



## WP2: Scoping and gap analysis

**D2.2 Summary report of existing criteria, species and habitat lists used in conservation and restoration initiatives**



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



<b>Grant Agreement number</b>	101060707
<b>Project title</b>	MSP4BIO: IMPROVED SCIENCE-BASED MARITIME SPATIAL PLANNING TO SAFEGUARD AND RESTORE BIODIVERSITY IN A COHERENT EUROPEAN MPA NETWORK
<b>Deliverable title</b>	Summary report of existing criteria, species and habitat lists used in conservation and restoration initiatives
<b>Deliverable number</b>	D2.2
<b>Deliverable version</b>	1
<b>Contractual date of delivery</b>	31/07/2023
<b>Actual date of delivery</b>	31/07/2023
<b>Document status</b>	Final – Stage 1 (will be updated throughout the project when more details/information is available)
<b>Document version</b>	1
<b>Online access</b>	No
<b>Diffusion</b>	Public
<b>Nature of deliverable</b>	Report
<b>Work Package</b>	2
<b>Partner responsible</b>	VLIZ
<b>Contributing Partners</b>	CNR, CCMS, UAC, NIMRD, UCA, WWF-MED, UN, PAP-RAC
<b>Author(s)</b>	Inne Withouck, Fien De Raedemaeker, Panagiotis Georgiou, Débora Gutierrez, Helena Calado, Ana C. Costa, Camila Pegorelli, Javier Garcia Sanábria, Javier Garcia Onetti, Maria de Andres, Margarita Stancheva, Hristo Stanchev, Alina Spinu, Lucia Bongiorni, Matthieu Bekaert, Alessandra Conversi, Eleonore Cambra, Anna Barbanti, Mauro Randone, Marina Markovic, Volcy Boilevin, Francisco R. Barboza, Kemal Pınarbaşı, Ivana Stojanovic, Ivana Lukic
<b>Editor</b>	Helena Calado, Jonne Kotta
<b>Approved by</b>	Text here



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



## Project Officer

Victoria Beaz Hidalgo

Existing conservation and restoration initiatives were reviewed in this report to compile lists of criteria, species and habitats related to area designations for conservation. These lists assist in the selection of suitable sites for protection, as well as monitoring. The collected criteria were organised into different categories to distinguish between ecological, abiotic, anthropogenic, climatic and socio-economic criteria. Ecological criteria were the most frequently utilised, but the reviewed initiatives also considered cultural values, climate change variables and anthropogenic impacts. The results of this report will provide valuable insights for the MSP4BIO project, helping to develop improved criteria for site selection and protection.

## Abstract

criteria, ecological criteria, species lists, habitat lists, conservation, restoration, area-based management tools, significant areas, monitoring

## Keywords

Withouck I., De Raedemaeker F., Georgiou P., Gutierrez D., Calado H., Costa A.C., Pegorelli C., Garcia Sanábria J., Garcia Onetti J., de Andres M., Stancheva M., Stanchev, H., Spinu A., Bongiorni, L., Bekaert, M., Conversi, A., Cambra, E., Barbanti A., Randone M., Markovic, M., Boilevin, V., Barboza, F. R., Pınarbaşı K., Stojanovic I., Lukic I., (2023) Summary report of existing criteria, species and habitat lists used in conservation and restoration initiatives (Deliverable – D2.2., under the WP2 of MSP4BIO project (GA n° 101060707))

## Suggested citation

Many thanks to Stefanie Dekeyzer (VLIZ) for the guidance on navigating the WoRMS taxonomic database for the species list compilation and for feedback on the draft deliverable.

## Acknowledgements



## Table of Contents

Table of Contents .....	4
List of Figures .....	6
List of Tables .....	7
Acronyms .....	8
Glossary .....	9
Executive Summary .....	10
1    Introduction .....	11
2    Methods .....	12
2.1    Overview of the approach to criteria, species and habitat compilations .....	12
2.2    Screening of existing initiatives .....	13
2.2.1    Inclusion parameters .....	13
2.2.2    Screening workflow .....	14
2.3    Extraction and compilation of lists .....	15
2.3.1    Creation of unique identifiers for the compiled lists .....	15
2.3.2    Species/taxa list compilation .....	15
2.3.3    Habitat list compilation .....	17
2.3.4    Criteria list compilation .....	18
2.4    Description of criteria lists .....	19
2.5    Categorisation of the individual criteria extracted from criteria lists .....	19
3    Results .....	23
3.1    Compilation of criteria lists, species lists and habitat lists .....	23
3.1.1    Species and habitat list compilation .....	23
3.1.2    Criteria list compilation .....	23
3.1.3    Description of criteria lists .....	28
3.2    Criteria categorisation .....	30
3.2.1    Ecological and genetic criteria .....	31
3.2.2    Abiotic criteria .....	32
3.2.3    Anthropogenic criteria .....	33
3.2.4    Climate criteria .....	34
3.2.5    Socio-economic criteria .....	35
3.2.6    Consideration of ecological features in the ecological criteria .....	36



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



3.3	Consideration of genetic information.....	39
4	Discussion.....	41
4.1	Conclusions.....	44
5	References.....	45
Annex 1: Definitions and keywords of the criteria categories .....		49
Annex 2: Species and habitat lists catalogue .....		59
Annex 3: Criteria list catalogue.....		62



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



## List of Figures

Figure 1 Workflow of the approach to extract lists of criteria, species and habitats from the screened policy-related documents and the compilation of individual criteria, species and habitats.....	12
Figure 2 Pie charts illustrating the relative proportion of criteria assigned to the five criteria categories for criteria used for a) Identification of significant areas b) Identification of significant ecological features c) Designation of ABMTs d) Monitoring. For each list type, the total number of collected criteria is indicated in brackets. ....	31
Figure 3 Pie charts illustrating the relative proportion of functional, structural, ecological status and genetic subcategories assigned to the identified ecological and genetic criteria, used for a) Identification of significant areas b) Identification of significant ecological features c) Designation of ABMTs d) Monitoring. For each list type, the total number of collected criteria is indicated in brackets. ....	31
Figure 4 Pie charts illustrating the relative proportion of oceanographic, geological / geomorphological or meteorological subcategories assigned on the identified abiotic criteria used for a) Identification of significant areas b) Designation of ABMTs d) Monitoring. For each list type, the total number of collected criteria is indicated in brackets. ....	33
Figure 5 Pie charts illustrating the relative proportion of the anthropogenic activities and impacts subcategories assigned to the anthropogenic criteria used for a) Identification of significant areas b) Identification of significant ecological features c) Designation of ABMTs d) Monitoring. For each list type, the total number of collected criteria is indicated in brackets. ....	34
Figure 6 Pie charts illustrating the relative proportion of the climate subcategories within the climate category, for a) Identification of significant areas b) Designation of ABMTs c) Monitoring. For each list type, the total number of collected criteria is indicated in brackets. ....	35
Figure 7 Pie charts illustrating the relative proportion of criteria assigned to socio-cultural, economic, governance and management measures subcategories within the socio-economic category, for a) Identification of significant areas b) Identification of significant ecological features c) Designation of ABMTs d) Monitoring. For each list type, the total number of collected criteria is indicated in brackets. ....	36
Figure 8 Taxonomic groups referred to by the collected criteria, per criteria list category: a) Identification of significant areas b) Identification of significant ecological features c) Designation of ABMTs d) Monitoring. For each list type, the total number of collected ecological criteria is indicated in brackets. The y-axis has been cut off for a better visualisation.....	37
Figure 9 Bar chart to depict ecological criteria identified that refer to specified functional groups, per criteria list category: a) Identification of significant areas b) Identification of significant ecological features c) Designation of ABMTs d) Monitoring. For each list type, the total number of collected criteria is indicated in brackets. ....	38



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



## List of Tables

Table 1 Breakdown of information included in the list identifiers. ....	15
Table 2 Definitions of different statuses of the taxonomic names found in the WoRMS database (definitions taken from the WoRMS Editorial Board manual (2023), which is based on Horton et al. (2017)) ....	16
Table 3 Example of how the presence (1) or absence (0) of a species in each list is presented in the species compilation. ....	17
Table 4 Example of how habitats are included in the habitat compilation. ....	17
Table 5 Metadata collected for the individual criteria (the last three fields are only relevant for criteria that are part of the DEVOTES list). ....	19
Table 6 Overview of the defined criteria categories and subcategories with their definitions. ....	21
Table 7 Taxonomic species groups assigned to ecological criteria. ....	22
Table 8 Functional species groups assigned to ecological criteria. ....	22
Table 9 Overview of species and habitat lists compiled during the screening exercise at global, European and regional levels. Lists are organised based on their purpose and geographic origin. The list types were renamed to type A and B to avoid confusion with Table 10. Annex 2 provides an overview and brief description of the compiled species/habitat lists. ....	24
Table 10 Overview of criteria lists compiled during the screening exercise at global, European and regional levels. Lists are organised based on their purpose and geographic origin. Annex 3 provides an overview and brief description of the compiled criteria lists. ....	26
Table 11. Grouping of the criteria based on area of application. ....	28
Table 12. Criteria lists and the number of the criteria that have been collected per list type and per list. ....	29
Table 13 Sum of criteria identified per category for each of the four criteria list types. .	30
Table 14 Number of criteria labelled with ecological and genetic criteria subcategories for each criteria list type. ....	31
Table 15 Number of criteria labelled with abiotic criteria subcategories for each criteria list type. ....	32
Table 16 Number of criteria labelled with the anthropogenic activities and impacts subcategories for each criteria list type. ....	33
Table 17 Number of criteria labelled with the climate criteria subcategories for each criteria list type. ....	34
Table 18 Number of criteria labelled with socio-economic criteria subcategories for each criteria list type. ....	35



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



Table 19 The consideration of different organisms by the criteria, per criteria list type.	37
Table 20 The consideration of different functional groups by the criteria, per criteria list type .....	38
Table 21 Criteria identified that refer to genetic properties of ecological features .....	39

## Acronyms

ABMT	Area-based management tool
ABNJ	Areas beyond national jurisdiction
CBD	Convention on Biological Diversity
CCH	Cetacean Critical Habitat
EBSA	Ecologically or Biologically Significant Areas
EBV	Essential Biodiversity Variables
ECA	Emission Control Areas
EFH	Essential Fish Habitats
EOV	Essential Ocean Variables
IBA	Important Bird and Biodiversity Area
IMMA	Important Marine Mammal Area
KBA	Key Biodiversity Area
LME	Large Marine Ecosystem
MPA	Marine Protected Area
MSFD	Marine Strategy Framework Directive
NGO	Non-governmental organisation
OECM	Other effective area-based conservation measure
PSSA	Particularly Sensitive Sea Area
RFMO	Regional Fisheries Management Organisations
SA	Special Areas
SAC	Special Areas of Conservation
SCI	Site of Community Interest
SOx	Sulphur oxides
SPA	Special Protection Areas
SPAMI	Specially Protected Areas of Mediterranean Importance
VME	Vulnerable Marine Ecosystem
WFD	Water Framework Directive
WH	World Heritage
WNBR	World National Biosphere Reserves



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



## Glossary

Term	Definition used in MSP4BIO
Area-based Management Tools (ABMTs)	Instruments that entail “the implementation of a system of rights and duties in a particular management area, under the responsibility of a designated authority, and [ABMTs] tend to afford high levels of protection” (definition from Gissi et al., 2022, based on Prior et al., 2010; UNGA, 2007). ABMTs include marine protected areas (MPAs) and Other Effective area-based Conservation Measures (OECMs).
Criterion (plural: criteria)	A standard or principle for judging, evaluating, or selecting something. Particular requirements must be met in order to be considered or qualify. Standard/principle can be ecological, environmental or socio-economic in nature.
Criteria list	A list of multiple criteria used for a specific purpose (such as to designate ABMTs or identify significant areas)
Ecologically or Biologically Significant areas (EBSAs)	EBSAs are an example of ‘significant areas’ (defined below) and are defined as “special areas in the ocean that serve important purposes, in one way or another, to support the healthy functioning of oceans and the many services that it provides” (CBD, n.d.)
Habitat list	A list of multiple habitats used for a specific purpose (such as to designate ABMTs or identify significant areas)
List compilation	The collation of elements from multiple lists combined into one inventory (be it species, habitat or criteria list compilations)
Marine Protected Areas (MPAs)	“A clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.” (IUCN-WCPA, 2008)
Other Effective area-based Conservation Measures (OECMs)	“A geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term outcomes for the in situ conservation of biodiversity with associated ecosystem functions and services and where applicable, cultural, spiritual, socio-economic, and other locally relevant values.” (CBD, 2018)
Significant areas	Areas that host an outstanding proportion of a biodiversity element (e.g. a species, habitat or ecosystem) (definition based on definition of ‘significant’ by IUCN, (IUCN, 2016))
Species list	A list of multiple species/taxa used for a specific purpose (such as to designate ABMTs or identify significant areas)
Status of an area	A defined characteristic of an area that can be monitored, such as “Good Environmental Status” as defined by the MSFD, “Good Ecological Status” as defined by the WFD, or any other definitions of environmental state.



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



## Executive Summary

The MSP4BIO project aims to provide decision support for safeguarding biodiversity in line with the EU Biodiversity Strategy 2030, the Convention on Biological Diversity Post-2020 Framework, and the EU Green Deal. To understand how areas and ecological features are currently prioritised for conservation and restoration, a screening exercise of existing conservation and restoration initiatives (global, European and regional) that identify, designate and monitor areas and use species lists, habitat lists or criteria lists was conducted. This has led to a comprehensive compilation of 1,055 criteria from 37 lists, as well as 15 species lists and six habitat lists. To understand current practice, the collected criteria were labelled with predefined categories and subcategories, to understand how ecological, abiotic, anthropogenic, climatic and socio-economic aspects are represented in the criteria used for marine conservation and restoration.

A strong representation of ecological criteria has been identified, but the reviewed initiatives also considered cultural values, climate change variables and anthropogenic impacts. Within the category of ecological criteria, functional, structural, and ecological status attributes were considered, with structural aspects being the most common. Both the compilation and categorisation provide an overview of how ecological features and areas are identified and used for the designation and monitoring in the context of area-based management tools.

The results of this report will provide valuable insights for the MSP4BIO project, helping to develop improved criteria for site selection and protection.



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



## 1 Introduction

The MSP4BIO project (“Improved Science-Based Maritime Spatial Planning to Safeguard and Restore Biodiversity in a coherent European MPA network”), financed by Horizon Europe, runs for three years and will develop an Ecological-Socio-Economic (ESE) management framework, to protect and restore marine ecosystems. The aim of work package 2 (WP2) is to form the basis for the rest of the project by giving an overview of existing data and information that is used to inform the safeguarding of biodiversity.

To safeguard biodiversity and maintain marine ecosystem health and the supply of ecosystem services, a multitude of initiatives are in place at global, European or intergovernmental/sea basin levels. Existing conservation and restoration initiatives include i) identifying significant areas for conservation, ii) identifying ecological features for conservation, iii) designating area-based management measures, such as marine protected areas (MPAs), and iv) monitoring of the environmental state of an area. These initiatives specify lists of criteria, species or habitats for informing their implementation. To understand which criteria, species and habitats currently shape conservation and restoration initiatives, a screening exercise was undertaken to collect and compile lists from initiatives at global, European and regional levels.

To understand how ecological, abiotic, anthropogenic, climatic and socio-economic aspects were represented in the criteria used for marine conservation and restoration, the collected criteria were labelled with predefined categories and subcategories. Existing research indicates that criteria currently in place prioritise areas using a taxonomic approach, generally related to the conservation status/health of a single or few species, the use of simple taxonomic diversity indices, and the physical characteristics of habitats, overlooking their ecological role and contribution to key processes in marine ecosystems, or socio-economic values (Frid et al., 2008; Miatta et al., 2021; Trouillet and Jay, 2021; Van der Biest et al., 2020). Grouping the criteria into meaningful categories will allow an assessment of whether this is true for the criteria used in the reviewed conservation and restoration initiatives. In addition, MSP4BIO partners are interested in whether the criteria consider abiotic characteristics, such as oceanographic or geomorphological features, or climate change aspects.

This study aimed to answer two questions:

- Which criteria, species and habitat lists are being used by conservation and restoration initiatives at global, European and regional levels?
- Which ecological, abiotic, anthropogenic, climatic and socio-economic features are considered by existing conservation and restoration initiatives through established criteria, species or habitat lists?

The first part of the study consists of a screening of existing initiatives, and the extraction and compilation of criteria, species and habitat lists from these initiatives. The second part of the study involves a categorisation of the collected criteria.

The findings of this report will establish the current state-of-the-art on criteria from existing conservation and restoration initiatives to build on in future work packages (WP3 and WP4).



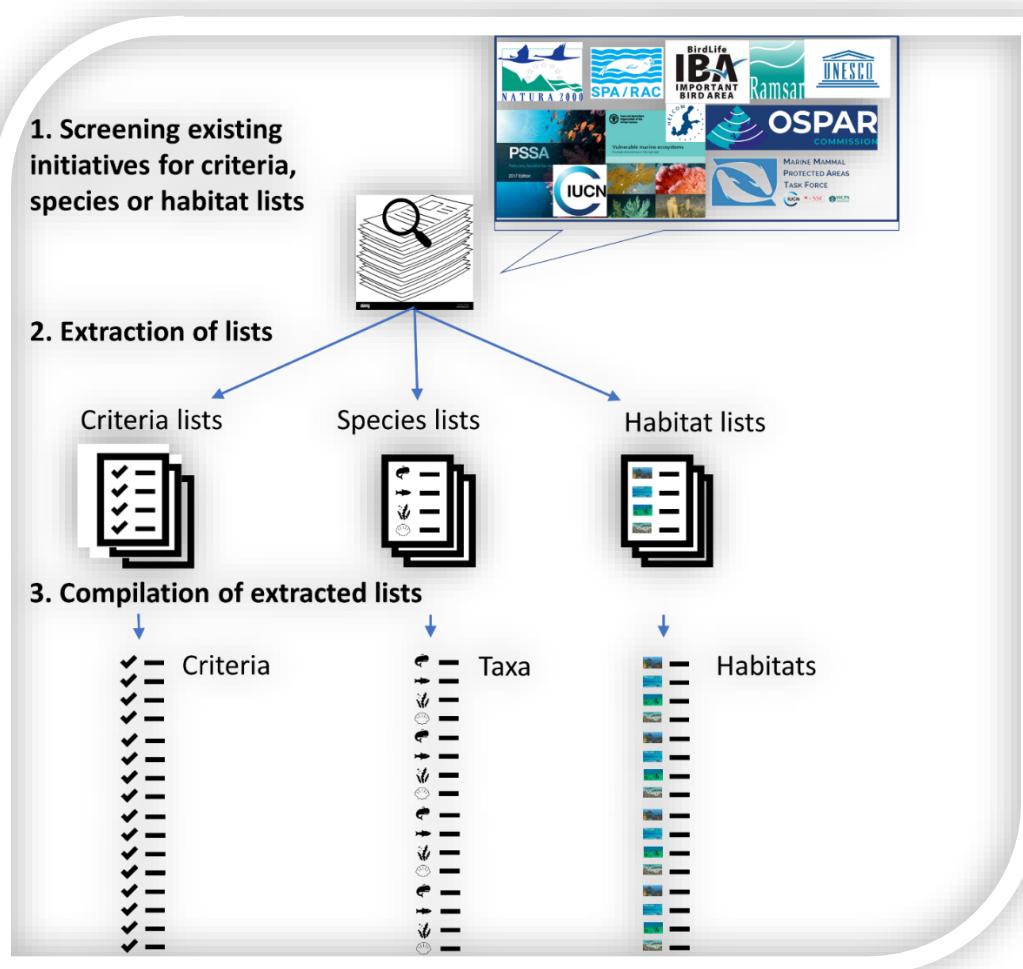
This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



## 2 Methods

### 2.1 Overview of the approach to criteria, species and habitat compilations

Lists of criteria, species and habitats were compiled through a screening of existing policy-related documents focusing on conservation and/or restoration initiatives. Documents include agreements, directives, conventions but also documents by task forces set up to implement those legal instruments, as well as guidance documents by NGOs. After identifying relevant documents through a screening exercise, the lists of species, habitats and criteria were extracted (Figure 1). The species and habitat lists were delivered as the milestone M2.1 for further use in the MSP4BIO project. The criteria lists were further analysed by grouping the criteria into meaningful categories.



*Figure 1 Workflow of the approach to extract lists of criteria, species and habitats from the screened policy-related documents and the compilation of individual criteria, species and habitats.*



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



## 2.2 Screening of existing initiatives

As a first step, initiatives at global, European and regional levels related to marine conservation and restoration were screened (see Figure 1). To understand how areas and ecological features are currently prioritised for conservation and/or restoration, a screening exercise of initiatives related to marine conservation and restoration, including the identification of important areas for biodiversity, MPAs and Other Effective Area-based Conservation Measures (OECMs) and indicators used to measure environmental state of an area, were screened to identify species, habitat and criteria lists. Documents such as conventions, directives and associated annexes, but also documents that are not legally binding such as guidance documents developed by non-governmental organisations (NGOs) were included. The scope of the screening and the screening workflow, including how the documents were searched for, are elaborated on in the following subsections.

### 2.2.1 Inclusion parameters

Based on the policy-mapping method by Bowen et al. (2022), inclusion parameters were defined for delineating the scope of the screening exercise to identify criteria, species and habitat lists (Bowen et al., 2022).

The following requirements were defined for documents to be included in the compilation:

1. Documents need to include explicit criteria lists, habitat lists or species lists (e.g., numbered/listed, may be included as an annex)
2. The lists need to be applicable to one of the four stages to achieve effective area-based management tools (ABMTs), defined here as four typologies:

#### Type 1: Lists used for the identification of significant areas for conservation

These lists are used to identify significant areas, such as those for birds (Important Bird and Biodiversity Area) and cetaceans (Cetacean Critical Habitat) or for their ecological or biological significance (Ecologically or Biologically Significant Marine Areas (EBSAs)), which can inform decision making for the identification of areas to be protected.

#### Type 2: Lists used for the identification of significant ecological features for conservation, including lists of species and habitats for conservation purposes

These lists relate to lists of ecological features (such as species/habitats/ecosystems), and the criteria lists that are used to decide which ecological features should be included in these lists. For example, the IUCN developed criteria to decide which species or other ecological features should be on their red list. These lists, such as the IUCN red list and the conservation status categories they defined with criteria lists, inform the identification of significant areas or the designation of ABMTs.

#### Type 3: Lists used for the designation of suitable areas for implementing area-based management tools (ABMTs)

These lists are used to delineate an area for which conservation measures will be implemented through officially recognised MPAs, as well as OECMs. For example,



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



criteria used to inform the designation of Natura 2000 sites, or criteria for suitable areas for designating Particularly Sensitive Sea Areas, an OECM managed by the International Maritime Organisation (IMO).

#### Type 4: Lists, indicators\* and definitions\*\* used for **monitoring** the status of an area

This type includes lists, definitions and indicators used for monitoring the status of an area, e.g., by evaluating the environmental state or the rate of recovery because of restoration initiatives.

\* Indicators were originally not in the scope of this study but the DEVOTES project catalogue of marine biodiversity indicators (with 613 entries collected from various sources such as regional sea conventions, EU Directives and research activities) was considered a relevant compilation to include (see Teixeira et al., (2016)). The catalogue was included for analysis after it was screened to check if any lists were already included in the MSP4BIO compilation.

\*\* Definitions of ecological status included as an annex to the Water Framework Directive were included because they align with the definition of criteria used for this study (the reader is referred to the glossary for the definition of “criteria” used in this study).

3. **Relevant actors** included in the screening exercise need to relate to one of the typologies as defined by Maribus (2015):

- 3.1. Institutions exclusively dedicated to the ocean (e.g., IMO)
- 3.2. Institutions with broader mandates but also dealing with ocean affairs (e.g., FAO)
- 3.3. Intergovernmental organisations (e.g., EU, OSPAR)
- 3.4. Nongovernmental organisations (NGOs, e.g., IUCN)

Even though they have no legal mandate, NGOs were also included because the EU guidance on criteria for area designations recommended the use of existing criteria from various sources including NGOs, to identify additional protected areas (European Commission, 2022).

4. The **geographic scope** need to include the global, European, regional or sea basin level. Global initiatives should have an EU relevance (e.g., they should relate to designations that are present in European waters, such as Ramsar sites).
5. Lists should be relevant to the four defined MSFD marine regions: (1) North Sea and Northeast Atlantic, 2) Mediterranean Sea, 3) Baltic Sea, 4) Black Sea, which include both the **marine and brackish realm**.

#### 2.2.2 Screening workflow

As a starting point for the identification and collection of relevant policy-related documents concerning conservation and restoration initiatives, the marine protection policy mapping results by Boyes and Elliott (2014), and the compilation of ABMTs by Gissi et al. (2022) were used. The policies and their related documents were screened and filtered using the inclusion parameters defined in Section 2.2.1. Additional initiatives were added using



snowball sampling – initiatives referred to in already included documents were screened and included in the mapping when the parameters were met. For example, the identification of documents including ABMT criteria lists (Type 3 list, see typology in Section 2.2.1) led to the identification of significant area criteria lists (Type 2 list). Another example is the reference to Essential Ocean Variables (EOVs, Type 4 list) by a study on EBSA criteria (Type 1 list), which then also led to the inclusion of Essential Biodiversity Variables (EBVs) (Johnson et al., 2018; Muller-Karger et al., 2018). To verify comprehensiveness, the initiatives included were cross-checked with compilations from other studies, such as the 4<sup>th</sup> World Ocean Review (Maribus, 2015), and the Commission Staff Working Document on Criteria and guidance for protected areas designations (European Commission, 2022). Furthermore, an MSP4BIO Expert Group reviewed comprehensiveness of the included lists.

## 2.3 Extraction and compilation of lists

After relevant initiatives were identified during the screening exercise, the lists were extracted from the related documentation and organised into three compilations: 1) species list compilation, 2) habitat list compilation and 3) criteria list compilation (see Figure 1). The lists were arranged according to list type, and area of application (global, European or regional).

### 2.3.1 Creation of unique identifiers for the compiled lists

For each criteria list, species/taxa list and habitat list a unique identifier was created, which has been used to link the individual criteria, taxa and habitats (for which unique identifiers have also been created) to information on the list to which they belong. The structure of the list identifiers is shown in Table 1.

*Table 1 Breakdown of information included in the list identifiers.*

Example list identifier: “ACL_EU_02_HD_AnnIII”	
“ACL”	criteria list (“CL”) related to area identification/designation (“A”) (“SH” is used instead of “CL” for species/habitat lists)
“EU”	list relevant at which level (regional “REG”, European “EU” or global “INTL”)
“02”	list number
“HD_AnnIII”	further list information

### 2.3.2 Species/taxa list compilation

To aid in the compilation of species/taxa lists, the World Register of Marine Species (WoRMS) was used, which has already compiled some of the species lists identified during the screening step. The WoRMS database is an online portal that provides a comprehensive inventory of the names and taxonomic information of marine organisms (World Register of Marine Species, 2023). As well as taxonomic information, the register also includes information on traits (such as biological or ecological traits) of the included species (Costello et al., 2015). This includes the human-defined trait ‘Species importance to society’, which indicates whether a taxon is part of any defined species list (Marine Species Traits editorial board, 2023). These species lists can be consulted using the



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



LifeWatch Traits Data Explorer (LifeWatch Belgium, 2023). Each list was downloaded from the register individually using the LifeWatch Traits Data Explorer by selecting the 'Species importance to society' trait. The tab files were downloaded on 29-30<sup>th</sup> of September 2022, and loaded into R for reformatting (R Core Team, 2022). The lists were combined and reformatted using R packages 'reshape2' (v.1.4.4; (Wickham, 2007)), 'stringr' (v.1.4.1, (Wickham, 2022)) and 'dplyr' (v.1.0.9, (Wickham et al., 2023)). For each list, only marine and brackish species were considered.

The WoRMS database uses a unique identifier, called the AphiaID, to distinguish between different taxa (Vandepitte et al., 2015). Each taxonomic name is assigned a status (see Table 2). If the listed taxonomic name of collected species/taxa had a status that was either 'unaccepted', 'uncertain', 'alternate representation' or 'temporary name' (so if it did not have 'accepted' as a status), the listed AphiaID of that taxon name was replaced with the AphiaID of the accepted name of that taxon. This allowed a standardisation of how species were included in the compilation, so that the presence of species in different lists could be compared. If the taxonomic name had an unaccepted or uncertain status and no accepted name AphiaID was given, the AphiaID of the 'unaccepted' or 'uncertain' name was kept, but this was only necessary for on average 3% of the records per list. This means not all records have an accepted status but they all have an AphiaID which can be used to retrieve the latest taxonomic status. Once the records were given their accepted name rather than their listed name (when available), each list was checked for duplicates.

*Table 2 Definitions of different statuses of the taxonomic names found in the WoRMS database (definitions taken from the WoRMS Editorial Board manual (2023), which is based on Horton et al. (2017))*

<b>Status of taxonomic name</b>	<b>Definition</b> (taken from the WoRMS Editorial Board manual (2023), which is based on Horton et al. (2017))
<b>Accepted</b>	Valid name (ICZN) or name considered to be taxonomically correct (ICBN)
<b>Unaccepted</b>	Synonym name, or anything that is not accepted (subcategories: nomen nudum, interim unpublished, superseded combination, junior homonym, junior subjective synonym, junior objective synonym, nomen oblatum, incorrect original spelling, misspelling, unjustified emendation, incorrect grammatical agreement of specific epithet, misapplication, unavailable name, superseded rank)
<b>Alternate representation</b>	An accepted name with (or without) a subgenus, but slightly less preferred
<b>Temporary name</b>	Ad-hoc higher rank taxa of convenience to accommodate child taxa for which the classification is not yet finalised. i.e. incertae sedis, sp. a, ...
<b>Uncertain</b>	To indicate taxonomic or nomenclatural uncertainty for cases which cannot be classed as either 'accepted' or 'unaccepted' (subcategories: nomen dubium, taxon inquirendum, unassessed)

As well as the lists already included in WoRMS, additional species lists identified during the screening were extracted and converted into CSV files. These CSV files were then loaded into R to add them to the compilation. Once the compilation of species/taxa was complete, it was exported as a CSV file and converted to an Excel worksheet.



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



## Species compilation format

For the species compilation, species/taxa were listed as rows, with a column included with the associated AphialID and scientific name. Each list is included as a column, and the presence/absence of each species in a given list is indicated with a 1 or 0 (see example in Table 3). Additional columns included in the compilation give further details on how each species is included in a particular list. The metadata table includes background information on each species list, including the source.

*Table 3 Example of how the presence (1) or absence (0) of a species in each list is presented in the species compilation.*

AphialID	Scientific name	List identifiers	
		SH_INTL_14_FAO ASFIS	A_SH_EU_02_HD_Annl_IV
101172	<i>Lampetra fluviatilis</i>	0	1
1000621	<i>Peringia mabilli</i>	0	0
1006787	<i>Polysteganus flavodorsalis</i>	0	0

### 2.3.3 Habitat list compilation

For the habitat compilation, habitats listed were compiled in an Excel worksheet, and when the listed habitats were linked to any existing habitat classifications (such as EUNIS), the habitat classification codes were included as a column.

## Habitat compilation format

For the habitat compilation, habitats were listed as rows with a column indicating the list the habitat belongs to using the list identifiers (Table 4). Unique identifiers were created for each of the listed habitats by numbering the habitats that are part of a list. Alternatively, if the habitats of a list were already numbered or given a unique code, this was used for creating the identifier. This numbering was then added to the unique identifier of the list the criteria are part of (see example in Table 4, where the Habitat Directive codes are used to create the unique habitat identifiers). The metadata table includes background information on each habitat list, including the source.

*Table 4 Example of how habitats are included in the habitat compilation.*

List identifier	Habitat identifier	Habitat name
A_SH_EU_01_HD_Annl_hb	A_SH_EU_01_HD_Annl_hb_1110	Sandbanks which are slightly covered by sea water all the time
A_SH_EU_01_HD_Annl_hb	A_SH_EU_01_HD_Annl_hb_1120	Posidonia beds ( <i>Posidonia oceanicae</i> )
A_SH_EU_01_HD_Annl_hb	A_SH_EU_01_HD_Annl_hb_1130	Estuaries
SH_EU_04_MSFD_hb	SH_EU_04_MSFD_hb_1	Littoral rock and biogenic reef
SH_EU_04_MSFD_hb	SH_EU_04_MSFD_hb_2	Littoral sediment



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



### 2.3.4 Criteria list compilation

For the criteria compilation, the individual criteria from the lists were compiled into an Excel worksheet. When additional (quantitative) guidance on how to implement the criteria is provided along with the criteria list or for a specific criterion, this is specified in the notes section, and if other criteria that are also included in the compilation are used as a guidance, the appropriate criteria (list) code is given.

#### Criteria compilation format

Each criterion was included as a row in an Excel worksheet. Unique identifiers were created for the individual criteria by numbering the individual criteria that are part of a list (if the criteria of a list were already numbered, the existing numbering was used). This numbering was then added to the unique identifier of the list the criteria are part of (e.g. the first criterion of the list in stage 1 part A of Annex III of the Habitats Directive (list identifier: "ACL\_EU\_01\_HD\_AnnIII") has the unique identifier "ACL\_EU\_02\_HD\_AnnIII\_S1\_A.a").

At the list level, a dedicated column for links with other criteria lists, ("Notes\_links\_othercrit") was included. At the individual criteria level, Table 5 lists the metadata compiled for the individual criteria.



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



*Table 5 Metadata collected for the individual criteria (the last three fields are only relevant for criteria that are part of the DEVOTES list).*

Sheet '03 criteria compilation'	
<b>Criteria list name</b>	Name of criteria list
<b>Criterion_listidentifier</b>	Unique code for criteria list
<b>Criteria sublist name</b>	Subsection within criteria list
<b>Criterion no.</b>	Criterion number
<b>Criterion_identifier</b>	Unique code for criterion
<b>Criterion</b>	Content of criterion
<b>Clarification terminology</b>	Any further guidance on how to interpret the criterion
<b>Focus of criterion</b>	Core feature of criterion
<b>Links with other criteria</b>	Any mention of other criteria in the compilation
<b>Notes</b>	Anything that needs to be considered
<b>Previous name criterion</b>	Information on previous naming of criterion
<b>Source</b>	DEVOTES indicator info (source information in access file)
<b>Contributor</b>	DEVOTES indicator source
<b>Data requirements</b>	Data needed to calculate DEVOTES indicator

## 2.4 Description of criteria lists

The collected criteria lists were organised based on a few characteristics:

- A grouping by **realm** to see how many of the criteria refer to marine only or to marine and non-marine environments.
- A grouping according to the **geographic scope** of the criteria lists to assess the relevance for global, regional, European or national contexts.

## 2.5 Categorisation of the individual criteria extracted from criteria lists

The MSP4BIO Expert Panel defined categories and subcategories based on the thematic aspects of the criteria (Table 6). Annex 1 provides a definition for each of the criteria categories and subcategories, as well as examples of relevant keywords. After final agreement on the categories and subcategories useful for the MSP4BIO project, a two-level categorisation on the collected individual criteria was carried out. The aim of this exercise was to understand how ecological, abiotic, anthropogenic, climatic and socio-economic aspects are represented in the criteria used for marine conservation and restoration. In addition, **species groups** were also assigned to the ecological criteria, using the classification in Table 7.

The categorisation of the thematic aspects and the species groups was carried out by multiple MSP4BIO partners, and to verify consistency, each criterion was categorised by at least two partners. The criteria compilation was split up into eight sub-compilations and distributed to each independent research team. To carry out the joint exercise, guidelines



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



were developed. After verification and finalisation of the categories assigned to the criteria, the number of criteria per category was then calculated for each of the list types, and categories were compared based on how many criteria were found per category.

Multiple categories can be assigned to one criterion. The presence of combinations of multiple categories assigned to one criterion was checked, for two specific combinations (the combination of functional and structural aspects as well as the combination of ecological and socio-economic aspects).

Species groups were assigned to ecological criteria depending either on the nature of the criteria list (e.g., all criteria in the criteria list for identifying Important Bird and Biodiversity Areas were assigned to the bird group), or on the wording of the individual criteria (which may mention specific species groups). Ecological criteria were assigned the label 'Not relevant' when the criterion did not mention species/organisms specifically, e.g. when the criterion describes physical habitat characteristics.



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



**Table 6 Overview of the defined criteria categories and subcategories with their definitions.**

Criteria (sub)category	Definition
<b>1. Ecological and genetic criteria</b>	<i>Criteria that relate to living organisms, habitats and ecosystems, and their genetic structure</i>
1.1 Functional	Criteria that refer to processes and properties of ecosystems and their components, that relate to functioning, from ecosystem level to species level
1.2 Structural	Criteria that refer to the structure of ecosystems, habitats and species (e.g. which species are there and how many, how complex is the habitat)
1.3 Genetic	Criteria related to the genetic structure of organisms
1.4 Ecological status	Criteria related to the condition/state of ecological features and the environment, including references to IUCN Red List Categories (e.g. near threatened, endangered), references to ecological status or to the degree of conservation, references to naturalness and the degree of disturbance of a particular ecological feature
<b>2. Abiotic criteria</b>	<i>Criteria that refer to non-living elements of the environment that influence the way organisms and ecosystems function</i>
2.1 Oceanographic conditions	Physical and chemical condition of oceans and habitats
2.2 Geological and geomorphological features	Physical features of the seabed
2.3 Meteorological conditions	Any criteria referring to weather conditions / meteorology
<b>3. Anthropogenic criteria</b>	<i>Criteria that consider the presence of anthropogenic activities that might generate some effect/pressures on biotic/ecological elements</i>
3.1 Anthropogenic activities	Anthropogenic activities that can cause a threat to living organisms or the environment
3.2 Anthropogenic impacts	Changes caused by an anthropogenic activity on the surrounding area
<b>4. Climate criteria</b>	<i>Criteria related to climate impact, climate change or climate mitigation on living organisms and their vulnerability or capacity to adapt/ability to recover from climate change or their environment</i>
4.1 Climate drivers	Criteria related to activities that contribute to climate change
4.2 Climate impacts	Criteria related to the impact of climate change on living organisms and their capacity to adapt/ability to recover from climate change
4.3 Climate mitigation	Criteria related to capability of mitigating climate change
4.4 Climate change resilience	MPA resilience in the face of environmental changes over time



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



Table 6 (continued)

Criteria (sub)category	Definition
<u>5. Socio-economic criteria</u>	<i>Criteria that relate to social, economic or cultural values that should be considered when prioritising/designating an area, which can for example be ecosystem services with social, economic or cultural value. This category also includes criteria related to governance and existing measures.</i>
5.1 Social and cultural	Social and cultural values that are included as criteria
5.2 Economic	Economic considerations that are valued and included as criteria
5.3 Governance	Criteria related to how risks and interests are represented in decision making
5.4 Existing measures	The consideration of existing measures already in place in the area of interest

Table 7 Taxonomic species groups assigned to ecological criteria.

Taxonomic species group	Description of species group	Source description
Birds	Species that belong to the taxonomic class Aves: Species primarily adapted for flight with feathers	Encyclopaedia Britannica, Frank Gill (2002)
Fish	Species that belong to the superclass Pisces: Grouping that includes bony fish and cartilaginous fish, including elasmobranch species	World Register of Marine Species (AphiaID 11676)
Mammals	Species that belong to the grouping that includes cetaceans and pinnipeds (incl. seals),	NOAA
Reptiles	Marine reptile species such as sea turtles	Encyclopaedia of Life Support Systems
Invertebrates	Species that lack a backbone	Encyclopaedia Britannica
Angiosperms	Marine flowering plant species	Encyclopaedia Britannica
Macroalgae	Non-flowering marine plants visible to the naked eye	eAtlas.org.au
Microbes	Organisms that are too small to be seen with the naked eye, such as bacteria	Learn.Genetics.utah.edu
Taxonomic group not specified	Group for which no reference is made to taxonomic groups, but reference is made to functional groups	-

Table 8 Functional species groups assigned to ecological criteria

Functional species group	Description of species group	Source description
Benthic species	Organisms that live on the sea floor	NOAA
Demersal species	Species living near the seabed	Merriam-Webster dictionary
Pelagic species	Drifting organisms that are carried along by tides and currents in the water column	NOAA



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



## 3 Results

### 3.1 Compilation of criteria lists, species lists and habitat lists

In total, 37 criteria lists (including 1,055 criteria), 16 species lists (including 24,816 taxa) and six habitat lists (including 322 habitats) were identified and compiled. 11/16 species lists were already present in the WoRMS database. Criteria lists were found for each of the four defined list types (types 1-4), and species and habitat lists were identified for type 2 and type 4. The compilations and background information on the compiled lists are found in Supplementary Materials S1-S5.

#### 3.1.1 Species and habitat list compilation

Table 9 provides an overview of the compiled species and habitat lists at regional, European and global levels, grouped according to the purpose of the list. Background information on the species and habitat lists is found in Supplementary Material S1, and the species and habitat lists compilations can be found in Supplementary Materials S2-S3.

#### 3.1.2 Criteria list compilation

Table 10 provides an overview of the compiled criteria lists at regional, European and global levels, grouped according to the purpose of the list. Background information on the criteria lists is found in Supplementary Material S4, and the criteria lists compilation can be found as Supplementary Material S5.



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



*Table 9 Overview of species and habitat lists compiled during the screening exercise at global, European and regional levels. Lists are organised based on their purpose and geographic origin. The list types were renamed to type A and B to avoid confusion with Table 10. Annex 2 provides an overview and brief description of the compiled species/habitat lists.*

Species/habitats list type	Global	European	Regional
<b>A. Species and habitat lists used for the identification of significant ecological features for conservation/restoration</b>	A.1 IUCN Red List of species A.2 CITES Appendix I-III species lists A.3 FAO-ASFIS List of Species for Fishery Statistics Purposes	A.4 Habitats Directive Annex I: Natural habitat types of community interest whose conservation requires the designation of special areas of conservation A.5 Habitats Directive Annex II,IV: species lists <sup>1</sup> A.6 Nature Restoration Law Annex II: marine habitat types A.7 Nature Restoration Law Annex III: marine species A.8 Birds Directive Annexes I-III: wild bird species	<u>Baltic Sea</u> <u>Black Sea</u> A.9 HELCOM Red List of Species A.10 Black Sea Biodiversity and Landscape Conservation Protocol Annex II,IV <u>ICES region</u> A.11 ICES VME indicators and habitats <u>Mediterranean Sea</u> A.12 SPA/BD Protocol Annexes II-III: list of endangered or threatened species A.13 GFCM Mediterranean VME indicator features, habitats and taxa <u>NE Atlantic &amp; North Sea</u> A.14 OSPAR List of Threatened and/or Declining Species and Habitats A.15 NEAFC VME Indicator Species

<sup>1</sup> Habitats Directive Annex V was not included because no marine or brackish species were found in this list



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



Species/habitats list type	Global	European	Regional
<b>B. Species lists, habitat lists and indicators used for monitoring the status of an area</b>		B.1 COM DEC 2017/848/EU MSFD Benthic broad habitats	<a href="#"><u>Baltic Sea</u></a> <a href="#"><u>B.2 HELCOM Core Biodiversity Indicator species for monitoring MSFD targets</u></a> <a href="#"><u>Black Sea</u></a> <a href="#"><u>B.3 Black Sea Proposed Indicators species MSFD</u></a> <a href="#"><u>Mediterranean Sea</u></a> <a href="#"><u>B.4 Mediterranean Common/Proposed Indicators species MSFD</u></a> <a href="#"><u>NE Atlantic &amp; North Sea</u></a> <a href="#"><u>B.5 OSPAR Common and Candidate Indicators species MSFD</u></a>



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



*Table 10 Overview of criteria lists compiled during the screening exercise at global, European and regional levels. Lists are organised based on their purpose and geographic origin. Annex 3 provides an overview and brief description of the compiled criteria lists.*

Criteria list type	Global	European	Regional
1. Criteria used for the <b>identification</b> of significant areas for conservation	1.1 Birdlife International Important Bird Area (IBA) criteria 1.2 CBD Ecologically or Biologically Significant Marine Areas (EBSA) criteria 1.3 MMPA Task Force Important Marine Mammal Areas (IMMA) criteria 1.4 UNESCO-IOC Large Marine Ecosystem (LME) criteria 1.5 IUCN Key Biodiversity Area (KBA) criteria 1.6 FAO Vulnerable Marine Ecosystem (VME) criteria		<u>Black Sea, Mediterranean Sea and Contiguous Atlantic Area</u>  1.7 ACCOBAMS Cetacean Critical Habitat (CCH) criteria <u>Mediterranean Sea</u>  1.8 OCEANA Essential Fish Habitats (EFHs) criteria
2. Criteria used for the <b>identification</b> of significant ecological features for conservation	2.1 IUCN Red List species criteria 2.2 IUCN Red List ecosystems criteria	2.3 Birds Directive Article 4 criteria concerning species requiring spatial conservation measures	<u>Black Sea</u>  2.4 Black Sea Commission criteria for the selection of species whose exploitation should be regulated <u>NE Atlantic &amp; North Sea</u>  2.5 OSPAR criteria for the identification of species and habitats in need of protection (Texel-Faial criteria)



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



Criteria list type	Global	European	Regional
3. Criteria used for the <b>designation</b> of suitable areas for implementing area-based management tools (ABMTs)	3.1 IMO Particularly Sensitive Sea Area (PSSA) criteria 3.2 IMO Special Area (SA) criteria 3.3 IMO Emission Control Areas (ECA) criteria 3.4 UNESCO World National Biosphere Reserves (WNBR) criteria 3.5 UNESCO World Heritage (WH) sites criteria 3.6 Ramsar sites criteria 3.7 UNCLOS Areas Beyond National Jurisdiction (ABNJ) MPA criteria	3.8 Habitats Directive criteria for selection of eligible sites 3.9 Hab. 97/2 rev. 4 18/11/97 criteria for assessing national lists of proposed Sites of Community Importance (pSCI) at biogeographical level 3.10 Common Fisheries Policy Article 8 criteria concerning fish stock recovery areas 3.11 Nature Restoration Law Article 11 (2) criteria concerning habitats to be restored	<u>Baltic Sea</u> 3.12 HELCOM MPAs criteria <u>Mediterranean Sea</u> 3.13 SPA/RAC Specially Protected Areas of Mediterranean Importance (SPAMI) criteria
4. Criteria and indicators used for <b>monitoring</b> the status of an area	4.1 GEO BON Essential Biodiversity Variables (EBVs) 4.2 GOOS Essential Ocean Variables (EOVs) 4.3 SER Ecosystem attributes to evaluate recovery	4.4 MSFD Annex III Indicative list of characteristics 4.5 COM DEC 2017/848/EU MSFD criteria to monitor descriptors 4.6 COM DEC 2017/848/EU MSFD Scientific criteria for the selection of species and habitats 4.7 WFD Annex V definitions ecological status 4.8 Natura 2000 parameters used to monitor areas (HD Art 17 and BD Art 12) 4.9 DEVOTES Catalogue of Marine Biodiversity Indicators	<u>NE Atlantic &amp; North Sea</u> 4.10 OSPAR Common Indicators for MSFD monitoring



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



### 3.1.3 Description of criteria lists

16 criteria lists were relevant to both marine and non-marine contexts, and 21 criteria lists were specifically for the marine environment. Most of the criteria lists are defined for application on a global level, followed by lists defined for European waters and then the lists defined at the regional level (Table 11). The DEVOTES compilation of indicators also includes indicators defined for national waters or at the sea basin level. The number of criteria per list can be found in Table 12.

*Table 11. Grouping of the criteria based on area of application.*

Area of application	Number of collected criteria lists
Global	18
European waters	12
Regional - Baltic Sea	1
Regional - Black Sea	1
Regional - Black Sea, Mediterranean Sea and Contiguous Atlantic Area	1
Regional - Mediterranean Sea	2
Regional - Northeast Atlantic and North Sea (OSPAR region)	2
Total	37



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



*Table 12. Criteria lists and the number of the criteria that have been collected per list type and per list.*

Criteria list (type)	Number of criteria
<b>1. Total for list type 1: significant area identification</b>	<b>72</b>
1.1 Birdlife International Important Bird and Biodiversity Area (IBA) criteria	16
1.2 CBD Ecologically or Biologically Significant Marine Areas (EBSA) criteria	7
1.3 MMPA Task Force Important Marine Mammal Areas (IMMA) criteria	8
1.4 UNESCO-IOC Large Marine Ecosystem (LME) criteria	4
1.5 IUCN Key Biodiversity Area (KBA) criteria	11
1.6 FAO Vulnerable Marine Ecosystem (VME) criteria	5
1.7 ACCOBAMS Cetacean Critical Habitat (CCH) criteria	12
1.8 OCEANA Essential Fish Habitats (EFHs) criteria	9
<b>2. Total for list type 2: significant ecological features identification</b>	<b>54</b>
2.1 IUCN Red List species criteria	27
2.2 IUCN Red List ecosystems criteria	5
2.3 Birds Directive Article 4 criteria concerning species requiring spatial conservation measures	4
2.4 Black Sea Commission criteria for the selection of species	6
2.5 OSPAR Texel-Faial criteria	12
<b>3. Total for list type 3: ABMT designation</b>	<b>143</b>
3.1 IMO Particularly Sensitive Sea Area (PSSA) criteria	17
3.2 IMO Special Area (SA) criteria	10
3.3 IMO Emission Control Areas (ECA) criteria	6
3.4 UNESCO World National Biosphere Reserves (WNBR) criteria	7
3.5 UNESCO World Heritage (WH) sites criteria	10
3.6 Ramsar sites criteria	9
3.7 UNCLOS Areas Beyond National Jurisdiction (ABNJ) MPA criteria	22
3.8 Habitats Directive criteria for selecting sites eligible	10
3.9 Hab. 97/2 rev. 4 18/11/97 criteria	9
3.10 Common Fisheries Policy Article 8 criteria concerning fish stock recovery areas	3
3.11 Nature Restoration Law Article 11 (2) criteria concerning habitats to be restored	5
3.12 HELCOM MPAs criteria	20
3.13 SPA/RAC Specially Protected Areas of Mediterranean Importance (SPAMI) criteria	15



Table 12 (continued)

Criteria list (type)	Number of criteria
<b>4. Total for list type 4: monitoring status of areas</b>	<b>763</b>
4.1 GEO BON Essential Biodiversity Variables (EBVs)	27
4.2 GOOS Essential Ocean Variables (EOVs)	32
4.3 SER Ecosystem attributes to evaluate recovery	18
4.4 MSFD Annex III Indicative list of characteristics	17
4.5 COM DEC 2017/848/EU MSFD criteria to monitor descriptors	29
4.6 COM DEC 2017/848/EU MSFD Scientific criteria for the selection of species and habitats	5
4.7 WFD Annex V definitions ecological status	21
4.8.1 Natura 2000 parameters used to monitor areas (BD Art 12)	4
4.8.2 Natura 2000 parameters used to monitor areas (HD Art 17)	3
4.9 DEVOTES Catalogue of Marine Biodiversity Indicators	590
4.10 OSPAR Common Indicators for MSFD monitoring	17

### 3.2 Criteria categorisation

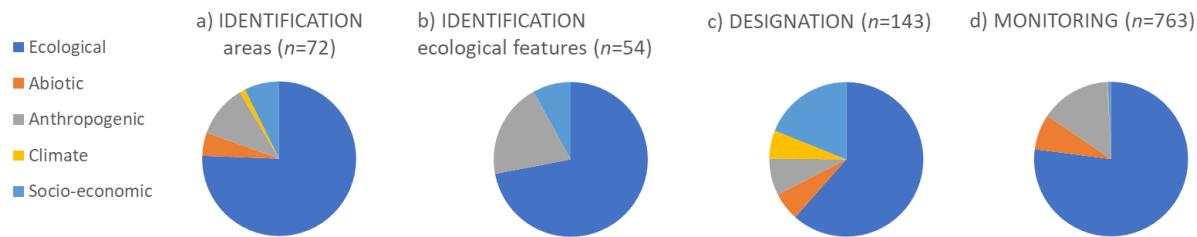
For each of the four criteria list types (identification of areas, identification of ecological features, designation of ABMTs and monitoring), Table 13 and Figure 2 indicate that ecological and genetic criteria are the most represented category, followed by anthropogenic and abiotic criteria. For the criteria used to identify important ecological features, all criteria were categorised as ecological criteria (as well as 15 criteria being considered both anthropogenic and ecological criteria, and 6 criteria were considered both socio-economic and ecological criteria). For the designation criteria lists, socio-economic criteria were more prevalent than anthropogenic or abiotic criteria. Overall, climate criteria are the least represented in the compilation (Table 13). For an overview of the categories and subcategories and their definitions, the reader is referred to Table 6.

