



CEMP Guideline for Fish thematic assessment integration method

OSPAR Agreement 2023-06¹

1 Introduction

This document presents the method for integration of commercial and sensitive fish species' status as part of the OSPAR Fish Thematic Assessment for the OSPAR QSR 2023. This is the first time OSPAR has presented thematic assessments, and also the first time an integrated assessment of the individual status of fish species, including commercial stocks, has been conducted by OSPAR. The assessment uses OSPAR's Common Indicator Assessment of the individual status of sensitive fish species (FC1) and 3rd-party assessments of commercial fish stocks as conducted by the International Council for the Exploration of the Seas (ICES) and the International Commission for the Conservation of Atlantic Tunas (ICCAT). The method aligns as closely as possible with latest guidelines for the EU's Marine Strategy Framework Directive (MSFD), though as not all OSPAR member countries are EU member states, they have no obligations under the MSFD and Norwegian, Icelandic, UK, Greenlandic and Faroese marine areas are not covered by the MSFD. The integration does not include the assessments conducted under the OSPAR Protected Species and Habitats (POSH) process. This is because the POSH fish assessments mostly draw upon the same 3rd-party assessments mentioned above, and because the POSH process is confined to certain officially nominated species, rather than all possible sensitive species.

Management of commercial fisheries is outside of OSPAR's competence for action. Article 4 of Annex V of the OSPAR Convention states that no programme or measure concerning a question relating to the management of fisheries shall be adopted. Where the OSPAR Commission considers that action is desirable in relation to such a question, it shall draw that question to the attention of the authority or international body competent for that question.

2 Description of the integration method

2.1 Overview of the approach

The integration involves indicators of the status of both commercial fish stocks and sensitive (non-commercial) fish species of conservation concern (Figure 1). It relies on an OSPAR Common Indicator of fish abundance, "Recovery of Sensitive Fish Species, FC1" and 3rd-party assessments of commercial fish stocks (from ICES and ICCAT). Thus, the integration brings together species of sensitive fish, and

¹ English only

stocks (population sub-units) of commercial fish. The indicators and assessments are summarised in Table 1 below. The commercial stocks were integrated (from criterion to species) using the latest “Good Environmental Status (GES) Guidelines” for integration of commercial fish (European Commission, 2022). The integration of commercial stocks (2 parameters, fishing mortality and stock biomass) followed these guidelines directly. For sensitive species, these guidelines could not be followed, as only one criterion was available (OSPAR Common Indicator FC1). Instead, the ICES (2018) advice was used for the integration of sensitive species (Table 2). Overall integration of both the sensitive and commercial fish followed the 2022 European Commission guidelines for an overall “D1” fish integrated assessment. Table 2 explains why the other parameters mentioned in the 2022 GES guidelines are unavailable for integration.

Table 1. Indicators and assessments used in the OSPAR integration method for the QSR 2023 Thematic Assessment of Fish, including coherence with EU MSFD Criteria (Commission Decision 848/2017). By way of explanation of how integration follows latest guidelines, MSFD criteria not represented in integration are also described.

Source	Description	MSFD Criterion	Parameter measured	OSPAR relevant notes
OSPAR FC1	Recovery of individual sensitive fish species	D1C2	Fish abundance trend	Only OSPAR Common Indicator for fish
ICES assessments	Stock assessments of individual commercial stocks	D3C1	Fishing mortality or relevant proxy	ICES and ICCAT are the recognised international bodies with competence in assessing commercial fish stocks in the OSPAR Maritime Area.
		D3C2	Spawning stock biomass or relevant proxy	
ICCAT assessments	Stock assessments of individual commercial stocks of tunas, billfish and pelagic sharks	D3C1	Fishing mortality	
		D3C2	Total biomass	
n.a.	Demography (size, age, genetic diversity)	D1C3 and D3C3	n.a.	No Common or Candidate Indicators No 3rd-party assessment available (ICES, 2017).
n.a.	Species range	D1C4 - primary (obligatory) only for species listed on the EU Habitats Directive only	n.a.	OSPAR Candidate Indicator FC7 not yet developed
n.a.	Species habitat	D1C5 - primary (obligatory) only for species listed on the EU Habitats Directive only	n.a.	OSPAR Candidate Indicator FC8 not yet developed

Table 2. Integration method used for sensitive fish species, based on ICES (2018). Proposed decision guide for meeting thresholds for integrating criteria to species. N – Criterion does not meet threshold, Y – Criterion meets threshold, O – Missing data or reference level but criterion relevant to assessment, NA –Not Applicable, criterion result irrelevant to assessment. Scenarios indicated in **bold red** represent the current state of knowledge, where only FC1, the Common Indicator for abundance, is available.

Indicator (EU MSFD criterion)	Threshold met									
	Y	Y	Y	N	N	N	NA	NA	O	O
“C1” Bycatch	Y	Y	Y	N	N	N	NA	NA	O	O
“C2” Abundance FC1	Y	N	N	N	Y	Y	Y	N	Y	N
“C3 – C5”, Demography, Range, Habitat respectively	Y, N, O or NA	Y	N, O or NA	Y, N or NA	Y	N, O or NA	Y, N, O or NA	Y, N, O or NA	Y, N, O or NA	Y, N, O or NA
Integrated outcome	Achieve	Achieve	Fail	Fail	Achieve	Fail	Achieve	Fail	Achieve	Fail

The results used for integration, from the sensitive species assessment, are described in the Common Indicator Assessment section “[FC1 Recovery of Sensitive Fish Species](#)” and the [CEMP Guideline for that indicator](#). Only the “long-term” assessment results, per MSFD sub-region, were used for further integration. Only species assessed to be “Recovering” were considered to have met the threshold (Table 3).

Table 3. Decision rule for determining threshold status of individual fish species from the long-term assessments in Common Indicator Assessment FC1.

Threshold	Assessment results from FC1		
Achieve	Recovering	-	-
Fail	Declining	Stable	Mixed
Unknown	Unknown	-	-
Not assessed	Not assessed	-	-

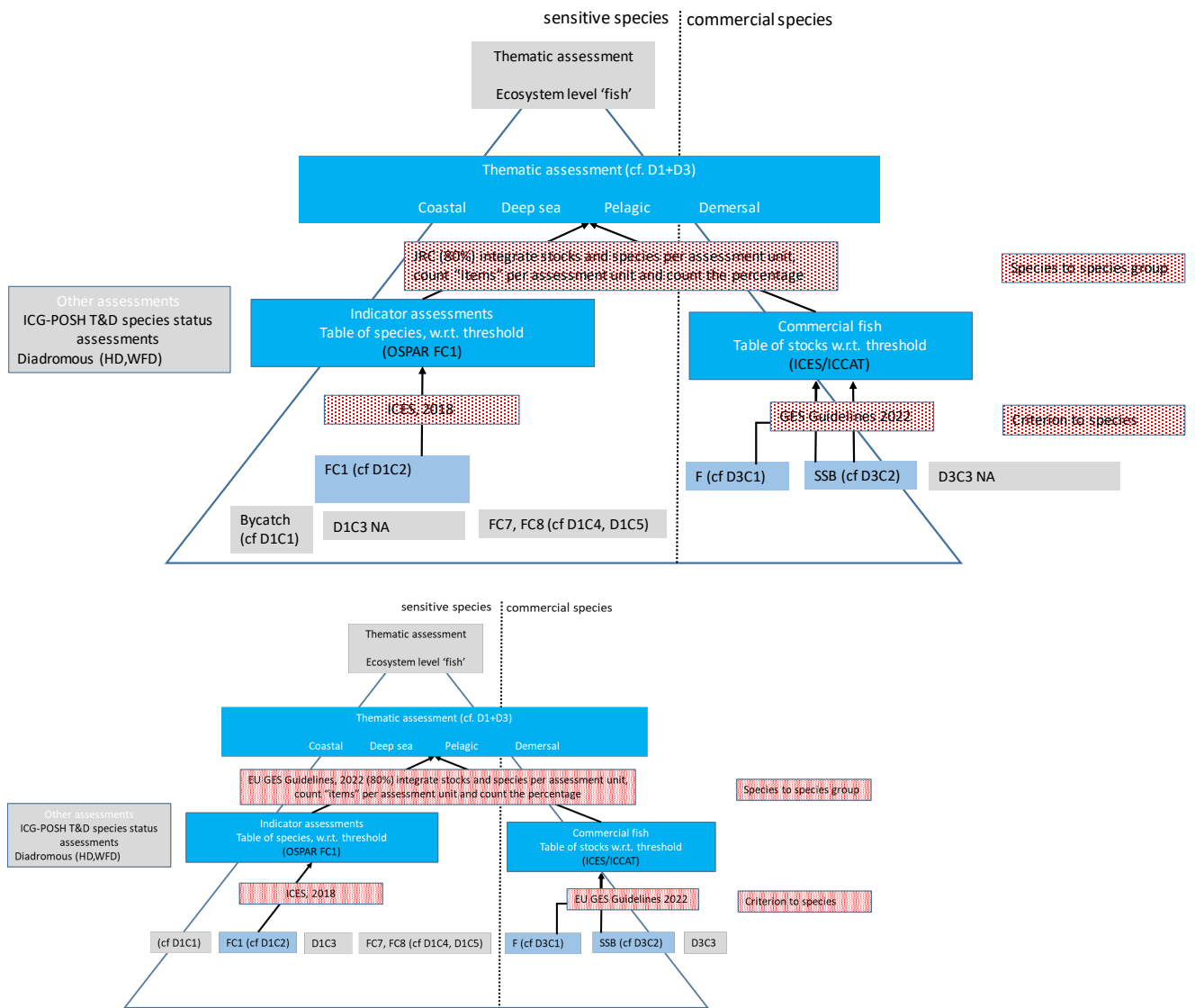


Figure 1. Schematic representation of the integration method for fish.

For commercial stocks assessed by ICES a list of relevant items was taken from the ICES Stock Information Database <https://sid.ices.dk/Default.aspx> (Appendix 1). ICES stocks excluded are detailed in Table 4 along with reasons for exclusion. In order for the integration to fully represent commercial and sensitive fish, stocks residing in areas not covered by FC1 were excluded.

Table 4. Commercial stocks assessed by ICES, but not included in the integrated fish thematic assessment status assessment.

Description	Notes
Non-fish stocks	Harp and hooded seals, shellfish Northern prawn and Norwegian lobster
Baltic fish stocks	Fish stocks present only in the HELCOM area (ICES Sub-divisions 22-32), and which do not straddle the HELCOM and OSPAR Maritime Areas.
European eel	Already assessed in FC1
Atlantic salmon	Excluded because the ICES advice does not relate to individual stocks
Stocks in areas not covered by FC1 assessments	Fish stocks present only ICES Sub-areas 1 (Barents Sea), 2 (Norwegian Sea), 5 (Iceland and Faeroe Islands), 14 (east Greenland), 10 (Azores-Macaronesia) and in the Northwest Atlantic Fisheries Organisation (NAFO) area and which are not also distributed in areas assessed under FC1
Porbeagle shark	The only stock assessed by ICES and ICCAT. ICCAT provides a more detailed assessment

Stocks of tunas, billfish and pelagic sharks in the OSPAR Maritime Area are assessed by ICCAT. These stocks are summarised in Appendix 2.

