Minister for Food,
Agriculture and Fisheries

Department for Environment,
Food & Rural Affairs

May 26 2023

**Response from the Ministry of Food, Agriculture and Fisheries of Denmark to the Consultation on Spatial Management Measures for Industrial Sandeel Fishing**

On behalf of the Ministry of Food, Agriculture and Fisheries of Denmark, I hereby inform you in detail of our concerns regarding the possible measures presented in the consultation.

The fishing for sandeel in English waters is of great significance to the Danish fishers, and a possible ban will affect not only the Danish fisheries sector, but also the entire value chain with significant economic consequences to follow. In a 6-year period from 2017-2022 the average amount of Danish sandeel catches is 135 million DKK (£40.5 million). An overview of the total amount of catches and catch value is enclosed in annex I.

We highly emphasise the importance of protecting the marine environment and ensuring a sustainable management of shared fish stocks by implementing conservation and management measures based on the best available scientific advice.

According to Article 494(3)(c) in the Trade and Cooperation Agreement[1], the Parties shall base conservation and management decisions for fisheries on the best available scientific advice, principally that provided by the International Council for the Exploration of the Sea (ICES).

Furthermore, Article 494(3)(f) stipulates that the Parties apply proportionate and non-discriminatory measures for the conservation of marine living resources and the management of fisheries resources, while preserving the regulatory autonomy of the Parties.

The independent scientific advice provided by ICES follows an ecosystem approach that takes the context of other maritime activities and pressures into account. With

[1] Trade and Cooperation Agreement between the European Union and the European Atomic Energy Community, of the one part, and the United Kingdom of Great Britain and Northern Ireland, of the other part.

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this methodology, the current yearly fishing opportunities for sandeel takes a supply of forage fish into account and ensures a sustainable fishery.

The Danish Ministry has requested a review on the scientific evidence presented in the report '*What are the ecosystem risks and benefits of full prohibition of industrial sandeel fishing in the UK waters of the North Sea (ICES Subarea 4)?'* from the Danish scientific institute DTU Aqua. In the review, which you will find enclosed in annex II, scientists find the core advice to be based on insufficient or outdated scientific evidence providing incorrect estimated outcomes. Central points from the review are following:

- For short-lived species such as sandeel, ICES follows the MSY strategy, which is designed to leave at least a specific amount of fish in the sea for the next spawning rather than designed to fish with a constant fishing mortality. Following this approach, overfishing is avoided, as fishing pressure reduce when the stock is outside safe biological limits. Furthermore, the predicted level of spawning biomass accounts for consumption of fish, seabird and mammal predators, thereby ensuring that the mortality due to natural predators is given priority over fisheries mortality ensuring a sufficient supply of forage fish.

- While breeding kittiwakes east of Scotland depend on arrival of sandeel in their recruiting year, sandeels do not appear in large numbers in the fishery until their subsequent year, at age 1 and older. Competition between kittiwakes and fishing must therefore act mainly through the potential effect of fishing on spawning biomass and from there to the number of recruiting fish in the subsequent year.

- The development of the eastern English kittiwake colonies are not consistently related to each other, indicating that they are not reacting to a common factor such as sandeel abundance in area 1r. Factors affecting the breeding success of kittiwakes may be related to the emergence behaviour of sandeel and/or to other temperature-related processes rather than simply the abundance of sandeel of age 1 and older. While improvement was seen in terms of breeding success of kittiwakes following the closure of an area off east Scotland to large scale fishing, this management measure did not fully restore breeding success of kittiwakes to previous levels, indicating that other factors than food shortage are affecting this species in this area. It is stated, that as long as the biomass of prey fish exceeds a third of the maximum, no adverse effects are generally seen on seabird recruitment.

- The management strategy in area 4 targets a spawning biomass in the area after fishing to ensure that recruitment is not impaired. Since the assessment was first conducted for area 4 and a separate MSY advice was given in 2016, the stock has been fished with a low monitoring TAC to obtain samples for the assessment in 2019 and 2022 and a regular TAC in other years. In this period, the stock has not been below the level at which recruitment is impaired ($B_{lim}$) in any years. For comparison, in the period from 2005 to 2016 in the absence of a fishery beyond monitoring fishing,

the stock was below $B_{lim}$ in 2007 to 2010 and again in 2015, reflecting the large variability in recruitment to this stock as also noted on page 39 of the report. Hence, there is no evidence to suggest that the current management approach is unprecautionary or has led to local depletion.

- There are no references in the report to published studies linking a high biomass of sandeel to high recruitment in commercial fish, high survival or breeding success of mammals or high survival of seabirds.

Furthermore, DTU Aqua refers to recent scientific data that show no correlated connections between environmental variations and sandeel recruitment and production. While the recruitment of sandeel is highly influenced by ocean currents, an analysis of the relationship between recruitment success and various environmental factors has been repeated several times using data from subpopulations without finding a consistent link between sandeel recruitment and the North Atlantic Oscillation.

Therefore, we find the measures suggested in the consultation unnecessary and disproportionate.

Alongside the scientific evaluation by DTU Aqua, we refer to the agreement between the UK and EU to submit a joint request to ICES: "to provide further information on how ecosystem considerations, particularly predator-prey interactions and the rebuilding of sensitive higher trophic level species such as certain seabirds, and other ecosystems-based fisheries management aspects are factored in and applied in the provision of single stock 2 advice for forage fish species". We find it important to await the reply from ICES on this request and analyse its consequences in depth.

With this response and the scientific evaluation presented, we strongly urge you to reconsider the possible management measures and we look forward to your reply.

Kind regards,

Nis Christensen
Fisheries Director