# DNV·GL

## SURVEILLANCE NO. 1

# Report for the West Greenland offshore Greenland halibut fishery

Sustainable Fisheries Greenland, Baldrianvej 2, 9310 Vodskov, Denmark

Report No.: 2018-018, Rev. 1 Authors: Hans Lassen, Sandhya Chaudhury Date: 08.10.2018 Certificate number: F-DNV-240697



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#### Objective:

The objective of this report is the first surveillance audit of the West Greenland Offshore Greenland halibut fishery.

Prepared by:

Verified by:

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# GLOSSARY

## **Abbreviations & acronyms**

Avataq	Greenlands Nature and Environment Association
DFO	Department of Fisheries and Oceans (Canada)
ETP	Endangered, Threatened and Protected species
GFLK	Grønlands Fiskeri Licens Kontor (Greenland Fisheries Control and Inspection Authorities)
GINR	Greenland Institute for Nature Research
HCR	Harvest Control Rule
IFMP	Integrated Fishery Management Plan (Canadian)
KNAPK	Greenland Organisation of Fishers and Hunters
LTL	Low Trophic Level Species (MSC terminology)
MFHA	Ministry of Fishing, Hunting and Agriculture (Greenland ministry dealing with fisheries)
MSC	Marine Stewardship Council
NAFO	Northwest Atlantic Fisheries Organisation
NAFO SC	NAFO Scientific Council, within NAFO responsible
PI	Performance indicator
PISG	Performance indicator scoring guidepost
RBF	Risk based framework
SA	NAFO Subarea
SG	Scoring guidepost
TAC	Total Allowable Catch. Used both as the advised total catch allowed under sustainability limitation and as the quota allowed by the management body
UoA	Unit of Assessment (MSC terminology)
UoC	Unit of Certification (MSC terminology)
VME	Vulnerable Marine Ecosystem
ZSL	Zoological Society of London

## Stock assessment reference points

Bo	The (spawning) biomass expected if there had been no fishing (assuming recruitment as estimated through stock assessment).
B <sub>lim</sub>	Spawning biomass limit reference point, sometimes used as a trigger within harvest control rules, or defined as the point below which recruitment is expected to be impaired or the stock dynamics are unknown
B <sub>msy</sub>	Spawning Biomass at which the maximum sustainable yield is expected (sometimes expressed as $SB_{msy}$ )
B <sub>targ</sub>	Spawning biomass target reference point
Flim	Exploitation rate limit reference point, often taken as Fmsy based on UNFSA
F <sub>msy</sub>	Fishing mortality rate associated with the achieving maximum sustainable yield
Ftarg	Fishing mortality target reference point
MSY	Maximum Sustainable Yield

# **1 GENERAL INFORMATION**

Table 1 General infe	ormation								
Fishery name	West Greenland offsl	nore Greenland	l halibut						
Unit(s) of									
Assessment (UoA)	Species:		Greenland halibut (Reinhardtius hippoglossoides)						
	Stock:	Greenland halibut in Subarea 0 and Divisions 1A							
			(offshore) + 1B-F						
	Geographical area:	NAFO Subareas	s 1 (A, B, C, D	, E, F)					
	Harvest method:	Trawls-bottom	trawl						
	Management:			linistry of Fisheries,					
	_			trol and enforcement					
				ense Control (GFLK).					
	Client group:			Fisheries Greenland					
				oanies published on ently listed in the table					
		below (fishing							
		trawlers:							
		Company:	Vessel:	Licens no:					
		Sigguk	"Polar	GHL-43-1-H					
		Greenland	Nanoq"	GHL-43-2-H					
		A/S	"Sisimiut"						
		Royal Greenland	Sisimiut	GHL-39-1-H GHL-39-2-H					
		A/S							
		Polar Seafood	"Polar	GHL-24715-1-H					
		GRL. A/S	Princess"	GHL-24715-2-H					
		Qaleralik A/S	"Tuugaalik"	GHL-29-1-H					
			Tugaank	GHL-29-2-H					
	Other eligible	Vessels from th	e FU Norway	, Russia and Faroe					
	fishers:	Islands are fish							
				ngements with the					
				owever, these vessels					
		are not part of							
		There are no "C							
Date certified	22 May 2017		f expiry	21 May 2022					
Surveillance level	Surveillance level 4 as			1					
and type Date of surveillance	Off-site audits year 1 & 21 August 2018	2; on-site audit	s in year 3 &	4					
audit									
Surveillance stage	1st Surveillance	х							
	2nd Surveillance								
	3rd Surveillance								
	4th Surveillance								
	Other (expedited etc)								
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This report contains the findings of the first annual MSC Fisheries surveillance audit conducted for the West Greenland offshore Greenland halibut on 21.08.2018.

The purpose of this annual Surveillance Report is:

- 1. To establish and report on any material changes to the circumstances and practices affecting the original complying assessment of the fishery;
- 2. To monitor the progress made to comply with the 4 Conditions raised and described in the Public Certification Report of 18.05.2017 and in the corresponding Action Plan drawn up by the client;
- 3. To monitor any actions taken in response to the 1 Recommendation made in the Public Certification Report;
- 4. To re-score any Performance Indicators (PI) where practice or circumstances have materially changed during the intervening year, focusing on those PIs that form the basis of Conditions raised.

The primary focus of this surveillance report is to review the changes occurred since the previous year. For a complete picture of the fishery, this report should be read in conjunction with the Public Certification Report available for download at <u>www.msc.org</u>.

## 2 BACKGROUND

The certificate for the West Greenland offshore Greenland halibut fishery was issued on May 22 2017 with an eligibility date of 15th February 2017. The assessment and the certification was based on MSC FAM v 2.0 and hence this first surveillance was done based on this scoring framework.

As background for the audit the Client presented a documentation package, information from which was verified and supplemented at the interviews at the off-site meetings - see References for a complete list of the contents of the documentation package.

## 2.1 Fishery

Bottom otter trawl gear is used by most fleets in the Subarea 1 fishery, there have been longline vessels in the offshore while gillnet gear is not allowed. The trawlers have been using both single and double trawl configurations since about 2000. The Greenland fleet operates bottom trawls only.

