

Assessing the sustainability of fisheries catch limits negotiated by the UK for 2023

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Explanatory Note

The fisheries sustainability assessment detailed in this report is the second report under a new assessment methodology (Nash and others, 2021), the first being published in 2022 (Bell and others, 2022). The Environmental Improvement Plan¹ highlights the UK's commitment to “publish each year a transparent and scientifically robust assessment of the sustainability outcomes of our annual fisheries negotiations”.

This report documents why a forward-looking or intention-based assessment is appropriate for reporting on the UK's negotiated outcomes. However, in fisheries management, intentions do not always match outcomes as fishery forecasts of population size and mortality rates are not known with certainty. Therefore, this assessment should be viewed in conjunction with outcome-based reporting such as that under the [Marine Strategy](#) and [UK Biodiversity Indicators](#) which retrospectively measures and reports on the status of UK stocks and fishing pressure.

Following the conclusion of the negotiations for 2023 between the EU and UK it was stated by HM Government that there had been a 13% increase in the number of Total Allowable Catches (TACs) set in line with the advice² ([Westminster Hall Debate, 2023](#)). This preliminary calculation, undertaken by the Department for Environment, Food and Rural Affairs (Defra), compared the number of ‘stage 1 passes’ for TACs negotiated between the UK and the EU for 2023 compared to 2022 (see last year's report, Bell and others, 2022).

The independently peer-reviewed approach applied in this report for assessing the sustainability of TAC setting requires the Centre for Environment, Fisheries and Aquaculture Science (Cefas) to report on the basis of the ‘stage 2’ scoring which more fully accounts for the impact of TAC setting where there is a mismatch in the definition of TAC and stock area. This report also covers all negotiated TACs, not just EU-UK TACs.

¹ Environmental Improvement Plan 2023, First revision of the 25 Year Environment Plan. 2023.

² WH Deb 18 January 2023, vol 726, col 126WH

Executive Summary

The [Fisheries Act 2020](#) refers to fisheries objectives, one of which is the precautionary objective: 'that exploitation of marine stocks restores and maintains populations of harvested species above biomass levels capable of producing maximum sustainable yield'.

The UK, as an independent coastal state, is committed to achieving sustainable fisheries management and increasingly setting fishing opportunities consistent with scientific advice from the International Council for the Exploration of the Sea (ICES) encompassing both their Maximum Sustainable Yield (MSY) and Precautionary Approach (PA) advice.

The fishery management units covered by TACs used for many international fisheries rarely align with the ICES' stock assessment units. This mismatch makes assessing the TACs against the scientific advice highly complex and potentially open to interpretation.

This report provides an assessment of the TACs negotiated in bilateral UK-EU, trilateral UK-EU-Norway, NEAFC and Coastal States negotiations for setting catch limits for 2023. In 2022, the publication of the first report (Bell and others, 2022) presented the outcome from assessing the sustainability of catch limits negotiated by the UK for 2020 to 2022 applying the independently peer-reviewed methodology review (Nash and others, 2021).

This report provides the assessment of negotiated catch limits for 84 TACs agreed for 2023. In parallel to the international negotiations, there are TACs set unilaterally by the UK which have not been included in this assessment.

In order to provide a consistent suite of TACs which can be reported across multiple years, a set of 79 'baseline' TACs have been identified (see section 4). A small number of corrections and revisions to 2020 to 2022 scores have been identified (see section 5.2)

For 2023, 32 of the 79 baseline TACs were consistent with ICES' advice (40%), compared to 27 TACs (34%) in 2022. This represents an additional 6% in the number of baseline TACs which were set in line with the ICES' advice compared to 2022.

Breaking this down to the advice type (MSY or PA), 27 out of 54 TACs (50%) based on MSY advice were set in line with the advice and 5 out of 25 (20%) TACs based on PA advice were set in line with the advice. A large number of stocks moved from PA advice in 2022 to MSY advice for 2023. This shift complicates any interannual comparison of percentage shift in 'pass or fail' scores by advice type and such comparisons are therefore not presented.

1. Introduction

As an independent coastal state with a commitment made in the [Joint Fisheries Statement](#)³ to achieving sustainable fisheries management, the UK's objective is to increasingly set fishing opportunities consistent with scientific advice provided by the International Council for the Exploration of the Sea (ICES), whether based on maximum sustainable yield (MSY) or the Precautionary Approach (PA).

In 2020, Defra commissioned a methodology review to assess whether quotas (TACs) were set at sustainable levels, involving an expert panel. The terms of reference for the expert panel were summarised as 'to provide an agreed methodology which enables fisheries managers to determine whether a quota (TAC) was set at a sustainable level and communicate this information effectively'. This MSY methodology review (Nash and others, 2021) was undertaken in 2021 and demonstrated the Ministerial commitment to strengthening sustainable fisheries management for the long-term benefit of our marine environment and fishing industry. For the background to the review and further details see (Bell and other, 2022).

ICES' assessment areas and Total Allowable Catches (TAC) management areas are often not aligned, necessitating that ICES' advice be interpreted and translated into the TAC management areas. This mismatch makes assessing the TACs against the scientific advice highly complex and potentially open to interpretation.

The findings of the methodology review and the principles agreed to assess consistency with MSY have subsequently been broadened for the purposes of evaluating negotiated outcomes and applied to include all TACs of interest to the UK which relate to either ICES' MSY advice, ICES' Precautionary Advice or advice relating to agreed Management Plans.

This allows for most TACs listed in the [Trade and Cooperation Agreement \(TCA\)](#)⁴ to be assessed and evaluated for consistency with ICES' scientific advice, thus providing an opportunity for the UK to set a clear benchmark for the reporting of negotiated catch limits.

³ Joint Fisheries Statement, November 2022

⁴ Trade and Cooperation Agreement between the United Kingdom of Great Britain and Northern Ireland, of the one part, and the European Union and the European Atomic Energy Community, of the other part
Brussels and London, 30 December 2020

2. Background to the assessment of negotiation outcomes in relation to scientific advice

2.1. Biological stock versus TAC

Scientists and managers often use the term 'stock' referring to different entities which can cause a degree of confusion. ICES define stocks as a 'part of a fish population usually with a particular migration pattern and specific spawning ground which are part of the same reproductive process'. Such biological stocks are largely self-contained with limited migration of individuals from or to the stock. Managers will often refer to the units of management as a stock (typically a TAC for a species within a specific sea area) However, the area definition for these units often has no scientific or biological basis instead being borne from political processes or simply using ICES areas, sub-areas, divisions, or sub-divisions for convenience. Here we will refer to a stock as the units defined by ICES whilst the area-defined management units along with their ascribed TACs will be referred to as management units. It should be noted that there are some cases where the management units are identical to the biological stock area (meaning that there is a direct mapping from stock to management unit) but typically, there is some mismatch between the area definitions.

2.2. ICES' advice types

ICES generates catch advice according to an established hierarchy reflecting the availability of data. There are two nested frameworks, the overarching Precautionary Approach (PA) framework and the subsidiary Maximum Sustainable Yield (MSY) framework (all MSY advice must satisfy the PA framework). The MSY framework is applied when data are sufficient to assess the current exploitation rate in relation to the theoretical optimum, while the data-limited rules of the PA framework are used in all other cases. Improvements in assessment methodology means that more stocks are now assessed under the MSY framework than in the previous report.

