

Greenland halibut in Division 1A inshore – Disko Bay

Advice June 2024 for 2025-2026

Recommendation for 2025 and 2026

Following the application of the ICES guidance on data limited stocks (DLS) method 3.2, the Scientific Council advises that the TAC in 2025 and 2026 should not exceed 6 258 tons.

Management objectives

No explicit management plan or management objectives has been defined by the Government of Greenland but a management plan is currently under development.

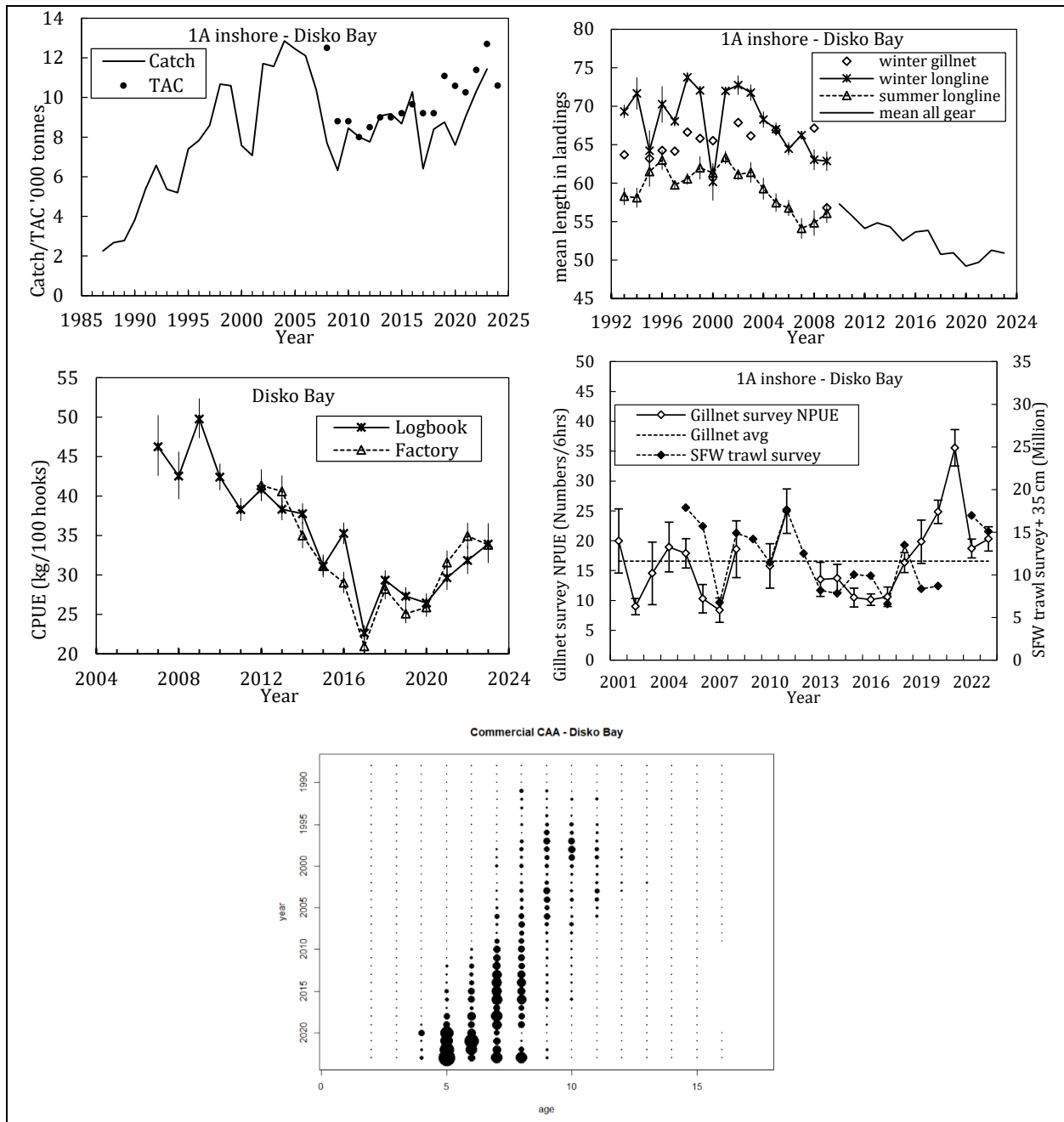
Management unit

Three inshore stocks in Division 1A (Disko Bay, Uummanaq and Upernavik) are believed to recruit from the Subareas 0+1 offshore spawning stock (in the Davis Strait), and there is little migration between the separated areas and the stock in Subareas 0+1 offshore. Separate advice is given for each area, within the specific management unit, in Division 1A inshore.