There were no changes reported in fishing strategy or gears. The fishing grounds remain the same as in previous years, Figure 1.

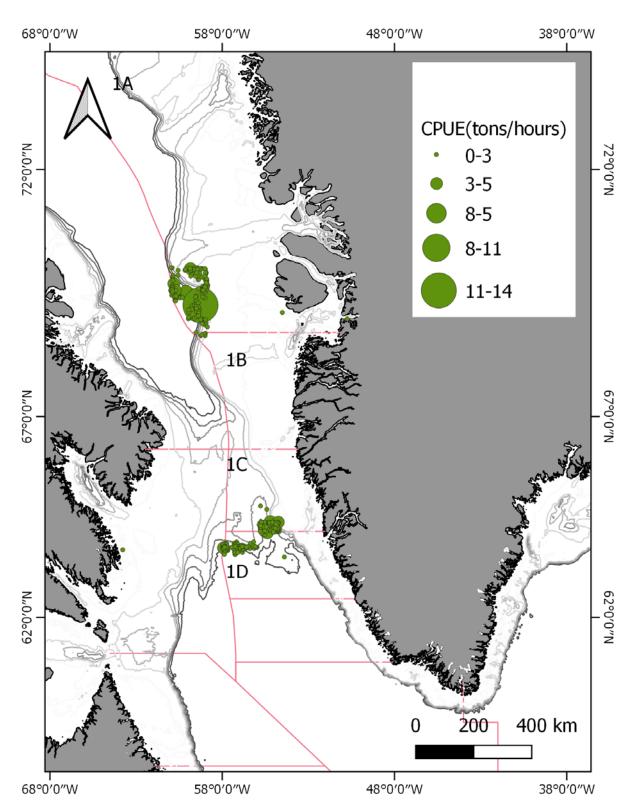


Figure 1 Distribution of the 2017 Greenland fishery for Greenland halibut in the Davis Strait. Source: GFLK

The fishery is regulated through annual TACs based on the NAFO advice. The split between Canada and Greenland remained unchanged 50:50. The catches are summarised in Table 2 and Table 3.

Table 2 Greenland halibut in the Davis Strait. Recent Catches and TACs ('000t). Based on STATLANT, with information from Canada and Greenland authorities used to exclude 1A and 0B inshore catch. Includes inshore 1B-F catches. Source NAFO Sc.C. 2018. Advice June 2018 for 2019 and 2020

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
TAC	24	27	27	27	27	30	30	30	32.3	32.3
SA 0	12	13	13	13	13	15	14	14	16	
SA 1	13	13	14	14	15	16	17	17	18	
Total	25	26	27	27	28	31	31	31	35	

NAFO (2018) reports that there is no scientific basis with which to provide separate advice for Div. OA+1AB and Div. OB+1C-F and advises that consideration be given to the distribution of effort in each area to avoid localized depletion. The Greenland fishery hence divided the overall TAC into two components for 1AB and 1CD respectively. The catches from these two areas are given in Table 3

# Table 3 Greenland halibut. Catch (t) for 2017 for Subarea 1 (GRL: Greenland, Rus: Russia, FRO: Faroe Islands, EU: European Union, Nor: Norway). Source GFLK

Catch(tons)		1A	В				1CD			
Year	GRL	RUS	FRO	TOT 1AB	GRL	RUS	EU	NOR	TOT 1CD	Total
2017	8003	549	103	8655	4968	1224	1929	1495	9616	18271

There is a small inshore fishery in Div. 1B-F where catches were less than 500 t prior to 2013. Since then catch has varied between 1,000 t and 2,000 t due primarily to increased effort in Div. 1D and within Div. 1D mainly in the Godthåbsfjord; the fishery continued in 2017. This local fishery is from small boats and is largely unregulated. The fishery is the basis for Condition 1 and is discussed in this assessment report.



Species Code (ASFIS)		GHL-x- Inshore	100-H			GHL-> Northern A					GHL-x-2-H Southern Area (1CD)		
	2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	
ALC											2		
ARG										500			
ARU										20			
BLI												23	
BYC						40							
CAB						39			295	2,559	3,131	1,868	
CAS											27		
CAT					615		29		3,441	2,977			
COD									1,752				
CRQ									3				
DAB											22		
DGS										333			
DGX											1,564	1,234	
GHL	1,503,421	1,170,141	1,505,452	1,497,303	6,462,466	6,695,581	6,507,716	7,073,136	6,883,821	7,008,128	6,977,269	7,617,823	
GSK							12,900	43,820		570	3,444	10,205	
GUX										88			
HAL									48	23	248	1,148	
MZZ	9,365			218	41,525	36,627	12,070	11,665	10,030	13,325	6,900	13,404	
PLA						921							
REB										1,582	15,591	24,476	
RED			87						5,351	13,281	2,949		
REG										37		5,376	
RHG									11,868	3,345			

#### Table 4 Greenland halibut fishery in Davis Strait and inshore 1B-1F. Data based on logbooks and sales slips (inshore). Source: GFLK



Species Code <b>(ASFIS)</b>	de Inshore 1B-1F			GHL-x-1-H Northern Area (1AB)					GHL-x-2-H Southern Area (1CD)			
RNG	305	701	189	222	4,066	4,862	1,548	5,666	16,364	23,434	15,429	20,165
SHX					3	55,834			1,499	5,328		
SKA			955	947	4,309	1,943	15,883	6,511	3,374	2,707	3,355	4,498
SQL										174		
SRX										155		45
USK												
Total	1,513,091	1,170,842	1,506,683	1,498,690	6,512,984	6,795,847	6,550,146	7,140,798	6,937,846	7,078,566	7,029,931	7,700,265
By-catch	0.60%	0.10%	0.10%	0.10%	0.80%	1.50%	0.60%	0.90%	0.80%	1.00%	0.70%	1.10%

## 2.2 Stock Status and Scientific Advice

The Greenland halibut stock in Subarea 0 + Div. 1A offshore and Div. 1B-1F is part of a larger population complex distributed throughout the Northwest Atlantic. The assessment is qualitative based on an index of survey biomass that covers Divisions 0A-South and 1CD. The Greenland halibut in the Davis Strait is assessed annually by NAFO Sc.C. at the request of Canada and Greenland. The most recent assessment is found in NAFO (2018).