Table 13 Sum of criteria identified per category for each of the four criteria list types.

	Ecological and genetic criteria	Abiotic criteria	Anthropogenic criteria	Climate criteria	Socio-economic criteria
<b>IDENTIFICATION - areas</b>	62	4	9	1	6
<b>IDENTIFICATION - ecological features</b>	54	0	15	0	6
<b>DESIGNATION</b>	104	10	13	10	32
<b>MONITORING</b>	685	66	131	1	6
<b>Total</b>	<b>905</b>	<b>80</b>	<b>168</b>	<b>12</b>	<b>50</b>



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



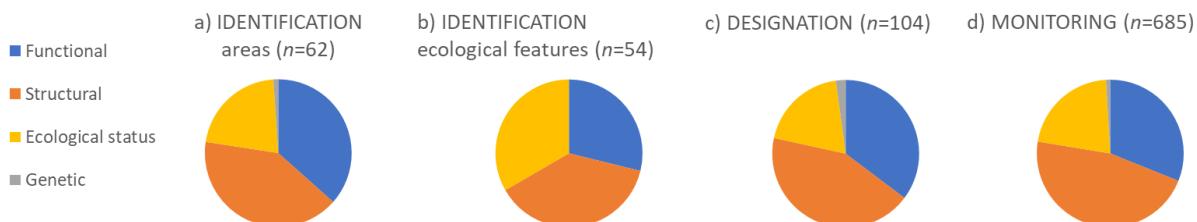
**Figure 2** Pie charts illustrating the relative proportion of criteria assigned to the five criteria categories for criteria used for a) Identification of significant areas b) Identification of significant ecological features c) Designation of ABMTs d) Monitoring. For each list type, the total number of collected criteria is indicated in brackets.

### 3.2.1 Ecological and genetic criteria

As can be seen in Table 14 and Figure 3, structural aspects are the most prevalent among ecological criteria, followed by functional aspects and ecological status aspects.

**Table 14** Number of criteria labelled with ecological and genetic criteria subcategories for each criteria list type.

	Functional	Structural	Genetic	Ecological status
<b>IDENTIFICATION - areas</b>	34	38	1	20
<b>IDENTIFICATION - ecological features</b>	32	42	0	37
<b>DESIGNATION</b>	49	60	3	27
<b>MONITORING</b>	298	446	9	206
<b>Total</b>	<b>413</b>	<b>586</b>	<b>13</b>	<b>290</b>



**Figure 3** Pie charts illustrating the relative proportion of functional, structural, ecological status and genetic subcategories assigned to the identified ecological and genetic criteria, used for a) Identification of significant areas b) Identification of significant ecological features c) Designation of ABMTs d) Monitoring. For each list type, the total number of collected criteria is indicated in brackets.



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



Out of the 413 criteria labelled as 'functional ecological criteria', a subset of 224 criteria were also labelled as 'structural ecological criteria', meaning both functional and structural aspects were present in a single criterion for 224 criteria. Box 1 is an example of a criterion that considers both functional (fragility, see Annex 1) and structural (rarity, see Annex 1) aspects. 189 criteria were considered to be functional ecological criteria without also considering structural aspects, and 362 criteria were labelled as structural ecological criteria without any mention of functional ecological aspects.

*Box 1 Example of a criterion that contains both structural and functional ecological aspects (criterion is part of the criteria list used to designate Special Areas under the MARPOL convention)*

"Conditions indicating that protection of the area from harmful substances is needed to preserve rare or fragile ecosystems such as coral reefs, mangroves, seagrass beds and wetlands"

### 3.2.2 Abiotic criteria

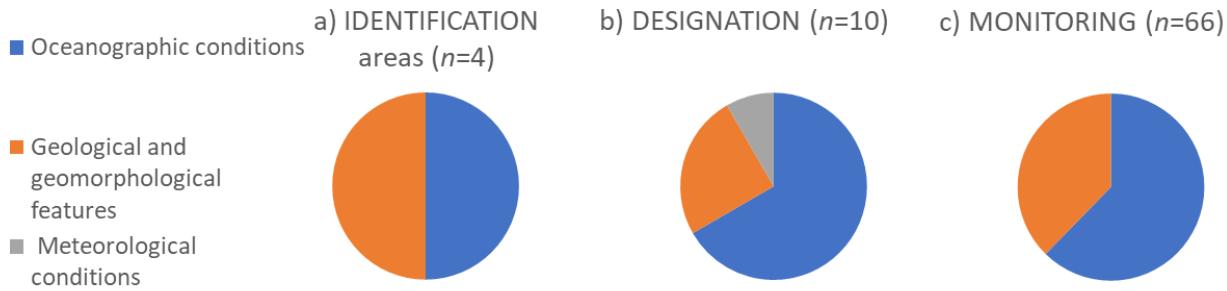
As can be seen in Table 15 and Figure 4, a relatively balanced combination of both oceanographic and geological/geomorphological features are represented in the abiotic criteria, with only one criterion related to meteorological conditions. Oceanographic conditions are considered the most in criteria used for monitoring, and they are less represented in criteria used for identifying or designating conservation areas.

*Table 15 Number of criteria labelled with abiotic criteria subcategories for each criteria list type.*

	Oceanographic conditions	Geological and geomorphological features	Meteorological conditions
<b>IDENTIFICATION - areas</b>	2	2	0
<b>IDENTIFICATION - ecological features</b>	0	0	0
<b>DESIGNATION</b>	8	3	1
<b>MONITORING</b>	43	26	0
<b>Total</b>	<b>53</b>	<b>31</b>	<b>1</b>



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



*Figure 4 Pie charts illustrating the relative proportion of oceanographic, geological / geomorphological or meteorological subcategories assigned on the identified abiotic criteria used for a) Identification of significant areas b) Designation of ABMTs d) Monitoring. For each list type, the total number of collected criteria is indicated in brackets.*

### 3.2.3 Anthropogenic criteria

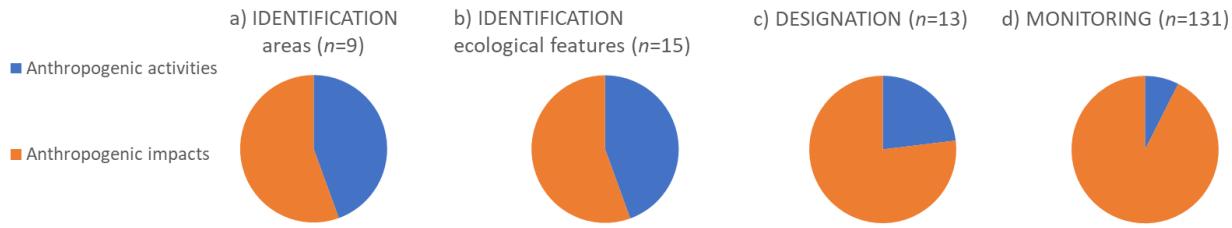
As can be seen in Table 16 and Figure 5, anthropogenic impacts are more prevalent than anthropogenic activities in each of the criteria list types.

*Table 16 Number of criteria labelled with the anthropogenic activities and impacts subcategories for each criteria list type.*

	Anthropogenic activities	Anthropogenic impacts
<b>IDENTIFICATION -areas</b>	4	5
<b>IDENTIFICATION -ecological features</b>	12	15
<b>DESIGNATION</b>	3	10
<b>MONITORING</b>	10	124
<b>Total</b>	<b>29</b>	<b>154</b>



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



*Figure 5 Pie charts illustrating the relative proportion of the anthropogenic activities and impacts subcategories assigned to the anthropogenic criteria used for a) Identification of significant areas b) Identification of significant ecological features c) Designation of ABMTs d) Monitoring. For each list type, the total number of collected criteria is indicated in brackets.*

### 3.2.4 Climate criteria

As can be seen in Table 17 and Figure 6, climate impact, mitigation and climate change resilience aspects are more prevalent than climate drivers, which was only identified as a category for one of the monitoring criteria.

*Table 17 Number of criteria labelled with the climate criteria subcategories for each criteria list type.*

	Climate Drivers	Climate Impacts	Climate mitigation	Climate change resilience
<b>IDENTIFICATION -areas</b>	0	0	0	1
<b>IDENTIFICATION -ecological features</b>	0	0	0	0
<b>DESIGNATION</b>	0	4	5	4
<b>MONITORING</b>	1	0	0	0
<b>Total</b>	<b>1</b>	<b>4</b>	<b>5</b>	<b>5</b>



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



*Figure 6 Pie charts illustrating the relative proportion of the climate subcategories within the climate category, for a) Identification of significant areas b) Designation of ABMTs c) Monitoring. For each list type, the total number of collected criteria is indicated in brackets.*

### 3.2.5 Socio-economic criteria

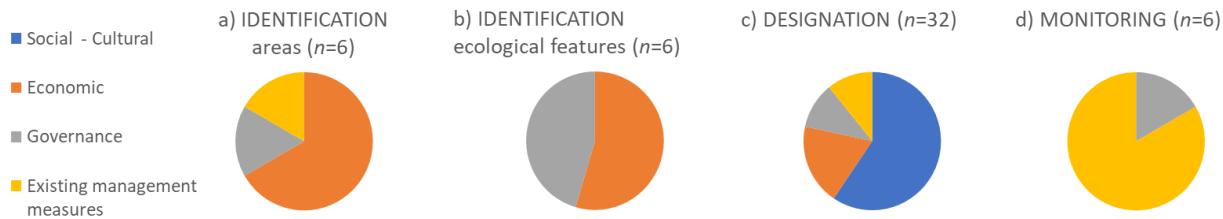
As can be seen in Table 18 and Figure 7, between criteria list types there is a large discrepancy of which subcategories are the most represented. The designation list type includes mostly socio-cultural criteria, whilst economic criteria are better represented for the identification of areas and ecological features. For the monitoring criteria, only existing management measures were identified as a type of socio-economic criteria (Figure 7).

*Table 18 Number of criteria labelled with socio-economic criteria subcategories for each criteria list type.*

	Social - Cultural	Economic	Governance	Existing management measures
<b>IDENTIFICATION - areas</b>	0	4	1	1
<b>IDENTIFICATION - ecological features</b>	0	6	5	0
<b>DESIGNATION</b>	22	7	4	4
<b>MONITORING</b>	0	0	1	5
<b>Total</b>	<b>22</b>	<b>17</b>	<b>11</b>	<b>10</b>



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



*Figure 7 Pie charts illustrating the relative proportion of criteria assigned to socio-cultural, economic, governance and management measures subcategories within the socio-economic category, for a) Identification of significant areas b) Identification of significant ecological features c) Designation of ABMTs d) Monitoring. For each list type, the total number of collected criteria is indicated in brackets.*

18 of the 50 socio-economic criteria identified also mentioned ecological aspects, indicating an integration of ecological and socio-economic elements within a single criterion. An example of such an integrated criterion is given in Box 2, where ecological aspects are represented through the mention of “conservation objectives”, and socio-economic interests with “sustainable resource management” and “activities compatible with the conservation objectives”.

*Box 2 Example of a criterion including both ecological and socio-economic aspects (criterion is part of the criteria list used to designate biosphere reserves)*

“It should include these functions, through appropriate zonation, recognizing:

- (a) a legally constituted core area or areas devoted to long-term protection, according to the conservation objectives of the biosphere reserve, and of sufficient size to meet these objectives;
- (b) a buffer zone or zones clearly identified and surrounding or contiguous to the core area or areas, where only activities compatible with the conservation objectives can take place;
- (c) an outer transition area where sustainable resource management practices are promoted and developed.”

### 3.2.6 Consideration of ecological features in the ecological criteria

For each ecological criterion it was recorded whether a specific mention was included of specified taxonomic and/or functional groups (Table 19 and Table 20). 45% did not specify any taxonomic or functional group. Figure 8 gives a graphical representation of the proportion of criteria that mention the specified taxonomic groups. The most mentioned organisms were fish and birds. Figure 9 shows the mention of demersal, benthic or pelagic species as the predefined functional groups within the collected criteria. Most references are found in the monitoring criteria, with pelagic species being more represented than benthic or demersal fish species.



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



Table 19 The consideration of different organisms by the criteria, per criteria list type.

	ID - areas	ID - ecological features	DESIGNATION	MONITORING	Total
<b>Birds</b>	16	4	5	38	<b>63</b>
<b>Fish</b>	7	6	9	81	<b>103</b>
<b>Mammals</b>	14	0	3	35	<b>52</b>
<b>Reptiles</b>	0	0	2	9	<b>11</b>
<b>Invertebrates</b>	0	0	2	64	<b>66</b>
<b>Angiosperms</b>	0	0	0	37	<b>37</b>
<b>Macroalgae</b>	0	0	0	56	<b>56</b>
<b>Microbes</b>	0	0	0	3	<b>3</b>
<b>Taxonomic group not specified</b>	25	39	71	401	<b>536</b>

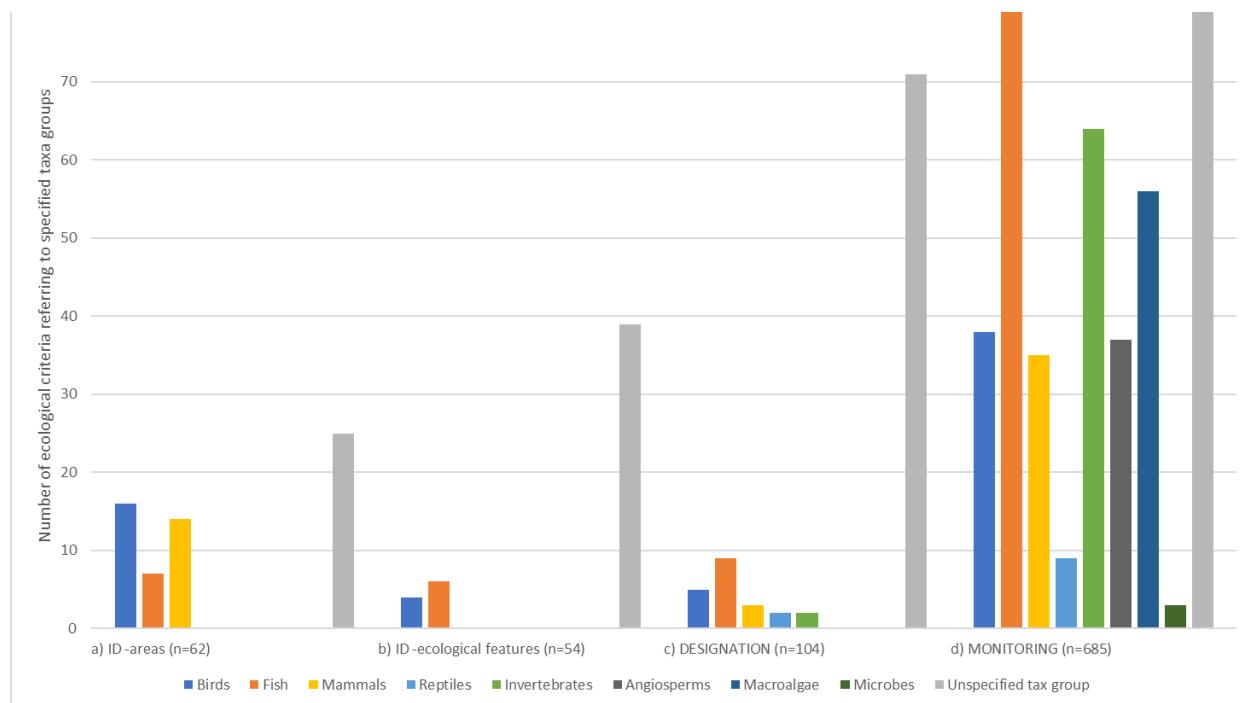


Figure 8 Taxonomic groups referred to by the collected criteria, per criteria list category: a) Identification of significant areas b) Identification of significant ecological features c) Designation of ABMTs d) Monitoring. For each list type, the total number of collected ecological criteria is indicated in brackets. The y-axis has been cut off for a better visualisation.

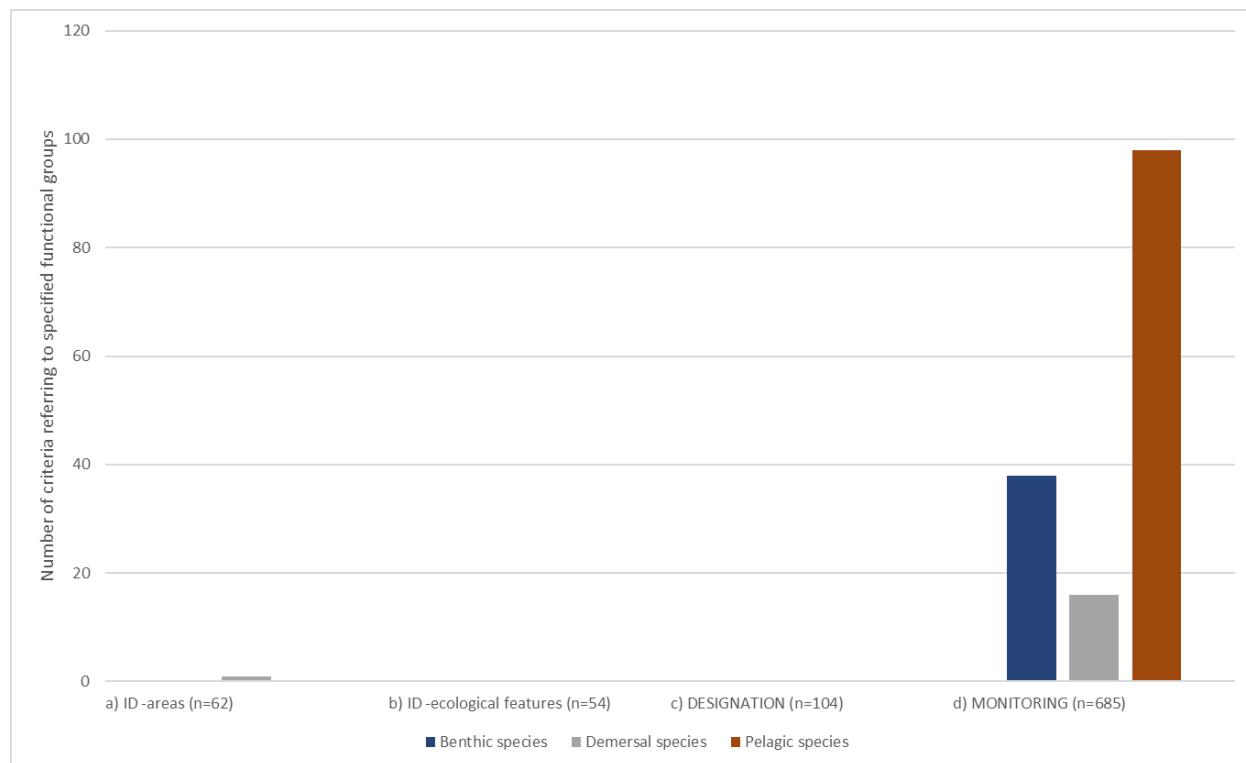


This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



*Table 20 The consideration of different functional groups by the criteria, per criteria list type*

	ID - areas	ID - ecological features	DESIGNATION	MONITORING	Total
<b>Benthic species</b>	0	0	0	38	<b>38</b>
<b>Demersal species</b>	1	0	0	16	<b>17</b>
<b>Pelagic species</b>	0	0	0	98	<b>98</b>



*Figure 9 Bar chart to depict ecological criteria identified that refer to specified functional groups, per criteria list category: a) Identification of significant areas b) Identification of significant ecological features c) Designation of ABMTs d) Monitoring. For each list type, the total number of collected criteria is indicated in brackets.*



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



### 3.3 Consideration of genetic information

In total, 13 (out of 1,055) criteria were identified that explicitly refer to genetic properties, which are marked in bold in Table 21. For list type 1, one genetic criterion was identified as part of the criteria list to designate IMMAs, for list type 2 none were identified, three were identified for list type 3 and nine for type 4.

Table 21 Criteria identified that refer to genetic properties of ecological features

Criteria list type	Criteria list number	Criterion ID	Criterion referring to genetic information
1. Criteria for significant area identification	1.3 Important Marine Mammal Area (IMMA) criteria	ACL_INTL_05_IMMA_D1	Distinctiveness: Areas which sustain populations with important <b>genetic</b> , behavioural or ecologically distinctive characteristics.
3. Criteria for implementation ABMTs	3.1 Particularly Sensitive Sea Area (PSSA) criteria	ACL_INTL_04_PSSA_4.4.5	Diversity – An area that may have an exceptional variety of species or <b>genetic diversity</b> or includes highly varied ecosystems, habitats, and communities.
	3.4 World National Biosphere Reserves (WNBR) criteria	ACL_INTL_03_BR_4	It should have an appropriate size to serve the three functions of biosphere reserves, as set out in Article 3 (conservation, development, logistic support). Conservation refers to contribute to the conservation of landscapes, ecosystems, species and <b>genetic variation</b>
	3.12 HELCOM MPAs criteria	ACL_REG_06_HELC OM_MPAs_#10	Area with high natural biodiversity. Area that contains comparatively higher diversity of ecosystems, habitats, communities, or species, or has higher <b>genetic diversity</b> .
4. Criteria for monitoring	4.1 Essential Biodiversity Variables (EBVs)	CL_INTL_02_EBV_A1	<b>Intraspecific genetic diversity:</b> The variation in DNA sequences among individuals of the same species.
		CL_INTL_02_EBV_A2	<b>Genetic differentiation:</b> Divergence in genetic composition (identity and frequencies of alleles) among multiple populations.
		CL_INTL_02_EBV_A3	Effective population size: The number of individuals in an idealized population that will exhibit the same amount of <b>genetic diversity</b> loss as the population under consideration.
		CL_INTL_02_EBV_A4	<b>Inbreeding:</b> Mating between related individuals.
	4.3 Ecosystem attributes to evaluate recovery	CL_INTL_08_SER_A6_b	External exchanges: <b>Gene flows</b>



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



Criteria list type	Criteria list number	Criterion ID	Criterion referring to genetic information
	4.4 MSFD Annex III Indicative list of characteristics	CL_EU_06_MSFD_An nIII_B7	an inventory of the temporal occurrence, abundance and spatial distribution of nonindigenous, exotic species or, where relevant, <b>genetically distinct forms of native species</b> , which are present in the marine region or subregion
	4.5 MSFD criteria to monitor descriptors	CL_EU_08_MSFD_cri tDs_D1C2	The population abundance of the species is not adversely affected due to anthropogenic pressures, such that its long-term viability is ensured (primary)
		CL_EU_08_MSFD_cri tDs_D3C3	The age and size distribution of individuals in the populations of commercially-exploited species is indicative of a healthy population. This shall include a high proportion of old/large individuals and limited adverse effects of exploitation on <b>genetic diversity</b> (primary)
	4.9 DEVOTES Catalogue of Marine Biodiversity Indicators	CL_EU_11_DEV_815 9	<b>Genetic population structure</b> of selected biological components



## 4 Discussion

This deliverable aimed to provide an overview of criteria, species and habitat lists used for conservation and restoration purposes and an analysis of which ecological and socio-economic dimensions are considered in the identification, designation and monitoring of area-based protection measures at the regional, European and global level. To understand what themes were covered by the criteria, they were assigned one or more categories and subcategories. Overlap between combinations of categories assigned to the same criteria was also examined. The largest proportion of criteria collected are ecological criteria, of which the highest number of criteria were structural, followed by functional and ecological status ecological criteria. A large proportion of ecological criteria considered both structural and functional aspects.

Abiotic criteria, such as criteria related to oceanographic conditions, do not seem to be as widely used as ecological criteria. They are better represented in monitoring criteria than in criteria used to identify or designate areas of interest for conservation. However, abiotic features may be considered indirectly in ecological criteria that refer to habitats, which will include an abiotic component, such as wave action associated with intertidal habitats.

Other studies such as Frid et al.(2008); Van der Biest et al. (2020); Miatta, Bates and Snelgrove (2021) state that it is predominantly the static spatial distribution of 'key' species, or the extent of physical habitats, that inform the delimitation of conservation sites. In contrast, the results presented here demonstrate that not only structural aspects but also functional characteristics of ecological features are formulated into criteria, and as a third aspect, also their ecological status (their condition). However, actual application of the formulated criteria for identifying, designating and monitoring areas will determine the extent to which functional characteristics as well as the presence/absence of species are taken into account during the planning of conservation areas.

Importantly, whilst other studies compare the relative consideration of functional as well as structural aspects during conservation planning, this study shows that a third aspect that is prominent in the criteria lists is the state or condition of the ecological features being considered, for example whether species are endangered or whether environments are degraded or not. These types of criteria are used to prioritise the protection of already threatened areas/ecological features that require a removal of pressures. Even though some of these criteria refer to the condition of biotic processes or interactions, the majority refer to population sizes of threatened species present in the area of interest; therefore the conservation status is currently defined rather with structural aspects than with process-based functional properties.

Barriers to implementing functional criteria, and specifically process-based functional criteria such as carbon sequestration or primary production, have been discussed in the literature, such as a lack of knowledge, or data, or both, or a lack of appropriate tools to systematically monitor processes (Miatta et al., 2021; Van der Biest et al., 2020). In this study, the distinction was not made between process-based and more static aspects of



ecosystem functioning such as biomass of organisms, but further analysis of the collected criteria using this distinction in the future could give information about the relative consideration of process-based criteria and more static criteria.

As well as the consideration of the state/condition of ecological aspects, anthropogenic activities and impacts were also considered as criteria, albeit to a lesser extent than ecological criteria. Some legislation, such as the Birds Directive, does not allow the consideration of human activities during the designation of protected sites (Haelters et al., 2004). However, some ABMTs, such as the delineation of emission control areas, depend on information related to ship activity. Therefore, the variety of ABMTs considered in this study, including MPAs but also OECMs, show a more comprehensive picture of different ways in which area-based measures are spatially defined.

Compared to ecological aspects, there was a limited number of criteria considering socio-economic aspects. This resonates with previous research which highlights a lack of consideration of social aspects in conservation planning (Ban et al., 2019; Bennett and Dearden, 2014; Trouillet and Jay, 2021). Socio-economic criteria may define which social values should be considered when identifying (or monitoring) an area of interest. These included socio-cultural aspects, but also economic interests. Incorporating socio-economic requirements into the process of identifying, designating and monitoring sites and their associated ecological features can help to reconcile biodiversity objectives with socio-economic objectives (Van der Biest et al., 2020). Using socio-economic criteria during significant ecological features and area identification, designation and monitoring can be a mechanism to include the interests of local communities at an early stage and in a continuous way, which can help foster stewardship, as well as equitable conservation outcomes. The development and testing of socio-economic criteria to complement ecological criteria for conservation is a key component of the MSP4BIO project.

As with the socio-economic criteria, a limited number of criteria were identified that explicitly considered climate aspects. This aligns with work from other researchers that argue climate change is considered separately from conservation, which can result in a misalignment of climate mitigation and conservation agendas (Roberts et al., 2020). For the designation criteria, in terms of climate criteria, a large proportion consists of climate mitigation criteria, such as imposing emission reduction measures on ships in sensitive areas. The commission staff working document 'Criteria and guidance for protected areas designations' recommends the consideration of carbon-rich ecosystems during the designation of area-based management tools for conservation (European Commission, 2022). This is indirectly considered in the criteria compilation through the specific mention of blue carbon habitats such as seagrass beds, but no explicit link is made with carbon storage in these criteria, or with climate mitigation.

Another recommendation in the commission staff working document is the "focus on areas of high biodiversity value" (European Commission, 2022). This focus was prevalent in the criteria compilation; criteria that refer to biodiversity value were categorised as structural ecological criteria (see Annex 1). Functional ecological criteria were also



recommended by the commission staff working document, such as ecological connectivity for migrating fish or spawning and nursery sites, or socio-economic criteria such as the consideration of areas important for fish stocks. As reflected in the distribution of species groups mentioned in the criteria, fish are well represented, which aligns with how their importance is also reflected in the commission staff working document.

A comparison of results for each of the list types (identification areas/identification ecological features/designation ABMTs/monitoring indicates some differences. For the monitoring criteria, a higher number of different species groups is considered than for the identification and designation list types, which also have a higher proportion of criteria that do not specify a species group (unspecified). This could be related to how a large number of the monitoring criteria are developed for specific ecosystems, whilst the identification and designation criteria may be defined in a way so that it can be applied to a diversity of ecosystems that host differing species groups.

For the identification of important areas, a larger number of criteria referred to bird species as well as marine mammal species compared criteria used for the identification of ecological features or the designation of ABMTs. This could relate to how birds and marine mammals are charismatic species, but it could also be due to their status as top predators. The importance of fish in the criteria overall could relate to their socio-economic importance.

This study considered ecological, abiotic, anthropogenic, climate and socio-economic themes present in the collected criteria. However, coherence of protected area networks is also highlighted as an important prerequisite for designating future areas for protection in the commission staff working document (European Commission, 2022). As a follow up study, criteria could also be collected that specifically concern ecological coherence of the networks of MPAs to be designated or monitored. For example, representativity, replication, adequacy and connectivity are indicators used in HELCOM's coherence assessment of the marine protected area network in the Baltic Sea (HELCOM, 2016). For the Northeast Atlantic and North Sea region, OSPAR has developed the Madrid criteria for assessing marine protected area network status (OSPAR, 2019). Further work could also analyse the presence of these aspects in the already collected criteria.

As well as criteria lists, lists of species and habitats were also collected as part of this study. Previous research has highlighted the lack of marine habitats defined in Annex I of the Habitats Directive (online nine marine habitats) (Olsen et al., 2013). The proposed EU Nature Restoration Law on the other hand includes a more detailed overview of different marine habitats to be protected and restored (231 marine EUNIS habitats are included), indicating an improvement in the consideration of EU marine habitats in European legislation. However, another critique of the Habitats Directive was the lack of consideration of deep-sea habitats such as seamounts and hydrothermal vents (Olsen et al., 2013), which are also not included in the more recent Nature Restoration Law. Other instruments to protect deep sea habitats such as Vulnerable Marine Ecosystems (VMEs) have been identified in this study, such as the criteria lists, taxa lists, indicators and habitat lists provided by ICES, FAO, GFCM and NEAFC.



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



## 4.1 Conclusions

This study provides a comprehensive overview of existing criteria, species, and habitat lists that provide decision support for the identification of significant areas and ecological features, the designation of area-based management tools and the monitoring of the status of an area. Ecological, abiotic, anthropogenic, climate and socio-economic aspects are considered to varying degrees in the collected criteria. This work can guide the formulation of new criteria that address shortcomings in the existing criteria, which is part of the work of MSP4BIO.

The screening that led to the collection of the criteria was relatively broad in scope, meaning criteria related to monitoring were included as well as criteria related to assigning a conservation status to species. Having these applications of criteria in one compilation can be valuable to compare different applications of specific types of criteria, such as functional ecological criteria.

This overview will feed into MSP4BIO WP3 and WP4 where the information will be used as a baseline to identify those criteria types or criteria that have been systematically overlooked in existing directives and frameworks. There is a strong representation of structural ecological criteria, but non-static functional criteria are less prevalent. A large proportion of the criteria are ecological criteria, and climate criteria as well as socio-economic criteria are less represented. As well as that, abiotic features are not as widely used as ecological features. WP3 will in fact consider relevant but missing ecological and environmental dimensions in the process of identification of significant areas, and the designation and monitoring of area-based management measures. WP4 will consider how socio-economic and governance aspects are currently included as criteria, and whether any elements are missing.



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



## 5 References

ACCOBAMS, 2017. Reports of the Workshop “Inputs to the ACCOBAMS ongoing effort to map human threats on cetaceans in the Mediterranean and Black Seas.”

Ban, N., Gurney, G., Marshall, N., Whitney, C., Mills, M., Gelcich, S., Bennett, N., Miller-Meehan, M., Butler, C., Ban, S., Tran, T., Cox, M., Breslow, S., 2019. Well-being outcomes of marine protected areas. *Nat. Sustain.* 2, 524–524. <https://doi.org/10.1038/s41893-019-0306-2>

Bennett, N.J., Dearden, P., 2014. Why local people do not support conservation: Community perceptions of marine protected area livelihood impacts, governance and management in Thailand. *Mar. Policy* 44, 107–116. <https://doi.org/10.1016/j.marpol.2013.08.017>

Bowen, E., Irish, A., Lightfoot, E., 2022. A Policy-Mapping Primer for Social Work Researchers and Advocates. *Soc. Work Res.* 46, 79–83. <https://doi.org/10.1093/swr/svab029>

Boyes, S.J., Elliott, M., 2014. Marine legislation - The ultimate “horrendogram”: International law, European directives & national implementation. *Mar. Pollut. Bull.* 86, 39–47. <https://doi.org/10.1016/j.marpolbul.2014.06.055>

CBD, 2018. Protected areas and other effective area-based conservation measures (Decision 14/8).

CBD, n.d. Ecologically or Biologically Significant Marine Areas (EBSAs) [WWW Document]. Backgr. EBSA Process. URL <https://www.cbd.int/ebsa/about> (accessed 6.13.23).

Costello, M.J., Claus, S., Dekeyzer, S., Vandepitte, L., Tuama, É.Ó., Lear, D., Tyler-Walters, H., 2015. Biological and ecological traits of marine species. *PeerJ* 3, e1201. <https://doi.org/10.7717/peerj.1201>

Donald, P.F., Fishpool, L.D.C., Ajagbe, A., Bennun, L.A., Bunting, G., Burfield, I.J., Butchart, S.H.M., Capellan, S., Crosby, M.J., Dias, M.P., Diaz, D., Evans, M.I., Grimmett, R., Heath, M., Jones, V.R., Lascelles, B.G., Merriman, J.C., O'Brien, M., Ramírez, I., Waliczky, Z., Wege, D.C., 2019. Important Bird and Biodiversity Areas (IBAs): the development and characteristics of a global inventory of key sites for biodiversity. *Bird Conserv. Int.* 29, 177–198. <https://doi.org/10.1017/S0959270918000102>

European Commission, 2022. Commission staff working document: Criteria and guidance for protected areas designations. Brussels.

FAO, 2008. International Guidelines for the Management of Deep-Sea Fisheries in the High Seas.

Frid, C.L.J., Paramor, O.A.L., Brockington, S., Bremner, J., 2008. Incorporating ecological functioning into the designation and management of marine protected areas, in: Davenport, J., Burnell, G.M., Cross, T., Emmerson, M., McAllen, R., Ramsay, R., Rogan, E. (Eds.), *Challenges to Marine Ecosystems, Developments in Hydrobiology*. Springer Netherlands, Dordrecht, pp. 69–79. [https://doi.org/10.1007/978-1-4020-8808-7\\_7](https://doi.org/10.1007/978-1-4020-8808-7_7)



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



Gissi, E., Maes, F., Kyriazi, Z., Ruiz-Frau, A., Santos, C.F., Neumann, B., Quintela, A., Alves, F.L., Borg, S., Chen, W., da Luz Fernandes, M., Hadjimichael, M., Manea, E., Marques, M., Platjouw, F.M., Portman, M.E., Sousa, L.P., Bolognini, L., Flannery, W., Grati, F., Pita, C., Nataša Väidianu, Stojanov, R., van Tatenhove, J., Micheli, F., Hornidge, A.-K., Unger, S., 2022. Contributions of marine area-based management tools to the UN sustainable development goals. *J. Clean. Prod.* 330, 129910. <https://doi.org/10.1016/j.jclepro.2021.129910>

Haelters, J., Vigin, L., Stienen, E.W.M., Scory, S., Kuijken, E., Jacques, T.G., 2004. Ornithologisch belang van de Belgische zeegebieden. Beheerseenheid van het Mathematisch Model van de Noordzee (BMM/KBIN) en het Instituut voor Natuurbehoud (IN).

HELCOM, 2016. Ecological coherence assessment of the Marine Protected Area network in the Baltic Sea. *Balt. Sea Environ. Proc.* 148.

Horton, T., Gofas, S., Kroh, A., Poore, G.C.B., Read, G., Rosenberg, G., Stöhr, S., Bailly, N., Boury-Esnault, N., Brandão, S.N., Costello, M.J., Decock, W., Dekeyzer, S., Hernandez, F., Mees, J., Paulay, G., Vandepitte, L., Vanhoorne, B., Vranken, S., 2017. Improving nomenclatural consistency: a decade of experience in the World Register of Marine Species. *Eur. J. Taxon.* <https://doi.org/10.5852/ejt.2017.389>

IMO, 2019. Particularly Sensitive Sea Areas [WWW Document]. URL <https://www.imo.org/en/ourwork/environment/pages/pssas.aspx> (accessed 6.15.23).

IUCN, 2023. The IUCN Red List of Threatened Species [WWW Document]. IUCN Red List Threat. Species. URL <https://www.iucnredlist.org/en> (accessed 6.27.23).

IUCN, 2016. A Global Standard for the Identification of Key Biodiversity Areas, Version 1.0.

IUCN-WCPA, 2008. Establishing resilient marine protected area networks--making it happen. IUCN-WCPA: National Oceanic and Atmospheric Association: The Nature Conservancy, Washington, D.C.

Johnson, D.E., Barrio Froján, C., Turner, P.J., Weaver, P., Gunn, V., Dunn, D.C., Halpin, P., Bax, N.J., Dunstan, P.K., 2018. Reviewing the EBSA process: Improving on success. *Mar. Policy* 88, 75–85. <https://doi.org/10.1016/j.marpol.2017.11.014>

KBA, 2023. Key Biodiversity Areas: Keep nature thriving [WWW Document]. URL <https://www.keybiodiversityareas.org/> (accessed 6.13.23).

LifeWatch Belgium, 2023. LifeWatch Data Explorer [WWW Document]. URL <https://rshiny.vsc.lifewatch.be/traits-data/> (accessed 6.8.23).

Maribus, 2015. World Ocean Review 4: Sustainable Use of Our Oceans - Making Ideas Work.

Marine Species Traits editorial board, 2023. Marine Species Traits. <https://doi.org/10.14284/580>

Miatta, M., Bates, A.E., Snelgrove, P.V.R., 2021. Incorporating Biological Traits into Conservation Strategies. *Annu. Rev. Mar. Sci.* 13, 421–443. <https://doi.org/10.1146/annurev-marine-032320-094121>



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



MMPA Task Force, 2020. IMMA definitions. Mar. Mammal Prot. Areas Task Force. URL <https://www.marinemammalhabitat.org/immas/imma-definitions/> (accessed 6.13.23).

Muller-Karger, F.E., Miloslavich, P., Bax, N.J., Simmons, S., Costello, M.J., Sousa Pinto, I., Canónico, G., Turner, W., Gill, M., Montes, E., Best, B.D., Pearlman, J., Halpin, P., Dunn, D., Benson, A., Martin, C.S., Weatherdon, L.V., Appeltans, W., Provoost, P., Klein, E., Kelble, C.R., Miller, R.J., Chavez, F.P., Iken, K., Chiba, S., Obura, D., Navarro, L.M., Pereira, H.M., Allain, V., Batten, S., Benedetti-Cecchi, L., Duffy, J.E., Kudela, R.M., Rebelo, L.-M., Shin, Y., Geller, G., 2018. Advancing Marine Biological Observations and Data Requirements of the Complementary Essential Ocean Variables (EOVs) and Essential Biodiversity Variables (EBVs) Frameworks. *Front. Mar. Sci.* 5, 211. <https://doi.org/10.3389/fmars.2018.00211>

Oceana, 2019. Essential Fish Habitats [WWW Document]. Oceana Eur. URL <https://europe.oceana.org/essential-fish-habitats/> (accessed 6.13.23).

Olsen, E.M., Johnson, D., Weaver, P., Goñi, R., Ribeiro, M.C., Rabaut, M., Macpherson, E., Pelletier, D., Fonseca, L., Katsanevakis, S., Zaharia, T., 2013. Achieving Ecologically Coherent MPA Networks in Europe: Science Needs and Priorities (Position Paper). European Marine Board, Ostend, Belgium.

OSPAR, 2019. 2018 Status Report on the OSPAR Network of Marine Protected Areas.

Prior, S., Chircop, A., Roberts, J., 2010. Area-based Management on the High Seas: Possible Application of the IMO's Particularly Sensitive Sea Area Concept. *Int. J. Mar. Coast. Law* 25, 483–522. <https://doi.org/10.1163/157180810X525403>

R Core Team, 2022. R: A Language and Environment for Statistical Computing.

Roberts, C., O'Leary, B., Hawkins, J.P., 2020. Climate change mitigation and nature conservation both require higher protected area targets. *Philos. Trans. R. Soc. B* 375. <https://doi.org/10.1098/rstb.2019.0121>

Teixeira, H., Berg, T., Uusitalo, L., Fürhaupter, K., Heiskanen, A.-S., Mazik, K., Lynam, C.P., Neville, S., Rodriguez, J.G., Papadopoulou, N., Moncheva, S., Churilova, T., Kryvenko, O., Krause-Jensen, D., Zaiko, A., Veríssimo, H., Pantazi, M., Carvalho, S., Patrício, J., Uyarra, M.C., Borja, Á., 2016. A Catalogue of Marine Biodiversity Indicators. *Front. Mar. Sci.* 3.

Trouillet, B., Jay, S., 2021. The complex relationships between marine protected areas and marine spatial planning: Towards an analytical framework. *Mar. Policy* 127, 104441. <https://doi.org/10.1016/j.marpol.2021.104441>

UNGA, 2007. Report of the Secretary-General of the United Nations General Assembly on Oceans and the Law of the Sea.

Van der Biest, K., Meire, P., Schellekens, T., D'hondt, B., Bonte, D., Vanagt, T., Ysebaert, T., 2020. Aligning biodiversity conservation and ecosystem services in spatial planning: Focus on ecosystem processes. *Sci. Total Environ.* 712, 136350. <https://doi.org/10.1016/j.scitotenv.2019.136350>

Vandepitte, L., Vanhoorne, B., Decock, W., Dekeyzer, S., Trias Verbeeck, A., Bovit, L., Hernandez, F., Mees, J., 2015. How Aphia—The Platform behind Several Online and Taxonomically Oriented Databases—Can Serve Both the Taxonomic



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



Community and the Field of Biodiversity Informatics. *J. Mar. Sci. Eng.* 3, 1448–1473. <https://doi.org/10.3390/jmse3041448>

Wickham, H., 2022. *stringr: Simple, Consistent Wrappers for Common String Operations*.

Wickham, H., 2007. Reshaping Data with the *reshape* Package. *J. Stat. Softw.* 21, 1–20.

Wickham, H., François, R., Henry, L., Müller, K., Vaughan, D., 2023. *dplyr: A Grammar of Data Manipulation*.

World Register of Marine Species, 2023. Definitions [WWW Document]. Mar. Species Traits. URL <https://www.marinespecies.org/traits/aphia.php?p=attrdefinitions> (accessed 6.8.23).

WoRMS Editorial Board, 2023. World Register of Marine Species. Instructions to editors. Topic 16: Change the status of a name [WWW Document]. URL <https://www.marinespecies.org/aphia.php?p=manual#topic16>



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



## Annex 1: Definitions and keywords of the criteria categories

Table A3.1 Definitions and example keywords of proposed criteria categories for the two category levels. Keywords marked in blue are relevant for multiple categories.

Criteria category and subcategory	Definition	Example keywords
1. Ecological and genetic criteria	Criteria related to living organisms, habitats and ecosystems, and their genetic structure	
1.1 Functional	Criteria that refer to <b>processes and properties</b> of ecosystems and their components, that relate to functioning, from ecosystem level to species level	<ul style="list-style-type: none"><li>- Processes<ul style="list-style-type: none"><li>o C fluxes through food webs (e.g., carbon sequestration)</li><li>o Energy and elemental cycling</li><li>o Phenology (the study of cyclic and seasonal natural phenomena, especially in relation to climate and plant and animal life)</li><li>o Biotic processes (such as migration, migration routes, ecological connectivity)</li></ul></li><li>- Biological traits (capturing inter-specific interactions and the connections between species and their environment)<ul style="list-style-type: none"><li>o Physiology</li><li>o Morphology – morphological diversity (e.g., blubber thickness, <b>body length</b>, fatty acid composition)</li><li>o gonadosomatic index (GSI), indicator of changes in the nutritional and energy condition of organisms</li><li>o Life history</li><li>o Behaviour (e.g., foraging behaviour, predation)</li></ul></li><li>- Life history traits<ul style="list-style-type: none"><li>o Number, size and sex ratio of offspring (incl. Shoot density)</li><li>o Sex ratio</li><li>o Timing of reproduction - Reproductive units</li><li>o Age and size at maturity</li></ul></li></ul>



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



	<ul style="list-style-type: none"><li>○ Number of mature individuals</li><li>○ Growth pattern (incl. growth rate) - size classes - <a href="#">body length distribution</a>, slow-growing species</li><li>○ Longevity</li><li>○ Breeding population size - Breeding failures</li><li>○ Mortality rate</li><li>○ Survival rate</li><li>○ Flowering index</li><li>- Species/communities properties<ul style="list-style-type: none"><li>○ ecological groups (AMBI): sensitive species, indifferent species, tolerant species, opportunistic species, pollution indicating species</li><li>○ Keystone species (such as habitat forming species; main species, key species)</li><li>○ <a href="#">Non-indigenous species (synonymous to introduced – exotic – non-native species)</a></li><li>○ <a href="#">Invasive species (type of non-indigenous species)</a></li><li>○ Trophic group (e.g., top predator)</li><li>○ Food web length and/or complexity</li><li>○ Structuring/engineering species, builder species</li><li>○ Habitat forming species/ reef-forming species</li><li>○ Toxic/toxicity</li><li>○ Communities associated with low oxygen</li><li>○ Nutritional status</li><li>○ Dominant species</li><li>○ Shade-adapted species</li><li>○ K-strategy/r-strategy species (incl. long-living species)</li><li>○ Reproductive health</li><li>○ <a href="#">Biomass, Biomass ratio</a></li></ul></li><li>- Habitat properties<ul style="list-style-type: none"><li>○ Biogenic habitat (habitats formed by key animal or algal species)</li><li>○ <a href="#">Vulnerable habitat</a></li></ul></li><li>- Habitat functions</li></ul>
--	---



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



		<ul style="list-style-type: none"><li>○ Refuge areas / Resting areas</li><li>○ Foraging areas / Feeding grounds</li><li>○ Nursery function / Nesting grounds</li><li>○ Reproduction areas / Spawning grounds</li><li>○ Critical habitats</li><li>- Primary, secondary production<ul style="list-style-type: none"><li>○ Biological productivity</li><li>○ Areas of natural productivity</li><li>○ Phytoplankton bloom, bloom frequency</li><li>○ Chl a, chlorophyll a, nutrient content of organism</li></ul></li><li>- Criteria related to the capacity to adapt/ability to recover from direct human activities, climate change, or natural disasters<ul style="list-style-type: none"><li>○ Populations' health indicators</li><li>○ Indicator species</li><li>○ Sensitivity to disturbance</li><li>○ <a href="#">Vulnerability/Fragility</a></li><li>○ Ecosystems resilience</li><li>○ Integrity</li><li>○ DMS (Dimethyl Sulfide)</li></ul></li><li>- Bio-geographically sensitive (e.g., seamounts)</li></ul>
1.2 Structural	Biotic criteria that refer to the structure of ecosystems, habitats and species (e.g., which species are there and how many, how complex is the habitat)	SPECIES/ORGANISMS/POPULATIONS/COMMUNITIES/BIOCENOSIS <ul style="list-style-type: none"><li>- Species composition (e.g., Species diversity indices)</li><li>- Species stratification</li><li>- Distributional pattern /range/ distribution changes (incl. spatiotemporal variation of structural descriptors, might also be characterised by demographic aggregations)</li><li>- Demographic characteristics</li><li>- Endemic – Indigenous – Alien species</li><li>- Range-restricted species / confined distribution</li><li>- Taxonomic approach</li><li>- Rarity of ecological feature (e.g., species or habitat)</li></ul>



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



		<ul style="list-style-type: none"><li>- Distinctiveness</li><li>- Uniqueness</li><li>- Irreplaceability</li><li>- Abundance / Numbers of a species / Effective population size</li><li>- Abundance rank</li><li>- Abundance ratio</li><li>- Degree of isolation of population</li><li>- Presence rank (meaning: “rank of the percentage of sites at which the presence or absence of each taxon”)</li><li>- Presence/absence</li><li>- <b>Biomass, Biomass ratio</b></li><li>- Density</li><li>- Diversity</li><li>- Ecological value</li><li>- Bio-geographic importance</li><li>- Population structure (if not specified that it's a genetic measure), population size</li><li>- Growth pattern (incl. growth rate) - size classes/spectrum - <b>body length distribution</b></li></ul> <p><b>HABITATS/ECOSYSTEMS</b></p> <ul style="list-style-type: none"><li>- physical amount / areal extent / perimeters / frequency of occurrence</li><li>- spatial/depth distribution of habitat (i.e., structural connectivity)</li><li>- Shape complexity</li><li>- Patches/polygons</li><li>- Nature of habitat</li><li>- Representativity of natural habitat type</li></ul>
1.3 Genetic	Criteria related to the genetic structure of organisms	<ul style="list-style-type: none"><li>- Genetic diversity</li><li>- Intraspecific genetic diversity</li><li>- Genetic differentiation</li></ul>



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



1.4 Ecological status	Ecological criteria related to the conditions/state of ecological features and the environment	<ul style="list-style-type: none"><li>- Reference to IUCN categories: Least Concern, Near Threatened, Vulnerable, Endangered, Critically Endangered, Extinct in the Wild and Extinct</li><li>- State/condition of species</li><li>- State/condition of communities</li><li>- State/condition of habitats (e.g., habitat at risk of environmental degradation,</li><li>- Good ecological status (for specific ecological features)</li><li>- Degree of conservation ecological features</li><li>- Restoration possibilities</li><li>- Naturalness (Following the definition of EBSA criterion 'naturalness')</li><li>- Good environmental status in the context of MSFD</li><li>- Good ecological/chemical status in the context of WFD</li><li>- "Assessment of" and "Assessment system of" biotic features</li><li>- Assessment of potentially impacted areas</li><li>- Index/Toolkit related to ecological quality</li><li>- Bad/altered condition of the environment</li><li>- Hydrological condition (e.g., of specific habitats)</li></ul>
2. <u>Abiotic criteria</u>	Criteria that refer to non-living elements of the environment that influence the way organisms and ecosystems function. e.g., sunlight, temperature, nutrient availability and geomorphological features.	
2.1 Oceanographic conditions	Physical and chemical condition of oceans and habitats	<ul style="list-style-type: none"><li>- Gyres</li><li>- Upwelling areas</li><li>- Stratification</li><li>- Currents</li><li>- Retention</li><li>- Convergence zones</li><li>- Ocean circulation</li><li>- Wave action</li><li>- Salinity</li><li>- pH</li><li>- Nutrient levels, nutrient concentration</li><li>- Freshwater inputs (river flows, estuaries)</li></ul>



