

Greenland halibut in Division 1A inshore - Disko Bay

Advice June 2018 for 2019-2020

Recommendation for 2019 - 2020

The Scientific Council advises that the TAC should not exceed 5120 tons.

Management objectives

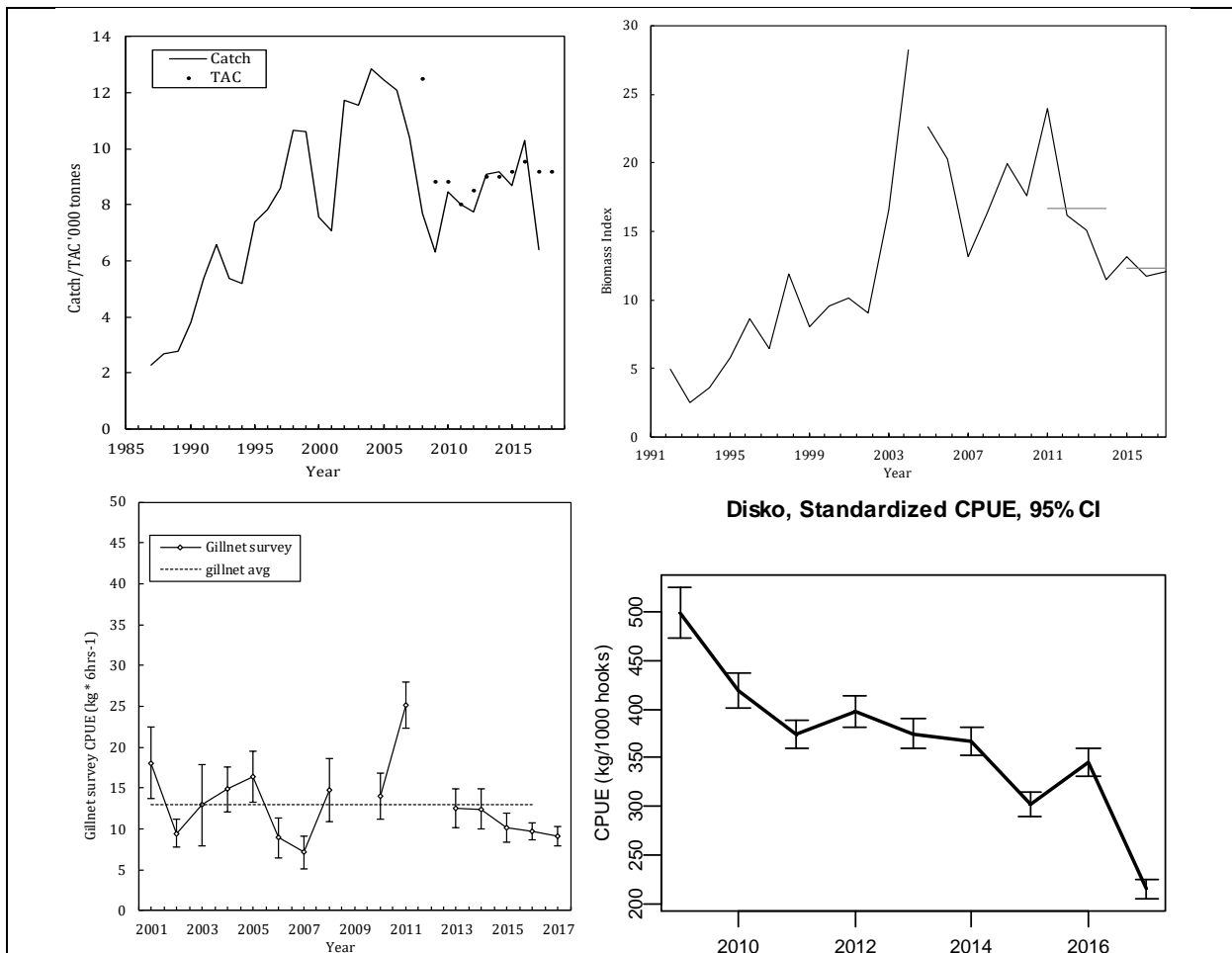
No explicit management plan or management objectives have been defined by the Government of Greenland.

Management unit

The stocks are believed to recruit from the Subarea 0+ 1 offshore spawning stock (in the Davis Strait) and there is little migration between each of the separate inshore populations and offshore stocks in SA 0 and 1. Separate advice is given for each area in Subarea 1A inshore.

