



EU Transparency Register Id. No: 8900132344-29

## ADVICE

# Addressing Choke Risk in NWW after exemptions

17 October 2019

### 1. Background

The issue of choke species has been identified by the NWWAC and NWW Member States as a continuing obstacle to implementing the Landing Obligation (LO) fully. Extensive work has been completed to identify the key choke species and the potential mitigation measures outside the remit of Article 15 of the Common Fisheries Policy (CFP) to reduce the choke risks for NWW fisheries. The views of the NWWAC were presented in the advice of 17 April 2018<sup>1</sup>.

In May 2019, the NWW Member States Group submitted their first draft of the Joint Recommendations (JR) for 2020 to the European Commission. These recommendations contain *de minimis* and high survivability exemptions, and technical measures designed to increase the selectivity in key fisheries. A revised version of these JRs was submitted to the Commission in August 2019 following lengthy negotiations with the Member States. These negotiations mainly concerned measures associated with stocks under the Bycatch Reduction Plan (BCReP)<sup>2</sup>.

As in previous years, it is unlikely that the resulting Discard Plan will lead to full mitigation of the identified choke risks and that further measures will be needed to avoid fisheries closing prematurely in early 2020. The only mechanism besides the Discard Plan to implement such measures in the short-term is through the Fishing Opportunities Regulation, but even then, uncertainty remains whether all choke risks can be properly addressed. The situation is further complicated by the five stocks covered under the BCReP Plan in 2019, where ICES has again advised zero catches.

At its meeting in Ghent (2<sup>nd</sup> and 3<sup>rd</sup> July) the members of the North Western Waters Advisory Council (NWWAC) agreed to consider the issue further. NWWAC members discussed updates to the Choke Identification Tool (previously Choke Mitigation Tool). The development of draft advice was discussed at the NWWAC meetings in September (04-06<sup>th</sup> September, Dublin).

---

<sup>1</sup> NWWAC advice on addressing High Choke Risk stocks under the Landing Obligation ([link](#), lien, enlace)

<sup>2</sup> These species are: Whiting 7a, Whiting 6, 5b, 12, 14, Cod 7bce-k, 8, 9, 10 and Plaice 7hjk (By-catch reduction plan in the North Western Waters, 2019-06-04 version)



The NWWAC remains committed to continued collaboration with the Commission and the Member States Group to ensure successful implementation.

## 2. General remarks

The NWWAC has consistently highlighted that there are major challenges in implementing the LO. Specific issues include:

- The setting of TACs in mixed fisheries (e.g. cod, haddock, whiting 7b-k) and coverage of non-target species (e.g. Plaice 7hjk);
- The MSY timetable, which requires that all harvested species are managed according to the principles of MSY by 2020 at the latest;
- Zero TACs and zero quota stocks;
- Highly depleted stocks with low rebuilding potential (e.g. West of Scotland cod);
- Lack of data, particularly on unwanted catches;
- Unintended consequences of measures, e.g. displacement of effort.

North Western Waters demersal fisheries are highly dynamic, variable and have a mixed nature. The fisheries are subject to ecosystem change that can result in distributional shifts in fish species. Changes in stock biology and natural phenomena such as recruitment pulses prevalent in gadoid species, may create choke situations not originally forecasted. This has implications for the degree to which chokes can be predicted and for the tools available to mitigate them.

In mixed fisheries, it is inevitable that different stocks will have divergent levels of abundance. The NWWAC recognises that TACs are the most direct way of limiting fishing mortality in commercial fisheries, but that their application in mixed fisheries can be problematic, especially where TACs for bycatch species restrict fishing opportunities for target species. Moreover, in certain cases setting the TAC towards the maximum advice level for one of the target stocks in the mixed fishery might result in either exceeding the maximum advised TAC level for another stock (or stocks), or in choking the fishery. It is important to consider the implications of using  $F_{MSY}$  ranges provided for by the Western Waters MAP in a mixed fisheries context. The additional flexibility provided by these ranges for a stock may be constrained by others, more limiting stocks (for example in the Celtic Sea mixed fishery where the advice for haddock has increased significantly compared to last year, while cod continues to be subject to zero catch advice). Over time, exceeding the maximum advised TAC level for bycatch stocks, particularly in the absence of effective stock recovery measures, is likely to perpetuate or exacerbate ongoing issues within mixed fisheries management, since it prevents or delays stock recovery.

Mixed fisheries advice could play an important role in this context. Unfortunately, the mixed fisheries advice developed by ICES is not due to be published until late November and the NWWAC is therefore not able to comment on specific scenarios at this stage. However, it is already apparent that the zero-catch advice for several stocks poses significant challenges this year.