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



		<ul style="list-style-type: none"><li>- Sea ice</li><li>- Oxygen – oxygen depletion, hypoxia</li><li>- Hydrogen sulfide</li><li>- Hydrography</li><li>- Oceanic fronts</li><li>- Tides</li><li>- Particulate matter</li><li>- Chemical features</li></ul>
2.2 Geological and geomorphological features	Physical features of the seabed	<ul style="list-style-type: none"><li>- Seabed substrate</li><li>- Seismic activities</li><li>- Coastal geomorphological structure</li><li>- Oxygenated/anoxic conditions in sediments</li><li>- Facies</li><li>- <a href="#">Bio-geographically sensitive (e.g., seamounts)</a></li><li>- Bathymetry</li></ul>
2.3 Meteorological conditions	Any criteria referring to weather conditions / meteorology	<ul style="list-style-type: none"><li>- Meteorological conditions</li><li>- Weather conditions</li><li>- Topographical features above the water that affect wind patterns</li></ul>
3. <u>Anthropogenic criteria</u>	Criteria that consider the presence of anthropogenic activities that might generate some effect/pressures on biotic/ecological elements. Human activities that are known to cause disturbance may be considered during the design of an area to implement area-based measures that mitigate the disturbance mentioned (mostly OECMs).	
3.1 Anthropogenic activities	Anthropogenic activities that can cause a threat to living organisms or the environment	<ul style="list-style-type: none"><li>- Fishing / Fisheries / Fishing effort (incl. recreational fishing)</li><li>- Dredging / harbour dredging</li><li>- Mining / extraction of substrate / discharge of materials</li><li>- Maritime traffic</li><li>- Military activities</li><li>- Cable and pipeline laying</li><li>- Land-based activities that impact the marine environment</li><li>- Urban sprawl</li><li>- Hunting</li><li>- Coastal armouring (artificial coastline)</li></ul>



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



		<ul style="list-style-type: none"><li>- Disposal grounds</li><li>- Aquaculture / Mariculture</li><li>- Transport / anchoring</li><li>- Port infrastructure development</li><li>- Beach nourishment and artificial beach creation</li><li>- Construction works in marine environment</li><li>- Tourism</li><li>- Research</li></ul>
3.2 Anthropogenic impacts		<ul style="list-style-type: none"><li>- Pollution (pollutants concentration - contaminants)</li><li>- Eutrophication</li><li>- Acidification</li><li>- Underwater noise</li><li>- Marine litter (e.g., Plastic pollution)</li><li>- Oil pollution (oiled birds)</li><li>- By-catch (marine mammals, sea-birds and non-target fish)</li><li>- Cumulative effect of human activities</li><li>- Sedimentation rate – deposition of fine-grained sediments</li><li>- Changes in seafloor topography</li><li>- Altered seagrass meadows</li><li>- Impact from aquaculture (incl. hypoxia due to aquaculture, change in nutrient levels due to aquaculture, change in sediment composition due to aquaculture, spread of disease from farmed organisms to wild species)</li><li>- Impact from cables and pipelines</li><li>- Impact from highly modified coast</li><li>- Impact from dredging activities (e.g., discharge of materials)</li><li>- Impact from anchoring</li><li>- Impact from dredging disposal</li><li>- Impact from port infrastructure</li><li>- Impact from artificial beaches or beach nourishment</li><li>- Impact from fishing/fishing gear (incl. CPUE, bag size, fishing mortality)</li><li>- Impact from whale watching or other marine tourism activities occur (harassment)</li></ul>



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



		<ul style="list-style-type: none"><li>- Impact from shipping (e.g., SOx emissions)</li><li>- Impact from research activities</li><li>- Land-based sources SOx emissions</li><li>- Light pollution</li><li>- <a href="#">Non-indigenous species (synonymous to introduced – exotic – non-native species)</a></li><li>- <a href="#">Invasive species (type of non-indigenous species)</a></li></ul>
<b>4. Climate criteria</b>	Criteria related to climate impact, climate change or climate mitigation on living organisms and their vulnerability or capacity to adapt/ability to recover from climate change or their environment.	
4.1 Climate driver	Criteria related to activities that contribute to climate change	<ul style="list-style-type: none"><li>- Natural climate drivers in the industrial era: changes in solar irradiance, volcanic eruptions, the El Niño–Southern Oscillation, North Atlantic Oscillation, Atlantic Multidecadal Oscillation</li><li>- Anthropogenic drivers can be divided into several categories, including well-mixed greenhouse gases (WMGHGs), short lived climate forcers (SLCFs, which include methane, some hydrofluorocarbons [HFCs], ozone, and aerosols), contrails, and changes in albedo (for example, land-use changes).</li></ul>
4.2 Climate impact	Criteria related to the impact of climate change on living organisms and their capacity to adapt/ability to recover from climate change	<ul style="list-style-type: none"><li>- Heat waves</li><li>- Sea level rise</li><li>- Climate change impact on marine environment (sea temperature (incl. sea surface temperature (SST)), salinity, currents, waves, river freshwater inputs and river sediments, precipitation, deoxygenation, UV ratio etc.)</li><li>- Areas at risk from the (climate) impacts (exposure)</li></ul>
4.3 Climate mitigation	Criteria related to capability of mitigating climate change	<ul style="list-style-type: none"><li>- MPA capability (e.g., carbon sequestration potential within MPA)</li><li>- Habitat capability (e.g., carbon sequestration potential)</li><li>- Controls on SOx emissions (e.g., ship control)</li></ul>
4.4 Climate change resilience	MPA resilience in the face of environmental changes over time	<ul style="list-style-type: none"><li>- Resilience</li><li>- Climate change refugia</li><li>- <a href="#">Vulnerability/Exposure/Fragility</a></li></ul>



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



		<ul style="list-style-type: none"><li>- MPA morphology and Location/Connectivity (Including place in network (Source/Sink/centrality/Number or CC resistance of species using the area as stepping-stone/Importance of fluxes))</li><li>- Is consideration given to a change in location of features to be protected, e.g., due to climate change?</li></ul>
5. <u>Socio-economic criteria</u>	Criteria that relate to social, economic or cultural values that should be considered when prioritising/designating an area, which can for example be <b>ecosystem services</b> with social, economic or cultural value. This category also includes criteria related to governance and existing measures.	
5.1 Social and cultural criteria	Social and cultural values that are included as criteria	<ul style="list-style-type: none"><li>- Landscape/seascape (incl. seascape aesthetics, traditional landscapes)</li><li>- Ocean literacy</li><li>- Education - Training</li><li>- Valuable for research (activities)</li><li>- Traditional knowledge</li><li>- Human wellbeing</li><li>- Areas of scientific significance</li><li>- Cultural heritage</li><li>- Tourism</li><li>- Recreation potential</li><li>- Important spiritual areas/ values (an area of particular importance because of religious and intangible values)</li><li>- Archaeological/geoarchaeological sites</li><li>- Monumental arts</li><li>- Areas of cultural significance</li></ul>
5.2 Economic criteria	Economic considerations that are valued and included as criteria (could include things like revenue, cumulative value of economic activity, market and non-market benefits or improvement of welfare etc.)	<ul style="list-style-type: none"><li>- Fisheries, commercial fish</li><li>- Traditional fishing areas/techniques</li><li>- Traditional ways of using/extrating resources, ...</li><li>- Sustainable development</li></ul>
5.3 Governance criteria	Criteria related to how risks and interests are represented in decision making	<ul style="list-style-type: none"><li>- Presence of representative body</li><li>- Inclusive decision making</li><li>- Blue justice</li></ul>



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



		<ul style="list-style-type: none"><li>- Enforcement (depends also on available human resources)</li><li>- Integrated coastal zone management (ICZM)</li><li>- Precautionary principle</li></ul>
5.4 Existing measures	The consideration of existing measures already in place in the area of interest	<ul style="list-style-type: none"><li>- Conservation measures/objectives</li><li>- Management measures</li><li>- Fisheries management measures</li><li>- Restoration measures</li></ul>



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



## Annex 2: Species and habitat lists catalogue

### A. Species and habitat lists used for the identification of significant ecological features for conservation/restoration

#### Global

##### A.1 IUCN Red List of Species

The IUCN Red List was established in 1964, and provides a comprehensive overview of species at risk of extinction (IUCN, 2023). Red List categories and criteria have been defined to guide decision making on the inclusion or exclusion of species on the list, and this criteria list is included in the criteria list compilation (2.1 IUCN Red List Species Criteria, see Annex 3 of this deliverable) (more info [here](#)).

##### A.2 CITES Appendix I-III species lists

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is an international agreement in place to regulate international trade of organisms to ensure trade does not threaten species survival. Appendix I of the Convention is a list of species threatened with extinction, Appendix II consists of species which are not threatened with extinction but for which trade should be regulated to avoid endangering the species, and Appendix III is a list of species which are protected in at least one country, which has asked for assistance to control trade of listed species (more info [here](#)).

##### A.3 FAO-ASFIS List of Species for Fishery Statistics Purposes

The FAO-ASFIS List includes species of interest for fisheries or aquaculture at a global level. The species on the list have been selected based on publications, species catalogues, field guides and identification sheets (more info [here](#)).

#### European

##### A.4 Habitats Directive Annex I: Natural habitat types of community interest whose conservation requires the designation of special areas of conservation

Annex I of the Habitats Directive lists habitat types which are either in danger of disappearing, have a limited natural range, or represent typical characteristics of a particular biogeographic region (Article 1, ( c), Habitats Directive), more info [here](#).

##### A.5 Habitats Directive Annex II,IV: species lists

Annex II and IV of the Habitats Directive include species that are endangered, vulnerable, rare or endemic (Article 1, ( g), Habitats Directive, more info [here](#)).

##### A.6 Nature Restoration Law Annex II: marine habitat types

The EU Nature Restoration Law composed a list of marine habitat types that should be restored if not in good condition (more info [here](#)).

##### A.7 Nature Restoration Law Annex III: marine species



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



The EU Nature Restoration Law composed a list of marine species whose habitats should be restored if not in good condition (more info [here](#)).

#### **A.8 Birds Directive Annexes I-III: wild bird species**

Annexes I-III of the Birds Directive are lists of wild bird species that are in danger of extinction, vulnerable, rare or require specific attention, taking into account variations in population levels (see Article 4 paragraph 1 of the Birds Directive, more info [here](#)).

**Regional: Baltic Sea**

#### **A.9 HELCOM Red List of Species**

Following the IUCN Red List Species Criteria (criteria list # 2.1 in Annex 3 of this deliverable), HELCOM has listed species that specifically occur in the Baltic Sea under each of the conservation status categories defined by IUCN (more info [here](#)).

**Regional: Black Sea**

#### **A.10 Black Sea Biodiversity and Landscape Conservation Protocol Annex II,IV**

Annex II to the Black Sea Biodiversity and Landscape Conservation Protocol lists species of Black Sea Importance. Annex IV lists species whose exploitation should be regulated by the protocol, following the criteria list 2.4 Black Sea Commission criteria for the selection of species whose exploitation should be regulated (see Annex 3 of this deliverable, more info [here](#)).

**Regional: ICES Region**

#### **A.11 ICES VME indicators and habitats**

ICES developed a list of vulnerable marine ecosystem (VME) indicators and habitats which can be used to identify VMEs (more info [here](#)).

**Regional: Mediterranean Sea**

#### **A.12 SPA/BD Protocol Annexes II-III: list of endangered or threatened species**

Annex II of the SPA/BD protocol lists endangered or threatened species, and Annex III lists species whose exploitation is regulated (more info [here](#)).

#### **A.13 GFCM Mediterranean VME indicator features, habitats and taxa**

Annex I of the report of the 42<sup>nd</sup> session of the General Fisheries Commission for the Mediterranean (GFCM) includes a list of VME indicator features, habitats and taxa (more info [here](#)).

**Regional: NE Atlantic and North Sea**

#### **A.14 OSPAR List of Threatened and/or Declining Habitats**

The OSPAR Commission has identified species and habitats in need of protection, based on the Texel-Faial criteria included in Annex 3 of this deliverable (criteria list # 2.5) (more info [here](#)).



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



## A.15 NEAFC VME Indicator Species

The North East Atlantic Fisheries Commission (NEAFC) Recommendation 19 lists VME Indicator Species in Annex 5 (more info [here](#)).

## B. Species lists, habitat lists and indicators used for monitoring the status of an area

### European

#### B.1 COM DEC 2017/848/EU MSFD Benthic broad habitats

To inform the monitoring for the reporting of good environmental status in the context of the MSFD, a list of benthic broad habitats have been defined in COM DEC 2017/848/EU, to monitor Descriptors 1 and 6 (more info [here](#)).

### Regional: Baltic Sea

#### B.2 HELCOM Core Biodiversity Indicator species for monitoring MSFD targets

These indicators defined by HELCOM are used to evaluate the status of the Baltic Sea (more info [here](#)).

### Regional: Black Sea

#### B.3 Black Sea Proposed Indicators species MSFD

For the Black Sea, species have been identified to be used to monitor indicators for multiple descriptors (more info [here](#)).

### Regional: Mediterranean Sea

#### B.4 Mediterranean Common/Proposed Indicators species MSFD

Mediterranean Common Indicator species, as well as proposed indicator species, are used to monitor Good Environmental Status as part of the MSFD in the Mediterranean. This species list includes the species used for the indicators, and in the DEVOTES catalogue (criteria list #4.9), the indicators that are based on the species on the list are included (more info [here](#)).

### Regional: NE Atlantic and North Sea

#### B.5 OSPAR Common and Candidate Indicators species MSFD

The OSPAR Common Indicators are specific to each of the five OSPAR regions and are used to assess the change in status of the marine environment. The species list referred to here lists the species used to operationalise these indicators (more info [here](#)).



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



## Annex 3: Criteria list catalogue

Annex 1 provides an overview and brief description of the compiled criteria lists organised in four divisions based on the purpose of the criteria lists. A further distinction is made based on the geographic scale (Global, European, Regional) the criteria lists are used:

### 1. Criteria used for the identification of significant areas for conservation

#### Global

##### 1.1 BirdLife International Important Bird and Biodiversity Area (IBA) criteria

The IBA Programme of BirdLife International aims to ensure the long-term conservation of sites that are important for birds and biodiversity. IBAs are considered as areas of global importance for the conservation of bird populations (Donald et al., 2019). The IBA site selection criteria were developed at the global level and for some regions at sub-global levels (region and sub-region included) (more info [here](#)).

##### 1.2 CBD Ecologically or Biologically Significant Marine Areas (EBSA) criteria

As part of the “Decision adopted by the Conference of the Parties to the Convention on Biological Diversity at its Ninth Meeting” (Bonn, 2008), EBSAs were defined. EBSAs “support the healthy functioning of oceans and the many services that it provides” (CBD, n.d.). Scientific criteria were defined in Annex 1 of COP Decision UNEP/CBD/COP/DEC/IX/20, to identify EBSAs that need protection, such as deep-sea habitats, or open ocean waters (more info [here](#)).

##### 1.3 MMPA Task Force Important Marine Mammal Areas (IMMAs) criteria

The Marine Mammal Protected Areas Task Force (MMPA Task Force) developed the IMMA concept, based on the successful process for determining Important Bird Areas (IBAs). IMMAs are “a discrete portion of habitat, important to marine mammal species, that has the potential to be delineated and managed for conservation” (MMPA Task Force, 2020). The IMMA criteria were informed by scientific and public consultation and consider aspects such as key life cycle processes, vulnerability and species attributes (more info [here](#)).

##### 1.4 UNESCO-IOC Large Marine Ecosystem (LME) criteria

The methodology for identifying LMEs was developed under the Transboundary Waters Assessment Programme (TWAP). LMEs are defined as coastal oceanic regions that can include waters from river basins/estuaries up to the edges of continental shelves. They can also be defined through limits of coastal currents or water margins. They are identified using four ecological criteria: bathymetry, hydrography, productivity, and trophically related populations (more info [here](#)).



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



## 1.5 IUCN Key Biodiversity Area (KBA) criteria

Members of IUCN requested a process to agree on a methodology for the identification of 'Key Biodiversity Areas', at the 2004 World Conservation Congress held in Bangkok, Thailand, which led to the KBA Standard. KBAs are "the most important places in the world for species and their habitats" (KBA, 2023) The KBA Standard consists of criteria with quantitative thresholds to enable an objective and transparent identification of KBAs (more info [here](#)).

## 1.6 FAO Vulnerable Marine Ecosystem (VME) criteria

As part of the 'International Guidelines for the Management of Deep-sea Fisheries in the High Seas', criteria have been defined to identify vulnerable marine ecosystems (VMEs) in areas beyond national jurisdiction (ABNJ). VMEs are ecosystems where populations, communities or habitats are likely to "experience substantial alteration from short-term or chronic disturbance" (FAO, 2008). Identification is envisaged to enable the adoption and implementation of conservation and management measures by regional fisheries management organisations/associations (RFMO/As) as well as flag states (more info [here](#)).

### Regional: Black Sea, Mediterranean Sea and Contiguous Atlantic Area

## 1.7 ACCOBAMS Cetacean Critical Habitats (CCHs) criteria

CCHs are defined differently on a case by case basis using spatial modelling, and take into account threats to cetaceans at the population level (ACCOBAMS, 2017). In the workshop entitled "Inputs to the ACCOBAMS ongoing effort to map human threats on cetaceans in the Mediterranean and Black Seas", the relevance of threat-based areas and spatial mapping of immediate threats to cetaceans in the ACCOBAMS region was discussed, including criteria that can be used to identify CCH (more info [here](#)).

### Regional: Mediterranean Sea

## 1.8 OCEANA Essential Fish Habitats (EFHs) criteria

EFHs are essential for the survival of fish, crucial for life stages such as spawning and breeding. Protecting EFHs should contribute to the recovery of overfished stocks, and include habitats such as coral gardens, kelp forests and sea grass meadows (Oceana, 2019). At the 20th session of the Scientific Advisory Committee on Fisheries (26-29 June 2018, Tangier, Morocco), Oceana defined a set of criteria that should be considered for selecting EFHs (more info [here](#)).

## 2. Criteria used for the identification of species and ecosystems for conservation

### Global

## 2.1 IUCN Red List Species Criteria

The IUCN Red List Categories and Criteria are a system for classifying species at high risk of global extinction. The general aim of the system is to provide a clear, objective framework for classifying the widest range of species according to their risk of extinction (more info [here](#)).

## 2.2 IUCN Red Ecosystems Criteria



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



The IUCN Red List of Ecosystems protocol includes criteria for assessing the risk of ecosystem collapse, based on the assumption that ecosystem risk is a function of the species that compose them, their interactions and the ecological processes on which they depend (more info [here](#)).

## European

### **2.3 Birds Directive Article 4 criteria concerning species requiring spatial conservation measures**

Annex I of the Birds Directive lists species that are subject to special conservation measures. Article 4 of the Birds Directive lists four characteristics of species that will be especially taken into account (more info [here](#)).

## Regional: Black Sea

### **2.4 Black Sea Commission criteria for the selection of species whose exploitation should be regulated**

Annex 4 of the Black Sea Biodiversity and Landscape Conservation Protocol lists species for which their exploitation should be regulated (more info [here](#)).

## Regional: Northeast Atlantic and North Sea (OSPAR Region)

### **2.5 OSPAR criteria for the identification of species and habitats in need of protection (Texel-Faial criteria)**

Criteria for the selection of species and habitats that need to be protected (more info [here](#)).

## **3. Criteria used for the designation of suitable areas for conservation by implementing area-based management tools (ABMTs)**

### Global

#### **3.1 IMO Particularly Sensitive Sea Area (PSSA) criteria**

A Particularly Sensitive Sea Area (PSSA) is an area where measures can be implemented through the International Maritime Organization (IMO) to manage activities in that area, e.g. through routeing measures (IMO, 2019). PSSAs are designated because of their importance for recognised ecological, socio-economic or scientific features where such features may be vulnerable to damage by international shipping activities (more info [here](#)).

#### **3.2 IMO Special Area (SA) criteria**

A SA is defined as "a sea area where for recognised technical reasons in relation to its oceanographical and ecological conditions and to the particular character of its traffic, the adoption of special mandatory methods for the prevention of sea pollution by oil, noxious liquid substances, or garbage, as applicable, is required." Criteria to designate an SA are found in Annex 1 of "Guidelines for the designation of Special Areas under MARPOL 73/78 (more info [here](#)).

#### **3.3 IMO Emission Control Areas (ECA) criteria**

ECAs, including SOx ECAs, are in place to prevent, reduce and control air pollution from ship emissions, and their resulting impacts on land and sea areas. Criteria for designating ECAs are found as an Appendix to Annex VI of the MARPOL Convention (more info [here](#)).



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



### **3.4 UNESCO World National Biosphere Reserves (WNBR) criteria**

Biosphere Reserves “promote and demonstrate a balanced relationship between humans and the biosphere”. Criteria have been defined for the designation of areas as Biosphere Reserves (more info [here](#)).

### **3.5 UNESCO World Heritage (WH) sites criteria**

UNESCO World Heritage Sites are areas protected for their cultural and/or natural heritage. Ten selection criteria have been defined (cultural and natural) (more info [here](#)).

### **3.6 Ramsar sites criteria**

Ramsar sites are Wetlands of International Importance. They contain important wetland types and are important for conserving biological diversity (more info [here](#)).

### **3.7 UNCLOS Areas Beyond National Jurisdiction (ABNJ) MPA criteria**

An agreement has been drafted on “the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction”. This includes the establishment of area-based management tools such as marine protected areas. To designate areas to protect, criteria are defined in Annex I of the draft agreement (more info [here](#)).

## **European**

### **3.8 Habitats Directive criteria for selecting sites eligible**

Sites of Community Importance (SCIs) and Special Areas of Conservation (SACs) are designated under the Habitats Directive and aim to maintain and restore the conservation status of habitats and species. Annex III of the Habitats Directive lists criteria used to select sites (more info [here](#)).

### **3.9 Hab. 97/2 rev. 4 18/11/97 criteria for assessing national lists of proposed Sites of Community Importance (pSCI) at biogeographical level**

DG Environment published a document (Hab. 97/2 rev. 4 18/11/97) which provides instructions and criteria for assessing proposed SCIs (more info [here](#)).

### **3.10 Common Fisheries Policy Article 8 criteria concerning fish stock recovery areas**

Article 8 of the Common Fisheries Policy concerns the “Establishment of fish stock recovery areas”. Fish stock recovery areas are protected areas put in place which are biologically sensitive and where there are high concentrations of small-sized fish or spawning grounds (more info [here](#)).

### **3.11 Nature Restoration Law Article 11 (2) criteria concerning habitats to be restored**

The EU Nature Restoration Law stipulates the preparation of national restoration plans in Article 11. This includes the quantification of areas to be restored, which depends on a list of criteria (more info [here](#)).

## **Regional: Baltic Sea**

### **3.12 HELCOM MPAs criteria**

The main aim of the coastal and marine Baltic Sea protected areas (HELCOM MPAs) is the protection of the valuable marine and coastal habitats in the Baltic Sea. This is done by designating suitable areas of special natural value as protected areas and by managing human activities in these areas. A list of selection criteria has been defined based on existing guidelines (more info [here](#)).



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



## Regional: Mediterranean Sea

### 3.13 SPA/RAC Specially Protected Areas of Mediterranean Importance (SPAMI) criteria

The main aim of SPAMIs are to conserve natural heritage. Other objectives such as the conservation of the cultural heritage, the promotion of scientific research, education, participation, and collaboration, are also important to be pursued in SPAMIs as long as they remain congruent with the aims of conservation. Annex I of the SPA/BD protocol defines criteria to be used to select areas to be included on the SPAMI list (more info [here](#)).

## 4. Criteria and indicators suitable for the monitoring of protected areas

### Global

#### 4.1 GEO BON Essential Biodiversity Variables (EBVs)

EBVs have been defined to enable the study, reporting and management of biodiversity change, and should function as a translation step for decision makers of primary observation data (more info [here](#)).

#### 4.2 GOOS Essential Ocean Variables (EOVs)

EOVs are designed to support the delivery of “ocean forecasts and early warnings, climate projections and assessments”, to “protect ocean health and its benefits” (more info [here](#)).

#### 4.3 SER Ecosystem attributes to evaluate recovery

The listed ecosystem attributes have been developed to evaluate recovery in response to a restoration measure (more info [here](#)).

### European

#### 4.4 MSFD Annex III Indicative list of characteristics

The indicative list of characteristics in Table 1 of Annex III of the MSFD describes features to consider whilst assessing good environmental status, such as bathymetry, biological communities and habitat types (more info [here](#)).

#### 4.5 COM DEC 2017/848/EU MSFD criteria to monitor descriptors

For each of the MSFD descriptors, criteria have been defined to implement methodological standards for assessing good environmental status of marine waters (more info [here](#)).

#### 4.6 COM DEC 2017/848/EU MSFD Scientific criteria for the selection of species and habitats

The selection of species and habitats to be included in MSFD monitoring depends on the scientific criteria listed on p. 72-73 (more info [here](#)).

#### 4.7 WFD Annex V definitions ecological status

Annex V of the WFD provides definitions of good ecological status in terms of the biology, hydromorphology and chemistry of coastal waters (more info [here](#)).

#### 4.8 Natura 2000 parameters used to monitor areas (HD Art 17 and BD Art 12)

For Natura 2000 reporting, parameters were defined to be used to monitor Natura 2000 areas, under the Article 17 of the Habitats Directive (more info [here](#)) and Article 12 of the Birds Directive (more info [here](#)).



This project has received funding from the European Union's Horizon Europe research and innovation programme. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



#### **4.9 DEVOTES Catalogue of Marine Biodiversity Indicators**

"A Catalogue of Marine Biodiversity Indicators was developed with the aim of providing the basis for assessing the environmental status of the marine ecosystems" , which are envisioned to be of use for implementing the MSFD (more info [here](#)).

**Regional: Northeast Atlantic and North Sea (OSPAR Region)**

#### **4.10 OSPAR Biodiversity Common Indicators**

Biodiversity Common Indicators are used as indicators by OSPAR to assess biodiversity status in the Northeast Atlantic (more info [here](#)).

## **Supplementary Materials**

Supplementary Material S1: Background information on the compiled species and habitat lists

Supplementary Material S2: Habitat compilation

Supplementary Material S3: Species compilation

Supplementary Material S4: Background information on the compiled criteria lists

Supplementary Material S5: Criteria compilation

## **Supplementary Material S1**

Background information on the compiled species and habitat lists

List identifier	Type of list	Spec/hab	Institution type			If species/habitats: reason for consideration	Name list	sectoral/conservation related (if sectoral: specify)	if area: Area identifier	From WoRMS database?	Name of document	URL criteria list	Notes links_othercrit	Area covered
			Institution /Convention	ocean institution, institution broader mandate	if species/habitats: reason for consideration									
A_SH_EU_01_HD_Annl_hb	area habitats	hab	EU	IGO	HD Art1(c)-iii	Habitats Directive Annex I: Natural habitat types of community interest whose conservation requires the designation of special areas of conservation	conservation	A_EU_02_SAC	yes	Annex I: Natural habitat types of community interest whose conservation requires the designation of special areas of conservation	<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31992L0043&amp;from=EN">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31992L0043&amp;from=EN</a>		EU marine regions	
A_SH_REG_10_VMEICES	area habitat	hab	ICES	IGO	ICES VME indicators and habitats	sectoral:fishing	A_REG_02_VME_NEAFC	no	VME Indicators and Habitats	<a href="https://vme.ices.dk/Indicator_SandHabitats.aspx">https://vme.ices.dk/Indicator_SandHabitats.aspx</a>		North Atlantic		
SH_REG_06_OSPA_RRL	list habitats	hab	OSPAR	IGO	ACI_REG_08_OSPAR_MPAs	OSPAR List of Threatened and/or Declining Habitats	conservation		no	OSPAR Agreement 2008-06 COMMISSION DECISION (EU) 2017/848 of 17 May 2017 laying down criteria and methodological standards on good environmental status of marine waters and specifications and standardized methods for monitoring and assessment, and repealing Decision 2010/477/EU (Table 2)	<a href="https://www.ospar.org/work-area/bdr/species-habitats">https://www.ospar.org/work-area/bdr/species-habitats</a>		NE Atlantic and North Sea	
SH_EU_04_MSFD_hb	monitoring habitats	hab	EU	IGO	biodiversity, seafloor integrity (D1, D6 MSFD)	COM DEC 2017/848/EU MSFD	Benthic broad habitats	conservation	NA	no	<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017D0048&amp;from=EN">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017D0048&amp;from=EN</a> maybe not necessary if we include the JRC list		EU marine regions	
SH_EU_06_nature_st_hb	area habitats	hab	EU	IGO	"Member States shall put in place the restoration measures that are necessary to improve to good condition areas of habitat types listed in Annex II which are not in good condition" (restoration)	Nature Restoration Law Annex II: marine habitat types	restoration	NA	no	ANNEXES to the proposal for a Regulation of the European Parliament and of the Council on nature restoration	<a href="https://environment.ec.europa.eu/system/files/2022-06/annexes%20for%20the%20proposal%20for%20a%20regulation%20on%20nature%20restoration.pdf">https://environment.ec.europa.eu/system/files/2022-06/annexes%20for%20the%20proposal%20for%20a%20regulation%20on%20nature%20restoration.pdf</a>			
A_SH_EU_03_BD_sp	area species	spec	EU	IGO	4 criteria (ACI_EU_01_BD)	Birds Directive Annexes I,II,III: wild bird species	conservation	A_EU_01_SPA	yes	Birds Directive Annexes I,II,III	<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0147&amp;from=EN">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0147&amp;from=EN</a>		EU marine regions	
A_SH_REG_02_VME_NEAFC	area species	spec	NEAFC	IGO	definition VMEs (vulnerable marine ecosystems)	NEAFC VME Indicator Species	sectoral:fishing	A_REG_02_VME_NEAFC	no	NEAFC Recommendation 19 2014 Annex 5: VME Indicator Species	<a href="https://www.neafc.org/sites/default/files/annex_5_en_2018.pdf">https://www.neafc.org/sites/default/files/annex_5_en_2018.pdf</a>		NE Atlantic NEAFC remit	
A_SH_REG_05_SPA_MI_sp	area species	spec	SPA/RAC	IGO	LIST OF SPECIES WHOSE EXPLOITATION IS REGULATED (Annex 3)	SPA/BD Protocol Annexes II-III (List of endangered or threatened species)	conservation	A_REG_04_SPA_MI	no	Annex 2 SPA/BD Protocol	<a href="https://www.rac-spa.org/sites/default/files/annex_2_en_2018.pdf">https://www.rac-spa.org/sites/default/files/annex_2_en_2018.pdf</a>		Mediterranean	
SH_INTL_09_CITES_App_I_III	list species	spec	CITES	convention	species threatened with extinction	CITES Appendix I-III species lists	conservation	NA	yes	CITES AppI-III: (Appendix I: species threatened with extinction, Appendix II: species not necessarily threatened with extinction, but in which trade must be controlled in order to avoid utilization incompatible with their survival.)	<a href="https://cites.org/en/discussion.pdf">https://cites.org/en/discussion.pdf</a>		Global	
SH_INTL_10_RL_sp	list species	spec	IUCN	NGO	CL_INTL_04_RL_spC	IUCN Red List of Species	conservation	NA	yes	IUCN Red List Species	<a href="https://www.iucnredlist.org/">https://www.iucnredlist.org/</a>		Global	
SH_INTL_12_FAO_ASFIS	list species	spec	FAO	mandate	for fishery statistics purposes	FAO-ASFI'S List of Species for Fishery Statistics Purposes	sectoral:fishing	NA	yes	ASFI'S List of Species for Fishery Statistics Purposes	<a href="https://www.fao.org/fishery/en/collection/asfis/en">https://www.fao.org/fishery/en/collection/asfis/en</a>		Global	
SH_REG_01_HELCOMRL	list species	spec	HELCOM	IGO	CL_INTL_04_RL_spC (IUCN Red List Criteria)	HELCOM Red List of Species	conservation	NA	yes	HELCOM Red List of Species	<a href="https://helcom.fi/baltic-sea-trends/biodiversity/red-list-of-cl_intl_04_rl_spC_criteria_for_inclusion">https://helcom.fi/baltic-sea-trends/biodiversity/red-list-of-cl_intl_04_rl_spC_criteria_for_inclusion</a>		Baltic	
SH_REG_02_HELCOMCMBI	monitoring species	spec	HELCOM	IGO	for MSFD monitoring	HELCOM Core Biodiversity Indicator species for monitoring MSFD targets	conservation	NA	yes	HELCOM Core Biodiversity Indicators	<a href="https://www.blacksea-commission.org/downloads/AMENONE/Deliverable%201_3.pdf">https://www.blacksea-commission.org/downloads/AMENONE/Deliverable%201_3.pdf</a>		Baltic	
SH_REG_03_Blk5easPis	monitoring species	spec	Black Sea	IGO	CL_EU_08_MSFD_critDs	Black Sea Proposed Indicators species MSFD	conservation	NA	yes	Black Sea Proposed Indicators species MSFD	<a href="https://www.ospar.org/work-areas/cross-cutting-issues/ospar-common-indicators">https://www.ospar.org/work-areas/cross-cutting-issues/ospar-common-indicators</a>		Black Sea	
SH_REG_04_MedCormminds	monitoring species	spec	SPA_RAC	IGO	CL_EU_08_MSFD_critDs	Mediterranean Common/Proposed Indicators species MSFD	conservation	NA	yes	Mediterranean Common/Proposed Indicators species MSFD	<a href="https://www.medcr.org/biodiversity-and-ecosystems">https://www.medcr.org/biodiversity-and-ecosystems</a>		Mediterranean	
SH_REG_05_OSPARinds	monitoring species	spec	OSPAR	IGO	CL_EU_08_MSFD_critDs	OSPAR Common and Candidate Indicators species MSFD	conservation	NA	yes	OSPAR Common and Candidate Indicators species MSFD	<a href="http://www.blacksea-commission.org/convention-protocols/biodiversity.asp">http://www.blacksea-commission.org/convention-protocols/biodiversity.asp</a>		NE Atlantic and North Sea	
SH_REG_07_Blk5eaproT	list species	spec	Black Sea Convention	IGO	Black Sea importance, species whose exploitation should be regulated	Black Sea Biodiversity and Landscape Conservation Protocol Annex II,IV	conservation	NA	no	Annex II,IV Black Sea Biodiversity and Landscape Conservation Protocol	<a href="https://environment.ec.europa.eu/system/files/2022-06/annexes%20for%20the%20proposal%20for%20a%20regulation%20on%20nature%20restoration.pdf">https://environment.ec.europa.eu/system/files/2022-06/annexes%20for%20the%20proposal%20for%20a%20regulation%20on%20nature%20restoration.pdf</a>		Black Sea	
SH_EU_06_nature_st_sp	area species	spec	EU	IGO	"Member States shall put in place the restoration measures for the marine habitats of species listed in Annex III" (restoration)	Nature Restoration Law Annex III: marine species	restoration	NA	no	Annex III nature restoration law: marine species	<a href="https://www.ospar.org/3ca4047en.pdf">https://www.ospar.org/3ca4047en.pdf</a>		EU marine regions	
A_SH_EU_02_HD_Annl_IV_sp	area species	spec	EU	IGO	HD Art1(g)-iv (endangered, vulnerable, rare and/or endemic)	Habitats Directive Annex II,IV: species lists	conservation	A_EU_02_SAC	yes	Annex I, IV Habitat Directive Report 42nd session GFCM Annex LEX:31992L0043&from=EN D1C5	<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31992L0043&amp;from=EN">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31992L0043&amp;from=EN</a>		EU marine regions	
A_SH_REG_03_VME_GFCM	area species/habitat	spec/hab	GFCM	IGO	definition VMEs (vulnerable marine ecosystems)	GFCM Mediterranean VME indicator features, habitats and taxa	sectoral:fishing	A_REG_03_VME_GFCM	no	Mediterranean VME indicator features, habitats and taxa	<a href="https://www.fao.org/3ca4047en.pdf">https://www.fao.org/3ca4047en.pdf</a>		Mediterranean	

## **Supplementary Material S2**

Habitat compilation

List identifier	Habitat identifier	Source	Habitat Code	Priority	Source classification marine/EUNIS links	Level 1 name	Level 2 name	Ecosystem component	Habitat name	EUNIS Classification**	HELCOM Classification***	Barcelona Convention***	Notes
A_SH_EU_01_HD	A_SH_EU_01_HD_Annl_hb_1110				Annex 1 Habitats Directive 1110	EC 2007*, ETC-BD 2009	COASTAL AND HALOPHYTIC	Open Sea and tidal areas	Sandbanks which are slightly covered by sea water all the time	Relevant types within 'A2' "A2.5 Sublitoral coarse sediment, A5.3 Sublitoral sand, A5.4 Sublitoral mixed sediments, A5.5 Sublitoral macrophyte-dominated sediment"	Sublitoral gravelly bottoms. Banks with or without macrophyte vegetation ("A2.3.1", "Sublitoral sandy bottoms. Banks with or without macrophyte vegetation ("2.5.2.4)")	very shallow waters (III. 2.1.) with facies with Lentidium mediterraneum (III. 2. 1.1)", "Biocoenosis of well sorted fine sands (III. 2. 2.1.) with associations with Cymodocea nodosa on well sorted fine sands (III. 2. 2.1.) and with Hoplophila stipulacea (III. 2. 2.2), the latter being a determinant habitat in C. B.", "Biocoenosis of coarse sands and fine gravels mixed by the waves (III. 3. 1.) with association with rhodolithes (III. 3. 1.1), considered determinant habitat in the C. B.", "Biocoenosis of coarse sands and fine gravels under the influence of bottom currents (also found in the Cirriforme facies (III. 3.2). It is possible to find rhodolithes and an association which are determinant habitats for C. B. the maerl facies (= Association with Lithothamnion coralloides	
A_SH_EU_01_HD	A_SH_EU_01_HD_Annl_hb_1120				Annex 1 Habitats Directive 1120	EC 2007*, ETC-BD 2010	COASTAL AND HALOPHYTIC	Open Sea and tidal areas	Posidonia beds (Posidonia oceanicae)				
A_SH_EU_01_HD	A_SH_EU_01_HD_Annl_hb_1130				Annex 1 Habitats Directive 1130	EC 2007*	COASTAL AND HALOPHYTIC	Open Sea and tidal areas	Estuaries				
A_SH_EU_01_HD	A_SH_EU_01_HD_Annl_hb_1140				Annex 1 Habitats Directive 1140	EC 2007*	COASTAL AND HALOPHYTIC	Open Sea and tidal areas	Mudflats and sandflats not covered by seawater at low tide				
A_SH_EU_01_HD	A_SH_EU_01_HD_Annl_hb_1150				Annex 1 Habitats Directive 1150	EC 2007*	COASTAL AND HALOPHYTIC	Open Sea and tidal areas	Coastal lagoons				
A_SH_EU_01_HD	A_SH_EU_01_HD_Annl_hb_1160				Annex 1 Habitats Directive 1160	EC 2007*	COASTAL AND HALOPHYTIC	Open Sea and tidal areas	Large shallow inlets and bays				
A_SH_EU_01_HD	A_SH_EU_01_HD_Annl_hb_1170				Annex 1 Habitats Directive 1170	EC 2007*, ETC-BD 2010	COASTAL AND HALOPHYTIC	Open Sea and tidal areas	Reefs	"Sublitoral soft rock reefs of the photic zone with little or no macrophyte vegetation (2.1.1.2.3)", "Hydrolittoral soft rock reefs with or without macrophyte vegetation (2.1.1.3.3)", "Sublitoral solid rock reefs of the photic zone with or without macrophyte vegetation (2.1.1.4.1)", "Biocoenosis of the upper mediolittoral rock (II.4.1.)", "Biocoenosis of the lower mediolittoral rock (II.4.2.)", "Biocoenosis of infralittoral alga (II.6.1.)", "Biocoenosis of infralittoral rock (II.6.2.)", "Biocoenosis of infralittoral stony reefs of the photic zone with or without macrophyte vegetation (2.1.2.3.3)", "Sublitoral stony reefs of the photic zone with or without macrophyte vegetation (2.1.2.3.4)", "Coralligenous (V.3.1.1)", "Biocoenosis of shelf-edge rock (V.3.1.2.)", "Biocoenosis of deep sea corals present in the Mediterranean bathyal (V.3.1.)"	"Biocoenosis of supralittoral rock (I.4.1.)", "Biocoenosis of the upper mediolittoral rock (II.4.1.)", "Biocoenosis of the lower mediolittoral rock (II.4.2.)", "Biocoenosis of infralittoral alga (II.6.1.)", "Biocoenosis of infralittoral rock (II.6.2.)", "Biocoenosis of infralittoral stony reefs of the photic zone with or without macrophyte vegetation (2.1.2.3.3)", "Sublitoral solid rock reefs of the photic zone with or without macrophyte vegetation (2.1.1.3.3)", "Sublitoral soft rock reefs of the photic zone with or without macrophyte vegetation (2.1.1.4.1)", "Biocoenosis of the upper mediolittoral rock (II.4.1.)", "Biocoenosis of the lower mediolittoral rock (II.4.2.)", "Biocoenosis of infralittoral alga (II.6.1.)", "Biocoenosis of infralittoral rock (II.6.2.)", "Biocoenosis of infralittoral stony reefs of the photic zone with or without macrophyte vegetation (2.1.2.3.3)", "Sublitoral stony reefs of the photic zone with or without macrophyte vegetation (2.1.2.3.4)", "Coralligenous (V.3.1.1)", "Biocoenosis of shelf-edge rock (V.3.1.2.)", "Biocoenosis of deep sea corals present in the Mediterranean bathyal (V.3.1.)"		
A_SH_EU_01_HD	A_SH_EU_01_HD_Annl_hb_1180				Annex 1 Habitats Directive 1180	EC 2007*, ETC-BD 2010	COASTAL AND HALOPHYTIC	Open Sea and tidal areas	Submarine structures made by leaking gases				
A_SH_EU_01_HD	A_SH_EU_01_HD_Annl_hb_1610				Annex 1 Habitats Directive 1610	HELCOM**	COASTAL AND HALOPHYTIC	Boreal Baltic archipelago, coastal and landupheaval areas	Baltic esker islands with sandy, rocky and shingle beach vegetation and sublitoral vegetation				
A_SH_EU_01_HD	A_SH_EU_01_HD_Annl_hb_1620				Annex 1 Habitats Directive 1620	HELCOM**	COASTAL AND HALOPHYTIC	Boreal Baltic archipelago, coastal and landupheaval areas	Boreal Baltic islets and small islands				
A_SH_EU_01_HD	A_SH_EU_01_HD_Annl_hb_1650				Annex 1 Habitats Directive 1650	HELCOM**	COASTAL AND HALOPHYTIC	ROCKY	Boreal Baltic narrow inlets				
A_SH_EU_01_HD	A_SH_EU_01_HD_Annl_hb_8330				Annex 1 Habitats Directive 8330	EC 2007*, ETC-BD 2010	CAVES	HABITATS AND other rocky habitats	Submerged or partially submerged sea caves				
A_SH_REG_03_V	A_SH_REG_03_VME_GF_ME_GFCM	CM_ih1			Indicator habitats: ih1 Mediterranean VME indicator habitats				Cold-water coral reefs				
A_SH_REG_03_V	A_SH_REG_03_VME_GF_ME_GFCM	CM_ih10			Indicator habitats: ih10 Mediterranean VME indicator habitats				Soft-bottom sponge gardens				
A_SH_REG_03_V	A_SH_REG_03_VME_GF_ME_GFCM	CM_ih11			Indicator habitats: ih11 Mediterranean VME indicator habitats				Tube-dwelling anemone patches				
A_SH_REG_03_V	A_SH_REG_03_VME_GF_ME_GFCM	CM_ih12			Indicator habitats: ih12 Mediterranean VME indicator habitats				Crinoid fields				
A_SH_REG_03_V	A_SH_REG_03_VME_GF_ME_GFCM	CM_ih13			Indicator habitats: ih13 Mediterranean VME indicator habitats				Oyster reefs and other giant bivalves				
A_SH_REG_03_V	A_SH_REG_03_VME_GF_ME_GFCM	CM_ih14			Indicator habitats: ih14 Mediterranean VME indicator habitats				Seep and vent communities				
A_SH_REG_03_V	A_SH_REG_03_VME_GF_ME_GFCM	CM_ih15			Indicator habitats: ih15 Mediterranean VME indicator habitats				Other dense emergent fauna				
A_SH_REG_03_V	A_SH_REG_03_VME_GF_ME_GFCM	CM_ih2			Indicator habitats: ih2 Mediterranean VME indicator habitats				Coral gardens				
A_SH_REG_03_V	A_SH_REG_03_VME_GF_ME_GFCM	CM_ih3			Indicator habitats: ih3 Mediterranean VME indicator habitats				Hard-bottom coral garden				
A_SH_REG_03_V	A_SH_REG_03_VME_GF_ME_GFCM	CM_ih4			Indicator habitats: ih4 Mediterranean VME indicator habitats				Soft-bottom coral gardens				

A_SH_REG_03_V ME_GFCM	A_SH_REG_03_VME_GF CM_ih5	Mediterra nean VME indicator habitats ih5 Mediterra nean VME	Sea pen fields		
A_SH_REG_03_V ME_GFCM	A_SH_REG_03_VME_GF CM_ih6	Mediterra nean VME indicator habitats ih6 Mediterra nean VME	Deep-sea sponge aggregations		
A_SH_REG_03_V ME_GFCM	A_SH_REG_03_VME_GF CM_ih7	Mediterra nean VME indicator habitats ih7 Mediterra nean VME	'Ostur' sponge aggregations		
A_SH_REG_03_V ME_GFCM	A_SH_REG_03_VME_GF CM_ih8	Mediterra nean VME indicator habitats ih8 Mediterra nean VME	Hard-bottom sponge gardens		
A_SH_REG_03_V ME_GFCM	A_SH_REG_03_VME_GF CM_ih9	Mediterra nean VME indicator habitats ih9 Mediterra nean VME	Glass sponge communities		
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst1	VME Habitat subtypes Lophelia pertusa/Madrepora oculata reef			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst10	VME Habitat subtypes Soft-bottom coral garden: Cup-coral fields			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst11	VME Habitat subtypes Soft-bottom coral garden: Cauliflower Coral Fields			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst12	VME Habitat subtypes Soft-bottom sponge aggregations			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst13	VME Habitat subtypes Hard-bottom sponge aggregations			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst14	VME Habitat subtypes Soft-bottom anemone aggregations			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst15	VME Habitat subtypes Hard-bottom anemone aggregations			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst16	VME Habitat subtypes Solenosmilia variabilis reef			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst17	VME Habitat subtypes Hard-bottom coral garden			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst18	VME Habitat subtypes Hard-bottom coral garden: Hard-bottom gorgonian and black coral gardens			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst19	VME Habitat subtypes Hard-bottom coral garden: Colonial scleractinians on rocky out-crops			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst20	VME Habitat subtypes Hard-bottom coral garden: Non-reef scleractinian aggregations			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst21	VME Habitat subtypes Hard-bottom coral garden: Stylerid corals on hard substrata			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst22	VME Habitat subtypes Soft-bottom coral garden			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst23	VME Habitat subtypes Soft-bottom coral garden: Soft-bottom gorgonian and black coral gardens			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst24	VME Habitat subtypes VME Habitat			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst25	VME Habitat subtypes VME Habitat			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst26	VME Habitat subtypes VME Habitat			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst27	VME Habitat subtypes VME Habitat			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst28	VME Habitat subtypes VME Habitat			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst29	VME Habitat subtypes VME Habitat			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst30	VME Habitat subtypes VME Habitat			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst31	VME Habitat subtypes VME Habitat			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst32	VME Habitat subtypes VME Habitat			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst33	VME Habitat subtypes VME Habitat			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst34	VME Habitat subtypes VME Habitat			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst35	VME Habitat subtypes VME Habitat			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst36	VME Habitat subtypes VME Habitat			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst37	VME Habitat subtypes VME Habitat			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst38	VME Habitat subtypes VME Habitat			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst39	VME Habitat subtypes VME Habitat			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst40	VME Habitat subtypes VME Habitat			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst41	VME Habitat subtypes VME Habitat			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst42	VME Habitat subtypes VME Habitat			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst43	VME Habitat subtypes VME Habitat			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst44	VME Habitat subtypes VME Habitat			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst45	VME Habitat subtypes VME Habitat			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst46	VME Habitat subtypes VME Habitat			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst47	VME Habitat subtypes VME Habitat			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst48	VME Habitat subtypes VME Habitat			
A_SH_REG_10_V ME_ICES	A_SH_REG_10_VME_ICE S_hst49	VME Habitat subtypes VME Habitat			
SH_EU_04_MSFD		MSFD COM DEC 2017/848 /EU Table			
_hb	SH_EU_04_MSFD_hb_1	2 1	Benthic	Littoral rock and biogenic reef	MA1,MA2
SH_EU_04_MSFD		MSFD COM DEC 2017/848 /EU Table			
_hb	SH_EU_04_MSFD_hb_10	2 10	Benthic	Circalittoral mixed sediment	MC4
SH_EU_04_MSFD		MSFD COM DEC 2017/848 /EU Table			
_hb	SH_EU_04_MSFD_hb_11	2 11	Benthic	Circalittoral sand	MC5
SH_EU_04_MSFD		MSFD COM DEC 2017/848 /EU Table			
_hb	SH_EU_04_MSFD_hb_12	2 12	Benthic	Circalittoral mud	MC6
SH_EU_04_MSFD		MSFD COM DEC 2017/848 /EU Table			
_hb	SH_EU_04_MSFD_hb_13	2 13	Benthic	Offshore circalittoral rock and biogenic reef	MD1,MD2
SH_EU_04_MSFD		MSFD COM DEC 2017/848 /EU Table			
_hb	SH_EU_04_MSFD_hb_14	2 14	Benthic	Offshore circalittoral coarse sediment	MD3
SH_EU_04_MSFD		MSFD COM DEC 2017/848 /EU Table			
_hb	SH_EU_04_MSFD_hb_15	2 15	Benthic	Offshore circalittoral mixed sediment	MD4
SH_EU_04_MSFD		MSFD COM DEC 2017/848 /EU Table			
_hb	SH_EU_04_MSFD_hb_16	2 16	Benthic	Offshore circalittoral sand	MD5
SH_EU_04_MSFD		MSFD COM DEC 2017/848 /EU Table			
_hb	SH_EU_04_MSFD_hb_17	2 17	Benthic	Offshore circalittoral mud	MD6
SH_EU_04_MSFD		MSFD COM DEC 2017/848 /EU Table			
_hb	SH_EU_04_MSFD_hb_18	2 18	Benthic	Upper bathyal rock and biogenic reef	ME1,ME2
SH_EU_04_MSFD		MSFD COM DEC 2017/848 /EU Table			
_hb	SH_EU_04_MSFD_hb_19	2 19	Benthic	Upper bathyal sediment	ME3,ME4,ME5,ME6
SH_EU_04_MSFD		MSFD COM DEC 2017/848 /EU Table			
_hb	SH_EU_04_MSFD_hb_2	2 2	Benthic	Littoral sediment	MA3,MA4,MA5,MA6
SH_EU_04_MSFD		MSFD COM DEC 2017/848 /EU Table			
_hb	SH_EU_04_MSFD_hb_20	2 20	Benthic	Lower bathyal rock and biogenic reef	MF1,MF2
Where not specifically defined in the EU/NIS classification, the boundary between the upper bathyal and lower bathyal may be set as a specified depth limit.					