Stock status

Length in the landings has gradually decreased over 10 to 15 years. In spite of the 2017 reduction in catch, the number of fish landed remains high. The Gillnet survey CPUE has gradually decreased and remained below average levels in the most recent 3-5 years. The trawl survey biomass index has gradually decreased since 2005, with the lowest values found in the most recent 4 years. The commercial CPUE for longline vessels has more than halved since 2009. Recruits are mainly received from offshore stocks and recruitment remains high.



Reference points

Could not be established.

Assessment

No analytical assessment was performed. Mean length in the landings, survey indices and commercial CPUE was considered the best information to monitor the stock.

The next assessment is planned for 2020.

Human impact

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

Environmental impact

Since 1997 bottom temperatures have remained stable at a level of 2-3 degrees in the Disko Bay.

Fishery

Catches increased in the 1980s, peaked from 2004 to 2006 at more than 12 000 t, but then decreased substantially. From 2009, catches gradually increased and reached 10 760 t in 2016, before decreasing to 6409t in 2017.

Recent catch estimates and TACs ('000 ton) are as follows:

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
TAC	8.8	8.8	8.0	8.0	9.0	9.0	9.2	9.7	9.2	9.2
STACFIS	6.3	8.4	8.0	7.8	9.1	9.2	8.7	10.8	6.4	

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. Ghost fishing by lost gillnets has been observed but its effects are unknown.

Basis for advice

A quantitative assessment of risk at various catch options is not possible for this stock. 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 was used by SC in 2016 as the basis for advice on Greenland Halibut in the Disko Bay. This rule was applied again to generate the current advice.

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

where $r = \text{mean of biomass index (2015-2017)} / \text{mean of biomass index (2011-2014)}$.

Should changes in excess of +/- 20% be generated using this rule, a 20% cap is applied. A first year precautionary buffer was not applied, since the stock is considered to receive recruits from the offshore area and is not regarded as reproductively impaired.

For 2018, $r = \text{mean of biomass index (2015-2017)} / \text{mean of biomass index (2011-2014)} = 0.73$. Therefore the 20% reduction cap is applied and the advised TAC is $6400 * 0.80 = 5120$ t.

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.

Sources of Information

SCR Doc. 18/023 032 and 035 and; SCS Doc. 18/010.

Greenland halibut in Division 1A inshore—Upernavik

Advice June 2018 for 2019-2020

Recommendation for 2019 - 2020

All available indicators have declined under current levels of removals.

Scientific Council recommends that catch should not exceed 5330 t. This is a reduction over the previous advice accounting for the reduction in mean individual size in the recent catches.

Management objectives

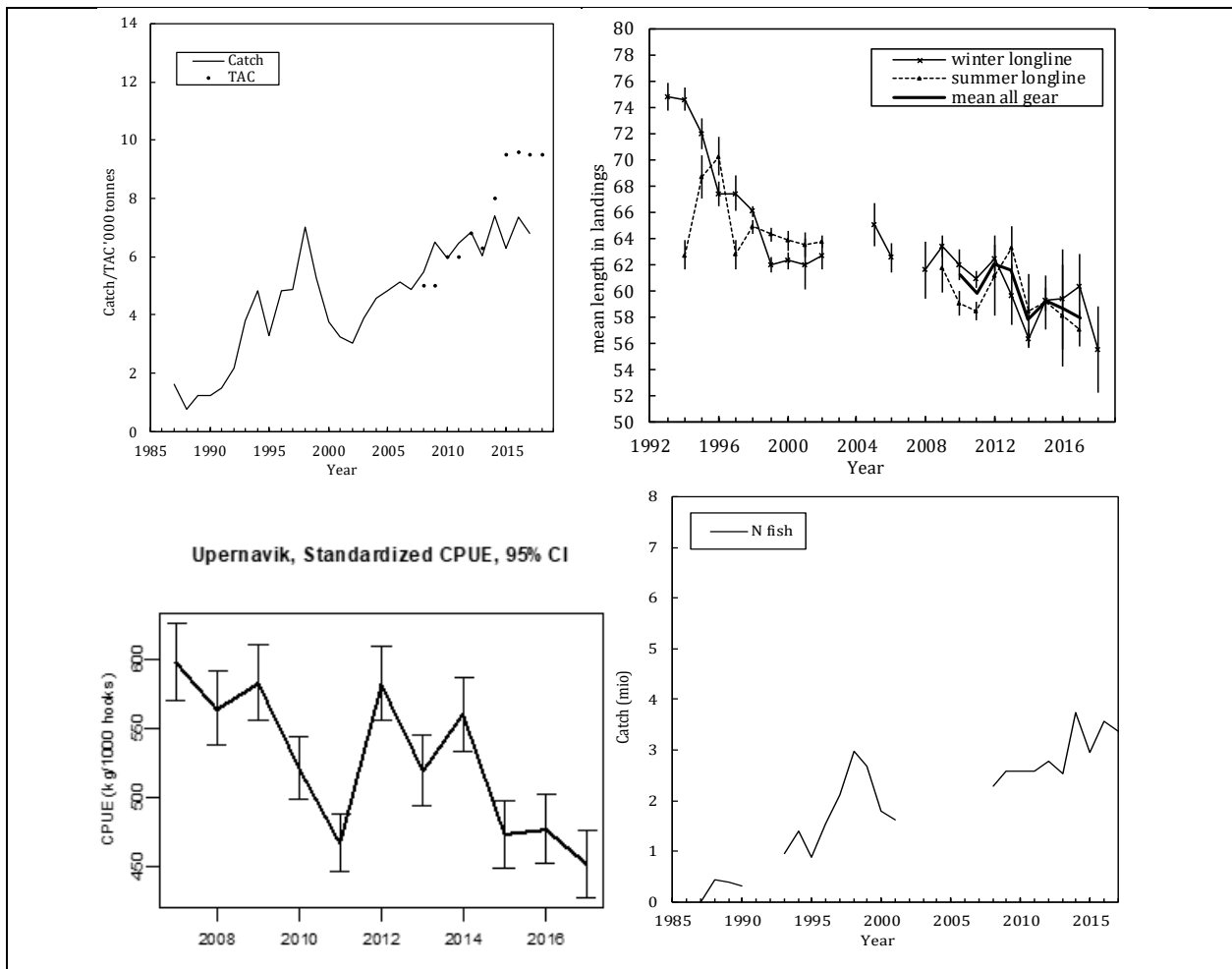
No explicit management plan or management objectives have been defined by the Government of Greenland.