The NWWAC therefore urges the Commission and the Member States to carefully explore the mixed fisheries advice provided by ICES and identify how it could be used in the decision-making to safeguard the less abundant stocks while avoiding choke situations.

Apart from considerations around TAC-setting, it remains clear that the implementation of the CFP in a mixed fisheries context requires creative and innovative solutions involving spatial management, technical measures, and in some cases balancing short- and long-term socio-economic trade-offs.

In the lead-up to the full implementation of the LO significant progress was made in advancing our understanding of chokes and several measures were identified by the DiscardLess project, including technical gear modifications, electronic monitoring and potential avoidance measures informed by advanced knowledge on the spatial distributions of choke species and unwanted catches. Moreover, STECF has identified a range of measures which could improve selectivity regarding stocks identified as 'high risk chokes' by the NWWAC choke identification tool.<sup>3</sup> It has more recently also referred back to a number of existing studies regarding relevant selectivity and avoidance measures as part of its evaluation of the BCRep developed by the regional North Western Waters Member State Group.<sup>4</sup> The implementation of these options should be initiated as a matter of urgency.

Whilst STECF has evaluated the measures proposed for next year's discard plan, it has to be noted that no evaluation has taken place of the new baselines from the technical measures regulation, issued from inter-institutional discussions. However, the implementation of these regulations will result in an increase in mesh size in certain areas for example the Celtic Sea. Also, some selective devices have become mandatory, e.g. square mesh panels.

Any technical measures put forward should be geared towards benefitting the stock rather than solely avoiding chokes. For example, several gear modifications are available that would decrease the number of juvenile Irish Sea whiting retained in the fishing gear before hauling, but the survival of these fish is either uncertain or likely to be low<sup>5</sup>. Priority should be given to measures which do not only minimise the amount of bycatch (and thus the choke risk), but also help the relevant stocks recover to mitigate chokes in the long-term. Otherwise, the underlying issue (the dire state of certain stocks) remains unaddressed and the potential choke issue is simply perpetuated rather than solved. The most sustainable way of preventing future chokes is to allow stocks to recover to healthy levels so that they no longer pose a choke risk. At the same time, the effects of climate and other eventual natural changes should not be disregarded.

---

<sup>3</sup> Scientific, Technical and Economic Committee for Fisheries (STECF) – Technical Measures – Improving selectivity to reduce the risk of choke species (STECF-18-02). Publications Office of the European Union, Luxembourg, 2018, ISBN 978-92-79-79382-0, doi:10.2760/41580, JRC111821; <https://stecf.jrc.ec.europa.eu/documents/43805/2023188/STECF+18-02+-+TM+improving+selectivity.pdf/d4993b8e-94db-44dd-8122-33d270d0214b>

<sup>4</sup> STECF (2019) - 61st Plenary Meeting Report (PLEN-19-02). Scientific, Technical and Economic Committee for Fisheries (STECF) – 61st Plenary Meeting Report (PLEN-19-02). Publications Office of the European Union, Luxembourg, 2019 p.102 onwards. <https://stecf.jrc.ec.europa.eu/reports/plenary/PLEN-19-02>

<sup>5</sup> See presentation "Gear modifications to reduce bycatch of whiting in the Irish Sea Nephrops fishery" by BIM [http://www.nwwac.org/fileupload/Whiting\\_bycatch\\_presentation\\_BIM\\_gear\\_tecnologist.pdf](http://www.nwwac.org/fileupload/Whiting_bycatch_presentation_BIM_gear_tecnologist.pdf)



Given the above-mentioned risk of certain gear modifications being associated with potentially high mortality of the escaped unwanted bycatch, priority should be given to avoidance measures that aim at unwanted fish not entering the gear in the first place. This could include spatial closures, real-time closures, mandatory move-on rules and gear modifications, which allow unwanted fish to escape as early as possible throughout the capture process to maximise survival.

Any measures put forward should be accompanied by robust means of monitoring, in order to allow for a reliable assessment or review of a) their implementation and challenges encountered, b) their effectiveness at achieving their purpose and c) their impact and consequences on the economic viability of the vessels applying them. This is crucial to demonstrate the extent to which progress has been made or highlight where progress is still lacking (e.g. in the context of the new Technical Conservation Measures Framework), and to provide a sound basis for informed adjustments to address potential shortcomings in future.

