3	68.4	114.5	97.4	30
31	88.1	51.1	37.5	88.1	49.7	64.0	31
32	38.7	62.5	45.0	38.7	60.7	52.5	32
33	70.2	87.2	25.9	70.2	80.7	76.8	33
34	51.3	78.4	19.3	51.3	72.2	64.4	34
35	38.1	72.6	13.4	38.1	66.4	55.9	35
36	7.1	19.3	13.4	7.1	18.7	14.4	36
37	7.2	21.7		7.2	19.4	14.9	37
38	2.3	9.0		2.3	8.0	5.9	38
39	2.7	4.8		2.7	4.3	3.7	39
40							40
41							41
42							42
43							43
44							44
45							45
46							46
47							47
48			5.3		0.6	0.4	48
TOTAL	1000	1000	1000	1000	1000	1000	
No. SAMPLES	8	7	4	8	11	19	
SAMPLING WEIGHT(kg)	172	173	85	172	257	429	
No. F.MEASURED	439	409	255	439	664	1103	
MEAN LENGTH(cm)	28.7	29.7	27.6	28.7	29.5	29.2	
MEAN WEIGHT (g)	386	438	348	386	429	413	
DEPTH RANGE (m)	306/575	261/583	256/331	306/575	256/583	256/583	

TABLE XII. REDFISH (*S. mentella*), DIV. 3M, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUL YEAR	LENGTH GROUP
18	0.1	18
19	0.4	19
20	2.3	20
21	2.9	21
22	1.3	22
23	1.4	23
24	4.1	24
25	9.9	25
26	13.0	26
27	26.9	27
28	49.2	28
29	62.2	29
30	91.9	30
31	109.9	31
32	123.5	32
33	124.8	33
34	111.5	34
35	80.3	35
36	63.5	36
37	50.9	37
38	32.8	38
39	20.7	39
40	10.0	40
41	2.6	41
42	1.7	42
43	1.0	43
44	0.7	44
45	0.3	45
46		46
47		47
48		48
49		49
50		50
51		51
52	0.02	52
TOTAL	1000	
No. SAMPLES	144	
SAMPLING WEIGHT(kg)	7755	
No. F.MEASURED	13949	
MEAN LENGTH(cm)	33.0	
MEAN WEIGHT (g)	533	
DEPTH RANGE (m)	270/647	

TABLE XIII. REDFISH (*S. mentella*), DIV. 3N, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	MAY	JUN	JUL	AUG	2nd Q.	3rd Q.	YEAR	LENGTH GROUP
15		2.3			1.7		0.9	15
16		0.8			0.6		0.3	16
17								17
18	11.0				2.9		1.6	18
19	36.5	1.2			10.6		5.9	19
20	16.8	4.1	2.3		7.5	0.5	4.4	20
21	28.5	11.8	15.8	1.7	16.2	4.5	11.0	21
22	159.8	58.0	71.5	14.1	85.0	25.5	58.5	22
23	204.8	101.5	113.0	65.8	128.9	75.2	104.9	23
24	141.9	166.2	139.7	141.3	159.7	140.9	151.3	24
25	99.2	166.9	139.6	145.2	148.9	144.1	146.8	25
26	98.7	109.6	116.9	108.1	106.7	109.8	108.1	26
27	58.4	94.7	101.3	101.3	85.1	101.3	92.3	27
28	26.5	79.7	78.5	87.2	65.6	85.5	74.4	28
29	50.2	58.7	42.7	104.5	56.4	92.3	72.4	29
30	20.9	71.1	42.1	72.9	57.8	66.8	61.8	30
31	8.3	25.1	25.7	52.0	20.7	46.8	32.3	31
32	14.3	25.0	35.8	32.8	22.1	33.4	27.2	32
33	3.3	13.7	30.6	34.0	11.0	33.3	20.9	33
34	6.7	4.2	13.0	31.1	4.8	27.5	14.9	34
35	6.6	1.8	17.4	4.4	3.1	7.0	4.8	35
36				1.0		0.8	0.3	36
37	3.3		8.6	2.0	0.9	3.3	2.0	37
38			5.7			1.1	0.5	38
39		1.9			1.4		0.8	39
40								40
41								41
42								42
43								43
44								44
45								45
46								46
47								47
48								48
49								49
50								50
51								51
52								52
53								53
54	4.0				1.1		0.6	54
55								55
56		1.8			1.3		0.7	56
57								57
58								58
59								59
60								60
61								61
62								62
63								63
64								64
65								65
66								66
67				0.5		0.4	0.2	67
TOTAL	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	7	16	8	13	23	21	44	
SAMPLING WEIGHT(kg)	54	303	284	407	357	691	1048	
No. F.MEASURED	188	1037	989	1367	1225	2356	3581	
MEAN LENGTH(cm)	25.0	26.6	26.9	27.7	26.2	27.6	26.8	
MEAN WEIGHT (g)	256	299	314	341	288	336	309	
DEPTH RANGE (m)	200/422	233/440	220/581	230/650	200/440	220/650	200/650	

TABLE XIV. REDFISH (*S. mentella*), DIV. 3O, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	MAY	JUN	JUL	AUG	2nd Q.	3rd Q.	YEAR	LENGTH GROUP
14				0.5		0.5	0.3	14
15								15
16			0.2	0.1		0.1	0.04	16
17				1.7		1.6	0.9	17
18		0.1	0.2	0.7	0.1	0.6	0.4	18
19		1.3	2.0	25.3	1.2	23.8	13.5	19
20		12.2	19.2	39.1	10.8	37.8	25.5	20
21		26.5	71.7	79.0	23.5	78.5	53.5	21
22	21.7	79.5	168.4	122.5	72.9	125.6	101.6	22
23	231.5	141.7	179.5	112.2	151.9	116.6	132.7	23
24	171.8	200.6	146.2	139.0	197.3	139.4	165.8	24
25	176.0	154.7	117.6	118.9	157.2	118.8	136.3	25
26	158.3	143.9	158.9	108.9	145.5	112.1	127.3	26
27	127.1	98.0	48.4	106.1	101.3	102.3	101.9	27
28	13.9	69.2	61.1	52.2	62.9	52.8	57.4	28
29	33.2	38.0	10.7	47.8	37.5	45.4	41.8	29
30	43.1	25.0	8.2	14.3	27.1	13.9	19.9	30
31		4.0	7.5	13.9	3.5	13.5	8.9	31
32	21.3	2.3		6.9	4.5	6.4	5.5	32
33		1.5		5.8	1.3	5.5	3.6	33
34	2.0	0.9	0.2	0.2	1.0	0.2	0.6	34
35		0.2		0.2	0.1	0.2	0.2	35
36		0.4		1.3	0.3	1.2	0.8	36
37								37
38				1.1		1.1	0.6	38
39								39
40				2.0		1.9	1.0	40
41				0.03		0.02	0.01	41
TOTAL	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	3	33	5	41	36	46	82	
SAMPLING WEIGHT(kg)	24	552	98	633	575	731	1306	
No. F.MEASURED	88	2228	469	2621	2316	3090	5406	
MEAN LENGTH(cm)	25.8	25.5	24.7	25.1	25.5	25.0	25.3	
MEAN WEIGHT (g)	251	243	222	236	244	235	239	
DEPTH RANGE (m)	315/469	236/657	170/356	125/590	236/657	125/590	125/657	

TABLE XV. REDFISH (*S. norvegicus*), DIV. 3M, 2021 length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUL =YEAR	LENGTH GROUP
42	280.87	42
43		43
44		44
45		45
46		46
47	379.82	47
48		48
49		49
50		50
51	339.31	51
TOTAL	1000	
No. SAMPLES	3	
SAMPLING WEIGHT(kg)	9	
No. F.MEASURED	5	
MEAN LENGTH(cm)	47.5	
MEAN WEIGHT (g)	1502	
DEPTH RANGE (m)	395/442	

TABLE XVI. REDFISH (*S. norvegicus*), DIV. 3N, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUL =YEAR	LENGTH GROUP
60	500.0	60
61		61
62		62
63		63
64		64
65		65
66	500.0	66
TOTAL	1000	
No. SAMPLES	1	
SAMPLING WEIGHT(kg)	11	
No. F.MEASURED	2	
MEAN LENGTH(cm)	63.5	
MEAN WEIGHT (g)	3233	
DEPTH RANGE (m)	381/435	

TABLE XVII. REDFISH (*S. norvegicus*), DIV. 3O, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	AUG =YEAR	LENGTH GROUP
22	400.0	22
23	400.0	23
24		24
25	200.0	25
TOTAL	1000	
No. SAMPLES	2	
SAMPLING WEIGHT(kg)	1	
No. F.MEASURED	5	
MEAN LENGTH(cm)	23.5	
MEAN WEIGHT (g)	141	
DEPTH RANGE (m)	300/450	