NAFO Sc.C. defined in 2016 an index-based harvest control rule as the basis for TAC advice. The HCR is the basis for the advice for 2018,2019 and 2020, "Scientific Council advises that there is a low risk of Greenland halibut in Subarea 0 + 1A (offshore) and 1B-F being below *Blim* if the TACs for 2019 and 2020 do not exceed 36 370 t." Figure 2 shows the biomass indices from the Canadian and Greenland surveys.

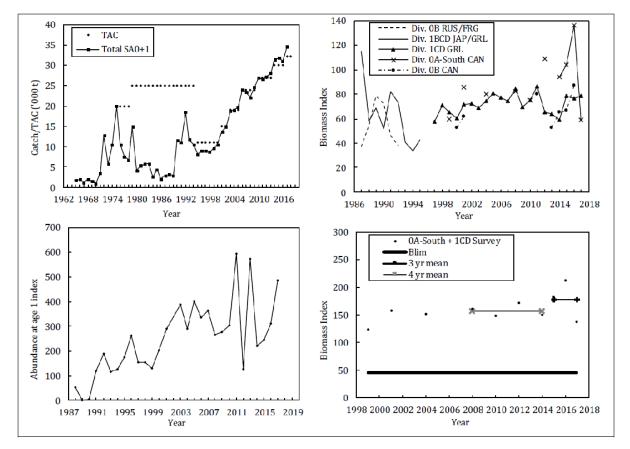


Figure 2 Greenland halibut in SA0+1 (excl inshore areas 1A and OB). From left upper corner clockwise 1) TAC and catches, 2) Biomass indices from surveys, 3) Combined survey index and Blim, and 4) Abundance index age 1 (Recruitment) from Survey. Source: NAFO (2018) Advice

The stock is well above Blim about three times and has been stable since around 2000, similar recruitment seems to fluctuate without trends for about 2 decades. The TAC is set slightly below the upper limit advised by NFA Sc.C.

Stock status is unchanged compared to previous years.

Organisation of the scientific advice based on input from DOF (Canada) and GINR (Greenland) and NAFO conducting the assessment and providing advice is unchanged.

## 2.3 Impact on the ecosystem

Table 4 shows that the overall by-catch rate is low, around 1% on an annual basis and that catches of marine mammals, rays and skates and sharks are very low.

The fishing strategy is unchanged, the gear and rigging are unchanged, the total TAC is largely unchanged. The regulation of the impact on the bottom habitat has been strengthened. The fishing grounds are unchanged, see Figure 1. The impact on the ecosystem in the Davis Strait is unchanged.

The fishery was certified with three conditions (No. 2, 3 and 4) concerning impact on the habitats. The Client action plan is to improve the mapping of the distribution of habitats and their structure over the coming years. The Client has established cooperation between the Zoological Society of London and GINR. A survey was conducted in October 2017 focusing on establishing the appropriate methodology for future surveys. Surveys are planned for 2018/2019. For details see Long et al (2018).

The status of the related conditions are summarised in Table 13 Condition 2, Table 14 Condition 3, and Table 15 Condition 4.

## 2.4 Changes to the management system

The management system is unchanged based on a TAC set on advice by NAFO at the joint request by Canada and Greenland and an understanding that this overall TAC is split between Canada and Greenland 50:50. The advised TAC is for the Subareas 0+1 excluding the inshore areas of Div. 1A. Greenland sets a TAC based on this advice and the 50:50 split rule. This TAC is applied to the offshore fishery while the coastal fishery in NAFO Divs 1B-1F is not included in this TAC. However, the fishery is affecting the stock for which the TAC is advised. This is unchanged from previous years.

There were no concerns for catch of marine mammals and sea birds as assessed in 2017. This situation is unchanged.

The management plan was put forward to the government by the Ministry of Fisheries and formally adopted by the Government of Greenland in September 2017.

Monitoring, Control and Surveillance (Quota control, Observers, VMS, Logbooks, etc) are unchanged. There were 29 trips in 2017 among those 4 carried observers corresponding to 14% of the fishing time. This is on the same level as in previous years.

The governance system including Fiskerirådet representing the industry is unchanged.

The order on technical measures applicable to the fishery for the Greenlandic fisheries was updated September 2017. The revised order strengthens the regulation of the impact on the bottom (§§11, 12 and 13), see Box 1.

#### Box 1: Extract from Order on technical measures [Unofficial translation]

Fishing in new areas with bottom-contacting gear

§ 11. Ad. 1 All fishing activities with gear that have bottom contact in West Greenland in the area north of 74 ° N and west of 64 ° V and in East Greenland in the waters North of 71 ° N shall be considered as fishing in new areas.

ad. 2 When fishing in new areas cf.ad. 1, GFLK may place an observer with sufficient knowledge of living organisms on-board the fishing vessel.

#### Catch by corals and sea sponges

§ 12. Trawlers catching more than 60 kg. living coral and / or 300 kg. live sea sponges shall notify GFLK and fishing activities shall be stopped. Fishing can only be resumed after a move of at least 2 nautical miles from the end position of the trawl haul in a direction where capture of coral and marine fungus is least likely.

Closure of areas for fishing with bottom-contacting gear

§ 13. Based on observations of catch of live coral and live marine sponges, the Minister for Fisheries, Hunting and Agriculture may nominate an area as a vulnerable marine ecosystem. The Minister may decide to close such areas to fishing with bottom trawls or other gear that comes into contact with the bottom.

The conclusion is that management is unchanged, that concerns for habitat impact have been strengthened and that a major project on habitat mapping has been initialised.

## 2.5 CoC considerations

The status, with regards to the Chain of Custody remains unchanged from the full assessment.

Greenland halibut (*Reinhardtius hippoglossoides*), fished offshore by trawlers in West Greenland (NAFO Subareas 1 A-F) holding a Greenland halibut fishing license and that are current members of Sustainable Fisheries Greenland as per list published on the MSC website, are eligible to enter further certified chains of custody and carry MSC logo in case of successful CoC certification.

