

STECF 21-18

Technical Measures in the Celtic Sea

1st to 5th November 2021, virtual meeting

Co-chairs: François Bastardie, Paz Sampedro

DG MARE Focal Point: Cristina Ribeiro

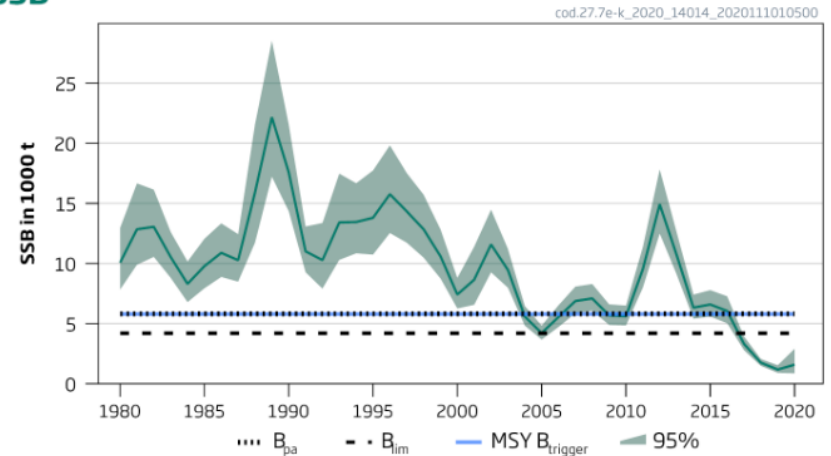
Report: <https://stecf.jrc.ec.europa.eu/documents/43805/5318626/STECF+21-18+-+TM+Celtic+Sea.pdf/b3ad335c-6d64-4e98-b643-d4a7be54ff19>

Background

Cod and whiting stocks in the **Celtic Sea** are below Blim (ICES, 2019):

- only bycatches are allowed for both stocks.
- European Union was legally obliged to adopt remedial technical measures as safeguards, to help rebuild these stocks (Art 8, Western Waters Multiannual Plan).

SSB




Remedial measures were for the first time adopted under Regulation (EU) 2020/123:

improving selectivity by making **mandatory** the usage of a **suite of gears** that have lower levels of by-catches of cod in the areas where cod catches are significant, thus decreasing the fishing mortality of that stock in mixed fisheries.

Background

Later in 2020, "Remedial measures for cod and whiting in the Celtic Sea" (article 15 of the 2021 Fishing Opportunities regulation (EU) 2021/92): **continuing the implementation** of the measures introduced in 2020, hence to reduce by-catches of gadoids in TACs of species caught in mixed fisheries together with gadoids (e.g. haddock, megrims, anglerfish and Norway lobster).

North Western Water Member States Group identified the need of increasing the knowledge of the **performance of the technical measures** for all fleets operating in the Celtic Sea and the benefit of an evaluation of the technical measures adopted, emphasizing on the requirement for a **bio-economic impact assessment**.



STECF EWG 21-18 Terms of Reference

ToR 1. As regarding the fleets operating in the Celtic Sea:

Contribution of all fleets to the fishing mortality.

Evaluation of the conditions of application of specific technical measures trigger by thresholds.

ToR 2. As regarding seasonal closures of relevant parts of the CSPZ:

Evaluate the efficiency of existing closed area and explore alternative closures in duration, season and/or geography.

ToR 3. Bio-economic impact assessment of adopted technical measures, specifically raised-fishing line, and alternative technical measures.

ToR 4. Evaluate the potential effectiveness of the measures to be introduced by the UK from the 5th September 2021 on cod and whiting stocks in the Celtic Sea in comparison to the current measures in EU waters.



TOR 1.1 – Who's fishing

Fishing mortality by fleets:

