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by K. Fomin and M. Pochtar

Polar branch of the Federal State Budget Scientific Institution "Russian Federal Research Institute of Fisheries and oceanography"
6 Akademika Knipovicha St., Murmansk, Russia, 183038

SUBAREAS 1+2**A. Status of Fisheries***Greenland halibut (Reinhardtius hippoglossoides)*

In 2021, the directed trawl fishery for Greenland halibut was conducted off West Greenland from July to November.

In September-October, three trawlers were engaged in the fishery in the area to the north of 68°N. The highest catch rate was recorded in September, amounting to 16.4 tons per day of fishing. In the area to the south of 68°N, the fishery was conducted in July-November. The highest catch rate was recorded in October, amounting to 13.7 tons per day of fishing.

In general, the fishing situation in the area was at a good level. The actual catch rate of vessels of the N/S-1 type was 14.2 tons, N/S-2 type – 13.9 tons per day of fishing, with an expert assessment of 10-12 tons per day of fishing.

According to preliminary data, the catch amounted to 1442.7 tons (implementation of the quota – 99%), of which in the Divisions 1AB – 549.7 tons, in the Divisions 1CD – 893.0 tons (Table 1). The by-catch in Division 1D amounted to 1.5 tons of roundnose grenadier, no by-catch species were registered in the directed fishery for Greenland halibut in other divisions.

Other fish species

There was no directed fishery for other fish species.

B. Dedicated Research

Biological data on Greenland halibut from Divs. 1ACD was collected by the crew onboard fishing vessels.

Greenland halibut

In Div. 1A, male specimens of Greenland halibut had a length of 30-58 cm, with a predominance of individuals with a length of 42-44 cm (Table 2). Length of the female specimens varied from 32 to 94 cm, most specimens were 40-46 cm long. The average length of males and females was 43.9 and 45.3 cm, respectively. Juvenile halibut 28 cm long was found in catches on two occasions.



In Div. 1D, male specimens of Greenland halibut had a length of 36-80 cm, with an average of 52.2 cm and a predominance of individuals with a length of 50-52 cm (Table 2). The length of females varied from 42 to 94 cm, with an average of 54.1 cm, most species were 50-52 cm long.

SUBAREA 3

A. Status of Fisheries

Greenland halibut

Directed fishery for Greenland halibut took place from January to September at depths of 700-1420 m. Trawl fishery was carried out by 4 Russian vessels. Catch rates for N/S-1, 2 vessels ranged from 2.9 to 21.0 t, averaging 14.9 t per day of fishing. In total, the annual yield of Greenland halibut taken by Russian fishing vessels in the directed fishery was 1554.6 tons (Table 1). The by-catch was comprised of roughhead grenadier and roundnose grenadier, as well as skates (Table 3).

Atlantic cod

On the Flemish Cap Bank, the directed fishery for Atlantic cod was conducted from May to June at depths of 310-450 m onboard one vessel of the N/S-1 type with the average daily catch rate of 22.7 tons. The annual yield of cod taken by Russian fishing vessels in the directed fishery was 90.9 t. Besides, 0.7 t of cod were taken as a by-catch in the redfish fishery. The total Russian yield of cod was 91.6 t (Table 1).

Atlantic redfish on the Flemish Cap Bank

In 2021, directed fishery for redfish on the Flemish Cap Bank was conducted for a short time. In January, for 2 days, a Russian vessel of the N/S-1 type operated at depths of 450-590 m with a catch rate of 8.7 tons per day of fishing. In July, for 5 days, the same vessel operated at depths of 300-540 m with an average catch rate of 18.4 t per day of fishing.

According to preliminary data, the total annual yield taken by Russian fishing vessels in the directed redfish fishery was 67.2 t. By-catch included cod (0.7 t), Atlantic plaice (0.2 t) and Atlantic halibut (0.9 t) (Table 4). In addition, a small catch of redfish (2.4 t) was obtained in the cod fishing. According to preliminary data of the Polar Branch, the total Russian yield of redfishes on the Flemish Cap Bank in 2021 was 69.6 tons (Table 1).

