



## **NWWAC advice on Technical Measures in the Celtic Sea**

**22 July 2022**

### **1. Background**

In 2019, ICES' catch advice showed that cod and whiting stocks in the Celtic Sea are below  $B_{lim}$  and only bycatches are allowed for both stocks. In line with Article 8 of the WWMAP, the European Union was legally obliged to adopt remedial technical measures as safeguards to help rebuild these stocks.

Specific 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.

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

The North Western Waters Member States Group identified the need for 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 measures adopted emphasising the requirement for a bio-economic impact assessment. The STECF was thus tasked to increase the knowledge of the current situation regarding protecting cod and whiting stocks in the Celtic Sea through a dedicated Expert Working Group (EWG-21-18).

In addition, in September 2021 the UK introduced new technical measures in the Celtic Sea, which apply in UK water and differ from current EU measures in the Celtic Sea.

Following presentation of the STECF EWG-21-18 report at the meeting of NWWAC Working Group 2, an action point was approved by the NWWAC Executive Committee to establish an Advice Drafting Group to provide advice to the Commission and the Member States Group on technical measures in the Celtic Sea.

### **2. Celtic Sea ecosystem and climate change**

As mentioned in the [2021 ICES Celtic Seas ecoregion – Ecosystem Overview](#), climate change is already observable within some parts of the Celtic Seas ecoregion, with a mean annual sea surface temperature showing an overall upward trend of about +0.5°C since 1975. Cod survival in the Celtic Sea is critically threatened by this, as the species' temperature optimum is outside of the range of

temperature values occurring in the Celtic Sea ecosystem<sup>1</sup>. It is crucial that management of Celtic Sea fisheries takes into consideration that the stock will continue collapsing, and proportionality of management measures for fishers will be needed.

As already recommended in a [letter from July 2022](#), it is important that the stock assessment takes into account ocean warming and whether the habitat is still suitable for cod in the Celtic Sea, and consequently the viability of the fishery in the future.

### 3. Celtic Sea cod management plan

Drinkwater (2005)<sup>2</sup> predicted the disappearance of cod in the Celtic Sea by 2100, linked to an increase in the average annual bottom temperature exceeding 12°C. Some recent scientific work, however, indicates that this temperature could be reached between 2020 and 2025. This disappearance would result primarily from a lack of the necessary biological thermal conditions for reproductive success. It would be preceded by an intermediate phase where the stock biomass is at low levels and biologically unable to return to its historical reference levels, due to environmental conditions.

ICES has already partly integrated this lower productivity into its evaluation method (recruitment hypothesis, etc.). However, the combination of the Western Waters Management Plan and the current ICES reference points continues to politically aspire to full recovery of the stock. Unfortunately, there seem to be few indications that this is still biologically possible, and failing that, the management measures put in place will affect the capacity of fishing companies operating in the Celtic Sea in an increasingly disproportionate way.

The NWWAC believes it is necessary to ask ICES for in-depth expertise on Celtic Sea cod recruitment processes, in order to assess the feasibility of the recovery of the stock, and the legitimate weight of the associated management measures. Many efforts have already been made in this context and further improvements in selectivity would be difficult to implement while maintaining the fishery at economically viable levels. The NWWAC recommends that the absence of an increase in the size of this stock no longer be a motivation for strengthening management measures.

Despite not being the subject of a targeted fishery over the past three years, Celtic Sea cod is still listed under Article 1 of the Western Waters Multiannual Plan (Regulation (EU) 2019/472). Therefore, the NWWAC recommends evaluating the usefulness of a TAC for cod in the Celtic Sea and considering removing cod from Article 1 of the WW MAP. Consequently, the NWWAC recommends considering how cod bycatch limitations could be organised if a TAC was no longer available. Any measure to regulate by-catch should be based on a legitimate right to error/bycatch (quantity/haul, etc.).

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<sup>1</sup> Hervnann, P. Y., Gascuel, D., Grüss, A., Druon, J. N., Kopp, D., Perez, I., ... & Robert, M. (2020). The Celtic Sea through time and space: Ecosystem modeling to unravel fishing and climate change impacts on food-web structure and dynamics. *Frontiers in Marine Science*, 1018.

<sup>2</sup> Drinkwater, K. F. (2005). The response of Atlantic cod (*Gadus morhua*) to future climate change. *Ices journal of marine science*, 62(7), 1327-1337.



