

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


Advice November 2019 for 2020


**Recommendation**

In 2016 the stock remained at a low level, comparable to previous years. CPUE has increased in recent years and in the first half of 2019 was at a record high level. However, fishing in recent years has been carried out in a localized area and the effort has been relatively low, so CPUE may not reflect stock status. Given the limited amount of current information, SC is not able to provide advice on the sustainable exploitation of this stock. Therefore, SC has no information to change the advice from the last five years that, as an interim measure, catches should not 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		$B_{lim}$ is defined. No fishing mortality reference point defined

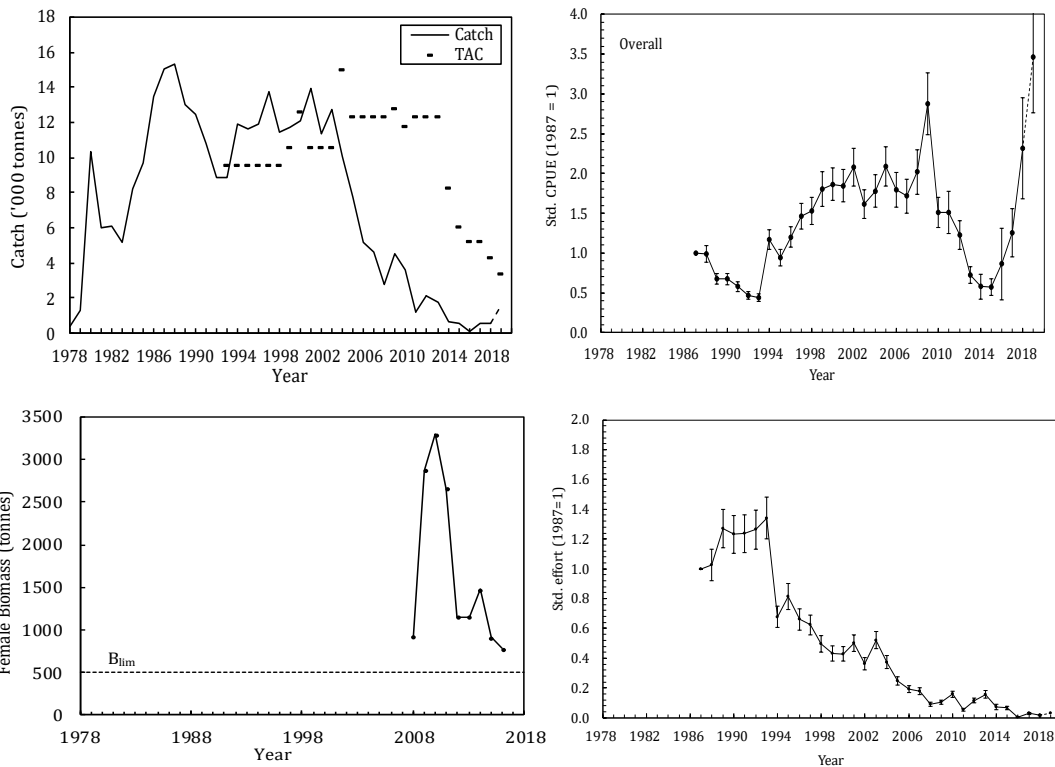
 Intermediate

**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  $B_{lim}$ ) in 2016 despite several years of very low exploitation rates. There is no new fishery independent 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. Recent increasing CPUE values may indicate an improvement of the shrimp density in the northern area; however, this may not reflect overall stock status as the fishery occurs in a localized area and includes only a small number of hauls. No survey was carried out in the period 2017 to 2019.

### *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 decreasing in East Greenland waters since 2012.

## 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:

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Enacted TAC	11 835	12 400	12 400	12 400	8 300	6 100	5 300	5 300	4 300	3 384
SC Recommended TAC	12 400	12 400	12 400	12 400	2 000	2 000	2 000	2 000	2 000	2 000
NIPAG	3 602	1 199	2 109	1 717	622	576	49	561	547	1579 <sup>1</sup>

<sup>1</sup> To July 2019

## 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. 19-059