In division 30

In 2021, in the south-western part of the Grand Bank of Newfoundland, a Russian vessel of the N/S-1 type operated sporadically from January to June at depths of 150-650 m, and from September to October at depths of 130-660 m. The highest catch rate was observed in March (19.7 tons of redfish per day of fishing) and averaged 15.2 t per day of fishing.

Another vessel of the same type operated from February to March and in December at depths of 240-650 m with a catch rate of 25.9 t per day of fishing. In December, 2 trawlings were conducted at depths of 250-405 m, the catch rate was low (1.9 t per day of fishing).

In directed fishery, Russian vessels caught 660.7 tons of redfish (Table 1). By-catch of other species amounted to 109.6 t (Table 4). Redfishes were taken as by-catch in the witch flounder fishery (6.8 t), as well as other species fishery (69.7 t). The total yield taken by Russian fishing vessels in the directed redfish fishery was 770.3 t with a national quota of 6,500 t. The significant deviation of the actual catch from the estimated one is due to the lack of fishing efforts.

In Divisions 3LN

In 2021, Russian directed fishery was conducted all year round by vessels of the N/S-1, 2 types at depths of 100-660 m. Catch rate of redfish using bottom trawl ranged from 4.4 to 41.2 t and averaged 19.3 t per day of fishing. The highest catch rate of redfish for N/S-1 was observed in August and December – 17.2 t and 19.4 t, for N/S-2 – from June to August – 33.0, 41.2 and 33.2 t per day of fishing, respectively.

According to preliminary Russian data, Russian vessels caught 4401.7 t of redfish in the directed fishery. In addition, a by-catch of redfish was obtained in the fishing of witch flounder (0.2 t) and other fish species (10.8 t).

The total Russian yield of redfishes amounted to 4412.6 tons (Table 1). By-catch was comprised of 341.4 t of other species, including 142 t of Atlantic halibut (Table 4).

Skates

Directed fishery for skates in 2021 was conducted sporadically: from January to February at depths of 60-140 m, from May to June at depths of 60-370 m, and from August to September at depths of 210-337 m. The highest catch rate was observed in January, amounting to 23.1 tons per day of fishing. Over the year, the catch rate averaged to 13.4 t per day of fishing. The annual yield of skates in the directed fishery was 80.5 t. Skates were also taken as by-catch in the witch flounder fishery (0.6 t), Greenland halibut fishery (0.7 t), redfish fishery (39.8 t) and other species fishery (9.2 t). Total Russian yield of skates in the Divs. 3LMNO for the whole period amounted to 132.3 t (Table 1).

Yellowtail flounder

The Russian directed fishery for yellowtail flounder was conducted briefly in January at depths of 58-65 m. The average daily catch rate was 18.0 t. Over the year, Russian fishing vessels caught 81.3 t of the species in the directed fishery. By-catch included 3.4 t of skates, 2.0 t of cod, 5.7 t of American plaice and 0.04 t of Atlantic halibut. Total Russian yield of yellowtail flounder amounted to 81.3 t (Table 1).

Other species

Directed fishery for witch flounder was conducted briefly from January to March at depths of 370-470 m. One trawling was conducted in December at the depth of 378 m. The average daily catch rate was 7.0 t.

Over the year, Russian fishing vessels caught 19.3 t of witch flounder in a directed fishery. Another 25.4 t were caught as by-catch in the redfish fishery and 40.9 t were caught in other species fishery. According to preliminary data, the total catch was 85.6 t (Table 1).

Directed fishery for other species was not conducted.

B. Dedicated Research

No surveys to assess the stocks of target species were carried out. Biological data were collected by NAFO observers on board fishing vessels.

Greenland halibut

In Div. 3L, Greenland halibut of 31-89 cm occurred, with an average of 51.0 cm. Specimens of 49-53 cm prevailed (Table 5).

