Greenland Halibut (*Reinhardtius hippoglossoides*) in SA 0 + Div. 1A Offshore and Div. 1B-1F

Recommendation:

Div. 0A+1AB: TAC was increased in 2014. The CPUE and length frequencies in the commercial fishery have been stable. Scientific Council advises that there is a low risk of Greenland halibut in Div. 0A and Div. 1AB being below B_{lim} if the TAC for 2015 remains unchanged and catches should not exceed 16 000 t.

Div. 0B+1C-F: TAC was increased in 2010. The biomass and CPUE indices have been relatively stable. Scientific Council advises that there is a low risk of Greenland halibut in Div. 0B and Div. 1C-F being below B_{lim} if the TAC for 2015 remains unchanged and catches 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: Catches have increased in response to increases in the TAC from approximately 10 000 t in the late 1990s to approximately 27 000 t during 2010 to 2012 then increased to 28 100 tons in 2013. The TAC is 30 000 t in 2014.

	Catch ('000 t)		TAC ('000 t)
Year	STACFIS	21	
2011	27	27	27^{1}
2012	27	27	27^{1}
2013	28	28	27^{1}
2014			30^{1}

¹ Including 13 000 t allocated specially to Div. 0A and Div. 1AB during 2006-2013 and 16 000 in 2014.



1962 1968 1974 1980 1986 1992 1998 2004 2010 2016

Data: Biomass indices from deep sea surveys in 2013 were only available from Div. 0B. Further, biomass and recruitment data were available from shrimp surveys in Div. 1A-1F from 1989-2013. Length distributions were available from both surveys and the fishery in SA1. Unstandardized and standardized catch rates were available from Div. 0A, 0B, 1AB and 1CD.

Assessment: No analytical assessment could be performed.

Commercial CPUE indices. The standardized trawl CPUE series (A) for Div. 0A+1AB combined has been stable since 2002 with a slightly increasing trend since 2007. Standardized CPUE for gillnets in Div. 0A increased gradually from 2006-2011 and has been stable since then.

The standardized trawl CPUE series for Div. 0B+1CD combined (B) was relatively stable from 1990-2004, increased from 2004-2009 then decreased between 2009 and 2012. There was a slight increased between 2012 and 2013. The standardized CPUE for gillnets in Div. 0B has been gradually increasing since 2007 and in 2013 was at the highest level in the time series.

A standardized CPUE index for all trawlers fishing in SA 0+1 (C) increased between 2002 and 2006 and has been fluctuating at a high level since then. The 2013 estimate was the third largest seen since 1990.





Biomass: The Div. 1CD and Div. 0A-South indexes could not be updated in 2013. Division 0B was surveyed in 2013 for the fourth time. Previous surveys were conducted in 2000, 2001 and 2011, respectively. Biomass had decreased compared to previous two surveys and was back at the level seen in 2000.



Recruitment: A period of relative stability in the recruitment index (age one) during the 2000's was followed by an increase to the highest in the time series for the 2010 year class. There was a sharp decrease in the 2011 year class to the lowest estimate since 1996 but this was followed by an increase in the 2012 year class to the third largest in the time series.

Fishing Mortality: Level not known.

State of the *Stock*: The biomass in 2012 was well above B_{lim} . Trawl CPUE has been stable in recent years and so has the CPUE in the Div. 0A and 0B gillnet fisheries. A standardized CPUE index for all trawlers fishing in SA 0+1 has been increasing between 2002 and 2006 and has been fluctuating at a high level since then. The 2013 estimate was the third largest seen since 1990.

Div. 0B+1C-F: The 1CD biomass index was not updated as the 2013 survey was incomplete. The biomass index in Div. 0B decreased between 2011 and 2013 and was back at the level seen in 2000. Length compositions in the catches and deep sea surveys have been stable in recent years. Standardized CPUE has decreased between 2009 and 2012 but increased slightly and it is above the level observed during 1990 to 2004. The Standardized CPUE for gillnets in Div. 0B has been increasing since 2007 and in 2013 was at the highest level in the time series.

Div. 0A+1AB: The biomass index and survey length frequencies were not updated as there was no survey in this area in 2013. Length frequencies were not available for the SA0 fishery in 2013. Combined Standardized CPUE indices for Div. 0A and 1AB have been stable in recent years.

Precautionary Reference Points

Age-based or production models were not available for estimation of precautionary reference points. In 2013 a preliminary proxy for B_{lim} was set as 30% of the mean biomass index estimated for surveys conducted between 1997-2012 in Div. 1CD and 1999-2012 in Div. 0A-South. This same approach was applied to the combined survey index for the same period to establish a proxy for B_{lim} for the entire stock (Fig. 1.7)



Special Comments: A quantitative assessment of risk at various catch options is not possible for this stock. Therefore it is not possible to quantitatively evaluate whether the TAC is sustainable. If indices of stock size begin to decline in the short term (3 to 4 years), the TAC should be reduced.

The next Scientific Council assessment of this stock will be in 2015.

Sources of Information: SCR Doc. 14/02, 03, 20, 21 27, 33; SCS Doc. 14/12, 13.