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Faroese Research Report 2019

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The present report represents information of Faroese fishing vessels operating in the NAFO Regulatory Area (NAFO-RA). The fishery targets mainly cod (*Gadus morhua*) in SA 3. Other species like Greenland halibut and redfish (*Sebastes* spp.) are also caught to a lesser extent. Official catch statistics are reported to NAFO by the Fisheries Inspection authorities (stored on STATLANT database). Collection of logbooks and biological measurements (fish length) of cod are provided by NAFO observers employed by the Faroese Ministry of Fisheries. Samples of fish length and weight measurements are also taken on board fishing vessels by crew members (non NAFO-observers).

Faroese landings of cod in NAFO SA 3 since 2010 are shown in Table 1. Catches have fluctuated from 1185 t. in 2010 to 4357 t. in 2019 which is the largest recorded in the last 10 years. The Faroese quota of cod in 3M is 22.35% of the total. A complete list of catches by species from 2010 to 2019 is shown at the end of the document as an annex.

Table 1. Faroese landings (tons) of cod in SA3 from 2010 to 2019. (Source: Statlant)

Area	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
3L	0	31	4	3	25	1	1	0	0	89
3M	1183	2211	2045	3144	3369	3319	3124	3165	2973	4268
3N	2	0	0	1	0	2	6	0	1.2	0
Total	1185	2242	2049	3147	3394	3321	3131	3165	2974	4357

The number of fishing vessels operating in the NAFO area has varied between 4 and 13 from 2010 to 2019. From 2010 to 2012 most of the catch was taken by trawlers whereas the share of catches by longliners has increased substantially since 2013 (Table 2). Just 25% of the total Faroese catch was taken by trawlers in 2016 and since 2017 the fisheries is exclusively conducted by longliners (100%).

Table 2. Share of catches (percentage) of cod (SA3) by fleet segment from 2010 to 2019. Longliners (LL), trawlers (TR).

Gear	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
LL	0%	2%	2%	92%	27%	63%	75%	100%	100%	100%
TR	100%	98%	98%	8%	73%	37%	25%	0%	0%	0%



The spatial distribution of the fishery for cod (trawlers and longliners combined) from 2014 to 2019 is shown in Figure 1. Mean depth of hauls by trawlers is around 360 m, whereas longliners operate at average depths of 430 m. The catch profile with respect to depth is shown in figure 2. Trawlers are fitted with mesh sizes ranging from 135 mm to 150 mm in cod-ends. Catches are taken almost entirely in the direct fishery.

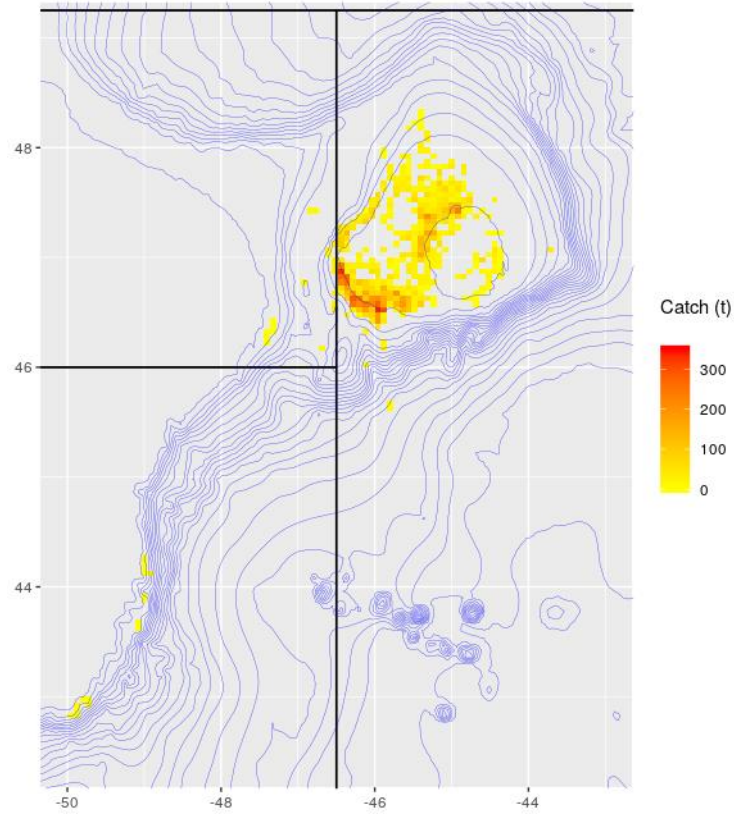


Figure 1. Spatial distribution of Faroese fishery for cod in SA3 (trawlers and longliners combined from) from 2014 to 2019 (n=1219).