For further details on the ICES' advisory process, read the 2022 [ICES technical guidance for harvest control rules and stock assessments for stocks in categories 2 and 3](#), the 2020 [ICES guide to advice](#), and the 2012 [ICES guidance for data limited stocks](#).

2.3. Outcome versus intention reporting

One of the primary objectives of fishery management in the UK is to prevent the collapse of stocks and the management framework with its reference points is designed to achieve this objective. It is entirely appropriate that the effectiveness of fishery management should

therefore be measured in terms of how well these targets and objectives are met. This scoring of outcomes is retrospective but if we operated in a world of certainty then management actions would naturally achieve these objectives. In reality, fishery management operates in an uncertain paradigm where environmental variation, complex biological interactions, human decisions, and observation error combine meaning that management actions may not necessarily result in the desired outcome. Ideally, a management framework should be designed to be robust to these fluctuations and uncertainties but not everything can be foreseen, and outcomes may not be as intended. Historical outcome evaluation may vary as the understanding of stock development evolves. It is therefore also desirable to report on whether catch limits agreed by managers were consistent with the scientific understanding at that time.

In the longer term, chronic systematic differences between the intention and outcomes may indicate that the management framework needs to be modified to accommodate these differences. Both types of reporting (outcomes and intention) are therefore important tools for monitoring management performance. Outcome scoring is undertaken as part of the UK's reporting on the [Marine Strategy](#) (due to be updated in 2025) and reports the number of stocks where the spawning biomass is estimated to be at or above the target reference point and the exploitation rate is estimated to be at or below the target reference point. In contrast, the scoring of negotiation decisions (intention scoring) is based on TAC decisions, so direct comparisons between these two scoring approaches cannot be made due to the mismatches of stock and TAC definitions.

2.4. MSY methodology review approach and considerations

The methodology review proposed an approach and method to assess the MSY consistency of TACs based on the comparison of ICES' advice and stock assessment areas, and the TAC management areas. Six categories of TACs were identified reflecting the increasing complexity of the mapping issues, examples of these can be found in Sections 4.1 to 4.6 of the methodology review report (Nash and others, 2021).

1. Direct match: management area is the same as the stock assessment area.
2. Wide: management area wider than stock area but does not overlap with other defined stocks. These are effectively treated as a direct match.
3. Pooled: multiple stocks pooled into a single TAC, areas definitions matching.
4. Subset: Single stock split into multiple TAC units.
5. Subset pooled: Multiple stocks fished across multiple TAC units.
6. Fragmented: Stocks or multiple stocks fished across multiple TAC units (TAC and advice areas do not match) and where substantial portions of catches are taken outside the jurisdiction of the relevant negotiation forum (bilateral UK-EU, trilateral UK-EU-Norway, or Coastal States negotiations).

Note that mapping classification may change through time, particularly in the case of the fragmented class where the introduction of a sharing arrangement could see the classification re-elevated.

The methodology review agreed on an approach with an expert panel that is based on whether catch limits do not exceed the best available ICES' scientific advice for stocks (biological areas or units) that are relevant to the management areas (or TAC units).

The agreed principles and considerations can be found in the methodological review report (Nash and others, 2021).

3. Assessment methodology

The principles agreed in the MSY methodology review (Nash and others, 2021) are used as the basis to assess whether negotiated catch limits agreed are consistent with the ICES' scientific advice at that time. In addition to an explanation of the 2 stages of the assessment, this section describes issues that were not covered by the MSY methodology review but have subsequently been identified as requiring consideration.

3.1. Explanation of stage 1 and stage 2

Assessment of the TACs considered their alignment with the ICES' advice and was performed in two 2 stages and only those TACs which pass stage 2 are considered to have been set in line with the advice.

Stage 1

This stage assessed the TAC alignment with ICES' scientific advice by considering the match between the TAC area and the relevant ICES advice stock assessment areas and whether the total catch limit was set at or below the scientific advice.

TACs with a management area that match to scientific advice assessment area and had been set up at or below the scientific advice are given a stage 1 pass, and if no further considerations exist would be assigned a stage 2 pass.

Any TAC for which its total catch limit was set above the scientific advice failed stage 1, and therefore failed this year's assessment.

Stage 2

TACs for which the ICES' advice assessment area did not match the management area, and which passed stage 1 were subject to additional considerations, assessed in stage 2. Catch considerations are examined, in particular to determine whether the total international catches had exceeded the ICES' advice 2 or more times in the previous 3 years for which data were available. Where catches had habitually exceeded the advice, unless remedial measures to prevent this were included in the written records of the Negotiation Agreements, the TAC was considered to have failed at stage 2.

In the summary of evaluations that follow, only those TACs which pass stage 2 are considered to have been set in line with the advice and awarded a 'pass'.

3.2. Consideration of quota transfers

For this assessment, the total catch limit agreed was considered as the Total Agreed TAC as negotiated in bilateral UK-EU, trilateral UK-EU-Norway, NEAFC and Coastal States

negotiating forums. In some instances, quota transfers for additional, specific species were agreed outside these forums. In these cases, additional quota transferred to the UK were added to the TAC to obtain the total catch limit agreed. At the time of writing this report, negotiations between the UK and the Faroe Islands have not yet concluded, so any upcoming quota transfers from the Faroe Islands to the UK have not been considered in this year's assessment. Only quota transfers from Norway to the UK were considered, using the published [written records of fisheries consultations between the UK and Norway](#)⁵.

3.3. Consideration of area-misalignment with negligible effects

The misalignment of ICES' stock areas and TAC units is considerable, often whole ICES' Divisions. However, there are a number of cases where the misalignment of ICES' stock boundaries and TAC areas is much less pronounced involving a few ICES statistical rectangles (or part rectangles) and the catches in these portions are considered to be relatively trivial. In these cases, although flagged as 'Fragmented', no consideration is made of the exploitation of the neighbouring stock. For example, the HAD/5BC6A TAC covers Division 6.a and UK and international waters of Division 5.b. However, the area of sea covered by UK and international waters of Division 5.b is a small fraction of Division 5.b and catches in UK and international waters of Division 5.b are considered to be negligible in relation to the total international landings from Division 5.b.

3.4. Third country catches

One issue that emerged during the MSY methodology review process was the need to consider catches from ICES' stocks by countries not encompassed by the UK-EU, UK-EU-Norway or Coastal States TAC setting process (termed third country catches). In an ideal situation, international agreements on all fishing opportunities for all stocks would be achieved, but in the absence of such agreements one science-based approach to this issue would be to quantify the portion of the ICES' advised tonnage that is expected to be caught by the vessels of third countries before determining what would be a sustainable level for the UK-EU/UK-EU-Norway/Coastal States TACs. This could either be some projection of absolute tonnage, or an assumption that the proportion of third country catches recorded over some recent historic period will continue into the future. Another alternative could be directly requesting that each third country provides their own estimates. A scientific exercise was undertaken to explore what the potential implications for UK-EU/UK-EU-Norway/Coastal States TAC setting might be when considering the effects of third country catches. This scientific exercise requires further exploration to

⁵ Agreed record of fisheries consultations between the United Kingdom and Norway for 2023, 24 November 2022.

determine the most reliable approach to forecasting third country catches and should be undertaken independently from negotiations around TACs or future sharing arrangements.