Management unit

The stocks are believed to recruit from the Subarea 0+ 1 offshore spawning stock (in the Davis Strait) and there is little migration between each of the separate inshore populations and offshore stocks in SA 0 and 1. Separate advice is given for each area in Subarea 1A inshore.

Stock status

The catch in tons and in number of fish has been record high since 2014. The gillnet survey CPUE showed fish in the size range 30-65 cm. Mean length in the landings decreased in the 1990s, but stabilized from 1999 to 2009. Since then length in the landings have decreased further to 56-58 cm. The standardized longline CPUE index reveal a gradual decreasing CPUE with the most recent 3 years being among the lowest observed.



Reference points

Could not be established.

Assessment

No analytical assessment was performed. Survey indices, Commercial CPUE and Mean length in the landings were considered the best information to monitor the stock.

The next assessment is planned for 2020.

Human impact

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

Environmental impact

Unknown

Fishery

Catches increased from the mid 1980's and peaked in 1998 at a level of 7 000 t. Landings then decreased sharply, but during the past 15 years, they have gradually returned to the higher level. Average catch in the most recent 5 years has been 6 800 t.

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

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
TAC	5.0	6.0	6.5	6.5	8.0	9.5	9.5	9.5	9.5	9.5
STACFIS	6.5	5.9	6.5	6.8	6.0	7.4	6.3	7.4	6.8	

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. Ghost fishing by lost gillnets has been observed but its effects are unknown.

Special comments

The ICES Harvest Control Rule 3.2 for data limited stocks could not be used since survey time series was too short to be applied.

Sources of Information

SCR Doc. 18/023, 032, 035; SCS Doc. 18/010.

Recommendation for 2019 - 2020

All available indicators have declined under current levels of removals. Scientific Council recommends catch should not exceed 5 800 t. This is a reduction over the previous advice accounting for the reduction in mean individual size in the recent catches.