Considering the zero-catch advice for several stocks in western waters for 2019, the Council adopted bycatch TACs and the Member States concerned committed to developing BCRs<sup>6</sup> and to implementing full catch documentation for these stocks from 2019.<sup>7</sup> This approach was introduced to avoid immediate choke situations arising from zero catch advice.

The BCR developed by the NWW Member State Group was evaluated by the STECF in July 2019.<sup>8</sup> STECF found that the BCR “Does not fulfil the commitments made by the Member States as it does not contain any elements to ensure reduced by-catches of the relevant stocks over and above the measures already included in the discard plan”.

The OIG Group within the NWWAC – based on this years’ experience and taking account of the STECF conclusions – do not consider this approach as an option going forward given the MSY 2020 deadline and the failure of Member States in 2019 to deliver on their commitments regarding BCRs and associated full catch documentation. The OIG Group recommends prioritising measures that are geared towards stock recovery, i.e. avoiding capture in the first place and maximising survivability. Moreover, a robust full catch documentation should be put in place.

On the other hand, the NWWAC Industry Group emphasizes the need to keep all options open to avoid premature closure of fisheries.

On the technical measures the NWWAC industry members do not share the analysis from STECF and the European Commission that no new selective gears were presented. The BCR is based on the discard plan in the 2019 joint recommendation which makes compulsory more selective gears in the

---

6 Statement of the North Western Waters regional group made at December Council 2018. Available on <http://data.consilium.europa.eu/doc/document/ST-5692-2019-INIT/en/pdf>

7 ‘all vessels benefitting from these specific TACs should implement full catch documentation as from 2019’ (Recital 8 of the TAC and Quota Regulation for 2019, Council Regulation (EU) 2019/124)

8 Scientific, Technical and Economic Committee for Fisheries (STECF) – 61st Plenary Meeting Report (PLEN-19-02), p. 102 onwards: <https://stecf.jrc.ec.europa.eu/documents/43805/2537709/STECF+PLEN+19-02.pdf/ed2ce229-81d6-495b-bf40-0b8ff5dbafa5>



Irish Sea from the 1st of January and in the Celtic Sea from the 1st of July 2019 and on the new technical measures regulation which was implemented in August. These new regulations aiming at an increased selectivity have only been in force for several months. Thus, it is not yet possible to carry out an evaluation of their efficacy to reduce by-catches.

The NWWAC industry members therefore recommend an assessment of the application of these technical measures improving gear selectivity in due course and prior to additional changes.

Given the importance and implications of the decisions taken in this regard, the NWWAC urges the Commission and the NWW Member State Group to proactively share any further information on this process to allow the NWWAC to provide meaningful input in a timely manner.

Mitigating the choke risks for certain stock(s) may have knock-on effects on other stocks. The impact of effort displacement from fisheries also needs to be considered as this may have implications for other stocks where the choke risk is currently low. To deal with unexpected choke situations some contingency planning would be needed.

The work of the NWWAC has focused mainly on high risk choke stocks. However, there remain many other stocks which represent a high choke risk to individual Member States due to a lack of quota. This issue was addressed to a certain extent by Article 8 of the Fishing Opportunities Regulation for 2019<sup>9</sup>. The NWWAC therefore encourages Member States to engage with each other actively to agree quota swaps that will help to mitigate choke risks in such cases.

The NWWAC also asks Member States to continue considering another tool available in Article 15 of the CFP, the inter-species flexibilities. These may provide a route through which some choke risks may be mitigated, accepting the complexity of implementing<sup>10</sup> this measure. In support of this recommendation, the NWWAC has identified stocks for which inter-species flexibility is possible in its Choke ID tables.

---

<sup>9</sup> Council Regulation (EU) 2019/124, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32019R0124>

<sup>10</sup> Scientific, Technical and Economic Committee for Fisheries (STECF) – 45th Plenary Meeting Report (PLEN-14-01). 2014, 86 pp., section 4.1.



### 3. Approach taken

To aid the discussions on the choke issues, the NWWAC has developed a table designed to re-assess the severity of potential choke risks as in previous years.

The table is largely based on the North Western Waters Choke Mitigation tool (NWW CMT<sup>11</sup>) which included a detailed analysis of the different choke risks for key stocks based on STECF catch data from 2015 and 2016. Options to mitigate the choke risk identified by the CMT, included improvements in selectivity; avoidance; quota flexibilities; and exemptions included in Article 15 of the CFP.

To re-assess the remaining choke risk for each stock from 1<sup>st</sup> January 2020 onwards, the results of the Choke Mitigation tool were updated with the ICES Advice for 2020 and the exemptions included in the Joint Recommendation proposed by the Member States Group. The assumption has been made that these Joint recommendations will be transposed into the eventual Delegated Act.

