Greenland halibut in Division 1A (inshore)

Recommendation:

Disko Bay: The status of the stock is unclear. Scientific council therefore recommends that catches in 2013 and 2014 should not exceed 8 000 t/year.

Uummannaq: The status of the stock is unclear. Catches have been around 6 000 t annually over the past twenty years. Scientific council therefore recommends that the TAC should not exceed 6 000 t for 2013 and 2014.

Upernavik: The status of the stock is unclear. Catches have increased substantially since 2002. Scientific council therefore recommends that there should be no increase in catches beyond the 2009-11 average (6 300 t) in 2013 and 2014.

Background: The inshore stocks of Greenland halibut in Subarea 1 are believed to be dependent on recruitment from the offshore spawning stocks in the Davis strait. Little migration out of the inshore areas and between areas has been observed and a separate TAC is set for each area.

Fisheries and catches: Total landings for division 1A inshore were less than 500 t/yr until 1955, less than 2 000 t/yr until 1975, less than 5 000 t/yr until 1985, less than 10 000 t/yr until 1991 and finally peaked at 25 000 t in 1998. Since then landings have decreased, but remained around 20 000 t/yr for the 3 areas combined.

Disko Bay: Landings increased from about 2 000 t in the mid 1980's and peaked in 2004 with more than 12 000 t. From 2006 landings decreased and in 2009 only 6 300 t was landed. However, in 2010 landings increased to 8 500 t and in 2011 8 000 t were landed.

	Catch ('00)0 t)	TAC ('00	TAC ('000 t)	
Year	STACFIS	21	Recommended	Agreed	
2009	6.3	-	8.8	8.8	
2010	8.5	-	8.8	8.8	
2011	8.0	-	8.0	8.0	
2012			8.0	8.0	



Uummannaq: landings increased from a level of 3 000 t in the mid 1980's and peaked in 1999 at a level of more than 8 000 t. Landings then decreased and from 2002 were at a level of 5 000 to 6 000 t. In 2011, 6 400 t was landed, which is an increase compared to recent years.

	Catch ('00)0 t)	TAC ('00	TAC ('000 t)	
Year	STACFIS	21	Recommended	Agreed	
2009	5.5	-	5.0	5.0	
2010	6.2	-	5.0	5.0	
2011	6.4	-	5.0	5.0	
2012			5.0	6.0	



Upernavik: landings increased from the mid-1980s and peaked in 1998 at a level of 7 000 t. This was followed by a period of decreasing landings, but since 2002 catches have increased and 6 500 t were landed in 2011.

	Catch ('00)0 t)	TAC ('00	TAC ('000 t)	
Year	STACFIS	21	Recommended	Agreed	
2009	6.5	-	na	5.0	
2010	5.9	-	na	6.0	
2011	6.5	-	na	6.0	
2012			na	6.0	

na - no advice



Data: *All areas*: Length frequencies from factory landings were available from all areas from both the summer longline fishery, the winter longline and the winter gillnet fishery. A standardized CPUE series based on logbooks provided by vessels larger than 30 ft was initiated in 2011. However, just as in 2011 the 2012 analysis only explained 22 to 27 % of the variability in the data. The 2006 and 2012 logbooks were excluded from the analysis, since few logbooks were available from 2006 and from the first months of 2012 and these estimates can hardly be regarded representative. Also the CPUE series does not account for effect of fishing ground within the area and shifts in the distribution could also cause the increasing or decreasing trends.

Disko Bay: A CPUE index and an NPUE index was derived from the Disko Bay Gillnet survey. The survey targets the pre-fishery recruits between 35 and 50 cm.

Abundance and biomass indices were derived from the Greenland shrimp fish trawl survey.

Assessment: No analytical assessment could be performed.

Disko Bay: Mean length: Mean length in landings, decreased after 2001 in both the summer and the winter fishery, and have decreased to the lowest value observed in the time series in 2010 and 2011. However, the average length in the winter fishery has increased in 2012 and the apparent detachment of the summer and winter fishery mean length series could indicate a redistribution of the stock or strong incoming year classes. The winter fishery in the Disko Bay is highly dependent on ice coverage and access to the inner parts of the Kangia icefjord where larger fish are accessible at greater depths, leading to the large difference in summer and winter fishery in 2011 was characterized by poor sea ice coverage, and the

fishery took place at the summer fishing grounds longer than usually.

Commercial CPUE: The standardized logbook CPUE index decreased from 2007 to 2011.

Survey CPUE: In the Disko Bay gillnet survey both CPUE and NPUE decreased in 2006 and 2007, but the 2008 and 2010 gillnet CPUE and NPUE estimates were at average levels. The 2011 gillnet survey CPUE and NPUE indices were the highest recorded for individuals < 50 cm, but also for all sizes. The increase in 2011 NPUEs is seen to derive mainly from the northern area off Torssukateq, while at the main fishing grounds at Kangia, the NPUEs have remained low. The high numbers of larger fish in 2011 seem not to have any origin in the previous years estimated populations. This may either be due to migration of the larger fish in the area or may simply reflect the uncertainty of the estimates.

Survey biomass: The Greenland Shrimp Fish trawl survey biomass and abundance indices decreased from 2004, but stabilized in 2008 and 2009 and increased in 2010 and 2011. The 2011 abundance index reached the highest value recorded, mainly caused by a strong 2009 year-class and a very strong 2010 year-class.



Uummannaq: *Mean length*: Mean length in the landings has decreased slightly in the summer fishery since 2004 and the winter fishery since 2007. However, the mean length in the winter fishery landings increased in 2012. *Commercial CPUE*: The standardized CPUE index increased from 2007 to 2011.

Upernavik: Mean length: Mean length in landings has been stable since 1999, except for a decrease in the 2010 and 2011 summer fishery. However, the mean length in the winter fishery landings of 2012 increased compared to the 2011 winter fishery and is at about the average of the recent 5 years.

Commercial CPUE: The standardized CPUE index decreased from 2007 to 2011.

State of the stock:

Disko Bay: The persistent decrease in mean length in the summer and winter fishery landings from 2001 to 2007 indicated a fishery dependent on incoming yearclasses entering the fishery. However, the recent increase in the mean lengths in the winter fishery and the apparent detachment of the summer and winter fishery mean length series, along with the increasing indices in the Gillnet survey could also indicate some recovery. The decreasing logbook CPUE index may indicate a decreasing stock, but the index should be interpreted with caution, since little variance is explained and only part of the landings are covered in the logbooks. The recent increasing biomass and abundance indices in the Greenland shrimp fish trawl survey indicate good recruitment in 2010 and 2011.

Uummannaq: The slowly decreasing trend in mean length in the landings since 2004 could indicate large new incoming year-classes or a decreasing stock. The increasing logbook CPUE index may indicate an increasing stock, but the index should however be interpreted with caution as little variance is explained and only part of the landings are covered by logbooks.

Upernavik: Mean length in the commercial landings was stable from 1999 to 2009, but decreased slightly in 2010 and 2011. However the mean length in the 2012 winter fishery is at the same levels as in the past decade. The decreasing logbook CPUE index may indicate a decreasing stock, but the index should be interpreted with some caution since little variance is explained and only part of the landings are covered by the logbooks.

Reference Points: Could not be determined for any of the stocks.

Special Comments: The stocks are believed not to contribute to the spawning stock in Davis Strait, and no significant spawning has been observed in the areas, hence the stocks are dependent on recruitment from offshore spawning areas.

Sources of Information: SCR Doc. 11/43 12/16 36 SCS Doc. 12/10