Management objectives

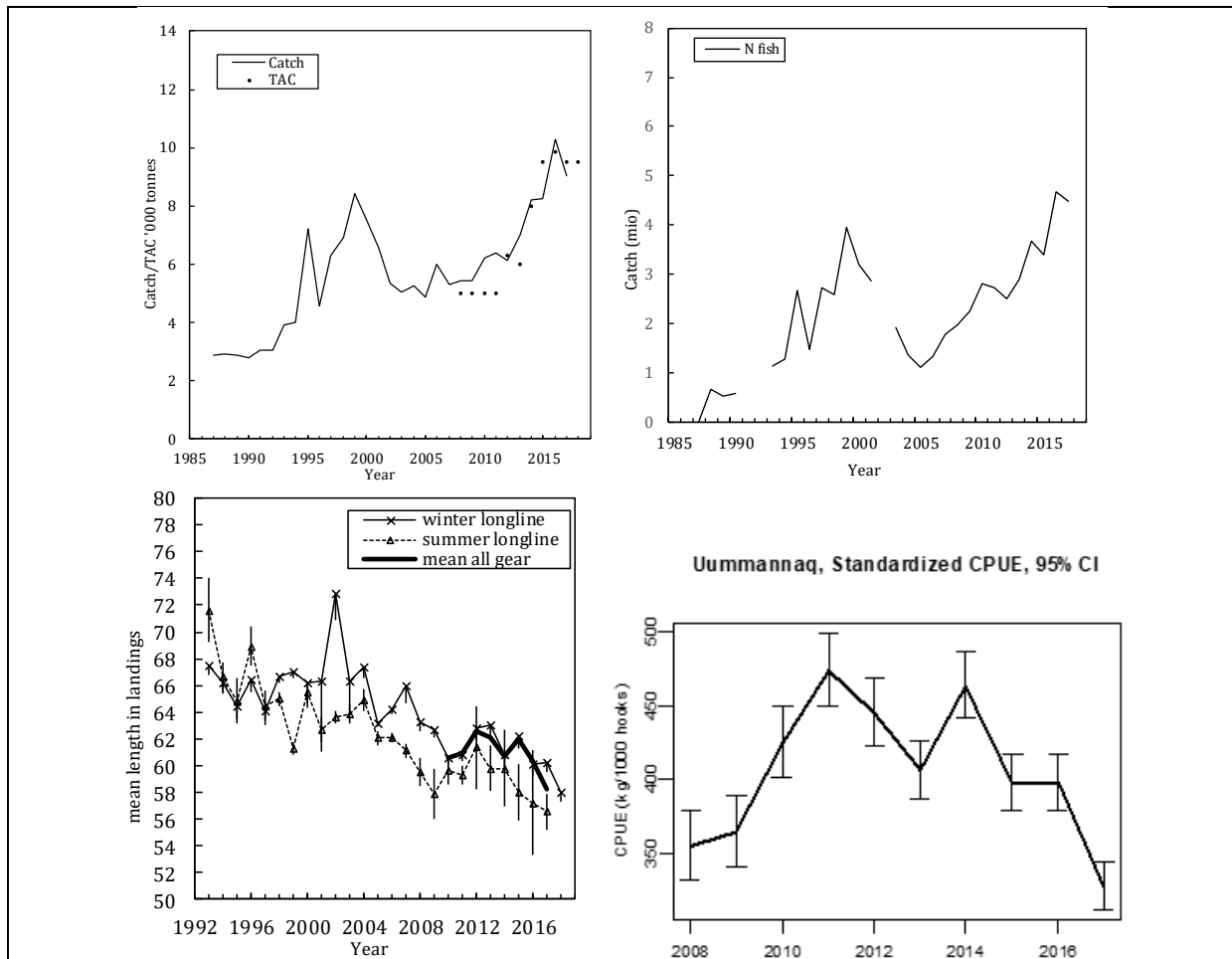
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Management unit

The stocks are believed to recruit from the Subarea 0 + 1 offshore spawning stock (in the Davis Strait) and there is little migration between each of the separate inshore populations and offshore stocks in SA 0 and 1. Separate advice is given for each area in Subarea 1A inshore.

Stock status

The catch in tons and in number of fish has been record high in 2016 and 2017. The gillnet survey CPUE showed considerable numbers in the interval 40-70 cm. Mean length in the landings has gradually decreased, particularly in the recent 3 years. From 2011, the standardized commercial longline CPUE index decreased gradually, with 2017 the lowest level observed in the time series.



Reference points

Could not be established.

Assessment

No analytical assessment was performed. Mean length in the landings, commercial CPUE and survey indices were considered the best information to monitor the stock.

The next assessment is planned for 2020.

Human impact

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

Environmental impact

Unknown

Fishery

Catches in the Uummanaq fjord gradually increased from the 1980's reaching 8425 in 1999, but then decreased and remained between 5000 and 6000 t from 2002 to 2009. After 2009 catches gradually increased reaching 10 305 t in 2016. In 2017, 9049 t were caught in the area.

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

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
TAC	5.0	5.0	6.0	6.0	7.4	8.4	9.5	9.9	9.5	9.5
STACFIS	5.4	6.2	6.4	6.1	7.0	8.2	8.2	10.3	9.0	

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. Ghost fishing by lost gillnets has been observed but its effects are unknown.

Special comments

The ICES Harvest Control Rule 3.2 for data limited stocks could not be used since survey time series was too short to be applied.

Sources of Information

SCR Doc. 18/023, 032, 035; SCS Doc. 18/010.