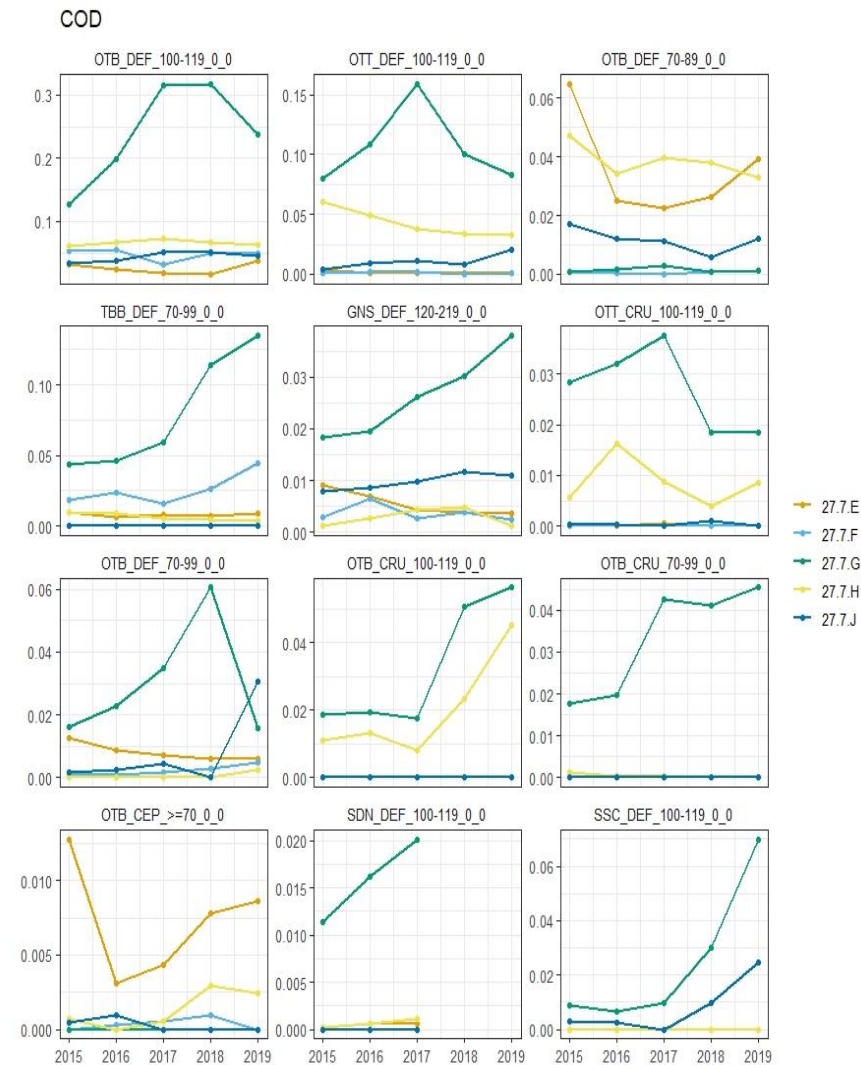
Bottom otter trawl fleets using larger mesh-size (100-119mm) have the highest partial fishing mortality for cod and haddock.

Fleets using smaller mesh-size (70-99mm) contribute more to **F** for whiting.

Fishing mortality by ICES divisions:

Highest partial F for:

- cod: ICES division 27.7g.
- whiting: mostly in 27.7g and 27.7e
- haddock was spread over 27.7e,g,h and a lesser extent in 27.7j.