The client maintains and provides DNV GL with an updated list of members of Sustainable Fisheries Greenland, eligible to use the fishery certificate. The list is published on the MSC website.

The Greenland halibut products change ownership at the point of landing, changing ownership from the certified trawler company to either the sales or the processing company, but all parties should be members of Sustainable Fisheries Greenland.

Products at landing are frozen in 13 kilo blocks at sea. The bigger fish are gutted and headed onboard for the Asian markets. The smaller fish are frozen and packed whole on- board for further processing after landing and are for the European markets.

There is no Transhipment.

The Chain of Custody commences following sale of frozen, landed Greenland halibut products at the following points of landing:

- Greenland: Aasiaat, Sisimiut, Maniitsoq, Nuuk.
- Iceland: Hafnafjordur, Reykjavik
- Faroe Islands: Kollarfjordur
- Denmark: Hirtshals, Skagen

Chain of Custody certification is required for eligible buyers and processors for buying and selling MSC certified Greenland halibut products.

# 2.6 Catch data

Table 5 TAC and Catch Data
----------------------------

TAC	Year	2018	Amount	32,300 MT
UoA share of TAC	Year	2018	Amount	16,150 MT
UoC share of TAC	Year	2018	Amount	16,150 MT
Total green weight	Year (most	2017	Amount	16,188 MT
catch by UoC	recent)			
	Year	2016	Amount	14,990 MT
	(second			
	most			
	recent)			

# 2.7 Summary of Assessment Conditions

As the fishery achieved a score of below 80 against 4 scoring indicators, the assessment team set 4 conditions for the continued certification that the client is required to address. The conditions are applicable to improve performance to at least the 80 level within the period set by the assessment team. Table 6 summarises the conditions.

Condition number	Performance indicator (PI)	Status	PI original score	PI revised score
1	1.2.2 There are well defined and effective harvest control rules (HCRs) in place.	Condition: Ensure that the TAC advised for Greenland halibut for NAFO stock in SA OA, 1a (offshore) and 1B-1F (including inshore catches) is not exceeded. Findings 2018: The issue has been discussed in Fiskerirådet but no progress is reported	75	Not rescored
2	2.4.1 The UoA does not cause serious or irreversible harm to habitat structure and function, considered on the basis of the area covered by the governance body(s) responsible for fisheries management in the area(s) where the UoA operates.	Condition: Ensure commonly encountered habitats are highly unlikely to reduce structure and function of the commonly encountered habitats to a point where there would be serious or irreversible harm Findings 2018: The Client has been active in promoting mapping of the habitats in Davis Strait. A first survey has been executed in October 2017 and a further survey is planned for 2018/2019.	70	Not rescored
3	2.4.2 There is a strategy in place that is designed to ensure the UoA does not pose a risk of serious or irreversible harm to the habitats.	<ul> <li>Condition: Introduce management provisions to ensure footprint of the fishery is such that habitat outcome score is maintained.</li> <li>Findings 2018: The Order on Technical measures has been updated and fishing in new areas4 is regulated, see section 2.</li> </ul>	75	Not rescored

#### Table 6 Summary of Assessment Conditions

Condition	Performance	Status	PI	PI
number	indicator (PI)		original	revised
			score	score
4	2.4.3 Information is adequate to determine the risk posed to the habitat by the UoA and the effectiveness of the strategy to manage impacts on the habitat.	Condition: Improve information on nature, distribution, vulnerability and impact of UoA on main habitats Findings 2018: The Client has been active in promoting mapping of the habitats in Davis Strait. A first survey has been executed in October 2017 and a further survey is planned for 2018/2019.	65	Not rescored

The assessment team also made 1 recommendation for the fishery.

Table <sup>·</sup>	7 Recommendation for the Greenland fishery	in the offshore areas of Davis Strait

	Recommendation	Action 2018
PI 2.4.2	Adopt more stringent move –on rules for corals and sponges, and also adopt move-on rules for sea pens, that meet or exceed those recommended by NAFO.	The revised technical measures order provides for a move-on rule for corals and sponges. There is no similar regulation for sea pens.

## **3 THE ASSESSMENT PROCESS**

This off-site surveillance audit was announced on 4<sup>th</sup> July 2018 and conducted on the **21<sup>st</sup> August 2018 as a series of skype interviews.** Before the off-site surveillance, the team reviewed the new information of the fishery, see reference list.

In accordance to FCRv2.0, clause 7.23.12-7.23.13, during the off-site surveillance audit the team: - Actively sought the views of the client about:

- o Changes to the fishery and its management; Any changes to regulations;
- Performance in relation to any relevant conditions of certification;
- Any developments or changes within the fishery which impact traceability and the ability to segregate MSC from non-MSC products;
- Any other significant changes in the fishery
- Reviewed and evaluated changes
  - In personnel in science, management or industry and their impact on the management of the fishery;
  - o To the scientific base of information, including stock assessments;
  - In the Regulatory framework and fishery management system (objectives, mechanisms for decision-making, monitoring, control, inspection, evaluation), including compliance of the certified fleet;
  - Affecting the 'management loop' (outcome, management, information) assessed in the initial certification process for the certified species and the other species impacted by the fishery, as well as for marine habitats and ecosystems impacted by the fishery;
  - Affecting traceability.
  - Reviewed if information base for PI scores has changed and report, record and (if necessary) re-score the PI

No stakeholder announced their interest in meeting with the assessment team.

## 3.1 Scope of the assessment

The MSC Fisheries CR and guidance v2 define the Unit of Certification (UoC) (i.e., the unit entitled to receive an MSC certificate) as follows:

"The target stock or stocks (= biologically distinct unit/s) combined with the fishing method/gear and practice (including vessel type/s) pursuing that stock and any fleets, groups of vessels, or individual vessels of other fishing operators."

The fisheries covered by this certification are defined in Table 8 below.

