

On why the Herring (*Clupea harengus*) in Subarea 4 and divisions 3.a and 7.d, autumn spawners (North Sea, Skagerrak and Kattegat, eastern English Channel) quota calculation has been incorrect since 2021.

Purpose

This document aims to illustrate that the post-brexit methodology, used by the EU commission to calculate member state (**MS**) quota for herring in Subarea 4 and divisions 3.a and 7.d, autumn spawners (North Sea, Skagerrak and Kattegat, eastern English Channel) (hereafter refer to as **NS herring**) is incorrect. The document presents arguments demonstrating that the MS quotas have been estimated with a wrong calculation method since Brexit in 2020, leading to a change in relative stability between EU27 MS before and after Brexit. Two aspects of the EU commissions calculation contribute to these erroneous MS quota shares. The first relates to how the Brexit reduction in EU27 quota is calculated. The second issue arises from the fact that the Brexit induced EU27 reduction of NS herring quota has been implemented at the total NS herring quota level (Subarea 4 and division 7.d combined) and not on the management area quota level (Subarea 4 and division 7.d treated separately). This approach contrasts with the overarching principle applied to other stocks.

The document is structured as follows: First, it provides the background to how the MS quotas were derived for Subarea 4 and division 7.d, respectively, before Brexit in 2020, using what in this document is called the “**pre-Brexit**” method. This is followed by a section illustrating that the EU commission is using an incorrect calculation, called the “**Present**” method, which does not implement the Trade and Cooperation Agreement (**TCA**) between EU and UK agreed NS herring quota transfer from EU to UK in Subarea 4 and division 7.d¹ correct. This section provides arguments explaining why the methodology used is incorrect and inconsistent. Finally, a “**Revised**” method is proposed, which provides a correct and consistent way of calculating MS NS herring quotas.

Background

The “pre-Brexit” method used until 2021 to calculate individual MS NS herring quota is not straightforward. At first, Relative Stability depends on the community share (**CS**)², through the so-called Tranche Calculation (figure 1). The outcome of the Tranche Calculation is that there is no fixed relative stability between MS;

¹ Official Journal of the European Union, L149/10, 30.4.2021

² The community share is defined as the total EU and UK share of the overall TAC

rather, it varies depending on the size of the CS. From figure 1 it is also evident that the MS quota in most cases is calculated as the sum of a variable share where a factor (Referred to as the “Variable” quota share) is multiplied with the CS (or the difference between the CS and 254,649 tonnes). To this value a constant share (Referred to as the “Constant” quota share) is in most cases added or subtracted to obtain the final MS quota.

ANNEX

Method of calculation of the quotas allocated to Member States
(CS denotes Community share)

Member State	For a CS less than 100 000 tonnes	For a CS between 100 000 and 157 252 tonnes	For a CS between 157 253 and 254 648 tonnes	For a CS equal to or greater than 254 649 tonnes
Belgium	$0,071000 \cdot CS$	7 100	$0,013862 \cdot CS + 4 920$	$0,009857 \cdot (CS - 254 649) + 8 450$
Denmark	$0,193459 \cdot CS$	$0,208469 \cdot CS - 1 501$	$0,232238 \cdot CS - 5 239$	$0,344985 \cdot (CS - 254 649) + 53 900$
Germany	$0,121654 \cdot CS$	$0,131094 \cdot CS - 944$	$0,175356 \cdot CS - 7 904$	$0,172492 \cdot (CS - 254 649) + 36 750$
France	$0,126222 \cdot CS$	$0,136022 \cdot CS - 980$	$0,092304 \cdot CS + 5 894$	$0,083782 \cdot (CS - 254 649) + 29 400$
The Netherlands	$0,252446 \cdot CS$	$0,272045 \cdot CS - 1 960$	$0,260073 \cdot CS - 77$	$0,202062 \cdot (CS - 254 649) + 66 150$
Sweden	$0,014330 \cdot CS$	$0,014330 \cdot CS$	$0,014330 \cdot CS$	$0,014330 \cdot (CS - 254 649) + 3 649$
United Kingdom	$0,220889 \cdot CS$	$0,238039 \cdot CS - 1 715$	$0,211837 \cdot CS + 2 406$	$0,172492 \cdot (CS - 254 649) + 56 350$

Figure 1. The Tranche model used to estimate MS NS herring quota

After the Tranche Calculation a second calculation is performed to split the MS NS herring quota into division 7.d shares, and Subarea 4 shares. This split is not straight forward, as the MS quota in division 7.d must adhere to three additional principles, 1) Belgium shall have its entire NS herring quota in division 7.d, Sweden shall have none, and final, the combined MS quotas in division 7.d shall equal to 11% of the total NS herring TAC. To accommodate these principles the approach is as follows: First, Belgium's quota in division 7.d is set to equal its total NS herring quota, and Sweden's quota is set to zero. Then, the "7.d share key" in Table 1 provides the "initial" division 7.d quotas for the remaining MS (e.g., 1.94% of Denmark's NS quota is assigned to division 7.d). A final calculation is then applied to ensure that the combined MS quotas in division 7.d match exactly 11% of the total NS herring TAC. The Subarea 4 quota is then found, as the difference between the total MS NS herring quota and the division 7.d quota.

