Greenland halibut in Subarea 0+1 (offshore) Advice June 2022 for 2023-2024

Recommendation for 2023 and 2024

The main index for this stock has not been updated since 2017, consequently stock status is increasingly uncertain. However, SC notes that the stock varied without trend between 2013-2017 while the fishery was increasing. Average catches during this period were 29,640 t, therefore, SC recommends catches not to exceed this value in 2023 and 2024.

Management objectives

Canada and Greenland adopted a total allowable catch (TAC) of 36 370 t for 2019 to 2022. Canada requests that stock status be evaluated in the context of management requirements for long-term sustainability and the advice provided should be consistent with the precautionary approach.

Convention General Principles	*Status*	*Comment/consideration*
Restore to or maintain at B_{MSY}	○	B_{MSY} Unknown
Eliminate overfishing	○	F_{MSY} Unknown
Apply Precautionary Approach	●	B_{lim} *valid to 2017*
Minimise harmful impacts on living marine resources and ecosystems	●	Fishing closures are in effect in SA0 and Div. 1A. No specific measures.
Preserve marine biodiversity	○	Cannot be evaluated

● OK
● Intermediate
● Not accomplished
○ Unknown

Management unit

The Greenland halibut stock in Subarea 0 + 1 (offshore) is part of a larger population complex distributed throughout the Northwest Atlantic. From 2020, separate assessments are made on the inshore management units in 1A-F and 0B.

