

6.2.3.2 EU request on sole (*Solea solea*) in Division IIIa (Skagerak-Kattegatt) and Subdivisions 22–24 (Southwestern Baltic Sea) - SELTRA trawl

Advice summary

ICES advises that it is not able to quantify or provide an expert judgement on the likely reduction in cpue of sole in Division IIIa and Subdivisions 22–24 caused by the shift from 90 mm codend trawls to SELTRA trawls. This is due to the fact that no data on the difference in catchability of sole in the two trawl types are available, and therefore there is no quantitative information to quantify the assumed reduction. Moreover, there is no other literature or anecdotal information on which to provide an expert judgement on the magnitude of such reduction. Therefore, ICES is unable to re-assess the stock of sole in Division IIIa and Subdivisions 22–24 based on a reduction in catchability in the SELTRA trawls.

Request

In its 2014 advice for sole in Division IIIa and Subdivisions 22-24, ICES pointed out that the assessment did not take into account the reduction in catch per unit effort (CPUE) that results from the use of the SELTRA trawl.

ICES is requested to quantify this reduction in CPUE if possible, or else to give its expert judgment on the likely reduction in CPUE. It is also requested to re-assess the stock based on the assumed reduction in CPUE, and provide the corresponding TAC for 2015 based on the ICES MSY approach.

Elaboration on ICES advice

Several changes in trawl selectivity have been implemented since 2007 to protect cod in the Kattegat. These gear changes may have affected the cpue of sole. The sole stock assessment uses the cpue of commercial trawlers (during April–August, when *Nephrops* is the target species) as an abundance index and, therefore, the assessment is sensitive to catchability changes of this fleet. It is assumed that the shift to SELTRA trawls is the main change affecting sole catchability in the Kattegat, but no direct observations or measurements have been made on the catchability of sole. Due to the absence of such information, ICES has no basis on which to quantify or provide an expert judgement on the likely reduction in cpue caused by the shift to SELTRA trawls.

Experiments conducted on plaice estimated a loss of around 21% when shifting from a 90 mm codend trawl to a SELTRA trawl (Krag *et al.*, 2015). While this could indicate that the shift in trawl caused a reduction in the catchability of sole, other studies (Ferro *et al.*, 2007) indicate that the vertical behaviour of different flatfish species in the fishing net may be different. Therefore, ICES does not consider the available estimate of plaice escapement to provide a suitable basis to provide an expert judgement for sole.

Sources and references

- Boje, J., Vinther, M., and Krag, L. 2015. Report on the request to ICES on impacts of SELTRA mounted trawl on catch efficiency, assessment and catch forecast for sole in Division IIIa and Subdivision 22-24. ICES CM2015\ACOM:45.
- Ferro, R. S. T., Jones, E. G., Kynoch, R. J., Fryer, R. J., and Buckett, B-E. 2007. Separating species using a horizontal panel in the Scottish North Sea whitefish trawl fishery. ICES Journal of Marine Science, 64: 1543–1550.
- Krag, L. A., Herrmann, B., Feekings, J., and Karlsen, J. D. 2015. Escape panels in trawls – a consistent management tool? In preparation.