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SCIENTIFIC COUNCIL MEETING – JUNE 2019**Faroese Research Report 2018**Luis Ridao Cruz, *luisr@hav.fo*

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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 3394 t. in 2014. Recorded catches in 2018 were 2974 t. The Faroese quota of cod in 3M is 22.35%. A complete list of catches by species from 2010 to 2018 is shown at the end of the document as an annex.

Table 1. Faroese landings (tons) of cod in SA3 from 2010 to 2018. (Source: Statlant)

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

The number of fishing vessels operating in the NAFO area has varied between 4 and 13 from 2010 to 2016. 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 2018. Longliners (LL) , trawlers (TR).

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



The spatial distribution of the fishery for cod (trawlers and longliners combined from NAFO-observers) from 2015 to 2018 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.

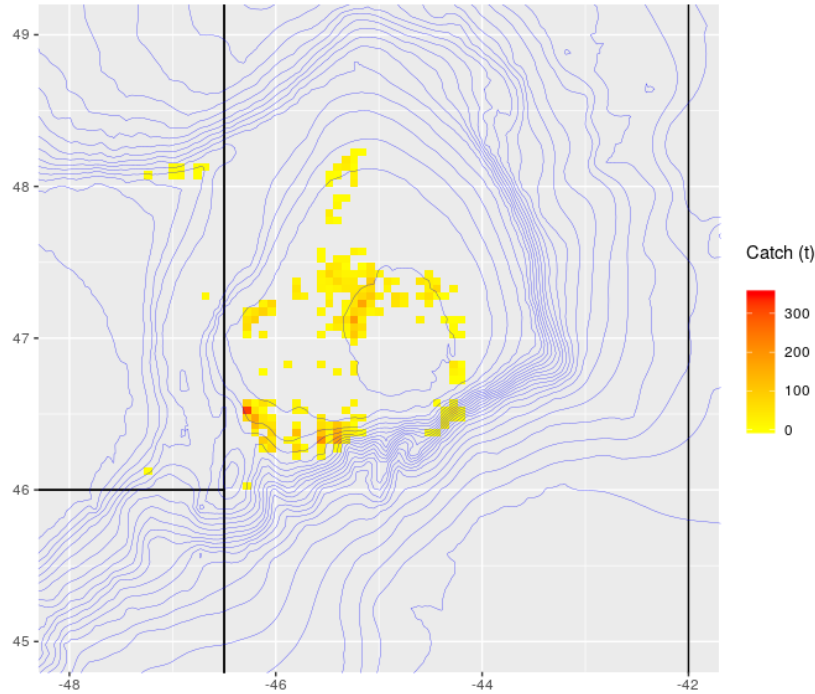


Figure 1. Spatial distribution of Faroese fishery for cod in SA3 (trawlers and longliners combined from NAFO-observers) from 2015 to 2018 (n=737).

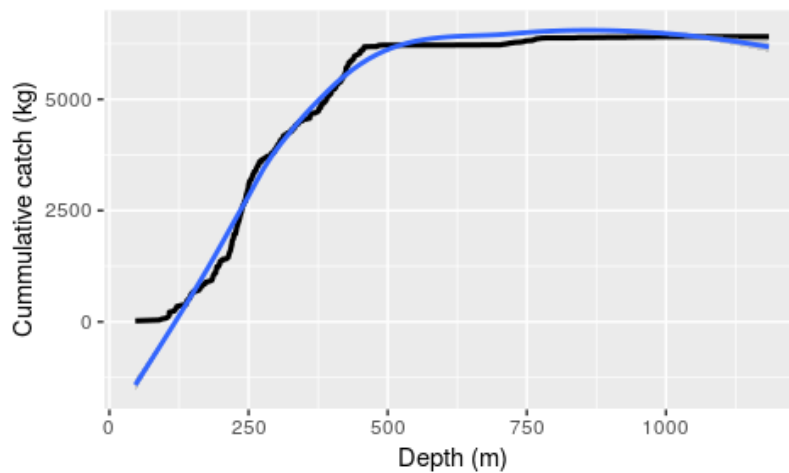


Figure 2. Relation between cumulative catch of cod (SA3) and average depth (black line) for Faroese vessels from 2015 to 2018 (n=737). Blue line is a smoothed curve.

The number of sea samples of cod in SA3 collected from Feroese 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 and 72 cm in 2018. The number of individual length measurements was 1796, 5152, 4794, 1546 and 2215 from 2014 to 2018 respectively.

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

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

Table 4. Length distribution and length-weight relation of cod (SA3) from Faroese fishery (2014 - 2018). No weight measurements were available for 2016.