SH_EU_04_MSFD	SH_EU_04_MSFD_hb_21	2	21	MSFD COM DEC 2017/848 /EU Table	Benthic	Lower bathyal sediment	MF3, MF4, MF5, MF6
SH_EU_04_MSFD	SH_EU_04_MSFD_hb_22	2	22	MSFD COM DEC 2017/848 /EU Table	Benthic	Abyssal	MG1, MG2, MG3, MG4, MG5, MG6
SH_EU_04_MSFD	SH_EU_04_MSFD_hb_3	2	3	MSFD COM DEC 2017/848 /EU Table	Benthic	Infralittoral rock and biogenic reef	MB1, MB2
SH_EU_04_MSFD	SH_EU_04_MSFD_hb_4	2	4	MSFD COM DEC 2017/848 /EU Table	Benthic	Infralittoral coarse sediment	MB3
SH_EU_04_MSFD	SH_EU_04_MSFD_hb_5	2	5	MSFD COM DEC 2017/848 /EU Table	Benthic	Infralittoral mixed sediment	MB4
SH_EU_04_MSFD	SH_EU_04_MSFD_hb_6	2	6	MSFD COM DEC 2017/848 /EU Table	Benthic	Infralittoral sand	MB5
SH_EU_04_MSFD	SH_EU_04_MSFD_hb_7	2	7	MSFD COM DEC 2017/848 /EU Table	Benthic	Infralittoral mud	MB6
SH_EU_04_MSFD	SH_EU_04_MSFD_hb_8	2	8	MSFD COM DEC 2017/848 /EU Table	Benthic	Circalittoral rock and biogenic reef	MC1, MC2
SH_EU_04_MSFD	SH_EU_04_MSFD_hb_9	2	9	MSFD COM DEC 2017/848 /EU Table	Benthic	Circalittoral coarse sediment	MC3
SH_REG_06_OSP	SH_REG_06_OSPARL_h	1	OSPAR	h1	<a href="https://www.ospar.org/site/assets/files/44271/carbonate_mounds.pdf">https://www.ospar.org/site/assets/files/44271/carbonate_mounds.pdf</a>	Carbonate Mounds	A6.75
SH_REG_06_OSP	SH_REG_06_OSPARL_h	10	OSPAR	h10	<a href="https://www.ospar.org/site/assets/files/44271/ophelia_pertusa_reefs.pdf">https://www.ospar.org/site/assets/files/44271/ophelia_pertusa_reefs.pdf</a>	Lophelia pertusa Reefs	A5.631 and A6.611
SH_REG_06_OSP	SH_REG_06_OSPARL_h	11	OSPAR	h11	<a href="https://www.ospar.org/site/assets/files/44271/maerl_beds.pdf">https://www.ospar.org/site/assets/files/44271/maerl_beds.pdf</a>	Maerl Beds	A5.51
SH_REG_06_OSP	SH_REG_06_OSPARL_h	12	OSPAR	h12	<a href="https://www.ospar.org/site/assets/files/44271/horse_mussel_beds.pdf">https://www.ospar.org/site/assets/files/44271/horse_mussel_beds.pdf</a>	Modiolus modiolus beds	A5.621, A5.622, A5.623 and A5.624
SH_REG_06_OSP	SH_REG_06_OSPARL_h	13	OSPAR	h13	<a href="https://www.ospar.org/site/assets/files/44271/oceanic_ridges_hydrothermal_vents.pdf">https://www.ospar.org/site/assets/files/44271/oceanic_ridges_hydrothermal_vents.pdf</a>	Oceanic Ridges with Hydrothermal Vents	A6.94
SH_REG_06_OSP	SH_REG_06_OSPARL_h	14	OSPAR	h14	<a href="https://www.ospar.org/site/assets/files/44271/oestrea_edulis_beds.pdf">https://www.ospar.org/site/assets/files/44271/oestrea_edulis_beds.pdf</a>	Ostrea edulis Beds	A5.435
SH_REG_06_OSP	SH_REG_06_OSPARL_h	15	OSPAR	h15	<a href="https://www.ospar.org/site/assets/files/44271/sabellaria_spinulosa.pdf">https://www.ospar.org/site/assets/files/44271/sabellaria_spinulosa.pdf</a>	Sabellaria spinulosa Reefs	A4.22 and A5.611
SH_REG_06_OSP	SH_REG_06_OSPARL_h	16	OSPAR	h16	<a href="https://www.ospar.org/site/assets/files/44271/seamounts.pdf">https://www.ospar.org/site/assets/files/44271/seamounts.pdf</a>	Seamounts	A6.72
SH_REG_06_OSP	SH_REG_06_OSPARL_h	17	OSPAR	h17	<a href="https://www.ospar.org/site/assets/files/44271/sea-pen_burrowing_megafauna.pdf">https://www.ospar.org/site/assets/files/44271/sea-pen_burrowing_megafauna.pdf</a>	Sea-Pen & Burrowing Megafauna Communities	A5.361 and A5.362
SH_REG_06_OSP	SH_REG_06_OSPARL_h	18	OSPAR	h18	<a href="https://www.ospar.org/site/assets/files/45177/seagrass_beds.pdf">https://www.ospar.org/site/assets/files/45177/seagrass_beds.pdf</a>	Zostera Beds	A2.611, A5.533 and A5.545
SH_REG_06_OSP	SH_REG_06_OSPARL_h	2	OSPAR	h2	<a href="https://www.ospar.org/site/assets/files/44271/coral_gardens.pdf">https://www.ospar.org/site/assets/files/44271/coral_gardens.pdf</a>	Coral Gardens	A6.1, A6.2, A6.3, A6.4, A6.5, A6.6, A6.7, A6.8, A6.9
SH_REG_06_OSP	SH_REG_06_OSPARL_h	3	OSPAR	h3	<a href="https://www.ospar.org/site/assets/files/44271/cymodocea_meadows.pdf">https://www.ospar.org/site/assets/files/44271/cymodocea_meadows.pdf</a>	Cymodocea Meadows	"A5.531, A5.5312, A5.5313 and A5.5313"
SH_REG_06_OSP	SH_REG_06_OSPARL_h	4	OSPAR	h4	<a href="https://www.ospar.org/site/assets/files/44271/deep_sea_sponge_aggregations.pdf">https://www.ospar.org/site/assets/files/44271/deep_sea_sponge_aggregations.pdf</a>	Deep-Sea Sponge Aggregations	A6.62
SH_REG_06_OSP	SH_REG_06_OSPARL_h	5	OSPAR	h5	<a href="https://www.ospar.org/site/assets/files/44271/haploids_habitat.pdf">https://www.ospar.org/site/assets/files/44271/haploids_habitat.pdf</a>	Haploids habitat	
SH_REG_06_OSP	SH_REG_06_OSPARL_h	6	OSPAR	h6	<a href="https://www.ospar.org/site/assets/files/44271/intertidal_mytilus_edulis_beds.pdf">https://www.ospar.org/site/assets/files/44271/intertidal_mytilus_edulis_beds.pdf</a>	Intertidal Mytilus edulis Beds on Mixed & Sandy Sediments	A2.7211 and A2.7212
SH_REG_06_OSP	SH_REG_06_OSPARL_h	7	OSPAR	h7	<a href="https://www.ospar.org/site/assets/files/44271/intertidal_mudflats.pdf">https://www.ospar.org/site/assets/files/44271/intertidal_mudflats.pdf</a>	Intertidal Mudflats	A2.3
SH_REG_06_OSP	SH_REG_06_OSPARL_h	8	OSPAR	h8	<a href="https://www.ospar.org/documents?v=46871">https://www.ospar.org/documents?v=46871</a>	Kelp Forest	Appendix I. Corresponding EUINS habitats units
SH_REG_06_OSP	SH_REG_06_OSPARL_h	9	OSPAR	h9	<a href="https://www.ospar.org/site/assets/files/44271/littoral_chalk_communities.pdf">https://www.ospar.org/site/assets/files/44271/littoral_chalk_communities.pdf</a>	Littoral Chalk Communities	"A1.126, A1.2143, A1.441, B3.114 and B3.115"
SH_EU_06_natur	SH_EU_06_naturest_hb	est_hb	SH_EU_06_naturest_hb	MA522	seagrass beds atlantic	MA522	
SH_EU_06_natur	SH_EU_06_naturest_hb	est_hb	MA623	seagrass beds atlantic	MA623		
SH_EU_06_natur	SH_EU_06_naturest_hb	est_hb	MA32	seagrass beds atlantic	MA522		
SH_EU_06_natur	SH_EU_06_naturest_hb	est_hb	MA33	seagrass beds atlantic	MA332		
SH_EU_06_natur	SH_EU_06_naturest_hb	est_hb	MA432	seagrass beds baltic	MA432		
SH_EU_06_natur	SH_EU_06_naturest_hb	est_hb	MA532	seagrass beds baltic	MA532		
SH_EU_06_natur	SH_EU_06_naturest_hb	est_hb	MA632	seagrass beds baltic	MA632		



SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MC141	shellfish beds	blacksea	MC141
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MC241	shellfish beds	blacksea	MC241
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MC645	shellfish beds	blacksea	MC645
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MC1544,	shellfish beds	mediterranean	MA1544,
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MB1514,	shellfish beds	mediterranean	MB1514,
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MB322,	maeri beds	atlantic	MB322,
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MB421,	maeri beds	atlantic	MB421,
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MB622,	maeri beds	atlantic	MB622,
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MB3511,	maeri beds	mediterranean	MB3511,
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MB3521	maeri beds	mediterranean	MB3521,
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MC3521,	maeri beds	mediterranean	MC3521,
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MC3523,	maeri beds	mediterranean	MC3523,
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MC121	sponge, coral and coralligenous beds	atlantic	MC121
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MC124	sponge, coral and coralligenous beds	atlantic	MC124
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MC126	sponge, coral and coralligenous beds	atlantic	MC126
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MC222	sponge, coral and coralligenous beds	atlantic	MC222
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MD121	sponge, coral and coralligenous beds	atlantic	MD121
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MD221	sponge, coral and coralligenous beds	atlantic	MD221
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb ME122	sponge, coral and coralligenous beds	atlantic	ME122
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb ME123	sponge, coral and coralligenous beds	atlantic	ME123
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb ME221	sponge, coral and coralligenous beds	atlantic	ME221
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb ME322	sponge, coral and coralligenous beds	atlantic	ME322
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb ME324	sponge, coral and coralligenous beds	atlantic	ME324
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb ME422	sponge, coral and coralligenous beds	atlantic	ME422
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb ME623	sponge, coral and coralligenous beds	atlantic	ME623
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb ME624	sponge, coral and coralligenous beds	atlantic	ME624
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MF121	sponge, coral and coralligenous beds	atlantic	MF121
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MF221	sponge, coral and coralligenous beds	atlantic	MF221
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MF321	sponge, coral and coralligenous beds	atlantic	MF321
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MFG22	sponge, coral and coralligenous beds	atlantic	MF622
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MFG23,	sponge, coral and coralligenous beds	atlantic	MF623,
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MB138,	sponge, coral and coralligenous beds	baltic	MB138,
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MB43A,	sponge, coral and coralligenous beds	baltic	MB43A,
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MC133,	sponge, coral and coralligenous beds	baltic	MC133,
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MC136,	sponge, coral and coralligenous beds	baltic	MC136,
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MC433,	sponge, coral and coralligenous beds	baltic	MC433,
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MC436,	sponge, coral and coralligenous beds	baltic	MC436,
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MD24,	sponge, coral and coralligenous beds	blacksea	MD24,
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb ME14,	sponge, coral and coralligenous beds	blacksea	ME14,
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb ME24,	sponge, coral and coralligenous beds	blacksea	ME24,
SH_EU_06_naturr SH_EU_06_naturerest_hb est_hb MF14,	sponge, coral and coralligenous beds	blacksea	MF14,





## **Supplementary Material S3**

For species compilation, the file is too large to be attached here (up to 7000 pages), so please contact [inne.withouck@vliz.be](mailto:inne.withouck@vliz.be) to obtain online access/copy of the file

## **Supplementary Material S4**

Background information on the compiled criteria lists

Criteria list identifier	No criti	Marine/Terrestrial	Geographic scale	Type of criteria list	Institution/Convenio	institution type	Name criteria list	sectoral/conservation related (if sectoral: specify) if area: Area identifier	Name source	URL source	Notes (incl. any links between criteria lists)	Related datasets/databases/data platforms	Related datasets/databases/data platforms
ACL_EU_01_ISD	4	Both	European level	id prior species	EU	IGO	SD Criteria concerning species requiring special conservation measures	conservation	A_EU_01_SPA	Birds Directive Article 4	<a href="http://ec.europa.eu/comm/protected_species/birds/directive/conservation/conservation.htm">http://ec.europa.eu/comm/protected_species/birds/directive/conservation/conservation.htm</a>	<a href="http://ec.europa.eu/comm/protected_species/birds/directive/conservation/conservation.htm">http://ec.europa.eu/comm/protected_species/birds/directive/conservation/conservation.htm</a>	<a href="http://ec.europa.eu/comm/protected_species/birds/directive/conservation/conservation.htm">http://ec.europa.eu/comm/protected_species/birds/directive/conservation/conservation.htm</a>
ACL_EU_02_HD_AnnII	51	Both	European level	ABMT	EU	IGO	SD Criteria for selecting sites eligible for inclusion in the Natura 2000 network	conservation	A_EU_02_SAC	Habitats Directive Annex II	<a href="http://ec.europa.eu/comm/protected_species/natura_2000/annexes/annex_ii.html">http://ec.europa.eu/comm/protected_species/natura_2000/annexes/annex_ii.html</a>	<a href="http://ec.europa.eu/comm/protected_species/natura_2000/annexes/annex_ii.html">http://ec.europa.eu/comm/protected_species/natura_2000/annexes/annex_ii.html</a>	<a href="http://ec.europa.eu/comm/protected_species/natura_2000/annexes/annex_ii.html">http://ec.europa.eu/comm/protected_species/natura_2000/annexes/annex_ii.html</a>
ACL_EU_04_ID_adgpl	9	Both	European level	ABMT	EU	IGO	SD Criteria for selecting sites of proposed sites of Community Importance (SCI) at transboundary level	conservation	A_EU_02_SAC	Habitats Directive Annex II	<a href="http://ec.europa.eu/comm/protected_species/natura_2000/annexes/annex_ii.html">http://ec.europa.eu/comm/protected_species/natura_2000/annexes/annex_ii.html</a>	<a href="http://ec.europa.eu/comm/protected_species/natura_2000/annexes/annex_ii.html">http://ec.europa.eu/comm/protected_species/natura_2000/annexes/annex_ii.html</a>	<a href="http://ec.europa.eu/comm/protected_species/natura_2000/annexes/annex_ii.html">http://ec.europa.eu/comm/protected_species/natura_2000/annexes/annex_ii.html</a>
ACL_EU_05_FPSA	3	Marine	European level	ABMT	EU	IGO	CPR Criteria concerning fish stock recovery areas	sectoral-fishing	A_EU_03_FPSA	Common Fisheries Policy Article 8	<a href="http://ec.europa.eu/comm/sectoral_fishing/cpr/cpr.htm">http://ec.europa.eu/comm/sectoral_fishing/cpr/cpr.htm</a>	<a href="http://ec.europa.eu/comm/sectoral_fishing/cpr/cpr.htm">http://ec.europa.eu/comm/sectoral_fishing/cpr/cpr.htm</a>	<a href="http://ec.europa.eu/comm/sectoral_fishing/cpr/cpr.htm">http://ec.europa.eu/comm/sectoral_fishing/cpr/cpr.htm</a>
ACL_EU_10_REST	5	Both	European level	ABMT - restoration	EU	IGO	Restoration Law Criteria concerning habitats to be restored	restoration		Nature Restoration Law Article 12 (2)	<a href="http://ec.europa.eu/comm/nature/nature_restoration.htm">http://ec.europa.eu/comm/nature/nature_restoration.htm</a>		
ACL_INTL_01_ISA	16	Both	Global level	id prior area	Birdlife International	NGO	Important Bird Area (IBA) criteria (Global, Regional and Sub-regional)	conservation	A_INTL_01_ISA	Guidelines for the application of the IBA criteria Final version, July 2020	<a href="http://www.birdlife.org/criteria/iba/guidelines-for-the-application-of-the-iba-criteria.html">http://www.birdlife.org/criteria/iba/guidelines-for-the-application-of-the-iba-criteria.html</a>	<a href="http://www.birdlife.org/criteria/iba/guidelines-for-the-application-of-the-iba-criteria.html">http://www.birdlife.org/criteria/iba/guidelines-for-the-application-of-the-iba-criteria.html</a>	<a href="http://www.birdlife.org/criteria/iba/guidelines-for-the-application-of-the-iba-criteria.html">http://www.birdlife.org/criteria/iba/guidelines-for-the-application-of-the-iba-criteria.html</a>
ACL_INTL_02_ESSA	7	Marine	Global level	id prior area	CBD	convention	Ecologically or Biologically Significant Marine Areas (EBSA) criteria	conservation	A_INTL_02_ESSA	Areas of NESTING IN DIVERSITY AND DISTRIBUTION OF MARINE HABITATS/EDB Decision (X20)	<a href="http://www.cbd.int/decision/2010-02-02-0035-AW-N.html">http://www.cbd.int/decision/2010-02-02-0035-AW-N.html</a>	<a href="http://www.cbd.int/decision/2010-02-02-0035-AW-N.html">http://www.cbd.int/decision/2010-02-02-0035-AW-N.html</a>	<a href="http://www.cbd.int/decision/2010-02-02-0035-AW-N.html">http://www.cbd.int/decision/2010-02-02-0035-AW-N.html</a>
ACL_INTL_03_BR	7	Both	Global level	ABMT	UNESCO	institution broader	Critically World National Biosphere Reserves (WBNR)	both	A_INTL_03_BR	Criteria WBNR Statutory Framework	<a href="http://www.unesco.org/wbnr/2017/17375">http://www.unesco.org/wbnr/2017/17375</a>	<a href="http://www.unesco.org/wbnr/2017/17375">http://www.unesco.org/wbnr/2017/17375</a>	<a href="http://www.unesco.org/biosphere/unesco_ab_biosphere_reserves">http://www.unesco.org/biosphere/unesco_ab_biosphere_reserves</a>
ACL_INTL_04_PSSA	27	Marine	Global level	ABMT	IMO	ocean institution	Particularly Sensitive Sea Area (PSSA) criteria	sectoral/shipping	A_INTL_04_PSSA	ECOLOGICAL, SOCIO-ECONOMIC OR SCIENTIFIC CRITERIA FOR THE DESIGNATION OF A PARTICULARLY SENSITIVE SEA AREA	<a href="http://www.imo.org/marpol/2010/2010-02-01-0001-0001/documents/248687.pdf">http://www.imo.org/marpol/2010/2010-02-01-0001-0001/documents/248687.pdf</a>	<a href="http://www.imo.org/marpol/2010/2010-02-01-0001-0001/documents/248687.pdf">http://www.imo.org/marpol/2010/2010-02-01-0001-0001/documents/248687.pdf</a>	<a href="http://www.imo.org/marpol/2010/2010-02-01-0001-0001/documents/248687.pdf">http://www.imo.org/marpol/2010/2010-02-01-0001-0001/documents/248687.pdf</a>
ACL_INTL_05_IMMA	8	Marine	Global level	id prior area	IUCN	NGO	IMMA Selection Criteria	conservation	A_INTL_05_IMMA	IMMA Selection Criteria	<a href="http://www.iucn.org/protected-area-network/imma/imma-selection-criteria.html">http://www.iucn.org/protected-area-network/imma/imma-selection-criteria.html</a>	<a href="http://www.iucn.org/protected-area-network/imma/imma-selection-criteria.html">http://www.iucn.org/protected-area-network/imma/imma-selection-criteria.html</a>	<a href="http://www.iucn.org/protected-area-network/imma/imma-selection-criteria.html">http://www.iucn.org/protected-area-network/imma/imma-selection-criteria.html</a>
ACL_INTL_06_WH	10	Both	Global level	ABMT	UNESCO	institution broader	World Heritage (WH) sites criteria	both (cultural and natural heritage)	A_INTL_06_WH	Marine regions has priorities for marine sites	<a href="http://wh.unesco.org/syndication/">http://wh.unesco.org/syndication/</a>	<a href="http://wh.unesco.org/syndication/">http://wh.unesco.org/syndication/</a>	<a href="http://wh.unesco.org/syndication/">http://wh.unesco.org/syndication/</a>
ACL_INTL_07_LME	4	Marine	Global level	id prior area	UNESCO-IOC	ocean institution	Large Marine Ecosystem (LME) criteria	conservation	A_INTL_07_LME	Methodology for the LME Transboundary Waters Assessment	<a href="http://www.iucn.org/protected-area-network/lme/lme-methodology.html">http://www.iucn.org/protected-area-network/lme/lme-methodology.html</a>	<a href="http://www.iucn.org/protected-area-network/lme/lme-methodology.html">http://www.iucn.org/protected-area-network/lme/lme-methodology.html</a>	<a href="http://www.iucn.org/protected-area-network/lme/lme-methodology.html">http://www.iucn.org/protected-area-network/lme/lme-methodology.html</a>
ACL_INTL_08_RSR	9	Both	Global level	ABMT	Ramsar	convention	Ramsar Site Criteria	conservation	A_INTL_08_RSR	Programmatic ecological criteria listed on the Ramsar Site Criteria	<a href="http://www.ramsar.org/sites/criteria.html">http://www.ramsar.org/sites/criteria.html</a>	<a href="http://www.ramsar.org/sites/criteria.html">http://www.ramsar.org/sites/criteria.html</a>	<a href="http://www.ramsar.org/sites/criteria.html">http://www.ramsar.org/sites/criteria.html</a>
ACL_INTL_09_KBA	21	Both	Global level	id prior area	IUCN	NGO	Key Biodiversity Area (KBA) criteria	conservation	A_INTL_09_KBA	Global Standard for the Identification of Key Biodiversity Areas	<a href="http://www.iucn.org/protected-area-network/kba/kba-global-standard-for-the-identification-and-conservation-of-key-biodiversity-areas.html">http://www.iucn.org/protected-area-network/kba/kba-global-standard-for-the-identification-and-conservation-of-key-biodiversity-areas.html</a>	<a href="http://www.iucn.org/protected-area-network/kba/kba-global-standard-for-the-identification-and-conservation-of-key-biodiversity-areas.html">http://www.iucn.org/protected-area-network/kba/kba-global-standard-for-the-identification-and-conservation-of-key-biodiversity-areas.html</a>	<a href="http://www.iucn.org/protected-area-network/kba/kba-global-standard-for-the-identification-and-conservation-of-key-biodiversity-areas.html">http://www.iucn.org/protected-area-network/kba/kba-global-standard-for-the-identification-and-conservation-of-key-biodiversity-areas.html</a>
ACL_INTL_10_VME	5	Marine	Global level	id prior area	FAO	institution broader	Vulnerable Marine Ecosystems (VME) criteria	sectoral-fishing	A_INTL_10_VME	ANEXOS A Y B PARA LA DESIGNACION DE ÁREAS ESPECIALES	<a href="http://www.fao.org/3x/3x1000/3x1000.htm">http://www.fao.org/3x/3x1000/3x1000.htm</a>	<a href="http://www.fao.org/3x/3x1000/3x1000.htm">http://www.fao.org/3x/3x1000/3x1000.htm</a>	<a href="http://www.fao.org/3x/3x1000/3x1000.htm">http://www.fao.org/3x/3x1000/3x1000.htm</a>
ACL_INTL_11_SA	10	Marine	Global level	ABMT	IMO	ocean institution	Special Area (SA) criteria	shipping	A_INTL_11_SA	APPENDIX III - Criteria and procedures for designation of SA areas	<a href="http://www.imo.org/marpol/2010/2010-02-01-0001-0001/documents/248684.htm">http://www.imo.org/marpol/2010/2010-02-01-0001-0001/documents/248684.htm</a>	<a href="http://www.imo.org/marpol/2010/2010-02-01-0001-0001/documents/248684.htm">http://www.imo.org/marpol/2010/2010-02-01-0001-0001/documents/248684.htm</a>	<a href="http://www.imo.org/marpol/2010/2010-02-01-0001-0001/documents/248684.htm">http://www.imo.org/marpol/2010/2010-02-01-0001-0001/documents/248684.htm</a>
ACL_INTL_12_ECA	6	Marine	Global level	ABMT	IMO	ocean institution	Emission Control Areas (ECA) criteria	shipping	A_INTL_12_ECA	APPENDIX III - Criteria and procedures for designation of SA areas	<a href="http://www.imo.org/marpol/2010/2010-02-01-0001-0001/documents/248684.htm">http://www.imo.org/marpol/2010/2010-02-01-0001-0001/documents/248684.htm</a>	<a href="http://www.imo.org/marpol/2010/2010-02-01-0001-0001/documents/248684.htm">http://www.imo.org/marpol/2010/2010-02-01-0001-0001/documents/248684.htm</a>	<a href="http://www.imo.org/marpol/2010/2010-02-01-0001-0001/documents/248684.htm">http://www.imo.org/marpol/2010/2010-02-01-0001-0001/documents/248684.htm</a>
ACL_INTL_13_UNCLOS	22	Marine	Global level	ABMT	UNCLOS	convention	MPAs in Areas Beyond National Jurisdiction (ABNJ) criteria	conservation	A_INTL_13_UNCLOS	INTERNATIONAL GUIDELINES FOR THE DESIGNATION OF MARINE PROTECTED AREAS IN THE HIGH SEAS	<a href="http://www.unclos.org/2010/2010-02-01-0001-0001/documents/248685.pdf">http://www.unclos.org/2010/2010-02-01-0001-0001/documents/248685.pdf</a>	<a href="http://www.unclos.org/2010/2010-02-01-0001-0001/documents/248685.pdf">http://www.unclos.org/2010/2010-02-01-0001-0001/documents/248685.pdf</a>	<a href="http://www.unclos.org/2010/2010-02-01-0001-0001/documents/248685.pdf">http://www.unclos.org/2010/2010-02-01-0001-0001/documents/248685.pdf</a>
ACL_REG_01_CCH	12	Marine	Regional Level (Atlantic Area)	id prior area	ACOBAMS	IGO	Critiera Oceanscan Critical Habitat (CCH) Criteria	conservation	A_REG_01_CCH	INPUTS TO THE RECOMMENDATION OF THE OCEANSCAN CRITICAL HABITAT	<a href="http://www.oceanscan.org/criteria.html">http://www.oceanscan.org/criteria.html</a>	<a href="http://www.oceanscan.org/criteria.html">http://www.oceanscan.org/criteria.html</a>	<a href="http://www.oceanscan.org/criteria.html">http://www.oceanscan.org/criteria.html</a>
ACL_REG_02_SPAMI	25	Marine	Regional Level (Mediterranean Sea)	ABMT	SPA/RAC	IGO	Specialy Protected Areas of Mediterranean Importance (SPAMI) criteria	conservation	A_REG_02_SPAMI	REPORTING CRITERIA FOR SPAMI	<a href="http://www.rac.org/protected-area-network/protected-area-network-reporting-criteria-for-spami.html">http://www.rac.org/protected-area-network/protected-area-network-reporting-criteria-for-spami.html</a>	<a href="http://www.rac.org/protected-area-network/protected-area-network-reporting-criteria-for-spami.html">http://www.rac.org/protected-area-network/protected-area-network-reporting-criteria-for-spami.html</a>	<a href="http://www.rac.org/protected-area-network/protected-area-network-reporting-criteria-for-spami.html">http://www.rac.org/protected-area-network/protected-area-network-reporting-criteria-for-spami.html</a>
ACL_REG_03_HELCOM	20	Marine	Regional Level ( Baltic Sea)	ABMT	HELCOM	IGO	HELCOM MPAs criteria	conservation	A_REG_03_HELCOM	Selection Criteria - HELCOM MPAs	<a href="http://www.helcom.fi/protected-area-network/selection-criteria.html">http://www.helcom.fi/protected-area-network/selection-criteria.html</a>	<a href="http://www.helcom.fi/protected-area-network/selection-criteria.html">http://www.helcom.fi/protected-area-network/selection-criteria.html</a>	<a href="http://www.helcom.fi/protected-area-network/selection-criteria.html">http://www.helcom.fi/protected-area-network/selection-criteria.html</a>
ACL_REG_04_OSPAR_MPA	12	Marine	Regional Level (Northeast Atlantic/OPAR)	id prior species	OPSPAR	IGO	OSPAR criteria for the identification of species and habitats in need of protection (Species and habitat criteria)	conservation	A_REG_07_OSPAR_MPA	Criteria for the identification of species and habitats in need of protection and their Method of Application	<a href="http://www.ospar.org/2010/2010-02-01-0001-0001/documents/948.html">http://www.ospar.org/2010/2010-02-01-0001-0001/documents/948.html</a>	<a href="http://www.ospar.org/2010/2010-02-01-0001-0001/documents/948.html">http://www.ospar.org/2010/2010-02-01-0001-0001/documents/948.html</a>	<a href="http://www.ospar.org/2010/2010-02-01-0001-0001/documents/948.html">http://www.ospar.org/2010/2010-02-01-0001-0001/documents/948.html</a>
ACL_REG_05_EH	9	Marine	Regional Level (Mediterranean Sea)	id prior area	OCEANA	NGO	Essential Fish Habitats (EFH) Criteria	sectoral-fishing	A_REG_02_FRA	TOWARDS A MEDITERRANEAN NETWORK OF ESSENTIAL FISH HABITATS	<a href="http://www.oceans.org/2010/2010-02-01-0001-0001/documents/949.html">http://www.oceans.org/2010/2010-02-01-0001-0001/documents/949.html</a>	<a href="http://www.oceans.org/2010/2010-02-01-0001-0001/documents/949.html">http://www.oceans.org/2010/2010-02-01-0001-0001/documents/949.html</a>	<a href="http://www.oceans.org/2010/2010-02-01-0001-0001/documents/949.html">http://www.oceans.org/2010/2010-02-01-0001-0001/documents/949.html</a>
CL_EU_05_MSFD	5	Marine	European level	monitoring	EU	IGO	COM DEC 2017/948/EU MSFD Scientific criteria for the selection of species and habitats	conservation	NA	Very recent agreement - little or no data available so far. Agreement includes establishment of a clearing-house mechanism	<a href="http://ec.europa.eu/protected-area-network/msfd/reporting-information.html">http://ec.europa.eu/protected-area-network/msfd/reporting-information.html</a>	<a href="http://ec.europa.eu/protected-area-network/msfd/reporting-information.html">http://ec.europa.eu/protected-area-network/msfd/reporting-information.html</a>	<a href="http://ec.europa.eu/protected-area-network/msfd/reporting-information.html">http://ec.europa.eu/protected-area-network/msfd/reporting-information.html</a>
CL_EU_06_MSFD_AnnII	27	Marine	European level	monitoring	EU	IGO	MSFD Annex II indicative list of characteristics (Table II)	conservation	NA	Very recent agreement - little or no data available so far. Agreement includes establishment of a clearing-house mechanism	<a href="http://ec.europa.eu/protected-area-network/msfd/reporting-information.html">http://ec.europa.eu/protected-area-network/msfd/reporting-information.html</a>	<a href="http://ec.europa.eu/protected-area-network/msfd/reporting-information.html">http://ec.europa.eu/protected-area-network/msfd/reporting-information.html</a>	<a href="http://ec.europa.eu/protected-area-network/msfd/reporting-information.html">http://ec.europa.eu/protected-area-network/msfd/reporting-information.html</a>
CL_EU_07_WFD	21	Both	European level	monitoring	EU	IGO	WFD Annex V definitions ecological status	conservation	NA	WFD Annex V definitions ecological status	<a href="http://ec.europa.eu/2010/2010-02-01-0001-0001/documents/14044.html">http://ec.europa.eu/2010/2010-02-01-0001-0001/documents/14044.html</a>	<a href="http://ec.europa.eu/2010/2010-02-01-0001-0001/documents/14044.html">http://ec.europa.eu/2010/2010-02-01-0001-0001/documents/14044.html</a>	<a href="http://ec.europa.eu/2010/2010-02-01-0001-0001/documents/14044.html">http://ec.europa.eu/2010/2010-02-01-0001-0001/documents/14044.html</a>
CL_EU_08_MSFD_cmtD	29	Marine	European level	monitoring	EU	IGO	COM DEC 2017/948/EU MSFD criteria for monitor descriptors	conservation	NA	MSFD Annex II indicative list of characteristics, pressures and impacts (Table II)	<a href="http://ec.europa.eu/2010/2010-02-01-0001-0001/documents/14045.html">http://ec.europa.eu/2010/2010-02-01-0001-0001/documents/14045.html</a>	<a href="http://ec.europa.eu/2010/2010-02-01-0001-0001/documents/14045.html">http://ec.europa.eu/2010/2010-02-01-0001-0001/documents/14045.html</a>	<a href="http://ec.europa.eu/2010/2010-02-01-0001-0001/documents/14045.html">http://ec.europa.eu/2010/2010-02-01-0001-0001/documents/14045.html</a>
CL_EU_09_BDAnII	4	Both	European level	monitoring	EU	IGO	BD An II	conservation	A_EU_01_SPA	Reporting Article 12 (2) (pdf)	<a href="http://ec.europa.eu/2010/2010-02-01-0001-0001/documents/14046.html">http://ec.europa.eu/2010/2010-02-01-0001-0001/documents/14046.html</a>	<a href="http://ec.europa.eu/2010/2010-02-01-0001-0001/documents/14046.html">http://ec.europa.eu/2010/2010-02-01-0001-0001/documents/14046.html</a>	<a href="http://ec.europa.eu/2010/2010-02-01-0001-0001/documents/14046.html">http://ec.europa.eu/2010/2010-02-01-0001-0001/documents/14046.html</a>
CL_EU_10_BDAnII	3	Both	European level	monitoring	EU	IGO	BD An II	conservation	A_EU_02_SAC	Reporting Article 17 (pdf)	<a href="http://ec.europa.eu/2010/2010-02-01-0001-0001/documents/14047.html">http://ec.europa.eu/2010/2010-02-01-0001-0001/documents/14047.html</a>	<a href="http://ec.europa.eu/2010/2010-02-01-0001-0001/documents/14047.html">http://ec.europa.eu/2010/2010-02-01-0001-0001/documents/14047.html</a>	<a href="http://ec.europa.eu/2010/2010-02-01-0001-0001/documents/14047.html">http://ec.europa.eu/2010/2010-02-01-0001-0001/documents/14047.html</a>
CL_EU_11_DEV	100	Marine	Mar. Dis. all are within 12 nm	monitoring	DEVOTES	science expert	DEVOTES Catalogue of Marine Biodiversity Indicators	conservation	NA	A Catalogue of Marine Biodiversity Indicators	<a href="http://www.devotes.net/2010/2010-02-01-0001-0001/documents/14048.html">http://www.devotes.net/2010/2010-02-01-0001-0001/documents/14048.html</a>	<a href="http://www.devotes.net/2010/2010-02-01-0001-0001/documents/14048.html">http://www.devotes.net/2010/2010-02-01-0001-0001/documents/14048.html</a>	<a href="http://www.devotes.net/2010/2010-02-01-0001-0001/documents/14048.html">http://www.devotes.net/2010/2010-02-01-0001-0001/documents/14048.html</a>
CL_INTL_02_ESB	27	Both	Global level	monitoring	GEO BON	global network	Essential Biodiversity Variables	conservation	NA	EBV classes and names	<a href="http://www.geobon.org/2010/2010-02-01-0001-0001/documents/14049.html">http://www.geobon.org/2010/2010-02-01-0001-0001/documents/14049.html</a>	<a href="http://www.geobon.org/2010/2010-02-01-0001-0001/documents/14049.html">http://www.geobon.org/2010/2010-02-01-0001-0001/documents/14049.html</a>	<a href="http://www.geobon.org/2010/2010-02-01-0001-0001/documents/14049.html">http://www.geobon.org/2010/2010-02-01-0001-0001/documents/14049.html</a>
CL_INTL_03_EOV	32	Marine	Global level	monitoring	UNESCO-IOC	ocean institution	Essential Ocean Variables	conservation	NA	EOV specification sheets	<a href="http://www.uncis.org/2010/2010-02-01-0001-0001/documents/14050.html">http://www.uncis.org/2010/2010-02-01-0001-0001/documents/14050.html</a>	<a href="http://www.uncis.org/2010/2010-02-01-0001-0001/documents/14050.html">http://www.uncis.org/2010/2010-02-01-0001-0001/documents/14050.html</a>	<a href="http://www.uncis.org/2010/2010-02-01-0001-0001/documents/14050.html">http://www.uncis.org/2010/2010-02-01-0001-0001/documents/14050.html</a>
CL_INTL_04_RLc	27	Both	Global level	id prior species	IUCN	IGO	IUCN Red List Categories and Criteria	conservation	NA	IUCN Red List Categories and Criteria	<a href="http://www.iucn.org/2010/2010-02-01-0001-0001/documents/14051.html">http://www.iucn.org/2010/2010-02-01-0001-0001/documents/14051.html</a>	<a href="http://www.iucn.org/2010/2010-02-01-0001-0001/documents/14051.html">http://www.iucn.org/2010/2010-02-01-0001-0001/documents/14051.html</a>	<a href="http://www.iucn.org/2010/2010-02-01-0001-0001/documents/14051.html">http://www.iucn.org/2010/2010-02-01-0001-0001/documents/14051.html</a>
CL_INTL_05_RL_ecoC	5	Both	Global level	id prior ecosystems	IUCN	IGO	IUCN Red List of Ecosystems Criteria	conservation	NA	IUCN Red List of Ecosystems Criteria	<a href="http://www.iucn.org/2010/2010-02-01-0001-0001/documents/14052.html">http://www.iucn.org/2010/2010-02-01-0001-0001/documents/14052.html</a>	<a href="http://www.iucn.org/2010/2010-02-01-0001-0001/documents/14052.html">http://www.iucn.org/2010/2010-02-01-0001-0001/documents/14052.html</a>	<a href="http://www.iucn.org/2010/2010-02-01-0001-0001/documents/14052.html">http://www.iucn.org/2010/2010-02-01-0001-0001/documents/14052.html</a>
CL_INTL_18_SEB	38	Both	Global level	monitoring	SER	institution broader	Ecosystem attributes to evaluate recovery	restoration	NA	Assessment of Ecosystem Recovery - Including Principles and Key Concepts (e-RT)	<a href="http://www.ser.org/2010/2010-02-01-0001-0001/documents/14053.html">http://www.ser.org/2010/2010</a>		

## **Supplementary Material S5**

Criteria compilation

Criteria list name	Criteria list identifier	Criteria sublist name	Criterion no.	Criterion identifier	Criterion	Clarification terminology	Focus of criterion	Links with other criteria	Notes	Previous name criterion	Source DEVOTES	Contributor DEVOTES	Data requirements DEVOTES
Appendix III - Criteria and procedures for designation of SOx emission control areas (Regulation 14)	A_INTL_12_EC		2.2.1	A_INTL_12_ECA_2.2.1	a clear delineation of the proposed area of application of controls on SOx emissions from ships, along with a reference chart on which the area is marked;								
Appendix III - Criteria and procedures for designation of SOx emission control areas (Regulation 14)	A_INTL_12_EC		2.2.2	A_INTL_12_ECA_2.2.2	a description of the land and sea areas at risk from the impacts of ship SOx emissions;								
Appendix III - Criteria and procedures for designation of SOx emission control areas (Regulation 14)	A_INTL_12_EC		2.2.3	A_INTL_12_ECA_2.2.3	an assessment that SOx emissions from ships operating in the proposed area of application of the SOx emission controls are contributing to air pollution from SOx, including SOx deposition, and their attendant adverse impacts on the land and sea areas under consideration. Such assessment shall include a description of the impacts of SOx emissions on terrestrial and aquatic ecosystems, areas of natural productivity, critical habitats, water quality, human health, and areas of cultural and scientific significance, if applicable. The sources of relevant data, including methodologies used, shall be identified;								
Appendix III - Criteria and procedures for designation of SOx emission control areas (Regulation 14)	A_INTL_12_EC		2.2.4	A_INTL_12_ECA_2.2.4	relevant information pertaining to the meteorological conditions in the proposed area of application of the SOx emission controls and the land and sea areas at risk, in particular prevailing wind patterns, or to topographical, geological, oceanographic, morphological, or other conditions that may lead to an increased probability of higher localized air pollution or levels of acidification;								
Appendix III - Criteria and procedures for designation of SOx emission control areas (Regulation 14)	A_INTL_12_EC		2.2.5	A_INTL_12_ECA_2.2.5	the nature of the ship traffic in the proposed SOx emission control area, including the patterns and density of such traffic; and								
Appendix III - Criteria and procedures for designation of SOx emission control areas (Regulation 14)	A_INTL_12_EC		2.2.6	A_INTL_12_ECA_2.2.6	a description of the control measures taken by the proposing Contracting State or Contracting States addressing land-based sources of SOx emissions affecting the area at risk that are in place and operating concurrent with the consideration of measures to be adopted in relation to provisions of regulation 14 of Annex VI of the present Convention.								
Article 4.1 Birds Directive	ACL_EU_01_B	4.1 D	a	ACL_EU_01_BD_4a	species in danger of extinction	BD Annex I Species + regularly occurring migratory species							
Article 4.1 Birds Directive	ACL_EU_01_B	4.1 D	b	ACL_EU_01_BD_4b	species vulnerable to specific changes in their habitat	BD Annex I Species + regularly occurring migratory species							
Article 4.1 Birds Directive	ACL_EU_01_B	4.1 D	c	ACL_EU_01_BD_4c	species considered rare because of small populations or restricted local distribution	BD Annex I Species + regularly occurring migratory species							
Article 4.1 Birds Directive	ACL_EU_01_B	4.1 D	d	ACL_EU_01_BD_4d	other species requiring particular attention for reasons of the specific nature of the habitat	BD Annex I Species + regularly occurring migratory species							
HD Annex III: CRITERIA FOR SELECTING SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE AND DESIGNATION AS SPECIAL AREAS OF CONSERVATION	ACL_EU_02_H	S1 A. Site assessment	A.(a)	ACL_EU_02_HD_AnnIII_S1_A.a	Degree of representativity of the natural habitat type on the site	S1 = STAGE 1 : HD Annex I Assessment at Habitats national level of the relative importance of sites for each natural habitat type in Annex I and each species in Annex II (including priority natural habitat types and priority species)							
HD Annex III: CRITERIA FOR SELECTING SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE AND DESIGNATION AS SPECIAL AREAS OF CONSERVATION	ACL_EU_02_H	S1 A. Site assessment	A.(b)	ACL_EU_02_HD_AnnIII_S1_A.b	Area of the site covered by the natural habitat type in relation to the total area covered by that natural habitat type within national territory	S1 = STAGE 1 : HD Annex I Assessment at Habitats national level of the relative importance of sites for each natural habitat type in Annex I and each species in Annex II (including priority natural habitat types and priority species)							
HD Annex III: CRITERIA FOR SELECTING SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE AND DESIGNATION AS SPECIAL AREAS OF CONSERVATION	ACL_EU_02_H	S1 A. Site assessment	A.(c)	ACL_EU_02_HD_AnnIII_S1_A.c	Degree of conservation of the structure and functions of the natural habitat type concerned and restoration possibilities	S1 = STAGE 1 : HD Annex I Assessment at Habitats national level of the relative importance of sites for each natural habitat type in Annex I and each species in Annex II (including priority natural habitat types and priority species)							
HD Annex III: CRITERIA FOR SELECTING SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE AND DESIGNATION AS SPECIAL AREAS OF CONSERVATION	ACL_EU_02_H	S1 A. Site assessment	A.(d)	ACL_EU_02_HD_AnnIII_S1_A.d	Global assessment of the value of the site for conservation of the natural habitat type concerned	S1 = STAGE 1 : HD Annex I Assessment at Habitats national level of the relative importance of sites for each natural habitat type in Annex I and each species in Annex II (including priority natural habitat types and priority species)							

HD Annex III: CRITERIA FOR SELECTING SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE AND DESIGNATION AS SPECIAL AREAS OF CONSERVATION	ACL_EU_02_H_D_AnnIII	S1 B. Site assessment criteria for a given species in Annex II	B.(a)	ACL_EU_02_HD_AnnIII_S1_B_a	Size and density of the population of the species present on the site in relation to the populations present within national territory	S1 = STAGE 1 : HD Annex II Assessment at Species national level of the relative importance of sites for each natural habitat type in Annex I and each species in Annex II including priority natural habitat types and priority species
HD Annex III: CRITERIA FOR SELECTING SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE AND DESIGNATION AS SPECIAL AREAS OF CONSERVATION	ACL_EU_02_H_D_AnnIII	S1 B. Site assessment criteria for a given species in Annex II	B.(b)	ACL_EU_02_HD_AnnIII_S1_B_b	Degree of conservation of the features of the habitat which are important for the species concerned and restoration possibilities	S1 = STAGE 1 : HD Annex II Assessment at Species national level of the relative importance of sites for each natural habitat type in Annex I and each species in Annex II including priority natural habitat types and priority species
HD Annex III: CRITERIA FOR SELECTING SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE AND DESIGNATION AS SPECIAL AREAS OF CONSERVATION	ACL_EU_02_H_D_AnnIII	S1 B. Site assessment criteria for a given species in Annex II	B.(c)	ACL_EU_02_HD_AnnIII_S1_B_c	Degree of isolation of the population present on the site in relation to the natural range of the species	S1 = STAGE 1 : HD Annex II Assessment at Species national level of the relative importance of sites for each natural habitat type in Annex I and each species in Annex II including priority natural habitat types and priority species
HD Annex III: CRITERIA FOR SELECTING SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE AND DESIGNATION AS SPECIAL AREAS OF CONSERVATION	ACL_EU_02_H_D_AnnIII	S1 B. Site assessment criteria for a given species in Annex II	B.(d)	ACL_EU_02_HD_AnnIII_S1_B_d	Global assessment of the value of the site for conservation of the species concerned	S1 = STAGE 1 : HD Annex II Assessment at Species national level of the relative importance of sites for each natural habitat type in Annex I and each species in Annex II including priority natural habitat types and priority species
HD Annex III: CRITERIA FOR SELECTING SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE AND DESIGNATION AS SPECIAL AREAS OF CONSERVATION	ACL_EU_02_H_D_AnnIII	S2	1.	ACL_EU_02_HD_AnnIII_S2_1	All the sites identified by the Member States in Stage 1 which contain priority natural habitat types and/or species will be considered as sites of Community importance	S2 = STAGE 2 : HD Sites Assessment of the Community importance of the sites included on the national lists
HD Annex III: CRITERIA FOR SELECTING SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE AND DESIGNATION AS SPECIAL AREAS OF CONSERVATION	ACL_EU_02_H_D_AnnIII	S2	2.	ACL_EU_02_HD_AnnIII_S2_2	The assessment of the Community importance of other sites on Member States' lists, i.e. their contribution to maintaining or re-establishing, at a favourable conservation status, a natural habitat type or a species in Annex II, to the coherence of Natura 2000, the biogeographical situation of the following criteria: (a) relative value of the site in national level (b) geographical situation of the site in relation to migration routes of species in Annex II and whether it belongs to a continuous ecosystem situated on both sides of one or more internal Community frontiers (c) total area of the site (d) number of natural habitat types in Annex I and species in Annex II present on the site (e) global ecological value of the site for the biogeographical regions concerned and/or for the whole of the territory referred to in Article 2, as regards both the characteristic of unique aspect of its features and the way they are combined	S2 = STAGE 2 : HD Sites Assessment of the Community importance of the sites included on the national lists
Hab. 97/2 rev. 4 18/11/97: ACL_EU_04_H_P1 Criteria for Assessing National D_adgguid Lists of pSCI at Biogeographical Level			1	1 ACL_EU_04_HD_adgguid_P1.1	Species or habitat types for which the whole of the proposed sites for a biogeographical region host more than 60% of the total population (or area) in the same region will be considered as a low priority for case by case scrutiny.	HD Sites
Hab. 97/2 rev. 4 18/11/97: ACL_EU_04_H_P1 Criteria for Assessing National D_adgguid Lists of pSCI at Biogeographical Level			2	2 ACL_EU_04_HD_adgguid_P1.2	Species or habitat types for which the whole of the proposed sites for a biogeographical region host less than 20% of the total population (or geographic distribution surface) in the same region will be a priority for further scrutiny.	
Hab. 97/2 rev. 4 18/11/97: ACL_EU_04_H_P1 Criteria for Assessing National D_adgguid Lists of pSCI at Biogeographical Level			3	3 ACL_EU_04_HD_adgguid_P1.3	Species and habitat types for which the whole of the proposed sites for a biogeographical region hosts between 20% and 60% of the total species population (or habitat area) in the same region will be submitted to an individual analysis.	
Hab. 97/2 rev. 4 18/11/97: ACL_EU_04_H_P2 Criteria for Assessing National D_adgguid Lists of pSCI at Biogeographical Level			1	1 ACL_EU_04_HD_adgguid_P2.1	pSCI qualifying at a national level for at least one priority habitat type or species	
Hab. 97/2 rev. 4 18/11/97: ACL_EU_04_H_P2 Criteria for Assessing National D_adgguid Lists of pSCI at Biogeographical Level			2	2 ACL_EU_04_HD_adgguid_P2.2	pSCI containing the only significant example of a non priority habitat type or species on a Member State's list.	
Hab. 97/2 rev. 4 18/11/97: ACL_EU_04_H_P2 Criteria for Assessing National D_adgguid Lists of pSCI at Biogeographical Level			3	3 ACL_EU_04_HD_adgguid_P2.3	pSCI having a high national value for at least one non-priority habitat type or species	
Hab. 97/2 rev. 4 18/11/97: ACL_EU_04_H_P2 Criteria for Assessing National D_adgguid Lists of pSCI at Biogeographical Level			4	4 ACL_EU_04_HD_adgguid_P2.4	pSCI containing a significant number of non-priority habitat types and/or species, even if their respective national values have not been considered as high under the high quality criterion	
Hab. 97/2 rev. 4 18/11/97: ACL_EU_04_H_P2 Criteria for Assessing National D_adgguid Lists of pSCI at Biogeographical Level			5	5 ACL_EU_04_HD_adgguid_P2.5	pSCI playing a relevant role to ensure the coherence (as well structural as functional) of the Natura 2000 Network	
Fish stock recovery areas	ACL_EU_09_FS_RA		1	1 ACL_EU_09_FSRA_1	clear evidence of heavy concentrations of fish below minimum conservation reference size	
Fish stock recovery areas	ACL_EU_09_FS_RA		2	2 ACL_EU_09_FSRA_2	spawning grounds	
Fish stock recovery areas	ACL_EU_09_FS_RA		3	3 ACL_EU_09_FSRA_3	areas which are deemed to be bio-geographically sensitive	

Quantification area to be restored (Article 11(2))	ACL_EU_10_RE_11_2_ST	ai	ACL_EU_10_REST_11_2_ai	for each habitat type: (i) the total habitat area and a map of its current distribution	Member states shall quantify the area that needs to be restored to reach the restoration targets set out in Articles 4 and 5 taking into account the condition of the habitat types referred to in Articles 4(1), 4(2), 5(1) and 5(2) and the quality and quantity of the habitats of the species referred to in Article 4(3) and Article 5(3) that are present on their territory. --
Quantification area to be restored (Article 11(2))	ACL_EU_10_RE_11_2_ST	aii	ACL_EU_10_REST_11_2_aii	for each habitat type: (iii) the habitat area not in good condition;	Member states shall quantify the area that needs to be restored to reach the restoration targets set out in Articles 4 and 5 taking into account the condition of the habitat types referred to in Articles 4(1), 4(2), 5(1) and 5(2) and the quality and quantity of the habitats of the species referred to in Article 4(3) and Article 5(3) that are present on their territory. --
Quantification area to be restored (Article 11(2))	ACL_EU_10_RE_11_2_ST	aiii	ACL_EU_10_REST_11_2_aiii	for each habitat type: (iii) the favourable reference area taking into account the documented losses over at least the last 70 years and the projected changes to environmental conditions due to climate change;	Member states shall quantify the area that needs to be restored to reach the restoration targets set out in Articles 4 and 5 taking into account the condition of the habitat types referred to in Articles 4(1), 4(2), 5(1) and 5(2) and the quality and quantity of the habitats of the species referred to in Article 4(3) and Article 5(3) that are present on their territory. --
Quantification area to be restored (Article 11(2))	ACL_EU_10_RE_11_2_ST	aiv	ACL_EU_10_REST_11_2_avi	for each habitat type: (iv) the areas most suitable for the re-establishment of habitat types in view of ongoing and projected changes to environmental conditions due to climate change;	Member states shall quantify the area that needs to be restored to reach the restoration targets set out in Articles 4 and 5 taking into account the condition of the habitat types referred to in Articles 4(1), 4(2), 5(1) and 5(2) and the quality and quantity of the habitats of the species referred to in Article 4(3) and Article 5(3) that are present on their territory. --

