

EU request for advice on developing appropriate lists for Descriptor 3, commercially exploited fish and shellfish, for reporting by EU Member States under MSFD Article 17 in 2024

Advice summary

ICES advises that, for EU Member States (MSs) considering MSFD Descriptor 3 (D3) lists for reporting, standardisation and clear guidance from the EC on the overall approach taken are prerequisites to delivering the coordination sought. ICES describes and contrasts the general characteristics of four different overall approaches used by MSs in their 2018 reporting (Table 1). ICES considers these four approaches to cover the range of options that meet the reporting requirements and advises that one of these is selected by the EC to be used as standard by all MSs in their 2024 reporting on D3 under Article 17 of the EU Marine Strategy Framework Directive (MSFD).

In accordance with previous ICES advice, ICES advises that the selection of stocks should be based on a regional rather than a MS level, and that widely distributed stocks are included in those areas where they occur. Therefore, ICES advises that MSs should report not only on catches of their national fleets, but on catches of all operations occurring in their national waters.

ICES reiterates its 2016 advice that the total landings of stocks selected for reporting should represent a very high proportion (by weight) of the landings (e.g. > 90%). In addition, ICES advises that, in cases where stocks represent a small proportion of the total weight of landings but generate relatively high revenues, an additional threshold, based on commercial value, should be used to select species/stocks for D3 reporting. Weight and commercial value thresholds should be established and standardised at an EU level.

To ensure that widely distributed stocks are not omitted through the screening process, ICES advises that a subsequent threshold is established, based on the percentage of contribution caught in the relevant marine reporting units (MRUs) of the total international landings for the widely distributed species/stock, is established. This threshold should also be standardised at an EU level.

ICES considers that the reporting MSs are best placed to identify locally important species/stocks for reporting under MSFD D3 and recommends that reporting for shared/internationally assessed stocks should be prepared at a European level to avoid duplication by each MS.

ICES reviewed the lists of commercially exploited fish and shellfish used by MSs in their 2018 MSFD Article 17 reporting under D3 and proposes the addition (or expansion of the geographical reporting) of 52 species to the list of commercially exploited fish and shellfish (*ReferenceList D3*) for the 2024 MSFD reporting cycle.

Request

Note that the full text of the request is available in Annex I.

ICES is requested to provide advice on how the lists of commercially-exploited species to be reported per Member State should be developed to fully meet the requirements of the GES Decision to report on all commercially-exploited fish and shellfish in the next (2024) updates under Article 17. The advice should include proposals for regionally and subregionally agreed lists, differentiated by Member State where necessary, and outstanding issues that need further discussion.

ICES is requested to hold a workshop in close cooperation with experts from Member States, Regional Sea Conventions, Regional Fisheries Management Organisations and stakeholders to a) examine the reference lists of commercially-exploited species (fish and shellfish) compiled for region and corresponding subregions and address the issues/questions that have been identified during their development, and b) review the species reported by Member States under Article 17.

Elaboration on the advice

There are two parts to this advice.

Part I Advice on how the lists of commercially exploited species to be reported per EU Member State should be developed to fully meet the requirements of the good environmental status (GES) Decision

ICES notes that most fish stocks do not adhere to national exclusive economic zones (EEZs) or MRUs. The distribution of fishing activities, international data collection, stock assessments, and management also cross these boundaries. Thus, a regional approach to reporting is required. Any reporting based solely on specific location will likely hinder regional coordination (MSFD Article 5(2) and Article 6) and the development of programmes of measures (MSFD Article 13; EU, 2008). Maximising the use of data and assessments, collected and undertaken at an international level, is an integral element of Article 17 reporting on MSFD D3. The Workshop to Review and Progress the Reported Lists of EU MSFD Descriptor 3 (WKD3Lists; ICES, 2020a) describes the mismatch in scale and resolution of the international data, assessments and MRUs established under the MSFD; therefore, pragmatic solutions need to be identified. These can be further refined in an iterative manner for subsequent MSFD reporting cycles.