TOR 1.2 – Impact of the “raised fishing line” in the CSPZ

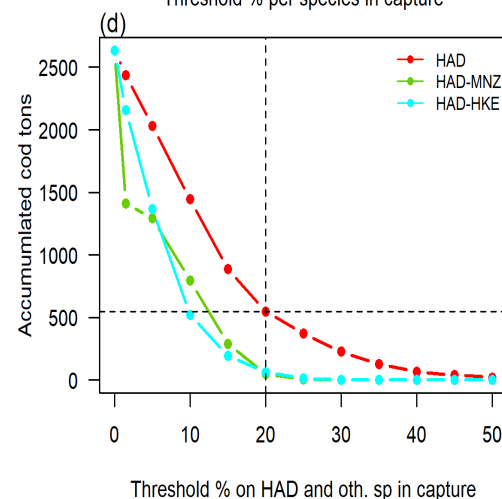
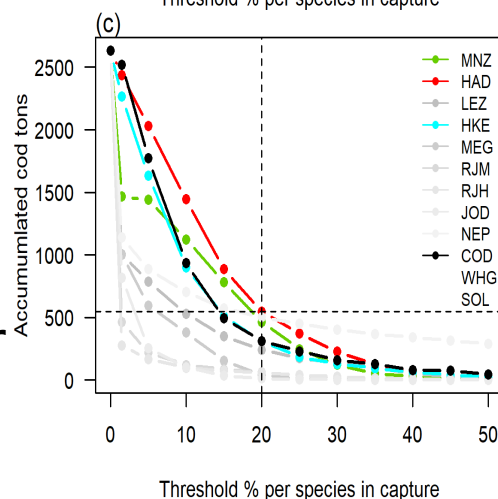
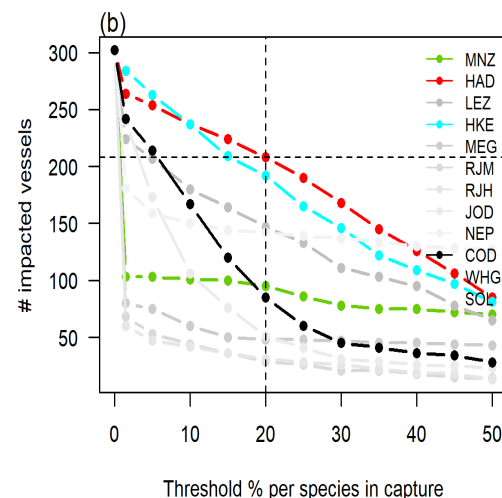
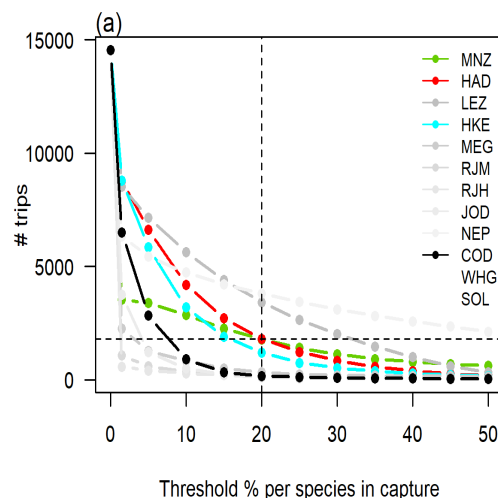
Thresholds on catch composition

Evaluate the use of different species and thresholds to set the raised fishing line in terms of trips and vessel affected, tons of cod saved, other species...

Most appropriate Species:

haddock (in terms of catches of cod potentially avoided and in terms of negative impact on revenues)

The specific >20% haddock **threshold** (specified in the current Regulation) impacts fewer trips and vessels while still outperforming the potential thresholds on any other species.



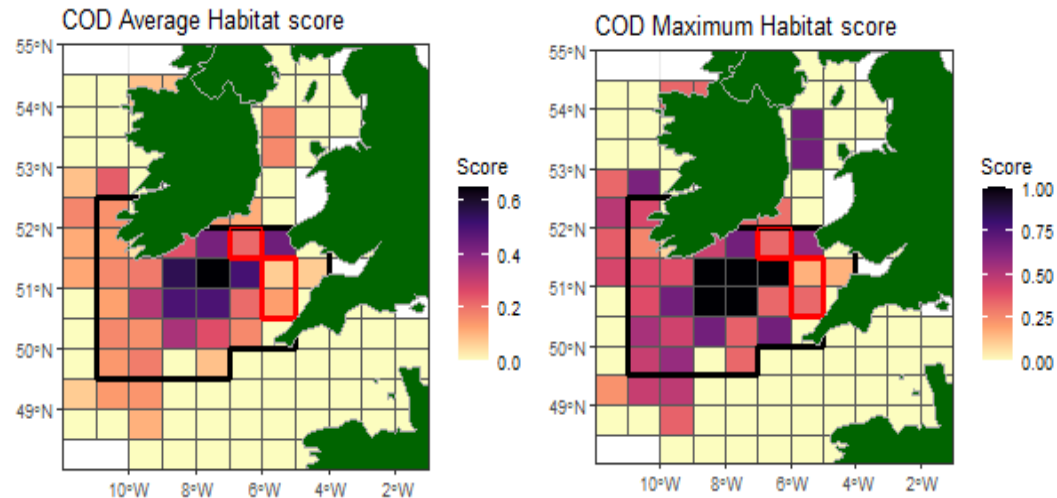
TOR 2 – closed areas in the CSPZ

Existing closed areas: do not appear to protect areas with the highest density of cod throughout the year. Not possible to evaluate the historical efficiency and economic impacts of Trevoise closure (no data available)