#### 4. Review of STECF EWG-21-18 report

Fleets operating in the Celtic Sea	
STECF conclusions	NWWAC advice
<p>The trawlers fleets using larger mesh-size (100-119mm) have the highest partial F<sub>s</sub> for cod and haddock, while smaller mesh-size (70-99mm) contributes more to whiting.</p> <p>The most appropriate species for setting a catch threshold is indeed haddock in terms of cod tons covered and the smallest expected impact on revenue.</p> <p>The specific &gt;20% haddock threshold specified in the current Regulation impacts fewer trips and vessels while still outperforming the potential thresholds on any other species</p>	<p>Overall, the NWWAC recommends that, while it is important not to lose measures flexibility and adaptability to the different fleets, stability of technical measures over the years is vital.</p> <p>The selective systems currently in force constitute a maximum in terms of compromise between selectivity and the fishing profitability on target species. In addition, many regulatory changes have occurred in the recent period and have not been fully evaluated by scientists yet. It is therefore desirable that all regulatory provisions concerning technical measures in the Celtic Sea be maintained as they stand.</p> <p>Regarding the raised fishing line (RFL), BIM 2019 states that its use can achieve substantial reductions (&gt; 60%) in catches of lesser spotted dogfish, flatfish species and rays, and more moderate reductions (20 to 29%) of haddock and cod. The RFL also allows major reductions (46 to 63%) in undersize whiting with minimal difference (- 9 to + 3%) in catches of larger, market size whiting. This suggests that the RFL can greatly assist Irish whitefish vessels in meeting landing obligation requirements when targeting whiting.</p> <p>However, the implementation of this gear is challenging the activity of vessels in the Celtic Sea, where haddock is currently the main target species in mixed demersal species fishery. Despite the decrease in cod bycatches with the RFL, the haddock TAC is still reduced to avoid increasing fishing effort on cod. Consequently, the RFL cannot be operated as there is not enough TAC for the target species. Therefore, the NWWAC recommends considering the removal of</p>



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	<p>the RFL from the technical measures for cod and whiting in the Celtic Sea as listed in article 15 of Council Regulation (EU) 2021/92.</p> <p>Overall, vessels operating in this fishery are already struggling to maintain commercial viability due to high fuel prices, low quota for haddock and inability to catch the whiting quota due to relatively large minimum codend mesh and square mesh panel (SMP) sizes. Further reductions in catches of haddock and other species would likely render the fishery commercially unviable.</p>
<b>Seasonal closures of relevant parts of the CSPZ</b>	
<b>STECF conclusions</b>	<b>NWWAC advice</b>
<p>Existing closed areas: do not appear to protect areas with the highest density of cod throughout the year. It was not possible to evaluate the historical efficiency and economic impacts of the Trevoise closure because relevant data is not available.</p>	<p>NWWAC members believe that closures do not seem to work in reality with fishing effort being displaced and the same cod being caught in other places in the Celtic Sea.</p>
<p>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).</p>	<p>The proposed closures seem to be purely based around reducing catch and not about protecting potential spawning ground and critical habitats for sensitive life history stages. Given the noted impacts of climate change on recruitment, it would be better to focus on trying to enhance these life-stages. If recruitment continues to decline these closures may be unnecessary in the long run.</p>
<p>The potential for effort displacement may though significantly reduce the effectiveness of the CSPZ closures in reducing catches of cod and whiting. Considering the historically high dependency of the fisheries on cod catches, any closure proposal would thud need to be accompanied by a reduction of fishing pressure overall to effectively reduce unwanted (by)catches, prevent unintended effort displacement and limit inducing increased operating costs and lower economic return.</p>	<p>If closures were to be proposed, it is important that this does not lead to the implementation of a plan for effort management days to limit effort displacement. In addition, the precision of the data collected at the level of the ICES statistical rectangles does not seem relevant to protect cod. Indeed, this would cause great difficulties for the fleets and raises the question of proportionality of measures.</p> <p>Priority should be given to the evaluation of the effectiveness of the existing Trevoise closure over implementing new closures without the supporting data to prove they will be effective.</p>



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### Bio-economic impact assessment of adopted technical measures

#### STECF conclusions

In terms of short-term losses, and in the absence of any fleet adaptation, the implementation of the ‘raised fishing line’ selectivity device on trawls in the CSPZ would have the same magnitude of impact as the early closure of the fishery for some fleets, noting this is based on a limited static assessment.

The application of a dynamic bio-economic model to conduct a medium-term assessment would be beneficial. More work should be dedicated to operationalising current fleet-based FLBEIA model and further exploring the spatially-explicit DISPLACE model.

#### NWWAC advice

Recommendations provided under the “Fleets operating in the Celtic Sea” section of this table are considered relevant for this topic as well. The NWWAC agrees with STECF conclusions regarding the impact of the implementation of the RFL in the CSPZ.

### Evaluate the potential effectiveness of the measures to be introduced by the UK

#### STECF conclusions

Measures introduced by the UK are likely to lead to relatively minor adjustments to exploitation patterns compared to the EU measures:

- 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.
- Different Nephrops catch threshold and the prohibition on strengthening bags may have no negative or marginal effect in affecting protection of cod.
- 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

#### NWWAC advice

The UK and EU currently have different technical measures in place and both parties have realised that it is beneficial to reach an agreed approach on TM in the Celtic Sea, which is reflected in commitments made in the past two Written Records of the annual EU-UK fisheries consultations. While acknowledging that progress has been made in the SCF, the NWWAC wishes to highlight the urgency of this matter, as having different measures to comply with when crossing the border between EU and UK waters represents a great concern and difficulty for fishers. Thus, the NWWAC urges the Commission to ensure that measures between EU and UK waters are as cohesive and harmonised as possible.

The NWWAC also underlines the vital importance of continued engagement with stakeholders during new bilateral discussions between the EU and UK under the SCF. The newly established “Inter-AC Brexit Forum” has already provided recommendations in this regard, through a [letter from April 2022](#).