Standardisation of the overall approach to developing lists of commercially exploited species to be reported in the 2024 MSFD reporting cycle

ICES advises that, for EU Member States (MSs) considering MSFD Descriptor 3 (D3) lists for reporting, standardisation and clear guidance from the EC on the overall approach to be taken in 2024 reporting are prerequisites to delivering the coordination sought.

ICES investigated the approaches followed by MSs in the 2018 reporting and deduced that at least four different overall approaches (or variations thereof) were used by MSs. These ranged from reporting on all species/stocks referred to in the *Specifications and standardised methods for monitoring and assessment* of Decision 2017/848 for the MSFD (sub)region within which the MRU is located to reporting only on species/stocks that are under national fishing pressure within the MRU of the reporting MS (EU, 2017).

ICES considers all four approaches to be sufficient in describing and contrasting the general characteristics of the range of reporting requirements available. ICES therefore advises that one of these approaches is selected by the EC to be used as a standard by all MSs in their 2024 reporting on MSFD D3. Eliminating the use of different overall approaches by MSs will ensure that no areas and or stocks are missed in the reporting. Table 1 describes the general characteristics of these four approaches, based on a single standardised approach being used by all MSs.

Previous ICES advice (ICES, 2014a) recommended that the MSFD D3 lists of commercial stocks should first be derived at the MSFD regional (subregional in the case of the Northeast Atlantic) level by including stocks that are assessed at the international level. This is consistent with Approach 1 as described in Table 1.

Table 1 General characteristics of the different possible approaches to species/stocks selection when reporting on MSFD D3. Characteristics, including coordination with existing Common Fisheries Policy (CFP) data flows and operation, are described on the basis that the same standard approach is used by all EU Member States in their 2024 Article 17 MSFD reporting.

	Approach 1	Approach 2	Approach 3	Approach 4
Characteristics	MSS use all species/stocks referred to in <i>Specifications and standardised methods for monitoring and assessment</i> of Decision 2017/848 for the MSFD (sub)region within which the MRU* is located.	Same as Approach 1 , but include only species/stocks caught in the MS's MRU and landed by the reporting MS.	Same as Approach 1 , but include only species/stocks caught in the (sub)region and landed by the reporting MS.	Same as Approach 1 , but include only species/stocks caught in the MS's MRU and landed by any MS.
Availability of CFP-derived data to select stocks at the spatial scale and alignment of the selected approach.	Data available from the JRC/STECF FDI Database are at reasonable approximation for the Atlantic, and the Baltic and Mediterranean seas.	Catch and landings data are available nationally.	Data available from the JFC/STECF FDI Database are at reasonable approximation for the Atlantic, and the Baltic and Mediterranean seas.	Catch and landings data are only available nationally. Requires that extended reporting mechanisms between MSS are established.
Potential for commercial stocks to be omitted.	Low	High – all stocks caught in the reporting MSS MRU by other MSS will be omitted.	Low – all stocks caught by other MSS in a reporting MSS MRU will be reported by the catching MS.	Low – but sufficient data only available if an inter-MS reporting mechanism is established.
Facilitates EU- and/or MRU-wide coordination (Article 6), including the implementation of the Article 13 programme of measures using the Common Fisheries Policy.	High – Comprehensive and simple to implement.	Low – stocks caught by other MSS in the reporting MS's MRU will not be reported.	Medium – MSS will report only on stocks caught by themselves and will be responsible to report on stocks they catch in the MRUs of other MSS. Requires the reporting MS to be familiar with the MRUs of all other MSS.	Low – the reporting MS relies on other MSS to provide them with data on catches and landings consistent with the reporting MS's MRUs.

* Marine reporting units (MRUs) are defined by individual MSS and can be of varying sizes, including region, subregion, EEZ, etc.