The sub-set of commercial stocks included in the OSPAR Fish Thematic Assessment integration is summarised in Appendix 3. Individual ICES stock assessment results were obtained from the ICES standard graphs database <https://standardgraphs.ices.dk/stockList.aspx>. The latest stock assessment results were used in each case, though these may have been produced in a year prior to 2022.

For ICCAT assessments, the results for each year were obtained from the relevant ICCAT Standing Committee on Research and Statistics (SCRS) reports (International Commission on the Conservation of Atlantic Tunas, 2016, 2018a, 2018b, 2020a, 2020b, 2022). The reference period for commercial species was set at 2015-2020 to cohere with that used in FC1. This is an instance where the GES guidelines were not followed (they stipulated 2016-2021). The commercial stocks' status was assessed by calculating the average of the yearly ratio of fishing mortality and stock biomass in relation to the respective MSY reference point. A stock would achieve the threshold as described in Table 5, following the 2022 GES Guidelines. If $F < F_{MSY}$ and SSB (or B) $> MSY$ Btrigger (or B_{MSY}), the condition for meeting the threshold is achieved. The exception is the set of stocks managed by an escapement strategy, where only the biomass reference point is relevant.

The yearly ratios were calculated from data obtained from ICES, or were directly available in the data presented by ICCAT. Data were included for all stocks for which an indicator value and a threshold value for fishing mortality and biomass was available. In some cases, ICES provides proxy values for these parameters, and these values were used where available. In a small number of cases, ICES provides advice in relation to agreed management plans, rather than in terms of MSY. However, in these cases ICES has validated that such advice is consistent with MSY, and can be used as a substitute. The ratio results from ICCAT are often presented as ranges. In these cases the average of the upper and lower values were used as the point estimate of either F/F_{msy} or B/B_{msy} .

The data collated for all stocks under D3 is in Appendix 6. This table summarises the species name, scientific name, group and type of each stock considered in the assessment. Data about catches, mortality and biomass are the reported for the period 2015-2020. Following the EU GES guidelines 90% of catches should be represented in the assessed species (European Commission 2022; ICES, 2022).

The total catch per area represented by the assessed stocks exceeded 90% of total landings (as taken from ICES/FAO Fish Stat database of nominal official catch statistics available here: <https://www.ices.dk/data/dataset-collections/Pages/Fish-catch-and-stock-assessment.aspx>)

Table 5. Decision rule for determining an individual stock status (“Good”, “Not good”, “Unknown”, taken from 2022 GES Guidelines (European Commission, 2022).

D3C1 (Fishing mortality)	D3C2 (stock biomass)	Stock status
Meeting the threshold values	Meeting the threshold values	
Yes	Yes	Good
Yes	No	Not good
No	Yes	Not good
Unknown; short-lived stocks managed by $B_{\text{escapement}}$	Yes	Good
Unknown; short-lived stocks managed by $B_{\text{escapement}}$	No	Not good
Unknown; all other stocks than short-lived stocks ones managed by $B_{\text{escapement}}$	Yes	Unknown
Unknown; all other stocks than short-lived stocks managed by $B_{\text{escapement}}$	No	Not good
Yes	Unknown	Unknown
No	Unknown	Not good

The rules in Table 5 above differ for stocks managed according to an escapement strategy. These stocks are presented in Appendix 5, noting that some of these are of unknown status.

Duplication between species assessed under FC1 and stocks of those species assessed by ICES was avoided. Certain fish species were not assessed in FC1 due to the availability of an alternative ICES or ICCAT third-party quantitative assessment in the relevant region (see [FC1 CEMP guidelines](#)). For some species, the 3rd party assessments were available for part, but not all, of the relevant region. In those instances, FC1 assessment was confined to surveys covering those areas not already assessed by the 3rd party. In a small number of cases, the ICES assessment has improved in 2022 (become more informative in terms of fishing mortality and biomass) than was the case when FC1 was completed (2021). The stocks in question are:

- *Lophius budegassa* ank.27.78abd FC1 excluded in CS, GNS and BBIC
- *Raja undulata* rju.27.7de FC1 excluded in CS and GNS
- *Lucoraja naevus* rjn.27.678abd FC1 excluded in CS and NS but retained for BBIC because the BBIC assessment includes ICES Divisions 8c and 9a, which are not covered by the improved ICES assessment

In these cases, the latest ICES assessment was used and the FC1 assessment excluded from integration. This exclusion was only relaxed (for *L. naevus* rjn.27.678abd), where FC1 also covered part of the range of the species beyond the area assessed by ICES. In that case the FC1 was also used, but only in an area where there was no information from ICES (Bay of Biscay and Iberian Coast).

The final integration of species (and fish stocks) to group was performed following the latest EU GES guidelines. Overall status (“good environmental status” per species group was assessed, applying a proportional method (when there are at least five items in group), it is appropriate to use 80% of all species/stocks (including those which could not be assessed). In a group with less than five assessments, ‘one-out-all-out’ should be applied (European Commission, 2022). The Assessment Units covered by the integrated assessment are:

- Bay of Biscay and Iberian Coast (BBIC)
- Greater North Sea (GNS)
- Celtic Seas (CS)
- Wider Atlantic (excluding Arctic)

The fish groups covered in the assessment are:

- Pelagic fish, including oceanic pelagic fish
- Demersal fish
- Deep-sea fish
- Coastal fish

As regards coastal fish, the assessment is not as representative as for the other groups. This is because the surveys used in both FC1 and for the ICES advice do not always cover coastal waters.

2.2 Description of the assessment units being applied

Based on a decision from OSPAR ICG-QSR ([OSPAR Agreement 2019-02](#)) the spatial assessment units for coastal fish, pelagic fish and demersal fish were the EU Marine Strategy Framework Directive (MSFD) sub-regions in the north-east Atlantic (Figure 2), noting that Norwegian, Icelandic, UK, Greenlandic and Faroese marine areas are not covered by the MSFD:

- Bay of Biscay and the Iberian Coast (BBIC)
- Greater North Sea (GNS)
- Celtic Seas (CS)

and the remainder of the northeast Atlantic, not covered by these sub-regions, but not extending to ICES Sub-areas 1,2,5 and 14:

- Termed the “Wider Atlantic”.

No integrated assessment was conducted for Macaronesia nor for OSPAR Region 1, because Common Indicator FC1 did not extend to these areas.

Based on a decision from OSPAR ICG-QSR ([OSPAR Agreement 2019-02](#)) the spatial assessment units for deep-sea fish was the entire OSPAR Maritime Region (including Macaronesia, and OSPAR Region I).

The assessment units for the individual items (stocks or species) are as per the original assessments. For ICES (Figure 2) stocks, the distribution areas do not always match the areas to which the advice for that stock relates. This is often because the management unit (total allowable catch, “TAC”) area may extend beyond a stock’s distribution. Therefore, the attachment of each ICES stock to the various regions and sub-regions (Figure 3) does not match that presented by ICES in Appendix 1, but rather is

based on the Fish EG's judgement (Appendix 3). For sensitive species, assessment units are described in the [CEMP Guidelines](#), and presented in Appendix 4.

It should be noted that many ICES/ICCAT commercial stocks are common to more than one Assessment Units. These stocks appear in results for each of these Assessment Units.

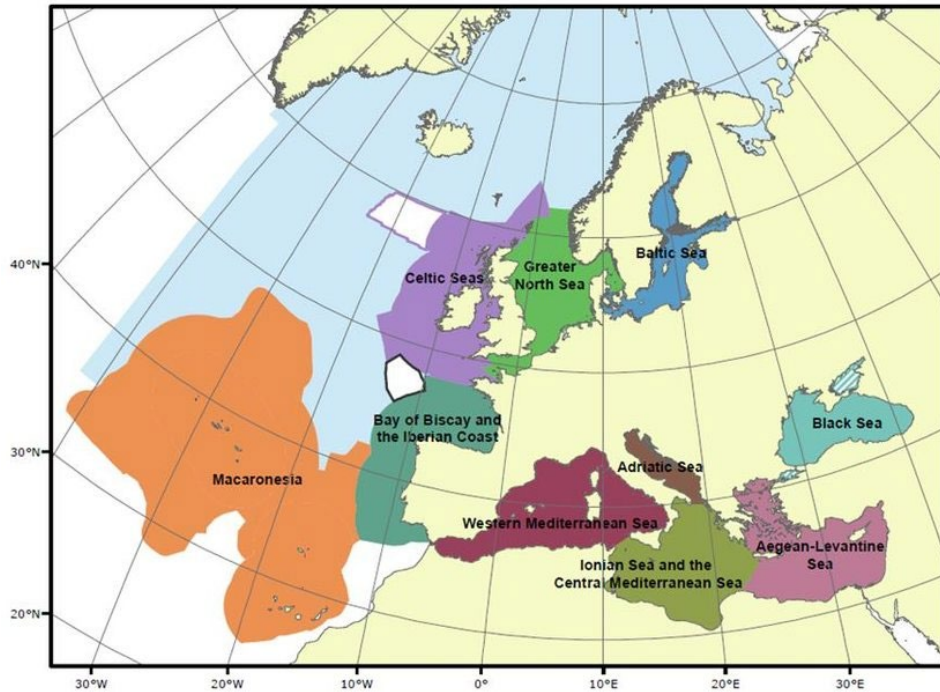


Figure 2. MSFD Regions and sub-regions.



Figure 3. ICES Sub-areas, Divisions and Sub-divisions.

2.3 Presentation of results

The results are presented for an example area in Table 6 and Figure 4. GES per fish group and Assessment Unit is expressed according to whether the relevant threshold (conditional or OAO rule) was met in each case.