Table 1 contains a notation as to which TACs we currently believe this issue affects. Third country catches were not considered in stage 1 of the current assessment method. For those TACs going through stage 2, total international landings (which include third country catches) are considered when assessing whether catches exceed the scientific advice.

3.5. Consultative elements

A number of TACs listed in the Trade and Cooperation Agreement (TCA) are classed as 'consultative'. This is where one party has an historical fishing interest, but the body of water referred to lies entirely (or to all practical extent entirely) in the jurisdiction of the other party. In these instances, the TACs will be set unilaterally by the party with jurisdiction. Several of these consultative TACs are linked to subset or pooled subset TACs of interest to the UK and therefore potentially affect the scoring of alignment with the ICES' advice for TACs that form part of the baseline set. The process of scoring TACs resulting from the MSY methodology review process demands that we look at the totality of all TACs that draw on the stocks. However, the publication of consultative elements has sometimes been many weeks after conclusion of negotiations, and it was therefore necessary to devise an approach that only used the published TACs. In these instances, the maximum advice-compliant TAC for the management unit of interest was defined as the advice multiplied by the proportion implied by the [2020 EU TAC and Quota Regulation](#) (TQR). The 2020 TACs for a number of species already included a deduction for fleet sectors that had exemptions from the Landing Obligation. In these instances, the implied total catches for those TACs in 2020 were back calculated using the deduction calculations published by the EU Commission.

During the negotiations for the 2023 TACs, the tonnages to be set for the Consultative elements were shared during the negotiations and therefore the scoring methods used these actual tonnages rather than the historic share method devised for the scoring of 2022 TACs.

3.6. Stocks with advice given for the first time

Another issue not considered within the MSY methodology review was how assessment should operate where ICES provides advice for the first time. This could arise for a stock unit where advice had not previously been requested, where data improvements allow for advice to be generated or where ICES' stock definitions change. For instance, four-spot megrim (Idb.27.7b-k8abd) received advice from ICES for the first time in 2021 (for catches in 2022). As part of the 'subset pooled' category, catches for all contributing stocks should be compared to their advice for the most recent 3 years of concurrent advice and catch. In the current implementation, where a contributing stock cannot be assessed in this manner

there is no stage 2 consideration made for that stock. Alternative approaches could include either not scoring the TAC on the basis that there is insufficient evidence to suggest that catches are likely be no more than the advice, or to compare recent catch history with the new advice as a proxy for the concurrent catch-advice comparison. Any future development of TAC assessment method for this situation has the potential to impact both retrospective and future scoring.

4. Determining the baseline suite of TACs

In order to facilitate direct comparison between the outcomes of different years it is desirable to have a consistent number of TACs. It is inevitable that some changes may occur through time as management units evolve and the baseline may require periodic revision, however no changes to the baseline have been made for this report.

The Trade and Cooperation Agreement lists 123 quotas which link to stocks in which both the UK and EU have an interest. The UK has access to 104 of these TACs. Only those TACs negotiated in bilateral UK-EU, trilateral UK-EU-Norway, NEAFC or Coastal States forums are considered in scope for this report.

Five of the TACs listed in the Trade and Cooperation Agreement are not included in the scoring. Deep-sea Sharks (TCA 19, DWS/56789-) is not included because these are a prohibited species (meaning that landing them is illegal). Porcupine Bank Nephrops (TCA 39, NEP/*07U16) is excluded because this is a sub-clause of the main Area 7 Nephrops TAC (TCA 40, NEP/07.) and would otherwise be double counting. North Sea Sandeel Sea (TCA 57, SAN/2A3A4), North Sea Sprat (TCA 66, SPR/2AC4-C) and English Channel Sprat (TCA 67, SPR/7DE.) are all agreed later during the fishing year and therefore are excluded from this assessment.

The trilateral UK-EU-Norway negotiation agrees 4 TACs for North Sea herring of which only the 'A-fleet' (the main human consumption fleet) and 'B-fleet' (bycatches) are relevant to the UK. The UK-EU portion of the A-fleet TAC is then split into 2 TCA quotas (TCA 80 and 81). As the negotiated agreement is at the A-fleet level, and ICES gives advice for the A-fleet, a single scoring is applied to the trilateral agreement and not the 2 TCA quotas. This same rationale of a single scoring applies to the TAC for North-East Atlantic Mackerel which is agreed at the Coastal States meetings with the UK-EU portion then split into 2 TACs (TCA 85 and 86).

The result of addressing the above issues means that there are 83 TACs that are considered, only 79 of which are included in the baseline due to 4 having no scientific advice at the time of this publication. The summary of evaluations is given as the percentage (%) of passes determined as the number of stage 2 passes divided by the number of TACs linked to scientific advice (79).

Table 1 lists the TACs that are evaluated along with their advice basis, mapping category, negotiation forum and inclusion in baseline applicable at the time of publication.

5. Assessment of negotiated outcomes for 2023

This evaluation of the negotiated outcomes for 2023 follows the principles set out in the MSY methodology review (Nash and others, 2021). Last year's assessment report (Bell and others, 2022) was the first assessment undertaken using the principles of this new methodology review. It contained an assessment of the TACs agreed for 2021 and 2022 as well as a retrospective assessment for 2020.

Table 2 provides the results of the assessment for 2023 and the pass and fail scores for stage 1 and stage 2. The basis of type 2 fails is categorised in the last column of the table as follows:

- a) total international catches (which include third country catches) of one or more of the stocks linked with the TAC setting process have exceeded the ICES' advice 2 or more times in the most recent 3 years for which ICES has published data
- b) TACs are agreed but no sharing agreement is in place and total international catches have exceeded the ICES' advice 2 or more times in the most recent 3 years for which ICES has published data
- c) there is no sharing agreement in place

Table 3 gives the final evaluation per year for the suite of baseline TACs from 2020 and 2023. It summarises the outcome of this year and last year's assessments and provides a comparison of the negotiated outcomes over the last 4 years.

TACs outside the baseline are presented at the bottom of each table.

For 2023 TACs were agreed in the UK-EU negotiations, trilateral negotiations between the UK, EU and Norway, and Coastal States negotiations. Table 1 shows the 84 TACs that were agreed in total this year.

Scientific advice on catch opportunities provided by ICES related to 80 of these 84 TACs. The remaining 4 TACs came from combinations of species and TAC areas for which there was no scientific advice.

Of the baseline list of 79 TACs, 32 were considered to be set in line with the scientific advice (40%), 2 could not be scored and 45 failed (57%). Breaking this down to the advice type (MSY or PA), 27 out of 54 TACs (50%) based on MSY advice were set in line with the advice and 5 out of 25 (20%) TACs based on PA advice were set in line with the advice.

5.1. TACs that have changed scores from 2022 to 2023

Seven TACs saw their scores change between 2022 and 2023. A brief explanation is given for each change in assessment.

5.1.1.TCA 12 (BSF/56712-, Black Scabbardfish (Western))

Change: Fail to Pass

Previously, ICES had given advice for the whole stock but also given tonnages for 3 subregions. Historically, a deduction of 15% was applied to the advice for this unit to account for third country catches. However, only 10% had been applied and therefore the score for this TAC had 'failed' in the past.