Length(cm)	2014	2015	2016	2017	2018	Length (cm)	Weight (gr)			
							2014	2015	2017	2018
27		1				30				2600
29		1			2	31	250			2850
30					1	32	400			1037
31	1					33				1104
32	8		1			34				1016
33		1			4	35				1518
34		1	1		5	36				550
35		1			3	37				1240
36	1	3			12	38	500			772
37					15	39	512		1660	1443
38	8			2	18	40	556			784
39	6			4	20	41	615			1657
40	10	2			14	42	690			1167
41	5	3		1	28	43	772			1377
42	18	1	1	2	17	44	804			2329
43	26	9	2	6	29	45	861	900	2000	2325
44	28	4			18	46	940			1980
45	39	8	3	1	36	47	978	1000		1821
46	49	7	5	13	22	48	1319	1000	3190	2323
47	50	45	3	1	49	49	1291	1000		2915
48	71	124	12	6	41	50	1123	1227		2221
49	78	75	21	16	40	51	1159	1326		2798
50	106	92	30	2	12	52	1204	1436	2155	2241
51	87	172	46	2	24	53	1255	1402	1500	2843
52	87	178	38	3	21	54	1316	1395		3092
53	76	209	52	2	27	55	1413	1596	1920	3318
54	91	297	78	2	24	56	1433	1585		2778
55	70	278	66	14	29	57	1541	1726		2651
56	53	341	106	13	23	58	1646	1721		2774
57	49	285	105	22	35	59	1731	1792		3315
58	38	307	128	32	35	60	1794	1818	2288	2847
59	36	344	143	27	47	61	2027	1976	2335	3104
60	50	262	187	32	22	62	2012	2045	2377	3887
61	43	252	176	49	44	63	2170	2156	2423	4462
62	44	164	225	41	37	64	2189	2233	2720	4339
63	41	183	199	45	49	65	2314	2903	2713	4332
64	35	140	184	59	42	66	2534	2602	2824	4059
65	45	111	164	32	44	67	2841	3710	3192	4452
66	52	95	137	31	43	68	2658	3667	3054	4321
67	48	75	166	62	38	69	2905	3045	3398	4626
68	26	69	185	56	44	70	2881	3268	3162	4339
69	22	71	112	38	54	71	3081	4542	3430	4332
70	33	60	211	70	32	72	3268	4990	3544	4059
71	28	62	105	67	49	73	3272	3578	3931	4452
72	19	62	102	59	36	74	3397	4446	3953	4321
73	17	31	79	49	43	75	3345	4750	4515	4200
74	13	46	82	54	40	76	3659	4548	4312	4743
75	16	34	99	30	41	77	3590	4558	4946	4802
76	13	50	71	43	35	78	4353		4364	6091
77	4	27	61	21	35	79	3874	4978	5128	5582
78	12	22	53	14	52	80	4198	4744	5242	5850
79	8	32	54	21	49	81	4447	4733	6128	5911
80	6	22	62	14	24	82	4837	6142	6275	5817
81	10	29	50	13	30	83	4830	6055	5323	6452
82	4	22	49	24	21	84	5042	6880	5750	6310
83	4	17	36	19	28	85	5695	5250	5733	5127
84	6	23	41	10	18	86	6191	6271	5118	6308
85	15	13	30	14	34	87	5918	5315	5615	8170
86	5	28	25	19	13	88	6439	5800	6515	4500
87	5	32	48	16	30	89	8000	6180	6154	6087
88	7	16	37	22	16	90	7109	5600	6773	6531
89	3	28	28	10	32	91	8000	6913	7431	6595
90	5	18	50	18	17	92	7762	6200	9528	7082
91	2	22	40	20	35	93	7600	7120	8004	7116
92	7	12	24	17	19	94	8000		8822	8620
93	5	18	32	16	18	95		7600	8242	9923
94	5	13	30	19	30	96	8200	8800	8540	8640
95	2	14	53	9	19	97			9012	7774
96	5	11	38	18	35	98	8300		10288	9589
97	4	7	36	14	31	99	11000	8955	9672	9470
98	11	15	51	16	27	100	11050	10135	10782	10454
99	5	10	36	14	21	101		9950	11212	10713
100	2	16	49	17	23	102		11000	10300	11306
101	4	5	37	24	22	103		11200	12720	10451
102	3	16	36	17	22	104			12837	12988
103	3	11	27	12	15	105				15630
104	1	14	20	10	13	106				12176
105	1	9	31	6	18	107		14107		13080
106		3	17	3	14	108	14600	11600	11235	14500
107	1	9	15	4	17	109			11572	11693
108	1	4	18	9	11	110+	12677	17100	17118	12113
109		3	18	8	10					13448
110+	4	55	237	70	72					15347