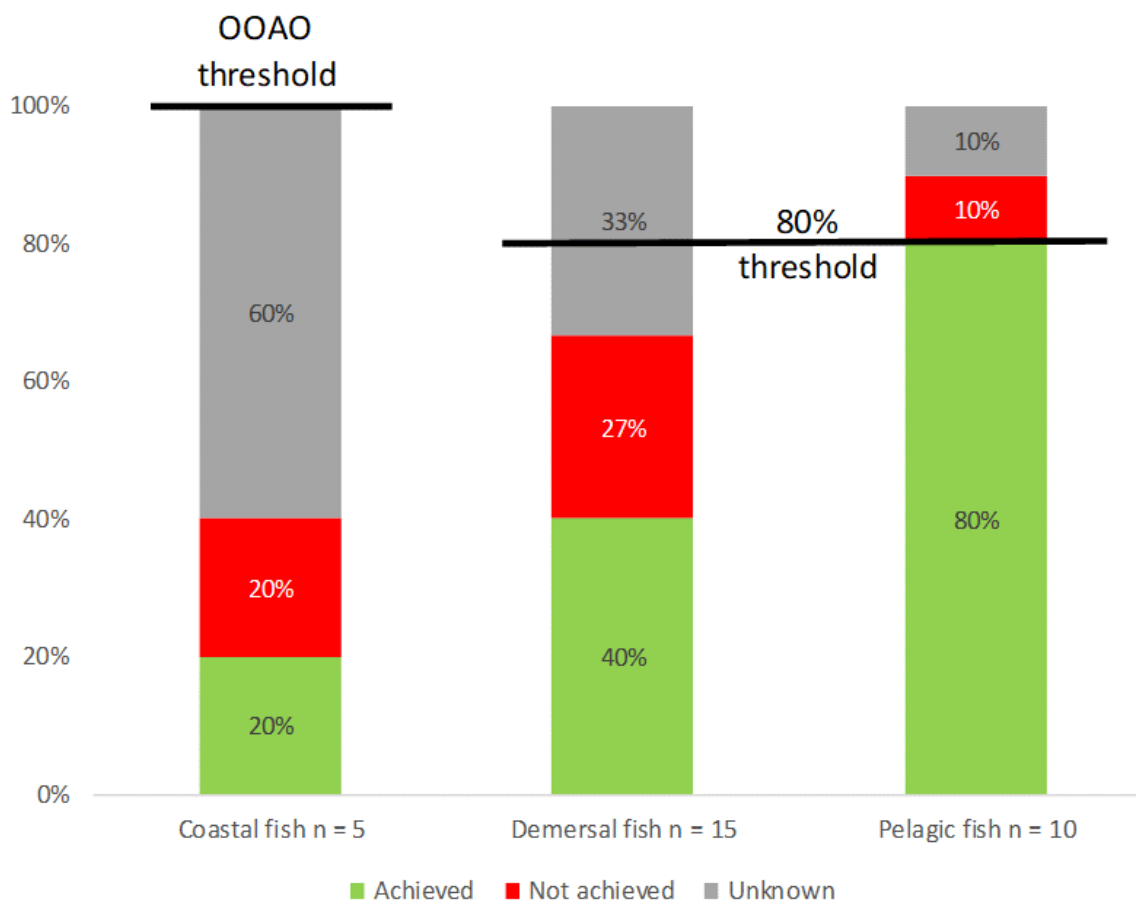


Figure 4. Results of integrated assessment of commercial and sensitive fish for a fictitious assessment unit. Threshold for good environmental status of 80% applies where number of stocks / species is greater than 5, OOA applies where the number of stocks or species is 5 or less. For illustrative purposes only.

Table 6. Results of integrated assessment of commercial and sensitive fish for a named Assessment Unit. Diadromous species are included in the Coastal Fish Group, but indicated thus* in the “Group” column. For illustrative purposes only.

Stock (where relevant)	Scientific name	Species	Group	Type	Status
bss.27.8ab	<i>Dicentrarchus labrax</i>	European seabass	Coastal	Commercial	Fail
bss.27.8c9a	<i>Dicentrarchus labrax</i>	European seabass	Coastal	Commercial	Unknown
pol.27.89a	<i>Pollachius pollachius</i>	Pollack	Coastal	Commercial	Unknown
ank.27.8c9a	<i>Lophius budegassa</i>	Blackbellied angler	Demersal	Commercial	Achieve
hke.27.3a46-8abd	<i>Merluccius merluccius</i>	European hake	Demersal	Commercial	Achieve
ldb.27.8c9a	<i>Lepidorhombus boscii</i>	Four-spot megrim	Demersal	Commercial	Achieve
mon.27.78abd	<i>Lophius piscatorius</i>	Angler(=Monk)	Demersal	Commercial	Achieve
mon.27.8c9a	<i>Lophius piscatorius</i>	Angler(=Monk)	Demersal	Commercial	Achieve
rjn.27.678abd	<i>Leucoraja naevus</i>	Cuckoo ray	Demersal	Commercial	Achieve
dgs.27.nea	<i>Squalus acanthias</i>	Spurdog	Demersal	Commercial	Fail
hke.27.8c9a	<i>Merluccius merluccius</i>	European hake	Demersal	Commercial	Fail

meg.27.7b-k8abd	<i>Lepidorhombus whiffiagonis</i>	Megrim	Demersal	Commercial	Fail
meg.27.8c9a	<i>Lepidorhombus whiffiagonis</i>	Megrim	Demersal	Commercial	Fail
gag.27.nea	<i>Galeorhinus galeus</i>	Tope shark	Demersal	Commercial	Unknown
gfb.27.nea	<i>Phycis blennoides</i>	Greater forkbeard	Demersal	Commercial	Unknown
gur.27.3-8	<i>Chelidonichthys cuculus</i>	Red gurnard	Demersal	Commercial	Unknown
ldb.27.7b-k8abd	<i>Lepidorhombus boscii</i>	Four-spot megrim	Demersal	Commercial	Unknown
lin.27.346-91214	<i>Molva molva</i>	Ling	Demersal	Commercial	Unknown
	<i>Alosa spp.</i>	Shads n.e.i.	Coastal*	Sensitive	Achieve
	<i>Anguilla anguilla</i>	European eel	Coastal*	Sensitive	Unknown
ALB-North Atlantic	<i>Thunnus alalunga</i>	Albacore	Pelagic	Commercial	Achieve
ane.27.8	<i>Engraulis encrasicolus</i>	European anchovy	Pelagic	Commercial	Achieve
ane.27.9a	<i>Engraulis encrasicolus</i>	European anchovy	Pelagic	Commercial	Achieve
BFT-E Atl/Med	<i>Thunnus thynnus</i>	Atlantic bluefin tuna	Pelagic	Commercial	Achieve
BSH-North Atlantic	<i>Prionace glauca</i>	Blue shark	Pelagic	Commercial	Achieve
hom.27.9a	<i>Trachurus trachurus</i>	Atlantic horse mackerel	Pelagic	Commercial	Achieve
mac.27.nea	<i>Scomber scombrus</i>	Atlantic mackerel	Pelagic	Commercial	Achieve
pil.27.8abd	<i>Sardina pilchardus</i>	European pilchard(=Sardine)	Pelagic	Commercial	Achieve
whb.27.1-91214	<i>Micromesistius poutassou</i>	Blue whiting(=Poutassou)	Pelagic	Commercial	Fail
agn.27.nea	<i>Squatina squatina</i>	Angel shark	Pelagic	Commercial	Unknown

2.4 Confidence assessment

The quality of the indicators is controlled by the providers (OSPAR Common Indicator FC1, ICES and ICCAT), and details are available in each case. The error structures within each of these providers is different. There is no statistical approach to combine uncertainties from indicators during integration to the level of species groups. At present, no statistical framework is developed for expressing confidence of species group assessments.

3 Change Management

Applicability and validity of the integration methods can be reviewed and developed further by the Fish EG, based on relevant policy drivers. Changes in third-party assessment outputs from ICES, ICCAT and possibly coming through the POSH process, may necessitate changes in the integration methods. If necessary, any changes could be accomplished on request from ICG-COBAM or BDC, who in turn would decide on the acceptance of the proposals.

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Appendix 1. List of all commercial stocks advised upon by ICES. Downloaded from <https://sid.ices.dk/Default.aspx>.

Stock Key Label	Stock Key Description
agn.27.nea	Angel shark (<i>Squatina squatina</i>) in subareas 1-10, 12 and 14 (the Northeast Atlantic and adjacent waters)
alf.27.nea	Alfonsinos (<i>Beryx</i> spp.) in subareas 1-10, 12 and 14 (the Northeast Atlantic and adjacent waters)
ane.27.8	Anchovy (<i>Engraulis encrasicolus</i>) in Subarea 8 (Bay of Biscay)
ane.27.9a	Anchovy (<i>Engraulis encrasicolus</i>) in Division 9.a (Atlantic Iberian waters)
anf.27.1-2	Anglerfish (<i>Lophius budegassa</i> , <i>Lophius piscatorius</i>) in subareas 1 and 2 (Northeast Arctic)
anf.27.3a46	Anglerfish (<i>Lophius budegassa</i> , <i>Lophius piscatorius</i>) in Subareas 4 and 6, and Division 3.a (North Sea, Rockall and West of Scotland, Skagerrak and Kattegat)
ank.27.78abd	Black-bellied anglerfish (<i>Lophius budegassa</i>) in Subarea 7 and divisions 8.a-b and 8.d (Celtic Seas, Bay of Biscay)
ank.27.8c9a	Black-bellied anglerfish (<i>Lophius budegassa</i>) in divisions 8.c and 9.a (Cantabrian Sea, Atlantic Iberian waters)
aru.27.123a4	Greater silver smelt (<i>Argentina silus</i>) in subareas 1, 2, and 4, and in Division 3.a (Northeast Arctic, North Sea, Skagerrak and Kattegat)
aru.27.5a14	Greater silver smelt (<i>Argentina silus</i>) in Subarea 14 and Division 5.a (East Greenland and Iceland grounds)
aru.27.5b6a	Greater silver smelt (<i>Argentina silus</i>) in divisions 5.b and 6.a (Faroes grounds and west of Scotland)
aru.27.6b7-1012	Greater silver smelt (<i>Argentina silus</i>) in subareas 7-10 and 12, and Division 6.b (other areas)
bli.27.5a14	Blue ling (<i>Molva dypterygia</i>) in Subarea 14 and Division 5.a (East Greenland and Iceland grounds)
bli.27.5b67	Blue ling (<i>Molva dypterygia</i>) in subareas 6-7 and Division 5.b (Celtic Seas and Faroes grounds)
bli.27.nea	Blue ling (<i>Molva dypterygia</i>) in Subareas 1, 2, 8, 9, and 12, and Divisions 3.a and 4.a (other areas)
bll.27.22-32	Brill (<i>Scophthalmus rhombus</i>) in subdivisions 22-32 (Baltic Sea)
bll.27.3a47de	Brill (<i>Scophthalmus rhombus</i>) in Subarea 4 and divisions 3.a and 7.d-e (North Sea, Skagerrak and Kattegat, English Channel)
boc.27.6-8	Boarfish (<i>Capros aper</i>) in subareas 6-8 (Celtic Seas, English Channel, and Bay of Biscay)
bsf.27.nea	Black scabbardfish (<i>Aphanopus carbo</i>) in subareas 1, 2, 4-8, 10, and 14, and divisions 3.a, 9.a, and 12.b (Northeast Atlantic and Arctic Ocean)
bsk.27.nea	Basking shark (<i>Cetorhinus maximus</i>) in Subareas 1-10, 12 and 14 (Northeast Atlantic and adjacent waters)
bss.27.4bc7ad-h	Seabass (<i>Dicentrarchus labrax</i>) in Divisions 4.b-c, 7.a, and 7.d-h (central and southern North Sea, Irish Sea, English Channel, Bristol Channel, and Celtic Sea)
bss.27.6a7bj	Seabass (<i>Dicentrarchus labrax</i>) in divisions 6.a, 7.b, and 7.j (West of Scotland, West of Ireland, eastern part of southwest of Ireland)