Considering that the preferred option should have high data availability, low potential for omitting species, and EU-wide coordination as previously advised by ICES (2014a), ICES notes that the implementation of approach 2 would present a high risk for omission of stocks and low EU wide coordination. Regarding approach 4, ICES recommends that extended reporting mechanisms between MSS are established before using it.

Standardisation of landings threshold for the identification of commercial exploited fish and shellfish for MSFD 2024 reporting under MSFD D3.

Once the overall approach has been standardised, ICES advises that thresholds for establishing what constitutes commercially exploited fish and shellfish within the MRU in question should also be identified and standardised.

ICES notes the difficulty in identifying what constitutes a commercial stock. In 2016, ICES advised that the total landings of stocks selected for reporting should represent a very high proportion (by weight) of the landings (e.g. > 90%; ICES, 2016a). In ICES (2014b), ICES noted that ranking stocks by the commercial value of the landings would be a valid alternative to retaining catches of small stocks, which are subject to intense targeting because of high resale value (ICES, 2014a). ICES (2020a) explored the use of commercial value thresholds for the identification of commercially exploited stocks and recommended that value thresholds be used in combination with landings-by-weight thresholds. The benefit of using commercial value is that it can identify highly valued stocks which are caught in low quantities.

An analysis of various landings thresholds by both weight and commercial value was undertaken by ICES WKD3Lists (ICES, 2020a). Various thresholds between 90% and 100% of total landings by weight and value are explored and reported. This analysis shows that applying thresholds by weight generally identifies more species than when thresholds are applied by commercial value. However, there is some difference in the species between the lists; applying thresholds by value can identify additional species of importance that are not picked up when applying thresholds by weight only.

ICES advises that, in the selection of species/stocks for MSFD D3 reporting, a combined approach is taken that includes thresholds of both weight and commercial value of landings. All stocks above the selected landings threshold by weight and, added to this, all stocks above the selected landings threshold by commercial value, should be reported under MSFD D3. ICES advises that EU-wide thresholds be established for both weight and commercial value when selecting the commercially exploited fish and shellfish for MSFD 2024 reporting under MSFD D3.

Widely distributed species/stocks

To ensure that species/stocks with widely distributed fishing pressure are reported, a threshold based on the percentage of contribution caught in the MRU relative to the total international landings for that species/stock should be established and standardised. Including any species/stocks where more than 10% of the international landings were caught in the MRU for any one of the previous 6 year cycle would be a useful starting point for such investigations.

EU-wide standardisation of thresholds

Exploring the MSFD D3 lists generated by MSs as a result of the three thresholds discussed above can be done relatively easily by individual MSs. Selection of the final thresholds could be undertaken through an international workshop.

Locally important stocks

ICES has explored the selection of locally important stocks and compiled lists of both National Plans and of Multiannual Plans that the workshop participants and subsequent reviewers were aware of and that are currently in place (ICES, 2020a). These plans were used when identifying the additional species selected for inclusion in *ReferenceList D3*. ICES considers that MSs are best placed to collate information on locally important stocks and decide on what to report under MSFD D3. ICES also explored various aspects of identifying locally important stocks to assist MSs in considering this issue (ICES, 2020a).

ICES recognises that data on stocks of national or regional interest may reside only within individual MSs. Thus, the choice of which of those stocks to include in reporting must be made at a national level.

Part II Workshop to (a) to examine the reference lists of commercially exploited species (fish and shellfish) compiled by region and corresponding subregions and to address the issues/questions that have been identified during their development, and (b) review the species reported by EU Member States under MSFD Article 17

ICES examined the list of commercially exploited fish and shellfish species reported by MSs in 2018 in terms of the criteria (a to f) set out in *Specifications and standardised methods for monitoring and assessment* for MSFD D3 of Commission Decision 2017/848 (ICES, 2020a). ICES notes the wording in the Decision that, when establishing the list of commercially exploited species, there is a requirement that the six criteria are "taking into account". ICES therefore understands these criteria to be guidance rather than qualifying criteria in their own right.