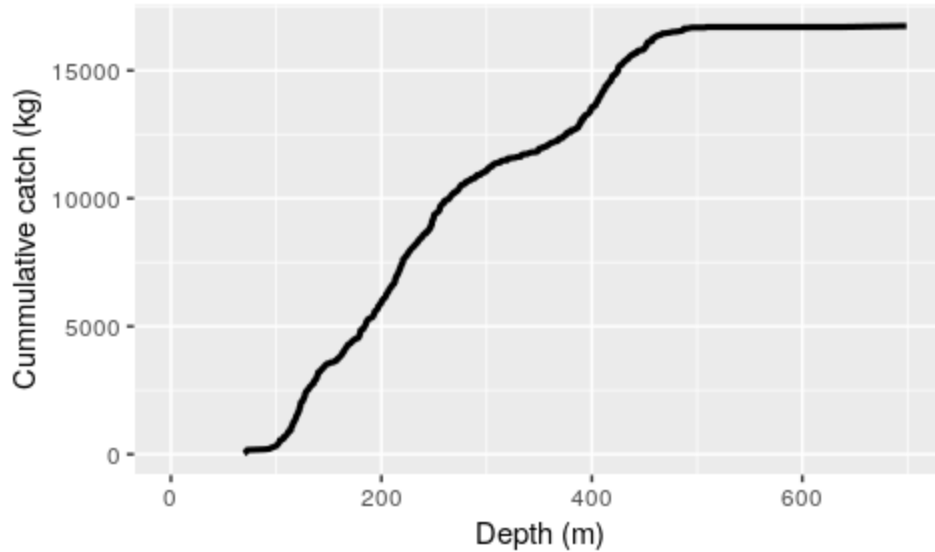


Figure 2. Relation between cumulative catch of cod (SA3) and average depth for Faroese vessels from 2014 to 2019 (n=1219).

The number of sea samples of cod in SA3 collected from Faroese vessels is shown in table 3. The largest number of length and weight samples was recorded in 2017 (84). Samples from non-NAFO observers include individual weight measurements. Length distributions (sampled numbers) and the relation between weight and length of cod from 2014 to 2018 are presented in table 4 and figure 3. Average length size is estimated at 59 cm in 2014, 62 cm in 2015, 73 cm in 2016, 76 cm in 2017, 72 cm in 2018 and 74 cm in 2019. The number of individual length measurements was 1796, 5152, 4794, 1546, 2215 and 1012 from 2014 to 2019 respectively. In 2019 samples of Greenland halibut (*Reinhardtius hippoglossoides*) containing information on length distributions were collected in NAFO 3L (NAFO-observer). The length composition of G. Halibut individuals is shown in figure 4.

Table 3. Number of length (nL) and weight (nW) sea samples of cod (SA3) from Faroese vessels since 2014.

Samples	2014	2015	2016	2017	2018	2019
n _L	21	48	47	55	34	14
n _W	21	5	0	29	14	14
	42	53	47	84	48	28

Table 4. Length distribution and length-weight relation of cod (SA3) from Faroese fishery (2014 - 2019). No weight measurements were available for 2016.