Each stock was then reclassified as a “high”, “moderate” or “low” risk taken across Member States.

Additional mitigation measures are proposed to reduce the choke risk where relevant. These solutions are based on the potential mitigation measures described in the NWWAC advice of 17 April 2018<sup>12</sup> and taking realistic catch options presented by ICES for individual stocks.

As with the previous choke analysis, it is important to note that whenever a stock is classified as “moderate” or “low” risk, this stock may be deemed to be of “high risk” to an individual Member State. Stocks may have specific issues unique to that Member State which may not be immediately solvable with the tools available or the Member State involved is reliant on swaps (i.e. in cases where a Member State has no quota for a species but has reported catches). In addition, it must be noted that the NWWAC believes that not all high-risk stocks can be addressed via TAC and quota management and that other measures (included those referred to earlier) will need to be assessed in order to avoid unnecessary obligatory cessation of fisheries.

---

<sup>11</sup> Report on the NWW choke species analysis [Link Lien Enlace](#)

<sup>12</sup> NWWAC advice on addressing High Choke Risk stocks under the Landing Obligation ([link](#), [lien](#), [enlace](#))



#### 4. Celtic Sea

The Group examined the data for each stock separately and in carrying out the evaluation identified the following conclusions:

- There are 4 “high” risk stocks remaining, 4 “moderate” and 5 “low” risk choke stocks.
- Haddock and Sole 7h,j,k remain “high” risk stocks. For haddock this is because for years on end, catches (landings + discards) have exceeded the TAC and this is not expected to improve with a very high recruitment in 2018.
- The choke risk for Cod (7e-k) and Plaice (7h,j,k) remains “high” based on the zero catch advice from ICES.
- The choke risk remains “moderate” for Whiting despite the decrease in TAC advised by ICES on the presumption the relevant exemptions proposed for this stock in the JR will be implemented.
- The choke risk for Skates and Rays, and Plaice 7f,g is remains “low” on the basis that the high survivability exemptions proposed in the JR will remove any choke risk for 2020.
- For Hake, Anglerfish and Sole 7h,j,k the assessment of a moderate choke risk is maintained. For these species a combination of additional measures could potentially be used to reduce the risk of choking for 2020.
- *Nephrops*, Pollack, and Megrim continue to present a low or no apparent risk as choke species.

The main findings by stock are summarized below with an AC view on which **additional** measures – besides JR – might assist in obtaining choke mitigation.

#### High risk

Species	Possibility for inter-species flexibility Reg EU 1380/2013 Art 15.8	Predicted choke risk with exemptions applied	Possible additional measures contributing to mitigating choke
Haddock 7b-k	Yes	High	<ul style="list-style-type: none"> <li>• Choke risk is dependent on level of TAC set for 2020. Based on the full catch advice being applied, the level of choke risk is reduced to moderate from high as in previous years, noting that several MS (IE, UK) are likely to have significant deficits between catch and available quota. NL &amp; ES, as in 2019, will be reliant of the quota pool arrangement to cover bycatch in their respective fisheries. Haddock are associated with cod and whiting where the advice is negative. It is unlikely that the full catch advice will be applied to the haddock TAC. Taking the Fmsy lower this would equate to a TAC is 11418 tonnes which is well below the catches for 2018. In this scenario, the choke risk would be high with multiple fisheries with bycatch of haddock potentially being choked. Regardless of the TAC level, improving selectivity for haddock in fisheries where unwanted catches are highest should remain a priority. The effectiveness of the selectivity measures introduced in 2019 should be monitored during 2020.</li> </ul>





<b>Cod 7e-k</b>	No	High	<ul style="list-style-type: none"> <li>Improving selectivity for cod in fisheries where unwanted catches are highest should remain a priority. The effectiveness of the selectivity measures introduced in 2019 should be monitored during 2020.</li> <li>Review the effectiveness for the existing cod closures in the Celtic Sea and explore additional spatial/temporal measures</li> <li>Prioritise measures that are geared towards stock recovery, i.e. avoid capture in the first place and maximise survival of any escaping cod;</li> <li>Use mixed fisheries advice (once available) to inform TAC-setting.</li> </ul>
<b>Sole 7h,j,k</b>	No	High	<ul style="list-style-type: none"> <li>Request ICES to analyse if Sole 7h,j,k and Sole 7f,g can be considered one stock</li> <li>Prioritise survivability experiments in trawl fisheries in 7h,j,k</li> </ul>
<b>Plaice 7h,j,k</b>	No	High	<ul style="list-style-type: none"> <li>Address data limitations which impact the quality of the ICES advice</li> <li>Request ICES to analyse if Plaice 7h,j,k and Plaice 7f,g can be considered one stock</li> <li>Consider possible improvements in selectivity in fisheries where bycatches are highest;</li> <li>Further survivability studies in fisheries other than beam trawls should be prioritized, and special effort will be made to collect vitality estimates, obtained by observers on-board, and the collation of existing data sources (previous vitality, observer and REM data) for plaice in 7h.</li> <li>Prioritise measures that are geared towards stock recovery, i.e. avoid capture in the first place and maximise survival of any escaping plaice;</li> <li>Improve the documentation of catches to address the data issues for this stock.</li> </ul>