The advice for 2023 was solely at the stock level with no splitting so the previous methodology could not be applied. Following the MSY review methodology for a fragmented TAC, we compared the declared TACs to the headline advice and confirmed that the sum of declared TACs were less than the ICES' advice. The stage 2 considerations were then applied, and at least 2 of the most recent 3 years of catch data had been less than the advice therefore the TAC is considered to pass stage 2.

5.1.2.TCA 25 (HER/5B6ANB, Herring (West of Scotland))

Change: Fail to Pass

For the 2023 advice, ICES redefined the stock units for herring in the West of Scotland from a single stock unit (her.27.6a7bc) to 2 separate stock units, one of which (her.27.6aN) directly matches the TAC area. In 2022, her.27.6a7bc had received zero TAC advice yet a quota had been set in 2022 hence the fail. For 2023, the HER/5B6ANB TAC was set in line with the advice for the new her.27.6aN stock unit and is therefore assessed to pass.

5.1.3.TCA 30 (JAX/2A-14, Horse Mackerel (Western))

Change: Pass to Fail

The parent stock for this TAC received zero TAC advice for 2023. However, a non-zero TAC was agreed therefore this TAC is assessed to be a 'fail'.

5.1.4.TCA 42 (NOP/2A3A4., Norway Pout (North Sea))

Change: Fail to Pass

The Norway Pout stock (NOP.27.3a4) is fished by both UK/EU and Norway although there is no sharing agreement between UK/EU and Norway. Norway Pout is one of the few unilateral TACs that Norway sets, and they always claimed 50% of the ICES' advice. The proportion of the advice that related to the EU TAC had historically varied but recently had been consistently set higher than 50% meaning the total TAC for both sides exceeded the advice and therefore the TAC was assessed as a 'fail'.

For 2023, the UK/EU set the TAC at 50% of the ICES' advice. The sum of the unilateral Norwegian TAC and the UK/EU TAC is at the level of the advice and therefore is assessed to pass.

5.1.5.TCA 54 (RJU/7DE., Undulate Ray (English Channel))

Change: Fail to Pass

Historically, the TAC had been set higher than the ICES' advice for the stock (rju.27.7de). For 2023, the TAC is lower than the level of the advice and is therefore assessed to pass.

5.1.6.TCA 14 and 77, (COD/07D., Cod (Eastern Channel) and COD/2A3AX4, Cod (North Sea))

Change: Fail to Pass

Fishing opportunities for the North Sea cod stock (cod.27.3a47d) are agreed in the UK-EU-Norway trilateral negotiations and is split across 4 management areas, (3 UK-EU TAC areas and Norwegian waters). The agreed total TAC for the stock has historically been greater than the ICES' advice and so all TACs linked to this stock had been assessed to fail. However, for 2023 the agreed TAC for the stock is at the level of the ICES' advice and the agreement is therefore assessed to pass for both the TACs under consideration in this report.

5.2. Results of the assessment for 2023

Table 1. TACs included in the scoring.

The mapping category column follows the TAC mapping classification used in 2021. 1= direct match, 2=wide, 3=pooled, 4=subset, 5= subset pooled, 6=fragmented. See section 3.2 for description.

TCA number	TAC code	TAC stock name	Advice type	Mapping category	Included in baseline suite of TACS?	Negotiation forum
1 [TCC]	ALF/3X14-	Alfonsinos (3,4,5,6,7,8,9,10,12,14)	PA	2	Yes	UK-EU
2	ANF/07.	Anglerfish (7)	MSY	5	Yes	UK-EU
3 [TCC]	ANF/2AC4-C	Anglerfish (North Sea)	MSY	6	Yes	UK-EU
4 [TCC]	ANF/56-14	Anglerfish (West of Scotland)	MSY	6	Yes	UK-EU
5 [TCC]	ARU/1/2.	Greater silver smelt 1,2	PA	6	Yes	UK-EU
6 [TCC]	ARU/3A4-C	Greater silver smelt North Sea	PA	6	Yes	UK-EU
7 [TCC]	ARU/567.	Greater Silver Smelt (Western)	MSY	6	Yes	UK-EU
8	BLI/12INT-	Blue Ling (International 12)	PA	6	Yes	UK-EU
9	BLI/24-	Blue Ling (North Sea)	PA	6	Yes	UK-EU
10 [TCC]	BLI/5B67-	Blue Ling (Western)	MSY	6	Yes	UK-EU
11	BOR/678-	Boarfish (Western)	PA	1	Yes	UK-EU
12	BSF/56712-	Black Scabbardfish (Western)	PA	6	Yes	UK-EU
13	COD/07A.	Cod (Irish Sea)	MSY	5	Yes	UK-EU
15	COD/5BE6A	Cod (West of Scotland)	MSY	6	Yes	UK-EU
16 [TCC]	COD/5W6-14	Rockall Cod	PA	6	Yes	UK-EU
17	COD/7XAD34	Cod (Celtic Sea)	MSY	5	Yes	UK-EU
18	DGS/15X14	Spurdog (Western)	MSY	6	Yes	UK-EU
20	HAD/07A.	Haddock (Irish Sea)	MSY	5	Yes	UK-EU
22 [TCC]	HAD/6B1214	Haddock (Rockall)	MSY	2	Yes	UK-EU
23	HAD/7X7A34	Haddock (Celtic Sea)	MSY	5	Yes	UK-EU
24	HER/07A/MM	Herring (Irish Sea)	MSY	1	Yes	UK-EU
25	HER/5B6ANB	Herring (West of Scotland)	MSY	1	Yes	UK-EU
27	HER/7G-K.	Herring (Celtic Sea)	MSY	1	Yes	UK-EU
28 [TCC]	HKE/2AC4-C	Hake (North Sea)	MSY	4	Yes	UK-EU
29 [TCC]	HKE/571214	Hake (Western)	MSY	4	Yes	UK-EU
30 [TCC]	JAX/2A-14	Horse Mackerel (Western)	MSY	6	Yes	UK-EU
31	JAX/4BC7D	Horse Mackerel (Southern North Sea and Eastern Channel)	PA	1	Yes	UK-EU
32 [TCC]	L/W/2AC4-C	Lemon Sole and Witch (North Sea)	MSY	6	Yes	UK-EU
33	LEZ/07.	Megrim (7)	MSY	5	Yes	UK-EU
34 [TCC]	LEZ/2AC4-C	Megrim (North Sea)	MSY	5	Yes	UK-EU
35	LEZ/56-14	Megrim (West of Scotland)	MSY	5	Yes	UK-EU
36 [TCC]	LIN/03A-C.	Ling 3a	PA	6	Yes	UK-EU