Fishery name:		West Greenland offshore Greenland halibut			
Fishery hame:		fishery			
	Species:	Greenland halibut (Reinhardtius hippoglossoides)			
	Stock:	Greenland halibut	Greenland halibut in Subarea 0 and Divisions 1A		
		(offshore) + 1B-F			
	Geographical area:	NAFO Subareas 21	NAFO Subareas 21 (A, B, C, D, E, F)		
	Harvest method:	Trawls-bottom trawl			
	Management:	Government of Greenland, Ministry of Fisheries,			
		Hunting and Agriculture. Control and enforcement by			
Unit of		the Greenland Fishery License Control (GFLK).			
certification	Client group:	Client group is Sustainable Fisheries Greenland (SFG)			
		on behalf of the companies published on the MSC web			
		site, and currently listed in the table below (fishing			
		operators) with currently 4 trawlers:			
		Company:	Vessel:	Licens no:	
		Sigguk	"Polar	GHL-43-1-H	
		Greenland A/S	Nanoq"	GHL-43-2-H	

Table 8 UoC –West Greenland offshore Greenland halibut fishery

	Royal Greenland A/S	"Sisimiut"	GHL-39-1-H GHL-39-2-H
	Polar Seafood GRL. A/S	"Polar Princess"	GHL-24715-1-H GHL-24715-2-H
	Qaleralik A/S	"Tuugaalik"	GHL-29-1-H GHL-29-2-H
Other eligible fishers:	are fishing for Gree to arrangements w	enland halibut in ith the Governm ssels are not par	t of this certification.

## 3.2 History of the assessments

## 3.2.1 Summary of the original assessment

The intent of the West Greenland offshore Greenland halibut fishery to become MSC certified was announced on 19<sup>th</sup> May 2016, and the fishery received its certification on 22<sup>nd</sup> May 2017. Scope of certification is up to the point of landing and chain of custody commences from point of landing.

The default assessment tree, set out in the MSC Certification Requirements, version 2.0, was used for the initial assessment. The fishery attained a score of 80 or more against each of the MSC Principles and did not score less than 60 against any of the individual MSC Criteria. In the initial certification, the scores of the three Principles were:

#### Table 9 Principle scores – Original assessment:

Principle	Score
Principle 1 – Target Species	87.5
Principle 2 – Ecosystem	85.7
Principle 3 – Management System	86.5

The fishery achieved a score of below 80 against 4 scoring indicators. The assessment team has therefore set 4 conditions and 1 recommendation for continuing certification that the client is required to address. Conditions and recommendations are presented in full in section 4 of this annual surveillance report.

## 3.2.2 First annual surveillance – 2018

The first surveillance audit was a remote audit with interviews held on 21<sup>st</sup> August 2018. The offsite audit interviews were integrated for the following fisheries:

1. Greenland Lumpfish fishery

#### 2. West Greenland offshore Greenland halibut fishery

The surveillance audit was announced on 4<sup>th</sup> July 2018. An audit plan with a questionnaire specifying the information required before the audit was sent to the client on the same date.

Documentation available prior to the skype meeting was:

- Catch statistics: GFLK
- Interim report of the Benthos project (Long et al 2018)
- Appropriate NAFO reports including the Sc.C. June 2018 and the STACFIS 2018 report
- Report on management activities 2017 by GFLK

Table 10 summarizes the meetings held and the topics covered at each meeting.



#### Table 10 Off-site stakeholder consultations on 21.08.2018

	NAME	COMPANY	TIME	ТҮРЕ	Торіс
1	Lisbeth Schônemann-Paul, Corp. sustainability Manager	Client - Royal Greenland)	09.00 – 16.00	Skype	Client
2	Kristina Guldbæk, Project co-ordinator	Client - Sustainable Fisheries Greenland	09:00 – 16.00	Skype	Client
3	Stephen Long	IoZ – Institute of Zoology, Zoological Society of London.	09:00 - 16.00	Skype	Project on habitat mapping
4	Peder Munk Pedersen	Sustainable Fisheries Greenland – Polar Seafood	13:00 – 16.00	Skype	Client
5	Mads Larsen	Ministry of Fisheries, Hunting and Agriculture	13:00 – 14.15	Skype	Regulations and management, governance
6	Mads Rosing Lund	GFLK	13:00 – 14.15	Skype	Fisheries statistics, management and
7	Mads Nedergaard	GFLK	13:00 – 14.15	Skype	enforcement
8	Martin Blicher	GINR	14:15 – 14.40	Skype	Assessment of Greenland halibut, by-catches
9	Rasmus Hedeholm	GINR	14:15 – 14.40	Skype	
10	Adriana Noguiera	GINR	14:40 – 15.00	Skype	Assessment of Greenland halibut
11	Flemming Merkel	GINR	15:00 – 16.00	Skype	Impact on sea birds

# 3.3 Harmonisation

The assessment was harmonised with the fisheries listed in Table 11.

#### Table 11 Harmonisation

Fishery	Status	FAO	Sub	Gear	Harmonisation
		area	area		
West Greenland offshore	Certified	21	NAFO	Trawls-bottom	
Greenland halibut fishery	2017		1A-1F	trawl	
West Greenland cold water	Certified	21	NAFO	Trawls - Bottom	2.3; 2.5 & 3.1
prawn	2013 -		1A-1F	trawls - otter	
	Acoura			trawls	
Canada OAB 2+3KLMNO	In	21	NAFO	Gillnets and	
Greenland Halibut Bottom	assessment-		0A +	Entangling Nets	
Trawl and Gillnet	Acoura		OB	- Gillnets,	
				Trawls - Bottom	
				trawls	

The MSC certified Greenlandic Shrimp fishery in NAFO subarea 1 operates under the same management system as the Greenland halibut fishery. Aspects of PI 2.3, 2.5 and 3.1 are therefore harmonised, where relevant.

The Canadian Greenland halibut (ACOURA): NAFO Subareas 0A + 0B and 2+3KLMNO - stock: Northwest Atlantic Greenland halibut is in assessment and harmonisation will be considered in the nearer future. These are likely to primarily concerns PI 1 (stock status).

## 4 **RESULTS**

The assessment team concluded that this fishery, in 2017-18, remains unchanged with respect to strategy, fishing gear and fishing grounds compared to the description given in the assessment report Cappell et al (2017).

