

Greenland halibut in SA 0 + Div. 1A offshore and Div. 1B-1F

Recommendation: Div. 0A+1AB: Considering the increases in TAC from 4 000 t in 2000 to 13 000 t in 2006, the relative stability in biomass and CPUE indices for Greenland halibut in Div. 0A and 1AB Scientific Council advises for Div. 0A and Div. 1A off shore + Div. 1B that the TAC for 2013 remain unchanged and should not exceed 13 000 t.

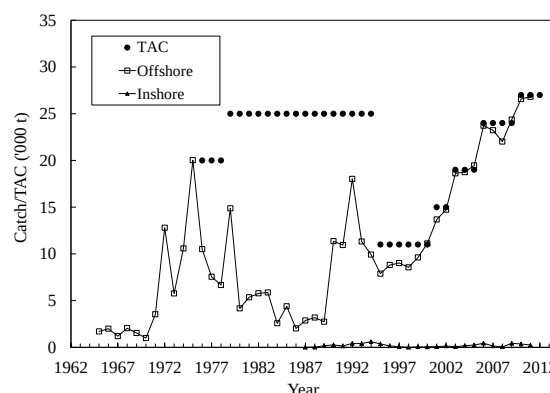
Div. 0B+1C-F: TAC was increased in 2010. The biomass and CPUE indices have been relatively stable. An increase in TAC of 10% or 15% will lead to an increase in Fr (index of fishing mortality) to above the long term mean, therefore an increase in TAC at this time could pose a risk to the sub-stock. Scientific Council advises that there is a low risk to the Greenland halibut in Div. 0B and Div. 1C-F if the TAC for 2013 remains unchanged and should not exceed 14 000 t.

Background: The Greenland halibut stock in Subarea 0 + Div. 1A offshore and Div. 1B-1F is part of a common stock distributed in Davis Strait and southward to Subarea 3. Since 2002 advice has been given separately for the northern area (Div. 0A and Div. 1AB) and the southern area (Div. 0B and 1C-F).

Fishery and Catches: Due to an increase in offshore effort, catches increased from 3 000 tons in 1989 to 18 000 tons in 1992 and remained at about 10 000 tons until 2000. Since then catches increased gradually to 26 900 tons in 2010 primarily due to increased effort in Div. 0A and in Div. 1A but effort was also increased in Div. 0B and 1CD in 2010. Catches were at the 2010 level in 2011.

Year	Catch ('000 t)		TAC ('000 t)	
	STACFIS	21	Recc.	Agreed
2009	25	25	24 ¹	24
2010	27	27	27 ¹	27
2011	27	27	27 ¹	27
2012			27 ¹	27

¹ Including 13 000 t allocated specifically to Div. 0A and 1AB since 2006.

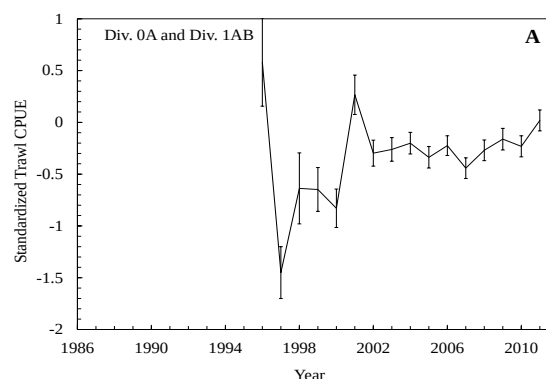


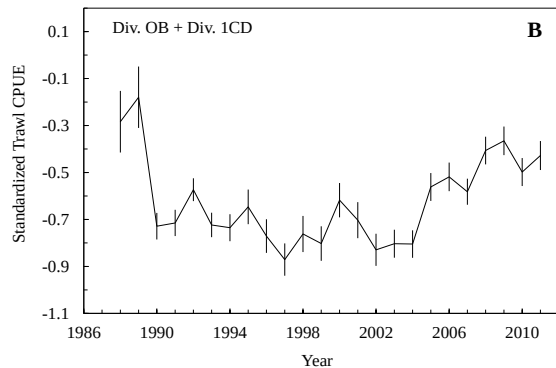
Data: Length distributions were available for assessment from SA0 and SA1. Unstandardized and standardized catch rates were available from Div. 0A, 0B, 1AB and 1CD. Biomass estimates from deep sea surveys in 2011 were available from Div. 0B and Div. 1CD. Further, biomass and recruitment data were available from shrimp surveys in Div. 1A-1F from 1989-2011.