Length	2014	2015	2016	2017	2018	2019	Weight					
							Length	2014	2015	2017	2018	2019
27		1					30					
29		1			2		31	250				
30		0	0		1		32	400				
31	1	0	0				33				2600	
32	8	0	1				35				2850	
33		1	0		4		36				1037	
34		1	1		5		37				1104	
35		1	0		3		38	500			1016	
36	1	3	0		12		39	512		1660	1518	1200
37		0	0		15		40	556			550	1000
38	8	0	0	2	18		41	615			1240	1300
39	6	0	0	4	20	4	42	690		2058	772	
40	10	2	0		14	3	43	772		1884	1443	
41	5	3	0	1	28	4	44	804			784	
42	18	1	1	2	17		45	861	900	2000	1657	1325
43	26	9	2	6	29	10	46	940			1167	1100
44	28	4	0		18		47	978	1000		1377	1300
45	39	8	3	1	36	24	48	1319	1000	3190	2329	
46	49	7	5	13	22	8	49	1291	1000	2325	2069	1100
47	50	45	3	1	49	4	50	1123	1227	1980	1480	1550
48	71	124	12	6	41	2	51	1159	1326		1821	1233
49	78	75	21	16	40	3	52	1204	1436	2155	2323	1500
50	106	92	30	2	12	8	53	1255	1402	1500	2915	1100
51	87	172	46	2	24	5	54	1316	1395		2221	1375
52	87	178	38	3	21	16	55	1413	1596	1920	2798	1400
53	76	209	52	2	27	8	56	1433	1585	1808	2241	1820
54	91	297	78	2	24	12	57	1541	1726	1768	2843	1900
55	70	278	66	14	29	8	58	1646	1721	1911	3092	1625
56	53	341	106	13	23	15	59	1731	1792	2149	3318	1567
57	49	285	105	22	35	29	60	1794	1818	2288	2778	1767
58	38	307	128	32	35	18	61	2027	1976	2335	2651	1767
59	36	344	143	27	47	17	62	2012	2045	2377	2774	2200
60	50	262	187	32	22	22	63	2170	2156	2423	3315	2467
61	43	252	176	49	44	19	64	2189	2233	2720	2847	2214
62	44	164	225	41	37	9	65	2314	2903	2713	3104	2256
63	41	183	199	45	49	16	66	2534	2602	2824	3887	2400
64	35	140	184	59	42	38	67	2841	3710	3192	4462	2622
65	45	111	164	32	44	16	68	2658	3667	3054	4339	2785
66	52	95	137	31	43	9	69	2905	3045	3398	4332	2765
67	48	75	166	62	38	17	70	2881	3268	3162	4059	2880
68	26	69	185	56	44	42	71	3081	4542	3430	4452	3020
69	22	71	112	38	54	31	72	3268	4990	3544	4321	3162
70	33	60	211	70	32	33	73	3272	3578	3931	5812	3087
71	28	62	105	67	49	28	74	3397	4446	3953	4200	3320
72	19	62	102	59	36	20	75	3345	4750	4515	4743	3580
73	17	31	79	49	43	23	76	3659	4548	4312	4802	3455
74	13	46	82	54	40	45	77	3590	4558	4946	6091	3858
75	16	34	99	30	41	19	78	4353		4364	5582	4115
76	13	50	71	43	35	28	79	3874	4978	5128	5850	4067
77	4	27	61	21	35	26	80	4198	4744	5242	5911	4377
78	12	22	53	14	52	26	81	4447	4733	6128	5817	4440
79	8	32	54	21	49	12	82	4837	6142	6275	6452	4890
80	6	22	62	14	24	32	83	4830	6055	5323	6310	4836
81	10	29	50	13	30	8	84	5042	6880	5750	5127	5186
82	4	22	49	24	21	22	85	5695	5250	5733	6308	5760
83	4	17	36	19	28	17	86	6191	6271	5118	8170	5800
84	6	23	41	10	18	15	87	5918	5315	5615	4500	5760
85	15	13	30	14	34	15	88	6439	5800	6515	6087	5650
86	5	28	25	19	13	24	89	8000	6180	6154	6531	6280
87	5	32	48	16	30	18	90	7109	5600	6773	6595	6667
88	7	16	37	22	16	11	91	8000	6913	7431	7082	6633
89	3	28	28	10	32	10	92	7762	6200	9528	7116	
90	5	18	50	18	17	7	93	7600	7120	8004	8620	7250
91	2	22	40	20	35	12	94	8000		8822	9923	6750
92	7	12	24	17	19	1	95		7600	8242	8640	
93	5	18	32	16	18	7	96	8200	8800	8540	7774	7600
94	5	13	30	19	30	10	97			9012	9589	10533
95	2	14	53	9	19	4	98	8300		10288	9470	7925
96	5	11	38	18	35	10	99	11000	8955	9672	10454	9633
97	4	7	36	14	31	6	100	11050	10135	10782	10713	9150
98	11	15	51	16	27	6	101		9950	11212	11306	
99	5	10	36	14	21	20	102	11000	10300	10865	10451	10000
100	2	16	49	17	23	10	103	11200	12720	11743	12988	9300
101	4	5	37	24	22	1	104		12837	12914	15630	
102	3	16	36	17	22	1	105			14532	12176	11200
103	3	11	27	12	15	7	106			13080	14500	10533
104	1	14	20	10	13	5	107		14107	11235	11693	
105	1	9	31	6	18	8	108	14600	11600	11904	12113	10567
106		3	17	3	14	3	109			11572	13448	10500
107	1	9	15	4	17	2	110+	12677	17100	17118	15347	12325
108	1	4	18	9	11	4						
109		3	18	8	10	9						
110+	4	55	237	70	72	30						