#### Moderate risk

Species	Possibility for inter-species flexibility Reg EU 1380/2013 Art 15.8	Predicted choke risk with exemptions applied	Possible additional measures contributing to mitigating choke
<b>Whiting 7b-k</b>	No	Moderate	<ul style="list-style-type: none"> <li>Improving selectivity for whiting in fisheries where unwanted catches are highest should remain a priority.</li> <li>The effectiveness of the selectivity measures introduced in 2019 should be monitored during 2020.</li> </ul>





<b>Sole 7f,g</b>	Yes	Moderate	<ul style="list-style-type: none"> <li>• Prioritise high survivability work in fisheries in 7f,g;</li> <li>• Consider inter area flexibility or merging of TACs with 7h,j,k</li> <li>• Monitor effectiveness of selectivity measures introduced</li> </ul>
<b>Hake 6 &amp; 7</b>	Yes	Moderate	<ul style="list-style-type: none"> <li>• Prioritise improving selectivity in gadoid and Nephrops fisheries where unwanted catches are highest.</li> <li>• Monitor effectiveness of existing measures and consider extending these measures to areas no covered currently.</li> </ul>
<b>Anglerfish 7 and 8</b>	Yes	Moderate	<ul style="list-style-type: none"> <li>• No additional measures proposed.</li> </ul>

#### Low or no apparent risk

Species	Possibility for inter-species flexibility Reg EU 1380/2013 Art 15.8	Predicted choke risk with exemptions applied	Possible additional measures contributing to mitigating choke
<b>Skates and Rays 6 &amp; 7</b>	No reference points defined, all species covered by TAC	Low	<ul style="list-style-type: none"> <li>• In line with NWW Roadmap for skates and rays, the programme of data collection, further high survivability experiments and improvements in selectivity should continue.</li> </ul>
<b>Plaice 7f,g</b>	Yes	Low	<ul style="list-style-type: none"> <li>• No additional measures are likely with existing high survivability exemptions.</li> <li>• Further survivability work should be prioritised to confirm survival rates in line with the NWW MS roadmap for plaice.</li> </ul>
<b>Megrim 7</b>	Yes	Low	<ul style="list-style-type: none"> <li>• Prioritise improvements in selectivity proposed in fisheries where unwanted catches of megrim below mcrcs are highest.</li> <li>• Update information on disproportionate costs.</li> </ul>
<b>Nephrops 7</b>	Advice Autumn	Low	<ul style="list-style-type: none"> <li>• No additional measures proposed.</li> </ul>
<b>Pollack 7</b>	No reference points defined	Low	<ul style="list-style-type: none"> <li>• No additional measures proposed.</li> </ul>
<b>Boarfish 7b-c and f-k</b>	No reference points defined		<ul style="list-style-type: none"> <li>• Implement Boarfish closures according to the management strategy for this species as proposed by the Pelagic AC<sup>13</sup>.</li> </ul>

<sup>13</sup> Pelagic AC Draft Management Strategy for Boarfish in the Northeast Atlantic ([link](#))  
NWWAC Advice Addressing Choke Risk in NWW after exemptions 17/10/2019



## 5. West of Scotland

The following are the main conclusions for the stocks in the West of Scotland:

- There are 4 “high” choke risk stocks remaining, 4 “moderate” and 5 “low” risk.
- Cod 6a and Whiting 6a remain “high” risk stocks, given ICES have advised zero catches for 2020.
- Haddock in 6a has been elevated to a high-risk choke stock based on the ICES advice for a large reduction in catch for 2019.
- Saithe 6a, Anglerfish, Ling and Tusk continue to be classified as being “moderate” risk choke species. In the case of Saithe and Anglerfish, Members States rely on swaps to reduce the risk of choking.
- Cod 6b, Haddock 6b, Blue Ling, *Nephrops* and Megrim are classified as low risk choke stocks and for most of these stocks the ICES advice is for a rollover or slight increase in TAC.

