



Serial No. N7164

NAFO SCS Doc. 21/07

SCIENTIFIC COUNCIL MEETING - JUNE 2021

German Research Report for 2020

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Sub-area 1

A. Status of the Fishery

After the increase in effort in 2019 to 1707 hours, the fisheries in 2020 directed towards Greenland halibut (*Reinhardtius hippoglossoides*) in 1C+1D had an effort of 1549 hours which is at the level of the year 2018 with 1532 h, but less than in 2012 and 2011 with 2004 hours and 2938 hours, respectively. In turn, reported landings were 1925 t at the same level as in 2019 with 1926 t from 1C+1D, with a decreasing CPUE in 1D. The fisheries have concentrated in 1D.

Logbook reported bycatch in the fishery comprised some < 1 % of total landings yielding 6 t. The by-catch of roundnose grenadiers was 5 t and thus in the range observed in previous years (3-4 t in 2007, 2008 and 2010, but <1 t in 2011 and 2012, 4.3 t in 2018). Wolffish by-catch (Northern wolffish, *A. denticulatus*) was <1 t and by-catch of skates was < 1 t and thus less than in previous years. Table 1 lists a breakdown of the effort, landings, and non-standardised Greenland halibut CPUE by month and year. The annual trend is shown in Figure 1.

No pelagic fishery for pelagic redfish (*Sebastes mentella*) in the NAFO RA took place in 2019. The fisheries in 2000-2006 appeared as an intermezzo only. It occurred for the first time off Southwest Greenland in 1999 and increased substantially in 2000 due to a change in distribution patterns of the stock in westerly direction as derived from a biennial international hydro-acoustic surveys conducted in June/July 2001-2005 by Iceland, Russia and Germany (e.g., ICES CM, 2005). After 2000, the fishery was conducted in the NAFO Regulatory Area and Greenland EEZ in Div. 1F during the 3rd quarter at depths above 500 m and targeted almost exclusively mature redfish with almost no discard and no by-catch of other species. No fishery was reported since 2007.

In 2020, no commercial German cod fisheries took place in Div. 1F. The catch in 2008 was 2415 t. In 2009, catch dropped to 370 t. No cod was landed from SA-1F in 2010, in 2011 catches amounted to 4 t. In 2012, some 69 t were landed from Division 1D+1F, with a minute increase in 2013 amounting to 391 t.



B. Special Studies

1. Environment

The German groundfish survey off Greenland was conducted in 2020 in NAFO SA 1C to 1F. The fishery oceanographic measurements performed off West Greenland are reported to the Scientific Council, STACFEN. With regards to long-term transect sampling, only the Fyllas-Bank transect was sampled in 2020, but not the Cap Desolation transect. Data are available from the ICES oceanographic data portal.

2. Biological Studies

In NAFO SA 1C to 1F, biological data for wolf fishes, Atlantic cod, redfish and skates were collected.

Sub-area 2

A. Status of the Fishery

2 J

No fisheries in 2007- 2020. In 2003, German trawlers conducted a pelagic fishery for pelagic redfish (*Sebastes mentella*) for the first time in the NAFO Regulatory Area of Div. 2J. The fishery was conducted in Div. 2J during the 3rd quarter only at depths above 500 m and targeted almost exclusively mature redfish with almost no discard and no by-catch of other species. No fishery was carried out since 2006. Table 3 lists a breakdown of the effort, landings, and non-standardised pelagic redfish CPUE by year and quarter.

2 H

No fisheries in 2007 - 2020. In 2006, one catch of 4 t redfish was recorded for 2 H.

B. Special Studies

1. Environment

No research in relation to environment was carried out by Germany in NAFO Sub-area 2.

2. Biological studies

2011 hydro-acoustic survey for pelagic redfish: see SA 1

Sub-area 3

A. Status of the Fishery

In 2007-2018, German fishing vessels did not fish in Sub-area 3.

B. Special Studies

1. Environment

No research in relation to environment was carried out by Germany in NAFO Sub-area 3.

2. Biological studies

No biological samplings or studies were performed by Germany in NAFO Sub-area 3.

References:

Table 1. German effort (hours fished), landings (kg), unstandardized CPUE (kg/h) and accompanied standard deviations for Greenland halibut (*R. hippoglossoides*) in Sub-division 1D by month and by year, 2018, 2019 and 2020. CPUE statistics calculated for catches > 100 kg of target species only.