Quantification area to be restored (Article 11(2))	ACL_EU_10.RE_11_2 ST	b	ACL_EU_10_REST_11_2_b	the sufficient quality and quantity of the habitats of the species required for achieving their favourable conservations status, taking into account the areas most suitable for re-establishment of those habitats, and the connectivity needed between habitats in order for the species populations to thrive, as well as ongoing and projected changes to environmental conditions due to climate change	Member states shall quantify the area that needs to be restored to reach the restoration targets set out in Articles 4 and 5 taking into account the condition of the habitat types referred to in Articles 4(1), 4(2), 5(1) and 5(2) and the quality and quantity of the habitats of the species referred to in Article 4(3) and Article 5(3) that are present on their territory.	
IBA	ACL_INTL_01_I BA Criteria A1: Globally threatened species	A1	ACL_INTL_01_IBA_A1	The site is known or thought regularly to hold significant numbers of a globally threatened species.	Globally threatened species	
IBA	ACL_INTL_01_I BA Criteria A2: Restricted-range species	A2	ACL_INTL_01_IBA_A2	The site is known or thought to hold a significant population of at least two range-restricted species.	Restricted-range species	
IBA	ACL_INTL_01_I BA Criteria A3: Biome-restricted species	A3	ACL_INTL_01_IBA_A3	The site is known or thought to hold a significant component of the group of species whose distributions are largely or wholly confined to one biome-realm	Biome-restricted species	
IBA	ACL_INTL_01_I BA Criteria A4: Congregations	A4	ACL_INTL_01_IBA_A4	The site is known or thought to hold congregations of $\geq 1\%$ of the global population of one or more species on a regular or predictable basis.	Congregations of species	
IBA	ACL_INTL_01_I BA Criteria B1: Species of conservation concern	B1a	ACL_INTL_01_IBA_B1a	The site regularly holds significant numbers of a Near Threatened species (NT).	Species of conservation concern Thresholds applied: Non-passerines – 10 pairs/30 individuals; Passerines – 30 pairs/90 individuals	Formerly part of global criterion A1
IBA	ACL_INTL_01_I BA Criteria B1: Species of conservation concern	B1b	ACL_INTL_01_IBA_B1b	The site is one of the 'n' most important in a country for a species with an unfavourable conservation status in the region, and for which the site-protection approach is thought to be appropriate	Species of conservation concern Thresholds applied: In Europe, n is defined according to the proportion of the species' population that is found within the country, from 5 to 100 sites per country. Additionally, each site should hold more than 1% of the national population of the species. In the Middle East, n is 5, regardless of the size of the country and no population threshold per site was set	Thresholds applied: In Europe, n is defined according to the proportion of the species' population that is found within the country, from 5 to 100 sites per country. Additionally, each site should hold more than 1% of the national population of the species. In the Middle East, n is 5, regardless of the size of the country and no population threshold per site was set
IBA	ACL_INTL_01_I BA Criteria B2: Species with most of their range restricted to a region	B2a	ACL_INTL_01_IBA_B2a	The site is one of the 'n' most important in a country for a species with a favourable conservation status in a region, but with its global range concentrated in that region, and for which the site-protection approach is thought to be appropriate.	Species of conservation concern Thresholds applied: In Europe, n is defined according to the proportion of the species' population that is found within the country, from 5 to 100 sites per country. Additionally, each site should hold more than 1% of the national population of the species. In the Middle East, n is 5, regardless of the size of the country and no population threshold per site was set	B2 (Europe/Middle East)
IBA	ACL_INTL_01_I BA Criteria B3: Regionally important congregations	B3a	ACL_INTL_01_IBA_B3a	Regionally important congregations – biogeographical populations. The site is known or thought to hold, on a regular basis, $\geq 1\%$ of a biogeographic or other distinct population of a congregatory waterbird, breeding seabird or other species.	Species of conservation concern Thresholds applied: A4 (formerly global), B1i, B1ii, B1iii (Europe), B1i, biogeographical population	A4 (formerly global), B1i, B1ii, B1iii (Middle East)
IBA	ACL_INTL_01_I BA Criteria B3: Regionally important congregations	B3b	ACL_INTL_01_IBA_B3b	Regionally important congregations – multi-species aggregations. The site is known or thought to hold, on a regular basis, $\geq 20,000$ waterbirds or $\geq 6,700$ pairs of seabirds of one or more species.	Species of conservation concern Thresholds applied: 3000 raptors or cranes/5000 storks in Europe/Middle East	A4ii (formerly global)
IBA	ACL_INTL_01_I BA Criteria B3: Regionally important congregations	B3c	ACL_INTL_01_IBA_B3c	Regionally important congregations – bottleneck sites. Site known or thought to exceed thresholds set for migratory species at bottleneck sites.	Species of conservation concern Thresholds applied: 3000 raptors or cranes/5000 storks in Europe/Middle East	A4iv (formerly global), B1iv (Europe), B1iv (Middle East)

IBA	ACL_INTL_01_I BA	Subregional IBA C1 Criteria C: Important Birds Areas of European Union Importance	ACL_INTL_01_IBA_C1	The site regularly holds significant numbers of a globally threatened species, or other species of global conservation concern.	Species of global conservation concern	A1
IBA	ACL_INTL_01_I BA	Subregional IBA C2 Criteria C: Important Birds Areas of European Union Importance	ACL_INTL_01_IBA_C2	The site is known to regularly hold at least 1% of a flyway population or of the EU population of a species threatened at the EU level.	Concentration s of a species threatened at the European Union level	Annex I and referred to in Article 4.1 of the European Birds Directive (ACL_EU_01_BR), uses IUCN Red List Categories
IBA	ACL_INTL_01_I BA	Subregional IBA C3 Criteria C: Important Birds Areas of European Union Importance	ACL_INTL_01_IBA_C3	The site is known to regularly hold at least 1% of a flyway population of a migratory species not considered threatened at the EU level.	Congregations of migratory species not threatened at the EU level	ACL_INTL_08_RSR_B6, Article 4.2 of the EC Birds Directive (not listed on Annex I), uses IUCN Red List Categories
IBA	ACL_INTL_01_I BA	Subregional IBA C4 Criteria C: Important Birds Areas of European Union Importance	ACL_INTL_01_IBA_C4	The site is known to regularly hold at least 20,000 migratory waterbirds and/or 10,000 pairs of migratory seabirds of one or more species.	Large congregations- multi-species aggregations	
IBA	ACL_INTL_01_I BA	Subregional IBA C5 Criteria C: Important Birds Areas of European Union Importance	ACL_INTL_01_IBA_C5	The site is a 'bottleneck' site where at least 5,000 storks (Ciconiidae) and/or at least 3,000 raptors (Accipitridae and Falconidae) and/or 3,000 cranes (Gruidae) regularly pass on spring or autumn migration.	Large congregations – bottleneck sites	
IBA	ACL_INTL_01_I BA	Subregional IBA C6 Criteria C: Important Birds Areas of European Union Importance	ACL_INTL_01_IBA_C6	The site is one of the five most important in the European region (NUTS region) in question for a species or subspecies considered threatened in the European Union.	Species threatened at the European Union level	listed in Annex I of the EC Birds Directive
EBSA criteria (Annex I)	ACL_INTL_02_EBSA	1 ACL_INTL_02_EBSA_1	Uniqueness or Rarity		unique, rare or endemic species, populations or communities or unique, rare or distinct, habitats or ecosystems or geomorpholog ical or oceanographic features	
EBSA criteria (Annex I)	ACL_INTL_02_EBSA	2 ACL_INTL_02_EBSA_2	Special importance for life history stages of species		species	
EBSA criteria (Annex I)	ACL_INTL_02_EBSA	3 ACL_INTL_02_EBSA_3	Importance for threatened, endangered or declining species and/or habitats		species, habitats	
EBSA criteria (Annex I)	ACL_INTL_02_EBSA	4 ACL_INTL_02_EBSA_4	Vulnerability, Fragility, Sensitivity, or Slow recovery		sensitive habitats, biotopes or species	
EBSA criteria (Annex I)	ACL_INTL_02_EBSA	5 ACL_INTL_02_EBSA_5	Biological Productivity		species, populations or communities with higher natural biological productivity	
EBSA criteria (Annex I)	ACL_INTL_02_EBSA	6 ACL_INTL_02_EBSA_6	Biological Diversity		ecosystems, habitats, communities, species, genetic diversity areas	
EBSA criteria (Annex I)	ACL_INTL_02_EBSA	7 ACL_INTL_02_EBSA_7	Naturalness			
Criteria WNBR Statutory Framework Art.4	ACL_INTL_03_BR	1 ACL_INTL_03_BR_1	It should encompass a mosaic of ecological systems representative of major biogeographic regions, including a gradation of human interventions			
Criteria WNBR Statutory Framework Art.5	ACL_INTL_03_BR	2 ACL_INTL_03_BR_2	It should be of significance for biological diversity conservation			
Criteria WNBR Statutory Framework Art.6	ACL_INTL_03_BR	3 ACL_INTL_03_BR_3	It should provide an opportunity to explore and demonstrate approaches to sustainable development on a regional scale.			
Criteria WNBR Statutory Framework Art.7	ACL_INTL_03_BR	4 ACL_INTL_03_BR_4	It should have an appropriate size to serve the three functions of biosphere reserves, as set out in Article 3 (conservation, development, logistic support).			
Criteria WNBR Statutory Framework Art.8	ACL_INTL_03_BR	5 ACL_INTL_03_BR_5	It should include these functions, through appropriate zonation, recognizing:(a) a legally constituted core area or areas devoted to long-term protection, according to the conservation objectives of the biosphere reserve, and of sufficient size to meet these objectives;(b) a buffer zone or zones clearly identified and surrounding or contiguous to the core area or areas, where only activities compatible with the conservation objectives can take place;(c) an outer transition area where sustainable resource management practices are promoted and developed		Conservation: contribute to the conservation of landscapes, ecosystems, species and genetic variation Development: Foster economic and human development which is socio-culturally and ecologically sustainable Logistic support: support for demonstration projects, environmental education and training, research and monitoring	
Criteria WNBR Statutory Framework Art.9	ACL_INTL_03_BR	6 ACL_INTL_03_BR_6	Organizational arrangements should be provided for the involvement and participation of a suitable range of inter alia public authorities, local communities and private interests in the design and carrying out the functions of a biosphere reserve			
Criteria WNBR Statutory Framework Art.10	ACL_INTL_03_BR	7 ACL_INTL_03_BR_7	In addition, provisions should be made for:(a) mechanisms to manage human use and activities in the buffer zone or zones;(b) a management policy or plan for the area as a biosphere reserve;(c) a designated authority or mechanism to implement this policy or plan;(d) programmes for research, monitoring, education and training			

IMO PSSAs	ACL_INTL_04_Ecological criteria PSSA	4.4.1	ACL_INTL_04_PSSA_4.4.1	Uniqueness or rarity - An area or ecosystem is unique if it is "the only one of its kind". Habitats of rare, threatened, or endangered species that occur only in one area are an example. An area or ecosystem is rare if it only occurs in a few locations or has been seriously depleted across its range. An ecosystem may extend beyond country borders, assuming regional or international significance. Nurseries or certain feeding, breeding, or spawning areas may also be rare or unique	rarity
IMO PSSAs	ACL_INTL_04_Ecological criteria PSSA	4.4.10	ACL_INTL_04_PSSA_4.4.10	Fragility - An area that is highly susceptible to degradation by natural events or by the activities of people. Biotic communities associated with coastal habitats may have a low tolerance to changes in environmental conditions, or they may exist close to the limits of their tolerance (e.g., water temperature, salinity, turbidity or depth). Such communities may suffer natural stressors such as storms, flooding, or overfishing. Human activities may also contribute to harmful substances in water or sediments, low fishing rates, and/or oxygen depletion. Additional stress may be caused by human influences such as pollution and changes in salinity. Thus, an area already subject to stress from natural and/or human factors may be in need of special protection from further stress, including that arising from international shipping activities	Fragility
IMO PSSAs	ACL_INTL_04_Ecological criteria PSSA	4.4.11	ACL_INTL_04_PSSA_4.4.11	Bio-geographic importance - An area that either contains rare biogeographic qualities or is representative of a biogeographic "type" or types, or contains unique or unusual biological, chemical, physical, or geological features	Bio-geographic importance
IMO PSSAs	ACL_INTL_04_Social, cultural and economic criteria PSSA	4.4.12	ACL_INTL_04_PSSA_4.4.12	Social or economic dependency - An area where the environmental quality and the use of living marine resources are of particular social or economic importance, including fishing, recreation, tourism, and the livelihoods of people who depend on access to the area	Social or economic dependency
IMO PSSAs	ACL_INTL_04_Social, cultural and economic criteria PSSA	4.4.13	ACL_INTL_04_PSSA_4.4.13	Human dependency - An area that is of particular importance for the support of traditional subsistence or food production activities or for the protection of the cultural resources of the local human populations.	Human dependency
IMO PSSAs	ACL_INTL_04_Social, cultural and economic criteria PSSA	4.4.14	ACL_INTL_04_PSSA_4.4.14	Cultural heritage - An area that is of particular importance because of the presence of significant historical and archaeological sites.	Cultural heritage
IMO PSSAs	ACL_INTL_04_Scientific and educational criteria PSSA	4.4.15	ACL_INTL_04_PSSA_4.4.15	Research - An area that has high scientific interest.	Research
IMO PSSAs	ACL_INTL_04_Scientific and educational criteria PSSA	4.4.16	ACL_INTL_04_PSSA_4.4.16	Baseline for monitoring studies - An area that provides suitable baseline conditions with regard to biota or environmental characteristics, because it has not had substantial perturbations or has been in such a state for a long period of time such that it is considered to be in a natural or near-natural condition	Baseline for monitoring studies
IMO PSSAs	ACL_INTL_04_Scientific and educational criteria PSSA	4.4.17	ACL_INTL_04_PSSA_4.4.17	Education - An area that offers an exceptional opportunity to demonstrate particular natural phenomena.	Education
IMO PSSAs	ACL_INTL_04_Ecological criteria PSSA	4.4.2	ACL_INTL_04_PSSA_4.4.2	Critical habitat - A sea area that may be essential for the survival, function, or recovery of fish stocks or rare or endangered marine species, or for the support of large marine ecosystems.	habitat
IMO PSSAs	ACL_INTL_04_Ecological criteria PSSA	4.4.3	ACL_INTL_04_PSSA_4.4.3	Dependency - An area where ecological processes are highly dependent on biotically structured systems (e.g. coral reefs, kelp forests, mangrove forests, seagrass beds). Such ecosystems often have high diversity, which is dependent on the structuring organisms. Dependency also embraces the migratory routes of fish, reptiles, birds, mammals, and invertebrates.	Dependency
IMO PSSAs	ACL_INTL_04_Ecological criteria PSSA	4.4.4	ACL_INTL_04_PSSA_4.4.4	Representativeness - An area that is an outstanding and illustrative example of specific biodiversity, ecosystems, ecological or physiographic processes, or community or habitat types or other natural characteristics.	Representativeness
IMO PSSAs	ACL_INTL_04_Ecological criteria PSSA	4.4.5	ACL_INTL_04_PSSA_4.4.5	Diversity - An area that may have an exceptional variety of species or genetic diversity or includes highly varied ecosystems, habitats, and communities.	Diversity
IMO PSSAs	ACL_INTL_04_Ecological criteria PSSA	4.4.6	ACL_INTL_04_PSSA_4.4.6	Productivity - An area that has a particularly high rate of natural biological production. Such productivity is the net result of biological and physical processes which result in an increase in biomass in areas such as oceanic fronts, upwelling areas and some gyres.	Productivity
IMO PSSAs	ACL_INTL_04_Ecological criteria PSSA	4.4.7	ACL_INTL_04_PSSA_4.4.7	Spawning or breeding grounds - An area that may be a critical spawning or breeding ground or nursery area for marine species which may spend the rest of their life-cycle elsewhere, or is recognized as migratory routes for fish, reptiles, birds, mammals, or invertebrates.	Spawning or breeding grounds
IMO PSSAs	ACL_INTL_04_Ecological criteria PSSA	4.4.8	ACL_INTL_04_PSSA_4.4.8	Naturalness - An area that has experienced a relative lack of human-induced disturbance or degradation.	Naturalness
IMO PSSAs	ACL_INTL_04_Ecological criteria PSSA	4.4.9	ACL_INTL_04_PSSA_4.4.9	Integrity - An area that is a biologically functional unit, an effective, self-sustaining ecological entity.	Integrity
IMMA	ACL_INTL_05_I_Criterion A – MMA Species or Population Vulnerability	A	ACL_INTL_05_IMMA_A	Areas containing habitat important for the survival and recovery of threatened and declining species.	Species or Population Vulnerability
IMMA	ACL_INTL_05_I_Criterion B – MMA Distribution and Abundance	B1	ACL_INTL_05_IMMA_B1	Small and Resident Populations: Areas supporting at least one resident population, containing an important proportion of that species or population, that are occupied consistently.	Small and Resident Populations
IMMA	ACL_INTL_05_I_Criterion B – MMA Distribution and Abundance	B2	ACL_INTL_05_IMMA_B2	Aggregations: Areas with underlying qualities that support important concentrations of a species or population.	areas, species, population
IMMA	ACL_INTL_05_I_Criterion C – Key MMA Life Cycle Activities	C1	ACL_INTL_05_IMMA_C1	Reproductive Areas: Areas that are important for a species or population to mate, give birth, and/or care for young until weaning.	Reproductive Areas
IMMA	ACL_INTL_05_I_Criterion C – Key MMA Life Cycle Activities	C2	ACL_INTL_05_IMMA_C2	Feeding Areas: Areas and conditions that provide an important nutritional base on which a species or population depends.	Feeding Areas
IMMA	ACL_INTL_05_I_Criterion C – Key MMA Life Cycle Activities	C3	ACL_INTL_05_IMMA_C3	Migration Routes: Areas used for important migration or other movements, often connecting distinct life-cycle areas or the different parts of the year-round range of a non-migratory population.	Migration Routes
IMMA	ACL_INTL_05_I_Criterion D – MMA Special Attributes	D1	ACL_INTL_05_IMMA_D1	Distinctiveness: Areas which sustain populations with important genetic, behavioural or ecologically distinctive characteristics.	distinctive populations characteristics
IMMA	ACL_INTL_05_I_Criterion D – MMA Special Attributes	D2	ACL_INTL_05_IMMA_D2	Diversity: Areas containing habitat that supports an important diversity of marine mammal species.	habitats
UNESCO	ACL_INTL_06_WH_Special Attributes	I	ACL_INTL_06_WH_I	to represent a masterpiece of human creative genius	human creativity
UNESCO	ACL_INTL_06_WH_Special Attributes	ii	ACL_INTL_06_WH_ii	to exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design	human values, cultural
UNESCO	ACL_INTL_06_WH_Special Attributes	iii	ACL_INTL_06_WH_iii	to bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared	culture
UNESCO	ACL_INTL_06_WH_Special Attributes	iv	ACL_INTL_06_WH_iv	to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history	architecture, landscape
UNESCO	ACL_INTL_06_WH_Special Attributes	ix	ACL_INTL_06_WH_ix	to be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals	ecological and biological processes
UNESCO	ACL_INTL_06_WH_Special Attributes	v	ACL_INTL_06_WH_v	to be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change	culture
UNESCO	ACL_INTL_06_WH_Special Attributes	vi	ACL_INTL_06_WH_vi	to be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance. (The Committee considers that this criterion should preferably be used in conjunction with other criteria)	tradition
UNESCO	ACL_INTL_06_WH_Special Attributes	vii	ACL_INTL_06_WH_vii	to contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance	natural beauty, aesthetic importance
UNESCO	ACL_INTL_06_WH_Special Attributes	viii	ACL_INTL_06_WH_viii	to be outstanding examples representing major stages of earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features	earth's history
UNESCO	ACL_INTL_06_WH_Special Attributes	x	ACL_INTL_06_WH_x	to contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation	habitats
Ecological criteria LMEs	ACL_INTL_07_L_ME	1	ACL_INTL_07_LME_1	bathymetry	
Ecological criteria LMEs	ACL_INTL_07_L_ME	2	ACL_INTL_07_LME_2	hydrography	
Ecological criteria LMEs	ACL_INTL_07_L_ME	3	ACL_INTL_07_LME_3	productivity	
Ecological criteria LMEs	ACL_INTL_07_L_ME	4	ACL_INTL_07_LME_4	tropically-related populations	
The Ramsar Sites Criteria	ACL_INTL_08_RSR	A1	ACL_INTL_08_RSR_A1	A wetland should be considered internationally important if it contains a representative, rare, or unique example of a natural or near-natural wetland type found within the appropriate biogeographic region.	rare or unique wetland types

The Ramsar Sites Criteria	ACL_INTL_08_RSR	B: Sites of international importance for conserving biological diversity; Criteria based on species and ecological communities	B2	ACL_INTL_08_RSR_B2	A wetland should be considered internationally important if it supports vulnerable, endangered, or critically endangered species or threatened ecological communities	species and ecological communities
The Ramsar Sites Criteria	ACL_INTL_08_RSR	B: Sites of international importance for conserving biological diversity; Criteria based on species and ecological communities	B3	ACL_INTL_08_RSR_B3	A wetland should be considered internationally important if it supports populations of plant and/or animal species important for maintaining the biological diversity of a particular biogeographic region	species and ecological communities
The Ramsar Sites Criteria	ACL_INTL_08_RSR	B: Sites of international importance for conserving biological diversity; Criteria based on species and ecological communities	B4	ACL_INTL_08_RSR_B4	A wetland should be considered internationally important if it supports plant and/or animal species at a critical stage in their life cycles, or provides refuge during adverse conditions.	species and ecological communities
The Ramsar Sites Criteria	ACL_INTL_08_RSR	B: Sites of international importance for conserving biological diversity; Specific criteria based on waterbirds	B5	ACL_INTL_08_RSR_B5	A wetland should be considered internationally important if it regularly supports 20,000 or more waterbirds	waterbirds Should be included in 4.2 of Natura 2000 Standard Dataform if this criteria is met (links with criteria lists ACL_EU_01_B_D & ACL_EU_02_H_D_AnnII)
The Ramsar Sites Criteria	ACL_INTL_08_RSR	B: Sites of international importance for conserving biological diversity; Specific criteria based on waterbirds	B6	ACL_INTL_08_RSR_B6	A wetland should be considered internationally important if it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird	waterbirds
The Ramsar Sites Criteria	ACL_INTL_08_RSR	B: Sites of international importance for conserving biological diversity; Specific criteria based on fish	B7	ACL_INTL_08_RSR_B7	A wetland should be considered internationally important if it supports a significant proportion of indigenous fish subspecies, species or families, life-history stages, species interactions and/or populations that are representative of wetland benefits and/or values and thereby contributes to global biological diversity	fish
The Ramsar Sites Criteria	ACL_INTL_08_RSR	B: Sites of international importance for conserving biological diversity; Specific criteria based on fish	B8	ACL_INTL_08_RSR_B8	A wetland should be considered internationally important if it is an important source of food for fishes, spawning ground, nursery and/or migration path on which fish stocks, either within the wetland or elsewhere, depend	fish
The Ramsar Sites Criteria	ACL_INTL_08_RSR	B: Sites of international importance for conserving biological diversity; Specific criteria based on other taxa	B9	ACL_INTL_08_RSR_B9	A wetland should be considered internationally important if it regularly supports 1% of the individuals in a population of one species or subspecies of wetland-dependent nonavian animal species.	other taxa
Key Biodiversity Area	ACL_INTL_09_KBA	A Threatened Biodiversity - A1 Threatened Species	A1	ACL_INTL_09_KBA_A1	Threatened species: Site regularly holds one or more of the following: a) ≥0.5% of the global population size AND ≥5 reproductive units of a CR or EN species b) ≥1% of the global population size AND ≥10 reproductive units of a VU species c) ≥0.1% of the global population size AND ≥5 reproductive units of a species assessed as CR or EN due only to population size reduction in the past or present d) ≥0.2% of the global population size AND ≥10 reproductive units of a species assessed as VU due only to population size reduction in the past or present e) Effectively the entire global population size of a CR or EN species.	Sites qualifying as KBAs under criterion A1 hold a significant proportion of the global population size of species facing a high risk of extinction and so contribute to the global persistence of biodiversity at genetic and species levels Proportion of the global population size can be observed from criterion KBAI-vi
Key Biodiversity Area	ACL_INTL_09_KBA	A Threatened Biodiversity - A2 Threatened ecosystem types	A2	ACL_INTL_09_KBA_A2	Threatened ecosystem types: Site holds one or more of the following: a) ≥5% of the global extent of a globally CR or EN ecosystem type b) ≥10% of the global extent of a globally VU ecosystem type	Sites qualifying as KBAs under criterion A2 hold a significant proportion of the global extent of an ecosystem type facing a high risk of collapse and so contribute to the global persistence of biodiversity at the ecosystem level Threatened ecosystem types

Key Biodiversity Area	ACL_INTL_09_KBA	B Geographically Restricted Biodiversity - B1 Individual geographically restricted species	ACL_INTL_09_KBA_B1	Individual geographically restricted species: Site regularly holds $\geq 10\%$ of the global population size AND $\geq 10$ reproductive units of a species.	Sites qualifying as KBAs under criterion B1 hold a significant proportion of the global population size of a geographically restricted species and so contribute significantly to the global persistence of biodiversity at the genetic and species level.	Individual geographically restricted species	Proportion of the global population size can be observed from criterion KBA-vi	
Key Biodiversity Area	ACL_INTL_09_KBA	B Geographically Restricted Biodiversity - B2 Co-occurring geographically restricted species	ACL_INTL_09_KBA_B2	Co-occurring geographically restricted species: Site regularly holds $\geq 1\%$ of the global population size of each of a number of restricted-range species in a taxonomic group, determined as either $\geq 2$ species OR $0.02\%$ of the global number of species in the taxonomic group, whichever is larger.	Sites qualifying as KBAs under criterion B2 hold a significant proportion of the global population size of multiple restricted-range species, and so contribute significantly to the global persistence of biodiversity at the genetic and species level.	Co-occurring geographically restricted species	Proportion of the global population size can be observed from criterion KBA-vi	
Key Biodiversity Area	ACL_INTL_09_KBA	B Geographically Restricted Biodiversity - B3 Geographically restricted assemblages	ACL_INTL_09_KBA_B3	Geographically restricted assemblages: Site regularly holds one or more of the following: a) $\geq 5\%$ of the global population size of each of a number of ecoregion-restricted species within a taxonomic group, determined as either $\geq 5$ species OR $10\%$ of the species restricted to the ecoregion, whichever is larger b) $\geq 5$ reproductive units of $\geq 5$ bioregion-restricted species OR $30\%$ of the bioregion-restricted species known from the country, whichever is larger, within a taxonomic group c) Part of the globally most important 5% of occupied habitat for each of $\geq 5$ species within a taxonomic group	Sites qualifying as KBAs under criterion B3 hold assemblages of species within a taxonomic group that are globally restricted and so contribute significantly to the global persistence of biodiversity at the genetic, species and ecosystem levels	Geographically restricted assemblages	Proportion of the global population size can be observed from criterion KBA-v	
Key Biodiversity Area	ACL_INTL_09_KBA	B Geographically Restricted Biodiversity - B4 Geographically restricted ecosystem types	ACL_INTL_09_KBA_B4	Geographically restricted ecosystem types: Site holds $\geq 20\%$ of the global extent of an ecosystem type	Sites qualifying as KBAs under criterion B4 hold a significant proportion of the global extent of a geographically restricted ecosystem type and so contribute significantly to the global persistence of biodiversity at the species and ecosystem level	Geographically restricted ecosystem types		
Key Biodiversity Area	ACL_INTL_09_KBA	C Ecological Integrity	C	Ecological integrity: Site is one of $\geq 2$ per ecoregion characterised by wholly intact ecological communities, comprising the composition and abundance of native species and their interactions.	Sites qualifying as KBAs under criterion C hold wholly intact ecological communities with supporting large-scale ecological processes and so contribute significantly to the global persistence of biodiversity at the ecosystem level	Ecological integrity		
Key Biodiversity Area	ACL_INTL_09_KBA	D Biological Processes - D1 Demographic aggregations	D1	ACL_INTL_09_KBA_D1	Demographic aggregations: Site predictably holds one or more of the following: a) An aggregation representing $\geq 1\%$ of the global population size of a species, over a season, and during one or more key stages of its life cycle b) A number of mature individuals that ranks the site among the largest 10 aggregations known for the species	Sites qualifying as KBAs under criterion D1 hold a significant proportion of the global population size of a species during one or more life history stages or processes, and so contribute significantly to the global persistence of biodiversity at the species level.	Demographic aggregations	Proportion of the global population size can be observed from criterion KBA

Key Biodiversity Area	ACL_INTL_09_KBA	D Biological Processes - D2 Ecological refugia	D2	ACL_INTL_09_KBA_D2	Ecological refugia: Site supports $\geq 10\%$ of the global population size of one or more species during periods of environmental stress, for which historical evidence shows that it has served as a refugium in the past and for which there is evidence to suggest it would continue to do so in the foreseeable future.	Sites qualifying as KBAs under criterion D2 hold a significant proportion of the global population size of a species during periods of environmental stress, and so contribute significantly to the global persistence of biodiversity at the species level	Ecological refugia	Proportion of the global population size can be observed from criterion KBA
Key Biodiversity Area	ACL_INTL_09_KBA	D Biological Processes - D3 Recruitment sources	D3	ACL_INTL_09_KBA_D3	Recruitment sources: Site predictably produces propagules, larvae, or juveniles that maintain $\geq 10\%$ of the global population size of a species.	Sites qualifying as KBAs under criterion D3 are with a significant proportion of the global population size of a species is produced, and so contribute significantly to the global persistence of biodiversity at the species level	Recruitment sources	Proportion of the global population size can be observed from criterion KBA
Key Biodiversity Area	ACL_INTL_09_KBA	E Irreplaceability through quantitative analysis	E	ACL_INTL_09_KBA_E	Irreplaceability: Site has a level of irreplaceability of 20.90 (on a 0–1 scale), measured by quantitative spatial analysis, and is characterised by the regular presence of species with $\geq 10$ reproductive units known to occur (or $\geq 5$ units for EN or CR species).	Sites qualifying as KBAs under criterion E have very high irreplaceability for the global persistence of biodiversity as identified through a complementary-based quantitative analysis of irreplaceability.	Irreplaceability analysed using KBA_E-a-b	Irreplaceability
VME indicators	ACL_INTL_10_VME	42.i	ACL_INTL_10_VME_42.i		Uniqueness or rarity: an area or ecosystem that is unique or that contains rare species whose loss could not be compensated for by similar areas or ecosystems. These include: habitats that contain endemic species; habitats of rare, threatened or endangered species that occur only in discrete areas; or nursery or discrete feeding, breeding, and spawning areas.		rarity	
VME indicators	ACL_INTL_10_VME	42.ii	ACL_INTL_10_VME_42.ii		Functional significance of the habitat: discrete areas or habitats that are necessary for the survival, function, spawning/reproduction or recovery of fish stocks, particular life-history stages (e.g. nursery grounds or rearing areas), or of rare, threatened or endangered marine species		Functional significance of the habitat	
VME indicators	ACL_INTL_10_VME	42.iii	ACL_INTL_10_VME_42.iii		Fragility: an ecosystem that is highly susceptible to degradation by anthropogenic activities.		Fragility	
VME indicators	ACL_INTL_10_VME	42.iv	ACL_INTL_10_VME_42.iv		Life-history traits of component species that make recovery difficult: ecosystems that are characterized by populations or assemblages of species with one or more of the following characteristics: • slow growth rates; • late age of maturity; • low or unpredictable recruitment; or • long-lived.		Life-history traits of component species that make recovery difficult	
VME indicators	ACL_INTL_10_VME	42.v	ACL_INTL_10_VME_42.v		Structural complexity: an ecosystem that is characterized by complex physical structures created by significant concentrations of biotic and abiotic features. In these ecosystems, ecological processes are usually highly dependent on these structured systems. Further, such ecosystems often have high diversity, which is dependent on the structuring organisms.		Structural complexity	
Criteria for the designation of a special area (Annex I A) Guidelines for the designation of special areas under MARPOL 73/78	ACL_INTL_11_S oceanographic conditions	2.4.1	ACL_INTL_11_SA_2.4.1		The area possesses oceanographic conditions which may cause the concentration or retention of harmful substances in the waters or sediments of the area, including particular circulation patterns (e.g. convergence zones and gyres) or temperature and salinity stratification;			
Criteria for the designation of a special area (Annex I A) Guidelines for the designation of special areas under MARPOL 73/78	ACL_INTL_11_S oceanographic conditions	2.4.2	ACL_INTL_11_SA_2.4.2		The area possesses oceanographic conditions which may cause the concentration or retention of harmful substances in the waters or sediments of the area, including long residence time caused by low flushing rates;			
Criteria for the designation of a special area (Annex I A) Guidelines for the designation of special areas under MARPOL 73/78	ACL_INTL_11_S oceanographic conditions	2.4.3	ACL_INTL_11_SA_2.4.3		The area possesses oceanographic conditions which may cause the concentration or retention of harmful substances in the waters or sediments of the area, including extreme ice state			
Criteria for the designation of a special area (Annex I A) Guidelines for the designation of special areas under MARPOL 73/78	ACL_INTL_11_S oceanographic conditions	2.4.4	ACL_INTL_11_SA_2.4.4		The area possesses oceanographic conditions which may cause the concentration or retention of harmful substances in the waters or sediments of the area, including adverse wind conditions			
Criteria for the designation of a special area (Annex I A) Guidelines for the designation of special areas under MARPOL 73/78	ACL_INTL_11_S ecological conditions	2.5.1	ACL_INTL_11_SA_2.5.1		Conditions indicating that protection of the area from harmful substances is needed to preserve depleted, threatened or endangered marine species			
Criteria for the designation of a special area (Annex I A) Guidelines for the designation of special areas under MARPOL 73/78	ACL_INTL_11_S ecological conditions	2.5.2	ACL_INTL_11_SA_2.5.2		Conditions indicating that protection of the area from harmful substances is needed to preserve areas of high natural productivity (such as fronts, upwelling areas, gyres)			
Criteria for the designation of a special area (Annex I A) Guidelines for the designation of special areas under MARPOL 73/78	ACL_INTL_11_S ecological conditions	2.5.3	ACL_INTL_11_SA_2.5.3		Conditions indicating that protection of the area from harmful substances is needed to preserve spawning, breeding and nursery areas for important marine species and areas representing migratory routes for sea-birds and marine mammals			
Criteria for the designation of a special area (Annex I A) Guidelines for the designation of special areas under MARPOL 73/78	ACL_INTL_11_S ecological conditions	2.5.4	ACL_INTL_11_SA_2.5.4		Conditions indicating that protection of the area from harmful substances is needed to preserve rare or fragile ecosystems such as coral reefs, mangroves, seagrass beds and wetlands			
Criteria for the designation of a special area (Annex I A) Guidelines for the designation of special areas under MARPOL 73/78	ACL_INTL_11_S ecological conditions	2.5.5	ACL_INTL_11_SA_2.5.5		Conditions indicating that protection of the area from harmful substances is needed to preserve critical habitats for marine resources including fish stocks and/or areas of critical importance for the support of large marine ecosystems			
Criteria for the designation of a special area (Annex I A) Guidelines for the designation of special areas under MARPOL 73/78	ACL_INTL_11_S vessel traffic characteristics	2.6	ACL_INTL_11_SA_2.6		the sea area is used by ships to an extent that the discharge of harmful substances by ships when operating in accordance with the requirements of MARPOL 73/78 for areas other than Special Areas would be unacceptable in the light of the existing oceanographic and ecological conditions in the area			

UNCLOS identification of areas for protection	ACL_INTL_13_UNCLOS	a	ACL_INTL_13_UNCLOS_a	Uniqueness	<a href="https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/elsa/ws-2014-01-azores-brochure-en.pdf">https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/elsa/ws-2014-01-azores-brochure-en.pdf</a>
UNCLOS identification of areas for protection	ACL_INTL_13_UNCLOS	b	ACL_INTL_13_UNCLOS_b	Rarity	<a href="https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/elsa/ws-2014-01-azores-brochure-en.pdf">https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/elsa/ws-2014-01-azores-brochure-en.pdf</a>
UNCLOS identification of areas for protection	ACL_INTL_13_UNCLOS	c	ACL_INTL_13_UNCLOS_c	Special importance for life history stages of species	<a href="https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/elsa/ws-2014-01-azores-brochure-en.pdf">https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/elsa/ws-2014-01-azores-brochure-en.pdf</a>
UNCLOS identification of areas for protection	ACL_INTL_13_UNCLOS	d	ACL_INTL_13_UNCLOS_d	Special importance of the species found therein	<a href="https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/elsa/ws-2014-01-azores-brochure-en.pdf">https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/elsa/ws-2014-01-azores-brochure-en.pdf</a>
UNCLOS identification of areas for protection	ACL_INTL_13_UNCLOS	e	ACL_INTL_13_UNCLOS_e	The importance for threatened, endangered or declining species or habitats	<a href="https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/elsa/ws-2014-01-azores-brochure-en.pdf">https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/elsa/ws-2014-01-azores-brochure-en.pdf</a>
UNCLOS identification of areas for protection	ACL_INTL_13_UNCLOS	f	ACL_INTL_13_UNCLOS_f	Vulnerability, including to climate change and ocean acidification	<a href="https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/elsa/ws-2014-01-azores-brochure-en.pdf">https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/elsa/ws-2014-01-azores-brochure-en.pdf</a>
UNCLOS identification of areas for protection	ACL_INTL_13_UNCLOS	g	ACL_INTL_13_UNCLOS_g	Fragility	<a href="https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/elsa/ws-2014-01-azores-brochure-en.pdf">https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/elsa/ws-2014-01-azores-brochure-en.pdf</a>
UNCLOS identification of areas for protection	ACL_INTL_13_UNCLOS	h	ACL_INTL_13_UNCLOS_h	Sensitivity	<a href="https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/elsa/ws-2014-01-azores-brochure-en.pdf">https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/elsa/ws-2014-01-azores-brochure-en.pdf</a>
UNCLOS identification of areas for protection	ACL_INTL_13_UNCLOS	i	ACL_INTL_13_UNCLOS_i	Biological diversity and productivity	<a href="https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/elsa/ws-2014-01-azores-brochure-en.pdf">https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/elsa/ws-2014-01-azores-brochure-en.pdf</a>
UNCLOS identification of areas for protection	ACL_INTL_13_UNCLOS	j	ACL_INTL_13_UNCLOS_j	Representativeness	<a href="https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/elsa/ws-2014-01-azores-brochure-en.pdf">https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/elsa/ws-2014-01-azores-brochure-en.pdf</a>
UNCLOS identification of areas for protection	ACL_INTL_13_UNCLOS	k	ACL_INTL_13_UNCLOS_k	Dependency	
UNCLOS identification of areas for protection	ACL_INTL_13_UNCLOS	l	ACL_INTL_13_UNCLOS_l	Naturalness	<a href="https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/elsa/ws-2014-01-azores-brochure-en.pdf">https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/elsa/ws-2014-01-azores-brochure-en.pdf</a>
UNCLOS identification of areas for protection	ACL_INTL_13_UNCLOS	m	ACL_INTL_13_UNCLOS_m	Ecological connectivity	<a href="https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/elsa/ws-2014-01-azores-brochure-en.pdf">https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/elsa/ws-2014-01-azores-brochure-en.pdf</a>
UNCLOS identification of areas for protection	ACL_INTL_13_UNCLOS	n	ACL_INTL_13_UNCLOS_n	Important ecological processes occurring therein	<a href="https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/elsa/ws-2014-01-azores-brochure-en.pdf">https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/elsa/ws-2014-01-azores-brochure-en.pdf</a>
UNCLOS identification of areas for protection	ACL_INTL_13_UNCLOS	o	ACL_INTL_13_UNCLOS_o	Economic and social factors	
UNCLOS identification of areas for protection	ACL_INTL_13_UNCLOS	p	ACL_INTL_13_UNCLOS_p	Cultural factors	
UNCLOS identification of areas for protection	ACL_INTL_13_UNCLOS	q	ACL_INTL_13_UNCLOS_q	Cumulative and transboundary impacts	

UNCLOS identification of areas for protection	ACL_INTL_13_UNCLOS	r	ACL_INTL_13_UNCLOS_r	Slow recovery and resilience	<a href="https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/lebsaws-2014-01-azores-brochure-en.pdf">https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/lebsaws-2014-01-azores-brochure-en.pdf</a>
UNCLOS identification of areas for protection	ACL_INTL_13_UNCLOS	s	ACL_INTL_13_UNCLOS_s	Adequacy and viability	<a href="https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/lebsaws-2014-01-azores-brochure-en.pdf">https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/lebsaws-2014-01-azores-brochure-en.pdf</a>
UNCLOS identification of areas for protection	ACL_INTL_13_UNCLOS	t	ACL_INTL_13_UNCLOS_t	Replication	<a href="https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/lebsaws-2014-01-azores-brochure-en.pdf">https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/lebsaws-2014-01-azores-brochure-en.pdf</a>
UNCLOS identification of areas for protection	ACL_INTL_13_UNCLOS	u	ACL_INTL_13_UNCLOS_u	Sustainability of reproduction	<a href="https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/lebsaws-2014-01-azores-brochure-en.pdf">https://www.cbd.int/doc/meetings/mar/eb/saws-2014-01/other/lebsaws-2014-01-azores-brochure-en.pdf</a>
UNCLOS identification of areas for protection	ACL_INTL_13_UNCLOS	v	ACL_INTL_13_UNCLOS_v	Existence of conservation and management measures	
ACCOBAMS_CCH	ACL_REG_01_C	1.1	ACL_REG_01_CCH_1.1	Areas used by cetaceans for feeding, breeding, calving, nursing and social behaviour	areas
ACCOBAMS_CCH	ACL_REG_01_C	1.2	ACL_REG_01_CCH_1.2	Migration routes and corridors and related resting areas	areas
ACCOBAMS_CCH	ACL_REG_01_C	1.3	ACL_REG_01_CCH_1.3	Areas where there are seasonal concentrations of cetacean species	cetacean species
ACCOBAMS_CCH	ACL_REG_01_C	1.4	ACL_REG_01_CCH_1.4	Areas of importance to cetacean prey	areas
ACCOBAMS_CCH	ACL_REG_01_C	1.5	ACL_REG_01_CCH_1.5	Natural processes that support continued productivity of cetacean foraging species (upwellings, fronts, etc.)	species
ACCOBAMS_CCH	ACL_REG_01_C	1.6	ACL_REG_01_CCH_1.6	Topographic structures favourable for enhancing foraging opportunities for cetacean species (canyons, seamounts)	species
ACCOBAMS_CCH	ACL_REG_01_C	2.1	ACL_REG_01_CCH_2.1	Conflicts between cetaceans and fishing activities have been reported (mainly depredation when cetaceans are stealing prey in the fishing gear)	human activities
ACCOBAMS_CCH	ACL_REG_01_C	2.2	ACL_REG_01_CCH_2.2	Significant or frequent bycatch of cetaceans is reported	species
ACCOBAMS_CCH	ACL_REG_01_C	2.3	ACL_REG_01_CCH_2.3	Intensive whale watching or other marine tourism activities occur (harassment)	human activities
ACCOBAMS_CCH	ACL_REG_01_C	2.4	ACL_REG_01_CCH_2.4	Navigation presents a potential threat to cetaceans (in terms of ship strike)	species
ACCOBAMS_CCH	ACL_REG_01_C	2.5	ACL_REG_01_CCH_2.5	Military exercises are known to routinely occur	human activities
ACCOBAMS_CCH	ACL_REG_01_C	2.6	ACL_REG_01_CCH_2.6	Seismic activities are known to occur	seismic activities
SPAMI List	ACL_REG_04_S_PAMI	2a	ACL_REG_04_SPAMI_2a	The area contains unique or rare ecosystems, or rare or endemic species	ecosystems, or rare or endemic species
SPAMI List	ACL_REG_04_S_PAMI	2b	ACL_REG_04_SPAMI_2b	The area has highly representative ecological processes, or community or habitat types or other natural characteristics. Representativeness is the degree to which an area represents a habitat type, ecological process, biological community, physiographic feature or other natural characteristic	highly representative ecological processes, or community or habitat types or other natural characteristics
SPAMI List	ACL_REG_04_S_PAMI	2c	ACL_REG_04_SPAMI_2c	The area has a high diversity of species, communities, habitats or ecosystems.	species, communities, habitats or ecosystems
SPAMI List	ACL_REG_04_S_PAMI	2d	ACL_REG_04_SPAMI_2d	The area has a high degree of naturalness as a result of the lack or low level of humaninduced disturbance and degradation	naturalness
SPAMI List	ACL_REG_04_S_PAMI	2e	ACL_REG_04_SPAMI_2e	Presence of habitats that are critical to endangered, threatened or endemic species	critical to endangered, threatened habitats or endemic species
SPAMI List	ACL_REG_04_S_PAMI	2f	ACL_REG_04_SPAMI_2f	The area has a high representative value with respect to the cultural heritage, due to the existence of environmentally sound traditional activities integrated with nature which support the well-being of local populations.	Cultural representativeness

SPAMI List	ACL_REG_04_S PAMI	3	ACL_REG_04_SPAMI_3	an area having scientific, educational or aesthetic interest must, respectively, present a particular value for research in the field of natural sciences or for activities of environmental education or awareness or contain outstanding natural features, landscapes or seascapes	Value for research, awareness, activities or Natural features, landscapes or seascapes
SPAMI List	ACL_REG_04_S PAMI	4a	ACL_REG_04_SPAMI_4a	the existence of threats likely to impair the ecological, biological, aesthetic or cultural value of the area	ecological,biological,aesthetic or cultural value threats
SPAMI List	ACL_REG_04_S PAMI	4b	ACL_REG_04_SPAMI_4b	the involvement and active participation of the public in general, and particularly of local communities, in the process of planning and management of the area	communities
SPAMI List	ACL_REG_04_S PAMI	4c	ACL_REG_04_SPAMI_4c	the existence of a body representing the public, professional, non-governmental sectors and the scientific community involved in the area	
SPAMI List	ACL_REG_04_S PAMI	4d	ACL_REG_04_SPAMI_4d	the existence in the area of opportunities for sustainable development	sustainable development
SPAMI List	ACL_REG_04_S PAMI	4e	ACL_REG_04_SPAMI_4e	the existence of an integrated coastal management plan within the meaning of Article 4 paragraph 3 (e) of the Convention	existence of an integrated coastal management plan
SPAMI List	ACL_REG_04_S PAMI	Article 8 criterion 1	ACL_REG_04_SPAMI_Article 8 criterion 1	of importance for conserving the components of biological diversity in the Mediterranean	conservation
SPAMI List	ACL_REG_04_S PAMI	Article 8 criterion 2	ACL_REG_04_SPAMI_Article 8 criterion 2	contain ecosystems specific to the Mediterranean area or the habitats of endangered species	ecosystems; endangered species
SPAMI List	ACL_REG_04_S PAMI	Article 8 criterion 3	ACL_REG_04_SPAMI_Article 8 criterion 3	Are of special interest at the scientific, aesthetic, cultural or educational levels	scientifically, aesthetically, culturally or educationally interesting
HELCOM	ACL_REG_06_HELCOM_MPAs	#01	ACL_REG_06_HELCOM_MPAs_ Important feeding area for species#01	Area where a species regularly feed, either continuously or seasonally.	feeding area for species#01
HELCOM	ACL_REG_06_HELCOM_MPAs	#02	ACL_REG_06_HELCOM_MPAs_ Important migration route and resting area for species#02	Area used by migratory species for migration, feeding or resting.	migration route and resting area for species
HELCOM	ACL_REG_06_HELCOM_MPAs	#03	ACL_REG_06_HELCOM_MPAs_ Important reproduction area for species#03	Area regularly used for species reproduction or as juvenile nursery grounds.	reproduction area for species
HELCOM	ACL_REG_06_HELCOM_MPAs	#04	ACL_REG_06_HELCOM_MPAs_ Threatened or declining habitats based on quantity#04	Area containing a habitat which is endangered, threatened or declining based on the extent of its geographical occurrence.	Threatened or declining habitats based on quantity
HELCOM	ACL_REG_06_HELCOM_MPAs	#05	ACL_REG_06_HELCOM_MPAs_ Threatened or declining habitats based on quality#05	Area containing a habitat which is endangered, threatened or declining based on the quality of the habitat.	Threatened or declining habitats based on quality
HELCOM	ACL_REG_06_HELCOM_MPAs	#06	ACL_REG_06_HELCOM_MPAs_ Threatened or declining species based on quantity#06	Area containing habitats for the survival and recovery of a species which is endangered, threatened or declining based on the extent of its geographical occurrence.	Threatened or declining species based on quantity
HELCOM	ACL_REG_06_HELCOM_MPAs	#07	ACL_REG_06_HELCOM_MPAs_ Threatened or declining species based on quality#07	Area containing habitats for the survival and recovery of a species which is endangered, threatened or declining based on the quality of the species.	Threatened or declining species based on quality
HELCOM	ACL_REG_06_HELCOM_MPAs	#08	ACL_REG_06_HELCOM_MPAs_ Rarity of species or habitats#08	Area contains either (i) rare or endemic species, populations or communities, and/or (ii) rare or distinct habitats.	Rarity of species or habitats#08
HELCOM	ACL_REG_06_HELCOM_MPAs	#09	ACL_REG_06_HELCOM_MPAs_ Sensitivity of species or habitats#09	Area that contain a relatively high proportion of sensitive biotopes, biotope complexes or species that are functionally fragile (highly susceptible to degradation or depletion by human activity or by natural events) or with slow recovery.	Sensitivity of species or habitats