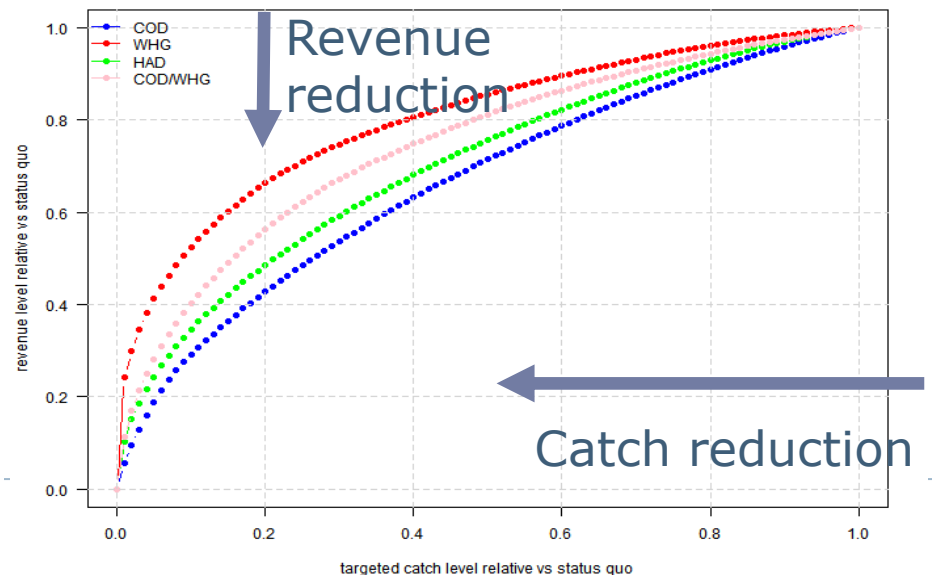
New closed areas: substantial catch reductions of cod could be achieved by closing several ICES statistical rectangles off the South Coast of Ireland (Rectangles 31E1, 31E2, 30E0, 30E1, 32E1).

STECF notes therefore, that considering the high importance of cod even as a bycatch species, any closure proposal should be accompanied by a *reduction in fishing effort*.

Hotspot persistency analysis



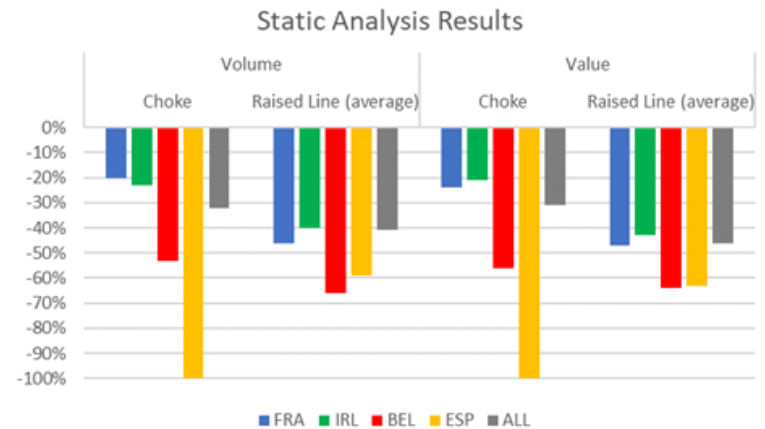
Trade-off analysis



TOR 3 - Bio-economic impact assessment of adopted technical measures (gears modifications & closed areas)

Static bio-economic analysis

Results should be interpreted with caution as they do not include mixed fisheries considerations, and do not consider the reallocation of fishing effort or other possible selectivity devices which would reduce cod catches.



Dynamic bio-economic assessment is considered better, to be investigated:

1) **fleet-based FLBEIA model** for Celtic Sea but the current state of development of this model did not allow exploring management strategies

2) an alternative **spatially-explicit DISPLACE model** was presented to the EWG, which could be investigated and developed further to explore alternative spatial scenarios.

3) *Several alternative models* with different characteristics and capabilities can be a useful combination to explore a wide range of management options.



TOR 4 - Measures introduced by the UK

Minor adjustments to exploitation patterns compared to the EU measures:

1. **Default gear** selected by the UK, with a mesh size of 110 mm and 120 mm square mesh panel, is the **most selective** of the gear options included under the EU legislation.
2. Different Nephrops catch threshold and the prohibition on strengthening bags may have **no negative or marginal effect** in affecting protection of cod.
3. However, the default 100 mm and 100 mm square mesh panel in ICES divisions 27.7e and 27.7h within UK waters **could negatively impact cod catches** as the gear has a poorer selectivity with a lower L50 for cod than other gears
4. The impact of removing the requirement to use the raised fishing line gear: is still uncertain. "Fishers can change the catch species profile to avoid using any alternative device".