In Div. 3M, the length of Greenland halibut varied from 31 to 93 cm, predominantly 47-53 cm, with an average of 52.4 cm.

In Div. 3N, halibut was caught occasionally. The length of specimens varied from 29 to 47 cm, with an average of 36.9 cm.

In general, the length of Greenland halibut in Divs. 3LMNO was 29-93 cm, with an average of 48.3 cm for males and 52.8 cm for females. The sex ratio (males to females) in the catches was 1:2.8 (Table 5). The halibut age varied from 3 to 15 years. Most of the specimens taken were 5-8 years old (Table 6).

Acadian redfish (Sebastes fasciatus)

In Div. 3L, the catches consisted of specimens with a length of 22-39 cm, with an average of 27.4 cm for females and 25.3 cm for males. Most specimens were 24-27 cm long (Table 7).

In Div. 3N, redfish with a length of 18-37 cm were caught. Male specimens were 18-31 cm long, female specimens were 19-37 cm long. The average length of males and females was 24.5 cm and 28.3 cm, respectively (Table 7).

The age of redfish in Divs. 3LN ranged from 6 to 16 years, most of the caught individuals were 8-12 years old (Table 8).

Redfish (S. marinus)

In Div. 3N, a female specimen 56 cm long was caught.

Roughhead grenadier

In Div. 3L, individuals with a length of 40-76 cm were caught, with an average of 58.6 cm.

In Div. 3M, the zoological length varied from 40 to 79 cm, the average length was 56.5 cm (Table 9).

Roundnose grenadier

In Div. 3M, roundnose grenadier was caught in small amounts. The length of the caught fish varied from 46 to 67 cm, with an average of 58.0 cm (Table 10).

Thorny skate

In Div. 3L, 1 individual with a length of 53 cm was caught.

Arctic skate

In Div. 3L, 2 specimens with a length of 74 and 76 cm were caught.

In Div. 3M, 1 individual 62 cm long was caught.

Spinytail skate

In Div. 3L and Div. 3M, 2 specimens were caught, each with a length of 77 cm.

Blue wolffish

Blue wolffish was caught in small amounts. In Div. 3L, the length varied from 49 to 103 cm. The average length was 70.5 cm (Table 11).

In Div. 3M, the size range was represented by individuals with a length of 49-94 cm, with an average of 65.76 cm (Table 11).

Spotted wolffish

In Div. 3N, 4 specimens of spotted wolffish, with a length of 52, 55, 58 and 61 cm, were caught (Table 12).

Blue antimora

In Div. 3L, the size range of blue antimora was represented by individuals with a length of 35 to 57 cm, with an average of 49.2 cm (Table 13).

In Div. 3M, the length of antimora varied from 39 to 63 cm, with an average of 50.5 cm (Table 13).

Black dogfish

In Div. 3L and Div. 3M, it was found in catches occasionally. The length of the specimens caught in Div. 3L varied from 60 to 84 cm, with an average of 70.0 cm (Table 14).

In Div. 3M, the length of the individuals was 56-75 cm, with an average of 65.4 cm (Table 14).

Threebeard rockling

In Div. 3M, individuals with a length of 31-52 cm, with an average length of 42.2 cm, were found (Table 15).

Lycodes reticulatus

In Div. 3L, 3 specimens, with a length of 45, 49 and 53 cm, were caught.

Atlantic cod

In Div. 3N, it was caught in small amounts. The length varied from 35 to 93 cm, with an average of 62.5 cm (Table 16).

Nezumia

In Divisions 3L and 3M, nezumia was found in catches occasionally. In Div. 3L, 8 individuals with a length of 30 to 42 cm were caught, the average length was 36.8 cm (Table 17).

In Div. 3M, the length of caught fish varied from 27 to 46 cm, the average length was 35.2 cm (Table 17).

Atlantic halibut

In Div. 3N, 13 specimens of Atlantic halibut were caught. The size range was represented by individuals with a length of 63-113 cm with an average length of 83.5 cm (Table 18).