Stock status

The fishery has increased gradually over 4 decades, with signs of a decrease in the stock biomass in the most recent two decades. Although the commercial CPUEs have increased since 2017, the indices remain 17% below 2012 values. The mean size of the landed fish has decreased from 57 cm in 2010 to 51 cm in 2023 equivalent to a 32 % reduction in mean weight. After an increase in gillnet survey indices from 2017 to 2021, survey indices have quickly returned to around average levels. The trawl survey biomass indices are slightly higher in the recent two years.

The available data indicate that the fishery is currently based on incoming year classes ages 5, 7 and 8 and will be affected by variability in recruitment.



Reference points

Could not be established.

Assessment

No analytical assessment. Survey indices, mean length in the landings, commercial CPUE's and catch at age information were used to monitor the stock.

Basis for advice

The application of the ICES guidance on data limited stocks (DLS) method 3.2 (ICES 2012a and 2012b, ICES 2014) using the Greenland Shrimp and Fish survey (Divisions 1A-F) was accepted by SC in 2016, as the basis



for giving TAC advice on Greenland Halibut in the Disko Bay. This method was applied again to provide the following advice for the next two years. This rule was developed and tested as an empirical approach that uses the trend in the stock response to fishing pressure (ICES 2012a, Jardim *et al.* 2015). The empirical basis was given a generic expression

$$C_{y+1} = \text{advice}_{\text{recent}} * r$$

where $r = \text{index mean for 2020-2023} / \text{index mean for 2016-2019} = 1.39$ (no trawl survey in 2021).

Should changes in excess of +/- 20% be generated using this rule, a 20% cap is applied. In 2016 to 2018, no precautionary buffer was applied, but in 2020 a precautionary buffer was applied to account for decreases in the mean length in the fish landings and commercial CPUEs.

This results in the following advised catch:

$$2025 \text{ Catch}_{\text{advised}} = 6\,258 \text{ t} \quad (\text{catch advised for 2023 and 2024} = 5\,215 * 1.2)$$

This rule should be reviewed in the next assessment.

Multi-year advice is recommended when applying this index-ratio based rule. Also, Greenland has requested advice for as many years as is considered appropriate. A two year advice cycle is suggested at this time.

The next assessment is planned for 2026.

Human impact

Mainly fishery related mortality. Removal of lost fishing gear (lost gillnets, longlines and more) by the GINR research vessel RV Sanna has been conducted in 2020, 2021 and 2023. Other mortality sources (e.g. pollution, shipping, oil-industry) are undocumented.

Biology and environmental interactions

No studies were reviewed in this assessment.

Ecosystem sustainability of catches

The impact of bottom fishing activities on VMEs in Subarea 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 bottom fishing to protect benthic habitats.

Greenland halibut is included in the piscivore guild. There is no EPU nor TCI defined for this region. The ecosystem sustainability of catches cannot be evaluated. Greenland shark is a bycatch species of concern in the fishery given its low reproductive rate, slow growth rate and limited ecological information.

Fishery

Catches increased in the 1980s, peaked from 2004 to 2006 at more than 12 000 t, but then decreased substantially to just above 6 000 t in 2009. From this level, catches gradually increased reaching 10 760 t in 2016. In 2017, catch rates were unusually low and only 6 409 t were caught in Disko Bay. Since then catches have gradually increased reaching 11 435 t in 2023.

Recent catch estimates ('000 tons) are as follows:

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
1A Disko Bay – TAC	9.2	9.6	9.2	9.2	11.1	10.6	10.3	11.4	12.7	10.6
1A Disko Bay – STACFIS	8.7	10.8	6.4	8.4	8.8	7.6	9.0	10.3	11.4	

Effects of the fishery on the ecosystem

Greenland halibut in the area is targeted with longlines and gillnets. Both gears select adult fish with large body size and do not retain recruits or small sized fish. Impacts on VMEs have not been addressed.

Special comments

Although the index provided by the Greenland Shrimp and Fish trawl survey experienced vessel changes in 2018 -2020, the results are considered to be comparable with those from earlier years.

Recruits are mainly received from the offshore stock in Subareas 0+1 offshore.

Sources of Information

SCR Doc. 24/019, 026, 031; SCS Doc. 24/14.