bss.27.8ab	Seabass (<i>Dicentrarchus labrax</i>) in divisions 8.a-b (northern and central Bay of Biscay)
bss.27.8c9a	Seabass (<i>Dicentrarchus labrax</i>) in divisions 8.c and 9.a (southern Bay of Biscay and Atlantic Iberian waters)
bwp.27.2729-32	Baltic flounder (<i>Platichthys solemdali</i>) in subdivisions 27 and 29–32 (northern central and northern Baltic Sea)
bzq.27.2425	Flounder (<i>Platichthys</i> spp) in subdivisions 24 and 25 (west of Bornholm and southwestern central Baltic)
bzq.27.2628	Flounder (<i>Platichthys</i> spp) in subdivisions 26 and 28 (east of Gotland and Gulf of Gdansk)
caa.27.5a	Atlantic wolffish (<i>Anarhichas lupus</i>) in Division 5.a (Iceland grounds)
cap.27.1-2	Capelin (<i>Mallotus villosus</i>) in subareas 1 and 2 (Northeast Arctic), excluding Division 2.a west of 5°W (Barents Sea capelin)
cap.27.2a514	Capelin (<i>Mallotus villosus</i>) in subareas 5 and 14 and Division 2.a west of 5°W (Iceland and Faroes grounds, East Greenland, Jan Mayen area)
cod.21.1	Cod (<i>Gadus morhua</i>) in NAFO Subarea 1, inshore (West Greenland cod)
cod.21.1a-e	Cod (<i>Gadus morhua</i>) in NAFO divisions 1.A-E, offshore (West Greenland)
cod.2127.1f14	Cod (<i>Gadus morhua</i>) in ICES Subarea 14 and NAFO Division 1.F (East Greenland, South Greenland)
cod.27.1-2	Cod (<i>Gadus morhua</i>) in subareas 1 and 2 (Northeast Arctic)
cod.27.1-2.coastN	Cod (<i>Gadus morhua</i>) in subareas 1 and 2, north of 67°N (Norwegian Sea and Barents Sea), northern Norwegian coastal cod
cod.27.2.coastS	Cod (<i>Gadus morhua</i>) in Subarea 2 between 62°N and 67°N (Norwegian Sea), southern Norwegian coastal cod
cod.27.21	Cod (<i>Gadus morhua</i>) in Subdivision 21 (Kattegat)
cod.27.22-24	Cod (<i>Gadus morhua</i>) in subdivisions 22-24, western Baltic stock (western Baltic Sea)
cod.27.24-32	Cod (<i>Gadus morhua</i>) in subdivisions 24-32, eastern Baltic stock (eastern Baltic Sea)
cod.27.47d20	Cod (<i>Gadus morhua</i>) in Subarea 4, Division 7.d, and Subdivision 20 (North Sea, eastern English Channel, Skagerrak)
cod.27.5a	Cod (<i>Gadus morhua</i>) in Division 5.a (Iceland grounds)
cod.27.5b1	Cod (<i>Gadus morhua</i>) in Subdivision 5.b.1 (Faroe Plateau)
cod.27.5b2	Cod (<i>Gadus morhua</i>) in Subdivision 5.b.2 (Faroe Bank)
cod.27.6a	Cod (<i>Gadus morhua</i>) in Division 6.a (West of Scotland)
cod.27.6b	Cod (<i>Gadus morhua</i>) in Division 6.b (Rockall)
cod.27.7a	Cod (<i>Gadus morhua</i>) in Division 7.a (Irish Sea)
cod.27.7e-k	Cod (<i>Gadus morhua</i>) in divisions 7.e-k (eastern English Channel and southern Celtic Seas)
cyo.27.nea	Portuguese dogfish (<i>Centroscymnus coelolepis</i> , <i>Centrophorus squamosus</i>) in subareas 1-10, 12 and 14 (the Northeast Atlantic and adjacent waters)
dab.27.22-32	Dab (<i>Limanda limanda</i>) in subdivisions 22-32 (Baltic Sea)
dab.27.3a4	Dab (<i>Limanda limanda</i>) in Subarea 4 and Division 3.a (North Sea, Skagerrak and Kattegat)

dgs.27.nea	Spurdog (<i>Squalus acanthias</i>) in Subareas 1-10, 12 and 14 (the Northeast Atlantic and adjacent waters)
ele.2737.nea	European eel (<i>Anguilla anguilla</i>) throughout its natural range
fle.27.2223	Flounder (<i>Platichthys flesus</i>) in subdivisions 22 and 23 (Belt Seas and the Sound)
fle.27.3a4	Flounder (<i>Platichthys flesus</i>) in Subarea 4 and Division 3.a (North Sea, Skagerrak and Kattegat)
gag.27.nea	Tope (<i>Galeorhinus galeus</i>) in subareas 1-10, 12 and 14 (the Northeast Atlantic and adjacent waters)
gfb.27.nea	Greater forkbeard (<i>Phycis blennoides</i>) in subareas 1-10, 12 and 14 (the Northeast Atlantic and adjacent waters)
ghl.27.1-2	Greenland halibut (<i>Reinhardtius hippoglossoides</i>) in subareas 1 and 2 (Northeast Arctic)
ghl.27.561214	Greenland halibut (<i>Reinhardtius hippoglossoides</i>) in subareas 5, 6, 12, and 14 (Iceland and Faroes grounds, West of Scotland, North of Azores, East of Greenland)
gug.27.3a47d	Grey gurnard (<i>Eutrigla gurnardus</i>) in Subarea 4 and divisions 7.d and 3.a (North Sea, eastern English Channel, Skagerrak and Kattegat)
guq.27.nea	Leafscale gulper shark (<i>Centrophorus squamosus</i>) in subareas 1-10, 12 and 14 (the Northeast Atlantic and adjacent waters)
gur.27.3-8	Red gurnard (<i>Chelidonichthys cuculus</i>) in subareas 3-8 (Northeast Atlantic)
had.27.1-2	Haddock (<i>Melanogrammus aeglefinus</i>) in subareas 1 and 2 (Northeast Arctic)
had.27.46a20	Haddock (<i>Melanogrammus aeglefinus</i>) in Subarea 4, Division 6.a, and Subdivision 20 (North Sea, West of Scotland, Skagerrak)
had.27.5a	Haddock (<i>Melanogrammus aeglefinus</i>) in Division 5.a (Iceland grounds)
had.27.5b	Haddock (<i>Melanogrammus aeglefinus</i>) in Division 5.b (Faroes grounds)
had.27.6b	Haddock (<i>Melanogrammus aeglefinus</i>) in Division 6.b (Rockall)
had.27.7a	Haddock (<i>Melanogrammus aeglefinus</i>) in Division 7.a (Irish Sea)
had.27.7b-k	Haddock (<i>Melanogrammus aeglefinus</i>) in Divisions 7.b-k (southern Celtic Seas and English Channel)
her.27.1-24a514a	Herring (<i>Clupea harengus</i>) in subareas 1, 2, 5 and divisions 4.a and 14.a, Norwegian spring-spawning herring (the Northeast Atlantic and Arctic Ocean)
her.27.20-24	Herring (<i>Clupea harengus</i>) in subdivisions 20-24, spring spawners (Skagerrak, Kattegat, and western Baltic)
her.27.25-2932	Herring (<i>Clupea harengus</i>) in subdivisions 25-29 and 32, excluding the Gulf of Riga (central Baltic Sea)
her.27.28	Herring (<i>Clupea harengus</i>) in Subdivision 28.1 (Gulf of Riga)
her.27.3031	Herring (<i>Clupea harengus</i>) in Subdivisions 30 and 31 (Gulf of Bothnia)
her.27.3a47d	Herring (<i>Clupea harengus</i>) in Subarea 4 and divisions 3.a and 7.d, autumn spawners (North Sea, Skagerrak and Kattegat, eastern English Channel)
her.27.5a	Herring (<i>Clupea harengus</i>) in Division 5.a, summer-spawning herring (Iceland grounds)

her.27.6a7bc	Herring (<i>Clupea harengus</i>) in divisions 6.a and 7.b-c (West of Scotland, West of Ireland)
her.27.6aN	Herring (<i>Clupea harengus</i>) in Division 6.a North (North of 56°00'N and East of 07°00'W), autumn spawners (West of Scotland)
her.27.6aS7bc	Herring (<i>Clupea harengus</i>) in Division 6.a South (South of 56°00'N and West of 07°00'W) and 7.b-c (northwest and west of Ireland)
her.27.irls	Herring (<i>Clupea harengus</i>) in divisions 7.a South of 52°30'N, 7.g-h, and 7.j-k (Irish Sea, Celtic Sea, and southwest of Ireland)
her.27.nirs	Herring (<i>Clupea harengus</i>) in Division 7.a North of 52°30'N (Irish Sea)
hke.27.3a46-8abd	Hake (<i>Merluccius merluccius</i>) in subareas 4, 6, and 7, and divisions 3.a, 8.a-b, and 8.d, Northern stock (Greater North Sea, Celtic Seas, and the northern Bay of Biscay)
hke.27.8c9a	Hake (<i>Merluccius merluccius</i>) in divisions 8.c and 9.a, Southern stock (Cantabrian Sea and Atlantic Iberian waters)
hom.27.2a4a5b6a7a-ce-k8	Horse mackerel (<i>Trachurus trachurus</i>) in Subarea 8 and divisions 2.a, 4.a, 5.b, 6.a, 7.a-c,e-k (the Northeast Atlantic)
hom.27.3a4bc7d	Horse mackerel (<i>Trachurus trachurus</i>) in divisions 3.a, 4.b-c, and 7.d (Skagerrak and Kattegat, southern and central North Sea, eastern English Channel)
hom.27.9a	Horse mackerel (<i>Trachurus trachurus</i>) in Division 9.a (Atlantic Iberian waters)
jaa.27.10a2	Blue jack mackerel (<i>Trachurus picturatus</i>) in Subdivision 10.a.2 (Azores grounds)
ldb.27.7b-k8abd	Four-spot megrim (<i>Lepidorhombus boscii</i>) in divisions 7.b-k, 8.a-b, and 8.d (west and southwest of Ireland, Bay of Biscay)
ldb.27.8c9a	Four-spot megrim (<i>Lepidorhombus boscii</i>) in divisions 8.c and 9.a (southern Bay of Biscay and Atlantic Iberian waters East)
lem.27.3a47d	Lemon sole (<i>Microstomus kitt</i>) in Subarea 4 and divisions 3.a and 7.d (North Sea, Skagerrak and Kattegat, eastern English Channel)
lez.27.4a6a	Megrim (<i>Lepidorhombus</i> spp.) in divisions 4.a and 6.a (northern North Sea, West of Scotland)
lez.27.6b	Megrim (<i>Lepidorhombus</i> spp.) in Division 6.b (Rockall)
lin.27.1-2	Ling (<i>Molva molva</i>) in subareas 1 and 2 (Northeast Arctic)
lin.27.346-91214	Ling (<i>Molva molva</i>) in subareas 3,4, 6–9, 12, and 14 (Northeast Atlantic and Arctic Ocean)
lin.27.5a	Ling (<i>Molva molva</i>) in Division 5.a (Iceland grounds)
lin.27.5b	Ling (<i>Molva molva</i>) in Division 5.b (Faroes grounds)
mac.27.nea	Mackerel (<i>Scomber scombrus</i>) in subareas 1-8 and 14 and division 9.a (the Northeast Atlantic and adjacent waters)
meg.27.7b-k8abd	Megrim (<i>Lepidorhombus whiffiagonis</i>) in divisions 7.b-k, 8.a-b, and 8.d (west and southwest of Ireland, Bay of Biscay)
meg.27.8c9a	Megrim (<i>Lepidorhombus whiffiagonis</i>) in divisions 8.c and 9.a (Cantabrian Sea and Atlantic Iberian waters)
mon.27.78abd	White anglerfish (<i>Lophius piscatorius</i>) in Subarea 7 and divisions 8.a-b and 8.d (Celtic Seas, Bay of Biscay)