American plaice

In Div. 3N, individuals with a length of 29-61 cm were caught. The average length was 44.3 cm (Table 19).

VME indicator species

There were several catches of sponges and corals recorded during the observers' activities onboard fishing vessels. In none of those catches the VME mass exceeded the established threshold value (Table 20).

Marine mammals

As of the observations from aboard fishing vessels, only cetaceans (*Cetacea*) were observed in the Divs. 3LMN, namely: pilot whales (*Globicephala melas*), sperm whales (*Physeter microcephalus*), dolphins (Delphinidae), as presented in Table 21. The total number of marine mammal records (occurrences) is 13 (Table 22).

No discards were observed in the main species fisheries.

Table 1. Preliminary catches taken by Russian trawlers in NAFO SA 1-3 in 2021.

Species	Division	Catch, t
Greenland halibut	1A	549,7
	1B	-
	1C	86,2
	1D	806,9
	1ABCD	1442,7
Greenland halibut	3L	1119,6
	3M	432,0
	3N	3,0
	3O	0
	3LMNO	1554,6
American plaice	3L	2,4
	3M	0,6
	3N	83,8
	3O	24,1
	3LMNO	110,9
Yellowtail flounder	3N	81,3
Witch flounder	3N	17,7
	3O	67,9
	3NO	85,6
Roughhead grenadier	3L	11,8
	3M	4,2
	3LM	16,0
Roundnose grenadier	3L	2,5
	3M	2,7
	3N	1,6
	3LMN	6,8
Redfish spp.	3L	500,3
	3M	69,6
	3N	3912,3
	3O	737,2
	3LMNO	5219,4
Skate	3L	16,7
	3M	1,5
	3N	103,3
	3O	10,8
	3LMNO	132,3
White hake	3O	2,2
Atlantic cod	3L	4,4
	3M	91,6
	3N	82,7
	3O	19,4
	3MNO	198,1
Atlantic Halibut	3L	16,9
	3M	2,1
	3N	130,1
	3O	26,4
	3MNO	175,6

Table 2. Greenland halibut (*Reinhardtius hippoglossoides*) length composition (ind.) of the Russian trawl catches in NAFO Div. 1AD in 2021.

Length, cm	1A			1D			Total				
	F	J	M	F	M	F	J	M			
28		2		2		0		2		2	
30			1	1		0			1	1	
32	3		7	10		0	3		7	10	
34	4		13	17		0	4		13	17	
36	11		18	29		1	1	11	19	30	
38	32		58	90		0	32		58	90	
40	90		159	249		8	8	90	167	257	
42	95		206	301	3	23	26	98	229	327	
44	91		221	312	12	37	49	103	258	361	
46	86		160	246	30	129	159	116	289	405	
48	63		87	150	84	331	415	147	418	565	
50	30		33	63	110	459	569	140	492	632	
52	24		20	44	122	522	644	146	542	688	
54	22		4	26	97	373	470	119	377	496	
56	6		6	12	50	194	244	56	200	256	
58	10		3	13	44	101	145	54	104	158	
60	5			5	25	33	58	30	33	63	
62	1			1	15	18	33	16	18	34	
64	1			1	8	11	19	9	11	20	
66	1			1	10	5	15	11	5	16	
68	1			1	4	2	6	5	2	7	
70				0	10	1	11	10	1	11	
72				0	6	1	7	6	1	7	
74				0	1		1	1		1	
76				0	2		2	2		2	
78				0	1		1	1		1	
80				0		1	1		1	1	
82				0	2		2	2		2	
84				0	1		1	1		1	
86				0	1		1	1		1	
88											
90											
92				0	1		1	1		1	
94				0	1		1	1		1	
Total	576	2	996	1574	640	2250	2890	1216	2	3246	4464
Mean length, cm	45.34	28.5	43.91	44.4	54.14	52.15	52.6	49.97	28.5	49.62	49.71

Table 3. Bycatch at directed Greenland halibut fishery by Russian bottom trawlers from NAFO Divs. 3LMNO in 2021.