The main findings by stock are summarized below with an AC view on which **additional** measures – besides JR – might assist in obtaining choke mitigation.

### High risk

Species	Possibility for inter-species flexibility Reg EU 1380/2013 Art 15.8	Predicted choke risk with exemptions applied	Possible additional measures contributing to mitigating choke
<b>Cod 6a</b>	No	High	<ul style="list-style-type: none"> <li>• Accelerate introduction of technical measures and monitor effectiveness of the measures introduced.</li> <li>• Bycatch TAC linked to requirements for full catch documentation but note OIG concern re. bycatch TACs and bycatch reduction plans as stated on page 4.</li> <li>• Explore stock identity issue.</li> <li>• Explore spatial/temporal closures (including real-time closures to protect juvenile cod).</li> <li>• Prioritise measures that are geared towards stock recovery, i.e. avoid capture in the first place and maximise survival of any escaping cod.</li> </ul>
<b>Whiting 6a</b>	No	High	<ul style="list-style-type: none"> <li>• Accelerate introduction of technical measures and monitor effectiveness of the measures introduced.</li> <li>• Bycatch TAC linked to requirements for full catch documentation but note OIG concern re. bycatch TACs and bycatch reduction plans as stated on page 4.</li> <li>• Explore spatial/temporal closures.</li> <li>• Prioritise measures that are geared towards stock recovery, i.e. avoid capture in the first place and maximise survival of any escaping whiting.</li> </ul>



<b>Haddock 6a</b>	Yes	High	<ul style="list-style-type: none"> <li>Accelerate introduction of technical measures and monitor effectiveness of the measures introduced.</li> <li>Bycatch TAC linked to requirements for full catch documentation but note OIG concern re. bycatch TACs and bycatch reduction plans as stated on page 4.</li> <li>Explore spatial/temporal closures.</li> </ul>
<b>Cod 6b</b>	No reference points defined	High	<ul style="list-style-type: none"> <li>Enhanced data collection to improve knowledge of the stock.</li> </ul>

#### Moderate risk

Species	Possibility for inter-species flexibility Reg EU 1380/2013 Art 15.8	Predicted choke risk with exemptions applied	Possible additional measures contributing to mitigating choke
<b>Saithe 6a</b>	Yes	Moderate	<ul style="list-style-type: none"> <li>No additional measures proposed.</li> </ul>
<b>Anglerfish 6</b>	No reference points defined	Moderate	<ul style="list-style-type: none"> <li>No additional measures proposed.</li> </ul>
<b>Ling 5, 6, 7</b>	No reference points defined	Moderate	<ul style="list-style-type: none"> <li>No additional measures proposed noting a <i>de minimis</i> is in place the North Sea to cover catches of ling below mcrs in the TR1 fisheries.</li> </ul>
<b>Tusk 6b</b>	Yes	Moderate	<ul style="list-style-type: none"> <li>No additional measures proposed.</li> </ul>

#### Low or no apparent Risk

Species	Possibility for inter-species flexibility Reg EU 1380/2013 Art 15.8	Predicted choke risk with exemptions applied	Possible additional measures contributing to mitigating choke
<b>Haddock 6b</b>	Advice autumn but was in 2018/2019	Low	<ul style="list-style-type: none"> <li>No additional measures proposed.</li> </ul>
<b>Blue Ling 5b, 6 &amp; 7</b>	Yes	Low	<ul style="list-style-type: none"> <li>No additional measures proposed.</li> </ul>
<b>Megrim 6</b>	Yes	Low	<ul style="list-style-type: none"> <li>No additional measures proposed.</li> </ul>
<b>Nephrops 6</b>	Advice due autumn	Low	<ul style="list-style-type: none"> <li>Additional survivability studies to cover fisheries outside 12 nautical miles.</li> </ul>



<b>Tusk 6a</b>	Yes	Low	<ul style="list-style-type: none"> <li>No additional measures proposed.</li> </ul>
<b>Silver smelt 5b, 6a</b>	No reference points defined	Low	<ul style="list-style-type: none"> <li>No additional measures proposed.</li> </ul>

## 6. Irish Sea

The following are the main conclusions for the Irish Sea stocks:

- There are 2 “high” risk stock and 3 “low” risk choke stocks.
- Whiting remains a “high” risk stock. Although further improvements in selectivity may be possible (as identified by the BIM Gear Technology Section’s work on gear improvements), they are only likely to marginally reduce the risk to fisheries. This species potentially could close multiple fisheries in the area.
- Cod has been raised to a “high” risk choke species due to the recommended large decrease in TAC. Further improvements in selectivity may be possible in the *Nephrops* fishery.
- The choke risk for Sole remains at “low”. Targeted fisheries should be avoided to ensure fishing mortality does not increase significantly.
- Plaice and Haddock present a low or no apparent risk as choke species. The proposed increase in TAC for Plaice and the existing survival exemption would remove choke risk in 2020. For Haddock further improvements in selectivity should be considered.