mon.27.8c9a	White anglerfish (<i>Lophius piscatorius</i>) in divisions 8.c and 9.a (Cantabrian Sea and Atlantic Iberian waters)
mur.27.3a47d	Striped red mullet (<i>Mullus surmuletus</i>) in Subarea 4 and divisions 7.d and 3.a (North Sea, eastern English Channel, Skagerrak and Kattegat)
mur.27.67a-ce-k89a	Striped red mullet (<i>Mullus surmuletus</i>) in subareas 6 and 8, and divisions 7.a-c, 7.e-k, and 9.a (North Sea, Bay of Biscay, southern Celtic Seas, and Atlantic Iberian waters)
nep.27.4outFU	Norway lobster (<i>Nephrops norvegicus</i>) in Subarea 4, outside the functional units (North Sea)
nep.27.6aoutFU	Norway lobster (<i>Nephrops norvegicus</i>) in Division 6.a, outside the functional units (West of Scotland)
nep.27.7outFU	Norway lobster (<i>Nephrops norvegicus</i>) in Subarea 7, outside the functional units (southern Celtic Seas, southwest of Ireland)
nep.fu.10	Norway lobster (<i>Nephrops norvegicus</i>) in Division 4.a, Functional Unit 10 (northern North Sea, Noup)
nep.fu.11	Norway lobster (<i>Nephrops norvegicus</i>) in Division 6.a, Functional Unit 11 (West of Scotland, North Minch)
nep.fu.12	Norway lobster (<i>Nephrops norvegicus</i>) in Division 6.a, Functional Unit 12 (West of Scotland, South Minch)
nep.fu.13	Norway lobster (<i>Nephrops norvegicus</i>) in Division 6.a, Functional Unit 13 (West of Scotland, the Firth of Clyde and Sound of Jura)
nep.fu.14	Norway lobster (<i>Nephrops norvegicus</i>) in Division 7.a, Functional Unit 14 (Irish Sea, East)
nep.fu.15	Norway lobster (<i>Nephrops norvegicus</i>) in Division 7.a, Functional Unit 15 (Irish Sea, West)
nep.fu.16	Norway lobster (<i>Nephrops norvegicus</i>) in divisions 7.b-c and 7.j-k, Functional Unit 16 (west and southwest of Ireland, Porcupine Bank)
nep.fu.17	Norway lobster (<i>Nephrops norvegicus</i>) in Division 7.b, Functional Unit 17 (west of Ireland, Aran grounds)
nep.fu.19	Norway lobster (<i>Nephrops norvegicus</i>) in divisions 7.a, 7.g, and 7.j, Functional Unit 19 (Irish Sea, Celtic Sea, eastern part of southwest of Ireland)
nep.fu.2021	Norway lobster (<i>Nephrops norvegicus</i>) in divisions 7.g and 7.h, functional units 20 and 21 (Celtic Sea)
nep.fu.22	Norway lobster (<i>Nephrops norvegicus</i>) in divisions 7.f and 7.g, Functional Unit 22 (Celtic Sea, Bristol Channel)
nep.fu.2324	Norway lobster (<i>Nephrops norvegicus</i>) in divisions 8.a and 8.b, Functional Units 23-24 (northern and central Bay of Biscay)
nep.fu.25	Norway lobster (<i>Nephrops norvegicus</i>) in Division 8.c, Functional Unit 25 (southern Bay of Biscay and northern Galicia)
nep.fu.2627	Norway lobster (<i>Nephrops norvegicus</i>) in Division 9.a, Functional Units 26-27 (Atlantic Iberian waters East, western Galicia, and northern Portugal)
nep.fu.2829	Norway lobster (<i>Nephrops norvegicus</i>) in Division 9.a, Functional Units 28-29 (Atlantic Iberian waters East and southwestern and southern Portugal)
nep.fu.3-4	Norway lobster (<i>Nephrops norvegicus</i>) in Division 3.a, Functional units 3 and 4 (Skagerrak and Kattegat)

nep.fu.30	Norway lobster (<i>Nephrops norvegicus</i>) in Division 9.a, Functional Unit 30 (Atlantic Iberian waters East and Gulf of Cadiz)
nep.fu.31	Norway lobster (<i>Nephrops norvegicus</i>) in Division 8.c, Functional Unit 31 (southern Bay of Biscay and Cantabrian Sea)
nep.fu.32	Norway lobster (<i>Nephrops norvegicus</i>) in Division 4.a, Functional Unit 32 (northern North Sea, Norway Deep)
nep.fu.33	Norway lobster (<i>Nephrops norvegicus</i>) in Division 4.b, Functional Unit 33 (central North Sea, Horn's Reef)
nep.fu.34	Norway lobster (<i>Nephrops norvegicus</i>) in Division 4.b, Functional Unit 34 (central North Sea, Devil's Hole)
nep.fu.5	Norway lobster (<i>Nephrops norvegicus</i>) in divisions 4.b and 4.c, Functional Unit 5 (central and southern North Sea, Botney Cut-Silver Pit)
nep.fu.6	Norway lobster (<i>Nephrops norvegicus</i>) in Division 4.b, Functional Unit 6 (central North Sea, Farn Deep)
nep.fu.7	Norway lobster (<i>Nephrops norvegicus</i>) in Division 4.a, Functional Unit 7 (northern North Sea, Fladen Ground)
nep.fu.8	Norway lobster (<i>Nephrops norvegicus</i>) in Division 4.b, Functional Unit 8 (central North Sea, Firth of Forth)
nep.fu.9	Norway lobster (<i>Nephrops norvegicus</i>) in Division 4.a, Functional Unit 9 (central North Sea, Moray Firth)
nop.27.3a4	Norway pout (<i>Trisopterus esmarkii</i>) in Subarea 4 and Division 3.a (North Sea, Skagerrak and Kattegat)
nop.27.6a	Norway pout (<i>Trisopterus esmarkii</i>) in Division 6.a
ory.27.nea	Orange roughy (<i>Hoplostethus atlanticus</i>) in subareas 1-10, 12 and 14 (the Northeast Atlantic and adjacent waters)
pil.27.7	Sardine (<i>Sardina pilchardus</i>) in Subarea 7 (Southern Celtic Seas, English Channel)
pil.27.8abd	Sardine (<i>Sardina pilchardus</i>) in divisions 8.a-b and 8.d (Bay of Biscay)
pil.27.8c9a	Sardine (<i>Sardina pilchardus</i>) in divisions 8.c and 9.a (Cantabrian Sea and Atlantic Iberian waters)
ple.27.21-23	Plaice (<i>Pleuronectes platessa</i>) in subdivisions 21-23 (Kattegat, Belt Seas, and the Sound)
ple.27.24-32	Plaice (<i>Pleuronectes platessa</i>) in subdivisions 24-32 (Baltic Sea, excluding the Sound and Belt Seas)
ple.27.420	Plaice (<i>Pleuronectes platessa</i>) in Subarea 4 (North Sea) and Subdivision 20 (Skagerrak)
ple.27.5a	Plaice (<i>Pleuronectes platessa</i>) in Division 5.a (Iceland grounds)
ple.27.7a	Plaice (<i>Pleuronectes platessa</i>) in Division 7.a (Irish Sea)
ple.27.7bc	Plaice (<i>Pleuronectes platessa</i>) in divisions 7.b-c (West of Ireland)
ple.27.7d	Plaice (<i>Pleuronectes platessa</i>) in Division 7.d (eastern English Channel)
ple.27.7e	Plaice (<i>Pleuronectes platessa</i>) in Division 7.e (western English Channel)
ple.27.7fg	Plaice (<i>Pleuronectes platessa</i>) in divisions 7.f and 7.g (Bristol Channel, Celtic Sea)
ple.27.7h-k	Plaice (<i>Pleuronectes platessa</i>) in divisions 7.h-k (Celtic Sea South, southwest of Ireland)