TABLE XVIII. AMERICAN PLAICE, DIV. 3L, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUL	AUG	3rd Q. =YEAR	LENGTH GROUP
22		12.4	10.9	22
24				24
26	93.4	12.4	22.2	26
28	144.9	80.4	88.2	28
30	259.7	172.2	182.8	30
32	251.2	245.6	246.3	32
34	144.9	127.5	129.6	34
36	32.2	284.7	254.0	36
38	16.1	38.7	35.9	38
40				40
42		13.9	12.2	42
44		12.4	10.9	44
46	16.1		2.0	46
48				48
50	41.3		5.0	50
TOTAL	1000	1000	1000	
No. SAMPLES	3	4	7	
SAMPLING WEIGHT(kg)	15	30	45	
No. F.MEASURED	52	92	144	
MEAN LENGTH(cm)	32.8	34.0	33.9	
MEAN WEIGHT (g)	329	350	347	
DEPTH RANGE (m)	261/403	256/331	256/403	

TABLE XIX. AMERICAN PLAICE, DIV. 3M, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUL =YEAR	LENGTH GROUP
34	4.1	34
36		36
38		38
40	191.1	40
42		42
44	205.1	44
46	106.8	46
48	103.8	48
50	95.5	50
52	6.9	52
54	95.5	54
56		56
58		58
60	95.5	60
62		62
64	95.5	64
TOTAL	1000	
No. SAMPLES	6	
SAMPLING WEIGHT(kg)	22	
No. F.MEASURED	18	
MEAN LENGTH(cm)	49.8	
MEAN WEIGHT (g)	1544	
DEPTH RANGE (m)	283/568	

TABLE XX. AMERICAN PLAICE, DIV. 3N, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUL	AUG	3rd Q. =YEAR	LENGTH GROUP
24		11.3	9.6	24
26		34.8	29.4	26
28		32.4	27.5	28
30		12.8	10.9	30
32		43.2	36.6	32
34		96.3	81.6	34
36		85.5	72.5	36
38		143.0	121.2	38
40		100.0	84.7	40
42	31.7	131.2	116.0	42
44	63.5	85.4	82.0	44
46	158.7	59.0	74.2	46
48	254.0	73.4	101.0	48
50	222.2	34.9	63.5	50
52	190.5	8.4	36.1	52
54	15.9	15.9	15.9	54
56	63.5	8.4	16.8	56
58		3.8	3.2	58
60		7.5	6.4	60
62		9.2	7.8	62
64		3.8	3.2	64
TOTAL	1000	1000	1000	
No. SAMPLES	1	3	4	
SAMPLING WEIGHT(kg)	80	162	242	
No. F.MEASURED	63	233	296	
MEAN LENGTH(cm)	50.0	41.1	42.5	
MEAN WEIGHT (g)	1249	711	793	
DEPTH RANGE (m)	338/339	54/62	54/339	

TABLE XXI. AMERICAN PLAICE, DIV. 3O, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUL	AUG	3rd Q. =YEAR	LENGTH GROUP
22	190.5	22.1	28.0	22
24		23.5	22.7	24
26		5.8	5.6	26
28				28
30		28.3	27.3	30
32		11.4	11.0	32
34		15.3	14.7	34
36	231.3	60.8	66.7	36
38		61.1	59.0	38
40	346.9	92.5	101.3	40
42		476.2	459.6	42
44	95.3	159.2	156.9	44
46		16.5	15.9	46
48				48
50	95.3	26.2	28.6	50
52	20.4		0.7	52
54	20.4	1.2	1.8	54
TOTAL	1000	1000	1000	
No. SAMPLES	2	12	14	
SAMPLING WEIGHT(kg)	11	46	57	
No. F.MEASURED	16	72	88	
MEAN LENGTH(cm)	38.5	41.3	41.2	
MEAN WEIGHT (g)	591	673	671	
DEPTH RANGE (m)	260/356	213/510	213/510	

TABLE XXII. GREENLAND HALIBUT, DIV. 3L, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUN	JUL	AUG	2nd Q.	3rd Q.	YEAR	LENGTH GROUP
22		1.6			1.4	0.9	22
24		2.2			1.9	1.2	24
26	8.8	1.1		8.8	1.0	3.9	26
28							28
30	4.4	4.3		4.4	3.8	4.0	30
32	4.4			4.4		1.7	32
34		12.0			10.5	6.5	34
36	11.6	16.8		11.6	14.8	13.6	36
38	24.1	60.3	2.1	24.1	53.2	42.2	38
40	20.6	67.3	21.5	20.6	61.8	46.1	40
42	52.9	69.0	35.3	52.9	64.9	60.3	42
44	62.6	81.5	60.7	62.6	79.0	72.8	44
46	85.8	75.3	48.4	85.8	72.1	77.3	46
48	86.3	94.9	88.1	86.3	94.1	91.1	48
50	133.8	78.0	33.6	133.8	72.7	96.0	50
52	119.0	78.0	80.1	119.0	78.2	93.8	52
54	102.3	62.3	115.5	102.3	68.8	81.5	54
56	75.5	82.1	116.7	75.5	86.3	82.2	56
58	56.8	62.6	63.0	56.8	62.6	60.4	58
60	45.9	77.6	89.8	45.9	79.1	66.4	60
62	50.6	25.1	83.2	50.6	32.1	39.2	62
64	22.9	27.0	53.0	22.9	30.2	27.4	64
66	9.5	3.1	13.5	9.5	4.3	6.3	66
68	6.9	7.2	16.0	6.9	8.3	7.8	68
70		1.3	16.5		3.2	2.0	70
72	6.7	2.3	30.5	6.7	5.7	6.1	72
74	1.9	1.0	5.0	1.9	1.5	1.6	74
76		2.9	11.0		3.9	2.4	76
78		0.4	11.0		1.7	1.0	78
80		1.9	5.5		2.3	1.5	80
82	4.4			4.4		1.7	82
84	2.3			2.3		0.9	84
86		0.5			0.4	0.3	86
88		0.5			0.4	0.2	88
TOTAL	1000	1000	1000	1000	1000	1000	
No. SAMPLES	7	15	3	7	18	25	
SAMPLING WEIGHT(kg)	435	860	519	435	1379	1814	
No. F.MEASURED	321	634	353	321	987	1308	
MEAN LENGTH(cm)	52.3	50.7	56.6	52.3	51.5	51.8	
MEAN WEIGHT (g)	1294	1193	1687	1294	1252	1268	
DEPTH RANGE (m)	1109/1220	286/1390	1070/1279	1109/1220	286/1390	286/1390	

TABLE XXIII. GREENLAND HALIBUT, DIV. 3M, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUL	AUG	3rd Q. =YEAR	LENGTH GROUP
34	5.0		3.1	34
36	0.3	1.9	0.9	36
38	27.1	9.4	20.4	38
40	77.7	29.0	59.1	40
42	123.5	37.5	90.7	42
44	112.4	65.4	94.4	44
46	190.4	91.3	152.6	46
48	143.2	74.7	117.0	48
50	101.7	76.6	92.1	50
52	86.4	75.5	82.3	52
54	34.9	78.3	51.5	54
56	29.5	60.1	41.2	56
58	28.4	66.4	42.9	58
60	7.8	73.3	32.8	60
62	10.5	67.8	32.4	62
64	2.7	46.7	19.5	64
66	2.9	49.1	20.5	66
68	13.0	26.5	18.2	68
70		21.8	8.3	70
72	2.7	10.9	5.8	72
74		10.4	4.0	74
76		8.4	3.2	76
78		7.1	2.7	78
80		2.0	0.8	80
82		2.9	1.1	82
84				84
86		2.2	0.9	86
88				88
90		1.2	0.4	90
92		1.1	0.4	92
94		1.2	0.5	94
96		1.2	0.4	96
TOTAL	1000	1000	1000	
No. SAMPLES	10	7	17	
SAMPLING WEIGHT(kg)	239	1355	1594	
No. F.MEASURED	233	863	1096	
MEAN LENGTH(cm)	48.4	56.0	51.3	
MEAN WEIGHT (g)	976	1666	1239	
DEPTH RANGE (m)	359/1183	915/1120	359/1183	