The workshop report provides lists of national plans (criterion d) and multiannual plans (criterion e) identified by the workshop participants and the subsequent review processes undertaken by ICES (STECF, 2016; ICES, 2020a).

The workshop report also notes 52 species, reported by MSs in 2018 or in lists of national or multiannual plans, which do not appear on the current version of *ReferenceList D3* or does not occur in all areas reported by MSs. The additional 52 species are shown in Annex II. These species should be added to the current list and the update version of *ReferenceList D3* use in the 2024 MSFD reporting cycle.

ICES notes that the current *ReferenceList D3* contains commercial species as well as invasive species and redlisted/sensitive species under landings prohibition; such species should be reported under MSFD descriptors 2 and 1 (D2 and D1¹), respectively, rather than under MSFD D3. Hence, further refinement of *ReferenceList D3* will be needed.

ICES considers *ReferenceList D3*, expanded as proposed by WKD3Lists, to be a useful reference list for MSs when identifying stocks/species for reporting in 2024 and a helpful drop-down list in the XML files to ensure consistency in data entry. *ReferenceList D3* should be seen as a dynamic reference list and should be reviewed and updated during each MSFD reporting cycle.

The issue of important species for small-scale/local coastal fisheries (criterion f) was considered by the workshop and it was concluded that the knowledge to prepare such lists resides at national rather than at international level.

Basis of the advice

The Workshop to Review and Progress the Reported Lists of MSFD Descriptor 3 (WKD3Lists) was held online 22–30 June, 2020 and was attended by 44 participants from 17 EU Member States. The workshop report, the peer review of the report undertaken by independent experts, and the deliberations of the ICES Advice Drafting Group and the ICES Advisory Committee form the basis of this advice.

ICES advice is based on the European Commission's consistent indication that ICES is not requested to assess the completeness or otherwise of the Member States' 2018 reports under MSFD Descriptor 3.

Data availability to select stocks and spatial resolution and alignment of selected stocks

The fisheries-dependent information (FDI) database at the European Commission's Joint Research Centre² is a useful resource for determining catches (volume and value) from all EU Member States (combined) within the national waters of a specific Member State. The catch and effort data are resolved by ICES statistical rectangle for Atlantic waters and, for the Mediterranean Sea by the geographical subareas (GSA) of the General Fisheries Commission for the Mediterranean (GFCM). These data include both volume and value; however, owing to confidentiality of data, catches are not specified by EU Member State.

The Annual Economic Report (AER) by the EU Scientific, Technical and Economic Committee for Fisheries (STECF) contains a database with landings volumes and values for the majority of relevant stocks and species (STECF, 2019). This includes

¹ Version 3: D1 corrected

² <https://stecf.jrc.ec.europa.eu/reports/fdi>.

catches by EU Member State, at the spatial resolution of FAO subregion (e.g. 27.4.c). Therefore, it is useful for determining catches by EU Member State within an ecoregion as the ecoregions do correspond relatively well with FAO subregions; however, identifying landings from an individual EU Member State's waters by ecoregion would in most cases be at too coarse a spatial resolution.

Potential for inclusion of widely distributed commercial stocks

In its advice to the EU on guidance on the practical methodology for delivering an MSFD GES assessment on D3 (ICES, 2016b), ICES recommended that GES be assessed at the unit of stock, and that for widely distributed stocks that straddle more than one MSFD region or subregion, the overall stock criteria should be included in each region or subregion when assessing GES. While for stocks spread across two ecoregions it may be reasonable to use the overall stock criteria to judge GES, for certain stocks the impact of catches in a particular EU Member State's waters may have little to no impact on the GES of the stock.

Recommendation

Investigating data requirements and availability for each of the four overall approaches identified in this advice is not a difficult task and could be undertaken at a national level relatively easily. Investigations into procedures to establish new reporting mechanisms between MSs required under Approach 4 could also be considered. Once a standard overall approach is selected, further investigations into the effect on the D3 reporting lists of the three advised thresholds (landing weight, commercial value and for widely distributed stocks, the percentage of total international landings caught in the relevant MRU) would be relatively straightforward. An international workshop to explore the outcomes of such investigations, including simple national level case studies, could be convened if a clear preference in overall approach does not emerge.