Species	Catch, t
Skate	2,168
Roundnose grenadier	5,220
Roughhead grenadier	16,019

Table 4. Bycatch at directed redfish fishery by Russian bottom trawlers from NAFO Divs. 3LMNO in 2021.

Species	Catch, t
Divisions 3LN	
Witch flounder	9,828
American plaice	74,361
Atlantic cod	81,725
Atlantic halibut	142,105
Squid	0,020
Skate	30,940
Hake	2,380
Division 3M	
American plaice	0,195
Atlantic cod	0,705
Atlantic halibut	0,924
Division 3O	
Witch flounder	15,565
Skate	8,810
White hake	0,270
American plaice	19,528
Hake	31,152
Atlantic halibut	18,040
Atlantic cod	16,255
Total	
Witch flounder	25.393
Skate	39.750
White hake	0.270
American plaice	94.084
Atlantic cod	98.685
Atlantic halibut	161.069
Squid	0,020
Hake	33,532

Table 5. Greenland halibut (*Reinhardtius hippoglossoides*) length composition (ind.) of the Russian trawl catches in NAFO Divs. 3LMN in 2021.

Length, cm	3L			3M			3N			3LMN		
	Females	Males	Total	Females	Males	Total	Females	Males	Total	Females	Males	Total
29			0			0	1	1	2	1	1	2
31	5		5	1		1	2		2	8		8
33		3	3	1	1	2			0	1	4	5
35	10	8	18	4	1	5	1	1	2	15	10	25
37	34	29	63	14	7	21	1	1	2	49	37	86
39	80	65	145	53	27	80	2		2	135	92	227
41	120	109	229	82	47	129	1		1	203	156	359
43	168	157	325	117	70	187	1		1	286	227	513
45	266	226	492	162	104	266			0	428	330	758
47	357	215	572	215	118	333	1		1	573	333	906
49	361	228	589	263	131	394			0	624	359	983
51	419	191	610	282	98	380			0	701	289	990
53	364	153	517	276	90	366			0	640	243	883
55	322	94	416	245	47	292			0	567	141	708
57	285	49	334	240	27	267			0	525	76	601
59	234	16	250	204	12	216			0	438	28	466
61	159	1	160	157	4	161			0	316	5	321
63	108	1	109	98		98			0	206	1	207
65	51		51	60		60			0	111		111
67	31	1	32	44		44			0	75	1	76
69	20		20	22		22			0	42		42
71	9		9	15		15			0	24		24
73	6		6	6		6			0	12		12
75	3		3	8		8			0	11		11
77	4		4	4		4			0	8		8
79	2		2	2		2			0	4		4
81	5		5	3		3			0	8		8
83			0	2		2			0	2		2
85	4		4	2		2			0	6		6
87												
89	1		1			0			0	1		1
91												
93			0	1		1			0	1		1
Total	3428	1546	4974	2583	784	3367	10	3	13	6021	2333	8354
Mean length, cm	52.36	48.11	51.0	53.55	48.72	52.4	37.70	34.17	36.9	52.84	48.30	51.57

Table 6. Age-length composition of Greenland halibut (*Reinhardtius hippoglossoides*) from the Russian trawl catches in NAFO Divs. 3LMN in 2020

Length, cm	Age													Total
	3	4	5	6	7	8	9	10	11	12	13	14	15	
28		1												1
30		1												1
31		1												1
32	1	1												2
33	1	2												3
34		2	5											7
35		5		1										6
36		2	5											7
37		3	6	1										10
38		2	6											8
39			8	2										10
40			8	7										15
41			3	9	2									14
42			2	13										15
43		1	1	16	4									22
44				11	8	1								20
45			1	10	7	2								20
46				3	10									13
47				2	8	5								15
48					9	5	1							15
49					8	11	2							21
50						7	2	2						11
51						11	3							14
52						7	3							10
53					1	3	7	1	1					13
54							8	1						9
55						1	2	2						5
56							1	3						4
57							1	7	2					10
58							2	7	1					10
59								2						2
60								1	1	2				4
61								2	3	1				6
62									3	3				6
63									1	1				2
64										3				3
65									1	2	1	1		4
66											1	1		2