TABLE XXIV. GREENLAND HALIBUT, DIV. 3N, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUN	JUL	AUG	2nd Q.	3rd Q.	YEAR	LENGTH GROUP
22		148.1			0.5	0.5	22
24		74.1			0.3	0.2	24
26			5.2		5.2	4.5	26
28			54.9		54.7	46.7	28
30		185.2			0.7	0.6	30
32			65.4		65.2	55.7	32
34	90.9	37.0	120.4	90.9	120.1	115.8	34
36	181.8	74.1	233.0	181.8	232.4	225.0	36
38	90.9	37.0	186.1	90.9	185.5	171.7	38
40	272.7	333.3	89.2	272.7	90.1	116.7	40
42	181.8		104.9	181.8	104.5	115.8	42
44		74.1	62.9		63.0	53.8	44
46	90.9		15.7	90.9	15.7	26.7	46
48	90.9	37.0	15.7	90.9	15.8	26.8	48
50			5.2		5.2	4.5	50
52							52
54							54
56			5.2		5.2	4.5	56
58							58
60							60
62							62
64							64
66							66
68			35.9		35.8	30.6	68
TOTAL	1000	1000	1000	1000	1000	1000	
No. SAMPLES	1	2	3	1	5	6	
SAMPLING WEIGHT(kg)	7	11	63	7	73	80	
No. F.MEASURED	11	27	109	11	136	147	
MEAN LENGTH(cm)	41.2	35.3	39.5	41.2	39.5	39.8	
MEAN WEIGHT (g)	566	387	549	566	548	551	
DEPTH RANGE (m)	402/402	379/435	262/453	402/402	262/453	262/453	

TABLE XXV. GREENLAND HALIBUT, DIV. 3O, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUL	AUG	3rd Q. YEAR	LENGTH GROUP
20	71.4	32.7	40.0	20
22	71.4	10.9	22.3	22
24	71.4		13.4	24
26	71.4		13.4	26
28		272.7	221.6	28
30	71.4		13.4	30
32	71.4	16.2	26.6	32
34	214.3	21.8	57.9	34
36	357.1		66.9	36
38		43.6	35.5	38
40		21.8	17.7	40
42		16.2	13.2	42
44				44
46		21.8	17.7	46
48		43.6	35.5	48
50		32.7	26.6	50
52		65.5	53.2	52
54		155.3	126.2	54
56		38.0	30.9	56
58		21.8	17.7	58
60		16.2	13.2	60
62				62
64		16.2	13.2	64
66		87.3	70.9	66
68				68
70				70
72		21.8	17.7	72
74				74
76				76
78				78
80				80
82				82
84		43.6	35.5	84
TOTAL	1000	1000	1000	
No. SAMPLES	2	7	9	
SAMPLING WEIGHT(kg)	4	53	57	
No. F.MEASURED	14	34	48	
MEAN LENGTH(cm)	32.1	46.9	44.2	
MEAN WEIGHT (g)	268	1249	1066	
DEPTH RANGE (m)	260/356	323/510	260/510	

TABLE XXVI. YELLOWTAIL FLOUNDER, DIV. 3N, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	AUG =YEAR	LENGTH GROUP
18	1.9	18
20		20
22	1.9	22
24	12.2	24
26	8.8	26
28	50.2	28
30	76.5	30
32	120.3	32
34	169.3	34
36	179.8	36
38	173.3	38
40	122.4	40
42	56.5	42
44	16.9	44
46	10.1	46
TOTAL	1000	
No. SAMPLES	4	
SAMPLING WEIGHT(kg)	146	
No. F.MEASURED	350	
MEAN LENGTH(cm)	36.4	
MEAN WEIGHT (g)	422	
DEPTH RANGE (m)	48/62	

TABLE XXVII. ROUGHHEAD GRENADIER, DIV. 3L, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUN =2nd Q.	JUL =3rd Q.	YEAR	LENGTH GROUP
9		53.5	1.6	9
10	7.0	53.5	8.4	10
11	14.0		13.6	11
12	14.0		13.6	12
13	93.1	180.7	95.7	13
14	118.3	20.1	115.3	14
15	126.1	168.9	127.4	15
16	121.0	46.8	118.7	16
17	129.3	10.0	125.7	17
18	110.5		107.2	18
19	55.4	79.9	56.1	19
20	43.4	53.5	43.7	20
21	29.0	45.9	29.5	21
22	14.6	89.4	16.8	22
23	3.7		3.6	23
24	25.6	10.0	25.2	24
25		10.0	0.3	25
26		20.1	0.6	26
27	7.6	33.0	8.4	27
28	10.7		10.4	28
29	18.0	10.0	17.8	29
30	25.3	10.0	24.9	30
31	18.3		17.8	31
32		104.7	3.1	32
33				33
34	7.6		7.4	34
35	7.5		7.2	35
TOTAL	1000	1000	1000	
No. SAMPLES	4	5	9	
SAMPLING WEIGHT(kg)	97	35	132	
No. F.MEASURED	144	45	189	
MEAN LENGTH(cm)	18.2	19.0	18.2	
MEAN WEIGHT (g)	667	840	673	
DEPTH RANGE (m)	850/1339	865/1247	850/1339	

TABLE XXVIII. ROUGHHEAD GRENADIER, DIV. 3M, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUL =YEAR	LENGTH GROUP
12	41.1	12
13	13.0	13
14	43.5	14
15	92.5	15
16	120.6	16
17	166.4	17
18	88.5	18
19	113.3	19
20	69.5	20
21	72.2	21
22	48.4	22
23	29.6	23
24	16.3	24
25	14.8	25
26	27.8	26
27		27
28	14.8	28
29		29
30	13.0	30
31		31
32	14.8	32
TOTAL	1000	
No. SAMPLES	4	
SAMPLING WEIGHT(kg)	50	
No. F.MEASURED	70	
MEAN LENGTH(cm)	19.1	
MEAN WEIGHT (g)	686	
DEPTH RANGE (m)	414/632	

TABLE XXIX. ROUGHHEAD GRENADIER, DIV. 3N, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUN =2nd Q.	JUL =3rd Q.	YEAR	LENGTH GROUP
12	40.0		39.1	12
13		76.3	1.6	13
14	80.0	154.2	81.6	14
15	120.0	192.4	121.6	15
16	40.0	96.2	41.2	16
17	40.0	173.3	42.9	17
18	80.0	57.2	79.5	18
19	120.0	19.1	117.8	19
20	40.0	77.1	40.8	20
21				21
22	120.0		117.4	22
23	80.0	19.1	78.7	23
24	80.0	58.0	79.5	24
25	80.0	77.1	79.9	25
26	40.0		39.1	26
27				27
28	40.0		39.1	28
TOTAL	1000	1000	1000	
No. SAMPLES	1	2	3	
SAMPLING WEIGHT(kg)	21	18	39	
No. F.MEASURED	25	32	57	
MEAN LENGTH(cm)	20.3	17.7	20.2	
MEAN WEIGHT (g)	825	564	820	
DEPTH RANGE (m)	430/430	379/435	379/435	

TABLE XXX. WITCH FLOUNDER, DIV. 3L, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUL =YEAR	LENGTH GROUP
42	500.0	42
44	500.0	44
TOTAL	1000	
No. SAMPLES	1	
SAMPLING WEIGHT(kg)	1	
No. F.MEASURED	2	
MEAN LENGTH(cm)	44.0	
MEAN WEIGHT (g)	822	
DEPTH RANGE (m)	407/583	

TABLE XXXI. WITCH FLOUNDER, DIV. 3N, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUL	AUG	3rd Q. YEAR	LENGTH GROUP
34	144.9		58.9	34
36	377.2		153.4	36
38	130.2		52.9	38
40	101.5	52.6	72.5	40
42	101.5	105.3	103.7	42
44	101.5	368.4	259.9	44
46		421.1	249.9	46
48	43.4		17.6	48
50		52.6	31.2	50
TOTAL	1000	1000	1000	
No. SAMPLES	2	1	3	
SAMPLING WEIGHT(kg)	8	13	21	
No. F.MEASURED	20	19	39	
MEAN LENGTH(cm)	39.3	45.7	43.1	
MEAN WEIGHT (g)	397	699	576	
DEPTH RANGE (m)	379/435	279/279	279/435	

TABLE XXXII. WITCH FLOUNDER, DIV. 3O, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUL	AUG	3rd Q. YEAR	LENGTH GROUP
28		201.5	168.6	28
30		96.4	80.6	30
32	500.0	78.5	147.4	32
34	500.0	238.0	280.8	34
36		51.7	43.3	36
38		182.2	152.4	38
40		11.4	9.5	40
42		54.5	45.6	42
44		2.0	1.7	44
46		54.5	45.6	46
48		29.2	24.4	48
TOTAL	1000	1000	1000	
No. SAMPLES	1	9	10	
SAMPLING WEIGHT(kg)	1	7	7	
No. F.MEASURED	2	21	23	
MEAN LENGTH(cm)	34.0	35.7	35.4	
MEAN WEIGHT (g)	210	309	292	
DEPTH RANGE (m)	260/260	285/488	260/488	