ReferenceList D3 should be a dynamic list to be reviewed after each reporting cycle. Coordination with lists developed under MSFD D1 will inform such review. Adding and removing species/stocks from *ReferenceList D3* should be a relatively easy process as it is simply a reference list and aid to reporting.

Sources and references

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³ Version 3: Reference corrected

Annex I Full text of the EU request

Review the lists of commercially-exploited fish and shellfish populations (stocks) for each marine regions and corresponding subregions reported under MSFD Descriptor 3 by Member States in their 2018 reports under MSFD Article 17, based on the regional/subregional lists compiled using the criteria under 'specifications' in the GES Decision. Advise on how the lists of species to be reported could be improved to fully meet the requirements of the GES Decision in the 2024 updates of Article 17 reporting.

The 2018 reporting under MSFD Article 17 was supported by web forms to aid completion of the XML files, which included use of drop-down lists of elements (e.g. species) being assessed to facilitate data entry and help ensure consistency in the data entered. For Descriptor 3 assessments, the European Commission compiled operational (reference) lists of commercially-exploited species (fish and shellfish) for each marine region (Baltic Sea and Black Sea) and subregion (NE Atlantic and Mediterranean) from which Member States could select (in the web forms) those to be reported (or add new ones if needed).

During the development of the lists for the MSFD reporting, some challenges were faced:

- 1) Mapping of ICES assessment areas against MSFD marine regions and subregions and attribution of stocks to each MSFD marine region and subregion was unclear and better definitions are needed.
- 2) Stocks that are managed under national management plans should be identified where necessary and appropriate, if adequate information is not already available in the existing assessments that have already been carried out by STECF, see [Final Reports](#).
- 3) For species for which fishing opportunities (total allowable catches and quotas) are set by Council: describe the attribution of stocks to each MSFD marine region and subregion, notably where scientific stock assessment units and TAC areas do not match

Also further questions were raised:

- What constitutes a commercially-exploited species?
- Besides the criteria included in Commission Decision (EU) 2017/848, should information on the contribution of populations (stocks) to landings be used to further refine the list?
- Which are important species on a regional or national scale for small-scale/local coastal fisheries?

In addressing the foregoing questions, ICES should have due regard to any pertinent STECF reviews and evaluations of the corresponding fisheries and management plans, in particular [STECF-16-14 Report](#).

ICES is requested to hold a workshop in close cooperation with experts from Member States, Regional Sea Conventions, Regional Fisheries Management Organisations and stakeholders to a) examine the reference lists of commercially-exploited species (fish and shellfish) compiled for region and corresponding subregions and address the issues/questions that have been identified during their development, and b) review the species reported by Member States under Article 17.

ICES is requested to provide advice on how the lists of commercially-exploited species to be reported per Member State should be developed to fully meet the requirements of the GES Decision to report on all commercially-exploited fish and shellfish in the next (2024) updates under Article 17. The advice should include proposals for regionally and subregionally agreed lists, differentiated by Member State where necessary, and outstanding issues that need further discussion.

Annex II Additional species to add to the MSFD D3 Reference List

Table A1 List of 52 commercially exploited fish and shellfish species that should be added to "ReferenceList D3" under the relevant marine region or subregion. ICES notes that while this is probably not a comprehensive list, it is of value as a reference list to aid EU Member States in completing their reporting forms and to provide consistency in the naming of species. Western Mediterranean (MWE); Ionian Sea and Central Mediterranean (MIC); Aegean–Levantine Sea (MAL); Adriatic Sea (MAD); Black Sea (BLK); Baltic Sea (BAL); Bay of Biscay and Iberian Coast (ABI); Celtic Seas (ACS); Greater North Sea (ANS); and Macaronesia (AMA).¹