67										1				1
68											1			1
69												1	1	2
70											1			1
71												1		1
74												1		1
77												1		1
Total	2	21	45	75	57	53	32	28	13	13	4	5	1	349
Mean length, cm	32.5	34.9	38.4	42.7	46.2	49.8	53	56.8	60.2	63	67.3	71.4	69	47.5
Mean weight, g	266.5	333	462.9	623	804.8	1036.3	1287.2	1515.7	1857.7	2245	2950	3718	3315	993.0

Table 7. Length composition (ind.) of *S. fasciatus* in Russian trawl catches in NAFO Div. 3LN in 2021.

Length, cm	3L			3N			3LN		
	Females	Males	Total	Females	Males	Total	Females	Males	Total
18					1	1		1	1
19				1	1	2	1	1	2
20				2	4	6	2	4	6
21				5	23	28	5	23	28
22		4	4	12	145	157	12	149	161
23		18	18	31	718	749	31	736	767
24	2	31	33	91	1035	1126	93	1066	1159
25	25	28	53	267	929	1196	292	957	1249
26	28	29	57	570	538	1108	598	567	1165
27	26	14	40	809	180	989	835	194	1029
28	22	7	29	912	54	966	934	61	995
29	7	3	10	716	8	724	723	11	734
30	4	2	6	474	1	475	478	3	481
31	3	1	4	292	1	293	295	2	297
32	2	1	3	205		205	207	1	208
33	1		1	119		119	120		120
34	1		1	58		58	59		59
35			0	21		21	21		21
36	1		1	16		16	17		17
37	3		3	1		1	4		4
39	1		1				1		1
Total	126	138	264	4602	3638	8240	4728	3776	8504
Mean length, cm	27.40	25.25	26.3	28.26	24.47	26.6	28.23	24.50	26.58

Table 8. Age-length composition of *S. fasciatus* from the Russian trawl catches in NAFO Divs. 30 in 2020

Length, cm	Age											Total
	6	7	8	9	10	11	12	13	14	15	16	
23		4	3									7
24	1	1	7									9
25			9	4	2							15
26			4	11	6	1						22
27				7	11	10	1					29
28					3	5	7	1				16
29						2	6	1				9
30					1	2	3	9	1			16
31							3	2	3			8
32							1	2	2	2		7
33								3	2	1	1	7
34										3		3
35										2		2
Total	1	5	23	22	23	20	21	18	8	8	1	150
mean length, cm	24	23.2	24.6	26.1	26.8	27.7	29.1	30.7	31.6	33.6	33	27.8
Mean weight	170	162	204.8	239.8	264	287	334	401.9	444.4	519.4	535	301.8

Table 9. Roughhead grenadier (*Macrourus berglax*) length composition (ind.) of the Russian trawl catches in NAFO Divs. 3LM in 2021.

Length, cm	3L	3M	3LM
40	1	1	2
43	3	2	5
46	2	1	3
49	2	2	4
52	4	3	7
55	0	1	1
58	2	1	3
61	4	3	7
64	2	1	3
67	4	2	6
70	2	0	2
73	1	0	1
76	1	0	1
79	0	1	1
Total	28	18	46
Mean length, cm	58.6	56.5	57.76

Table 10. Roundnose grenadier (*Coryphaenoides rupestris*) length composition (ind.) of the Russian trawl catches in NAFO Div. 3M in 2021.

Length, cm	3M
46	4
49	5
52	1
55	2
58	8
61	5
64	5
67	3
Total	33
Mean length, cm	58.0

Table 11. Length composition (ind.) of Blue wolffish (*Anarhichas latifrons*) in Russian trawl catches in NAFO Div. 3LM in 2021.