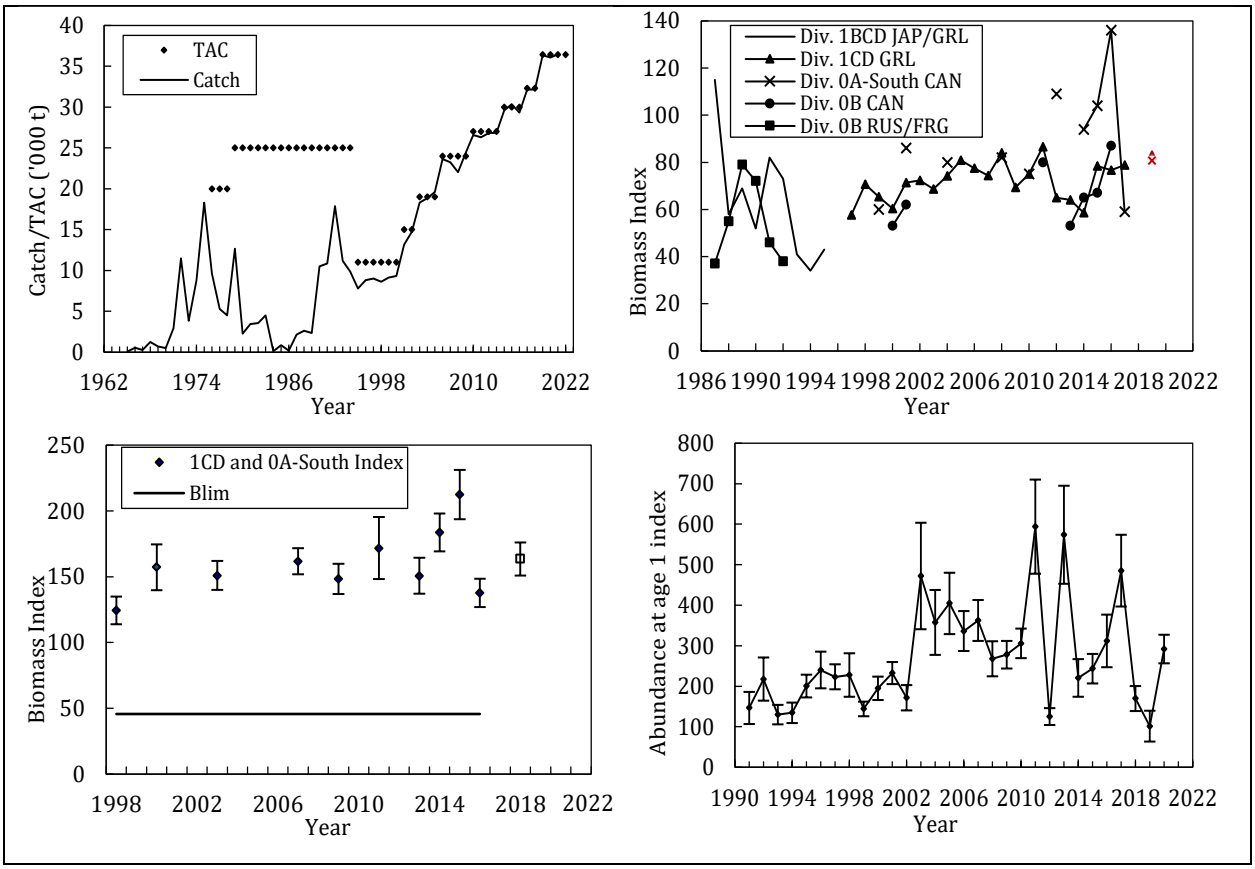
Stock status

The 0A-South and 1CD biomass index was above B_{lim} throughout the time series, 1999 to 2017. The 2019 value is similar in magnitude to previous surveys, however, it is not considered directly comparable. Despite a lack of index survey data in recent years the stock status is not expected to have changed drastically during 2018 to present.

Special Comment

The main index for this stock has not been updated since 2017, consequently stock status is increasingly uncertain: this increases the risks associated with management decisions. It is essential that surveys resume as soon as possible to update indices.

In assessing stock status SC considered the observed stability in length frequencies from surveys and the fishery, the age-1 index, that TACs have been consistently achieved, longevity of the species, and that status in 2017 was well above B_{lim}.



Reference points

B_{MSY} is not known for this stock. In 2015 a proxy for B_{lim} was developed based on 30% of a period of stability in the 0A-South and 1CD index (1999-2012). However, no surveys were conducted in 2018, 2020 or 2021 and the 2019 survey was not considered comparable to previous surveys. The previous B_{lim} was valid to 2017, but needs to be re-evaluated once a new time series is established.

Assessment

The assessment is qualitative with input from research surveys (total biomass and abundance indices to 2017, an index of age 1 fish to 2020, and length frequency distributions to 2017) and fishery length frequencies to 2021.

The next assessment is expected to be in 2024.

Human impact

Mainly fishery related mortality has been documented. Other sources (e.g. pollution, shipping, oil-industry) are undocumented.

Biology and Environmental interactions

No specific studies were reviewed during this assessment

Fishery

Catches were first reported in 1964. Catches increased from 1989 to 1992 due to a new trawl fishery in Div. 0B with participation by Canada, Norway, Russia and Faeroe Islands and an expansion of the Div. 1CD fishery with participation by Japan, Norway and Faeroe Islands. Catch declined from 1992 to 1995 primarily due to a reduction of effort by non-Canadian fleets in Div. 0B. Since 1995 catches have been near the TAC and increasing in step with increases in the TAC, with catches reaching a high of 36 436 t in 2021.

Recent catch and TACs ('000 t)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
TAC	27	30	30	30	32.3	32.3	36.4	36.4	36.4	36.4
STACFIS SA 0	13.4	14.9	15.4	14.1	15.9	16.0	18.3	17.9	19.1[2]	
STACFIS SA 1	13.5	14.7	14.9	15.2	16.2	16.2	18.0	18.1	17.3	
Total STACFIS[1]	26.9	29.6	30.3	29.3	32.1	32.2	36.3	36.0	36.4	

[1] Based on STATLANT, with information from Canada and Greenland authorities to exclude inshore catches.

[2] STACFIS estimate using 1.5 conversion factor for J-cut, tailed product; 1 129 t increase over reported catch.

Effects of the fishery on the ecosystem

The impact of bottom fishing activities on VMEs in SA 0 was assessed in 2016. Three areas have been designated as marine refuges, that exclude bottom contact fisheries: Disko Fan, Davis Strait and Hatton Basin. Areas in SA 1 have also been closed to fishing to protect benthic habitats.

Greenland Shark is a bycatch species of concern in the SA 0+1 (offshore) fishery given its low reproductive rate, slow growth rate and limited ecological information. SC has examined Greenland Shark bycatch records and survey encounters in the NAFO Convention Area to determine the amount of, and spatial and temporal patterns in Greenland Shark bycatch.

Basis for Advice

A quantitative assessment of risk at various catch options is not possible for this stock, therefore, it is not possible to quantitatively evaluate the sustainability of the TAC. There was no biomass index available for 2018, 2020 or 2021, and there is uncertainty in the comparability of the 2019 estimate. TAC advice in 2022 is based on a qualitative review of available data.

Sources of information

SCR 22/022, 023, 21/014; SCS Doc. 22/009, 012, 017