Species	FAO Code	MWE	MIC	MAL	MAD	BLK	BAL	ABI	ACS	ANS	AMA
<i>Abramis brama</i>	FBM						1				
<i>Ammodytes spp</i>	SAN						1				
<i>Auxis rochei rochei</i>	BLT		1					1			
<i>Buccinum undatum</i>	WHE								1		
<i>Cancer pagurus</i>	CRE							x			
<i>Centrophorus granulosus</i>	GUP		1	x							
<i>Cerastoderma edule</i>	COC								x	X	
<i>Chelidonichthys cuculus</i>	GUR		1								
<i>Coregonus albula</i>	FVE						x				
<i>Cyclopterus lumpus</i>	LUM						x			X	
<i>Engraulis encrasicolus</i>	ANE						x			1	
<i>Ensis ensis</i>	EQE								x	X	
<i>Epinephelus ssp</i>	GPW										1
<i>Esox lucius</i>	FPI						1				
<i>Hexanchus griseus</i>	SBL		1								
<i>Illex coindetii</i>	SQM		1								
<i>Illex illecebrosus</i>	SQI							x			
<i>Katsuwonus pelamis</i>	SKJ	x									1
<i>Loligo vulgaris</i>	SQR		1								
<i>Lophius piscatorius</i>	MON		1								
<i>Macrourus berglax</i>	RHG							1			
<i>Merlangius merlangus</i> *	WHG						x				
<i>Mustelus mustelus</i>	SMD		1								
<i>Mytilus edulis</i> *	MUS									1	
<i>Mytilus spp.</i> *								x			
<i>Octopus vulgaris</i>	OCC		1					1			
<i>Osmerus eperlanus</i>	SME						x			x	
<i>Ostrea edulis</i>	OYF							x	x	x	
<i>Palaemon serratus</i>	CPR						x				
<i>Perca fluviatilis</i>	FPE						1				
<i>Platichthys spp.</i> **							x				
<i>Prionace glauca</i>	BSH		1								1
<i>Raja circularis</i>	RJI								1	1	
<i>Raja clavata</i>	RJC		1								1
<i>Raja montagui</i>	RJM		1								
<i>Rutilus rutilus</i>	FRO						1				
<i>Salmo trutta</i>	TRS						x			x	
<i>Sander lucioperca</i>	FPP						1				
<i>Scomber colias</i>	VMA										x

Species	FAO Code	MWE	MIC	MAL	MAD	BLK	BAL	ABI	ACS	ANS	AMA
<i>Scyliorhinus canicula</i>	SYC		1								
<i>Sepia officinalis</i>	CTC								x		
<i>Solen spp.</i>	RAZ									x	
<i>Spicara smaris</i>	SPC				1						
<i>Squalus acanthias</i>	DGS		1								
<i>Squalus blainville</i>	QUB		1								
<i>Squatina squatina</i>	AGN							1	1		
<i>Thunnus alalunga</i>	ALB										1
<i>Thunnus obesus</i>	WEG							1	x		1
<i>Thunnus thynnus</i>	BFT										1
<i>Trachinus draco</i>	WEG							x	x	x	
<i>Xiphias gladius</i>	SWO										1

1 = The species is reported by an EU Member State in this (sub)region and should be added to the "ReferenceList D3".

x = The species may be important at a local level in the (sub)region, based on information from workshop participants.

* Note that *Mytilus* aquaculture activities rely on wild capture of juveniles. It is unclear whether it is covered under MSFD D3 or not.

** It is acknowledged that there are two different flounder species in the Baltic Sea, and in all of the management units there is a mix of these two species; however, no separation was attempted during the assessment process.

ⁱ Version 2: table updated, non-essential species reported by Member States removed.

Databases used:

AER: <https://stecf.jrc.ec.europa.eu/reports/economic>

FDI: <https://stecf.jrc.ec.europa.eu/reports/fdi>