TCA number	TAC code	TAC stock name	Advice type	Mapping category	Included in baseline suite of TACS?	Negotiation forum
37 [TCC]	LIN/04-C.	Ling (North Sea)	PA	6	Yes	UK-EU
38 [TCC]	LIN/6X14.	Ling (Western)	PA	6	Yes	UK-EU
40	NEP/07.	Nephrops (7)	MSY	3	Yes	UK-EU
41	NEP/2AC4-C	Nephrops (North Sea)	MSY	3	Yes	UK-EU
42 [TCC]	NOP/2A3A4.	Norway Pout (North Sea)	MSY	4	Yes	UK-EU
43	PLE/07A.	Plaice (Irish Sea)	MSY	1	Yes	UK-EU
45	PLE/7DE.	Plaice (English Channel)	MSY	3	Yes	UK-EU
46	PLE/7FG.	Plaice (7fg)	MSY	1	Yes	UK-EU
47	PLE/7HJK.	Plaice (7hjk)	MSY	1	Yes	UK-EU
50	POL/07.	Pollack (7)	PA	6	Yes	UK-EU
51	POL/56-14	Pollack (West of Scotland)	PA	6	Yes	UK-EU
52	PRA/2AC4-C	Northern Prawn (North Sea)	PA	6	Yes	UK-EU
53	RJE/7FG.	Small-eyed Ray (7fg)	MSY	1	Yes	UK-EU
54	RJU/7DE.	Undulate Ray (English Channel)	MSY	1	Yes	UK-EU
55 [TCC]	RNG/5B67-	Roundnose Grenadier (Western)	PA	6	Yes	UK-EU
56 [TCC]	RNG/8X14-	Roundnose Grenadier (8,9,10,12,14)	PA	6	Yes	UK-EU
58	SBR/678-	Red Seabream (Western)	PA	1	Yes	UK-EU
59	SOL/07A.	Sole (Irish Sea)	MSY	1	Yes	UK-EU
60	SOL/07D.	Sole (Eastern Channel)	MSY	1	Yes	UK-EU
61	SOL/07E.	Sole (Western Channel)	MSY	1	Yes	UK-EU
62	SOL/24-C.	Sole (North Sea)	MSY	2	Yes	UK-EU
64	SOL/7FG.	Sole (7fg)	MSY	1	Yes	UK-EU
65	SOL/7HJK.	Sole (7hjk)	PA	1	Yes	UK-EU
68	SRX/07D.	Skates and Rays (Eastern Channel)	PA	6	Yes	UK-EU
69	SRX/2AC4-C	Skates and Rays (North Sea)	PA	6	Yes	UK-EU
70	SRX/67AKXD	Skates and Rays (Western)	MSY	6	Yes	UK-EU
71 [TCC]	T/B/2AC4-C	Turbot and Brill (North Sea)	MSY	6	Yes	UK-EU
72 [TCC]	USK/04-C.	Tusk (North Sea)	PA	6	Yes	UK-EU
73 [TCC]	USK/567EI.	Tusk (Western)	PA	6	Yes	UK-EU
74	WHG/07A.	Whiting (Irish Sea)	MSY	5	Yes	UK-EU
75	WHG/56-14	Whiting (West of Scotland)	MSY	6	Yes	UK-EU
76	WHG/7X7A-C	Whiting (Celtic Sea)	MSY	5	Yes	UK-EU
14 [TN]	COD/07D.	Cod (Eastern Channel)	MSY	6	Yes	UK-EU-NO
21 [TN]	HAD/5BC6A	Haddock (West of Scotland)	MSY	6	Yes	UK-EU-NO
48 [TN]	POK/56-14	Saithe (West of Scotland)	MSY	6	Yes	UK-EU-NO
77 [TN]	COD/2A3AX4	Cod (North Sea)	MSY	6	Yes	UK-EU-NO
78 [TN]	HAD/2AC4.	Haddock (North Sea)	MSY	6	Yes	UK-EU-NO
79 [TN]	North Sea Herring (B-Fleet): HER/2A47DX	Herring (North Sea bycatch)	MSY	6	Yes	UK-EU-NO

TCA number	TAC code	TAC stock name	Advice type	Mapping category	Included in baseline suite of TACS?	Negotiation forum
80 and 81 [TN]	North Sea Herring (A-Fleet): HER/4AB. and HER/4CXB7D	A-fleet Herring (North Sea, Southern North Sea and Eastern Channel)	MSY	6	Yes	UK-EU-NO
82 [TN]	PLE/2A3AX4	Plaice (North Sea)	MSY	4	Yes	UK-EU-NO
83 [TN]	POK/2C3A4	Saithe (North Sea)	MSY	6	Yes	UK-EU-NO
84 [TN]	WHG/2AC4.	Whiting (North Sea)	MSY	5	Yes	UK-EU-NO
85 and 86 [CS]	Coastal States North-East Atlantic Mackerel: MAC/2A34. and MAC/2CX14-	Mackerel (North Sea and Western)	MSY	6	Yes	Coastal states
87 [CS]	Coastal States North-East Atlantic Blue Whiting: WHB/1X14	Blue Whiting (Northern)	MSY	6	Yes	Coastal states
96 [CS]	Coastal States Atlanto-Scandian Herring: HER/1/2-	Herring (ASH)	MSY	6	Yes	Coastal states
100	RED/51214D	Redfish [Deep Pelagic] (5,12,14)	MSY	6	Yes	NEAFC
101	RED/51214S	Redfish [Shallow Pelagic] (5,12,14)	PA	6	Yes	NEAFC
26	HER/7EF.	Herring (Western Channel and Bristol Channel)	[z]	[z]	No	UK-EU
39 [SC]	NEP/07U16	Nephrops (Porcupine Bank)	MSY	1	No	UK-EU
44	PLE/56-14	Plaice (West of Scotland)	[z]	[z]	No	UK-EU
49	POK/7/3411	Saithe (Celtic Sea)	[z]	[z]	No	UK-EU
63	SOL/56-14	Sole (West of Scotland)	[z]	[z]	No	UK-EU

[TN] denotes that the assessment uses the internationally agreed TAC from the Written Record of the tri-lateral negotiations. The UK-EU TAC codes listed may only form a subset of the total international TAC.

[CS] denotes that the assessment uses the internationally agreed TAC from the Written Record of the Coastal States negotiations. The UK-EU TAC codes listed may only form a subset of the total international TAC.

[TCC] denotes TACs where catches by third countries are not always considered in the TAC setting process.

[SC] denotes that Porcupine Bank Nephrops (NEP/*07U16) is a sub-clause of the main area 7 Nephrops TAC (NEP/07.) and is excluded from the assessment to avoid double-counting.

[z]: Not applicable

Table 2: Evaluation of the 2023 negotiated TACs.

Rationales for a stage 2 fail are represented in the last column of table 2 by the following letters:

- a) total international catches (which include third country catches) of one or more of the stocks linked with the TAC setting process have exceeded the ICES' advice 2 or more times in the most recent 3 years for which ICES has published data
- b) TACs are agreed but no sharing agreement is in place and total international catches have exceeded the ICES' advice 2 or more times in the most recent 3 years for which ICES has published data
- c) there is no sharing agreement in place

