# b) Northern shrimp in Denmark Strait and off East Greenland

Advice October 2018 for 2019

#### Recommendation

In 2016 the stock remained at a low level, comparable to previous years, and there is no new information to indicate a change in stock status. Given the lack of current information, SC is not able to provide advice on the sustainable exploitation of this stock. As an interim measure, it is not considered appropriate that catches should exceed 2 000 t. SC advises that a survey should be carried out in future years.

## **Management objectives**

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

Objective	Status	Comment/consideration	
Apply Precautionary Approach		B <sub>lim</sub> is defined. No fishing mortality reference point defined	•



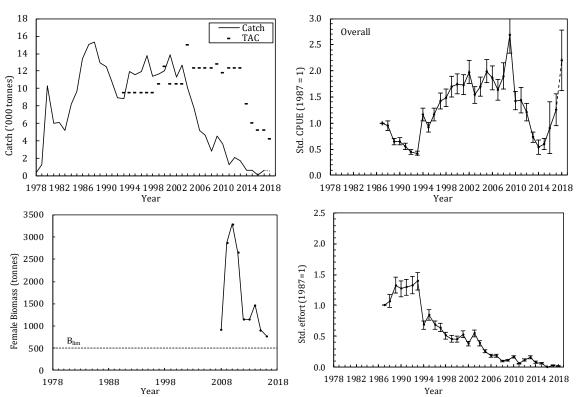
Intermediate

# Management unit

The shrimp stock is distributed off East Greenland in ICES Div. XIVb and Va and is assessed as a single population.

### Stock status

The stock size remained at a very low level (relatively close to Blim) in 2016 despite several years of very low exploitation rates. There is no new information to indicate a change in stock status.



### Reference points

Scientific Council considers that a female survey biomass index of 15% of its maximum observed level provides a proxy for  $B_{lim}$  (SCS Doc. 04-12).



# **Projections**

Quantitative assessment of risk at various catch options is not possible for this stock at this time.

### Assessment

Advice is based on qualitative evaluation of biomass indices in relation to historic levels.

Evaluation of stock status is based upon interpretation of commercial fishery and research survey data. The trends in the survey and the standardized CPUE have been similar since the start of the survey, however they diverged in 2016, the last year for which there are survey data available. Since 2015, this has been an opportunistic fishery with vessels stopping off on route between other fishing grounds. Therefore CPUE may no longer be a reliable indicator of the stock status. No survey was carried out in 2017 and 2018.

# Human impact

Mainly fishery related mortality has been documented. Other sources (e.g. pollution, shipping, oil-industry) are considered minor.

Biological and Environmental Interactions

Cod is an important predator on shrimp. The cod stock has generally been increasing in East Greenland waters since 2008.

# **Fishery**

Shrimp is caught in a directed trawl fishery. The fishery is regulated by TAC and bycatch reduction measures include move-on rules and Nordmøre grates.

Recent catches (tonnes) were as follows:

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Enacted TAC	12835	11835	12400	12400	12400	8300	6100	5300	5300	4300
SC Recommended TAC	12400	12400	12400	12400	12400	2000	2000	2000	2000	2000
NIPAG	4555	3602	1199	2109	1717	622	576	49	561	545 <sup>1</sup>

<sup>&</sup>lt;sup>1</sup> To July 2018

## Effects of the fishery on the ecosystem

Measures to reduce effects of the fishery on the ecosystem include move-on rules to protect sponges and corals.

### **Source of Information**

SCR Doc. 18-059