The assessment team found that the stock status remained unchanged. The team reviewed progress with condition 1, see Table 12 and found the issue remains, the inshore fishery in 1B-1F is still not properly accounted for in the management scheme, but also the discussions on the issue stipulated is on-going and therefore the condition is 'ON SCHEDULE'.

Dorformanco	Insert relevant PI	Insert relevant scoring issue/	Score		
Performance Indicator(s) &	number(s) 1.2.2 Harvest	<b>scoring guidepost text</b> <b>1.2.2 c</b> Available evidence indicates that	75		
Score(s)	Strategy	the tools in use are appropriate and	75		
50018(3)	Strategy	effective in achieving the exploitation			
		levels required under the HCRs.			
Condition	Management should ensu	re that overall the TAC advised by NAFO SC	is not		
	exceeded.				
Milestones	Year 1 – 75 Provide evidence of discussions with MFHA on approace				
	ensure that the overall ac	lvised TAC is not exceeded.			
	Veer 2 75 Provide evid	anas that the inchara fichery in NAFO 1D 1	. io		
		ence that the inshore fishery in NAFO 1B-1F etting by MFHA takes the removal in the ins			
	areas in 1B-1F into accou		nore		
	Year 3 – 80 Provide evid	ence that landings of halibut have not excee	eded the		
	advised TAC.	ç			
Client action	Objectives:				
plan		et by the Government of Greenland is not ex			
	3	stainable fishery for Greenland halibut in a l	ong-		
	term perspective.				
	Action:				
		enland (SFG) and the Ministry of Fisheries,	Hunting		
		ill through mutual consultations cooperate of			
	<b>U</b>	gement regarding the non-guota coastal fish			
		O div. 1B-F in order to ensure that the overa			
	not exceeded.				
		th MFHA on establishing management regula			
		overall TAC set by the government for the D	avis		
	accounted for.	en coastal catches from NAFO div. 1B-F are			
		new management regime for including the o	roastal		
		but in NAFO div. 1B-F in the overall TAC for			
	Davis Strait is reached.				
	Year 3: Catches of Green	land halibut offshore in the Davis strait (tra	wl		
	fishery) and coastal in NA	FO div. 1B-F (line fishery) corresponds with	the		
		vernment of Greenland and the overall advi	sed TAC		
	given by NAFO SC.				
	Expectation:	the third appual and there will be full and	anlianaa		
		y the third annual audit there will be full con	•		
		in both the off shore and the coastal fisher. Davis strait and the total catches recorded b			
		se Control Authority (GFLK) for the same tw			
		co control rightening (of city for the suffic th			

### Table 12 Condition 1

	<b>Documentation:</b> Official recordings of landings from GFLK will be used as documentation for the landings and basis for comparison with the enacted TAC set by the Government of Greenland.
	<b>Responsible:</b> Ministry of Fisheries, Hunting and Agriculture. Sustainable Fisheries Greenland.
	<b>Deadline:</b> By 3rd annual audit 2020.
	A letter conforming active partnership has been received from the Ministry of Fisheries, Hunting and Agriculture. Date: 27/12/16
Progress on Condition SA1- 2018	The issue of how to regulate the fishery in the inshore areas of NAFO 1B-1F and how to account for this fishery in the overall offshore Greenland TAC for Greenland halibut has been discussed among industry partners and with the ministry. However, no decision has been reached. The Ministry and Client confirm that the discussions take place. The topic is not on the formal agenda in Fiskerirådet.
Status of condition	The milestone for Year 1 requires: "Provide evidence of discussions with MFHA on approaches to ensure that the overall advised TAC is not exceeded". The discussions have taken place, as confirmed during the skype interview, and the condition is <b>ON SCHEDULE</b> .

The assessment Team reviewed progress of the conditions concerning the impact on habitats by the fishery as documented in Table 13, Table 14 and Table 15. The Team found that there had been good progress and that the conditions 2 and 3 are 'AHEAD OF SCHEDULE' while condition 4 is 'ON SCHEDULE'. For further detail see Long et al (2018).

#### Table 13 Condition 2

	Insert relevant PI	Insert relevant scoring issue/	Score			
Performance	number(s)	scoring guidepost text				
Indicator(s) & Score(s)	2.4.1 Habitat Outcome	2.4.1 a The UoA is <b>highly unlikely</b> to reduce structure and function of the commonly encountered habitats to a point where there would be serious or irreversible harm.	70			
Condition	Information on the nature, distribution and vulnerability of the main habitats in the UoA area should be known at a level of detail relevant to the scale and intensity of the fishery (condition 4). That information must be adequate to be able to determine whether or not the UoA is <b>highly unlikely</b> to reduce structure and function of the commonly encountered habitats to a point where there would be serious or irreversible harm.					
Milestones	<ul> <li>Year 1 – develop research project to improve information on habitat distribution and UoA impacts on those habitats.</li> <li>Score 70</li> <li>Year 4 – present information from the fishery on the nature distribution and vulnerability of the commonly encountered habitats, along with the main impacts of the UoA on those habitats, to demonstrate that the UoA is highly unlikely to reduce structure and function of the commonly encountered habitats to a point where there would be serious or irreversible harm. Score 80.</li> </ul>					
Client action plan	that are being fished and	fficient information regarding habitats in th similar areas (commonly encountered habit ulnerable or sensitive ecosystems of e.g. co	at) and			

	<ul> <li>Action:</li> <li>Sustainable Fisheries Greenland is co-funding a new research project conducted by the Zoological Society of London specifically aimed at gathering information about bottom habitats in deep water areas (1.000-1.500 m.) in Vest Greenland. This will include the areas where the trawl fishery for Greenland halibut is taking place but also similar areas which have not been fished. The project will commence in 2017 and is scheduled to end in 2019.</li> <li>Year 1: Research project by the Zoological Society of London is initiated.</li> <li>Year 4: Results regarding the nature, distribution and vulnerability of the main habitats - along with the main impacts of the UoA on those habitats - are presented.</li> </ul>
	<b>Documentation:</b> Data from the Zoological Society of London. Letter conforming active partnership has been received from the Zoological Society of London. Date: 22 November 2016.
	Responsible: The Zoological Society of London Sustainable Fisheries Greenland. Deadline:
	By 4th annual audit 2021.
Progress on Condition -2018	GINR and Zoological Society of London have cooperated in designing and conducting a survey in October 2017.
Status of condition	The milestone for year 1 is to develop research project to improve information on habitat distribution and UoA impacts on those habitats. This survey has been designed and conducted in October 2017. Further surveys are planned for 2018/2019 – refer Interim report: Deep-sea benthic habitats and the impacts of trawling, Davis Strait, West Greenland. The condition is <b>AHEAD OF SCHEDULE</b> .