TABLE XXXIII. WHITE HAKE, DIV. 3O, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUN	JUL	AUG	2nd Q.	3rd Q.	YEAR	LENGTH GROUP
18			0.7		0.7	0.5	18
20	1.7		0.1	1.7	0.1	0.6	20
22	3.4		2.0	3.4	1.9	2.4	22
24	29.3		10.6	29.3	10.0	15.4	24
26	40.2	6.7	15.8	40.2	15.3	22.3	26
28	10.7		14.0	10.7	13.3	12.5	28
30	7.2	8.0	16.5	7.2	16.1	13.6	30
32	9.7		16.6	9.7	15.8	14.1	32
34	9.7	26.8	27.2	9.7	27.2	22.3	34
36	9.6	12.0	10.7	9.6	10.7	10.4	36
38	10.3	36.0	6.3	10.3	7.7	8.4	38
40	17.5	50.7	61.5	17.5	61.0	48.9	40
42	51.0	103.9	147.2	51.0	145.0	118.8	42
44	50.8	100.0	165.6	50.8	162.4	131.3	44
46	70.4	136.2	209.2	70.4	205.6	167.9	46
48	58.7	145.6	129.9	58.7	130.6	110.6	48
50	151.8	125.6	73.1	151.8	75.6	96.9	50
52	70.5	62.7	35.6	70.5	36.9	46.3	52
54	67.7	111.0	20.5	67.7	24.9	36.8	54
56	72.3	21.4	20.0	72.3	20.0	34.6	56
58	62.3	9.3	1.6	62.3	1.9	18.8	58
60	66.4	1.3	2.2	66.4	2.2	20.1	60
62	30.5	6.7	2.7	30.5	2.9	10.6	62
64	23.1	20.1	0.1	23.1	1.1	7.2	64
66	1.7	1.3	2.0	1.7	2.0	1.9	66
68	45.0	13.4	2.6	45.0	3.1	14.8	68
70	1.7		1.0	1.7	0.9	1.2	70
72		1.3	1.0		1.0	0.7	72
74	7.3		1.3	7.3	1.3	3.0	74
76	7.2		0.8	7.2	0.8	2.6	76
78	7.3		0.6	7.3	0.5	2.4	78
80	1.7		0.5	1.7	0.5	0.8	80
82			0.1		0.1	0.04	82
84			0.1		0.1	0.04	84
86							86
88	1.6			1.6		0.5	88
90			0.5		0.5	0.3	90
92			0.02		0.02	0.01	92
94			0.1		0.1	0.04	94
96	1.6			1.6		0.5	96
98							98
100							100
102							102
104			0.1		0.1	0.1	104
106							106
108			0.02		0.02	0.01	108
TOTAL	1000	1000	1000	1000	1000	1000	
No. SAMPLES	6	2	29	6	31	37	
SAMPLING WEIGHT(kg)	271	195	467	271	662	933	
No. F.MEASURED	235	237	507	235	744	979	
MEAN LENGTH(cm)	51.2	48.3	45.4	51.2	45.5	47.1	
MEAN WEIGHT (g)	1175	884	712	1175	720	847	
DEPTH RANGE (m)	120/580	187/247	119/510	120/580	119/510	119/580	

TABLE XXXIV. SILVER HAKE, DIV. 3N, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	AUG =YEAR	LENGTH GROUP
24	32.5	24
25	162.6	25
26	154.5	26
27	154.5	27
28	162.6	28
29	105.7	29
30	40.7	30
31	65.0	31
32	48.8	32
33	16.3	33
34	24.4	34
35	8.1	35
36	8.1	36
37		37
38		38
39		39
40	8.1	40
41		41
42		42
43		43
44		44
45		45
46		46
47		47
48		48
49		49
50	8.1	50
TOTAL	1000	
No. SAMPLES	1	
SAMPLING WEIGHT(kg)	21	
No. F.MEASURED	123	
MEAN LENGTH(cm)	28.6	
MEAN WEIGHT (g)	155	
DEPTH RANGE (m)	123/134	

TABLE XXXV. SILVER HAKE, DIV. 3O, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUN	JUL	AUG	2nd Q.	3rd Q.	YEAR	LENGTH GROUP
20			0.7		0.6	0.5	20
21							21
22	7.6		0.4	7.6	0.3	0.6	22
23		6.0			1.2	1.1	23
24	34.5	18.1	9.4	34.5	11.1	12.2	24
25	105.6	18.1	65.3	105.6	56.0	58.4	25
26	121.7	66.3	109.5	121.7	101.0	101.9	26
27	170.2	144.6	141.3	170.2	142.0	143.3	27
28	93.7	156.6	132.4	93.7	137.1	135.1	28
29	160.3	102.4	113.1	160.3	111.0	113.3	29
30	55.9	96.4	93.5	55.9	94.1	92.3	30
31	36.5	138.6	75.2	36.5	87.6	85.2	31
32	54.9	72.3	64.8	54.9	66.3	65.7	32
33	52.7	60.2	50.4	52.7	52.3	52.3	33
34	41.9	24.1	31.0	41.9	29.6	30.2	34
35	38.7	24.1	22.2	38.7	22.6	23.3	35
36	8.6	18.1	17.4	8.6	17.5	17.1	36
37	4.3	12.0	15.9	4.3	15.1	14.6	37
38	8.6		15.1	8.6	12.2	12.0	38
39		12.0	10.9		11.1	10.6	39
40		18.1	4.8		7.4	7.1	40
41	4.3	6.0	6.5	4.3	6.4	6.3	41
42			2.8		2.3	2.2	42
43			3.7		2.9	2.8	43
44			1.6		1.2	1.2	44
45		6.0	2.2		3.0	2.8	45
46			1.6		1.3	1.2	46
47			2.2		1.8	1.7	47
48			2.1		1.7	1.6	48
49			0.8		0.7	0.6	49
50							50
51			0.3		0.3	0.3	51
52							52
53							53
54							54
55			1.3		1.1	1.0	55
56			0.4		0.3	0.3	56
57							57
58							58
59			0.3		0.3	0.3	59
60							60
61			0.9		0.7	0.7	61
TOTAL	1000	1000	1000	1000	1000	1000	
No. SAMPLES	3	1	17	3	18	21	
SAMPLING WEIGHT(kg)	36	32	390	36	423	459	
No. F.MEASURED	199	166	1869	199	2035	2234	
MEAN LENGTH(cm)	29.2	30.5	30.4	29.2	30.4	30.3	
MEAN WEIGHT (g)	169	191	195	169	194	193	
DEPTH RANGE (m)	299/575	196/234	117/235	299/575	117/235	117/575	

TABLE XXXVI. RED HAKE, DIV. 3M, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUL =YEAR	LENGTH GROUP
48	142.9	48
50		50
52		52
54		54
56		56
58		58
60		60
62	142.9	62
64		64
66	285.7	66
68		68
70		70
72		72
74	142.9	74
76		76
78		78
80		80
82		82
84		84
86		86
88		88
90	142.9	90
92		92
94		94
96		96
98		98
100		100
102		102
104		104
106	142.9	106
TOTAL	1000	
No. SAMPLES	1	
SAMPLING WEIGHT(kg)	39	
No. F.MEASURED	7	
MEAN LENGTH(cm)	74.1	
MEAN WEIGHT (g)	3779	
DEPTH RANGE (m)	587/612	

TABLE XXXVII. THORNY SKATE, DIV. 3M, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUL =YEAR	LENGTH GROUP
32	32.3	32
34	22.9	34
36	23.2	36
38		38
40	64.7	40
42		42
44		44
46	68.8	46
48	92.2	48
50	23.2	50
52	170.4	52
54	124.5	54
56	211.9	56
58	55.3	58
60	78.4	60
62		62
64	32.3	64
TOTAL	1000	
No. SAMPLES	3	
SAMPLING WEIGHT(kg)	58	
No. F.MEASURED	39	
MEAN LENGTH(cm)	52.4	
MEAN WEIGHT (g)	1390	
DEPTH RANGE (m)	414/647	