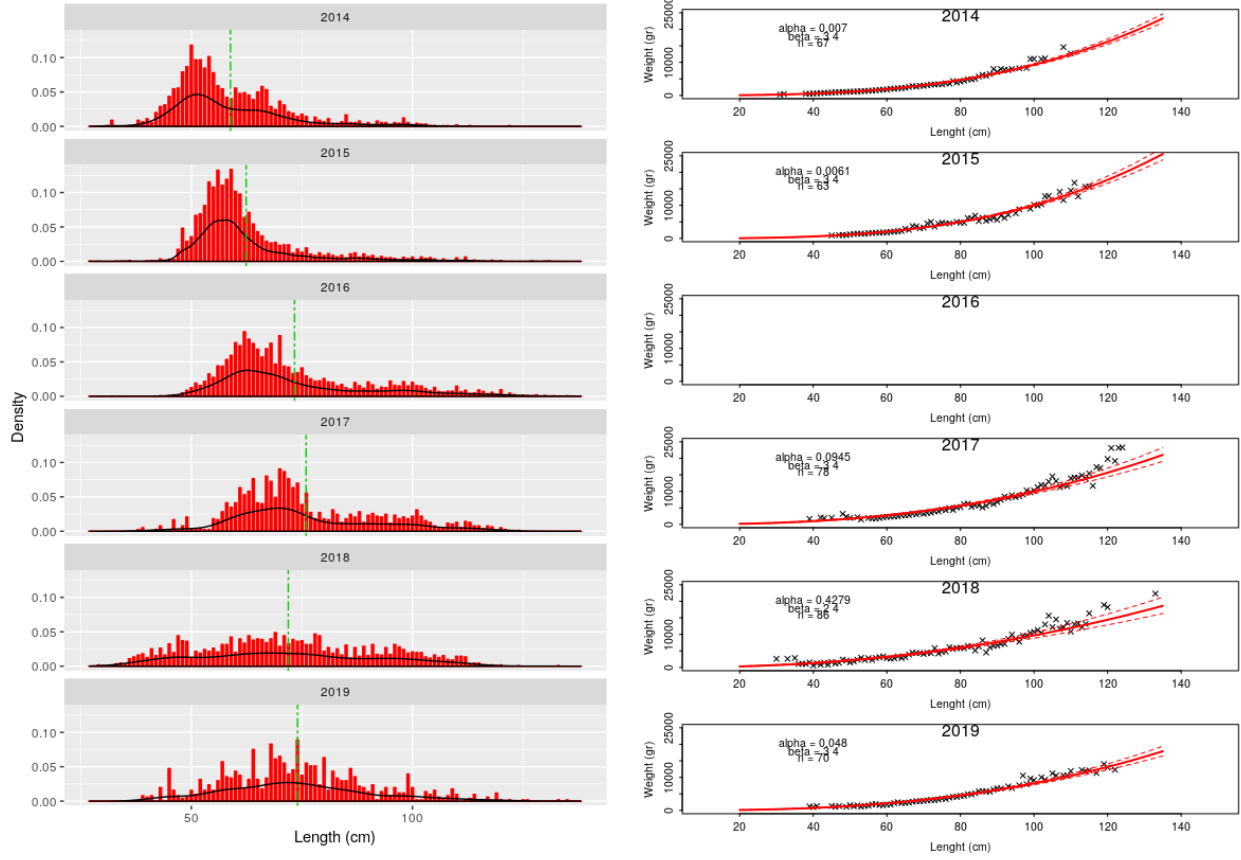


Figure 3. Length distribution (left panel) and length-weight relation (right panel) of cod (SA3) from Faroese fishery (2014 - 2019). Vertical green line shows average length. No weight measurements were available for 2016.