TCA number	TAC code	TAC name	Stage 1	Stage 2	Final	Stage 2 fail rationale
1	ALF/3X14-	Alfonsinos (3,4,5,6,7,8,9,10,12,14)	pass	[z]	pass	[z]
2	ANF/07.	Anglerfish (7)	pass	pass	pass	[z]
3	ANF/2AC4-C	Anglerfish (North Sea)	fail	[z]	fail	[z]
4	ANF/56-14	Anglerfish (West of Scotland)	fail	[z]	fail	[z]
5	ARU/1/2.	Greater silver smelt 1,2	pass	fail	fail	a
6	ARU/3A4-C	Greater silver smelt North sea	pass	fail	fail	a
7	ARU/567.	Greater Silver Smelt (Western)	pass	fail	fail	a
8	BLI/12INT-	Blue Ling (International 12)	fail	[z]	fail	[z]
9	BLI/24-	Blue Ling (North Sea)	fail	[z]	fail	[z]
10	BLI/5B67-	Blue Ling (Western)	pass	pass	pass	[z]
11	BOR/678-	Boarfish (Western)	pass	[z]	pass	[z]
12	BSF/56712-	Black Scabbardfish (Western)	pass	pass	pass	[z]
13	COD/07A.	Cod (Irish Sea)	fail	[z]	fail	[z]
15	COD/5BE6A	Cod (West of Scotland)	fail	[z]	fail	[z]
16	COD/5W6-14	Rockall Cod	fail	[z]	fail	[z]
17	COD/7XAD34	Cod (Celtic Sea)	fail	[z]	fail	[z]
18	DGS/15X14	Spurdog (Western)	pass	fail	fail	c
20	HAD/07A.	Haddock (Irish Sea)	pass	pass	pass	[z]
22	HAD/6B1214	Haddock (Rockall)	pass	[z]	pass	[z]
23	HAD/7X7A34	Haddock (Celtic Sea)	pass	pass	pass	[z]
24	HER/07A/MM	Herring (Irish Sea)	pass	[z]	pass	[z]
25	HER/5B6ANB	Herring (West of Scotland)	pass	[z]	pass	[z]
27	HER/7G-K.	Herring (Celtic Sea)	fail	[z]	fail	[z]
28	HKE/2AC4-C	Hake (North Sea)	fail	[z]	fail	[z]
29	HKE/571214	Hake (Western)	fail	[z]	fail	[z]
30	JAX/2A-14	Horse Mackerel (Western)	fail	[z]	fail	[z]
31	JAX/4BC7D	Horse Mackerel (Southern North Sea and Eastern Channel)	pass	[z]	pass	[z]
32	L/W/2AC4-C	Lemon Sole and Witch (North Sea)	pass	fail	fail	a
33	LEZ/07.	Megrims (7)	pass	pass	pass	[z]

TCA number	TAC code	TAC name	Stage 1	Stage 2	Final	Stage 2 fail rationale
34	LEZ/2AC4-C	Megrims (North Sea)	pass	fail	fail	a
35	LEZ/56-14	Megrims (West of Scotland)	pass	fail	fail	a
36	LIN/03A-C.	Ling 3a	pass	fail	fail	a
37	LIN/04-C.	Ling (North Sea)	pass	fail	fail	a
38	LIN/6X14.	Ling (Western)	pass	fail	fail	a
40	NEP/07.	Nephrops (7)	pass	fail	fail	a
41	NEP/2AC4-C	Nephrops (North Sea)	pass	fail	fail	a
42	NOP/2A3A4.	Norway Pout (North Sea)	pass	[z]	pass	[z]
43	PLE/07A.	Plaice (Irish Sea)	pass	[z]	pass	[z]
45	PLE/7DE.	Plaice (English Channel)	pass	pass	pass	[z]
46	PLE/7FG.	Plaice (7fg)	pass	[z]	pass	[z]
47	PLE/7HJK.	Plaice (7hjk)	pass	[z]	pass	[z]
50	POL/07.	Pollack (7)	fail	[z]	fail	[z]
51	POL/56-14	Pollack (West of Scotland)	fail	[z]	fail	[z]
52	PRA/2AC4-C	Northern Prawn (North Sea)	fail	[z]	fail	[z]
53	RJE/7FG.	Small-eyed Ray (7fg)	pass	[z]	pass	[z]
54	RJU/7DE.	Undulate Ray (English Channel)	pass	[z]	pass	[z]
55	RNG/5B67-	Roundnose Grenadier (Western)	pass	fail	fail	a
56	RNG/8X14-	Roundnose Grenadier (8,9,10,12,14)	pass	fail	fail	a
58	SBR/678-	Red Seabream (Western)	fail	[z]	fail	[z]
59	SOL/07A.	Sole (Irish Sea)	pass	[z]	pass	[z]
60	SOL/07D.	Sole (Eastern Channel)	pass	[z]	pass	[z]
61	SOL/07E.	Sole (Western Channel)	pass	[z]	pass	[z]
62	SOL/24-C.	Sole (North Sea)	pass	[z]	pass	[z]
64	SOL/7FG.	Sole (7fg)	pass	[z]	pass	[z]
65	SOL/7HJK.	Sole (7hjk)	pass	[z]	pass	[z]
68	SRX/07D.	Skates and Rays (Eastern Channel)	fail	[z]	fail	[z]
69	SRX/2AC4-C	Skates and Rays (North Sea)	pass	fail	fail	a
70	SRX/67AKXD	Skates and Rays (Western)	fail	[z]	fail	[z]
71	T/B/2AC4-C	Turbot and Brill (North Sea)	fail	[z]	fail	[z]
72	USK/04-C.	Tusk (North Sea)	No analysis possible	No analysis possible	No analysis possible	[z]
73	USK/567EI.	Tusk (Western)	No analysis possible	No analysis possible	No analysis possible	[z]
74	WHG/07A.	Whiting (Irish Sea)	fail	[z]	fail	[z]
75	WHG/56-14	Whiting (West of Scotland)	pass	fail	fail	a
76	WHG/7X7A-C	Whiting (Celtic Sea)	pass	fail	fail	a
14 [TN]	COD/07D.	Cod (Eastern Channel)	pass	[z]	pass	[z]
21 [TN]	HAD/5BC6A.	Haddock (West of Scotland)	pass	[z]	pass	[z]
48 [TN]	POK/56-14	Saithe (West of Scotland)	pass	[z]	pass	[z]
77 [TN]	COD/2A3AX4	Cod (North Sea)	pass	[z]	pass	[z]
78 [TN]	HAD/2AC4.	Haddock (North Sea)	pass	[z]	pass	[z]

TCA number	TAC code	TAC name	Stage 1	Stage 2	Final	Stage 2 fail rationale
79 [TN]	North Sea Herring (B-Fleet): HER/2A47DX	Herring (North Sea bycatch)	fail	[z]	fail	[z]
80 and 81 [TN]	North Sea Herring (A-Fleet): HER/4AB. and HER/4CXB7D	A-fleet Herring (North Sea, Southern North Sea and Eastern Channel)	fail	[z]	fail	[z]
82 [TN]	PLE/2A3AX4	Plaice (North Sea)	pass	[z]	pass	[z]
83 [TN]	POK/2C3A4	Saithe (North Sea)	pass	[z]	pass	[z]
84 [TN]	WHG/2AC4.	Whiting (North Sea)	pass	fail	fail	a
85 and 86 [CS]	Coastal States North-East Atlantic Mackerel: MAC/2A34. and MAC/2CX14-	Mackerel (North Sea and Western)	pass	fail	fail	b
87 [CS]	Coastal States North-East Atlantic Blue Whiting: WHB/1X14	Blue Whiting (Northern)	pass	fail	fail	b
96 [CS]	Coastal States Atlanto-Scandian Herring: HER/1/2-	Herring (ASH)	pass	fail	fail	b
100	RED/51214D	Redfish [Deep Pelagic] (5,12,14)	pass	fail	fail	a
101	RED/51214S	Redfish [Shallow Pelagic] (5,12,14)	pass	fail	fail	a
26 [OB]	HER/7EF.	Herring (Western Channel and Bristol Channel)	no advice	no advice	no advice	[z]
44 [OB]	PLE/56-14	Plaice (West of Scotland)	no advice	no advice	no advice	[z]
49 [OB]	POK/7/3411	Saithe (Celtic Sea)	no advice	no advice	no advice	[z]
63 [OB]	SOL/56-14	Sole (West of Scotland)	no advice	no advice	no advice	[z]

[TN] denotes that the assessment uses the internationally agreed TAC from the Written Record of the tri-lateral negotiations. The UK-EU TAC codes listed may only form a subset of the total international TAC.