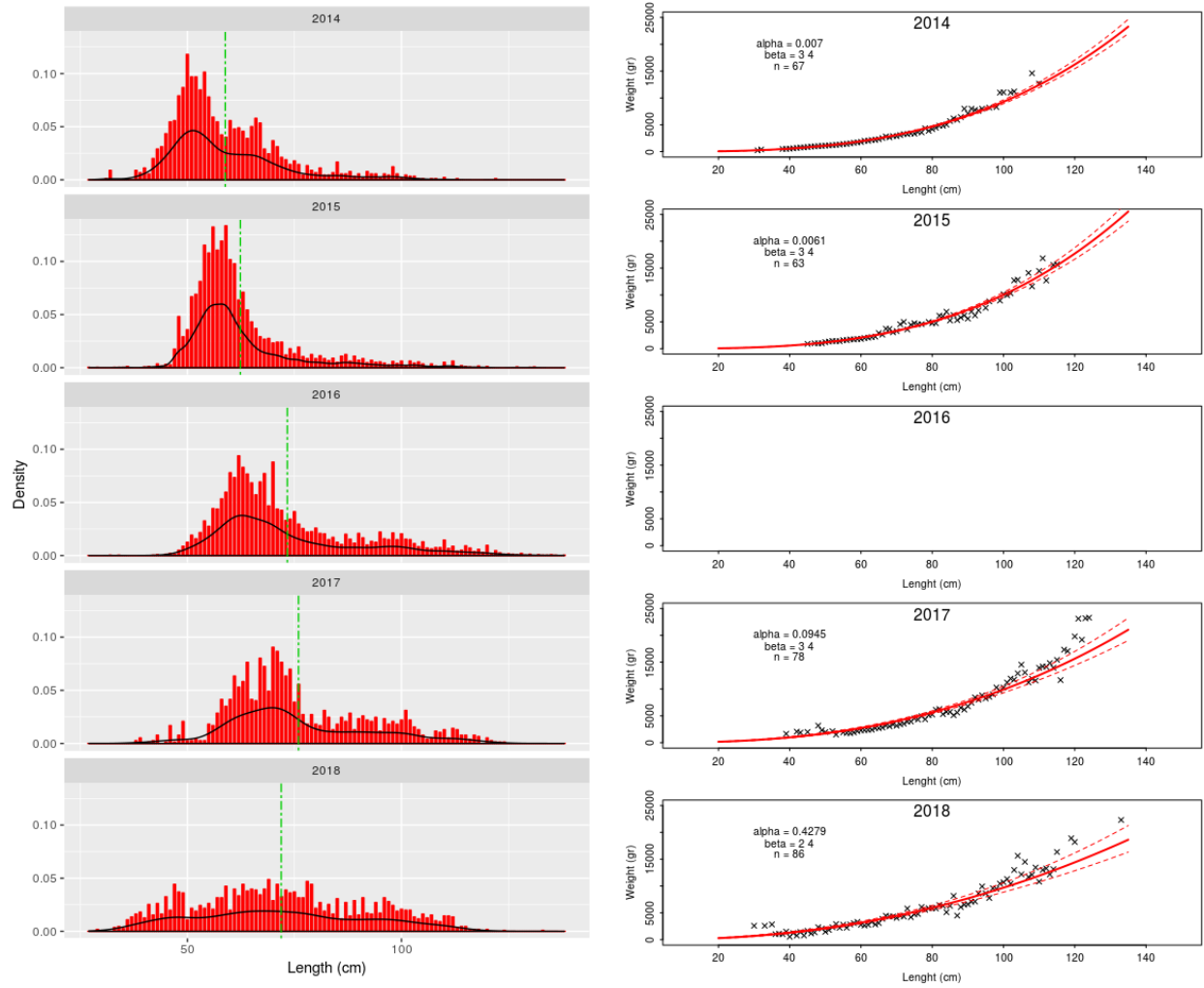


Figure 3. Length distribution (left panel) and length-weight relation (right panel) of cod (SA3) from Faroese fishery (2014 - 2018). Vertical green line shows average length. No weight measurements were available for 2016.

Annex . Faroese catches (tons) in the NAFO regulatory area from 2010 to 2018. (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	Wolffishes(=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	Ling	0	0	0	0	0	0	0	0
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	Wolffishes(=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	Angler(=Monk)	0	0	0	0	0	0	0	0
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	Haddock	0	0	0	0	0	0	0	0
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	Wolffishes(=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	Wolffishes(=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	Wolffishes(=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	Wolffishes(=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	104	0	0	208.7	2.3	0	0	315
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	Wolffishes(=Catfishes)	0	0	0	0	2.1	0	0	2.1