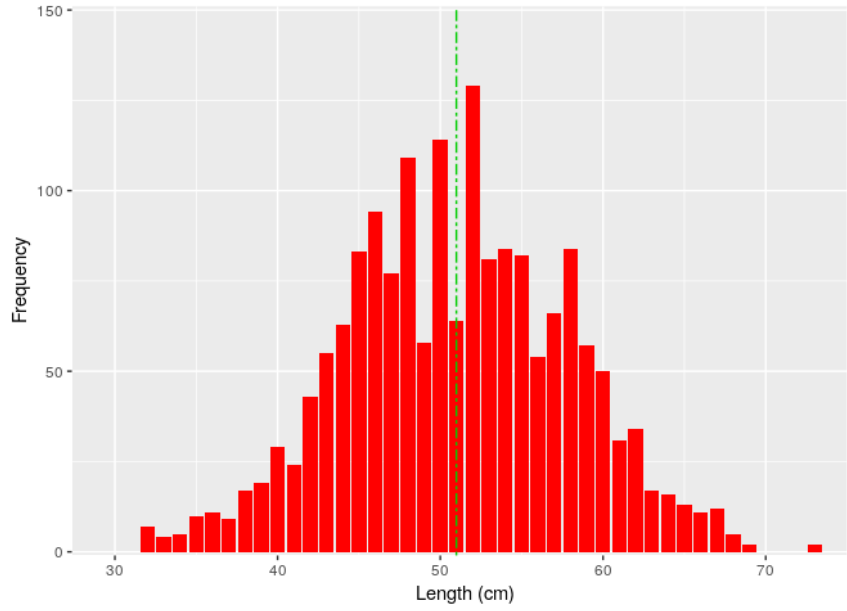


Figure 4. Length distribution of Greenland halibut (SA3) from Faroese fishery (2019). Vertical green line shows average length.

Annex . Faroese catches (tons) in the NAFO regulatory area from 2010 to 2019. (Source: Statlant)