The main findings by stock are summarized below with an AC view on which **additional** measures – besides JR – might assist in obtaining choke mitigation.

### High risk

Species	Possibility for inter-species flexibility Reg EU 1380/2013 Art 15.8	Predicted choke risk with exemptions applied	Possible additional measures contributing to mitigating choke
<b>Cod 7a</b>	No reference points defined	High	<ul style="list-style-type: none"> <li>Monitor effectiveness of selectivity measures introduced.</li> <li>Consider additional selectivity measures that could be taken in <i>Nephrops</i> fisheries to reduce cod bycatch.</li> <li>Consider additional spatial/temporal measures.</li> <li>Further benchmarking of the stock in 2020 to assess the modelling used. The fact that the model is highly sensitive to the selectivity assumption is a cause for concern. This does not invalidate the ICES assessment but does raise questions about the robustness of the results.</li> </ul>



Whiting 7a	No	High	<ul style="list-style-type: none"> <li>Improving selectivity for whiting in fisheries where unwanted catches are highest should remain a priority.</li> <li>The effectiveness of the selectivity measures introduced in 2019 should be monitored during 2020.</li> </ul>
------------	----	------	--

#### Low or no apparent risk

Species	Possibility for inter-species flexibility Reg EU 1380/2013 Art 15.8	Predicted choke risk with exemptions applied	Possible additional measures contributing to mitigating choke
Haddock 7a	Yes	Low	<ul style="list-style-type: none"> <li>Monitor effectiveness of selectivity measures introduced.</li> </ul>
Sole 7a	Yes	Low	<ul style="list-style-type: none"> <li>Monitor effectiveness of selectivity measures introduced.</li> </ul>
Plaice 7a	Yes	Low	<ul style="list-style-type: none"> <li>No additional measures proposed.</li> </ul>

## 7. Channel

The following are the main conclusions for the Channel stocks:

- There are 2 “moderate” and 3 “low” choke risk stocks.
- Sole is classified as being moderate risk choke species in both eastern and western Channel. ICES advise an increase in the western Channel TAC, however, advice for the eastern Channel has not been published yet and any reduction may increase the choke risk depending on how fishing patterns evolve.
- The choke risk for Skates and Rays remains “low” on the basis that the proposed high survivability exemption is maintained in 2020.
- Plaice in 7d,e and Cod 7d are classified as low risk choke species. For plaice this is based on the proposed high survivability exemptions being accepted. For Cod, even though the ICES advice is for a large reduction in the TAC, the choke risk remains low as the reported catches are currently at very low levels.
- Haddock 7b-k, Cod 7b-k and Whiting 7b-k have been discussed in the Celtic Sea area. However, given the TACs for these stocks cover either partially or fully the eastern and western Channel it is important to re-iterate the choke risks – “high” for Haddock and “moderate” for Cod and Whiting - for these stocks.

The main findings by stock are summarized below with an AC view on which **additional** measures – besides JR – might assist in obtaining choke mitigation.



### Moderate risk

Species	Possibility for inter-species flexibility Reg EU 1380/2013 Art 15.8	Predicted choke risk 2020	Proposed additional measures for 2020
Sole 7d	Advice due Autumn	Moderate	<ul style="list-style-type: none"> <li>Monitor effectiveness of selectivity measures introduced</li> </ul>
Sole 7e	Yes	Moderate	<ul style="list-style-type: none"> <li>Monitor effectiveness of selectivity measures introduced</li> <li>Reconsider similar high survivability exemption as for sole in 7d, once MS provide information on the fishery catch composition and the related survival rate of the species in the relevant fisheries.</li> </ul>

### Low or no apparent Risk

Species	Possibility for inter-species flexibility Reg EU 1380/2013 Art 15.8	Predicted choke risk 2020	Proposed additional measures for 2020
Plaice 7d, e	Yes	Low	<ul style="list-style-type: none"> <li>No additional measures are proposed but further survivability work should be prioritised to confirm survival rates.</li> </ul>
Skates & Rays 7d	No reference points defined all all species covered by TAC	Low	<ul style="list-style-type: none"> <li>In line with NWW Roadmap for skates and rays, the programme of data collection, further high survivability experiments and improvements in selectivity should continue.</li> </ul>
Cod 7d	No	Low	<ul style="list-style-type: none"> <li>No additional measures proposed based on low abundance. To be reconsidered if an increase of abundance would be noticed.</li> </ul>