TABLE XXXV. THORNY SKATE, DIV. 3N, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	AUG =YEAR	LENGTH GROUP
26	2.6	26
28	7.7	28
30	2.6	30
32	8.3	32
34	25.9	34
36	22.7	36
38	37.5	38
40	21.8	40
42	22.3	42
44	25.1	44
46	26.6	46
48	28.0	48
50	38.4	50
52	37.8	52
54	38.7	54
56	71.0	56
58	39.7	58
60	47.2	60
62	36.8	62
64	63.6	64
66	61.7	66
68	42.7	68
70	50.3	70
72	27.6	72
74	55.8	74
76	35.9	76
78	42.2	78
80	14.7	80
82	17.0	82
84	15.6	84
86	16.6	86
88	9.3	88
90	3.4	90
92		92
94		94
96		96
98		98
100	2.6	100
TOTAL	1000	
No. SAMPLES	8	
SAMPLING WEIGHT(kg)	1506	
No. F.MEASURED	573	
MEAN LENGTH(cm)	61.0	
MEAN WEIGHT (g)	2462	
DEPTH RANGE (m)	45/650	

TABLE XXXIX. THORNY SKATE, DIV. 3O, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	MAY	JUN	JUL	2nd Q.	3rd Q.	YEAR	LENGTH GROUP
14	29.4			6.1		5.5	14
16							16
18							18
20							20
22							22
24							24
26							26
28							28
30							30
32							32
34							34
36							36
38							38
40							40
42							42
44							44
46		33.2		26.3		23.6	46
48		10.1		8.0		7.2	48
50	58.8			12.3		11.0	50
52	29.4	40.5		38.2		34.3	52
54	29.4	20.2	43.5	22.2	43.5	24.3	54
56		61.9	43.5	49.0	43.5	48.4	56
58		29.9		23.6		21.2	58
60	29.4	25.9		26.6		23.9	60
62		45.6	43.5	36.1	43.5	36.8	62
64		33.2	43.5	26.3	43.5	28.0	64
66	29.4	23.1		24.4		21.9	66
68	58.8	23.1	87.0	30.5	87.0	36.3	68
70	88.2	55.7	130.4	62.5	130.4	69.5	70
72	29.4	52.4	43.5	47.6	43.5	47.2	72
74	147.1	52.4	130.4	72.2	130.4	78.1	74
76		92.4	130.4	73.1	130.4	78.9	76
78	147.1	45.6	87.0	66.8	87.0	68.9	78
80	117.6	105.3		107.9		96.9	80
82	29.4	99.2	43.5	84.6	43.5	80.4	82
84	147.1	65.3	130.4	82.4	130.4	87.3	84
86		12.9	43.5	10.2	43.5	13.6	86
88		52.4		41.5		37.2	88
90	29.4	19.7		21.8		19.5	90
TOTAL	1000	1000	1000	1000	1000	1000	
No. SAMPLES	2	3	1	5	1	6	
SAMPLING WEIGHT(kg)	132	262	85	394	85	479	
No. F.MEASURED	34	70	23	104	23	127	
MEAN LENGTH(cm)	72.6	72.7	74.0	72.7	74.0	72.8	
MEAN WEIGHT (g)	3960	3882	3954	3899	3954	3904	
DEPTH RANGE (m)	158/220	320/491	188/198	158/491	188/198	158/491	

TABLE XL. SKATES, DIV. 3L, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUL =YEAR	LENGTH GROUP
42	142.9	42
44	142.9	44
46	142.9	46
48	142.9	48
50	142.9	50
52		52
54	142.9	54
56	142.9	56
TOTAL	1000	
No. SAMPLES	1	
SAMPLING WEIGHT(kg)	20	
No. F.MEASURED	7	
MEAN LENGTH(cm)	49.6	
MEAN WEIGHT (g)	2967	
DEPTH RANGE (m)	286/340	

TABLE XLI. SKATES, DIV. 3N, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	AUG =YEAR	LENGTH GROUP
28	55.6	28
30		30
32	166.7	32
34	111.1	34
36	55.6	36
38	111.1	38
40	111.1	40
42		42
44		44
46	222.2	46
48	55.6	48
50	55.6	50
52	55.6	52
TOTAL	1000	
No. SAMPLES	1	
SAMPLING WEIGHT(kg)	32	
No. F.MEASURED	18	
MEAN LENGTH(cm)	40.9	
MEAN WEIGHT (g)	1770	
DEPTH RANGE (m)	279/279	

TABLE XLII. Smooth skate, DIV. 3O, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	AUG =YEAR	LENGTH GROUP
62	500.0	62
64	500.0	64
TOTAL	1000	
No. SAMPLES	1	
SAMPLING WEIGHT(kg)	1	
No. F.MEASURED	2	
MEAN LENGTH(cm)	64.0	
MEAN WEIGHT (g)	1223	
DEPTH RANGE (m)	295/301	

TABLE XLIII. WOLFFISH (*Anarhichas spp.*), DIV. 3M, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUL =YEAR	LENGTH GROUP
29	1000.0	29
TOTAL	1000	
No. SAMPLES	1	
SAMPLING WEIGHT(kg)	0	
No. F.MEASURED	1	
MEAN LENGTH(cm)	29.5	
MEAN WEIGHT (g)	184	
DEPTH RANGE (m)	464/472	

TABLE XLIV. WOLFFISH (*Anarhichas minor*), DIV. 3M, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	JUL =YEAR	LENGTH GROUP
31	27.0	31
32		32
33		33
34	27.0	34
35		35
36		36
37		37
38		38
39		39
40		40
41		41
42		42
43		43
44	27.0	44
45	54.1	45
46	27.0	46
47	81.1	47
48		48
49	54.1	49
50		50
51	162.2	51
52		52
53		53
54	27.0	54
55		55
56	81.1	56
57	27.0	57
58	27.0	58
59	27.0	59
60	27.0	60
61	27.0	61
62	27.0	62
63	54.1	63
64	27.0	64
65		65
66		66
67	54.1	67
68	54.1	68
69		69
70		70
71		71
72		72
73		73
74		74
75		75
76		76
77		77
78		78
79	27.0	79
80	27.0	80
81	27.0	81
TOTAL	1000	
No. SAMPLES	2	
SAMPLING WEIGHT(kg)	69	
No. F.MEASURED	37	
MEAN LENGTH(cm)	56.4	
MEAN WEIGHT (g)	1881	
DEPTH RANGE (m)	368/467	

TABLE XLV. POLLOCK, DIV. 3L, 2021: length composition (0/000) of the 130mm trawl catches.

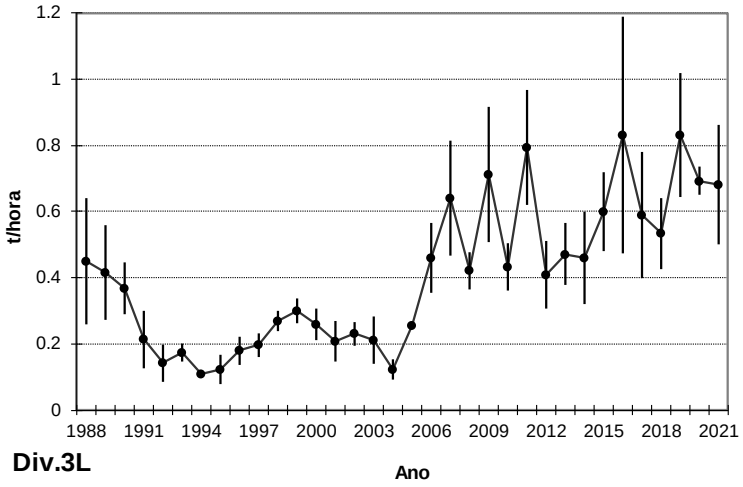
LENGTH GROUP	JUN =YEAR	LENGTH GROUP
39	74.1	39
40	111.1	40
41	74.1	41
42	111.1	42
43	148.1	43
44	111.1	44
45	111.1	45
46	185.2	46
47		47
48		48
49		49
50	74.1	50
TOTAL	1000	
No. SAMPLES	1	
SAMPLING WEIGHT(kg)	24	
No. F.MEASURED	27	
MEAN LENGTH(cm)	44.0	
MEAN WEIGHT (g)	891	
DEPTH RANGE (m)	1206/1295	

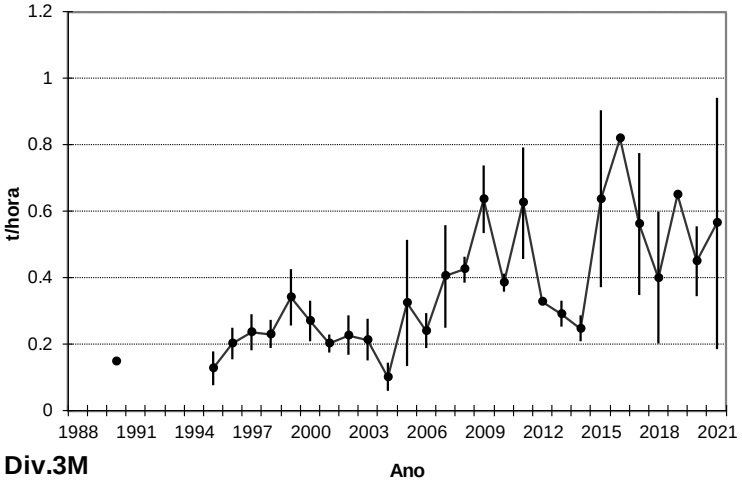
TABLE XLVI. POLLOCK, DIV. 3N, 2021: length composition (0/000) of the 130mm trawl catches.