ple.27.89a	Plaice (<i>Pleuronectes platessa</i>) in Subarea 8 and Division 9.a (Bay of Biscay and Atlantic Iberian waters)
pok.27.1-2	Saithe (<i>Pollachius virens</i>) in subareas 1 and 2 (Northeast Arctic)
pok.27.3a46	Saithe (<i>Pollachius virens</i>) in Subareas 4, 6 and Division 3.a (North Sea, Rockall and West of Scotland, Skagerrak and Kattegat)
pok.27.5a	Saithe (<i>Pollachius virens</i>) in Division 5.a (Iceland grounds)
pok.27.5b	Saithe (<i>Pollachius virens</i>) in Division 5.b (Faroes grounds)
pol.27.3a4	Pollack (<i>Pollachius pollachius</i>) in Subarea 4 and Division 3.a (North Sea, Skagerrak and Kattegat)
pol.27.67	Pollack (<i>Pollachius pollachius</i>) in subareas 6-7 (Celtic Seas and the English Channel)
pol.27.89a	Pollack (<i>Pollachius pollachius</i>) in Subarea 8 and Division 9.a (Bay of Biscay and Atlantic Iberian waters)
por.27.nea	Porbeagle (<i>Lamna nasus</i>) in subareas 1-10, 12 and 14 (the Northeast Atlantic and adjacent waters)
pra.27.1-2	Northern shrimp (<i>Pandalus borealis</i>) in subareas 1 and 2 (Northeast Arctic)
pra.27.3a4a	Northern shrimp (<i>Pandalus borealis</i>) in divisions 3.a and 4.a East (Skagerrak and Kattegat and northern North Sea in the Norwegian Deep)
pra.27.4a	Northern shrimp (<i>Pandalus borealis</i>) in Division 4.a West (northern North Sea, Fladen Ground)
raj.27.1012	Rays and skates (<i>Rajidae</i>) (mainly thornback ray (<i>Raja clavata</i>)) in subareas 10 and 12 (Azores grounds and north of Azores)
raj.27.3a47d	Other rays and skates (<i>Rajidae</i>) in Subarea 4 and in divisions 3.a and 7.d (North Sea, Skagerrak, Kattegat, and eastern English Channel)
raj.27.67a-ce-k	Other rays and skates (<i>Rajiformes</i>) in Subarea 6 and divisions 7.a-c and 7.e-k (Rockall, West of Scotland, Celtic Sea and western English Channel)
raj.27.89a	Other rays and skates (<i>Rajidae</i>) in Subarea 8 and Division 9.a (Bay of Biscay and Atlantic Iberian waters)
reb.2127.dp	Beaked redfish (<i>Sebastes mentella</i>) in ICES subareas 5, 12, and 14 (Iceland and Faroe grounds, North of Azores, East of Greenland) and NAFO subareas 1 and 2 (deep pelagic stock > 500 m)
reb.2127.sp	Beaked redfish (<i>Sebastes mentella</i>) in ICES subareas 5, 12, and 14 (Iceland and Faroe grounds, North of Azores, East of Greenland) and NAFO subareas 1 and 2 (shallow pelagic stock < 500 m)
reb.27.1-2	Beaked redfish (<i>Sebastes mentella</i>) in subareas 1 and 2 (Northeast Arctic)
reb.27.14b	Beaked redfish (<i>Sebastes mentella</i>) in Division 14.b, demersal (Southeast Greenland)
reb.27.5a14	Beaked redfish (<i>Sebastes mentella</i>) in Subarea 14 and Division 5.a, Icelandic slope stock (East of Greenland, Iceland grounds)
reg.27.1-2	Golden redfish (<i>Sebastes norvegicus</i>) in subareas 1 and 2 (Northeast Arctic)
reg.27.561214	Golden redfish (<i>Sebastes norvegicus</i>) in subareas 5, 6, 12, and 14 (Iceland and Faroes grounds, West of Scotland, North of Azores, East of Greenland)
rhg.27.nea	Roughhead grenadier (<i>Macrourus berglax</i>) in subareas 5-8, 10, 12 and 14 (Northeast Atlantic and Arctic Ocean)

rja.27.nea	White skate (<i>Rostroraja alba</i>) in subareas 1-10, 12 and 14 (the Northeast Atlantic and adjacent waters)
rjb.27.3a4	Common skate complex (Blue skate (<i>Dipturus batis</i>) and flapper skate (<i>Dipturus intermedius</i>) in Subarea 4 and Division 3.a (North Sea, Skagerrak and Kattegat)
rjb.27.67a-ce-k	Common skate complex (Blue skate (<i>Dipturus batis</i>) and flapper skate (<i>Dipturus intermedius</i>) in Subarea 6 and divisions 7.a–c and 7.e–k (Celtic Seas and western English Channel)
rjb.27.89a	Common skate complex (Blue skate (<i>Dipturus batis</i>) and flapper skate (<i>Dipturus intermedius</i>) in Subarea 8 and Division 9.a (Bay of Biscay and Atlantic Iberian waters)
rjc.27.3a47d	Thornback ray (<i>Raja clavata</i>) in Subarea 4 and in divisions 3.a and 7.d (North Sea, Skagerrak, Kattegat, and eastern English Channel)
rjc.27.6	Thornback ray (<i>Raja clavata</i>) in Subarea 6 (West of Scotland)
rjc.27.7afg	Thornback ray (<i>Raja clavata</i>) in divisions 7.a and 7.f-g (Irish Sea, Bristol Channel, Celtic Sea North)
rjc.27.7e	Thornback ray (<i>Raja clavata</i>) in Division 7.e (western English Channel)
rjc.27.8abd	Thornback ray (<i>Raja clavata</i>) in divisions 8.a-b and 8.d (Bay of Biscay)
rjc.27.8c	Thornback ray (<i>Raja clavata</i>) in Division 8.c (Cantabrian Sea)
rjc.27.9a	Thornback ray (<i>Raja clavata</i>) in Division 9.a (Atlantic Iberian waters)
rje.27.7de	Small-eyed ray (<i>Raja microocellata</i>) in divisions 7.d and 7.e (English Channel)
rje.27.7fg	Small-eyed ray (<i>Raja microocellata</i>) in divisions 7.f and 7.g (Bristol Channel, Celtic Sea North)
rjf.27.67	Shagreen ray (<i>Leucoraja fullonica</i>) in subareas 6-7 (West of Scotland, southern Celtic Seas, English Channel)
rjh.27.4a6	Blonde ray (<i>Raja brachyura</i>) in Subarea 6 and Division 4.a (North Sea and West of Scotland)
rjh.27.4c7d	Blonde ray (<i>Raja brachyura</i>) in divisions 4.c and 7.d (southern North Sea and eastern English Channel)
rjh.27.7afg	Blonde ray (<i>Raja brachyura</i>) in divisions 7.a and 7.f-g (Irish Sea, Bristol Channel, Celtic Sea North)
rjh.27.7e	Blonde ray (<i>Raja brachyura</i>) in Division 7.e (western English Channel)
rjh.27.9a	Blonde ray (<i>Raja brachyura</i>) in Division 9.a (Atlantic Iberian waters)
rji.27.67	Sandy ray (<i>Leucoraja circularis</i>) in subareas 6-7 (West of Scotland, southern Celtic Seas, English Channel)
rjm.27.3a47d	Spotted ray (<i>Raja montagui</i>) in Subarea 4 and Divisions 3.a and 7.d (North Sea, Skagerrak, Kattegat, and eastern English Channel)
rjm.27.67bj	Spotted ray (<i>Raja montagui</i>) in Subarea 6 and divisions 7.b and 7.j (West of Scotland, west and southwest of Ireland)
rjm.27.7ae-h	Spotted ray (<i>Raja montagui</i>) in divisions 7.a and 7.e-h (southern Celtic Seas and western English Channel)
rjm.27.8	Spotted ray (<i>Raja montagui</i>) in Subarea 8 (Bay of Biscay)
rjm.27.9a	Spotted ray (<i>Raja montagui</i>) in Division 9.a (Atlantic Iberian waters)

rjn.27.3a4	Cuckoo ray (<i>Leucoraja naevus</i>) in Subarea 4 and Division 3.a (North Sea, Skagerrak and Kattegat)
rjn.27.678abd	Cuckoo ray (<i>Leucoraja naevus</i>) in subareas 6-7 and divisions 8.a-b and 8.d (West of Scotland, southern Celtic Seas, and western English Channel, Bay of Biscay)
rjn.27.8c	Cuckoo ray (<i>Leucoraja naevus</i>) in Division 8.c (Cantabrian Sea)
rjn.27.9a	Cuckoo ray (<i>Leucoraja naevus</i>) in Division 9.a (Atlantic Iberian waters)
rjr.27.23a4	Starry ray (<i>Amblyraja radiata</i>) in Subareas 2 and 4, and Division 3.a (Norwegian Sea, North Sea, Skagerrak and Kattegat)
rju.27.7bj	Undulate ray (<i>Raja undulata</i>) in divisions 7.b and 7.j (west and southwest of Ireland)
rju.27.7de	Undulate ray (<i>Raja undulata</i>) in divisions 7.d and 7.e (English Channel)
rju.27.8ab	Undulate ray (<i>Raja undulata</i>) in divisions 8.a-b (northern and central Bay of Biscay)
rju.27.8c	Undulate ray (<i>Raja undulata</i>) in Division 8.c (Cantabrian Sea)
rju.27.9a	Undulate ray (<i>Raja undulata</i>) in Division 9.a (Atlantic Iberian waters)
rng.27.1245a8914ab	Roundnose grenadier (<i>Coryphaenoides rupestris</i>) in subareas 1, 2, 4, 8, and 9, Division 14.a, and in subdivisions 14.b.2 and 5.a.2 (Northeast Atlantic and Arctic Ocean)
rng.27.3a	Roundnose grenadier (<i>Coryphaenoides rupestris</i>) in Division 3.a (Skagerrak and Kattegat)
rng.27.5a10b12ac14b	Roundnose grenadier (<i>Coryphaenoides rupestris</i>) in Divisions 10.b and 12.c, and Subdivisions 12.a.1, 14.b.1, and 5.a.1 (Oceanic Northeast Atlantic and northern Reykjanes Ridge)
rng.27.5b6712b	Roundnose grenadier (<i>Coryphaenoides rupestris</i>) in subareas 6-7 and divisions 5.b and 12.b (Celtic Seas and the English Channel, Faroes grounds, and western Hatton Bank)
sal.27.22-31	Salmon (<i>Salmo salar</i>) in subdivisions 22-31 (Baltic Sea, excluding the Gulf of Finland)
sal.27.32	Salmon (<i>Salmo salar</i>) in Subdivision 32 (Gulf of Finland)
sal.nac.all	Salmon (<i>Salmo salar</i>) from North America
sal.neac.all	Salmon (<i>Salmo salar</i>) in Northeast Atlantic and Arctic Ocean
sal.wgc.all	Salmon (<i>Salmo salar</i>) in Subarea 14 and NAFO division 1 (east and west of Greenland)
san.27.6a	Sandeel (<i>Ammodytes</i> spp.) in Division 6.a (West of Scotland)
san.sa.1r	Sandeel (<i>Ammodytes</i> spp.) in Divisions 4.b and 4.c, Sandeel Area 1r (central and southern North Sea, Dogger Bank)
san.sa.2r	Sandeel (<i>Ammodytes</i> spp.) in Divisions 4.b and 4.c, and Subdivision 20, Sandeel Area 2r (Skagerrak, central and southern North Sea)
san.sa.3r	Sandeel (<i>Ammodytes</i> spp.) in Divisions 4.a and 4.b, and Subdivision 20, Sandeel Area 3r (Skagerrak, northern and central North Sea)
san.sa.4	Sandeel (<i>Ammodytes</i> spp.) in divisions 4.a and 4.b, Sandeel Area 4 (northern and central North Sea)
san.sa.5r	Sandeel (<i>Ammodytes</i> spp.) in Division 4.a, Sandeel Area 5r (northern North Sea, Viking and Bergen banks)