HELCOM	ACL_REG_06_HELCOM_MPAs_s	#10	ACL_REG_06_HELCOM_MPAs_ Area with high natural biodiversity	#10	Area that contains a comparatively higher diversity of ecosystems, habitats, communities, or species, or has higher genetic diversity	ecosystems, habitats, communities, species, genetic diversity	
HELCOM	ACL_REG_06_HELCOM_MPAs_s	#11	ACL_REG_06_HELCOM_MPAs_ Keystone species!!	#11	Area that contains a species which is important for maintaining the resilience of the ecosystem.	Keystone species!!	
HELCOM	ACL_REG_06_HELCOM_MPAs_s	#12	ACL_REG_06_HELCOM_MPAs_ Ecologically significant habitats	#12	Area which 1) has comparatively higher natural biological productivity, or where 2) important ecological processes take place, such as connectivity between life-history stages and linkages between areas: trophic interactions, physical transport, physical oceanography, life history of species (dispersal of larvae/spores)	Ecologically significant habitats	
HELCOM	ACL_REG_06_HELCOM_MPAs_s	#13	ACL_REG_06_HELCOM_MPAs_ Representative area	#13	representative area	representative area	
HELCOM	ACL_REG_06_HELCOM_MPAs_s	#14	ACL_REG_06_HELCOM_MPAs_ Because of geological values	#14	Area contains geological & rare, unique or representative geological or geomorphological structures or processes.	geological & geomorphological values	
HELCOM	ACL_REG_06_HELCOM_MPAs_s	#15	ACL_REG_06_HELCOM_MPAs_ Because of biological values	#15	biological values	biological values	
HELCOM	ACL_REG_06_HELCOM_MPAs_s	#16	ACL_REG_06_HELCOM_MPAs_ Because of marine values	#16	marine values	marine values	
HELCOM	ACL_REG_06_HELCOM_MPAs_s	#17	ACL_REG_06_HELCOM_MPAs_ Because of terrestrial values	#17	terrestrial values	terrestrial values	
HELCOM	ACL_REG_06_HELCOM_MPAs_s	#18	ACL_REG_06_HELCOM_MPAs_ To protect natural habitat types listed in Habitats Directive Annex I	#18	Habitats Directive Annex I	Habitats Directive Annex I	
HELCOM	ACL_REG_06_HELCOM_MPAs_s	#19	ACL_REG_06_HELCOM_MPAs_ To protect habitats of the species listed in Habitats Directive Annex II	#19	Habitats Directive Annex I	Habitats Directive Annex I	
HELCOM	ACL_REG_06_HELCOM_MPAs_s	#20	ACL_REG_06_HELCOM_MPAs_ To protect special protection areas classified by Member States under the Birds Directive	#20	birds	birds	
OSPAR 2019-03 (Textel-Fail Criteria)	ACL_REG_08_OSPAR_MPAs	(a) Selection criteria for species	a1	ACL_REG_08_OSPAR_MPAs_a1 Global importance: Global importance of the OSPAR Area for a species. Importance on a global scale of the OSPAR Area, for the species is when a high proportion of a species at any time of the life cycle occurs in the OSPAR Area	'High proportion' is considered to be more than 75%, when known	species	Guidance: ACL_REG_08_OSPAR_MPAs_b1
OSPAR 2019-03 (Textel-Fail Criteria)	ACL_REG_08_OSPAR_MPAs	(a) Selection criteria for species	a2	ACL_REG_08_OSPAR_MPAs_a2 Regional importance: Importance within the OSPAR Area, of the regions for the species where a high proportion of the total population of a species within the OSPAR Area for any part of its life cycle is restricted to a small number of locations in the OSPAR Area	'High proportion' is considered to be 90% of the population in a small number of locations of 50 km x 50 km grid squares. This is dependent on scientific judgement regarding natural abundance, range or extent and adequacy of recording. A different scale may be needed for different taxa.	species	Guidance: ACL_REG_08_OSPAR_MPAs_b2

OSPAR 2019-03 (Textel-Faial Criteria)	ACL_REG_08_OSPAR_MPAs	(a) Selection criteria for species	a3	ACL_REG_08_OSPAR_MPAs_a3	Rarity: a species is rare if the total population size is small. In case of a species that is sessile or of restricted mobility at any time of its life cycle, a species is rare if it occurs in a limited number of locations in the OSPAR Area, and in relatively low numbers. In case of a highly mobile species, the total population size will determine rarity	'A limited number of locations' could be in a small number of 50 km x 50 km grid squares, but a different scale may be needed for different taxa. This is dependent on scientific judgement regarding natural abundance, range or extent and adequacy of recording. Species which are present in high abundance outside of the OSPAR Area	species	Guidance: ACL_REG_08_OSPAR_MPAs_b3
OSPAR 2019-03 (Textel-Faial Criteria)	ACL_REG_08_OSPAR_MPAs	(a) Selection criteria for species	a4	ACL_REG_08_OSPAR_MPAs_a4	Sensitivity: A species is "very sensitive" when: a) it has a very low resistance (that is, very easily adversely affected by human activity); and/or b) it has a very low resilience (that is, after an adverse effect from human activity, recovery is likely to be achieved only over a very long period, or is likely not to be achieved at all). A species is "sensitive" when: a) it has low resistance (that is, it is easily adversely affected by human activity); and/or b) it has low resilience (that is, after an adverse effect from human activity, recovery is likely to be achieved only over a long period)	'A very long period' may be considered to be more than 25 years and a 'long period' in the range of 5 to 25 years. The time frame should be on an appropriate scale for that species. Sensitivity to human activities is measured by a. life history characteristics (including natural behaviour); b. dependence on other specific ecological	species	Guidance: ACL_REG_08_OSPAR_MPAs_b4-ii
OSPAR 2019-03 (Textel-Faial Criteria)	ACL_REG_08_OSPAR_MPAs	(a) Selection criteria for species	a5	ACL_REG_08_OSPAR_MPAs_a5	Keystone species: a species which has a controlling influence on a community	species	Guidance: ACL_REG_08_OSPAR_MPAs_b5	
OSPAR 2019-03 (Textel-Faial Criteria)	ACL_REG_08_OSPAR_MPAs	(a) Selection criteria for species	a6	ACL_REG_08_OSPAR_MPAs_a6	Decline: means an observed or indicated significant decline in numbers, extent or quality (quality refers to life history parameters). The decline may be historic, recent or current. 'Significant' need not be in a statistical sense	Decline categories are defined: Extripated, Severly declined, Significantly declined and High probability of a significant decline in number, extent or quality in the future	species	Guidance: ACL_REG_08_OSPAR_MPAs_b6
OSPAR 2019-03 (Textel-Faial Criteria)	ACL_REG_08_OSPAR_MPAs	(c) Selection criteria for habitats	c1	ACL_REG_08_OSPAR_MPAs_c1	Global importance (importance of the OSPAR Area for the habitat in a global context): a high proportion of the habitat occurs in the OSPAR Area	'High proportion' is considered to be more than 75%, when known. This criterion may require knowledge of the distribution of habitats at a global scale	habitats	Guidance: ACL_REG_08_OSPAR_MPAs_d1
OSPAR 2019-03 (Textel-Faial Criteria)	ACL_REG_08_OSPAR_MPAs	(c) Selection criteria for habitats	c2	ACL_REG_08_OSPAR_MPAs_c2	Regional importance (importance of the subregions of the OSPAR Area for the habitat): a high proportion of the habitat occurs within a specific biogeographic region and/or region of national responsibility within the OSPAR Area.	'High proportion' is considered to be more than 75%, when known	habitats	Guidance: ACL_REG_08_OSPAR_MPAs_d2
OSPAR 2019-03 (Textel-Faial Criteria)	ACL_REG_08_OSPAR_MPAs	(c) Selection criteria for habitats	c3	ACL_REG_08_OSPAR_MPAs_c3	Rarity: a habitat is assessed as being rare if it is restricted to a limited number of locations or to small, few and scattered locations in the OSPAR area.	'The "limited number of locations" is set at 2% of the 50 km by 50 km UTM grid squares for each of the following three bathymetric zones: a. littoral (intertidal and splash zone) b. sublittoral (down to 200 m depth) c. bathyal / abyssal (below 200 m depth). The assessment is dependent on scientific judgement regarding natural abundance'	habitats	Guidance: ACL_REG_08_OSPAR_MPAs_d3

OSPAR 2019-03 (Texel-Faial Criteria)	ACL_REG_08_OSPAR_MPAs	(c) Selection criteria for habitats	c4	ACL_REG_08_OSPAR_MPAs_c4	Sensitivity: A habitat is "very sensitive" when: a. it has very low resistance (that is, it is very easily adversely affected by human activity); and/or b. it has very low resilience (that is, after an adverse effect from human activity, recovery is likely to be achieved only over a very long period, or is likely not to be achieved at all). A habitat is "sensitive" when: a. it has low resistance (that is, it is easily adversely affected by human activity); and/or b. it has low resilience (that is, after an adverse effect from human activity, recovery is likely to be achieved only over a long period).	A "very long period" is considered to be more than 25 years and a "long period" in the range of 5 to 25 years, dependent on the habitat. It is considered that the sensitivity of a habitat differs according to specific impacts of different human activities and, as such, should be applied at the end of the selection process with respect to the specific	Guidance: ACL_REG_08_OSPAR_MPAs_d4i-ii
OSPAR 2019-03 (Texel-Faial Criteria)	ACL_REG_08_OSPAR_MPAs	(c) Selection criteria for habitats	c5	ACL_REG_08_OSPAR_MPAs_c5	Ecological significance: the habitat is very important for the wider significance of the ecological processes, functions and species that it supports.	The ecological functions within the habitat support species and ecosystem processes over a much wider area. Example habitats could be: spawning, breeding, reproduction, or nursery areas for fish, mammals or birds, resting and feeding areas, as well as with a high natural productivity or diversity, areas with a high proportion of	Guidance: ACL_REG_08_OSPAR_MPAs_d5
OSPAR 2019-03 (Texel-Faial Criteria)	ACL_REG_08_OSPAR_MPAs	(c) Selection criteria for habitats	c6	ACL_REG_08_OSPAR_MPAs_c6	Status of decline: Decline means a significant decline in extent or quality. The decline may be historic, recent or current. The decline can occur in the whole OSPAR maritime area or regionally.	What is decline is "clear and present", and can be linked directly or indirectly to human activity, the habitat is also considered to be "currently threatened". Where there is a high probability of decline that is linked directly or indirectly to human activity and that will reduce the extent of the habitat by 15% or more or move it into	Guidance: ACL_REG_08_OSPAR_MPAs_d6
Ocean's criteria set for selection of essential fish habitats	ACL_REG_09_E_FH	1 ACL_REG_09_EFH_1		Focus primarily on demersal species	Considering that: - the network of EFH will be established under GFCM competencies; - currently EFH for some pelagic stocks have not yet been properly mapped and are possibly highly variable in time and space		
Ocean's criteria set for selection of essential fish habitats	ACL_REG_09_E_FH	2 ACL_REG_09_EFH_2		Give priority to protection of nursery grounds	Juveniles are a target or secondary catch of the Mediterranean in multi-species fisheries. Nevertheless, protection of spawners should not be ignored when necessary, as illustrated in the Gulf of Lion (Würz, 2012)		
Ocean's criteria set for selection of essential fish habitats	ACL_REG_09_E_FH	3 ACL_REG_09_EFH_3		Cover - but not limited to - GFCM priority stocks	As identified in the GFCM Mid-Term strategy		
Ocean's criteria set for selection of essential fish habitats	ACL_REG_09_E_FH	4 ACL_REG_09_EFH_4		Stock status	As reported by SAC 2017		
Ocean's criteria set for selection of essential fish habitats	ACL_REG_09_E_FH	5 ACL_REG_09_EFH_5		Catch volumes and landing value	Importance of stocks on this behalf		

Ocean's criteria set for selection of essential fish habitats	ACL_REG_09_E FH	6 ACL_REG_09_EFH_6	Protection of sensitive species and habitats	Species caught as by-catch, particularly sharks, and sensitive habitats distribution evidence		
Ocean's criteria set for selection of essential fish habitats	ACL_REG_09_E FH	7 ACL_REG_09_EFH_7	EFH overlapping	Prioritizing when nursery and/or spawning grounds of different species overlap		
Ocean's criteria set for selection of essential fish habitats	ACL_REG_09_E FH	8 ACL_REG_09_EFH_8	Measures already established	Aiming to reduce the impact and fishing pressure of bottom trawling		
Ocean's criteria set for selection of essential fish habitats	ACL_REG_09_E FH	9 ACL_REG_09_EFH_9	Precautionary principle	According to the FAO Code of Conduct for Responsible Fisheries		
MSFD: D1 Criteria	CL_EU_05_MS FD	Scientific criteria e (ecological relevance)	CL_EU_05_MSFD_e	if species of species groups are closely associated to a particular broad habitat type they may be included within that habitat type for monitoring and assessment purposes; in such cases, the species shall not be included in the assessment of the species group.		
MSFD: D1 Criteria	CL_EU_05_MS FD	Scientific criteria c (ecological relevance)	CL_EU_05_MSFD_c	present in sufficient numbers or extent in the assessment area to be able to construct a suitable indicator for assessment;		
MSFD: D1 Criteria	CL_EU_05_MS FD	Scientific criteria b (ecological relevance)	CL_EU_05_MSFD_b	relevant for assessment of a key anthropogenic pressure to which the ecosystem component is exposed, being sensitive to the pressure and exposed to it (vulnerable) in the assessment area;		
MSFD: D1 Criteria	CL_EU_05_MS FD	Scientific criteria a (ecological relevance)	CL_EU_05_MSFD_a	representative of the ecosystem component (species group or broad habitat type), and of ecosystem functioning (e.g. connectivity between habitats and populations, completeness and integrity of essential habitats), being relevant for assessment of state/impacts, such as having a key functional role within the component (e.g. high or specific biodiversity, productivity, trophic link, specific resource or service) or particular life history traits (age and size at breeding, longevity, migratory traits)		
MSFD: D1 Criteria	CL_EU_05_MS FD	Scientific criteria d (ecological relevance)	CL_EU_05_MSFD_d	the set of species or habitats selected shall cover, as far as possible, the full range of ecological functions of the ecosystem component and the predominant pressures to which the component is subject		
MSFD Annex III Table 1	CL_EU_06_MS FD_AnnIII	Biological features	B1	CL_EU_06_MSFD_AnnIII_B1	A description of the biological communities associated with the predominant seabed and water column habitats. This would include information on the phytoplankton and zooplankton communities, including the species and seasonal and geographical variability	biological communities associated with the predominant seabed and water column habitats
MSFD Annex III Table 1	CL_EU_06_MS FD_AnnIII	Biological features	B6	CL_EU_06_MSFD_AnnIII_B6	a description of the population dynamics, natural and actual range and status of other species occurring in the marine region or subregion which are the subject of Community legislation or international agreements	species included in international agreements
MSFD Annex III Table 1	CL_EU_06_MS FD_AnnIII	Biological features	B4	CL_EU_06_MSFD_AnnIII_B4	a description of the population dynamics, natural and actual range and status of species of marine mammals and reptiles occurring in the marine region or subregion	marine mammals
MSFD Annex III Table 1	CL_EU_06_MS FD_AnnIII	Biological features	B5	CL_EU_06_MSFD_AnnIII_B5	a description of the population dynamics, natural and actual range and status of species of seabirds occurring in the marine region or subregion	seabirds
MSFD Annex III Table 1	CL_EU_06_MS FD_AnnIII	Biological features	B7	CL_EU_06_MSFD_AnnIII_B7	an inventory of the temporal occurrence, abundance and spatial distribution of nonindigenous, exotic species or, where relevant, genetically distinct forms of native species, which are present in the marine region or subregion	other
MSFD Annex III Table 1	CL_EU_06_MS FD_AnnIII	Biological features	B2	CL_EU_06_MSFD_AnnIII_B2	information on angiosperms, macro-algae and invertebrate bottom fauna, including species composition, biomass and annual/seasonal variability	angiosperms, macro-algae and invertebrate bottom fauna
MSFD Annex III Table 1	CL_EU_06_MS FD_AnnIII	Biological features	B3	CL_EU_06_MSFD_AnnIII_B3	information on the structure of fish populations, including the abundance, distribution and age/size structure of the populations	
MSFD Annex III Table 1	CL_EU_06_MS FD_AnnIII	Habitat types	H3	CL_EU_06_MSFD_AnnIII_H3	habitats in areas which by virtue of their characteristics, location or strategic importance merit a particular reference. This may include areas subject to intense or specific pressures or areas which have a specific protection regime	habitat types
MSFD Annex III Table 1	CL_EU_06_MS FD_AnnIII	Habitat types	H2	CL_EU_06_MSFD_AnnIII_H2	identification and mapping of special habitat types, especially those recognised or identified under Community legislation (the Habitats Directive and the Birds Directive) or international conventions as being of special scientific or biodiversity interest	habitat types HD and BD
MSFD Annex III Table 1	CL_EU_06_MS FD_AnnIII	Habitat types	H1	CL_EU_06_MSFD_AnnIII_H1	The predominant seabed and water column habitat types) with a description of the characteristic physical and chemical features, such as depth, water temperature regime, currents and other water movements, salinity, structure and substrata composition of the seabed	habitat types
MSFD Annex III Table 1	CL_EU_06_MS FD_AnnIII	Other features	O2	CL_EU_06_MSFD_AnnIII_O2	a description of any other features or characteristics typical of or specific to the marine region or subregion	
MSFD Annex III Table 1	CL_EU_06_MS FD_AnnIII	Other features	O1	CL_EU_06_MSFD_AnnIII_O1	A description of the situation with regard to chemicals, including chemicals giving rise to concern, sediment contamination, hotspots, health issues and contamination of biota (especially biota meant for human consumption).	other
MSFD Annex III Table 1	CL_EU_06_MS FD_AnnIII	Physical and chemical features	PC2	CL_EU_06_MSFD_AnnIII_PC2	annual and seasonal temperature regime and ice cover, current velocity, upwelling, wave exposure, mixing characteristics, turbidity, residence time,.	Physical and chemical features: oceanography
MSFD Annex III Table 1	CL_EU_06_MS FD_AnnIII	Physical and chemical features	PC5	CL_EU_06_MSFD_AnnIII_PC5	pH, pCO <sub>2</sub> profiles or equivalent information used to measure marine acidification	Physical and chemical features: marine acidification
MSFD Annex III Table 1	CL_EU_06_MS FD_AnnIII	Physical and chemical features	PC4	CL_EU_06_MSFD_AnnIII_PC4	spatial and temporal distribution of nutrients (DIN, TN, DIP, TP, TOC) and oxygen,	Physical and chemical features: nutrients and oxygen
MSFD Annex III Table 1	CL_EU_06_MS FD_AnnIII	Physical and chemical features	PC3	CL_EU_06_MSFD_AnnIII_PC3	spatial and temporal distribution of salinity	Physical and chemical features: salinity
MSFD Annex III Table 1	CL_EU_06_MS FD_AnnIII	Physical and chemical features	PC1	CL_EU_06_MSFD_AnnIII_PC1	Topography and bathymetry of the seabed	Physical and chemical features: seabed
Quality elements WFD D_AnnV	CL_EU_07_WF D_AnnV	Coastal waters - Biological Quality Elements: Macroalgae and angiosperms	C_BQL_01 _01	CL_EU_07_WFD_AnnV_C_BQL_01	All disturbance-sensitive macroalgal and angiosperm taxa associated with undisturbed conditions are present.	macroalgae & angiosperms
Quality elements WFD	CL_EU_07_WF D_AnnV	Transitional waters - Biological Quality Elements: Angiosperms	T_BQL_03 _03	CL_EU_07_WFD_AnnV_T_BQL_03	Angiosperms: The taxonomic composition corresponds totally or nearly totally to undisturbed conditions	angiosperm taxonomic composition

Quality elements WFD	CL_EU_07_WF D_AnnV	Transitional waters - Biological Quality Elements: Angiosperms	T_BQL_04 04	CL_EU_07_WFD_AnnV_T_BQL_	Angiosperms: There are no detectable changes in angiosperm abundance due to anthropogenic activities	angiosperm abundance
Quality elements WFD	CL_EU_07_WF D_AnnV	Transitional & Coastal waters - Biological Quality Elements: Benthic invertebrate fauna	TC_BQL_05 L_05	CL_EU_07_WFD_AnnV_TC_BQ	Benthic invertebrate fauna: All the disturbance-sensitive taxa associated with undisturbed conditions are present.	benthic disturbance- sensitive taxa
Quality elements WFD	CL_EU_07_WF D_AnnV	Transitional & Coastal waters - Biological Quality Elements: Benthic invertebrate fauna	TC_BQL_04 L_04	CL_EU_07_WFD_AnnV_TC_BQ	Benthic invertebrate fauna: The level of diversity and abundance of invertebrate taxa is within the range normally associated with undisturbed conditions.	benthic invertebrate fauna
Quality elements WFD	CL_EU_07_WF D_AnnV	Transitional waters - Biological Quality Elements: Fish fauna	T_BQL_05 05	CL_EU_07_WFD_AnnV_T_BQL_	Fish fauna: Species composition and abundance is consistent with undisturbed conditions	fish species composition and abundance
Quality elements WFD	CL_EU_07_WF D_AnnV	Transitional waters - Biological Quality Elements: Macroalgae	T_BQL_01 01	CL_EU_07_WFD_AnnV_T_BQL_	Macroalgae: The composition of macroalgal taxa is consistent with undisturbed conditions	macroalgal taxa
Quality elements WFD	CL_EU_07_WF D_AnnV	Transitional waters - Biological Quality Elements: Macroalgae	T_BQL_02 02	CL_EU_07_WFD_AnnV_T_BQL_	Macroalgae: There are no detectable changes in macroalgal cover due to anthropogenic activities	macroalgal cover
Quality elements WFD	CL_EU_07_WF D_AnnV	Transitional waters - Hydromorpho gical Quality Elements: Morphological conditions	T_HQL_02 _02	CL_EU_07_WFD_AnnV_T_HQL	Morphological conditions: Depth variations, substrate conditions, and both the structure and condition of the intertidal zones correspond totally or nearly totally to undisturbed conditions	hydromorpho gical conditions
Quality elements WFD	CL_EU_07_WF D_AnnV	Transitional & Coastal waters - Physico- chemical Quality Elements: General conditions	TC_PCQL_02 QL_02	CL_EU_07_WFD_AnnV_TC_PC	Nutrient concentrations remain within the range normally associated with undisturbed conditions	general conditions
Quality elements WFD	CL_EU_07_WF D_AnnV	Transitional & Coastal waters - Physico- chemical Quality Elements: General conditions	TC_PCQL_01 QL_01	CL_EU_07_WFD_AnnV_TC_PC	Physico-chemical elements correspond totally or nearly totally to undisturbed conditions.	general conditions
Quality elements WFD	CL_EU_07_WF D_AnnV	Transitional & Coastal waters - Biological Quality Elements: Phytoplankton	TC_BQL_03 L_03	CL_EU_07_WFD_AnnV_TC_BQ	Phytoplankton: Planktonic blooms occur at a frequency and intensity which is consistent with the type specific physico-chemical conditions	planktonic blooms
Quality elements WFD	CL_EU_07_WF D_AnnV	Transitional & Coastal waters - Biological Quality Elements: Phytoplankton	TC_BQL_02 L_02	CL_EU_07_WFD_AnnV_TC_BQ	Phytoplankton: The average phytoplankton biomass is consistent with the type-specific physico-chemical conditions and is not such as to significantly alter the type-specific transparency conditions.	phytoplankton biomass
Quality elements WFD	CL_EU_07_WF D_AnnV	Transitional & Coastal waters - Biological Quality Elements: Phytoplankton	TC_BQL_01 L_01	CL_EU_07_WFD_AnnV_TC_BQ	Phytoplankton: The composition and abundance of the phytoplanktonic taxa are consistent with undisturbed conditions	phytoplankton taxa
Quality elements WFD	CL_EU_07_WF D_AnnV	Transitional & Coastal waters - Physico- chemical Quality Elements: Specific synthetic pollutants	TC_PCQL_04 QL_04	CL_EU_07_WFD_AnnV_TC_PC	Pollutants: Concentrations close to zero and at least below the limits of detection of the most advanced analytical techniques in general use.	specific synthetic pollutants
Quality elements WFD	CL_EU_07_WF D_AnnV	Transitional & Coastal waters - physico- chemical Quality Elements: Specific non- synthetic pollutants	TC_PCQL_05 QL_05	CL_EU_07_WFD_AnnV_TC_PC	Pollutants: Concentrations remain within the range normally associated with undisturbed conditions (background levels = bg).	specific non- synthetic pollutants
Quality elements WFD	CL_EU_07_WF D_AnnV	Transitional & Coastal waters - Physico- chemical Quality Elements: General conditions	TC_PCQL_03 QL_03	CL_EU_07_WFD_AnnV_TC_PC	Temperature, oxygen balance and transparency do not show signs of anthropogenic disturbance and remain within the range normally associated with undisturbed conditions	general conditions
Quality elements WFD	CL_EU_07_WF D_AnnV	Coastal waters - Hydromorpho gical Quality Elements: Morphological conditions	C_HQL_02 _02	CL_EU_07_WFD_AnnV_C_HQL	The depth variation, structure and substrate of the coastal bed, and both the structure and condition of the inter-tidal zones correspond totally or nearly totally to the undisturbed conditions.	hydromorpho gical conditions
Quality elements WFD	CL_EU_07_WF D_AnnV	Coastal waters - Hydromorpho gical Quality Elements: Tidal regime	C_BQL_01 _01	CL_EU_07_WFD_AnnV_C_BQL	The freshwater flow regime and the direction and speed of dominant currents correspond totally or nearly totally to undisturbed conditions.	tidal regime
Quality elements WFD	CL_EU_07_WF D_AnnV	Coastal waters - Biological Quality Elements: Macroalgae and angiosperms	C_BQL_02 _02	CL_EU_07_WFD_AnnV_C_BQL	The levels of macroalgal cover and angiosperm abundance are consistent with undisturbed conditions	macroalgae & angiosperms
Quality elements WFD	CL_EU_07_WF D_AnnV	Transitional waters - Hydromorpho gical Quality Elements: Tidal regime	T_HQL_01 _01	CL_EU_07_WFD_AnnV_T_HQL	Tidal regime: The freshwater flow regime corresponds totally or nearly totally to undisturbed conditions	tidal regime

Criteria descriptors MSFD	CL_EU_08_MS FD_critDs	Descriptor 2 D2C2	CL_EU_08_MSFD_critDs_D2C2	Abundance and spatial distribution of established non-indigenous species, particularly of invasive species, contributing significantly to adverse effects on particular species groups or broad habitat types (secondary)	non-indigenous species, particularly invasive species	units of measurement for the criteria: abundance (number of individuals, biomass in tonnes (t) or extent in square kilometres (km²)) per nonindigenous species
Criteria descriptors MSFD	CL_EU_08_MS FD_critDs	Descriptor 5 D5C2	CL_EU_08_MSFD_critDs_D5C2	Chlorophyll a concentrations are not at levels that indicate adverse effects of nutrient enrichment (primary)	Chl a	Threshold values linked to CL_EU_07_WF concentration D_AnnV_TC_B s (biomass) in CL_01
Criteria descriptors MSFD	CL_EU_08_MS FD_critDs	Descriptor 5 D5C1	CL_EU_08_MSFD_critDs_D5C1	Nutrient concentrations are not at levels that indicate adverse eutrophication effects (primary)	nutrient concentration s	Threshold values linked to CL_EU_07_WF concentration D_AnnV_TC_P s in CL_02
Criteria descriptors MSFD	CL_EU_08_MS FD_critDs	Ecosystems, including food webs (relating to Descriptors 1 and 4)	D4C4	CL_EU_08_MSFD_critDs_D4C4	Productivity of the trophic guild is not adversely affected due to anthropogenic pressures (secondary)	trophic guild
Criteria descriptors MSFD	CL_EU_08_MS FD_critDs	Descriptor 2 D2C3	CL_EU_08_MSFD_critDs_D2C3	Proportion of the species group or spatial extent of the broad habitat type which is adversely altered due to non-indigenous species, particularly invasive non-indigenous species.	affected species groups/habitat types by (invasive) non-indigenous species	units of measurement for the criteria: the proportion of the species group (ratio of indigenous species to non-indigenous species, as number of species and/or their abundance within the group) or the spatial extent of the broad habitat type (area in square kilometres (km²)) which is adversely altered
Criteria descriptors MSFD	CL_EU_08_MS FD_critDs	Descriptor 6 Sea- D6C2	CL_EU_08_MSFD_critDs_D6C2	Spatial extent and distribution of physical disturbance pressures on the seabed (primary)	natural seabed	
Criteria descriptors MSFD	CL_EU_08_MS FD_critDs	Descriptor 6 Sea- D6C1	CL_EU_08_MSFD_critDs_D6C1	Spatial extent and distribution of physical loss (permanent change) of the natural seabed (primary)	natural seabed	
Criteria descriptors MSFD	CL_EU_08_MS FD_critDs	Descriptor 6 Sea- D6C3	CL_EU_08_MSFD_critDs_D6C3	Spatial extent of each habitat type which is adversely affected, through change in its biotic and abiotic structure and its functions (e.g. through changes in species composition and their relative abundance, absence of particularly sensitive or fragile species or species providing a key function, size structure of species), by physical disturbance	seabed habitat types	

Criteria descriptors MSFD	CL_EU_08_MS FD_critDs	Descriptor 5 D5C6	CL_EU_08_MSFD_critDs_D5C6	The abundance of opportunistic macroalgae is not at levels that indicate adverse effects of nutrient enrichment (secondary)	opportunistic macroalgae	Threshold values linked to CL_EU_07_WF D_AnnIV_C_B QL_02	unit of measurement: Ecological Quality Ratio for macroalgal abundance or spatial cover. Extent of adverse effects in square kilometres (km <sup>2</sup> ) or as a proportion (percentage) of the assessment area (Where available, Member States shall use the units or ecological quality ratios provided for under Directive 2000/60/EC.)
Criteria descriptors MSFD	CL_EU_08_MS FD_critDs	Descriptor 3 D3C3	CL_EU_08_MSFD_critDs_D3C3	The age and size distribution of individuals in the populations of commercially-exploited species is indicative of a healthy population. This shall include a high proportion of old/large individuals and limited adverse effects of exploitation on genetic diversity (primary)			unit of measurement: under point S(c): for (i), first indent: proportion (percentage) or numbers, for (ii), second indent: length in centimetres (cm), and for (ii): length in centimetres (cm).
Criteria descriptors MSFD	CL_EU_08_MS FD_critDs	Ecosystems, including food webs (relating to Descriptors 1 and 4)	D4C2	CL_EU_08_MSFD_critDs_D4C2	The balance of total abundance between the trophic guilds is not adversely affected due to anthropogenic pressures (primary)	trophic guild	units of measurement: total abundance (number of individuals or biomass in tonnes (t)) across all species within the trophic guild
Criteria descriptors MSFD	CL_EU_08_MS FD_critDs	Descriptor 5 D5C5	CL_EU_08_MSFD_critDs_D5C5	The concentration of dissolved oxygen is not reduced, due to nutrient enrichment, to levels that indicate adverse effects on benthic habitats (including on associated biota and mobile species) or other eutrophication effects (primary)	dissolved oxygen	Threshold values linked to CL_EU_07_WF D_AnnV_TC_P QL_03	unit of measurement: oxygen concentration in the bottom of the water column in milligrams per litre (mg/l),
Criteria descriptors MSFD	CL_EU_08_MS FD_critDs	Pelagic habitats	D1C6	CL_EU_08_MSFD_critDs_D1C6	The condition of the habitat type, including its biotic and abiotic structure and its functions (e.g. its typical species composition and their relative abundance, absence of particularly sensitive or fragile species or species providing a key function, size structure of species), is not adversely affected due to anthropogenic pressures (primary)	pelagic habitats	units of measurement: extent of habitat adversely affected in square kilometres (km <sup>2</sup> ) and as a proportion (percentage) of the total extent of the habitat type
Criteria descriptors MSFD	CL_EU_08_MS FD_critDs	Ecosystems, including food webs (relating to Descriptors 1 and 4)	D4C1	CL_EU_08_MSFD_critDs_D4C1	The diversity (species composition and their relative abundance) of the trophic guild is not adversely affected due to anthropogenic pressures (primary)	trophic guild	
Criteria descriptors MSFD	CL_EU_08_MS FD_critDs	Benthic habitats	D6C5	CL_EU_08_MSFD_critDs_D6C5	The extent of adverse effects from anthropogenic pressures on the condition of the habitat type, including alteration to its biotic and abiotic structure and its functions (e.g. its typical species composition and their relative abundance, absence of particularly sensitive or fragile species or species providing a key function, size structure of species), does not exceed a specified proportion of the natural extent of the habitat type in the assessment area	seabed habitats	
Criteria descriptors MSFD	CL_EU_08_MS FD_critDs	Benthic habitats	D6C4	CL_EU_08_MSFD_critDs_D6C4	The extent of loss of the habitat type, resulting from anthropogenic pressures, does not exceed a specified proportion of the natural extent of the habitat type in the assessment area (primary)	seabed habitats	
Criteria descriptors MSFD	CL_EU_08_MS FD_critDs	Descriptor 3 D3C1	CL_EU_08_MSFD_critDs_D3C1	The fishing mortality rate of populations of commercially-exploited species is at or below levels which can produce the maximum sustainable yield (MSY) (primary)			if relevant, species lists are specified in the document (unit of measurement: annualised fishing mortality rate)
Criteria descriptors MSFD	CL_EU_08_MS FD_critDs	Species groups (relating to Descriptor 1)	D1C5	CL_EU_08_MSFD_critDs_D1C5	The habitat for the species has the necessary extent and condition to support the different stages in the life history of the species	primary for species covered by Annexes II, IV or V to Directive 92/43/EEC and secondary for other species	A SH_EU_02 HD_AnnIV_sp (For mammals, reptiles and non- commercial fish, criterion equates to CL_EU_10_HD Art17_87)
Criteria descriptors MSFD	CL_EU_08_MS FD_critDs	Species groups (relating to Descriptor 1)	D1C1	CL_EU_08_MSFD_critDs_D1C1	The mortality rate per species from incidental by-catch is below levels which threaten the species, such that its long-term viability is ensured (primary)		units of measurement for the criteria: abundance (number of individuals or biomass in tonnes (t)) per species.

Criteria descriptors MSFD	CL_EU_08_MS FD_critDs	Descriptor 5 DSC3	CL_EU_08_MSFD_critDs_DSC3	The number , spatial extent and duration of harmful algal bloom events are not at levels that indicate adverse effects of nutrient enrichment (secondary)	harmful algal blooms	unit of measurement: bloom events as number of events, duration in days and spatial extent in square kilometres (km <sup>2</sup> ) per year,
Criteria descriptors MSFD	CL_EU_08_MS FD_critDs	Descriptor 2 D2C1	CL_EU_08_MSFD_critDs_D2C1	The number of non-indigenous species which are newly introduced via human activity into the wild, per assessment period (6 years), measured from the reference year as reported for the initial assessment under Article 8(1) of Directive 2008/56/EC, is minimised and where possible reduced to zero (primary)	non-indigenous species, particularly invasive species	units of measurement for the criteria: the number of species per assessment area which have been newly introduced in the assessment period (6 years),
Criteria descriptors MSFD	CL_EU_08_MS FD_critDs	Descriptor 5 DSC4	CL_EU_08_MSFD_critDs_DSC4	The photic limit (transparency) of the water column is not reduced, due to increases in suspended algae, to a level that indicates adverse effects of nutrient enrichment (secondary)	photic limit (transparency)	Threshold values linked to CL_EU_07_WF depth in D_AnnV_TC_B metres (m), QL_02
Criteria descriptors MSFD	CL_EU_08_MS FD_critDs	Species groups of birds, mammals, reptiles, fish and cephalopods (relating to Descriptor 1)	D1C2	CL_EU_08_MSFD_critDs_D1C2	The population abundance of the species is not adversely affected due to anthropogenic pressures, such that its long-term viability is ensured (primary)	for birds, criterion equates to CL_EU_09_BD Art12_B2 and CL_EU_09_BD Art12_B4. For mammals, reptiles and non-commercial fish, criterion equates to CL_EU_10_HD Art17_B6 (CL_EU_08_MSFD_critDs_D3 C2 used for this criterion)
Criteria descriptors MSFD	CL_EU_08_MS FD_critDs	Species groups of birds, mammals, reptiles, fish and cephalopods (relating to Descriptor 1)	D1C3	CL_EU_08_MSFD_critDs_D1C3	The population demographic characteristics (e.g. body size or age class structure, sex ratio, fecundity, and survival rates) of the species are indicative of a healthy population which is not adversely affected due to anthropogenic pressures.	primary for commercially exploited fish and non-commercial cephalopods and secondary for other species equates to CL_EU_10_HD Art17_B6 (CL_EU_08_MSFD_critDs_D3 C3 used for this criterion)
Criteria descriptors MSFD	CL_EU_08_MS FD_critDs	Ecosystems, including food webs (relating to Descriptors 1 and 4)	D4C3	CL_EU_08_MSFD_critDs_D4C3	The size distribution of individuals across the trophic guild is not adversely affected due to anthropogenic pressures (secondary)	trophic guild
Criteria descriptors MSFD	CL_EU_08_MS FD_critDs	Populations of all commercially exploited fish and shellfish are within safe biological limits, exhibiting a population age and size distribution that is indicative of a healthy stock	D3C2	CL_EU_08_MSFD_critDs_D3C2	The Spawning Stock Biomass of populations of commercially-exploited species are above biomass levels capable of producing maximum sustainable yield (primary)	unit of measurement: biomass in tonnes (t) or number of individuals per species, except where other indices are used under point 5(b),
Criteria descriptors MSFD	CL_EU_08_MS FD_critDs	Descriptor 5 DSC8	CL_EU_08_MSFD_critDs_DSC8	The species composition and relative abundance of macrofaunal communities, achieve values that indicate that there is no adverse effect due to nutrient and organic enrichment (secondary)	macrofaunal benthic communities	Threshold values linked to CL_EU_07_WF Quality Ratio D_AnnV_TC_B for species composition and relative abundance assessments. Extent of adverse effects in square kilometres (km <sup>2</sup> ) or as a proportion (percentage) of the assessment area (Where available, Member States shall use the units or ecological quality ratios provided for under

Criteria descriptors MSFD	CL_EU_08_MSFD_critDs	Descriptor 5	DSC7	CL_EU_08_MSFD_critDs_DSC7	The species composition and relative abundance or depth distribution of macrophyte communities achieve values that indicate there is no adverse effect due to nutrient enrichment including via a decrease in water transparency (secondary)	macrophyte communities	Threshold values linked to	unit of measurement:
		Human-induced eutrophication is minimised, especially adverse effects thereof, such as losses in biodiversity, ecosystem degradation, harmful algal blooms and oxygen deficiency in bottom waters					CL_EU_07_WF_QL_02	Ecological Quality Ratio for species composition and relative abundance assessments or for maximum depth of macrophyte growth. Extent of adverse effects in square kilometres (km <sup>2</sup> ) or as a proportion (percentage) of the assessment area (Where available, Member States shall use the units
Criteria descriptors MSFD	CL_EU_08_MSFD_critDs	Species groups of birds, mammals, reptiles, fish and cephalopods (relating to Descriptor 1)	D1C4	CL_EU_08_MSFD_critDs_D1C4	The species distributional range and, where relevant, pattern is in line with prevailing physiographic, geographic and climatic conditions.	primary for species covered by Annexes II, IV or V of Directive 92/43/EEC	relevant species: A_SH_EU_02_HD	
						equates to for secondary birds, criterion for other species	Art12, B2 and CL_EU_09_BD Art12, B4. For mammals, reptiles and non-commercial fish, criterion equates to CL_EU_10_HD Art17_B5	
Criteria for reporting BD	CL_EU_09_BD		B4	CL_EU_09_BDArt12_B4	Breeding distribution map and size			
Art12	Art12							
Criteria for reporting BD	CL_EU_09_BD		B5	CL_EU_09_BDArt12_B5	Breeding distribution trend			
Art12	Art12							
Criteria for reporting BD	CL_EU_09_BD		B2	CL_EU_09_BDArt12_B2	Population size			
Art12	Art12							
Criteria for reporting BD	CL_EU_09_BD		B3	CL_EU_09_BDArt12_B3	Population trend			
Art12	Art12							
Criteria for reporting HD	CL_EU_10_HD		B7	CL_EU_10_HDArt17_B7	Habitat for the species			
Art17	Art17							
Criteria for reporting HD	CL_EU_10_HD		B6	CL_EU_10_HDArt17_B6	Population			
Art17	Art17							
Criteria for reporting HD	CL_EU_10_HD		B5	CL_EU_10_HDArt17_B5	Range			
Art17	Art17							
DEVOTES indicators	CL_EU_11_DEV		101	CL_EU_11_DEV_101	Mortality of white-tailed eagles	Incidentally and non-incidentally killed white-tailed eagles	28	SYKE-LU 101
DEVOTES indicators	CL_EU_11_DEV		107	CL_EU_11_DEV_107	Body length distribution of Cladophora	Cladophora length	28	SYKE-LU 107
DEVOTES indicators	CL_EU_11_DEV		109	CL_EU_11_DEV_109	Areal extent of blue mussels	Blue mussel cover	28	SYKE-LU 109
DEVOTES indicators	CL_EU_11_DEV		110	CL_EU_11_DEV_110	Cumulative impacts on benthic habitats	Cumulative impacts on benthic habitats	28	SYKE-LU 110
DEVOTES indicators	CL_EU_11_DEV		114	CL_EU_11_DEV_114	Body length distribution of zooplankton	Mean zooplankton size	MARMONI indicator	SYKE-LU 114
								Zooplankton monitoring data ( <a href="http://www.sea.ee/marmoni_pul/docs/L33.pdf">http://www.sea.ee/marmoni_pul/docs/L33.pdf</a> )
DEVOTES indicators	CL_EU_11_DEV		115	CL_EU_11_DEV_115	Biomass ratio zooplankton/phytoplankton	Zooplankton-phytoplankton biomass ratio		SYKE-LU 115
DEVOTES indicators	CL_EU_11_DEV		116	CL_EU_11_DEV_116	Phytoplankton diversity	Phytoplankton diversity	28 344	SYKE-LU 116
								Phytoplankton species count data
DEVOTES indicators	CL_EU_11_DEV		117	CL_EU_11_DEV_117	Seasonal succession of functional phytoplankton groups	Seasonal succession of functional phytoplankton group	28	SYKE-LU 117
								abundance, species composition
DEVOTES indicators	CL_EU_11_DEV		118	CL_EU_11_DEV_118	BTA - Biological Traits Analysis	Biological Traits Analysis (BTA)	30 29 222 224 225 226 223 227 228	IMAR-HV 108
								Species lists; Abundance/biomass of species; List of functional indicator traits.
DEVOTES indicators	CL_EU_11_DEV		121	CL_EU_11_DEV_121	Abundance and distribution each of harbour and grey seals (M3)	M3 Abundance and distribution each of harbour and grey seals*	31 307	Cefas-SN 110; JRC-HT
								Range and counts: Harbour seals - head out counts; grey seals - pup counts or moult counts
DEVOTES indicators	CL_EU_11_DEV		122	CL_EU_11_DEV_122	Abundance and distribution of cetaceans (M4)	M4 Abundance and distribution of cetaceans*	31	Cefas-SN 111; JRC-HT
								Strandings data, distribution, relative abundance and population trends
DEVOTES indicators	CL_EU_11_DEV		123	CL_EU_11_DEV_123	Grey seal pup production (M5)	M5 Grey seal pup production	31 307	Cefas - SN 112, JRC-HT
								Number of pups per colony vs size of colony
DEVOTES indicators	CL_EU_11_DEV		124	CL_EU_11_DEV_124	Marine mammals by-catch (M6)	M6 Mortality rate of seals and cetaceans due to bycatch	31 309 309	Cefas - SN 113
								Numbers of bycatch in fishing gear

DEVOTES indicators	CL_EU_11_DEV	125 CL_EU_11_DEV_125	Species-specific trends in relative abundance of non-breeding and breeding marine birds (B1)	B1 Species-specific trends in relative abundance of non-breeding and breeding marine birds	31 279	Cefas-SN 114, JRC-HT	Time series of annual estimates of abundance of individual species	
DEVOTES indicators	CL_EU_11_DEV	126 CL_EU_11_DEV_126	Breeding success of kittiwake (B2)	B2 Annual breeding success of kittiwake	31 229 230 231 232 280	Cefas-SN 115, JRC-HT	No of chicks fledged per pair in colonies of black-legged kittiwake ( <i>Rissa tridactyla</i> ).	
DEVOTES indicators	CL_EU_11_DEV	127 CL_EU_11_DEV_127	Breeding success/failure of marine bird species (B3)	B3 Breeding success/failure of marine bird species	31 232 282	Cefas-SN 116, JRC-HT	Annual mean breeding success of marine bird species at colonies.	
DEVOTES indicators	CL_EU_11_DEV	128 CL_EU_11_DEV_128	Presence of (non-native/invasive) predators on island seabird colonies (B4)	B4 Non-native/invasive mammal presence on island seabird colonies	31 284 284	Cefas-SN 117	Observations of presence/absence of non-native or invasive mammal species	
DEVOTES indicators	CL_EU_11_DEV	129 CL_EU_11_DEV_129	By-catch of marine birds (B5)	B5 Mortality of marine birds from fishing (bycatch) and aquaculture, Abundance index of by-caught birds	MARMONI indicator	31 233	Cefas-SN 118	Number of birds caught of each species accidentally caught by commercial fishing gear ( <a href="http://www.sea.ee/marmoni_puk/docs/L47.pdf">http://www.sea.ee/marmoni_puk/docs/L47.pdf</a> )
DEVOTES indicators	CL_EU_11_DEV	130 CL_EU_11_DEV_130	Distributional pattern of breeding and non-breeding marine birds (B6)	B6 Distributional pattern of breeding and non-breeding marine birds	31 279	Cefas-SN 119	Distributional pattern of species of marine birds that aggregate in inshore areas, or at onshore breeding or roosting sites	
DEVOTES indicators	CL_EU_11_DEV	131 CL_EU_11_DEV_131	Abundance of selected fish species and cephalopods (FC1)	FC1 Population abundance/biomass of a suite of selected species	31 235 294 294	Cefas-SN 120a	Size of catchable proportion of fish populations by survey (weight or numbers)	
DEVOTES indicators	CL_EU_11_DEV	133 CL_EU_11_DEV_133	Body length of demersal fish and elasmobranchs (FC3)	FC3 Mean maximum length of demersal fish and elasmobranchs	31	Cefas-SN 122, JRC-HT	Size based indicator to measure the life history composition of the fish community	
DEVOTES indicators	CL_EU_11_DEV	134 CL_EU_11_DEV_134	By-catch ratio of Chondrichthyes (FC4)	FC4 By-catch rates of Chondrichthyes	31 237 238	Cefas-SN 123	Quantities of by-catch of Chondrichthyes in commercial fisheries	
DEVOTES indicators	CL_EU_11_DEV	136 CL_EU_11_DEV_136	Typical species composition (BH1)	BH1 Typical species composition	31 285 208	Cefas-SN 124, JRC-HT	Species lists and distribution	
DEVOTES indicators	CL_EU_11_DEV	138 CL_EU_11_DEV_138	Physical damage of predominant and special habitats (BH3)	BH3 Physical damage of predominant and special habitats	31 286	Cefas-SN 126, JRC-HT	Distribution and sensitivity of habitats components (selection of habitats based on pre-defined criteria); Distribution and intensity of human activities and pressures causing physical damage (EIA and VMS data, Data Collection Framework); Exposure matrices combining pressure intensity and habitat sensitivity.	
DEVOTES indicators	CL_EU_11_DEV	139 CL_EU_11_DEV_139	Areal habitat loss (BH4)	BH4 Area of habitat loss	31 289 289	Cefas-SN 127, JRC-HT	Activity data sources such as EIAs and VMS	
DEVOTES indicators	CL_EU_11_DEV	14 CL_EU_11_DEV_14	By-catch of marine mammals and waterbirds in fishing gears	Drowned marine mammals and waterbirds in fishing gears		SYKE-LU 14	Number of drowned birds and mammals	
DEVOTES indicators	CL_EU_11_DEV	140 CL_EU_11_DEV_140	Size-frequency distribution of bivalve or other sensitive/indicator species (BH5)	BH5 Size-frequency distribution of bivalve or other sensitive/indicator species	31 285 292 292 292	Cefas-SN 128	Number of individuals per size class	
DEVOTES indicators	CL_EU_11_DEV	141 CL_EU_11_DEV_141	MCI - Microplankton Community Index (PH1/FW5)	PH1/FW5 Microplankton Community Index (MCI)	31 244 245 246 247 248 150 338	Cefas-SN 129, JRC-HT	Plankton abundance or biomass (per taxa)	
DEVOTES indicators	CL_EU_11_DEV	142 CL_EU_11_DEV_142	Plankton biomass and/or abundance (PH2)	PH2 Plankton biomass and/or abundance	31 248 312 310a, JRC-HT	Cefas-SN 130a, JRC-HT	Microplankton and zooplankton abundance and/or biomass as appropriate.	