Assessment: No analytical assessment or risk analysis could be performed, therefore only qualitative statements on risk can be provided.

Commercial CPUE indices. Combined standardized catch rates in Div. 0A and Div. 1AB have been stable during 2002-2011.

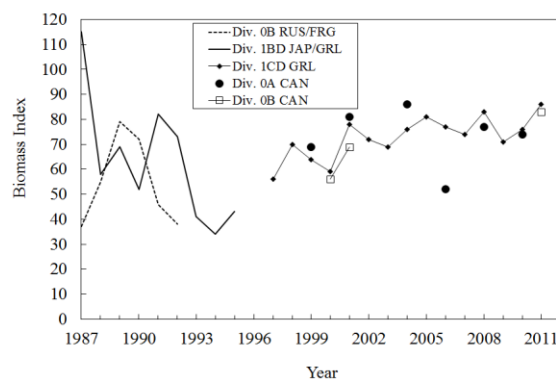
The combined Div. 0B and 1CD standardized catch rates have been stable from 2002 to 2004. Since then the standardized catch rates have increased gradually and were in 2009 at the highest level seen since 1989. CPUE decreased in 2010 but increased again in 2011 and is among the highest in the time series.



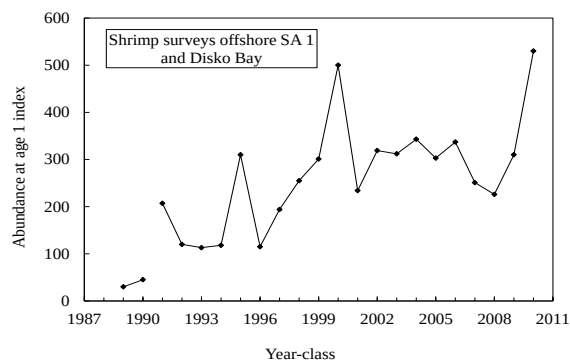


Biomass: The survey biomass index in Div. 0B has increased compared to previous years (2000 and 2001) and was at same level as in Div. 1CD.

The survey biomass index in Div. 1CD has increased gradually over the fourteen year time series and was the highest observed in 2011.



Recruitment: The abundance of the 2000 and 2010 year-classes at age 1 in the entire area covered by the Greenland shrimp survey were the highest in the time series, while the 2002-2006 and 2009 year-classes were above average. The recruitment of the 2007 - 2010 year-class in the offshore nursery area (Div. 1A (South of 70°37.5'N) - Div. 1B) was below average.



Fishing Mortality: Level not known.

State of the Stock: Div. 0A+1AB: Length compositions in the catches have been stable in recent years. Standardized catch rates have been stable in recent years.

Div. 0B+1C-F: Length compositions in the catches and deep sea surveys have been stable in recent years.

Survey biomass in Div. 1CD and Div. 0B has shown an increasing trend. In Div. 1CD the abundance increased between 1997 and 2001 and has been relatively stable since 2002. In Div. 0B the abundance was lower than in 2001 but higher than in 2000.

CPUE indices in Div. 0B and 1CD have shown an increasing trend since 2004, decreased between 2009 and 2010, increased again in 2011 and is among the highest in the time series.

Reference Points: Scientific Council is not in a position to propose reference points at this time.

Special Comments: A quantitative assessment of risk at various catch options is not possible for this stock. An approach using F ratio was used. It was noted that the method is very sensitive to annual changes in biomass estimates and the method is only meaningful if changes in F and biomass are considered over a range of years. Scientific Council recommended that the method should be investigated further.

Scientific Council noted that there is considerable uncertainty about accuracy in the current age reading methods. Results from validation for the SA0 and Div. 1A (offshore) and Div. 1B-F stock indicate longevity is greater and growth rates lower than previously estimated.

The next Scientific Council assessment of this stock will be in 2013.

Sources of Information: SCR Doc. 12/3, 16, 23, 31; SCS Doc. 12/5, 10, 13, 14.