## 8. Other choke issues

### **Pelagic bycatch in demersal fisheries**

Bycatches of pelagic species such as herring, mackerel, horse mackerel, boarfish and argentine in NWW demersal fisheries could lead to choke issues in 2020. However, there is considerable uncertainty about the extent of such catches and neither ICES nor STECF provide accurate catch information. The extent of recorded catches is likely to be underestimated.

The NWW Regional Group has proposed *de minimis* exemptions to help address any potential choke issues:

- Boarfish caught by vessels using bottom trawls in ICES divisions 7b-c and 7f-k, up to 0.5% of the total annual catches of that species in all fisheries in 7b-c and 7f-k;
- Argentine caught by vessels using bottom trawls in ICES division 5b (EU waters) and subarea 6, up to 0.6% of the total annual catches of that species in all fisheries in 5b and 6.

For mackerel and horse mackerel caught in ICES are 6 and 7b-k, the NWW Regional Group have proposed a continuation in 2020 of the *de minimis* exemptions that were granted in 2019.

Given the lack of accurate catch data, the NWWAC is not able to assess whether these bycatches present a significant choke risk. Given the differences in quota allocations and level of activity in the different demersal fisheries, it appears to the NWWAC that it is up to individual Member States to evaluate whether these bycatches require further measures.

### **Deep-sea stocks**

Based on the initial choke analysis in 2017, six deep-sea stocks were identified as relevant to the NWW. No detailed analysis was carried out using the CMT at that time as either the catch data is incomplete or unreliable, the level of fisheries was reportedly very low, or most of the Member States do not catch their quota and traditionally swap it out. On this basis the choke risk was concluded likely to be low. These stocks have been subject to the LO since 1 January 2019.

Other than the removal of the TAC for Greater Forkbeard in Union and International waters of 5,6 and 7 for 2019, no new measures have been proposed. ICES has not issued new advice for 2020 and the TACs for these species are set under Regulation (EU) No. 2018/2025. Therefore, in the absence of new information the NWWAC re-iterates its advice on these stocks from 2019.





## 9. Conclusions

- The *de minimis* and high survivability exemptions in combination with the improvements in selectivity proposed in the NWW Joint Recommendations will reduce, and in some cases remove the choke risks for certain stocks.
- Ten stocks are classified as high risk, taking account of any exemptions proposed under the JRs and also the ICES advice for 2019. These stocks are – Haddock 7b-k; Cod 7e-k; Sole 7h,j,k; Plaice 7h,j,k; Cod, Haddock and Whiting in 6a; Cod in 6b; Cod in 7a and Whiting in 7a.
- In the case of Cod 7e-k, Plaice 7h,j,k; Cod and Whiting in 6a; and Whiting in 7a ICES advises for zero catch. Following this advice, resulting in a zero TAC will mean fisheries in which there are catches of these stocks will be closed from the start of 2020. For the other high-risk choke stocks, fisheries are likely to be closed during the first half of 2020 if no additional choke avoidance measures are agreed.
- The choke risk for Skates and Rays in 6 and 7 and also in 7d,e, as well as Plaice in 7d,e, and 7f,g has been reduced to low on the basis that the proposed high survivability exemptions will largely remove any choke risk for these stocks. Note that the exemptions are dependent on additional studies on survivability and best practices.
- The choke risk for other species considered remains moderate or low risk. For a number of these stocks Member States are reliant on swaps to prevent choking fisheries.
- Given the lack of accurate catch data, the NWWAC is not able to assess whether pelagic bycatches in demersal fisheries present a significant choke risk. Given the differences in quota allocations and level of activity in the different demersal fisheries, the NWWAC advises Member States should evaluate whether these bycatches require further measures.
- There are a number of stocks for which a particular Member State or group of Member States have no quota. The NWWAC recommends that the quota exchange mechanism explained in Regulation (EU) 2019/124 Article 8 continues for 2020.
- Keeping in mind the broad objective of the BCReP, to limit as far as possible the amount of by-catches, it should not be forgotten that the Industry can have a huge responsibility, by providing a full picture of the situation, in order to make clear for every skipper concerned, that it is of his/her interest to limit the catches to unavoidable ones.

## 10. Annex - Choke analysis spreadsheet