DEVOTES indicators	CL_EU_11_DEV	144 CL_EU_11_DEV_144	Reproductive success of marine birds in relation to food availability (FW1)	FW1 Reproductive success of marine birds in relation to food availability	31 232 282 230 282 298 298 341	Cefas - CL 132, Annual mean breeding success of marine bird species at colonies (no. chicks fledged per pair). Depending in species and area, the parameter may be derived from data hatching success (i.e. number of eggs hatched per pair). Hatching/fledging success is monitored for a selection of species sensitive to changes in pressures.
DEVOTES indicators	CL_EU_11_DEV	145 CL_EU_11_DEV_145	Production of phytoplankton (FW2)	FW2 Production of phytoplankton	31	Cefas - CL 133, Phytoplankton Biomass (carbon from biovolume, particulate organic carbon, or chlorophyll concentration)
DEVOTES indicators	CL_EU_11_DEV	149 CL_EU_11_DEV_149	Biomass and abundance of functional groups (FW7)	FW7 Biomass and abundance of functional groups	31 34	Cefas - CL 137a, JRC-HT Fish species composition and abundance (number or weight) per haul/survey. Biomass of fish can be calculated from abundance data using existing scientific survey data. Biomass of invertebrates can be estimated from abundance data and length-weight distributions of species. Species will need to be
DEVOTES indicators	CL_EU_11_DEV	151 CL_EU_11_DEV_151	Abundance of selected (coastal) fish species	Abundance of key species of coastal fish	270	SYKE-LU 15 Species abundance
DEVOTES indicators	CL_EU_11_DEV	150 CL_EU_11_DEV_150	Changes in the distribution of biomass and species over trophic levels or body size (BTS) (FW8)	FW8 Changes in the distribution of biomass and species over trophic levels or body size (BTS)	31 302 306 306	Cefas - CL 138, Mean trophic levels of species will need to be estimated on a regional/sub-regional scale. Catchable proportion of fish/invertebrate populations by survey (weight or numbers).
DEVOTES indicators	CL_EU_11_DEV	151 CL_EU_11_DEV_151	Pathways management measures (NIS1)	NIS1 Pathways management measures	31	Cefas - CL 155 no information in tech spec
DEVOTES indicators	CL_EU_11_DEV	152 CL_EU_11_DEV_152	Energy flows and transfer efficiencies among trophic levels or functional groups	energy flows and transfer efficiencies among trophic levels or functional groups	34 35 36	Cefas - AR 139 fitted EcoPath model / production at trophic level or functional group
DEVOTES indicators	CL_EU_11_DEV	153 CL_EU_11_DEV_153	Strength of conventional bottom-up effect in marine size spectrum	strength of conventional bottom-up effect in marine size spectrum	34 37 334 335	Cefas - AR 140 size spectrum
DEVOTES indicators	CL_EU_11_DEV	154 CL_EU_11_DEV_154	Strength of top-down cascade in marine size spectrum	strength of top-down cascade in marine size spectrum	34 37 334 335	Cefas - AR 141 size spectrum
DEVOTES indicators	CL_EU_11_DEV	155 CL_EU_11_DEV_155	Strength of bottom-up cascade in marine size spectrum	strength of bottom-up cascade in marine size spectrum	34 37	Cefas - AR 142 size spectrum
DEVOTES indicators	CL_EU_11_DEV	156 CL_EU_11_DEV_156	Pareto exponent of the distribution of species richness over body sizes	Pareto exponent of the distribution of species richness over body sizes	34 38 39 40	Cefas - AR 143 body sizes of extant species (larger than some threshold, e.g. 1g)
DEVOTES indicators	CL_EU_11_DEV	157 CL_EU_11_DEV_157	Competition avoidance among species	competition avoidance among species	34 41 39	Cefas-AR 144 Diet data
DEVOTES indicators	CL_EU_11_DEV	158 CL_EU_11_DEV_158	Body length distribution of fish in the community	Mean length of fish in the community	33 42	Cefas - CL 145 length of fishes
DEVOTES indicators	CL_EU_11_DEV	159 CL_EU_11_DEV_159	Biomass ratio of predatory fish	Proportion of predatory fish	33 42	Cefas - CL 146 biomass of fish
DEVOTES indicators	CL_EU_11_DEV	160 CL_EU_11_DEV_160	Life span of fish	Mean life span	33 42	Cefas-CL 147 biomass of fish plus estimate of longevity

DEVOTES indicators	CL_EU_11_DEV	161 CL_EU_11_DEV_161	Distributional range of selected fish species	Distributional range of fish (sensitive species)	44 43	Cefas - CL 148	Proportion of sampled ICES rectangles (for shelf seas) or depth bands (for shelf edge) in which the species occurs.
DEVOTES indicators	CL_EU_11_DEV	162 CL_EU_11_DEV_162	Distributional pattern of fish (sensitive species)	Distributional pattern of fish (sensitive species)	44	Cefas - CL 149	Catchable proportion of fish-invertebrate populations by survey (weight or numbers)
DEVOTES indicators	CL_EU_11_DEV	163 CL_EU_11_DEV_163	Population abundance of a suite of selected species	Population abundance of a suite of selected species	44 43	Cefas - CL 150	log abundance estimates standardised to a defined area appropriate to the survey for a suite of sensitive species
DEVOTES indicators	CL_EU_11_DEV	164 CL_EU_11_DEV_164	Population biomass of a suite of selected species	Population biomass of a suite of selected species	44 43	Cefas - CL 151	log biomass estimates (directly weighed or from LW relationships) standardised to a defined area appropriate to the survey for a suite of sensitive species
DEVOTES indicators	CL_EU_11_DEV	165 CL_EU_11_DEV_165	Abundance ratio of mature individuals of selected fish species	Proportion of mature fish in the population	44 43	Cefas - CL 152	Proportion of individual fish above length at first maturity for a suite of sensitive species
DEVOTES indicators	CL_EU_11_DEV	166 CL_EU_11_DEV_166	Species diversity (Hills index) for fish and invertebrates	Hills N1 indicator of species diversity	44 43	Cefas - CL 153	species composition, abundance or biomass data
DEVOTES indicators	CL_EU_11_DEV	171 CL_EU_11_DEV_171	WFD SHWAP - Schleswig-Holstein Wadden Sea Assessment of Phytobenthos	Schleswig-Holstein Wadden Sea Assessment of Phytobenthos (SHWAP)	46 49	MariLim-KF 35	
DEVOTES indicators	CL_EU_11_DEV	172 CL_EU_11_DEV_172	WFD BALCOSIS - Macrophyte index	Assessment system for macroalgae and angiosperms in the outer coastal waters of the Baltic (BALCOSIS)	46 50	MariLim-KF 39	
DEVOTES indicators	CL_EU_11_DEV	173 CL_EU_11_DEV_173	WFD ELBO - German Macrophyte index	Assessment system for angiosperms and charophytes in the inner coastal waters of the Baltic (ELBO)	46 51	MariLim-KF 40	species-specific depth limits, species-specific cover data, species composition
DEVOTES indicators	CL_EU_11_DEV	175 CL_EU_11_DEV_175	MarBIT - Marine Biotic Index Tool	Marine Biotic Index Tool (MarBIT)	46 53 54	MariLim-KF 55	species composition, abundance data, autecological species information (sensitive/tolerant classification)
DEVOTES indicators	CL_EU_11_DEV	176 CL_EU_11_DEV_176	Areal extent of intertidal opportunistic green algae	Areal extent of intertidal opportunistic green algae	46 55 49	MariLim-KF 72	Areal extent data
DEVOTES indicators	CL_EU_11_DEV	177 CL_EU_11_DEV_177	WFD German Ecological phytoplankton assessment with Chl a and Phaeocystis blooms	Ecological phytoplankton assessment with Chl a and Phaeocystis blooms	56	MariLim-KF 108	chl a measurement s, species composition, cell counts
DEVOTES indicators	CL_EU_11_DEV	178 CL_EU_11_DEV_178	WFD German Ecological phytoplankton assessment with Chl a and biovolume	Ecological phytoplankton assessment with Chl a and biovolume	57	MariLim-KF 109	chl a measurement s, biovolume measurement s, species composition, cell counts
DEVOTES indicators	CL_EU_11_DEV	181 CL_EU_11_DEV_181	Depth limit of spermatophytes	Depth limit of spermatophytes	46 51	MariLim-KF 112	spermatophyte e cover (%) per water depth
DEVOTES indicators	CL_EU_11_DEV	182 CL_EU_11_DEV_182	Depth limit of charophytes	Depth limit of charophytes	46 51	MariLim-KF 113	charophyte cover (%) per water depth
DEVOTES indicators	CL_EU_11_DEV	183 CL_EU_11_DEV_183	Depth limit of attached perennial macroalgae	Depth limit of attached perennial macroalgae	46	MariLim-KF 114	Perennial macroalgae (substrate specific) cover (%) per water depth
DEVOTES indicators	CL_EU_11_DEV	184 CL_EU_11_DEV_184	Depth limit of Fucus spp.	Depth limit of Fucus spp.	46 50	MariLim-KF 115	Fucus (substrate specific) cover (%) per water depth
DEVOTES indicators	CL_EU_11_DEV	185 CL_EU_11_DEV_185	Biomass ratio of opportunistic macroalgae	Biomass proportion of opportunistic macroalgae	46 50	MariLim-KF 116	species specific biomass data, species composition and autecological species information

DEVOTES indicators	CL_EU_11_DEV	186 CL_EU_11_DEV_186	Macrophyte species reduction (reduced species list)	Macrophyte species reduction (reduced species list)	50 46	MarLim-KF 117	species composition
DEVOTES indicators	CL_EU_11_DEV	187 CL_EU_11_DEV_187	TSI - Taxonomic Spread Index	Taxonomic Spread Index (TSI)	53 46	MarLim-KF 118	species composition and taxonomical species information
DEVOTES indicators	CL_EU_11_DEV	188 CL_EU_11_DEV_188	HPI - Helgoland Phytobenthic Index	Helgoland Phytobenthic Index (HPI)	46 59	MarLim-KF 119	species specific depth limits, species composition, cover data
DEVOTES indicators	CL_EU_11_DEV	189 CL_EU_11_DEV_189	Species diversity and landscape quality index	Species diversity and landscape quality	60	MarLim-KF 121	percentage of population sizes (number of territories or breeding pairs) of 10 different seabird species
DEVOTES indicators	CL_EU_11_DEV	190 CL_EU_11_DEV_190	Endangered species index	Endangered species	60	MarLim-KF 122	The underlying data are the assessments of species in Red List categories. The final index is a single figure representing the degree of endangerment for all assessed species.
DEVOTES indicators	CL_EU_11_DEV	191 CL_EU_11_DEV_191	Conservation status of habitats and species	Conservation status of Habitats Directive habitats and species	60	MarLim-KF 123	
DEVOTES indicators	CL_EU_11_DEV	192 CL_EU_11_DEV_192	Number of species of Black List of Invasive Alien Species	Black List of Invasive Alien Species	60	MarLim-KF 124	
DEVOTES indicators	CL_EU_11_DEV	193 CL_EU_11_DEV_193	Ratio of area of protected area/total area	Total size of protected areas	60	MarLim-KF 125	
DEVOTES indicators	CL_EU_11_DEV	194 CL_EU_11_DEV_194	Ratio of surface water bodies in good ecological status	Ecological status of surface waters		MarLim-KF 126	
DEVOTES indicators	CL_EU_11_DEV	195 CL_EU_11_DEV_195	Index for sustainable marine fisheries	Sustainable marine fisheries	60	MarLim-KF 127	
DEVOTES indicators	CL_EU_11_DEV	196 CL_EU_11_DEV_196	AETV - Estuary Typology Procedure	Estuary Typology Procedure (AETV)	46	MarLim-KF 128	species composition, abundance data, autecological species information
DEVOTES indicators	CL_EU_11_DEV	198 CL_EU_11_DEV_198	Distributional range of cephalopods	[cephalopods] Distributional range	61 78	AZTI-JGR 133	
DEVOTES indicators	CL_EU_11_DEV	199 CL_EU_11_DEV_199	Distributional range of demersal elasmobranchs	[demersal elasmobranchs] Distributional range	61 63 79	AZTI-JGR 110	
DEVOTES indicators	CL_EU_11_DEV	200 CL_EU_11_DEV_200	Distributional range of pelagic fish	[pelagic fish] Distributional range	61	AZTI-JGR 111	
DEVOTES indicators	CL_EU_11_DEV	201 CL_EU_11_DEV_201	Distributional range of phytoplankton	[phytoplankton] Distributional range	61 63	AZTI-JGR 112	
DEVOTES indicators	CL_EU_11_DEV	202 CL_EU_11_DEV_202	Distributional range of sea-turtles	[sea-turtles] Distributional range	61 62 63 78 79	AZTI-JGR 113	
DEVOTES indicators	CL_EU_11_DEV	203 CL_EU_11_DEV_203	Distributional range of zooplankton	[zooplankton] Distributional range	61 63	AZTI-JGR 114	
DEVOTES indicators	CL_EU_11_DEV	204 CL_EU_11_DEV_204	Distributional range of selected demersal fish	[demersal fishes] Distributional range	62 63 79	AZTI-JGR 115	
DEVOTES indicators	CL_EU_11_DEV	205 CL_EU_11_DEV_205	Distributional range of selected benthic invertebrate species	[benthic invertebrates] Distributional range	63	AZTI-JGR 119	
DEVOTES indicators	CL_EU_11_DEV	206 CL_EU_11_DEV_206	Distributional range of whales	[whales] Distributional range	79 62 63 61	AZTI-JGR 125	
DEVOTES indicators	CL_EU_11_DEV	207 CL_EU_11_DEV_207	Distributional range of birds	[birds] Distributional range	61 62 79 63	AZTI-JGR 129	distribution and number of breeding colonies
DEVOTES indicators	CL_EU_11_DEV	208 CL_EU_11_DEV_208	Distributional pattern within the distributional range of sea-turtles	[sea-turtles] Distributional pattern within the distributional range	62 78 79	AZTI-JGR 140	
DEVOTES indicators	CL_EU_11_DEV	209 CL_EU_11_DEV_209	Distributional pattern within the distributional range of demersal fish	[demersal fish] distributional pattern within the distributional range	63 78 79	AZTI-JGR 141	
DEVOTES indicators	CL_EU_11_DEV	211 CL_EU_11_DEV_211	Population structure of long-lived macrozoobenthic species	Population structure of long-lived macrozoobenthic species	270	SYKE-LU 21	size measurements of selected bivalve species
DEVOTES indicators	CL_EU_11_DEV	210 CL_EU_11_DEV_210	Distributional pattern within the distributional range of demersal elasmobranchs	[demersal elasmobranchs] distributional pattern within the distributional range	63 78 79	AZTI-JGR 148	

DEVOTES indicators	CL_EU_11_DEV	211 CL_EU_11_DEV_211	Distributional pattern within the distributional range of phytoplankton	[phytoplankton] distributional pattern within the distributional range	63	AZTI-JGR 143	
DEVOTES indicators	CL_EU_11_DEV	212 CL_EU_11_DEV_212	Distributional pattern within the distributional range of zooplankton	[zooplankton] distributional pattern within the distributional range	63	AZTI-JGR 144	
DEVOTES indicators	CL_EU_11_DEV	213 CL_EU_11_DEV_213	Distributional pattern within the distributional range of birds	[birds] distributional pattern within the distributional range	61	AZTI-JGR 145	
DEVOTES indicators	CL_EU_11_DEV	214 CL_EU_11_DEV_214	Distributional pattern within the distributional range of cephalopds	[cephalopds] distributional pattern within the distributional range	78	AZTI-JGR 149	
DEVOTES indicators	CL_EU_11_DEV	215 CL_EU_11_DEV_215	Abundance of cephalopds	[Cephalopods] population abundance and/or biomass	61	AZTI-JGR 154a	
DEVOTES indicators	CL_EU_11_DEV	219 CL_EU_11_DEV_219	Ratio of fish species in good ecological status	[Demersal fishes] percent of species in good ecological status	62	AZTI-JGR 158	
DEVOTES indicators	CL_EU_11_DEV	22 CL_EU_11_DEV_22	Trends in arrival of new non-indigenous species	Trends in arrival of new non-indigenous species	270	SYKE-LU 22	number of new arrivals of non-indigenous species
DEVOTES indicators	CL_EU_11_DEV	220 CL_EU_11_DEV_220	Abundance of demersal fish - representation for georeferenced data (GIS)	[Demersal fish] representation for georeferenced data (GIS)	63	AZTI-JGR 159	
DEVOTES indicators	CL_EU_11_DEV	221 CL_EU_11_DEV_221	Abundance of demersal elasmobranchs - representation for georeferenced data (GIS)	[Demersal elasmobranchs] representation for georeferenced data (GIS)	63	AZTI-JGR 160	
DEVOTES indicators	CL_EU_11_DEV	223 CL_EU_11_DEV_223	Abundance of toxic phytoplankton taxa	[phytoplankton] abundance of toxic taxa	63	AZTI-JGR 162	count of species from toxic taxa
DEVOTES indicators	CL_EU_11_DEV	227 CL_EU_11_DEV_227	Biomass of zooplankton	[zooplankton] biomass (dry weight)	63	AZTI-JGR 166	dry weight
DEVOTES indicators	CL_EU_11_DEV	229 CL_EU_11_DEV_229	Abundance of whales	[whales] density based on sightings	63	AZTI-JGR 168	density based on sightings
DEVOTES indicators	CL_EU_11_DEV	23 CL_EU_11_DEV_23	State of benthic communities	State of the soft-bottom macrofauna community	28	SYKE-LU 23	Species abundances, ind/m <sup>2</sup>
DEVOTES indicators	CL_EU_11_DEV	230 CL_EU_11_DEV_230	Breeding population size of birds	[birds] breeding population size	61	AZTI-JGR 169	
DEVOTES indicators	CL_EU_11_DEV	231 CL_EU_11_DEV_231	Abundance of bird colonies	counts of bird colonies	61	AZTI-JGR 170	Counts of bird colonies
DEVOTES indicators	CL_EU_11_DEV	232 CL_EU_11_DEV_232	Abundance of demersal fish	[demersal fish] mean abundance	78	AZTI-JGR 171	
DEVOTES indicators	CL_EU_11_DEV	234 CL_EU_11_DEV_234	Biomass of demersal fish	[demersal fish] mean biomass	78	AZTI-JGR 173	
DEVOTES indicators	CL_EU_11_DEV	236 CL_EU_11_DEV_236	Body length distribution of fish	[fish] Population demographic characteristic	79	AZTI-JGR 175a	length-frequency distribution
DEVOTES indicators	CL_EU_11_DEV	239 CL_EU_11_DEV_239	Body length distribution of sea-turtles (longest shell)	[sea-turtles] demographic characteristics, longest shell, fecundity rate, mortality rate, genetic structure	62	AZTI-JGR 178a	
DEVOTES indicators	CL_EU_11_DEV	241 CL_EU_11_DEV_241	Abundance rank of phytoplankton species	[Phytoplankton] rank of the abundance of each taxon		AZTI-JGR 180	
DEVOTES indicators	CL_EU_11_DEV	242 CL_EU_11_DEV_242	Presence rank of phytoplankton	[Phytoplankton] rank of the percentage of sites at which the presence or absence of each taxon	63	AZTI-JGR 181	
DEVOTES indicators	CL_EU_11_DEV	244 CL_EU_11_DEV_244	Abundance rank of zooplankton species	[Zooplankton] rank of the abundance of each taxon	63	AZTI-JGR 183	
DEVOTES indicators	CL_EU_11_DEV	245 CL_EU_11_DEV_245	Presence rank of zooplankton taxa	[Zooplankton] rank of the percentage of sites at which the presence or absence of each taxon	63	AZTI-JGR 184	

DEVOTES indicators	CL_EU_11_DEV	247 CL_EU_11_DEV_247	Demographic characteristics of mammals	[Mammals] demographic characteristics	64	AZTI-JGR 186	Multimetric index with: size at first maturity, fecundity rate, survival rate, new born survival rate, juvenile survival rate, birth rate, population growth rate, birth interval and stomach contents based on stranding, bycatch and survey data
DEVOTES indicators	CL_EU_11_DEV	248 CL_EU_11_DEV_248	Productivity of seabirds (annual breeding success)	[seabirds] Breeding success (annual productivity)	61	AZTI-JGR 187	
DEVOTES indicators	CL_EU_11_DEV	249 CL_EU_11_DEV_249	Breeding failures (widespread colony abandonment of birds)	[seabirds] Widespread colony abandonment (breeding failures)	61	AZTI-JGR 188	
DEVOTES indicators	CL_EU_11_DEV	250 CL_EU_11_DEV_250	Survival rate of birds	[seabirds] Survival rate	61	AZTI-JGR 189	
DEVOTES indicators	CL_EU_11_DEV	251 CL_EU_11_DEV_251	Number of introduced predating birds	[seabirds] Introduced predators	61	AZTI-JGR 190	
DEVOTES indicators	CL_EU_11_DEV	252 CL_EU_11_DEV_252	By-catch of seabirds	[seabirds] Bycatch	61	AZTI-JGR 191	
DEVOTES indicators	CL_EU_11_DEV	253 CL_EU_11_DEV_253	Light pollution for sea birds	[seabirds] Light pollution	61	AZTI-JGR 192	
DEVOTES indicators	CL_EU_11_DEV	255 CL_EU_11_DEV_255	Distributional range of selected species	distributional range of characteristic species	78	AZTI-JGR 194	
DEVOTES indicators	CL_EU_11_DEV	256 CL_EU_11_DEV_256	Body length distribution of pelagic invertebrates	95th percentile of the body length distribution	78	AZTI-JGR 195	Mobile invertebrates-crustaceans and cephalopods
DEVOTES indicators	CL_EU_11_DEV	260 CL_EU_11_DEV_260	Depth distribution of selected habitats	[habitat] maximum and minimum depth	61 63 78	AZTI-JGR 200	
DEVOTES indicators	CL_EU_11_DEV	261 CL_EU_11_DEV_261	Depth distribution of circalittoral and bathyal soft bottom habitats	[Circalittoral and bathyal soft bottom habitats] 25th and 75th percentile depth	62 79	AZTI-JGR 201	Depth distribution (25th and 75th percentile depth).
DEVOTES indicators	CL_EU_11_DEV	262 CL_EU_11_DEV_262	Distributional range of circalittoral and bathyal soft bottom habitats	[Circalittoral and bathyal soft bottom habitats] maximum and minimum latitude	62 79	AZTI-JGR 202	
DEVOTES indicators	CL_EU_11_DEV	264 CL_EU_11_DEV_264	Number of lagoons	number of lagoons	62 79	AZTI-JGR 204	
DEVOTES indicators	CL_EU_11_DEV	265 CL_EU_11_DEV_265	Depth distribution of Posidonia oceanica meadows	upper and lower limits of Posidonia oceanica meadows	62 79	AZTI-JGR 205	
DEVOTES indicators	CL_EU_11_DEV	266 CL_EU_11_DEV_266	Number of rocky habitat polygons	number of rocky habitat polygons	62 79	AZTI-JGR 206	[Sublittoral rocky bottom habitats]
DEVOTES indicators	CL_EU_11_DEV	267 CL_EU_11_DEV_267	Areal extent of rocky habitats	rocky habitat polygon boundary	62 79	AZTI-JGR 207	[Sublittoral rocky bottom habitats]
DEVOTES indicators	CL_EU_11_DEV	269 CL_EU_11_DEV_269	Distributional range of selected habitats	[Habitat] maximum and minimum latitude	63	AZTI-JGR 211	
DEVOTES indicators	CL_EU_11_DEV	271 CL_EU_11_DEV_271	Ratio of area of infralittoral soft bottom habitats	area occupied	62	AZTI-JGR 222	
DEVOTES indicators	CL_EU_11_DEV	272 CL_EU_11_DEV_272	Index of shape complexity	index of shape complexity	62	AZTI-JGR 223	[Infralittoral soft bottom habitats]
DEVOTES indicators	CL_EU_11_DEV	273 CL_EU_11_DEV_273	Perimeters (mean) of rocky habitats	mean of the perimeters of all polygons of rocky habitat	62	AZTI-JGR 224	[Infralittoral soft bottom habitats]
DEVOTES indicators	CL_EU_11_DEV	274 CL_EU_11_DEV_274	Number of patches or polygons of rocky habitats (0-50 m depth)	number of patches or polygons of rocky habitats (0-50 m depth)	62	AZTI-JGR 225	[Infralittoral soft bottom habitats]
DEVOTES indicators	CL_EU_11_DEV	275 CL_EU_11_DEV_275	Ratio perimeters/areal extent of rocky habitats	patch boundary density (ratio of "sum of the perimeters of all polygons of rocky habitat" to "area occupied")	62	AZTI-JGR 226	[Infralittoral soft bottom habitats]
DEVOTES indicators	CL_EU_11_DEV	276 CL_EU_11_DEV_276	Patch size standard deviation	patch size standard deviation	62	AZTI-JGR 227	[Infralittoral soft bottom habitats]
DEVOTES indicators	CL_EU_11_DEV	277 CL_EU_11_DEV_277	Perimeters (sum) of rocky habitats	sum of the perimeters of all polygons of rocky habitat	62	AZTI-JGR 228	[Infralittoral soft bottom habitats]
DEVOTES indicators	CL_EU_11_DEV	278 CL_EU_11_DEV_278	Distribution changes of established biocenosis	modification in the distribution of naturally established biocenosis	62	AZTI-JGR 229	
DEVOTES indicators	CL_EU_11_DEV	279 CL_EU_11_DEV_279	Ratio of area of selected habitats	area occupied by each habitat	61 63 78 62	AZTI-JGR 230	
DEVOTES indicators	CL_EU_11_DEV	28 CL_EU_11_DEV_28	Abundance or biomass of key species in the coastal waters	Abundance or biomass of key species in the coastal waters	26	SYKE-LU 28	

DEVOTES indicators	CL_EU_11_DEV	281 CL_EU_11_DEV_281	Ratio of area with selected habitat in a bathymetric stratum	percent of bathymetric strata occupied by habitat	62 63 78 79	AZTI-JGR 232
DEVOTES indicators	CL_EU_11_DEV	282 CL_EU_11_DEV_282	Areal extent of selected rocky habitats	Area of the different categories of rocky habitats	62	AZTI-JGR 233
DEVOTES indicators	CL_EU_11_DEV	283 CL_EU_11_DEV_283	Areal extent of infralitoral rocky biogenic habitats	infralitoral rocky biogenic habitat area	62	AZTI-JGR 234
DEVOTES indicators	CL_EU_11_DEV	284 CL_EU_11_DEV_284	Areal extent of infralitoral rocky habitats	infralitoral rocky habitat area	62	AZTI-JGR 235
DEVOTES indicators	CL_EU_11_DEV	285 CL_EU_11_DEV_285	Areal extent of habitat at risk of environmental degradation	area of habitat at risk of environmental degradation	62	AZTI-JGR 236
DEVOTES indicators	CL_EU_11_DEV	286 CL_EU_11_DEV_286	Ratio of area of lagoons	area occupied by lagoons	62	AZTI-JGR 237
DEVOTES indicators	CL_EU_11_DEV	288 CL_EU_11_DEV_288	Areal extent of dead <i>Posidonia oceanica</i> meadows	Surface of meadows ( <i>Posidonia oceanica</i> )	62	AZTI-JGR 239
DEVOTES indicators	CL_EU_11_DEV	289 CL_EU_11_DEV_289	Frequency of occurrence of habitats per square (in those cases without spatial continuity in cartography)	[Habitat] frequency of occurrence per square (in those cases without spatial continuity in cartography)	63	AZTI-JGR 241
DEVOTES indicators	CL_EU_11_DEV	290 CL_EU_11_DEV_290	Areal extent (volume) of pelagic habitats	volume	63	AZTI-JGR 250
DEVOTES indicators	CL_EU_11_DEV	291 CL_EU_11_DEV_291	Species diversity (Shannon index)	Shannon diversity index	61 79 63 78 345 206	AZTI-JGR 251
DEVOTES indicators	CL_EU_11_DEV	293 CL_EU_11_DEV_293	Species diversity (Shannon index) of selected habitats	species diversity (Shannon)	62 345 206	AZTI-JGR 253
DEVOTES indicators	CL_EU_11_DEV	296 CL_EU_11_DEV_296	Number of biocenosis/facies	number of biocenosis/facies	62	AZTI-JGR 256 [Infralitoral rocky bottom habitats]
DEVOTES indicators	CL_EU_11_DEV	300 CL_EU_11_DEV_300	CYMOX Index for lagoons	[Lagoons] composition and abundance of macroalgae and angiosperm (species, diversity, percentage of opportunistic species, percentage of sensitive species, CYMOX index)	62 331	AZTI-JGR 262, JRC-HT
DEVOTES indicators	CL_EU_11_DEV	301 CL_EU_11_DEV_301	Abundance and composition of riparian vegetation	[Lagoons] composition and abundance of riparian vegetation	62	AZTI-JGR 263
DEVOTES indicators	CL_EU_11_DEV	302 CL_EU_11_DEV_302	Abundance, composition and age structure of fishes in lagoons	[Lagoons] total composition, abundance and age structure of fishes	62	AZTI-JGR 264
DEVOTES indicators	CL_EU_11_DEV	304 CL_EU_11_DEV_304	Density of <i>Pinna nobilis</i>	[ <i>Pinna nobilis</i> ] density, age-frequency distribution and population demographics	62	AZTI-JGR 266a
DEVOTES indicators	CL_EU_11_DEV	305 CL_EU_11_DEV_305	Flowering index of seagrass	[Seagrass] Flowering index	62 330	AZTI-JGR 267
DEVOTES indicators	CL_EU_11_DEV	308 CL_EU_11_DEV_308	Spatio-temporal variation of structural descriptors of <i>Posidonia oceanica</i> seagrass	spatio-temporal variation of structural descriptors of <i>Posidonia oceanica</i> seagrass	62	AZTI-JGR 270
DEVOTES indicators	CL_EU_11_DEV	313 CL_EU_11_DEV_313	Abundance and composition of functional groups in selected habitats	and abundance of functional groups	62 61 63 78 AZTI-JGR 281, AZTI-JGR 277, JRC-HT	Species composition and abundance data, species-specific functional group definition
DEVOTES indicators	CL_EU_11_DEV	314 CL_EU_11_DEV_314	Abundance of keystone species or associated species	density of keystone species or associated species	62	AZTI-JGR 282 [Infralitoral soft bottom habitats]
DEVOTES indicators	CL_EU_11_DEV	318 CL_EU_11_DEV_318	Hydrological condition of infralitoral rocky bottom habitats	climate, geomorphology, hydrographic features [infralitoral rocky bottom habitats]	62	AZTI-JGR 290
DEVOTES indicators	CL_EU_11_DEV	322 CL_EU_11_DEV_322	Biomass of functional groups	relative biomass of functional groups	79	AZTI-JGR 294 Samples from Circalittoral and depth habitats (maerl, coralline, soft bottom and circalittoral rocky habitats)
DEVOTES indicators	CL_EU_11_DEV	325 CL_EU_11_DEV_325	Species richness of birds (in the Important Bird Areas network)	Biodiversity of birds in the Important Bird Areas network	61	AZTI-JGR 297

DEVOTES indicators	CL_EU_11_DEV	329 CL_EU_11_DEV_329	Biomass or functional groups of demersal biota (fishes and invertebrates)	Biomass or functional groups of demersal biota (fishes and invertebrates)	82 83 80 81	AZTI-JGR 307
DEVOTES indicators	CL_EU_11_DEV	33 CL_EU_11_DEV_33	Growth rate of mammals	Growth rate of marine mammal populations	342	SYKE-LU 33
DEVOTES indicators	CL_EU_11_DEV	331 CL_EU_11_DEV_331	Abundance of planktonic copepods	Abundance of planktonic copepods	80	AZTI-JGR 309
DEVOTES indicators	CL_EU_11_DEV	334 CL_EU_11_DEV_334	Ratio of area of biogenic/vulnerable habitat	Percentage of area occupied by biogenic/vulnerable habitat	86 85 276 87	AZTI-JGR 318
DEVOTES indicators	CL_EU_11_DEV	335 CL_EU_11_DEV_335	Areal extent of biogenic/vulnerable habitats	Area occupied by biogenic/vulnerable habitat	87 276 85 86 277	AZTI-JGR 319
DEVOTES indicators	CL_EU_11_DEV	337 CL_EU_11_DEV_337	Areal extent of selected habitats	Area occupied by habitat	87 276 85 86	AZTI-JGR 321
DEVOTES indicators	CL_EU_11_DEV	338 CL_EU_11_DEV_338	Biomass (per unit of surface) of structuring/engineering species (per habitat)	Biomass or abundance (per unit of surface) of structuring/engineering species (per habitat)	86 85 276 87	AZTI-JGR 322b
DEVOTES indicators	CL_EU_11_DEV	339 CL_EU_11_DEV_339	Ratio of area potentially affected by changes in the sedimentation rate	percentage of area potentially affected by changes in the sedimentation rate	86 85 87	AZTI-JGR 323
DEVOTES indicators	CL_EU_11_DEV	340 CL_EU_11_DEV_340	Ratio of area potentially affected by selective extraction of substrate	percentage of area potentially affected by selective extraction of substrate	86 85 87	AZTI-JGR 324
DEVOTES indicators	CL_EU_11_DEV	341 CL_EU_11_DEV_341	Ratio of area potentially affected by discharge of materials	percentage of area potentially affected by discharge of materials	86 85 87	AZTI-JGR 325
DEVOTES indicators	CL_EU_11_DEV	342 CL_EU_11_DEV_342	Ratio of area potentially affected by changes in the seafloor topography	percentage of area potentially affected by changes in the seafloor topography	86 85 87	AZTI-JGR 326
DEVOTES indicators	CL_EU_11_DEV	343 CL_EU_11_DEV_343	Ratio of area affected by each type of fishing gear	percentage of area affected by each type of fishing gear	87 276 85 86	AZTI-JGR 327
DEVOTES indicators	CL_EU_11_DEV	345 CL_EU_11_DEV_345	Species diversity of benthic communities	diversity of benthic communities	87 277 276 85 86	AZTI-JGR 329
DEVOTES indicators	CL_EU_11_DEV	349 CL_EU_11_DEV_349	Areal extent of altered Posidonia oceanica meadows	surface of areas with some degree of alteration in the Posidonia oceanica meadows	276	AZTI-JGR 365
DEVOTES indicators	CL_EU_11_DEV	35 CL_EU_11_DEV_35	Depth limit of macrophytes	Depth distribution of coastal macrophytes	26	SYKE-LU 35
DEVOTES indicators	CL_EU_11_DEV	352 CL_EU_11_DEV_352	Ratio of area affected by aquaculture	percentage of area affected by aquaculture	277	AZTI-JGR 375
DEVOTES indicators	CL_EU_11_DEV	353 CL_EU_11_DEV_353	Ratio of area affected by cables and pipelines	percentage of area affected by cables and pipelines	277	AZTI-JGR 376
DEVOTES indicators	CL_EU_11_DEV	354 CL_EU_11_DEV_354	Ratio of area affected by human highly modified coast	percentage of area affected by human highly modified coast	277	AZTI-JGR 377
DEVOTES indicators	CL_EU_11_DEV	355 CL_EU_11_DEV_355	Ratio of area affected by harbor dredging activities	percentage of area affected by harbor dredging activities	277	AZTI-JGR 378
DEVOTES indicators	CL_EU_11_DEV	356 CL_EU_11_DEV_356	Ratio of area affected by anchorage	percentage of area affected by anchorage	277	AZTI-JGR 379
DEVOTES indicators	CL_EU_11_DEV	357 CL_EU_11_DEV_357	Ratio of area affected by dredging disposal	percentage of area affected by dredging disposal	277	AZTI-JGR 380
DEVOTES indicators	CL_EU_11_DEV	358 CL_EU_11_DEV_358	Ratio of area affected by port infrastructure	percentage of area affected by port infrastructure	277	AZTI-JGR 381
DEVOTES indicators	CL_EU_11_DEV	359 CL_EU_11_DEV_359	Ratio of area affected by artificial beaches or beach nourishment	percentage of area affected by artificial beaches or beach nourishment	277	AZTI-JGR 382
DEVOTES indicators	CL_EU_11_DEV	360 CL_EU_11_DEV_360	Distributional range and pattern of harbour porpoise	The occurrence of porpoise in its distributional range	65 108	AU-DKI/IHA

DEVOTES indicators	CL_EU_11_DEV	361 CL_EU_11_DEV_361	Number of protected areas with occurrences of common seal	The number of protected areas with occurrences of common seal	65	AU-DKI/JHA 109	The number of breeding sites, the areal extent of suitable breeding sites (in protected areas of the North sea and the Baltic sea)
DEVOTES indicators	CL_EU_11_DEV	362 CL_EU_11_DEV_362	Distributional range of selected bird species	Area of distributional range of divers, common scoter, eider and long-tailed duck	65	AU-DKI/JHA 110	
DEVOTES indicators	CL_EU_11_DEV	363 CL_EU_11_DEV_363	Areal extent of macroalgae	The extent of coverage and depth distribution of macroalgae (macroalgal area)	65	AU-DKI/JHA 111	For the stonereefs in kattagat, the Danish Straits and coastas of Bornholm)
DEVOTES indicators	CL_EU_11_DEV	364 CL_EU_11_DEV_364	Abundance of populations of selected marine mammals	Counts of the size of porpoise and common seal populations	65	AU-DKI/JHA 112	
DEVOTES indicators	CL_EU_11_DEV	366 CL_EU_11_DEV_366	Abundance of selected whale species	Minke whale summer abundance	66	AU-DKI/JHA 114	Minke whale summer abundance
DEVOTES indicators	CL_EU_11_DEV	367 CL_EU_11_DEV_367	Abundance of white-beaked dolphin (in summer)	White-beaked dolphin summer abundance	66	AU-DKI/JHA 115	
DEVOTES indicators	CL_EU_11_DEV	368 CL_EU_11_DEV_368	Blubber thickness of stranded seals	Thickness of the blubber layer on stranded animals	65	AU-DKI/JHA 116	
DEVOTES indicators	CL_EU_11_DEV	369 CL_EU_11_DEV_369	Abundance of seal pups	Counts of seal pups	65	AU-DKI/JHA 117	
DEVOTES indicators	CL_EU_11_DEV	370 CL_EU_11_DEV_370	Abundance of selected bird populations (winter)	Counts of the winter populations of divers, common scoter, eider and long-tailed duck	65	AU-DKI/JHA 118	
DEVOTES indicators	CL_EU_11_DEV	371 CL_EU_11_DEV_371	Abundance of Fulmar (in winter)	Fulmar winter abundance (encounter rate)	66	AU-DKI/JHA 119	
DEVOTES indicators	CL_EU_11_DEV	372 CL_EU_11_DEV_372	Abundance of kittiwake (in winter)	Kittiwake winter abundance (encounter rate)	66	AU-DKI/JHA 120	
DEVOTES indicators	CL_EU_11_DEV	373 CL_EU_11_DEV_373	Abundance of guillemot (in winter)	Guillemot winter abundance (encounter rate)	66	AU-DKI/JHA 121	
DEVOTES indicators	CL_EU_11_DEV	377 CL_EU_11_DEV_377	Biomass of benthic invertebrates	Invertebrate biomass	66	AU-DKI/JHA 125	
DEVOTES indicators	CL_EU_11_DEV	378 CL_EU_11_DEV_378	Biomass of selected fish species (SSB - spawning stock biomass)	SSB (spawning stock biomass) of selected fish species	66	AU-DKI/JHA 126	Fish species include cod, sole, herring, plaice, haddock, saithe, sandeel, norway pout, sprat, south estaren NS, depending on area
DEVOTES indicators	CL_EU_11_DEV	380 CL_EU_11_DEV_380	Log number of long lived fish	Log number of long lived fish	66	AU-DKI/JHA 128	
DEVOTES indicators	CL_EU_11_DEV	382 CL_EU_11_DEV_382	Evenness of fish	Species evenness (fish)	66	AU-DKI/JHA 130	
DEVOTES indicators	CL_EU_11_DEV	383 CL_EU_11_DEV_383	Size spectra slope (fish)	Size spectra slope (fish)	66	AU-DKI/JHA 131	
DEVOTES indicators	CL_EU_11_DEV	384 CL_EU_11_DEV_384	Size spectra height (fish)	Size spectra height (fish)	66	AU-DKI/JHA 132	
DEVOTES indicators	CL_EU_11_DEV	386 CL_EU_11_DEV_386	State of selected habitats	Quality of sandeel habitats	65	AU-DKI/JHA 134	
DEVOTES indicators	CL_EU_11_DEV	389 CL_EU_11_DEV_389	Distributional range of horse mussel banks	The occurrence of horse mussel banks	65	AU-DKI/JHA 137	Method non-specified. Relevant for Kattegat and the Danish Straits. Study of possible occurrences of horse mussels in connection with bottom trawling studies of the North Sea.
DEVOTES indicators	CL_EU_11_DEV	390 CL_EU_11_DEV_390	Distributional range of Haplooops communities	The occurrence of tang flea communities (Haplooops)	65	AU-DKI/JHA 138	
DEVOTES indicators	CL_EU_11_DEV	391 CL_EU_11_DEV_391	Deposition of fine-grained sediments in sandeel areas from construction works in the marine environment	Deposition of fine-grained sediments in sandeel areas from construction works in the marine environment.	65	AU-DKI/JHA 139	
DEVOTES indicators	CL_EU_11_DEV	392 CL_EU_11_DEV_392	Impacts of anthropogenic physical disturbance on the sea pen community	Monitoring of human-induced physical disturbance in selected areas with the sea pen community.	65	AU-DKI/JHA 140	

DEVOTES indicators	CL_EU_11_DEV	393 CL_EU_11_DEV_393	Depth limit of eelgrass	Eelgrass depth limit	66	67	AU-DK/JHA 23	eelgrass cover (%) with information on water depth and position
DEVOTES indicators	CL_EU_11_DEV	394 CL_EU_11_DEV_394	Depth limit of <i>Ruppia</i> spp.	<i>Ruppia</i> sp. depth limit	66	68	AU-DK/JHA 141	cover (%) with information on water depth and position
DEVOTES indicators	CL_EU_11_DEV	396 CL_EU_11_DEV_396	Perimeter of wetlands	Wetlands perimeter	66	68	AU-DK/JHA 143	
DEVOTES indicators	CL_EU_11_DEV	398 CL_EU_11_DEV_398	Depth limit of macroalgae	Macroalgae max depth limit / Depth distribution of selected perennial macroalgae	90	66	AU-DK/JHA 144/LU-SYKE	Relevant in Little Belt and possibly in other areas where lack of hard substrate is not a limiting factor ( <a href="http://www.sea.ee/marmoni_puk/docs/19.pdf">http://www.sea.ee/marmoni_puk/docs/19.pdf</a> )
DEVOTES indicators	CL_EU_11_DEV	40 CL_EU_11_DEV_40	Abundance or biomass of key functional groups in the coastal waters	Abundance or biomass of key functional groups in the coastal waters	26		SYKE-LU 40	
DEVOTES indicators	CL_EU_11_DEV	400 CL_EU_11_DEV_400	Areal extent of oxygen depletion	Oxygen depletion coverage	66	68	AU-DK/JHA 145	
DEVOTES indicators	CL_EU_11_DEV	401 CL_EU_11_DEV_401	Chemical and physical variables from existing monitoring programmes	Chemical and physical variables from existing monitoring programmes	65	68	AU-DK/JHA 146	
DEVOTES indicators	CL_EU_11_DEV	405 CL_EU_11_DEV_405	Abundance of bacterioplankton	Total bacterioplankton abundance			MHI-AG 108	Cell counts of plankton species and/or groups
DEVOTES indicators	CL_EU_11_DEV	406 CL_EU_11_DEV_406	Biomass ratio of selected phytoplankton taxa groups	Phytoplankton taxonomic group ratio			MHI-AG 109	Phytoplankton species biomass of the main taxonomic groups - Diatoms, Dinophagellates, Coccolithophores
DEVOTES indicators	CL_EU_11_DEV	407 CL_EU_11_DEV_407	Phytoplankton size structure	Phytoplankton size structure			MHI-AG 110	biomass of pico-, nano-, micro- phytoplankton size fraction
DEVOTES indicators	CL_EU_11_DEV	409 CL_EU_11_DEV_409	Production of phytoplankton	Phytoplankton primary production			MHI-OK 112	photosynthetic rate of phytoplankton within water column
DEVOTES indicators	CL_EU_11_DEV	41 CL_EU_11_DEV_41	Trophic level of coastal fish communities	Trophic level of coastal fish communities	26		SYKE-LU 41, JRC-HT	I (LU) would imagine that JRC uses the Swedish experimental fishing data.
DEVOTES indicators	CL_EU_11_DEV	410 CL_EU_11_DEV_410	Species diversity of phytoplankton	Phytoplankton Diversity Index			MHI-OK 113	Phytoplankton species composition, their abundance/biomass
DEVOTES indicators	CL_EU_11_DEV	411 CL_EU_11_DEV_411	Bloom frequency of selected phytoplankton species and taxa groups	Phytoplankton bloom frequency/dominating sp.			MHI-OK 114	Phytoplankton species abundance/biomass measured with high (at least biweekly) temporal resolution
DEVOTES indicators	CL_EU_11_DEV	412 CL_EU_11_DEV_412	Biomass ratio of selected zooplankton taxa groups	Zooplankton taxonomic group ratio			MHI-AG 115b	Zooplankton Abundance/biomass of the main taxonomic groups - Copepoda, Cladocera, Jell yfish, Others.
DEVOTES indicators	CL_EU_11_DEV	413 CL_EU_11_DEV_413	Biomass ratio of fodder/non-fodder zooplankton	Zooplankton fodder/non-fodder ratio			MHI-AG 116b	species composition, biomass data
DEVOTES indicators	CL_EU_11_DEV	415 CL_EU_11_DEV_415	Abundance of non-indigenous zooplankton species	Non-indigenous zooplankton species			MHI-AG 118	zooplankton species composition and abundance data
DEVOTES indicators	CL_EU_11_DEV	418 CL_EU_11_DEV_418	Depth distribution of selected macrozoobenthos species	Bathymetric distribution the key macrozoobenthos sp.	72		MHI-OK 121	Spatial distribution of abundance/biomass of the key macrozoobenthos species
DEVOTES indicators	CL_EU_11_DEV	419 CL_EU_11_DEV_419	Index for functional groups of benthic invertebrates	Index of functional abundance of macrozoobenthos sp.	72		MHI-OK 122	wet biomass (s m-2), abundance (Ind. m-2), functional groups
DEVOTES indicators	CL_EU_11_DEV	421 CL_EU_11_DEV_421	Body length distribution of bivalves	Bivalves size-frequency distribution	74		MHI-OK 124	Mytilus galloprovincialis number of individuals per size (class)
DEVOTES indicators	CL_EU_11_DEV	424 CL_EU_11_DEV_424	Depth distribution of <i>Phyllophora</i> sp.	Bathymetric distribution of vulnerable benthic flora species	72		MHI-OK 127	Spatial distribution of <i>Phyllophora</i> sp.

DEVOTES indicators	CL_EU_11_DEV	425 CL_EU_11_DEV_425	Depth distribution of <i>Cystoseira</i> sp.	Bathymetric distribution of vulnerable benthic flora species	72	MHI-OK 128	Spatial distribution of <i>Cystoseira</i> sp.
DEVOTES indicators	CL_EU_11_DEV	426 CL_EU_11_DEV_426	Benthic flora Cheney's ratio index	Benthic flora Cheney's ratio index	73	MHI-OK 129	Phytobenthos species - abundance/bi o mass composition
DEVOTES indicators	CL_EU_11_DEV	429 CL_EU_11_DEV_429	Biomass of macrophytes	Total phytobenthos biomass	72	MHI-OK 132	
DEVOTES indicators	CL_EU_11_DEV	43 CL_EU_11_DEV_43	Distribution and condition of habitat forming species	Distribution and condition of habitat forming species	24	SYKE-LU 43	
DEVOTES indicators	CL_EU_11_DEV	430 CL_EU_11_DEV_430	Abundance ratio of opportunistic green macroalgae	Opportunistic Green Macroalgal Abundance	72	MHI-OK 70	Phytobenthos species - abundance/bi o mass composition
DEVOTES indicators	CL_EU_11_DEV	431 CL_EU_11_DEV_431	Abundance of commercial fish (Catch per unit effort)	Commercial fish population abundance	76	MHI-OK 133	Species abundance
DEVOTES indicators	CL_EU_11_DEV	432 CL_EU_11_DEV_432	Age class structure of commercial fish	Commercial fish age class structure	76	MHI-OK 134, JRC-HT	length/weight of individuals
DEVOTES indicators	CL_EU_11_DEV	434 CL_EU_11_DEV_434	Abundance of selected mammal species	Size of marine mammals population	77	MHI-OK 136	counts
DEVOTES indicators	CL_EU_11_DEV	435 CL_EU_11_DEV_435	By-catch ratio of cetaceans	Cetacean by-catch rate	77	MHI-OK 137	Number of individuals in fishing gear (by fishing gear type and cetacean species, and where possible by gender and maturity)
DEVOTES indicators	CL_EU_11_DEV	437 CL_EU_11_DEV_437	Ratio of non-indigenous to indigenous species in plankton	Plankton ratio NIS/IS		MHI-AG 139	
DEVOTES indicators	CL_EU_11_DEV	441 CL_EU_11_DEV_441	Areal extent of hypoxic zones	Hypoxic zone area		MHI-OK 143	Hypoxic zone area extent in the NW shelf
DEVOTES indicators	CL_EU_11_DEV	442 CL_EU_11_DEV_442	Macroalgae-diversity indices	Macroalgae-diversity indices	345 206 346	HCMR-NP 108a, JRC-HT	Species composition and abundance
DEVOTES indicators	CL_EU_11_DEV	443 CL_EU_11_DEV_443	Zoobenthos-diversity indices	Zoobenthos-diversity indices	345 206 346	HCMR-NP 109a, JRC-HT, LU-SYKE	Species number, Pielou's evenness "J", Shannon diversity "H", ZKI index
DEVOTES indicators	CL_EU_11_DEV	444 CL_EU_11_DEV_444	Fish-diversity index (Shannon)	Fishes-diversity indices	345 206	HCMR-NP 110a	Shanon-Weaver "H"
DEVOTES indicators	CL_EU_11_DEV	446 CL_EU_11_DEV_446	Areal extent of marine angiosperms	Extent and distribution of marine angiosperms. Abundance of perennial seaweeds, Abundance of shade-adapted, slow growing calcareous species, Abundance of opportunistic macroalgae, Ecological Evaluation Index (EEI), PREI index (Posidonia), BENTIX index			HCMR-NP 112
DEVOTES indicators	CL_EU_11_DEV	449 CL_EU_11_DEV_449	Abundance of perennial seaweeds	Abundance of perennial seaweeds, Abundance of shade-adapted, slow growing calcareous species, Abundance of opportunistic macroalgae, Ecological Evaluation Index (EEI), PREI index (Posidonia), BENTIX index			HCMR- NP 115a
DEVOTES indicators	CL_EU_11_DEV	450 CL_EU_11_DEV_450	Abundance of seaturtle spawning population	Size of the seal Monachus monachus population in Greek waters and number of colonies, Population size of <i>Caretta caretta</i> spawning.			HCMR- NP 116
DEVOTES indicators	CL_EU_11_DEV	451 CL_EU_11_DEV_451	Survival rate of <i>Posidonia oceanica</i>	Survival rate of <i>Posidonia oceanica</i> .			HCMR- NP 117
DEVOTES indicators	CL_EU_11_DEV	453 CL_EU_11_DEV_453	Biomass ratio of demersal fish (at higher trophic levels in the total catch)	Proportion of biomass of higher trophic levels in the total catch of demersal fish.			HCMR-NP 119
DEVOTES indicators	CL_EU_11_DEV	454 CL_EU_11_DEV_454	Trends in populations of large pelagic fish	Trends in populations of large pelagic fish.			HCMR- NP 120
DEVOTES indicators	CL_EU_11_DEV	455 CL_EU_11_DEV_455	Presence of particularly sensitive and/or tolerant species	Presence of particularly sensitive and/or tolerant species			HCMR- NP 121
DEVOTES indicators	CL_EU_11_DEV	457 CL_EU_11_DEV_457	BFI - Biomass Fractionation Index	Proportion of biomass or number of individuals in the macrobenthos above some specified length/size	347	HCMR-NP 123, JRC-HT	Biomass
DEVOTES indicators	CL_EU_11_DEV	466 CL_EU_11_DEV_466	By-catch of marine mammals and birds	By-catch of marine mammals and birds	94	KUCORPi- MBAZ 9	abundance
DEVOTES indicators	CL_EU_11_DEV	468 CL_EU_11_DEV_468	Community Trophic Index	Community Trophic Index	94	KUCORPi- MBAZ 11	abundance of species
DEVOTES indicators	CL_EU_11_DEV	469 CL_EU_11_DEV_469	Trend in arrival of new non-indigenous species	Trend in the arrival of new non-indigenous species	94	KUCORPi- MBAZ 12	number of non-indigenous species

DEVOTES indicators	CL_EU_11_DEV	47 CL_EU_11_DEV_47	Ratio of non-mature sea trout	Proportion of non-mature sea trout in the sea trout catch	24	SYKE-LU 47
DEVOTES indicators	CL_EU_11_DEV	471 CL_EU_11_DEV_471	Fish community size index	Fish community size index	94	KUCORPI-MBAZ 14 size of species
DEVOTES indicators	CL_EU_11_DEV	472 CL_EU_11_DEV_472	Fish community abundance index	Fish community abundance index	94	KUCORPI-MBAZ 15 abundance per species
DEVOTES indicators	CL_EU_11_DEV	476 CL_EU_11_DEV_476	Areal extent of human affected area	Human affected area of bottom habitats	94	KUCORPI-MBAZ 19 quality of habitats
DEVOTES indicators	CL_EU_11_DEV	48 CL_EU_11_DEV_48	Population structure of grey seals	Population structure of grey seals	24	SYKE-LU 48
DEVOTES indicators	CL_EU_11_DEV	481 CL_EU_11_DEV_481	Areal extent of intertidal rock	Area of intertidal rock	98	UHULL-KM 138 Habitat area
DEVOTES indicators	CL_EU_11_DEV	482 CL_EU_11_DEV_482	Areal extent of subtidal rock	Area of subtidal rock	98	UHULL-KM 139 Habitat area
DEVOTES indicators	CL_EU_11_DEV	483 CL_EU_11_DEV_483	Areal extent of littoral chalk habitat	Area of littoral chalk habitat	99	UHULL-KM 140 Habitat area
DEVOTES indicators	CL_EU_11_DEV	484 CL_EU_11_DEV_484	Areal extent of intertidal sea caves	Area of intertidal sea caves	100	UHULL-KM 141 Habitat area
DEVOTES indicators	CL_EU_11_DEV	487 CL_EU_11_DEV_487	Species diversity in selected habitats (sponge, anthozoan community)	Subtidal species composition & abundance (sponge, anthozoan community) (condition of the typical species/communities)	103	UHULL-KM 144 Abundance of taxa and/or % cover of taxon groups or diversity indices
DEVOTES indicators	CL_EU_11_DEV	488 CL_EU_11_DEV_488	Morphological diversity of sponges	Sponge morphological diversity (Condition of the typical species/communities)	104	UHULL-KM 145 Morphological richness and diversity measures
DEVOTES indicators	CL_EU_11_DEV	489 CL_EU_11_DEV_489	Abundance and composition of intertidal macroalgae	Intertidal species composition and abundance (condition of typical species/communities)	105	UHULL-KM 146 Abundance as % cover or biomass ? Please specify
DEVOTES indicators	CL_EU_11_DEV	49 CL_EU_11_DEV_49	Production ratio current/potential reproduction of sea trout	Ratio between current and potential reproduction of sea trout	24	SYKE-LU 49
DEVOTES indicators	CL_EU_11_DEV	490 CL_EU_11_DEV_490	Epifaunal indicator species (Condition of typical species/communities)	Epifaunal indicator species (Condition of typical species/communities)	106	UHULL-KM 147 Abundance / unit area for e.g. erect Indicator taxa
DEVOTES indicators	CL_EU_11_DEV	491 CL_EU_11_DEV_491	Boulder turning index (condition of typical species/communities)	Boulder turning index (Condition of typical species/communities)	107	UHULL-KM 148 Percentage cover of key species
DEVOTES indicators	CL_EU_11_DEV	492 CL_EU_11_DEV_492	MarClim - Intertidal community indicator (Condition of typical species/communities)	Intertidal community indicator- MarClim (Condition of typical species/communities)	108	UHULL-KM 149 species composition and abundance
DEVOTES indicators	CL_EU_11_DEV	493 CL_EU_11_DEV_493	Depth limit of kelp (density dependent)	Kelp depth and kelp park depth (Condition of typical species/communities)	109	UHULL-KM 150 Max depth at which a specific density of kelp occurs
DEVOTES indicators	CL_EU_11_DEV	50 CL_EU_11_DEV_50	By-catch of seals	Number of bycaught seals	24	SYKE-LU 50
DEVOTES indicators	CL_EU_11_DEV	502 CL_EU_11_DEV_502	Areal extent of subtidal biogenic structures (type, abundance, biomass and areal extent of relevant biogenic substrata)	Area of subtidal biogenic structures (type, abundance, biomass and areal extent of relevant biogenic substrata)	117	UHULL-KM 159 Area of biogenic feature / number of units of occurrence
DEVOTES indicators	CL_EU_11_DEV	503 CL_EU_11_DEV_503	Density of biogenic reef forming species (type, abundance, biomass and areal extent of relevant biogenic substratum)	Density of biogenic reef forming species (type, abundance, biomass and areal extent of relevant biogenic substratum)	119	UHULL-KM 160 Number of species
DEVOTES indicators	CL_EU_11_DEV	505 CL_EU_11_DEV_505	Distributional pattern of selected habitats (applies to rock, biogenic reef and sediment habitats)	Distributional pattern of habitat (applies to rock, biogenic reef and sediment habitats)	121	UHULL-KM 162
DEVOTES indicators	CL_EU_11_DEV	506 CL_EU_11_DEV_506	Areal extent of sediment habitat	Area of sediment habitat	122	UHULL-KM 163 Spatial extent of habitat
DEVOTES indicators	CL_EU_11_DEV	51 CL_EU_11_DEV_51	Areal extent and distribution of Eunis habitats	Area and distribution of Eunis habitats	24	SYKE-LU 51