Year	Species	1A	1D	2G	3L	3M	3N	3O	Total
2010	Atlantic cod	0	0	0	0	1183	2.1	4.6	1189.6
2010	Atlantic halibut	0	0	0	0	2.3	1.2	2.8	6.3
2010	Atlantic redfishes	0	0	0	0	121.9	19.7	162.6	304.2
2010	European plaice	0	0	0	0	3.7	0	0	3.7
2010	Flatfishes	0	0	0	0	0.7	0	0	0.7
2010	Greenland halibut	126.2	152.3	0	206.1	5.7	0.2	1.1	491.6
2010	Haddock	0	0	0	0	13	0	0	13
2010	Ling	0	0	0	0	0.2	0	0	0.2
2010	Northern prawn	0	0	0	2503	495.3	0	0	2998
2010	Whiting	0	0	0	0	1.8	0	0	1.8
2010	Wolfishes(=Catfishes)	0	0	0	0	9.7	0	0	9.7
2011	Atlantic cod	0	0	0	30.8	2211	0	0	2242.2
2011	Atlantic halibut	0	0	0	0.4	0.8	0.5	0	1.7
2011	Atlantic redfishes	0	0	0	26.9	420.3	5.3	0	452.5
2011	European plaice	0	0	0	0	0.2	0	0	0.2
2011	Greenland halibut	101.8	0	0	216.9	3.8	0.1	0	322.6
2011	Northern prawn	0	0	0	1447	0	0	0	1447
2011	Roundnose grenadier	0	0	0	0.4	0	0	0	0.4
2011	Wolfishes(=Catfishes)	0	0	0	0	0.5	0	0	0.5
2012	Atlantic cod	0	0	0	3.7	2045	0.1	4.4	2053.4
2012	Atlantic halibut	0	0	0	0.1	0.2	0.1	0.6	1
2012	Atlantic redfishes	0	0	0	28.5	148.7	2.2	101	280.4
2012	Greenland halibut	102.3	0	0	104.2	42.3	1.4	0	250.2
2012	Haddock	0	0	0	0	10.1	0	0	10.1
2012	Northern prawn	0	0	0	1037	0	0	0	1036.8
2012	Raja rays	0	0	0	0	0.2	0	0	0.2
2012	Roundnose grenadier	0	0	0	2.1	1.1	0	0	3.2
2013	Atlantic cod	0	0	0	2.9	3144	0.6	8.6	3156.1
2013	Atlantic halibut	0	0	0	0.1	9.3	0.1	0.6	10.1
2013	Atlantic redfishes	0	0	0	64.5	74.1	3.6	57.9	200.1
2013	Atlantic wolffish	0	0	0	0	5.3	0	0	5.3
2013	Greenland halibut	0	102	0	194.7	4.8	0	0	301.5
2013	Northern prawn	0	0	0	592.2	0	0	0	592.2
2013	Raja rays	0	0	0	0	0.1	0	0	0.1
2013	Roundnose grenadier	0	0	0	0.7	0	0	0	0.7
2013	Tusk	0	0	0	0	0.4	0	0	0.4
2013	Wolfishes(=Catfishes)	0	0	0	0	26.4	0	0	26.4
2014	Atlantic cod	0	0	0	25	3369	0	0	3394.1
2014	Atlantic halibut	0	0	0	0	10.6	0	0	10.6
2014	Atlantic redfishes	0	0	0	0	5.1	0	0	5.1
2014	Atlantic wolffish	0	0	0	0	0.5	0	0	0.5
2014	Greenland halibut	0	0	0	118.4	2.4	0	0	120.8
2014	Haddock	0	0	0	0	0.1	0	0	0.1
2014	Northern prawn	0	0	0	437	0	0	0	437
2014	Roundnose grenadier	0	0	0	1	0.4	0	0	1.4
2014	Wolfishes(=Catfishes)	0	0	0	0	9.2	0	0	9.2
2015	Atlantic cod	0	0	0	1.2	3319	1.5	0	3321.3
2015	Atlantic halibut	0	0	0	0	7.3	0.9	0	8.2
2015	Atlantic redfishes	0	0	0	30.9	75.4	32.6	0	138.9
2015	Atlantic wolffish	0	0	0	0	0.2	0	0	0.2
2015	Black scabbardfish	0	0	8.3	0	0	0	0	8.3
2015	Blue ling	0	0	0.6	0	0	0	0	0.6
2015	Dogfish sharks	0	0	0.3	0	0	0	0	0.3
2015	Greenland halibut	101.7	0	0	44.8	156.2	0	0	302.7
2015	Haddock	0	0	0	0	0.6	0	0	0.6
2015	Roundnose grenadier	0	0	0.3	0	0	0	0	0.3
2015	Tusk	0	0	0.3	0	0.4	0	0	0.7
2015	Wolfishes(=Catfishes)	0	0	0	0	4.7	0	0	4.7
2016	Atlantic cod	0	0	0	0.6	3124	5.7	0	3130.7
2016	Atlantic halibut	0	0	0	0	8.4	0	0	8.4
2016	Atlantic redfishes	0	0	0	20.4	70	43	0	133.4
2016	Greenland halibut	103.4	0	0	24.1	165	0	0	292.5
2016	Haddock	0	0	0	0	0.6	0	0	0.6
2016	Roundnose grenadier	0	0	0	0	0.3	0	0	0.3
2016	Tusk	0	0	0	0	0.1	0	0	0.1
2016	Wolfishes(=Catfishes)	0	0	0	0	0.5	0	0	0.5
2017	Atlantic cod	0	0	0	0	3165	0	0	3164.6
2017	Atlantic halibut	0	0	0	0	14.4	0	0	14.4
2017	Atlantic redfishes	0	0	0	0.1	1.8	0	0	1.9
2017	Greenland halibut	0	0	0	135.1	44.8	0	0	179.9
2017	Roundnose grenadier	0	0	0	0.6	0	0	0	0.6
2018	Atlantic cod	0	0	0	0.1	2973	1.2	0	2973.8
2018	Atlantic halibut	0	0	0	0	14.1	0	0	14.1
2018	Atlantic redfishes	0	0	0	15.3	69.9	69.7	0	154.9
2018	Greenland halibut	84.1	0	0	208.7	2.3	0	0	295.1
2018	Haddock	0	0	0	0	0.3	0	0	0.3
2018	Roundnose grenadier	0	0	0	0.5	0	0	0	0.5
2018	Tusk	0	0	0	0	0.2	0	0	0.2
2018	Wolfishes(=Catfishes)	0	0	0	0	2.1	0	0	2.1
2019	Atlantic cod	0	0	0	89.1	4268	0	0	4356.6
2019	Atlantic halibut	0	0	0	0.2	23.4	0	0	23.6
2019	Atlantic redfishes	0	0	0	0	0.6	0	0	0.6
2019	Greenland halibut	103	0	0	211.5	0	0	0	314.5
2019	Porbeagle	0	0	0	0	0.4	0	0	0.4
2019	Raja rays	0.4	0	0	0.1	1.7	0	0	2.2
2019	Roundnose grenadier	0.1	0	0	3.1	0	0	0	3.2
2019	Tusk	0	0	0	0.1	0.3	0	0	0.4
2019	Wolfishes(=Catfishes)	0	0	0	0	4	0	0	4