#### Table 14 Condition 3

	Insert relevant PI	Insert relevant scoring issue/	Score			
Performance	number(s)	scoring guidepost text				
Indicator(s) &	2.4.2 Habitat	2.4.2 a	75			
Score(s)	Management	There is a partial strategy in place, if				
		necessary, that is expected to achieve the				
		Habitat Outcome 80 level of performance				
		or above.				
Condition	Greenland halibut fishery	management should include provisions for				
	managing the extent of th	ne fishery interactions with commonly encour	ntered			
	habitats to ensure habitat outcome at SG80 level or above is maintained.					
Milestones	Year 1 – Evidence of discussions with relevant stakeholders, GINR and					
	MFHA. Score 75					
	Year 3 – Revisions to the management plan to include provision for					
	managing the extent of the fishery footprint in relation to commonly					
	encountered habitats to ensure habitat outcome at SG80 level.					
	Score 80					
Client action						
plan	Objectives:					
	The objective is to ensure that provisions for managing the extend of the					
	fishery footprint in relation to the commonly encountered habitat in West					
	Greenland are included in	Greenland are included in the management plan.				
	Action:					
	Sustainable Fisheries Gree	enland (SFG), the Ministry of Fisheries, Hunt	ing and			

Agriculture (MFHA) and the Zoological Society of London (ZSL) will cooperate on establishing provisions which makes it possible to manage the footprint of the Greenland halibut fishery in relation to the so-called commonly encountered habitat. This means that if the fishery should desire to expand or move beyond the two fishing areas (northern and southern) where the off- shore fishery for Greenland halibut is presently taking place, restrictions can be enforced by the MFHA if data regarding habitats and possible VME's are not sufficient.				
Year 1: Commencing discussions with MFHA and ZSL. Year 3: The management plan for the Greenland halibut fishery is revised and provisions for managing a possible expansion of the fishery footprint is included.				
<b>Expectation:</b> The expectation is that by adding new provisions to the management plan a possible expansion of the fishing area can be avoided until there is sufficient data regarding commonly encountered habitats in the areas in which the fishery wishes to expand.				
<b>Documentation:</b> Data from Zoological Society of London or other recognized research institutions.				
<b>Responsible:</b> Ministry of Fisheries, Hunting and Agriculture. Zoological Society of London (or other recognized research institutions). Sustainable Fisheries Greenland.				
Deadline: By 3rd annual audit 2020.				
GINR and Zoological Society of London have cooperated in designing and conducting a survey in October 2017. Further surveys are planned for 2018/2019				
The milestone for Year 1 requires evidence of discussions with relevant stakeholders, GINR and MFHA. Discussions confirmed by all Parties have been conducted. A survey has been conducted and further surveys are planned – ref data from Zoological Society of London. The condition is <b>AHEAD of SCHEDULE</b> .				

#### Table 15 Condition 4

	Insert relevant PI	Insert relevant scoring issue/ scoring	Score	
Performance	number(s)	guidepost text		
Indicator(s) &	2.4.3 Habitat	2.4.3 A The nature, distribution and	65	
Score(s)	Information	vulnerability of the main habitats in the UoA		
		area are known at a level of detail relevant to the scale and intensity of the UoA.		
		2.4.3 B Information is adequate to allow for identification of the main impacts of the UoA on the main habitats, and there is reliable information on the spatial extent of interaction and on the timing and location of use of the fishing gear.		
Condition	Information on the nature, distribution and vulnerability of the main habitats in the UoA area should be known at a level of detail relevant to the scale and intensity of the fishery. That information must be adequate to allow for the identification of the main impacts of the UoA on the main habitats.			
Milestones		earch project to improve information on habitat		

	distribution and UoA impacts on those habitats. Score 65
	Year 4 – present information from the fishery on the nature distribution and vulnerability of the main habitats, along with the main impacts of the UoA on those habitats. Score 80.
Client action plan	To ensure that there is sufficient information regarding habitats in the areas that are being fished and similar areas (commonly encountered habitat) and to detect occurrences of vulnerable or sensitive ecosystems of e.g. corals and sponges.
	Action: Sustainable Fisheries Greenland is co-funding a new research project conducted by the Zoological Society of London specifically aimed at gathering information about bottom habitats in deep water areas (1.000-1.500 m.) in Vest Greenland. This will include the areas where the trawl fishery for Greenland halibut is taking place but also similar areas which have not been fished. The project will commence in 2017 and is scheduled to end in 2019.
	<b>Year 1:</b> Research project by the Zoological Society of London is initiated. <b>Year 4:</b> Results regarding the nature, distribution and vulnerability of the main habitats - along with the main impacts of the UoA on those habitats - are presented.
	<b>Documentation:</b> Data from the Zoological Society of London.
	Responsible: The Zoological Society of London Sustainable Fisheries Greenland. Deadline: By 4th annual audit 2021.
Progress on Condition - 2018	GINR and Zoological Society of London have cooperated in designing and conducting a survey in October 2017. Further surveys are planned for 2018/2019
Status of condition	The milestone for Year 1 is to develop research project to improve information on habitat distribution and UoA impacts on those habitats. The condition is <b>ON SCHEDULE</b> .

The progress with the recommendation is summarised in Table 16.

Performance	Insert relevant PI number(s)	Insert relevant scoring issue/ scoring guidepost text	Score	
Indicator(s) & Score(s)	2.4.2 Habitat Management	2.4.2 a: There is a partial strategy in place, if necessary, that is expected to achieve the Habitat Outcome 80 level of performance or above.	75 (cond. 3)	
Recommendation	It is recommended that the Greenland management plan adopts more stringent move –on rules for corals and sponges, and also adopt move-on rules for sea pens, that meet or exceed those recommended by NAFO.			
Progress on Recommendation- 2018	The regulation on technical measures has been updated and the protection of VME habitats has been strengthened. There is no consideration of the sea pen habitats. The ongoing cooperation between the Zoological Society of London and GINR is expected to lead to better maps of the habitat structure of the bottom in the Davis Strait and there are considerations if this may lead to further revisions of the order on technical measures.			