Thus, accounting for the quota transfer from EU27 to UK as part of the TCA is not straightforward and has been done both incorrectly and inconsistently with the principles used for other stocks.

Illustrating the problem

In this section, we provide arguments demonstrating why the “Present” methodology used to implement the agreed transfer of NS herring quota from the EU27 to the UK as part of the TCA is incorrect.

To illustrate the incorrect estimation, it is necessary to recap that the overall NS herring MS quota is the sum of a Constant part and a Variable part (see previous section). The error arises when estimating the MS quota reduction because the deduction in MS quota only considers the Variable share of the MS quota. The Constant share of the MS herring quota is omitted from the calculation and is therefore unaffected by the reduced MS quota. This is problematic as for certain MS in some Tranches the Constant share constitutes most of their total NS herring

quota. In the extreme case, one MS does not contribute to the transfer of herring at all, even though they are quota shareholders. For instance, Belgium retains a constant NS herring quota share of 7,100 tonnes when CS is between 100,000 tonnes and 157,252 tonnes (Figure 1). Another consequence is a lack of proportionality of each individual MS's NS herring quota when implementing the TCA agreement. This is

MS	7.d share key
Belgium	100.00%
Denmark	1.94%
Germany	1.94%
France	48.49%
Netherlands	37.95%
Sweden	0.00%
UK	9.69%

Table 1. The initial 7.d share key used when the MS quota is estimated.

illustrated in table 2, where the total NS herring quota per MS is shown for the period 2021 to 2025 calculated with the pre-Brexit method and the method used by the Commission. Belgium has decreased their NS herring quota with - 2.61% whereas Germany has decreased their part with 8.85% and Denmark with 10.97%.

Member State	“pre-Brexit” Method (tonnes)	“Present” Method (tonnes)	Difference (%)
Belgium	44,246	43,092	2.61%
Denmark	339,763	302,506	10.97%
Germany	218,784	199,427	8.85%
France	164,004	154,514	5.79%
Netherlands	371,701	348,352	6.28%
Sweden	21,156	19,551	7.59%

Table 2. MS Quota shares summed from 2021 to 2025 as they would have been for EU27 MS without Brexit (“Pre-Brexit” method) and as calculated by the Commission (“Present” method). See appendix 1 for details on the calculation

Besides the consequences of the estimation method described above, there are additional questions regarding the approach of calculating the quota reduction on basis of the total MS NS

herring quota and not the separate Subarea 4 and division 7.d quota, which is the approaches taken for other stocks (e.g mackerel). As part of the TCA, it is stipulated that the UK quota increases from 24.06% to 32.32% of the CS NS herring in Subarea 4 and from 9.33% to 12.35 % of the CS NS herring in division 7.d from 2025 and onwards (pursuant to annex 36 in the TCA). A logical and consistent approach would have been to estimate the MS quota reduction separately for division 7.d and for Subarea 4 and not combining these two as is presently done.

In table 3 the total NS quota share per MS from 2021 to 2025 based on the “Present” method, where only the variable share of MS quota are considered and the shares not separated into division 7.d and Subarea 4, are show together with the results from an alternative “Revised” calculation both including the Constant share of the MS NS herring quota and separating the Quota into division 7.d. and Subarea 4. In total the incorrect method used at present has resulted in a deficit for Denmark summing to 6,358 tonnes.

Member State	“Present” Method (tonnes)	“Revised” Method (tonnes)	Difference (tonnes)
Belgium	43,092	43,076	16
Denmark	302,506	308,865	-6,358
Germany	199,427	199,018	409
France	154,514	152,785	1.729
Netherlands	348,352	344,467	3.886
Sweden	19,551	19,232	319

Table 3. MS quota shares summed from 2021 to 2025, using the “Present” method and a “Revised” method where the Constant share of the MS NS herring quota is also considered in the calculation and the impact from Brexit is kept separated for NS herring quota in division 7.d and Subarea 4. See appendix 1 for calculation details.

Conclusion

In this document it has been demonstrated that two aspects of the “present” method used to calculate the NS herring quota in division 7.d and Subarea 4 have been incorrect since Brexit in 2020. The consequences of this have been a lack of proportionality between individual MS quota share and what has been transferred to the UK as part of the TCA agreement. As a result of this, the relative stability between EU27 MS has been changed. Therefore, there is an urgent need to fix the present calculation method and initiate a process on how to compensate MS state such that the relative stability is regained.