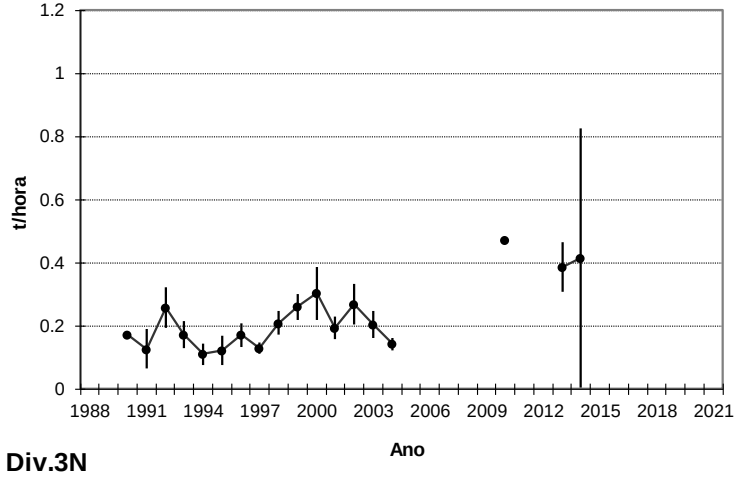
LENGTH GROUP	AUG =YEAR	LENGTH GROUP
49	196.2	49
50	607.5	50
51	196.2	51
TOTAL	1000	
No. SAMPLES	3	
SAMPLING WEIGHT(kg)	6	
No. F.MEASURED	4	
MEAN LENGTH(cm)	50.5	
MEAN WEIGHT (g)	1470	
DEPTH RANGE (m)	309/650	

TABLE XLVII. POLLOCK, DIV. 3O, 2021: length composition (0/000) of the 130mm trawl catches.

LENGTH GROUP	AUG =YEAR	LENGTH GROUP
57	1000.0	57
TOTAL	1000	
No. SAMPLES	1	
SAMPLING WEIGHT(kg)	2	
No. F.MEASURED	1	
MEAN LENGTH(cm)	57.5	
MEAN WEIGHT (g)	2390	
DEPTH RANGE (m)	294/322	







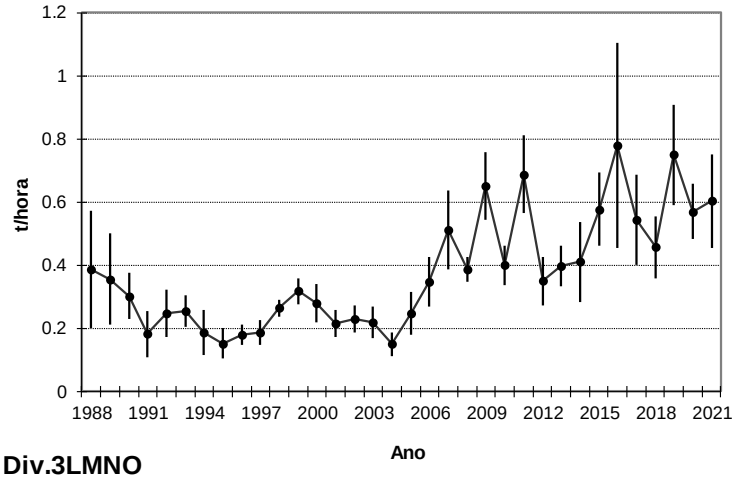


Fig. 1: Greenland halibut trawl catch rates by division, 1988 - 2021.

Fig. 2 - Annual length composition of Cod on Division 3L 130mm trawl fishery in 2021

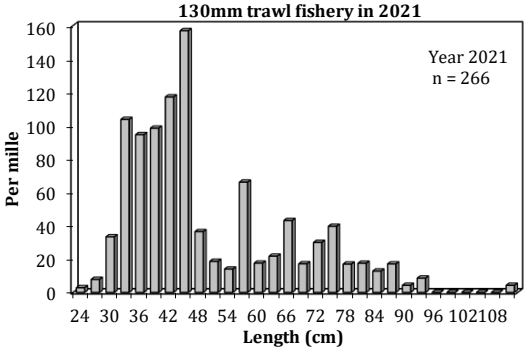


Fig. 3 - Annual length composition of Cod on Division 3M 130mm trawl fishery in 2021

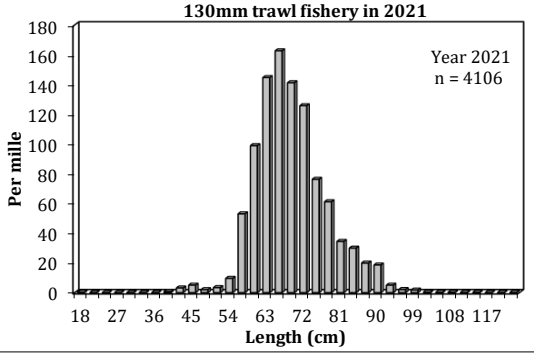


Fig. 4 - Annual length composition of Cod on Division 3N 130mm trawl fishery in 2021

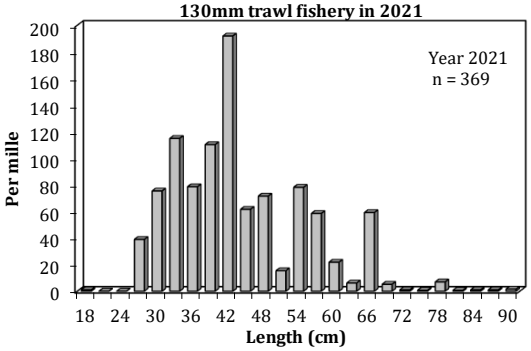


Fig. 5 - Annual length composition of Cod on Division 3O 130mm trawl fishery in 2021

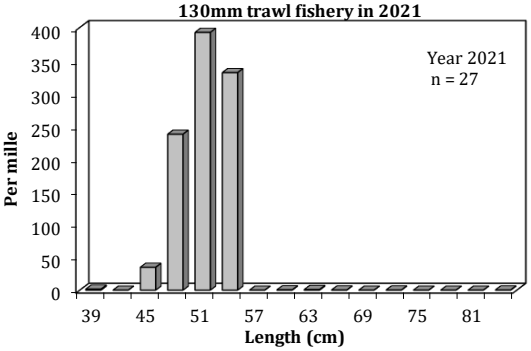


Fig. 6 - Annual length composition of redfish (*S. mentella*) on Division 3L 130mm trawl fishery in 2021

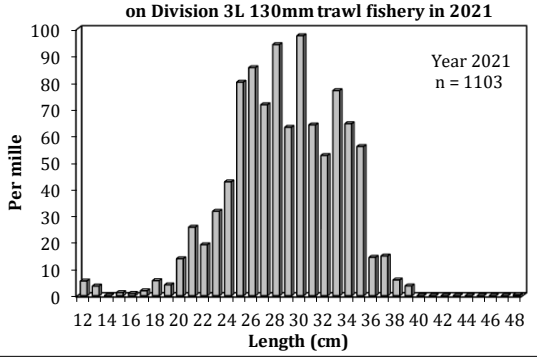


Fig. 7 - Annual length composition of redfish (*S. mentella*) on Division 3M 130mm trawl fishery in 2021

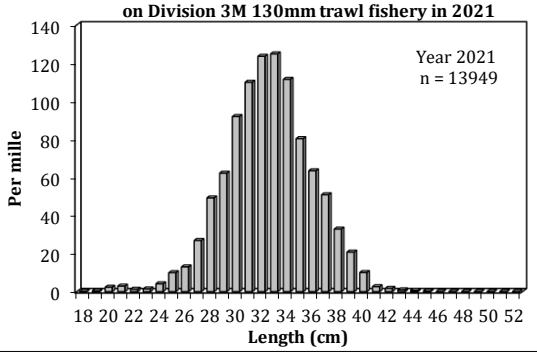


Fig. 8 - Annual length composition of redfish (*S. mentella*) on Division 3N 130mm trawl fishery in 2021