### Table 16 Recommendation 1

The assessment team concluded that no rescoring was indicated by the surveillance audit.

## 5 CONCLUSION

The fishery continues to be within the scope of the MSC fisheries standard (MSC FCR v2.0 § 7.4) according to the following determinations (MSC FCR v2.0 § 7.4):

- The target species is a fish and the fishery does not use poisons or explosives;
- The fishery is not conducted under a controversial unilateral exemption to an international agreement;
- The client or client group does not include an entity that has been successfully prosecuted for a forced labour violation in the last 2 years;
- The fishery has mechanisms for resolving disputes and disputes do not overwhelm the fishery;

The fishery is not enhanced or based on an introduced species.

The Surveillance audit found

- The fishery is conducted under similar conditions and using same gear as was found at the initial assessment; the Management Plan has been formally adopted by the Ministry in September 2017
- The technical measures have been strengthened and an area for new fisheries has been defined
- The fishery takes place on the same grounds as in previous years
- The management is unchanged
- The stock assessment arrangements (NAFO annual advice) is unchanged
- Surveying for improved mapping of the habitat structure has been initiated

The assessment team concluded that no rescoring was indicated by the surveillance audit.

Table	17	Conclusion

Fishery	Status of certification	Comment
West Greenland offshore Greenland halibut fishery	Certified	The assessment team concludes that the MSC Certificate for this fishery shall remain active, subject to the agreed annual surveillance schedule and progress on the conditions.

## 6 **REFERENCES**

- Cappell Rod, Lassen Hans, Holt Terry, Bekkevold Sigrun, 2017. Initial assessment of the West Greenland offshore Greenland halibut fishery- Sustainable Fisheries Greenland Report No.: 2016-012, Rev. 00. Date: 2017-05-18. Certificate code: F-DNV-240697
- GFLK 2018. Greenland halibut Fisheries Statistics and Data for audit
- Long Stephen, Blicher Martin, Arboe Nanette Hammeken, Fuhrmann Mona, Kemp Kirsty, Yesson Chris 2018.Interim report: Deep-sea benthic habitats and the impacts of trawling, Davis Strait, West Greenland
- Naalakkersuisut 2017. FORVALTNINGSPLAN FOR FISKERIET EFTER UDENSKÆRS HELLEFISK VED VESTGRØNLAND (Management Plan for the offshore fishery for Greenland halibut off West Greenland). Department for Fiskeri og Fangst (Ministry for Fisheries, Hunting and Agriculture, Department for Fishery and hunting). September 2017
- NAFO 2018. Greenland Halibut (*Reinhardtius hippoglossoides*) in SA 0+1A offshore and Divs. 1B-F. Report of the Scientific Council Meeting 01 -14 June 2018 Halifax, Nova Scotia NAFO Dartmouth, Nova Scotia, Canada
- Selvstyrets bekendtgørelse nr. 4 af 30. marts 2017 om tekniske bevaringsforanstaltninger i fiskeriet [Order on technical measures in the fishery]
- Treble M. A. and Nogueira A., 2018. Assessment of the Greenland Halibut Stock Component in NAFO Subarea 0 + Division 1A (Offshore) and Divisions 1B-1F. Serial No. N6830 NAFO SCR Doc.18/040 SCIENTIFIC COUNCIL MEETING JUNE 2018
- Interim Report: Deep-sea benthic habitats and the impacts of trawling, Davis Strait, West Greenland: Stephen Long (Dept. of Geography- University college of London-UCL, Institute of Zoology- IoZ & Zoological Society of London), Martin Bilcher (GINR), Nanette Hammeken Arboe (GINR), Mona Fuhrmann (IoZ & Zoological Society of London), Kirsty Kemp (IoZ & Zoological Society of London) & Chris Yesson (IoZ & Zoological Society of London)

## **APPENDICES**

## Appendix 1. Revised Surveillance Program

There are no changes to the surveillance program described in the PCR dated 23 May 2017.

Year	Surveillance activity	Number of auditors	Rationale
1 & 2	Off-site audit	2 auditors remote	Actions for year 1 & year 2 milestones are limited with evidence of discussions required and a research proposal, which can be provided by email and discussed with the client remotely

#### Table 18 Surveillance level rationale

#### Table 19 Timing of surveillance audit

Year	Anniversary date of certificate	Proposed date of surveillance audit	Rationale
	23 May 2017	August	Scientific advice released in August, necessary information should be available annual assessments. <b>FCR v2.01: Surveillance audit timing</b> 7.28.8 The CAB shall undertake surveillance audits within 30 days prior to the anniversary date of the certificate unless the following applies. 7.28.8.1 <u>The CAB may elect to undertake</u> <u>surveillance audits up to 6 months earlier or</u> <u>later than the anniversary date, where this</u> <u>deviation is appropriate given the</u> <u>circumstances of the fishery</u> . a. The CAB shall detail the reasons for deviating from the anniversary date as part of the surveillance schedule

#### Table 20 Fishery Surveillance Program

Surveillance Level	Year 1	Year 2	Year 3	Year 4
Level 4	Off-site	Off-site	On-site	On-site
	surveillance audit	surveillance audit	surveillance audit	surveillance audit & re-certification site visit

# Appendix 2. List of member vessels

Company:	Vessel:	Licens no:	
Sigguk Greenland A/S	"Polar Nanoq"	GHL-43-1-H	
		GHL-43-2-H	
Royal Greenland A/S	"Sisimiut"	GHL-39-1-H	
		GHL-39-2-H	
Polar Seafood GRL. A/S	"Polar Princess"	GHL-24715-1-H	
		GHL-24715-2-H	
Qaleralik A/S	"Tuugaalik"	GHL-29-1-H	
		GHL-29-2-H	

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