san.sa.6	Sandeel (<i>Ammodytes</i> spp.) in subdivisions 20-22, Sandeel Area 6 (Kattegat)
san.sa.7r	Sandeel (<i>Ammodytes</i> spp.) in Division 4.a, Sandeel Area 7r (northern North Sea, Shetland)
sbr.27.10	Blackspot seabream (<i>Pagellus bogaraveo</i>) in Subarea 10 (Azores grounds)
sbr.27.6-8	Blackspot seabream (<i>Pagellus bogaraveo</i>) in subareas 6-8 (Celtic Seas, the English Channel, and Bay of Biscay)
sbr.27.9	Blackspot seabream (<i>Pagellus bogaraveo</i>) in Subarea 9 (Atlantic Iberian waters)
sck.27.nea	Kitefin shark (<i>Dalatias licha</i>) in subareas 1-10, 12 and 14 (the Northeast Atlantic and adjacent waters)
sdv.27.nea	Smooth-hound (<i>Mustelus</i> spp.) in subareas 1-10, 12 and 14 (the Northeast Atlantic and adjacent waters)
seh.27.1	Harp seals (<i>Pagophilus groenlandicus</i>) in Subarea 1 (Barents and White sea stock)
seh.27.125a14	Harp seals (<i>Pagophilus groenlandicus</i>) in subareas 1, 2 and 14 and Division 5.a (Greenland Sea stock)
sez.27.2514	Hooded seals (<i>Cystophora cristata</i>) in subareas 2, 5 and 14 (Greenland Sea stock)
sho.27.67	Black-mouth dogfish (<i>Galeus melastomus</i>) in subareas 6 and 7 (West of Scotland, southern Celtic Seas, and English Channel)
sho.27.89a	Black-mouth dogfish (<i>Galeus melastomus</i>) in Subarea 8 and Division 9.a (Bay of Biscay and Atlantic Iberian waters)
sol.27.20-24	Sole (<i>Solea solea</i>) in subdivisions 20-24 (Skagerrak and Kattegat, western Baltic Sea)
sol.27.4	Sole (<i>Solea solea</i>) in Subarea 4 (North Sea)
sol.27.7a	Sole (<i>Solea solea</i>) in Division 7.a (Irish Sea)
sol.27.7bc	Sole (<i>Solea solea</i>) in divisions 7.b and 7.c (West of Ireland)
sol.27.7d	Sole (<i>Solea solea</i>) in Division 7.d (eastern English Channel)
sol.27.7e	Sole (<i>Solea solea</i>) in Division 7.e (western English Channel)
sol.27.7fg	Sole (<i>Solea solea</i>) in divisions 7.f and 7.g (Bristol Channel, Celtic Sea)
sol.27.7h-k	Sole (<i>Solea solea</i>) in Divisions 7.h-k (Celtic Sea South, southwest of Ireland)
sol.27.8ab	Sole (<i>Solea solea</i>) in divisions 8.a-b (northern and central Bay of Biscay)
sol.27.8c9a	Sole (<i>Solea solea</i>) in divisions 8.c and 9.a (Cantabrian Sea and Atlantic Iberian waters)
spr.27.22-32	Sprat (<i>Sprattus sprattus</i>) in Subdivisions 22-32 (Baltic Sea)
spr.27.3a4	Sprat (<i>Sprattus sprattus</i>) in Division 3.a and Subarea 4 (Skagerrak, Kattegat and North Sea)
spr.27.67a-cf-k	Sprat (<i>Sprattus sprattus</i>) in Subarea 6 and Divisions 7.a-c and 7.f-k (West of Scotland, southern Celtic Seas)
spr.27.7de	Sprat (<i>Sprattus sprattus</i>) in divisions 7.d and 7.e (English Channel)
syc.27.3a47d	Lesser spotted dogfish (<i>Scyliorhinus canicula</i>) in Subarea 4 and divisions 3.a and 7.d (North Sea, Skagerrak and Kattegat, eastern English Channel)

syc.27.67a-ce-j	Lesser spotted dogfish (<i>Scyliorhinus canicula</i>) in Subarea 6 and divisions 7.a-c and 7.e-j (West of Scotland, Irish Sea, southern Celtic Seas)
syc.27.8abd	Lesser spotted dogfish (<i>Scyliorhinus canicula</i>) in divisions 8.a-b and 8.d (Bay of Biscay)
syc.27.8c9a	Lesser spotted dogfish (<i>Scyliorhinus canicula</i>) in divisions 8.c and 9.a (Cantabrian Sea and Atlantic Iberian waters)
syt.27.67	Greater-spotted dogfish (<i>Scyliorhinus stellaris</i>) in subareas 6 and 7 (West of Scotland, southern Celtic Sea, and the English Channel)
thr.27.nea	Thresher sharks (<i>Alopias</i> spp.) in Subareas 10, 12, Divisions 7.c-k, 8.d-e, and Subdivisions 5.b.1, 9.b.1, 14.b.1 (Northeast Atlantic)
trs.27.22-32	Sea trout (<i>Salmo trutta</i>) in subdivisions 22-32 (Baltic Sea)
tsu.27.nea	Roughsnout grenadier (<i>Trachyrincus scabrus</i>) in subareas 1-2, 4-8, 10, 12, 14 and Division 3a (Northeast Atlantic and Arctic Ocean)
tur.27.22-32	Turbot (<i>Scophthalmus maximus</i>) in Subdivisions 22-32 (Baltic Sea)
tur.27.3a	Turbot (<i>Scophthalmus maximus</i>) in Division 3.a (Skagerrak and Kattegat)
tur.27.4	Turbot (<i>Scophthalmus maximus</i>) in Subarea 4 (North Sea)
usk.27.1-2	Tusk (<i>Brosme brosme</i>) in subareas 1 and 2 (Northeast Arctic)
usk.27.12ac	Tusk (<i>Brosme brosme</i>) in Subarea 12, excluding Division 12.b (southern Mid-Atlantic Ridge)
usk.27.3a45b6a7-912b	Tusk (<i>Brosme brosme</i>) in subareas 4 and 7-9 and divisions 3.a, 5.b, 6.a, and 12.b (Northeast Atlantic)
usk.27.5a14	Tusk (<i>Brosme brosme</i>) in Subarea 14 and Division 5.a (East Greenland, and Iceland grounds)
usk.27.6b	Tusk (<i>Brosme brosme</i>) in Division 6.b (Rockall)
whb.27.1-91214	Blue whiting (<i>Micromesistius poutassou</i>) in subareas 1-9, 12, and 14 (Northeast Atlantic and adjacent waters)
whg.27.3a	Whiting (<i>Merlangius merlangus</i>) in Division 3.a (Skagerrak and Kattegat)
whg.27.47d	Whiting (<i>Merlangius merlangus</i>) in Subarea 4 and Division 7.d (North Sea and eastern English Channel)
whg.27.6a	Whiting (<i>Merlangius merlangus</i>) in Division 6.a (West of Scotland)
whg.27.6b	Whiting (<i>Merlangius merlangus</i>) in Division 6.b (Rockall)
whg.27.7a	Whiting (<i>Merlangius merlangus</i>) in Division 7.a (Irish Sea)
whg.27.7b-ce-k	Whiting (<i>Merlangius merlangus</i>) in divisions 7.b-c and 7.e-k (southern Celtic Seas and eastern English Channel)
whg.27.89a	Whiting (<i>Merlangius merlangus</i>) in Subarea 8 and Division 9.a (Bay of Biscay and Atlantic Iberian waters)
wit.27.3a47d	Witch (<i>Glyptocephalus cynoglossus</i>) in Subarea 4 and divisions 3.a and 7.d (North Sea, Skagerrak and Kattegat, eastern English Channel)

Appendix 2. Commercial stocks assessed by ICCAT.

Species	Scientific name	Stock Area
Yellowfin Tuna	<i>Thunnus albacares</i>	Atlantic
Bigeye Tuna	<i>Thunnus obesus</i>	Atlantic
Skipjack tuna	<i>Katsuwonus pelamis</i>	Atlantic
Albacore Tuna	<i>Thunnus alalunga</i>	North Atlantic
Bluefin Tuna	<i>Thunnus thynnus</i>	East Atlantic and Mediterranean
White marlin	<i>Kajikia albida</i>	Atlantic
Sailfish	<i>Istiophorus albicans</i>	Atlantic
Swordfish	<i>Xiphias gladius</i>	Atlantic
Blue shark	<i>Prionace glauca</i>	North Atlantic
Shortfin mako shark	<i>Isurus oxyrinchus</i>	North Atlantic
Porbeagle	<i>Lamna nasus</i>	East Atlantic
Blue marlin	<i>Makaira nigricans</i>	Atlantic

Appendix 3. Decisions on presence of commercial stocks per area or region.

Stock	Celtic Seas	Greater North Sea	Wider Atlantic	Bay of Biscay and Iberian Coast	Macaronesia	Arctic Waters
Albacore North Atlantic	*		*	*	*	
Alfonsinos nei 27.nea	*		*	*	*	
Angel shark 27.nea	*			*		
Angler(=Monk) 27.78abd	*	*		*		
Angler(=Monk) 27.8c9a				*		
Anglerfishes nei 27.3a46	*	*				
Atlantic cod 27.21		*				
Atlantic cod 27.47d20		*				
Atlantic cod 27.6a	*					
Atlantic cod 27.6b			*			
Atlantic cod 27.7a	*					
Atlantic cod 27.7e-k	*	*				
Atlantic herring 27.1-24a514a		*	*			*
Atlantic herring 27.20-24		*				
Atlantic herring 27.3a47d	*	*				
Atlantic herring 27.6a7bc	*	*				
Atlantic herring 27.6aN	*					
Atlantic herring 27.6aS7bc	*					
Atlantic herring 27.irls	*					
Atlantic herring 27.nirs	*					
Atlantic horse mackerel 27.3a4bc7d		*				
Atlantic horse mackerel 27.9a				*		
Atlantic mackerel 27.nea	*	*	*	*		*
Atlantic white marlin Atlantic			*			
Basking shark 27.nea	*	*	*	*	*	

Beaked redfish 2127.dp			*				*
Beaked redfish 2127.sp			*				*
Bigeye tuna Atlantic			*			*	
Black scabbardfish 27.nea	*		*		*	*	*
Blackbellied angler 27.78abd	*	*			*		
Blackbellied angler 27.8c9a					*		
Blackmouth catshark 27.67	*		*				
Blackmouth catshark 27.89a					*		
Blackspot seabream 27.6-8	*	*			*		
Blackspot seabream 27.9					*		
Blonde ray 27.4a6	*	*					
Blonde ray 27.4c7d		*					
Blonde ray 27.7afg	*						
Blonde ray 27.7e	*	*					
Blonde ray 27.9a					*		
Blue ling 27.5b67	*		*				
Blue marlin Atlantic							
Blue shark North Atlantic	*		*		*	*	
Blue whiting(=Poutassou) 27.1-91214	*	*	*		*		*
Bluefin tuna East Atlantic and Mediteranean	*		*		*	*	
Boarfish 27.6-8	*				*		
Brill 27.3a47de		*					
Common dab 27.3a4		*					
Common skate complex 27.3a4	*	*					
Common skate complex 27.67a-ce-k	*						
Common skate complex 27.89a					*		
Common sole 27.20-24		*					
Common sole 27.4		*					