[CS] denotes that the assessment uses the internationally agreed TAC from the Written Record of the Coastal States negotiations. The UK-EU TAC codes listed may only form a subset of the total international TAC.

[OB] denotes TACs which are outside the baseline suite of TACs.

[z]: Not applicable

5.3. Corrections/amendments to the 2022 report

Three corrections to the 2022 report are required:

- Irish Sea North Herring (TCA 24, HER/07A/MM) was assessed as a ‘fail’ in 2020, however this is incorrect and should have been a ‘pass’.
- A typographical mistake occurred in Table 6 of the 2022 report (evaluation of the 2022 negotiated TACs). The stage 1 and stage 2 scores for North Sea Norway Pout (TCA 42, NOP/2A3A4) were both correctly ascribed as ‘fail’ however the final score incorrectly stated ‘pass’. The total number of ‘passes’ for 2022 (29) was, however, correct.
- Fishery management proposals/agreements for shallow pelagic redfish (TCA 101, RED/51214S) are covered in the annual NEAFC meetings. With hindsight and a re-evaluation of NEAFC documentation, although proposals for zero catch and stronger restrictions had been supported and enacted by some parties (including UK-EU), not all parties had agreed to the resolutions and the resolutions are therefore not binding. As a consequence, one country continues to fish the stock. In retrospect, although the UK and EU agree not to fish the stock and have zero landings, the lack of full international agreement on this stock and continued exploitation means that the TAC should be scored a stage 2 fail across all years.

The revised results are shown in Table 3 by ‘[r]’.

These changes affect the total number of TACs which were considered to be in line with the advice in 2021 and 2022 (one fewer in each year). Table 3 of this report shows these corrected values.

These revisions also affect the breakdown by advice type for all the previous years and the revised breakdown is as follows:

- In 2020, of the baseline list of 79 TACs, 27 were considered set in line with the scientific advice (34%), 2 could not be scored and 50 failed (63%). Of these 27 passes, 18 out of 43 (42%) TACs were derived from MSY advice and 9 out of 36 (25%) were derived from PA advice.
- In 2021, of the baseline list of 79 TACs, 26 were considered set in line with the scientific advice (33%), 2 could not be scored and 51 failed (65%). Of these 26 passes, 20 out of 43 (47%) TACs were derived from MSY advice and 6 out of 36 (17%) were derived from PA advice.
- In 2022, of the baseline list of 79 TACs, 27 were considered set in line with the scientific advice (34%), 2 could not be scored and 50 failed (63%). Of these 27 passes, 19 out of 43 (44%) TACs were derived from MSY advice and 8 out of 36 (22%) were derived from PA advice.

Table 4 shows the summary of the number of baseline TACs set in line with the scientific advice, for each year from 2020 to 2023.

5.4. Comparison of results from 2020 to 2023

Table 3. Comparison of evaluation for the baseline TACs from 2020 to 2023.

TCA number	TAC code	TAC name	2020	2021	2022	2023
1	ALF/3X14-	Alfonsinos (3,4,5,6,7,8,9,10,12,14)	fail	pass	pass	pass
2	ANF/07.	Anglerfish (7)	pass	pass	pass	pass
3	ANF/2AC4-C	Anglerfish (North Sea)	pass	fail	fail	fail
4	ANF/56-14	Anglerfish (West of Scotland)	pass	fail	fail	fail
5	ARU/1/2.	Greater silver smelt 1,2	fail	fail	fail	fail
6	ARU/3A4-C	Greater silver smelt North sea	fail	fail	fail	fail
7	ARU/567.	Greater Silver Smelt (Western)	fail	fail	fail	fail
8	BLI/12INT-	Blue Ling (International 12)	fail	fail	fail	fail
9	BLI/24-	Blue Ling (North Sea)	fail	fail	fail	fail
10	BLI/5B67-	Blue Ling (Western)	fail	pass	pass	pass
11	BOR/678-	Boarfish (Western)	pass	pass	pass	pass
12	BSF/56712-	Black Scabbardfish (Western)	fail	fail	fail	pass
13	COD/07A.	Cod (Irish Sea)	fail	fail	fail	fail
15	COD/5BE6A	Cod (West of Scotland)	fail	fail	fail	fail
16	COD/5W6-14	Rockall Cod	fail	fail	fail	fail
17	COD/7XAD34	Cod (Celtic Sea)	fail	fail	fail	fail
18	DGS/15X14	Spurdog (Western)	fail	fail	fail	fail
20	HAD/07A.	Haddock (Irish Sea)	pass	pass	pass	pass
22	HAD/6B1214	Haddock (Rockall)	pass	fail	pass	pass
23	HAD/7X7A34	Haddock (Celtic Sea)	pass	pass	pass	pass
24	HER/07A/MM	Herring (Irish Sea)	pass [r]	pass	pass	pass
25	HER/5B6ANB	Herring (West of Scotland)	fail	fail	fail	pass
27	HER/7G-K.	Herring (Celtic Sea)	fail	fail	fail	fail
28	HKE/2AC4-C	Hake (North Sea)	pass	pass	fail	fail
29	HKE/571214	Hake (Western)	pass	pass	fail	fail
30	JAX/2A-14	Horse Mackerel (Western)	pass	pass	pass	fail
31	JAX/4BC7D	Horse Mackerel (Southern North Sea and Eastern Channel)	pass	pass	pass	pass
32	L/W/2AC4-C	Lemon Sole and Witch (North Sea)	fail	fail	fail	fail
33	LEZ/07.	Megrims (7)	pass	pass	pass	pass
34	LEZ/2AC4-C	Megrims (North Sea)	fail	fail	fail	fail
35	LEZ/56-14	Megrims (West of Scotland)	fail	fail	fail	fail
36	LIN/03A-C.	Ling 3a	fail	fail	fail	fail
37	LIN/04-C.	Ling (North Sea)	fail	fail	fail	fail
38	LIN/6X14.	Ling (Western)	fail	fail	fail	fail
40	NEP/07.	Nephrops (7)	fail	fail	fail	fail
41	NEP/2AC4-C	Nephrops (North Sea)	fail	fail	fail	fail