	Greenland halibut							
2018	NF-1C	NF-1C	NF-1C	NF-1C	NF-1D	NF-1D	NF-1D	NF-1D
	Landings (kg)	CPUE	CPUE	Effort (h)	Landings (kg)	CPUE	CPUE	Effort (h)
month	Sum	Mean	Std	Sum	Sum	Mean	Std	Sum
1								
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	153047	1143.4	508.58	128.5	37090	1918.35	3.75	19.33
6	175934	1218.3	276.91	142.25	117794	1176.12	144.64	99.58
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
9	459329	1155.4	512.78	410.08	.	.	.	.
10	66770	960.16	161.99	69.42	11400	1140	.	10
11	487711	1374.6	635.41	378.5	101313	1524.54	679.98	79.17
12	324792	2084.2	1130.22	195.58	.	.	.	.

2019	NF-1C	NF-1C	NF-1C	NF-1C	NF-1D	NF-1D	NF-1D	NF-1D
	Landings (kg)	CPUE	CPUE	Effort (h)	Landings(kg)	CPUE	CPUE	Effort (h)
Month	Sum	Mean	Std	Sum	Sum	Mean	Std	Sum
1								
2								
3								
4								
5								
6								
7	16847	966.5	143.4	17.83				
8	565678	1088.38	439.98	533.33	10547	419.03	233.04	24.5
9					18972	3449.5	NA	5.5
10	845249	1182.61	419.46	735.42				
11	468932	1171.02	441.63	391.25				

2020	NF-1C	NF-1C	NF-1C	NF-1C	NF-1D	NF-1D	NF-1D	NF-1D
	ZONE	ZONE	ZONE	ZONE	ZONE			ZONE
	GRL	GRL	GRL	GRL	GRL			GRL
	Landings (kg)	CPUE	CPUE	Effort (h)	Landings (kg)	CPUE	CPUE	Effort (h)
month	Sum	mean	STD	Sum	Sum	mean	Std	Sum
1								
2	.			.	.			.
3	.			.	.			.
4	252609.0	1424.7	658.1	183.7	.			.
5	.			.	.			.
6	.			.	.			.
7	.			.	.			.
8	.			.	.			.
9	.			.	.			.
10	404558.0	1120.0	511.6	365.9	83852.0	874.2	326.6	90.3
11	887411.0	1277.4	550.0	714.7	5217.0	621.1		8.4
12	291463.0	1622.3	554.3	186.2	.			.

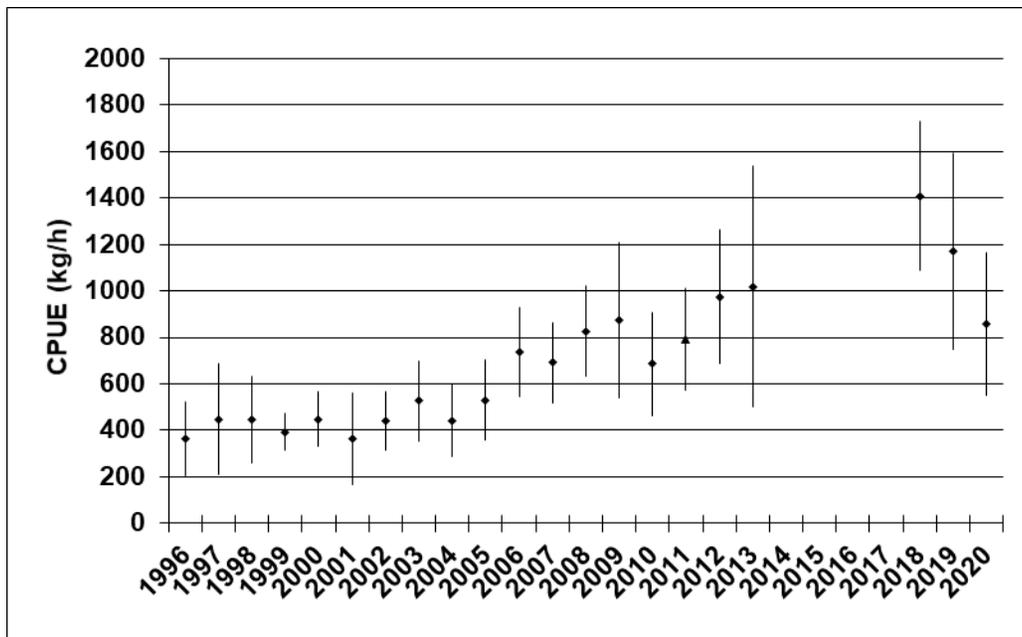


Figure 1. Greenland halibut in NAFO Div. 1D. Unstandardised CPUE and accompanied standard deviation by year as derived from German commercial landings mainly taken during the 4th quarters, 1996-2020. Respective values for 2018 and 2020 are listed in Table 1.