Common sole 27.7a	*				
Common sole 27.7bc	*	*			
Common sole 27.7d		*			
Common sole 27.7e		*			
Common sole 27.7fg	*				
Common sole 27.7h-k	*				
Common sole 27.8ab				*	
Common sole 27.8c9a				*	
Cuckoo ray 27.3a4	*	*			
Cuckoo ray 27.9a				*	
European anchovy 27.8				*	
European anchovy 27.9a				*	
European eel 2737.nea	*	*	*	*	*
European flounder 27.3a4		*			
European hake 27.3a46-8abd	*	*	*	*	
European hake 27.8c9a				*	
European pilchard(=Sardine) 27.7	*	*			
European pilchard(=Sardine) 27.8abd				*	
European pilchard(=Sardine) 27.8c9a				*	
European plaice 27.21-23		*			
European plaice 27.42		*			
European plaice 27.7a	*				
European plaice 27.7bc	*	*			
European plaice 27.7d		*			
European plaice 27.7e		*			
European plaice 27.7fg	*				
European plaice 27.7h-k	*				
European seabass 27.4bc7ad-h	*	*			

European seabass 27.6a7bj	*	*					
European seabass 27.8ab					*		
European seabass 27.8c9a					*		
European sprat 27.3a4		*					
European sprat 27.67a-cf-k	*						
European sprat 27.7de		*					
Four-spot megrim 27.7b-k8abd	*	*			*		
Four-spot megrim 27.8c9a					*		
Golden redfish 27.561214	*		*				*
Greater argentine 27.123a4	*	*					*
Greater argentine 27.5b6a	*		*				
Greater argentine 27.6b7-1012	*		*		*	*	*
Greater forkbeard 27.nea	*	*	*		*	*	*
Greenland halibut 27.561214	*		*				*
Grey gurnard 27.3a47d	*	*					
Haddock 27.46a20	*	*					
Haddock 27.6b			*				
Haddock 27.7a	*						
Haddock 27.7b-k	*	*	*				
Horse mackerel 27.2a4a5b6a7a-ce-k8	*	*			*		*
kitefin shark 27.nea	*		*		*	*	
Leafscale gulper shark 27.nea	*		*		*	*	
Lemon sole 27.3a47d	*	*					
Ling 27.346-91214	*	*	*		*		*
Megrim 27.7b-k8abd	*	*			*		
Megrim 27.8c9a					*		
Megrims nei 27.4a6a	*	*	*				
Megrims nei 27.6b			*				

Norway pout 27.3a4		*					
Norway pout 27.6a	*						
Nursehound 27.67	*	*					
Orange roughy 27.nea	*	*	*		*	*	*
Other rays and skates 27.67a-ce-k	*	*					
Other rays and skates 27.89a					*		
Pollack 27.3a4		*					
Pollack 27.67	*	*					
Pollack 27.89a					*		
Porbeagle East Atlantic			*			*	
Portuguese dogfish 27.nea	*		*		*	*	
Rays and skates nei 27.1012			*			*	*
Rays and skates nei 27.3a47d	*	*					
Red gurnard 27.3-8	*	*			*		*
Roughhead grenadier 27.nea	*	*	*		*	*	*
Roughsnout grenadier 27.nea	*	*	*		*	*	*
Roundnose grenadier 27.3a		*					
Roundnose grenadier 27.5b6712b	*		*				
Roundnose grenadier 27.8	*	*	*				*
Sailfish Atlantic			*			*	
Saithe(=Pollock) 27.3a46	*	*					
Sandeels(=Sandlances) nei 27.6a	*						
Sandeels(=Sandlances) nei sa.1r		*					
Sandeels(=Sandlances) nei sa.2r		*					
Sandeels(=Sandlances) nei sa.3r		*					
Sandeels(=Sandlances) nei sa.4		*					
Sandeels(=Sandlances) nei sa.5r		*					
Sandeels(=Sandlances) nei sa.6		*					

Sandeels(=Sandlances) nei sa.7r		*					
Sandy ray 27.67	*						
Shagreen ray 27.67	*	*		*			
Shortfin mako North Atlantic				*		*	*
Skipjack tuna Atlantic				*		*	*
Small-eyed ray 27.7de	*	*					
Small-eyed ray 27.7fg	*						
Small-spotted catshark 27.3a47d		*					
Small-spotted catshark 27.67a-ce-j	*	*					
Small-spotted catshark 27.8abd						*	
Small-spotted catshark 27.8c9a						*	
Smooth-hounds nei 27.nea	*	*				*	*
Spotted ray 27.3a47d	*	*					
Spotted ray 27.3a47d	*	*					
Spotted ray 27.67bj	*	*		*			
Spotted ray 27.7ae-h	*	*					
Spotted ray 27.8						*	
Spotted ray 27.9a						*	
Spurdog 27.nea	*	*				*	
Striped red mullet 27.67a-ce-k89a	*	*				*	
Surmullet 27.3a47d		*					
Swordfish Atlantic				*		*	*
Swordfish Atlantic							*
Thornback ray 27.3a47d		*					
Thornback ray 27.6	*			*			
Thornback ray 27.7e	*_	*					
Thornback ray 27.8				*		*	
Tope shark 27.nea	*	*		*		*	*

Turbot 27.3a		*			
Turbot 27.4	*	*			
Tusk(=Cusk) 27.3a45b6a7-912b	*	*	*		*
Tusk(=Cusk) 27.6b			*		
Tusk(=Cusk) 27.8			*		
Undulate ray 27.8c					*
Whiting 27.3a		*			
Whiting 27.47d	*	*			
Whiting 27.6a	*				
Whiting 27.6b					
Whiting 27.7a	*				
Whiting 27.7b-ce-k	*	*			
Whiting 27.89a					*
Witch flounder 27.3a47d	*	*			
Yellowfin tuna Atlantic			*		*

Appendix 4. Availability of Common Indicator FC1 assessments of sensitive species per MSFD Sub-region.

Species	Bay of Biscay and Iberian Coast	Celtic Sea	Greater North Sea
<i>Alosa spp</i>	*	*	*
<i>Amblyraja radiata</i>			*
<i>Anarhichas lupus</i>		*	*
<i>Anguilla anguilla</i>	*	*	*
<i>Argyrosomus regius</i>	*		
<i>Brama brama</i>	*	*	
<i>Cetorhinus maximus</i>			*
<i>Chelidonichthys lucerna</i>	*	*	*
<i>Chimaera monstrosa</i>		*	
<i>Conger conger</i>	*	*	*
<i>Cyclopterus lumpus</i>		*	*
<i>Dalatias licha</i>		*	
<i>Dasyatis pastinaca</i>	*	*	*
<i>Deania calcea</i>		*	
<i>Dicentrarchus punctatus</i>	*		
<i>Dipturus nidarosiensis</i>		*	
<i>Dipturus oxyrinchus</i>	*	*	*
<i>Dipturus spp</i>	*	*	
<i>Epigonus telescopus</i>		*	
<i>Etmopterus spinax</i>		*	
<i>Gadus morhua</i>		*	
<i>Galeorhinus galeus</i>	*	*	*
<i>Galeus spp</i>		*	
<i>Helicolenus dactylopterus</i>	*	*	*
<i>Hexanchus griseus</i>		*	
<i>Hippoglossus hippoglossus</i>		*	*
<i>Hydrolagus mirabilis</i>		*	
<i>Labrus bergylta</i>		*	
<i>Lampetra fluviatilis</i>		*	*
<i>Lepidorhombus whiffiagonis</i>			*
<i>Leucoraja circularis</i>	*	*	*
<i>Leucoraja fullonica</i>	*	*	*
<i>Leucoraja naevus</i>	*	*	*
<i>Lophius budegassa</i>		*	*
<i>Lophius piscatorius</i>			*
<i>Mola mola</i>		*	
<i>Molva macrophthalmalma</i>	*	*	
<i>Molva molva</i>	*	*	
<i>Mora moro</i>		*	
<i>Mustelus spp</i>	*	*	*
<i>Petromyzon marinus</i>		*	*
<i>Phycis blennoides</i>	*	*	*

<i>Pollachius pollachius</i>	*	*	*
<i>Pollachius virens</i>	*		
<i>Polyprion americanus</i>	*		
<i>Pomatomus saltatrix</i>	*		
<i>Raja brachyura</i>	*	*	*
<i>Raja clavata</i>	*	*	*
<i>Raja microcellata</i>	*	*	*
<i>Raja montagui</i>	*	*	*
<i>Raja undulata</i>	*	*	*
<i>Salmo trutta trutta</i>		*	*
<i>Scophthalmus maximus</i>	*	*	
<i>Scophthalmus rhombus</i>	*	*	*
<i>Scorpaena scrofa</i>	*	*	
<i>Scyliorhinus canicula</i>	*	*	*
<i>Scyliorhinus stellaris</i>	*	*	*
<i>Scymnodon ringens</i>		*	
<i>Sebastes spp</i>		*	*
<i>Sebastes viviparus</i>		*	*
<i>Sparus aurata</i>	*		*
<i>Synaphobranchus kaupii</i>		*	
<i>Tetronarce nobiliana</i>	*		
<i>Torpedo marmorata</i>	*		
<i>Trachyrincus scabrus</i>		*	
<i>Zoarcetes viviparus</i>		*	*

Appendix 5. Escapement stocks included in the integrated assessment.

ane.27.8	<i>Engraulis encrasicolus</i>	European anchovy
ane.27.9a	<i>Engraulis encrasicolus</i>	European anchovy
nop.27.3a4	<i>Trisopterus esmarkii</i>	Norway pout
nop.27.6a	<i>Trisopterus esmarkii</i>	Norway pout
pil.27.7	<i>Sardina pilchardus</i>	European pilchard(=Sardine)
pil.27.8abd	<i>Sardina pilchardus</i>	European pilchard(=Sardine)
pil.27.8c9a	<i>Sardina pilchardus</i>	European pilchard(=Sardine)
san.27.6a	<i>Ammodytes</i> spp	Sandeels(=Sandlances) nei
san.sa.1r	<i>Ammodytes</i> spp	Sandeels(=Sandlances) nei
san.sa.2r	<i>Ammodytes</i> spp	Sandeels(=Sandlances) nei
san.sa.3r	<i>Ammodytes</i> spp	Sandeels(=Sandlances) nei
san.sa.4	<i>Ammodytes</i> spp	Sandeels(=Sandlances) nei
san.sa.5r	<i>Ammodytes</i> spp	Sandeels(=Sandlances) nei
san.sa.6	<i>Ammodytes</i> spp	Sandeels(=Sandlances) nei
san.sa.7r	<i>Ammodytes</i> spp	Sandeels(=Sandlances) nei
spr.27.3a4	<i>Sprattus sprattus</i>	European sprat
spr.27.67a-cf-k	<i>Sprattus sprattus</i>	European sprat
spr.27.7de	<i>Sprattus sprattus</i>	European sprat

Appendix 6. D3 fish assessment data