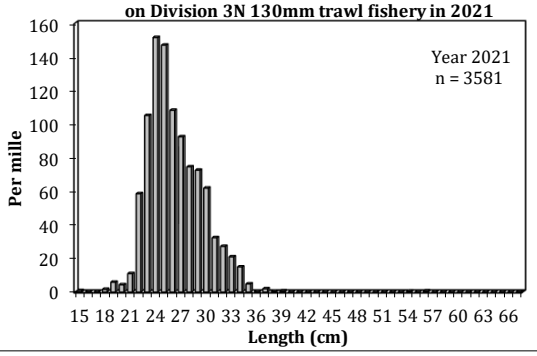


Fig. 9 - Annual length composition of redfish (*S. mentella*) on Division 3O 130mm trawl fishery in 2021

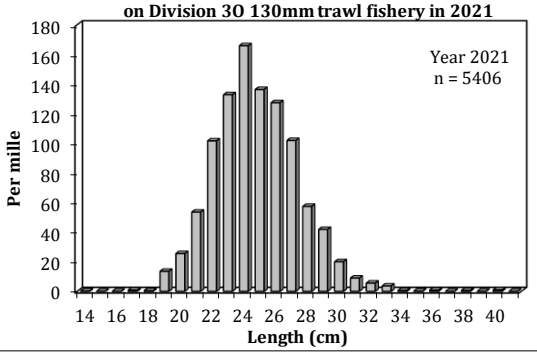


Fig. 10 - Annual length composition of American plaice on Division 3L 130mm trawl fishery in 2021

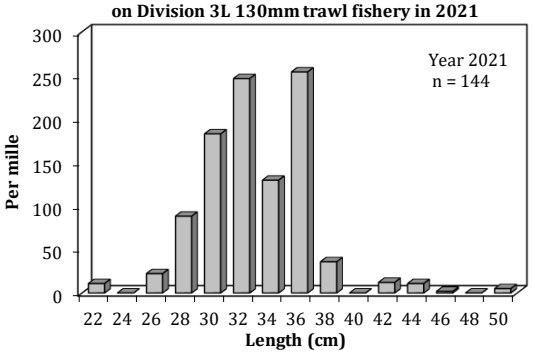


Fig. 11 - Annual length composition of American plaice on Division 3M 130mm trawl fishery in 2021

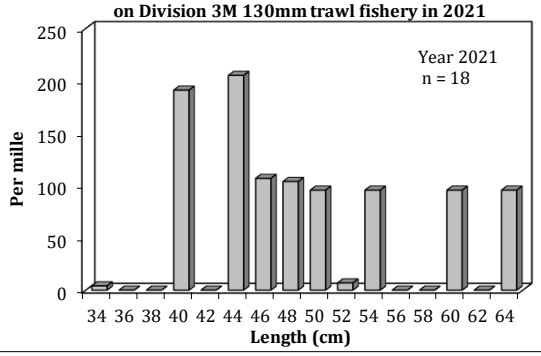


Fig. 12 - Annual length composition of American plaice on Division 3N 130mm trawl fishery in 2021

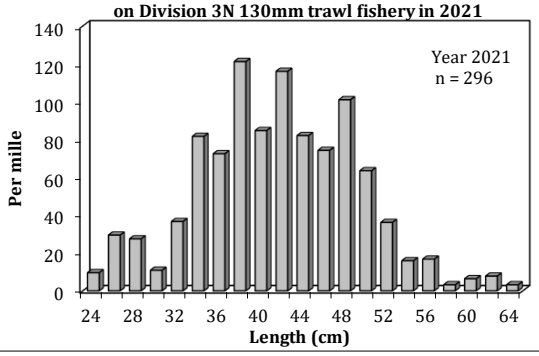


Fig. 13 - Annual length composition of American plaice on Division 3O 130mm trawl fishery in 2021

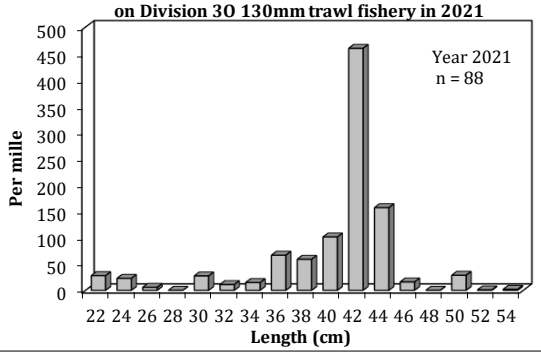


Fig. 14 - Annual length composition of Greenland halibut on Division 3L 130mm trawl fishery in 2021

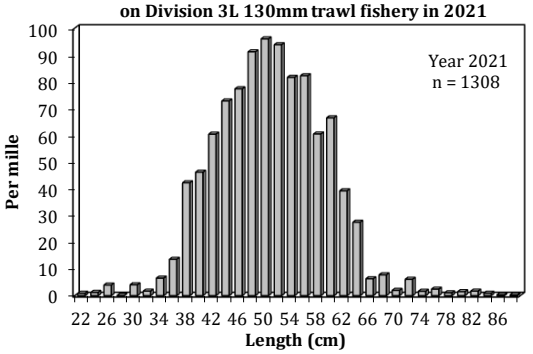


Fig. 15 - Annual length composition of Greenland halibut on Division 3M 130mm trawl fishery in 2021

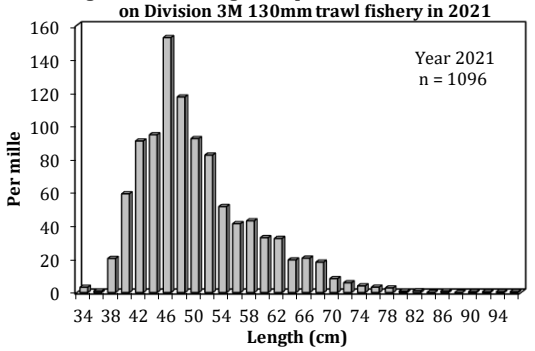


Fig. 16 - Annual length composition of Greenland halibut on Division 3N 130mm trawl fishery in 2021

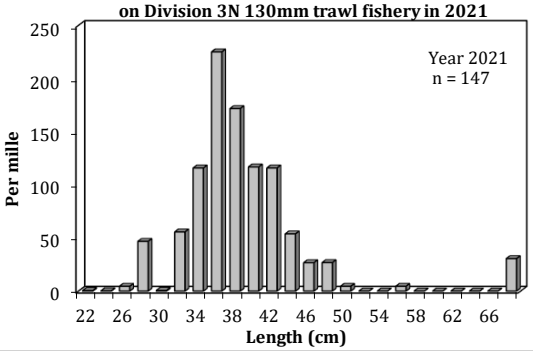


Fig. 17 - Annual length composition of Greenland halibut on Division 3O 130mm trawl fishery in 2021

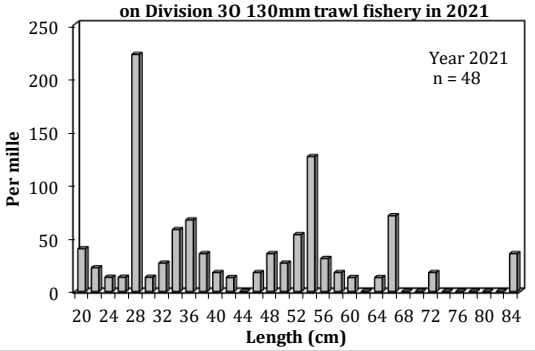


Fig. 18 - Annual length composition of yellowtail flounder on Division 3N 130mm trawl fishery in 2021

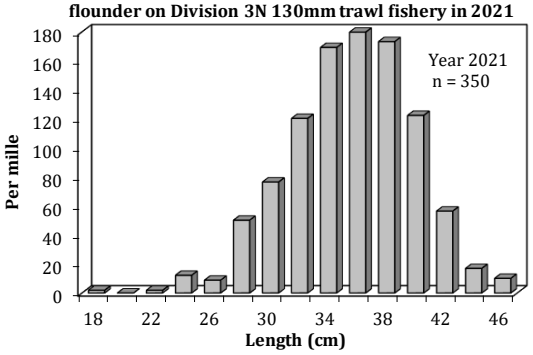


Fig. 19 - Annual length composition of roughhead grenadier on Division 3L 130mm trawl fishery in 2021

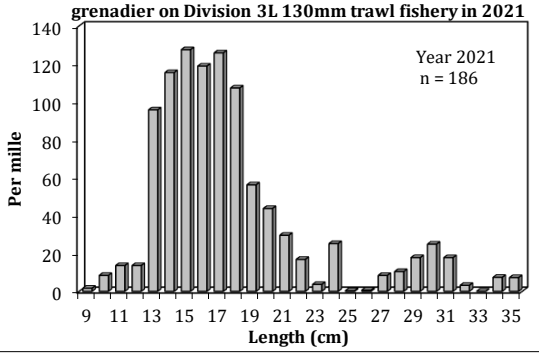


Fig. 20 - Annual length composition of roughhead grenadier on Division 3M 130mm trawl fishery in 2021