Length, cm	3L	3M	3LM
49	1	2	3
52	2	1	3
55	3	1	4
58	2	1	3
61	2	0	2
64	0	1	1
67			
70	2	0	2
73	0	1	1
76	1	0	1
79			
82			
85	1	0	1
88	2	1	3
91	1	0	1
94	1	1	2
97			
100			
103	1	0	1
Total	19	9	28
Mean length, cm	70.5	65.7	68.96

Table 12. Length composition (ind.) of Spotted wolffish (*Anarhichas minor*) in Russian trawl catches in NAFO Div. 3N in 2021.

Length, cm	3N
52	1
55	1
58	1
61	1
Total	4
Mean length, cm	57.5

Table 13. Length composition (ind.) of Blue antimora (*Antimora rostrata*) in Russian trawl catches in NAFO Div. 3LM in 2021.

Length, cm	3L	3M	3LM
35	1	0	1
37	0	0	0
39	1	2	3
41	1	0	1
43	1	2	3
45	3	5	8
47	4	3	7
49	3	2	5
51	3	3	6
53	6	4	10
55	2	2	4
57	1	2	3
59	0	1	1
61	0	1	1
63	0	1	1
Total	26	28	54
Mean length, cm	49.2	50.5	49.87

Table 14. Length composition (ind.) of Black dogfish (*Centroscyllium fabricii*) in Russian trawl catches in NAFO Div. 3LM in 2021.

Length, cm	3L	3M	3LM
56	0	1	1
57	0	0	0
58	0	0	0
59	0	1	1
60	1	0	1
61	1	2	3
62	1	2	3
63	0	0	0
64	0	1	1
65	1	1	2
66	0	0	0
67	3	0	3
68	2	2	4
69	1	1	2
70	1	0	1
71	0	0	0
72	1	1	2
73	1	1	2
74	1	0	1
75	2	1	3
76	1	0	1
77	1	0	1
78	0	0	0
79	0	0	0
80	0	0	0
81	0	0	0
82	0	0	0
83	0	0	0
84	1	0	1
Total	19	14	33
Mean length, cm	70.0	65.4	68.03

Table 15. Length composition (ind.) of Threebeard rockling (*Gaidropsarus ensis*) in Russian trawl catches in NAFO Div. 3M in 2021.

Length, cm	3M
31	2
34	3
37	5
40	7
43	8
46	5
49	3
52	1
Total	34
Mean length, cm	42.24

Table 16. Length composition (ind.) of Greenland cod in Russian trawl catches in NAFO Div. 3N in 2021.

Length, cm	3N
35	1
37	
39	1
41	1
43	2
45	
47	4
49	5
51	4
53	2
55	6
57	4
59	4
61	7
63	6
65	5
67	2
69	4
71	3
73	3
75	3
77	3
79	2
81	1
83	1
85	3
87	
89	
91	
93	1
Total	78
Mean length, cm	62.50

Table 17. Length composition (ind.) of *Nezumia* in Russian trawl catches in NAFO Div. 3LM in 2021.

Length, cm	3L	3M	3LM
27		1	1
28		1	1
29		2	2
30	1		1
31		2	2
32	1	1	2
33		1	1
34		3	3
35	1	3	4
36	1	2	3
37		1	1
38	1	2	3
39		1	1
40	1	2	3
41	1	1	2
42	1	1	2
43	0	0	0
44	0	0	0
45	0	0	0
46	0	1	1
Total	8	25	33
Mean length, cm	36.75	35.20	35.58

Table 18. Length composition (ind.) of Atlantic halibut (*Hippoglossus hippoglossus*) in Russian trawl catches in NAFO Div. 3N in 2021.

Length, cm	3N		
	Females	Males	Total
63	1		1
65	1		1
67	1		1
71		1	1
73		1	1
77		1	1
83	1		1
85	1		1
89	1		1
91	1		1
97	1		1
105		1	1
113	1		1
Total	9	4	13
Mean length, cm	84.17	82.00	83.5

Table 19. Length composition (ind.) of American plaice in Russian trawl catches in NAFO Div. 3N in 2021.