TCA number	TAC code	TAC name	2020	2021	2022	2023
42	NOP/2A3A4.	Norway Pout (North Sea)	fail	fail	fail [r]	pass
43	PLE/07A.	Plaice (Irish Sea)	pass	pass	pass	pass
45	PLE/7DE.	Plaice (English Channel)	pass	pass	pass	pass
46	PLE/7FG.	Plaice (7fg)	pass	pass	pass	pass
47	PLE/7HJK.	Plaice (7hjk)	fail	fail	pass	pass
50	POL/07.	Pollack (7)	fail	fail	fail	fail
51	POL/56-14	Pollack (West of Scotland)	fail	fail	fail	fail
52	PRA/2AC4-C	Northern Prawn (North Sea)	fail	fail	fail	fail
53	RJE/7FG.	Small-eyed Ray (7fg)	pass	pass	pass	pass
54	RJU/7DE.	Undulate Ray (English Channel)	fail	fail	fail	pass
55	RNG/5B67-	Roundnose Grenadier (Western)	fail	fail	fail	fail
56	RNG/8X14-	Roundnose Grenadier (8,9,10,12,14)	fail	fail	fail	fail
58	SBR/678-	Red Seabream (Western)	fail	fail	fail	fail
59	SOL/07A.	Sole (Irish Sea)	pass	pass	pass	pass
60	SOL/07D.	Sole (Eastern Channel)	pass	pass	pass	pass
61	SOL/07E.	Sole (Western Channel)	pass	pass	pass	pass
62	SOL/24-C.	Sole (North Sea)	pass	pass	pass	pass
64	SOL/7FG.	Sole (7fg)	pass	pass	pass	pass
65	SOL/7HJK.	Sole (7hjk)	fail	fail	pass	pass
68	SRX/07D.	Skates and Rays (Eastern Channel)	fail	fail	fail	fail
69	SRX/2AC4-C	Skates and Rays (North Sea)	fail	fail	fail	fail
70	SRX/67AKXD	Skates and Rays (Western)	fail	fail	fail	fail
71	T/B/2AC4-C	Turbot and Brill (North Sea)	fail	fail	fail	fail
72	USK/04-C.	Tusk (North Sea)	no analysis possible	no analysis possible	no analysis possible	No analysis possible
73	USK/567EI.	Tusk (Western)	no analysis possible	no analysis possible	no analysis possible	No analysis possible
74	WHG/07A.	Whiting (Irish Sea)	fail	fail	fail	fail
75	WHG/56-14	Whiting (West of Scotland)	fail	fail	fail	fail
76	WHG/7X7A-C	Whiting (Celtic Sea)	fail	fail	fail	fail
14 [TN]	COD/07D.	Cod (Eastern Channel)	fail	fail	fail	pass
21 [TN]	HAD/5BC6A.	Haddock (West of Scotland)	pass	pass	pass	pass
48 [TN]	POK/56-14	Saithe (West of Scotland)	pass	pass	pass	pass
77 [TN]	COD/2A3AX4	Cod (North Sea)	fail	fail	fail	pass
78 [TN]	HAD/2AC4.	Haddock (North Sea)	pass	pass	pass	pass
79 [TN]	North Sea Herring (B-Fleet): HER/2A47DX	Herring (North Sea bycatch)	fail	fail	fail	fail
80 and 81 [TN]	North Sea Herring (A-Fleet): HER/4AB. and HER/4CXB7D	A-fleet Herring (North Sea, Southern North Sea and Eastern Channel)	fail	fail	fail	fail
82 [TN]	PLE/2A3AX4	Plaice (North Sea)	pass	pass	pass	pass
83 [TN]	POK/2C3A4	Saithe (North Sea)	pass	pass	pass	pass

TCA number	TAC code	TAC name	2020	2021	2022	2023
84 [TN]	WHG/2AC4.	Whiting (North Sea)	fail	fail	fail	fail
85 and 86 [CS]	Coastal States North-East Atlantic Mackerel: MAC/2A34. and MAC/2CX14-	Mackerel (North Sea and Western)	fail	fail	fail	fail
87 [CS]	Coastal States North-East Atlantic Blue Whiting: WHB/1X14	Blue Whiting (Northern)	fail	fail	fail	fail
96 [CS]	Coastal States Atlanto-Scandian Herring: HER/1/2-	Herring (ASH)	fail	fail	fail	fail
100	RED/51214D	Redfish [Deep Pelagic] (5,12,14)	fail	fail	fail	fail
101	RED/51214S	Redfish [Shallow Pelagic] (5,12,14)	fail [r]	fail [r]	fail [r]	fail

[TN] denotes that the assessment uses the internationally agreed TAC from the Written Record of the tri-lateral negotiations. The UK-EU TAC codes listed may only form a subset of the total international TAC.

[CS] denotes that the assessment uses the internationally agreed TAC from the Written Record of the Coastal States negotiations. The UK-EU TAC codes listed may only form a subset of the total international TAC

[r] denotes amendments from values reported in 2022, see Section 5.2

Table 4. Summary of the number of baseline TACs set in line with the scientific advice from 2020 to 2023.

Year	Total number of baseline TACs passing the assessment
2020	27
2021	26 [r]
2022	27 [r]
2023	32

[r] denotes amendments from values reported in 2022, see Section 5.2

References

Bell ED, Nash RMD, Garnacho E, De Oliveira J, O'Brien CM. 2022. Assessing the sustainability of fisheries catch limits negotiated by the UK for 2020 to 2022. Cefas project report. 38pp.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1061261/Assessing_negotiated_catch_limits_2020_to_2022.pdf

Defra. 2023. Environmental Improvement Plan 2023, First revision of the 25 Year Environment Plan. 262pp.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1133967/environmental-improvement-plan-2023.pdf

Westminster Hall Debate. 18 January 2023. Total Allowable Catches: Fisheries Negotiations. Vol 726, col 126WH. <https://hansard.parliament.uk/Commons/2023-01-18/debates/E7B87817-72DD-48F4-803F-746DA5AEDFFE/TotalAllowableCatchesFisheriesNegotiations?highlight=msy#contribution-345FFD01-386F-464B-8A94-4CD8EAEB1370>

ICES. 2012. ICES Implementation of Advice for Data-limited Stocks in 2012 in its 2012 Advice. ICES CM 2012/ACOM 68. 42 pp. <https://doi.org/10.17895/ices.pub.5322>

ICES. 2016. ICES criteria for defining multi-annual plans as precautionary. ICES Technical Guidelines 2016, Book 12, section 12.4.10. https://ices-library.figshare.com/articles/report/Technical_Guidelines_-_Criteria_for_defining_multi-annual_plans_as_precautionary/18629678

ICES. 2020. Guide to ICES advisory framework and principles. In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, section 1.1. <https://doi.org/10.17895/ices.advice.7648>

Joint Fisheries Statement. 2022.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1119399/Joint_Fisheries_Statement_JFS_2022_Final.pdf

Nash RDM, Garnacho E, De Oliveira J, Bell ED, O'Brien CM. 2021. Methodology review to assess sustainable quota setting. Cefas project report. 43pp.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1061262/Methodology_Review_assess_sustainable_quota_setting.pdf

Official Nominal Catches 2006-2019. Version 15-10-2021 accessed via <https://www.ices.dk/data/dataset-collections/Pages/Fish-catch-and-stock-assessment.aspx>

Trade and Cooperation Agreement. 2020. Trade and Cooperation Agreement between the United Kingdom of Great Britain and Northern Ireland, of the one part, and the European Union and the European Atomic Energy Community, of the other part Brussels and London, 30 December 2020. <https://www.gov.uk/government/publications/ukeyu-and-eaec-trade-and-cooperation-agreement-ts-no82021>

TAC and Quota Regulation 2020. https://ec.europa.eu/oceans-and-fisheries/fisheries/rules/fishing-quotas/tacs-and-quotas-2020_en

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