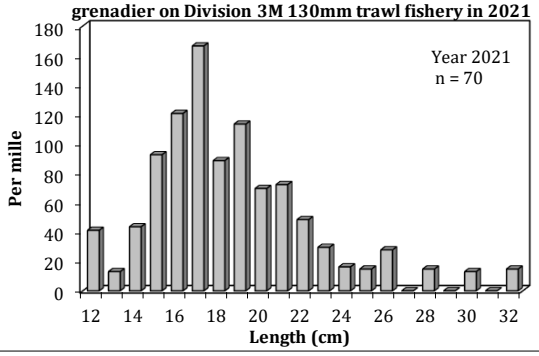


Fig. 21 - Annual length composition of roughhead grenadier on Division 3N 130mm trawl fishery in 2021

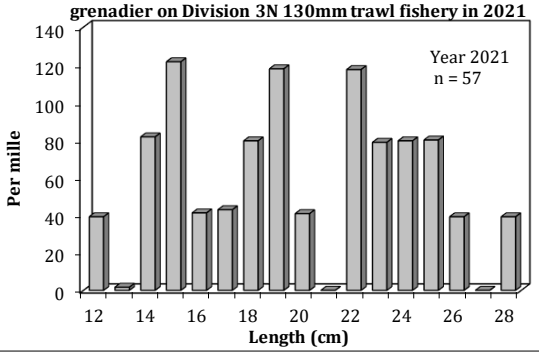


Fig. 22 - Annual length composition of witch flounder on Division 3N 130mm trawl fishery in 2021

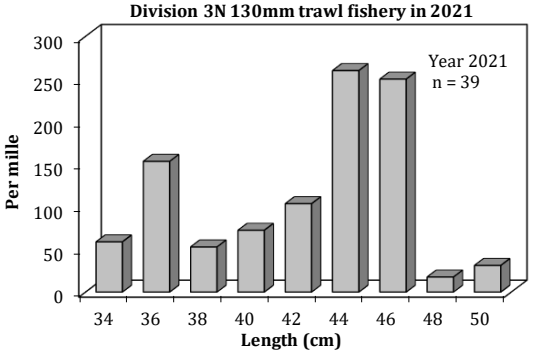


Fig. 23 - Annual length composition of witch flounder on Division 3O 130mm trawl fishery in 2021

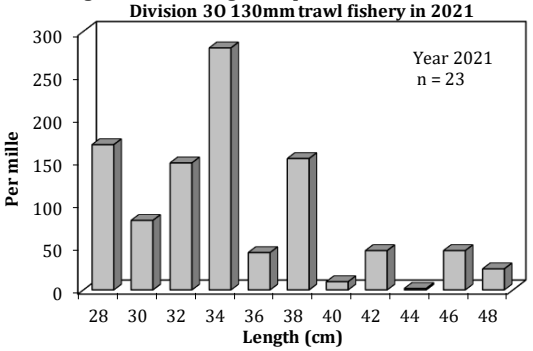


Fig. 24 - Annual length composition of white hake on Division 3O 130mm trawl fishery in 2021

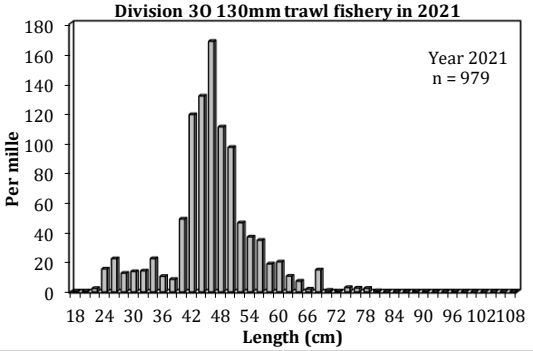
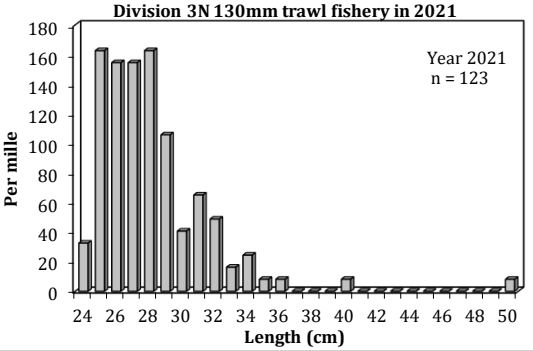


Fig. 25 - Annual length composition of silver hake on Division 3N 130mm trawl fishery in 2021



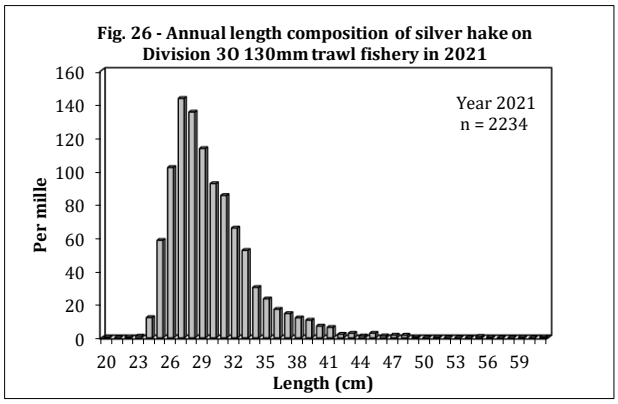


Fig. 26 - Annual length composition of silver hake on Division 3O 130mm trawl fishery in 2021
Year 2021
n = 2234
Per mille
Length (cm)

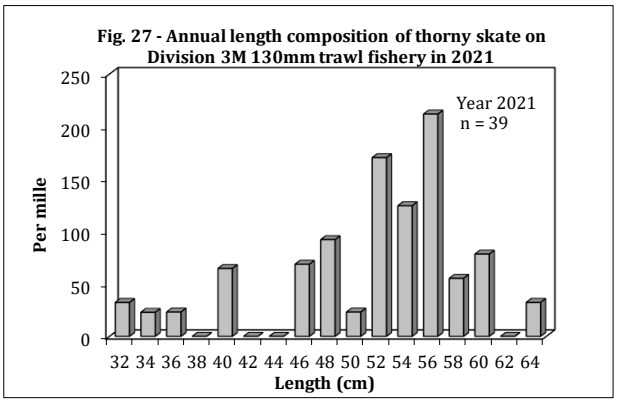


Fig. 27 - Annual length composition of thorny skate on Division 3M 130mm trawl fishery in 2021
Year 2021
n = 39
Per mille
Length (cm)

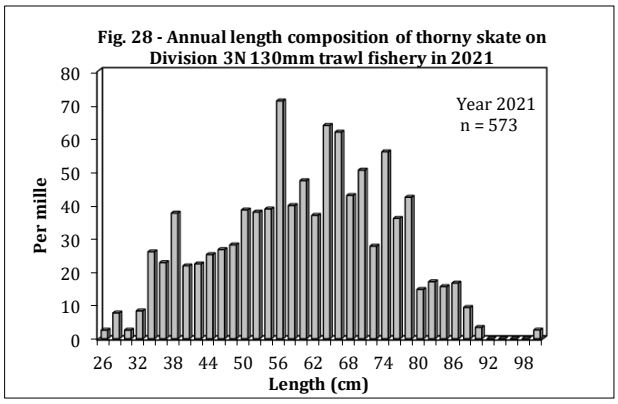


Fig. 28 - Annual length composition of thorny skate on Division 3N 130mm trawl fishery in 2021
Year 2021
n = 573
Per mille
Length (cm)

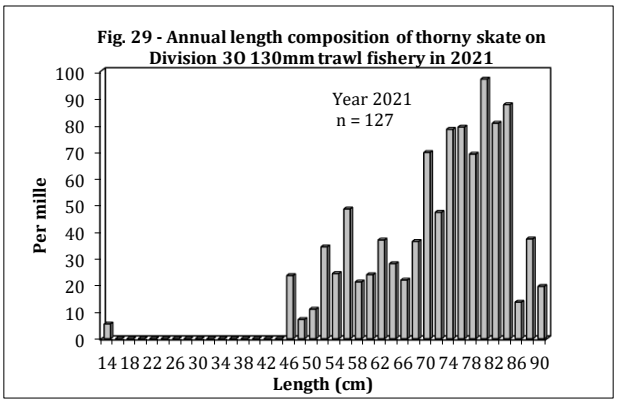


Fig. 29 - Annual length composition of thorny skate on Division 3O 130mm trawl fishery in 2021
Year 2021
n = 127
Per mille
Length (cm)