Length, cm	3N
29	4
31	4
33	6
35	6
37	6
39	8
41	9
43	10
45	12
47	9
49	9
51	8
53	8
55	5
57	2
59	1
61	1
Total	108
Mean length, cm	44.3

Table 20. Occurrences of VME indicator species in the NAFO Regulatory Area in 2021

Trawl coordinates				Trawl depth, m	Species name	Number	Length, cm	Weight, kg
Start		Finish						
N	W	N	W					
48.30	46.53	48.18	46.97	1026-1063	Keratoisis spp.	1	13	19
					Pennatula spp.	1	10	24
					Anthoptilum spp.	1	12	14
					Anthoptilum spp.	1	17	18
48.25	46.73	48.40	46.23	1054-1072	Keratoisis spp.	1	16	14
47.87	46.7	47.57	47.00	935-835	Pennatula spp.	1	7	17
48.47	46.00	48.32	46.38	1042-960	Anthoptilum spp.	1	53	45
48.43	46.10	48.30	46.48	1011-919	Actinaria spp.	1	7	52
					Actinia callosa	1	5	37
48.35	46.32	48.53	45.87	1005-1084	Actinia callosa	1	7	57
48.48	45.98	48.37	46.38	1037-1106	Actinia callosa	1	6	53
					Actinia callosa	1	5	48
48.45	45.95	48.23	46.43	1059-958	Anthoptilum spp.	1	35	14
					Halipteris spp.	1	94	38
48.13	47.60	48.13	47.13	901-918	Actinia callosa	1	8	102 141
					Actinia callosa	1	10	141
48.17	47.03	48.28	46.58	1095-931	Duva florida	1	5	12
					Keratoisis spp.	1	15	24
48.15	47.20	48.27	46.72	1146-1108	Acanella arbuscula	1	11	13
48.17	47.00	48.27	46.55	1024-947	Keratoisis spp.	1	12	14
43.92	49.10	43.82	49.05	248-245	Boltenia ovifera	1	24	115
					Thuiaria thuja	1	13	4
					Phakellia spp.	1	5	6
43.87	49.07	43.78	49.07	248-246	Cladocarpus formosus	1	17	17
					Duva florida	1	3	5

Table 21. Marine mammals recording in the NAFO Regulatory Area in 2021.

Date	Latitude (N)	Longitude (W)	Species	Number	Notes
07.06	48.32	46.48	Pilot whale	4-5	Behind the vessel, picking up fish during trawl hauling
07.07	44.18	48.98	Sperm whale	3	Followed the vessel during trawling
14.07	44.02	49.03	Dolphin	10-15	Going from south-west to north-east at a distance of 500 m
15.07	44.03	49.05	Dolphin	2	At a distance of 400 m, headed 350°
19.07*	46.52	47.00	Pilot whale	2	Going from south-east to north-west
01.08*	53.10	37.72	Dolphin	5-6	At a distance of 500 m, headed 290°
04.08	48.13	47.13	Sperm whale	1	Trawl hauling
05.08	48.23	46.43	Pilot whale	1	At a distance of 50 m going south
18.08	48.42	46.23	Pilot whale	5	At the very side of the vessel, followed the vessel for 15 minutes
25.08	43.88	49.18	Dolphin	4-5	To the right of the vessel, followed the vessel for 10 minutes
26.09	43.78	49.07	Pilot whale	1	Trawl hauling
27.09	43.78	49.08	Sperm whale	1	Behind the vessel, followed the vessel for 15 minutes
28.09	43.83	49.13	Sperm whale	1	Behind the vessel, followed the vessel for 10 minutes

* Observed during vessel passage

Table 22. Marine mammals total numbers in the NAFO Regulatory Area in 2021

Species	Number	Occurrences	% ratio of the total number
Pilot whale	13	5	32.5
Sperm whale	6	4	15
Dolphin	21	4	52.5
Total	40	13	100