DEVOTES indicators	CL_EU_11_DEV	510 CL_EU_11_DEV_510	Biomass ratio of opportunistic macroalgae/total	Opportunistic macroalgae	126	UHULL-KM 167	Ecological Quality Ratio based on identification and collection (e.g. for biomass) of opportunistic, nuisance weed
DEVOTES indicators	CL_EU_11_DEV	511 CL_EU_11_DEV_511	WFD British Saltmarsh classification tool	WFD saltmarsh classification tool	127	UHULL-KM 168	
DEVOTES indicators	CL_EU_11_DEV	512 CL_EU_11_DEV_512	Redox potential discontinuity	Sediment profile imaging (Benthic Habitat Quality)	128	UHULL-KM 169	Assessment of biogenic features and redox potential discontinuity- visual description/estimation/measurement of depth
DEVOTES indicators	CL_EU_11_DEV	521 CL_EU_11_DEV_521	Depth of sediment redox potential discontinuity	Depth of sediment redox potential discontinuity	137 140	UHULL-KM 178	visual description/estimation/measurement of depth
DEVOTES indicators	CL_EU_11_DEV	522 CL_EU_11_DEV_522	Biomass of benthic invertebrate species in sediment habitats	Biomass of species in sediment habitats	138	UHULL-KM 179	Biomass of species and/or total sample biomass
DEVOTES indicators	CL_EU_11_DEV	524 CL_EU_11_DEV_524	Bathymetry	Topography/bathymetry	138	UHULL-KM 181	Depth/elevation/onshore profile/bedforms
DEVOTES indicators	CL_EU_11_DEV	525 CL_EU_11_DEV_525	Ratio of area inhabited by selected benthic invertebrate species to total area of their particular substrata	%area with benthic invertebrates known to be associated with particular substrata	140	UHULL-KM 182	% area occupied by key/typical species
DEVOTES indicators	CL_EU_11_DEV	527 CL_EU_11_DEV_527	Areal extent of hypoxia (spatial and temporal)	Extent of area with spatial and temporal hypoxia	140	UHULL-KM 184	spatial extent and presence/absence of hypoxia
DEVOTES indicators	CL_EU_11_DEV	528 CL_EU_11_DEV_528	Concentration ratio oxygen/hydrogen sulphide	Ratio of oxygen:hydrogen sulphide	140	UHULL-KM 185	O2/H2S concentration
DEVOTES indicators	CL_EU_11_DEV	529 CL_EU_11_DEV_529	Presence of benthic communities associated with low oxygen	Presence of benthic communities associated with low oxygen	140	UHULL-KM 186	species/comm unity data
DEVOTES indicators	CL_EU_11_DEV	53 CL_EU_11_DEV_53	Trends in the arrival of new invasive species	Appearance of new invasive species	24	SYKE-LU 53	Monitoring of new invasive species.
DEVOTES indicators	CL_EU_11_DEV	530 CL_EU_11_DEV_530	Accumulation of contaminants in sediment	Accumulation of contaminants in sediment	140	UHULL-KM 187	specific contaminant content of sediment
DEVOTES indicators	CL_EU_11_DEV	531 CL_EU_11_DEV_531	Accumulation of contaminants in biota	Accumulation of contaminants in biota	140	UHULL-KM 188	specific contaminant content of tissue
DEVOTES indicators	CL_EU_11_DEV	532 CL_EU_11_DEV_532	Biomass/size spectrum of benthic invertebrates	Biomass /size spectrum	140	UHULL-KM 189	length and biomass of individual organisms
DEVOTES indicators	CL_EU_11_DEV	534 CL_EU_11_DEV_534	Marine Biological Valuation Methodology	Marine Biological Valuation Methodology	147	IMAR-HV 108	All available biological and ecological information for a study area
DEVOTES indicators	CL_EU_11_DEV	538 CL_EU_11_DEV_538	Abundance ratio of opportunistic/sensitive species	Opportunistic-sensitive species proportion		IMAR-HV 112a	species abundance/biomass patterns in space/time
DEVOTES indicators	CL_EU_11_DEV	54 CL_EU_11_DEV_54	Trends in the abundance of settled invasive species	Change in the abundance of settled invasive species	24	SYKE-LU 54	
DEVOTES indicators	CL_EU_11_DEV	541 CL_EU_11_DEV_541	Depth distribution of <i>Donacilla cornea</i>	Depth distribution	155	IO-BAS 2	depth distribution-abundance
DEVOTES indicators	CL_EU_11_DEV	543 CL_EU_11_DEV_543	Biomass of <i>Donacilla cornea</i>	average biomass	155	IO-BAS 4	
DEVOTES indicators	CL_EU_11_DEV	544 CL_EU_11_DEV_544	Body length distribution of <i>Donacilla cornea</i>	average body size	155	IO-BAS 5	body size
DEVOTES indicators	CL_EU_11_DEV	547 CL_EU_11_DEV_547	Depth distribution of <i>Cystoseira barbata</i>	depth distribution	156	IO-BAS 10	depth presence (abundance)
DEVOTES indicators	CL_EU_11_DEV	548 CL_EU_11_DEV_548	Depth distribution of <i>Cystoseira crinita</i>	depth distribution	156	IO-BAS 11	depth presence (abundance)
DEVOTES indicators	CL_EU_11_DEV	55 CL_EU_11_DEV_55	Trends in the distributional range of invasive species	Change in distribution of invasive species	24	SYKE-LU 55	
DEVOTES indicators	CL_EU_11_DEV	550 CL_EU_11_DEV_550	Biomass of <i>Cystoseira barbata</i>	Biomass	156	IO-BAS 13	dry biomass
DEVOTES indicators	CL_EU_11_DEV	557 CL_EU_11_DEV_557	Depth distribution of <i>Phyllophora crispia</i>	depth distribution	156	IO-BAS 20	depth presence (abundance)
DEVOTES indicators	CL_EU_11_DEV	559 CL_EU_11_DEV_559	Biomass of <i>Phyllophora crispia</i>	biomass	156	IO-BAS 22	dry biomass
DEVOTES indicators	CL_EU_11_DEV	56 CL_EU_11_DEV_56	Abundance of selected land predators (raccoon dogs and minks)	Abundance of raccoon dogs and minks in the archipelago	24	SYKE-LU 56	
DEVOTES indicators	CL_EU_11_DEV	566 CL_EU_11_DEV_566	Biomass of <i>Mytilus galloprovincialis</i>	biomass	155	IO-BAS 29	wet biomass
DEVOTES indicators	CL_EU_11_DEV	567 CL_EU_11_DEV_567	Body length distribution of <i>Mytilus galloprovincialis</i>	body size	155	IO-BAS 30	population size structure
DEVOTES indicators	CL_EU_11_DEV	568 CL_EU_11_DEV_568	Biomass of <i>Mytilaster lineatus</i>	biomass	155	IO-BAS 31	wet biomass
DEVOTES indicators	CL_EU_11_DEV	569 CL_EU_11_DEV_569	Body length distribution of <i>Mytilaster lineatus</i>	body size	155	IO-BAS 32	population size structure
DEVOTES indicators	CL_EU_11_DEV	57 CL_EU_11_DEV_57	Ratio between invasive and indigenous species in selected well-known groups	Ratio between invasive and indigenous species in selected well-known groups (fish, shrimps and mussels)	24	SYKE-LU 57	
DEVOTES indicators	CL_EU_11_DEV	570 CL_EU_11_DEV_570	Depth distribution of seagrass	Depth distribution of seagrass	156	IO-BAS 33	Depth distribution of seagrass

DEVOTES indicators	CL_EU_11_DEV	571 CL_EU_11_DEV_571	Areal extent of seagrass	surface coverage	156	IO-BAS 34	surface covered by seagrass
DEVOTES indicators	CL_EU_11_DEV	572 CL_EU_11_DEV_572	Biomass of seagrass	seagrass dry biomass	156	IO-BAS 35	seagrass dry biomass
DEVOTES indicators	CL_EU_11_DEV	573 CL_EU_11_DEV_573	Abundance of seagrass	seagrass abundance	156	IO-BAS 36	seagrass abundance
DEVOTES indicators	CL_EU_11_DEV	574 CL_EU_11_DEV_574	Depth distribution of <i>Donax trunculus</i>	depth distribution	155	IO-BAS 37	depth distribution
DEVOTES indicators	CL_EU_11_DEV	576 CL_EU_11_DEV_576	Biomass of <i>Donax trunculus</i>	wet biomass	155	IO-BAS 39	
DEVOTES indicators	CL_EU_11_DEV	580 CL_EU_11_DEV_580	Biomass of <i>Chamelea gallina</i>	wet biomass	155	IO-BAS 43	wet biomass
DEVOTES indicators	CL_EU_11_DEV	581 CL_EU_11_DEV_581	Body length distribution of <i>Chamelea gallina</i>	Body size	155	IO-BAS 44	<i>Chamelea gallina</i> population size structure
DEVOTES indicators	CL_EU_11_DEV	583 CL_EU_11_DEV_583	Biomass of <i>Upogebia pusilla</i>	wet biomass	155	IO-BAS 46	wet biomass
DEVOTES indicators	CL_EU_11_DEV	584 CL_EU_11_DEV_584	Body length distribution of <i>Upogebia pusilla</i>	body size	155	IO-BAS 47	population size
DEVOTES indicators	CL_EU_11_DEV	59 CL_EU_11_DEV_59	Reporoduction capacity of white tailed eagle	Reporoduction capacity of white tailed eagle	24	SYKE-LU 59	
DEVOTES indicators	CL_EU_11_DEV	591 CL_EU_11_DEV_591	Body length of <i>Mytilus galloprovincialis</i>	body size	155	IO-BAS 54	population size structure
DEVOTES indicators	CL_EU_11_DEV	593 CL_EU_11_DEV_593	Abundance ratio of cumulative proportions of size classes >80mm of <i>Mytilus galloprovincialis</i>	cumulative proportion of size classes >80mm	155	IO-BAS 56	population size structure
DEVOTES indicators	CL_EU_11_DEV	597 CL_EU_11_DEV_597	Depth distribution of typical zoobenthic communities	Depth distribution of typical zoobenthic communities	155	IO-BAS 60	Depth distribution
DEVOTES indicators	CL_EU_11_DEV	604 CL_EU_11_DEV_604	Depth distribution of <i>Modiolula phaeolina</i>	depth distribution	155	IO-BAS 67	depth distribution
DEVOTES indicators	CL_EU_11_DEV	608 CL_EU_11_DEV_608	Biomass of phytoplankton (spring: coastal)	wet biomass spring: coastal	320	IO-BAS 71	wet biomass in spring
DEVOTES indicators	CL_EU_11_DEV	609 CL_EU_11_DEV_609	Biomass of phytoplankton (spring: shelf)	wet biomass spring:shelf	320	IO-BAS 72	species composition biomass
DEVOTES indicators	CL_EU_11_DEV	61 CL_EU_11_DEV_61	Number of pups of grey seals	Number of pups of grey seals	24	SYKE-LU 61	
DEVOTES indicators	CL_EU_11_DEV	610 CL_EU_11_DEV_610	Biomass of phytoplankton (spring:open sea)	wet biomass spring:open sea	320	IO-BAS 73	species composition biomass
DEVOTES indicators	CL_EU_11_DEV	611 CL_EU_11_DEV_611	Biomass of phytoplankton (summer: coastal)	wet biomass summer: coastal	320	IO-BAS 74	species composition biomass
DEVOTES indicators	CL_EU_11_DEV	612 CL_EU_11_DEV_612	Biomass of phytoplankton (summer: shelf)	wet biomass summer:shelf	320	IO-BAS 75	species composition biomass
DEVOTES indicators	CL_EU_11_DEV	613 CL_EU_11_DEV_613	Biomass of phytoplankton (summer:open sea)	wet biomass summer:open sea	320	IO-BAS 76	species composition biomass
DEVOTES indicators	CL_EU_11_DEV	615 CL_EU_11_DEV_615	Evenness (Sheldon) of phytoplankton	Index of evenness Sheldon	159 314	IO-BAS 78	abundance, species composition data
DEVOTES indicators	CL_EU_11_DEV	616 CL_EU_11_DEV_616	IBI - Integrated Biological Index	Integrated Biological Index (IBI)	159 314	IO-BAS 79, JRC-HT	abundance, biomass and species composition
DEVOTES indicators	CL_EU_11_DEV	617 CL_EU_11_DEV_617	Abundance ratio of selected dinoflagellates (C-strategy species)	abundance of dinoflagellates (C-strategy species as % of the Total dinoflagellates abundance [DE%])	159 322	IO-BAS 80	taxonomic structure, abundance
DEVOTES indicators	CL_EU_11_DEV	619 CL_EU_11_DEV_619	Biomass ratio of diatoms/dinoflagellates	biomass ratio diatoms:dinoflagellates in spring	320	IO-BAS 82	taxonomic structure, biomass
DEVOTES indicators	CL_EU_11_DEV	620 CL_EU_11_DEV_620	Biomass ratio of Copepods/mesozooplankton	Proportion of Copepods to mesozooplankton biomass	318	IO-BAS 83	Copepoda biomass
DEVOTES indicators	CL_EU_11_DEV	628 CL_EU_11_DEV_628	Areas of reproduction of mammals and reptiles	Areas of reproduction of <i>Monachus monachus</i> and <i>Caretta caretta</i>		HCMR-NP 2	
DEVOTES indicators	CL_EU_11_DEV	629 CL_EU_11_DEV_629	Presence of <i>Posidonia oceanica</i> meadows	Presence of <i>Posidonia oceanica</i> meadows		HCMR-NP 3	distribution of <i>P. oceanica</i> across the Mediterranean
DEVOTES indicators	CL_EU_11_DEV	630 CL_EU_11_DEV_630	Spatial distribution of non-indigenous species	Spatial distribution of NIS	162	HCMR-NP 4	Abundance data, species composition data
DEVOTES indicators	CL_EU_11_DEV	631 CL_EU_11_DEV_631	Trends in arrival of new non-indigenous species per pathway	Trends in arrival of new non-indigenous species per pathway	162	HCMR-NP 5	number of new arrivals of non-indigenous species vs pathway
DEVOTES indicators	CL_EU_11_DEV	632 CL_EU_11_DEV_632	Ratio of non-indigenous/native species	Ratio of NIS/native species		HCMR-NP 6	ratio for main taxonomic groups (mollusca, crustacea, macroalgae, polychaetes) at MSFD level
DEVOTES indicators	CL_EU_11_DEV	634 CL_EU_11_DEV_634	Abundance of coral colonies alive	Coral species cover	254	KAUST-SC 108	Live coral %
DEVOTES indicators	CL_EU_11_DEV	636 CL_EU_11_DEV_636	Species richness of corals	Coral community diversity	268 254	KAUST-SC 110	number of coral species
DEVOTES indicators	CL_EU_11_DEV	637 CL_EU_11_DEV_637	Body length distribution of herbivorous fish (Demographic skewness)	Herbivorous fish size frequency (Demographic skewness)	163	KAUST-SC 111	length of fishes
DEVOTES indicators	CL_EU_11_DEV	638 CL_EU_11_DEV_638	Abundance ratio of bleached coral colonies	Coral bleaching	164 269 165	KAUST-SC 112	number of bleached and healthy colonies per transect

DEVOTES indicators	CL_EU_11_DEV	646 CL_EU_11_DEV_646	POSWARE (system for coastal water classification by using <i>P. oceanica</i> as quality element according to WFD)	POSWARE	348	JRC-HT 28	depth (m), density (number of shoots/m <sup>2</sup> ), rhizome production (mg/year), rhizome elongation (mm/year), leaf production (number of leaves/year)
DEVOTES indicators	CL_EU_11_DEV	648 CL_EU_11_DEV_648	CymoSkew (quantitative expression of photosynthetic leaf length (PLL) asymmetry)	CymoSkew	177	JRC-HT 30	leaf length (mm)
DEVOTES indicators	CL_EU_11_DEV	649 CL_EU_11_DEV_649	WFD Valencian Region Method using <i>Posidonia oceanica</i>	Valencian Region Method to Implement the WFD using <i>Posidonia oceanica</i>	178	JRC-HT 31	shoot density (number of shoots/m <sup>2</sup> ), shoot foliar surface (cm <sup>2</sup> /shoot), % dead-mate cover, % meadow cover, herbivore pressure (% leaves with herbivore marks per shoot), rhizome baring/burial, necrosis (% leaves with necrosis marks per shoot), % plagiotrophic rhizomes, epiphyte biomass (dry weight)
DEVOTES indicators	CL_EU_11_DEV	65 CL_EU_11_DEV_65	Abundance of selected (predator) fish species	Abundance of predator fish species in the coastal waters	24	SYKE-LU 65	
DEVOTES indicators	CL_EU_11_DEV	650 CL_EU_11_DEV_650	EPI - Estonian Phytobenthos Index	Estonian Phytobenthos Index	179 349	JRC-HT 32	Species composition with depth, biomass data (dry biomass, g/m <sup>2</sup> )
DEVOTES indicators	CL_EU_11_DEV	651 CL_EU_11_DEV_651	Assessment of macrovegetation in coastal and transitional waters	Assessment of Biological Quality Elements in coastal and transitional waters - macrovegetation	180	JRC-HT 33	
DEVOTES indicators	CL_EU_11_DEV	652 CL_EU_11_DEV_652	WFD Polish Assessment system for coastal and transitional waters using macrophytes	Assessment system for coastal and transitional waters using macrophytes	181	JRC-HT 34	species-specific dry weight (g/m <sup>2</sup> ); taxonomical identification to species/genus level and classification of taxa into negative / positive taxa; % vegetation coverage; substrate cover
DEVOTES indicators	CL_EU_11_DEV	653 CL_EU_11_DEV_653	WFD Romanian Assessment system for coastal waters using macrophytes	Assessment system for coastal waters using macroalgae	182	JRC-HT 36	taxonomical id of taxa; presence/absence of species; number of individuals per m <sup>2</sup> ; wet biomass weighted from a surface of 20cm * 20cm
DEVOTES indicators	CL_EU_11_DEV	655 CL_EU_11_DEV_655	WFD Dutch Eelgrass index	WFD-metrics for natural wettypes	186 185	JRC-HT 38	% coverage area eelgrass species
DEVOTES indicators	CL_EU_11_DEV	658 CL_EU_11_DEV_658	BEQI - Benthic Ecosystem Quality Index	Benthic Ecosystem Quality Index (BEQI)	193 167	JRC-HT 43	
DEVOTES indicators	CL_EU_11_DEV	66 CL_EU_11_DEV_66	Biomass ratio of cyanobacteria	Proportion of cyanobacteria in the phytoplankton total biomass	24	SYKE-LU 66	
DEVOTES indicators	CL_EU_11_DEV	660 CL_EU_11_DEV_660	BBI - Brackish water benthic index	Brackish water benthic index (BBI)	195	JRC-HT 46	
DEVOTES indicators	CL_EU_11_DEV	661 CL_EU_11_DEV_661	ZKI - Estonian Multimetric macrozoobenthos community index	Macrozoobenthos community index (ZKI)	196	JRC-HT 47	Species composition, species number and biomass (dry weights) data ( <a href="http://www.sae.ee/marmo_ni/marmo_pul/docs/l22.pdf">http://www.sae.ee/marmo_ni/marmo_pul/docs/l22.pdf</a> )
DEVOTES indicators	CL_EU_11_DEV	663 CL_EU_11_DEV_663	WFD Lithuanian Assessment system for transitional and coastal waters using macrozoobenthos	Assessment system for transitional and coastal waters using macrozoobenthos	198	JRC-HT 49	abundance (individuals counts per area), species taxonomical identification (or lowest reliable taxon.level possible)

DEVOTES indicators	CL_EU_11_DEV	667 CL_EU_11_DEV_667	BAT - Benthic Assessment Tool	Benthic Assessment Tool (BAT)	202 167 255	JRC-HT 59	species taxonomical identification (or lowest reliable taxon, level possible), abundance (individuals count per area), classification of species into 5 ecological groups (EG)
DEVOTES indicators	CL_EU_11_DEV	669 CL_EU_11_DEV_669	ITI - Trophic index	Trophic index (ITI)	204 205 167	JRC-HT 63	species composition, trophic group classification of taxa
DEVOTES indicators	CL_EU_11_DEV	67 CL_EU_11_DEV_67	Abundance ratio of diatoms/dinoflagellates	Diatom to dinoflagellate ratio	24	SYKE-LU 67	
DEVOTES indicators	CL_EU_11_DEV	671 CL_EU_11_DEV_671	NQI - Norwegian Quality Index	Norwegian Quality Index (NQI)	189 167	JRC-HT 64	AMBI - relative proportion (abundance) of sensitive/tolerance taxa (5 EG); SN a - diversity index - N number of individuals, S number of species
DEVOTES indicators	CL_EU_11_DEV	672 CL_EU_11_DEV_672	MAB Macroalgal Bloom Assessment (Opportunistic macroalgae)	Macroalgal Bloom Assessment (Opportunistic macroalgae) (MAB)	207 167	JRC-HT 65	% cover, biomass data, species composition
DEVOTES indicators	CL_EU_11_DEV	673 CL_EU_11_DEV_673	RSL - Macroalgae Rocky Shore Reduced Species List	Macroalgae Rocky Shore Reduced Species List (RSL)	209 208 167	JRC-HT 66	five parameters: Normalised number of macroalgal taxa (normalised to shore diversity); Proportion of Chlorophyta taxa; Proportion of Rhodophyta taxa; Proportion of opportunistic taxa; Ecological status group ratio
DEVOTES indicators	CL_EU_11_DEV	674 CL_EU_11_DEV_674	Depth limit of <i>Fucus vesiculosus</i>	Fucus index	210	JRC-HT 67	Lower limit (depth) of growing zone of <i>Fucus vesiculosus</i>
DEVOTES indicators	CL_EU_11_DEV	675 CL_EU_11_DEV_675	Depth limit of <i>Furcellaria lumbricalis</i>	Assessment system for transitional and coastal waters using macroalgae (maximum depth limit of <i>Furcellaria lumbricalis</i> )	198	JRC-HT 69	Maximum depth limit of <i>Furcellaria lumbricalis</i>
DEVOTES indicators	CL_EU_11_DEV	676 CL_EU_11_DEV_676	RSL - Rocky Intertidal Macroalgae - Reduced Species List (RSL)	Rocky Intertidal Macroalgae - Reduced Species List (RSL)	171 212 167	JRC-HT 71	Number of green species Number of brown species Number of red species Number of opportunists Number of species in Ecological Status Group 1 Number of species in Ecological Status Group 2 Shore Description
DEVOTES indicators	CL_EU_11_DEV	679 CL_EU_11_DEV_679	MarMAT - Marine Macroalgae Assessment Tool	Marine Macroalgae Assessment Tool (MarMAT)	218 167	JRC-HT 77	species composition and cover data
DEVOTES indicators	CL_EU_11_DEV	681 CL_EU_11_DEV_681	Quality index of subtidal macroalgae of French Channel and Atlantic coast	Quality index of subtidal macroalgae of French Channel and Atlantic coast	221	JRC-HT 82	species specific depth distributions, species composition, cover data
DEVOTES indicators	CL_EU_11_DEV	682 CL_EU_11_DEV_682	WFD Estonian Assessment of ecological status of coastal waters using phytoplankton indicators	Assessment of ecological status of coastal waters using phytoplankton indicators	327 350	JRC-HT 83	
DEVOTES indicators	CL_EU_11_DEV	683 CL_EU_11_DEV_683	WFD Polish Phytoplankton classification methods	Monitoring and classification methods of biological quality elements for the assessment of ecological status of transitional and coastal marine water bodies	327 350	JRC-HT 84	chl a measurement, species composition, cell counts, biovolume of species/taxa groups

DEVOTES indicators	CL_EU_11_DEV	684 CL_EU_11_DEV_684	WFD Italian Assessment System for Coastal Waters Based on BQE "Phytoplankton"	Assessment System for Coastal Waters Based on BQE "Phytoplankton"	327	JRC-HT 85	Chlorophyll-a concentration as: mg/m <sup>3</sup> by fluorimetry method) and n. of cells/l (individual counts per volume; species/species groups taxonomical identification)
DEVOTES indicators	CL_EU_11_DEV	685 CL_EU_11_DEV_685	WFD Slovenian Methodology for assessment of ecological status of coastal waters using phytoplankton	Methodology for assessment of ecological status of coastal waters using phytoplankton	327	JRC-HT 86	quantification of biomass: Fluorometric determination of chlorophyll-a concentration s
DEVOTES indicators	CL_EU_11_DEV	686 CL_EU_11_DEV_686	Phytoplankton Toolkit	Phytoplankton Toolkit	327 350	JRC-HT 87	taxonomical identification: Level: Family, Genus, Other, Species/species groups Determination of abundance: Individual counts, Abundance is related to: Volume, Unit of the record of abundance: cells per ml; Quantification of biomass: Chlorophyll-a concentration
DEVOTES indicators	CL_EU_11_DEV	687 CL_EU_11_DEV_687	WFD Lithuanian Assessment system for transitional and coastal waters for phytoplankton	Assessment system for transitional and coastal waters using phytoplankton indicators	327	JRC-HT 88	biomass through chlorophyll-a concentration s; Total phosphorus (TP); TN concentration
DEVOTES indicators	CL_EU_11_DEV	688 CL_EU_11_DEV_688	WFD Danish Assessment system for coastal waters using chlorophyll-a as indicator of phytoplankton biomass	Assessment system for coastal waters using chlorophyll-a as indicator of phytoplankton biomass	327	JRC-HT 89	list of biological names: Summer (May-September) mean Chl-a concentration or 90th percentile of Chl-a concentration in samples collected from March through September
DEVOTES indicators	CL_EU_11_DEV	691 CL_EU_11_DEV_691	WFD Dutch phytoplankton index	WFD-metrics for natural watertypes	327	JRC-HT 92	
DEVOTES indicators	CL_EU_11_DEV	693 CL_EU_11_DEV_693	Elevated Phytoplankton (Single Taxa) Counts Tool	The Elevated Phytoplankton (Single Taxa) Counts Tool	323 324 325 327	JRC-HT 94	taxonomical identification of species/species groups; individual counts/volume (Cells/l)
DEVOTES indicators	CL_EU_11_DEV	694 CL_EU_11_DEV_694	WFD Spanish Phytoplankton Tool for North East Atlantic Coastal Waters	Spanish Phytoplankton Tool for North East Atlantic Coastal Waters	327	JRC-HT 95	
DEVOTES indicators	CL_EU_11_DEV	695 CL_EU_11_DEV_695	WFD Romanian Assessment system for coastal and transitional waters using phytoplankton	Assessment system for coastal and transitional waters using phytoplankton	327	JRC-HT 96	
DEVOTES indicators	CL_EU_11_DEV	696 CL_EU_11_DEV_696	Assessment system for coastal and transitional waters: Phytoplankton	Assessment system for coastal and transitional waters: Phytoplankton	327	JRC-HT 97	
DEVOTES indicators	CL_EU_11_DEV	697 CL_EU_11_DEV_697	WFD Comunidad Valenciana Phytoplankton Multimetric Index	Comunidad Valenciana Phytoplankton Multimetric Index	327	JRC-HT 98	
DEVOTES indicators	CL_EU_11_DEV	699 CL_EU_11_DEV_699	WFD Latvian Assessment method for phytoplankton status based on chlorophyll a concentrations in coastal and transitional water	Assessment method for phytoplankton status based on chlorophyll a concentration s in coastal and transitional waters	328 327	JRC-HT 100	Median of all chlorophyll-a concentration s
DEVOTES indicators	CL_EU_11_DEV	70 CL_EU_11_DEV_70	Removal catches of cyprinid fish	Removal catches of cyprinid fish	24	SYKE-LU 70	
DEVOTES indicators	CL_EU_11_DEV	700 CL_EU_11_DEV_700	WFD Latvian Assessment method for phytoplankton status based on phytoplankton biomass in coastal and transitional waters	Assessment method for phytoplankton status based on phytoplankton biomass in coastal and transitional waters	328 327	JRC-HT 101	Median of all phytoplankton biomass values
DEVOTES indicators	CL_EU_11_DEV	702 CL_EU_11_DEV_702	Water quality based on chlorophyll-a and bloom frequency	Water quality based on chlorophyll-a and bloom frequency		JRC-HT 103	



DEVOTES indicators	CL_EU_11_DEV	728 CL_EU_11_DEV_728	Pregnancy rates of marine mammals	Pregnancy rates of marine mammals	26 343	SYKE-LU 5, SYKE-LU 8, SYKE-LU 7, SYKE-LU 6, SYKE-LU 32, SYKE-LU 122, SYKE-LU 121, JRC-HT	Pregnancy rate of grey seals aged 4-20, Pregnancy rate of harbour purposes, all mature females, Pregnancy rate of harbour seals aged 4-20, Pregnancy rate of ringed seals aged 4-20	
DEVOTES indicators	CL_EU_11_DEV	729 CL_EU_11_DEV_729	Productivity of white-tailed eagle	White-tailed eagle productivity	26	SYKE-LU 30, SYKE-LU 118	Pregnancy rate is measured as the presence or absence of an embryo or foetus during the pregnancy period in	
DEVOTES indicators	CL_EU_11_DEV	731 CL_EU_11_DEV_731	Abundance ratio of oiled seabirds	Proportion of oiled seabirds	MARMONI indicator	28 94	SYKE-LU 100 abundance (http://www.sae.eu/marmoni/marmoni_puk/docs/L45.pdf)	Number of nestlings in white eagle nests
DEVOTES indicators	CL_EU_11_DEV	732 CL_EU_11_DEV_732	Biomass ratio of opportunistic/perennial macroalgae	Ratio of opportunistic and perennial macroalgae		24 28	SYKE-LU 52, SYKE-LU 106	Biomass of perennial and opportunistic macroalgae
DEVOTES indicators	CL_EU_11_DEV	733 CL_EU_11_DEV_733	Reproduction of birds	Reproduction of birds		24	SYKE-LU 63, SYKE-LU 62, SYKE-LU 64	Observations of eggs laid, fledglings, etc.
DEVOTES indicators	CL_EU_11_DEV	734 CL_EU_11_DEV_734	Abundance of sea trout spawners and parr	Abundance of sea trout spawners and parr		270	SYKE-LU 18, SYKE-LU 103	Sea trout parr densities (central), number of spawning rivers, fishing mortality, number of spawners (supporting)
DEVOTES indicators	CL_EU_11_DEV	735 CL_EU_11_DEV_735	Body length distribution of selected (coastal) fish species	Size structure of coastal key fish species		26	SYKE-LU 34, SYKE-LU 36	I (LU) assume the Swedish coastal experimental fishing data will be used.
DEVOTES indicators	CL_EU_11_DEV	736 CL_EU_11_DEV_736	Abundance of salmon spawners and smolt	Abundance of salmon spawners and smolt		270	SYKE-LU 19, SYKE-LU 102	Salmon smolt production (central), number of spawning rivers of wild salmon, post-smolt survival, fishing mortality, number of spawners (supporting)
DEVOTES indicators	CL_EU_11_DEV	738 CL_EU_11_DEV_738	WFD German Eelgrass index (intertidal)	Assessment tool for intertidal eelgrass in coastal and transitional waters		46 48 49 173	MarLim-KF 27, JRC-HT 27	Areal extent (km <sup>2</sup> ), cover, species composition
DEVOTES indicators	CL_EU_11_DEV	739 CL_EU_11_DEV_739	AMBI - AZTI Marine Biotic Index	AZTI Marine Biotic Index (AMBI)		155 275 326	IO-BAS 7, IO-BAS 41, IO-BAS 49, IO-BAS 52, IO-BAS 58, IO-BAS 62, IO-BAS 65, IO-BAS 69, JRC-HT 104	species abundance, taxonomic identification to lowest possible taxon, classification of taxa into 5 ecological groups (EG)
DEVOTES indicators	CL_EU_11_DEV	740 CL_EU_11_DEV_740	BOPA - Benthic Opportunistic Annelida Amphipoda Index	Benthic Opportunistic Annelida Amphipoda Index (BOPA)		62 276 201	AZTI-GR 283, JRC-HT 58	total number of individuals collected in the samples, the frequency of opportunistic polychaetes, and the frequency of amphipods (except the genus <i>Jassa</i> )
DEVOTES indicators	CL_EU_11_DEV	742 CL_EU_11_DEV_742	CARLIT-BENTHOS - Cartography of littoral and upper-sublittoral rocky-shore communities	Cartography of littoral and upper-sublittoral rocky-shore communities (CARLIT-BENTHOS)		213 214 167, 62 276	JRC-HT 75, AZTI-GR 255, AZTI-GR 370	meters of coastline covered by a specifically categorised community abundance classes [infralittoral rocky bottom habitats]

DEVOTES indicators	CL_EU_11_DEV	743 CL_EU_11_DEV_743	DKI - Danish Quality Index	Danish Quality Index (DKI)	Benthic ecological status assessment ("The Danish method is a multimetric approach which takes into account the proportion of sensitive/olerant species, measured by the AMBI; a diversity component, Shannon-Weaver, 1963); and a factor to compensate for low densities and species -	187 188 189 157 66 91 41	JRC-HT 41 AU-DK/JHA
DEVOTES indicators	CL_EU_11_DEV	745 CL_EU_11_DEV_745	M-AMBI - Multivariate AZTI Marine Biotic Index	Multivariate AZTI Marine Biotic Index (M-AMBI)	85 275 156 155 190 191 192 167 255 46 52	AZTI-JGR 331 IMAR-HV 113 IO-BAS 50 IO-BAS 59 IO-BAS 62 IO-BAS 66 IO-BAS 70 JRC-HT 29 MarLim-KF 50	Requires: richness, diversity and AMBI values calculated on macrobenthic communities.
DEVOTES indicators	CL_EU_11_DEV	746 CL_EU_11_DEV_746	POMI - Posidonia oceanica Multivariate Index	Posidonia oceanica Multivariate Index (POMI)	276 176 175 62	AZTI-JGR 366 JRC-HT 29 AZTI-JGR 268	shoot density (number of shoots/m <sup>2</sup> ), shoot area cover (%), Plagiotropic rhizomes, Shoot Follar Surface, Leaf Necrosis, N content in rhizome, P content in rhizomes, Sucrose in rhizomes, δ15N ratio in rhizomes, δ34S ratio in rhizomes, Epiphyte N content, [Cu] in rhizomes, [Pb] in rhizomes, [Zn] in rhizomes
DEVOTES indicators	CL_EU_11_DEV	747 CL_EU_11_DEV_747	Biomass of cephalopods	[Cephalopods] population abundance and/or biomass	61	AZTI-JGR 154b	
DEVOTES indicators	CL_EU_11_DEV	748 CL_EU_11_DEV_748	Biomass of demersal elasmobranchs	[Demersal elasmobranchs] population abundance and/or biomass	61	AZTI-JGR 157b	
DEVOTES indicators	CL_EU_11_DEV	749 CL_EU_11_DEV_749	Biomass of selected zooplankton species and taxa groups	Abundance/bi mass of main zooplanktonic groups	83	AZTI-JGR 316b	
DEVOTES indicators	CL_EU_11_DEV	75 CL_EU_11_DEV_75	Areal extent of anoxic bottoms	Extent and abundance of anoxic bottoms	24	SYKE-LU 75	
DEVOTES indicators	CL_EU_11_DEV	750 CL_EU_11_DEV_750	Age-frequency distribution of fish	[fish] Population demographic characteristic	79	AZTI-JGR 175b	length-frequency distribution, age-frequency distribution, fecundity rate, sex ratio, survival/mortality rate
DEVOTES indicators	CL_EU_11_DEV	751 CL_EU_11_DEV_751	Fecundity rate of fish	[fish] Population demographic characteristic	79	AZTI-JGR 175c	length-frequency distribution, age-frequency distribution, fecundity rate, sex ratio, survival/mortality rate
DEVOTES indicators	CL_EU_11_DEV	752 CL_EU_11_DEV_752	Sex ratio of fish	[fish] Population demographic characteristic	79	AZTI-JGR 175d	length-frequency distribution, age-frequency distribution, fecundity rate, sex ratio, survival/mortality rate
DEVOTES indicators	CL_EU_11_DEV	753 CL_EU_11_DEV_753	Survival rate of fish	[fish] Population demographic characteristic	79	AZTI-JGR 175e	survival rate
DEVOTES indicators	CL_EU_11_DEV	757 CL_EU_11_DEV_757	Fecundity rate of sea turtles	[sea-turtles] demographic characteristics, shell, fecundity rate, mortality rate, genetic structure	62	AZTI-JGR 178b	

DEVOTES indicators	CL_EU_11_DEV	758 CL_EU_11_DEV_758	Mortality rate of sea turtles	[sea-turtles] demographic characteristics , longest shell, fecundity rate, mortality rate, genetic structure	62	AZTI-JGR 178c
DEVOTES indicators	CL_EU_11_DEV	761 CL_EU_11_DEV_761	Age-frequency distribution of <i>Pinna nobilis</i>	[ <i>Pinna nobilis</i> ] density, age-frequency distribution and population demographics	62	AZTI-JGR 266b
DEVOTES indicators	CL_EU_11_DEV	765 CL_EU_11_DEV_765	Biomass of selected fish species	FC1 Population abundance/biomass of a suite of selected species	31 235 294 294	Cefas - SN 120 Size of catchable proportion of fish populations by survey (weight or numbers)
DEVOTES indicators	CL_EU_11_DEV	766 CL_EU_11_DEV_766	Biomass, species composition and spatial distribution of zooplankton (FW6)	FW6 Biomass, species composition and spatial distribution of zooplankton	31 251 248 28	Cefas - CL 136b, JRC-HT Biomass (e.g. in C/m <sup>2</sup> ) is calculated using abundance of zooplankton and their individual weight or mean length. If length measurements are to be used, a species and/or size specific conversion factor will need to be applied. Zooplankton community structure can be defined in terms of its species composition (diversity)
DEVOTES indicators	CL_EU_11_DEV	77 CL_EU_11_DEV_77	Population structure and size distribution of invertebrate animals	Population structure and size distribution of invertebrate animals	24	SYKE-LU 77
DEVOTES indicators	CL_EU_11_DEV	770 CL_EU_11_DEV_770	Biomass ratio of opportunistic/sensitive species	Opportunistic-sensitive species proportion	IMAR-HV 112b	species abundance/bi omass pattern in space/time
DEVOTES indicators	CL_EU_11_DEV	772 CL_EU_11_DEV_772	Biomass of selected benthic invertebrate species	Population size of key benthos fauna species	72	MHI-OK 120b Abundance and biomass of the main macrozoobenthos sp.
DEVOTES indicators	CL_EU_11_DEV	773 CL_EU_11_DEV_773	Abundance ratio of selected zooplankton taxa groups	Zooplankton taxonomic group ratio	MHI-AG 115a	Zooplankton Abundance/bi omass of the main taxonomic groups - Copepoda, Cladocera, Jell yfish, etc.
DEVOTES indicators	CL_EU_11_DEV	774 CL_EU_11_DEV_774	Species diversity (Simpson) of benthic invertebrates	Zoobenthos Shannon/Simpson Diversity Index	73	MHI-OK 123a Abundance and biomass of the main macrozoobenthos species
DEVOTES indicators	CL_EU_11_DEV	776 CL_EU_11_DEV_776	Blubber thickness of seals	Health of seals (blubber thickness, parasites)	26 24	SYKE-LU 31 SYKE-LU 60
DEVOTES indicators	CL_EU_11_DEV	78 CL_EU_11_DEV_78	Number of endangered marine species and populations	Number of endangered marine species and populations	24	SYKE-LU 78
DEVOTES indicators	CL_EU_11_DEV	780 CL_EU_11_DEV_780	PREI - Posidonia oceanica Rapid Easy Index	PREI index (qualitative)	353	HCMR-NP 114b, JRC-HT
DEVOTES indicators	CL_EU_11_DEV	785 CL_EU_11_DEV_785	Abundance of benthic invertebrates	Macrofauna abundance, Zoobenthos abundance, Fishes abundance.		HCMR-NP 111b number of individuals
DEVOTES indicators	CL_EU_11_DEV	786 CL_EU_11_DEV_786	Abundance of fish	Macrofauna abundance, Zoobenthos abundance, Fishes abundance.		HCMR-NP 111c
DEVOTES indicators	CL_EU_11_DEV	788 CL_EU_11_DEV_788	Species diversity (Margalef index) of plankton	PH3 Plankton biodiversity indices	31 313	Cefas - CL 131b
DEVOTES indicators	CL_EU_11_DEV	79 CL_EU_11_DEV_79	Bag size of hunted species	Bag size of hunted species	24	SYKE-LU 79
DEVOTES indicators	CL_EU_11_DEV	791 CL_EU_11_DEV_791	Species dominance (Breger-Parker) of plankton	PH3 Plankton biodiversity indices	31 313	Cefas - CL 131f
DEVOTES indicators	CL_EU_11_DEV	792 CL_EU_11_DEV_792	Evenness of sandeelbanks	Sandeelbank richness and evenness	66	AU-DKI/JHA 135b
DEVOTES indicators	CL_EU_11_DEV	796 CL_EU_11_DEV_796	Areal extent of maerl-type biogenic sediments	Mapping of the Maerl-type biogenic sediments		HCMR-NP 118b
DEVOTES indicators	CL_EU_11_DEV	80 CL_EU_11_DEV_80	Number of species mentioned in birds directive and habitat directive that are on the suitable protection level	Number of species mentioned in birds directive and habitat directive that are on the suitable protection level	24	SYKE-LU 80

DEVOTES indicators	CL_EU_11_DEV	801 CL_EU_11_DEV_801	WFD German Saltmarsh index	Assessment for saltmarshes and reed beds in coastal and transitional waters	46 172 327	MarLim-KF 26 extent of saltmarsh area within the water body (% cover), zonation of saltmarsh (% specific saltmarsh zone within the saltmarsh area)
DEVOTES indicators	CL_EU_11_DEV	802 CL_EU_11_DEV_802	WFD German Eastern Baltic Phytoplankton index	Multimetric ecological phytoplankton assessment	58 327	JRC-HT 107 chl measurement, species composition, cell counts, biovolume of species/taxa groups
DEVOTES indicators	CL_EU_11_DEV	804 CL_EU_11_DEV_804	Zooplankton species population size	Zooplankton species population size	MHI-AG 117a, JRC-HT	Species composition, Abundance/biomass of zooplankton species
DEVOTES indicators	CL_EU_11_DEV	805 CL_EU_11_DEV_805	Abundance of bioengineering species	density of structure-forming species Abundance of bioengineering species	61 140	AZTI-IGR 279 UHULL-KM Abundance and cover data
DEVOTES indicators	CL_EU_11_DEV	807 CL_EU_11_DEV_807	Catch per unit effort (CPUE) of selected fish species	[Tuna] catch per unit effort (CPUE) [Yellowfin-tuna] catch per unit effort (CPUE) [Bluefin-tuna] catch per unit effort (CPUE)	84 80	AZTI-IGR 317 AZTI-IGR 306 AZTI-IGR 305
DEVOTES indicators	CL_EU_11_DEV	808 CL_EU_11_DEV_808	CFR - Multimetric CFR index (Quality of Rocky Bottoms)	CFR index (Quality of Rocky Bottoms) Quality of Rocky Bottoms (CFR)	85 167 215 354	AZTI-IGR 332 JRC-HT 74 % cover; species composition
DEVOTES indicators	CL_EU_11_DEV	809 CL_EU_11_DEV_809	Concentration of Chl a	Chl a concentration 90th percentile and median chlorophyll Chlophyll-a (µg/l, 90‰)	63 66 323 325 324	AU-DK/JHA 147 JRC-HT 93 JRC-HT 106 Chlorophyll-a concentration (hot methanol extraction technique)
DEVOTES indicators	CL_EU_11_DEV	81 CL_EU_11_DEV_81	Proportion of trap nets from which it is possible to release seals alive	Proportion of trap nets from which it is possible to release seals alive	24	SYKE-LU 81
DEVOTES indicators	CL_EU_11_DEV	810 CL_EU_11_DEV_810	Concentration of nutrients	Inorganic nutrients concentration nutrient concentration	66	MHI-OK 141 AU-DK/JHA 149 mean of TN, TP, winter mean of DIN, DIP
DEVOTES indicators	CL_EU_11_DEV	811 CL_EU_11_DEV_811	Concentration of oxygen at the bottom	Near bottom O2 concentration Concentration of dissolved oxygen in the bottom water	153	MHI-OK 142 IMAR-HV 111 Oxygen concentration
DEVOTES indicators	CL_EU_11_DEV	812 CL_EU_11_DEV_812	Conservation status of fish	FCS Conservation status of elasmobranch and demersal bony fish species (IUCN) Conservation Status of Fish (CSFa, Piet et al., 2007)	79 62 63 78 332 355	Cefas - SN 130 AZTI-IGR 295
DEVOTES indicators	CL_EU_11_DEV	814 CL_EU_11_DEV_814	Evenness (Pielou) of selected biological components	Zoobenthos-diversity indices fishes-diversity indices Macroalgae-diversity indices PH3 Plankton biodiversity indices	31 313	HCMR- NP 109c HCMR- NP 110c HCMR- NP 109c Cefas - CL 131c Abundance and species composition data
DEVOTES indicators	CL_EU_11_DEV	815 CL_EU_11_DEV_815	Genetic population structure of selected biological components	[Mammals] population genetic structure based stable isotope profiles and genetic markers [seaturtles] genetic structure [sea-turtles] demographic characteristics , longest shell, fecundity rate, mortality rate, genetic structure [Seagrass] population genetic structure	64 78 62 333	AZTI-IGR 185 AZTI-IGR 197 AZTI-IGR 178d AZTI-IGR 269

DEVOTES indicators	CL_EU_11_DEV	816 CL_EU_11_DEV_816	Index of phytocoenoses ecological activity (S/Wph)	Index of phytocoenoses ecological activity (S/Wph)	156 316 356	IO-BAS 18	biomass data, species composition
DEVOTES indicators	CL_EU_11_DEV	817 CL_EU_11_DEV_817	MEDOCC	MEDOCC [Lagoons] composition and abundance of benthic invertebrates (diversity, percentage of sensitive species, percentage of opportunistic species, MEDOCC index)	276 62 220 167 259 357	AZTI-JGR 284 JRC-HT 57 AZTI-JGR 261	Relative abundance of sensitive/tolerant species
DEVOTES indicators	CL_EU_11_DEV	818 CL_EU_11_DEV_818	Secchi depth	Secchi depth Water transparency water column transparency	66 156	AU-DK/JHA 148 MHI-OK 140 IO-BAS 19 IO-BAS 23	AU-DK/JHA: summer mean value
DEVOTES indicators	CL_EU_11_DEV	819 CL_EU_11_DEV_819	Abundance of macroalgae (total cover)	Total macroalgal cover (at specific depths) Macroalgae-abundance, Zoobenthos-abundance, Fishes-abundance, Algal cover Total macroalgal cover	66 65 219 67 167 91 92 93	AU-DK/JHA 79 HCMR-NP 111a KAUST-SC 113 JRC-HT 78	total macroalgal cover (%), water depth, position, cover of hard substratum, macroalgal community (cover of individual species)
DEVOTES indicators	CL_EU_11_DEV	82 CL_EU_11_DEV_82	Proportion on non-mature sea trout, sander, and whitefish in the commercial and recreational catch along the coast	Proportion on non-mature sea trout, sander, and whitefish in the commercial and recreational catch along the coast	24	SYKE-LU 82	Commercial and recreational catch data
DEVOTES indicators	CL_EU_11_DEV	820 CL_EU_11_DEV_820	Abundance of demersal elasmobranchs	[Demersal elasmobranchs] population abundance and/or biomass [Demersal elasmobranchs] mean abundance	61 78	AZTI-JGR 157a AZTI-JGR 172	mean abundances
DEVOTES indicators	CL_EU_11_DEV	821 CL_EU_11_DEV_821	Areal extent of selected macroalgae species	Areal extent of vulnerable benthic flora species	72 156	MHI-OK 126 IO-BAS 12 IO-BAS 21 MHI-OK 125	
DEVOTES indicators	CL_EU_11_DEV	822 CL_EU_11_DEV_822	Species diversity (Shannon index) of benthic invertebrates	Index of Sannon-Weaver, Shannon-Wiener diversity index (H <sup>r</sup> ), H <sup>r</sup> index (Shannon Index), Zoobenthos-diversity indices	275 155 206 167 345	MHI-OK 123a, abundance IO-BAS 6, IO- and species composition BAS 40, IO- BAS 48, IO- BAS 51, IO- BAS 57, IO- BAS 61, IO- BAS 67, IO- BAS 68, JRC- HT 42, HCMR- NP 7b, HCMR- NP 105d	
DEVOTES indicators	CL_EU_11_DEV	823 CL_EU_11_DEV_823	Surface area/biomass ratio of selected macroalgae species	Index of population surface Benthic flora morphofunctional Index	156 317 75	IO-BAS 15 IO-BAS 25 MHI-OK 131	surface area, biomass, species composition
DEVOTES indicators	CL_EU_11_DEV	825 CL_EU_11_DEV_825	Species richness of fish	Species richness (fish) Fish population diversity Fishes diversity indices	66 268 254	AU-DK/JHA 129 KAUST-SC 16 HCMR-NP 110b	Number of fish species
DEVOTES indicators	CL_EU_11_DEV	826 CL_EU_11_DEV_826	Species richness of macroalgae	Macroalgae species richness Macroalgae-diversity indices.	66	AU-DK/JHA 123 HCMR-NP 108b	species number
DEVOTES indicators	CL_EU_11_DEV	827 CL_EU_11_DEV_827	Species richness of plankton	Species richness Zoobenthos species richness [Lagoons] composition, abundance and biomass of phytoplankton species (diversity indices, evenness, etc.)	28 66 62	SYKE-LU 113 AU-DK/JHA 124 AZTI-JGR 255a	Zooplankton count data. Ratio between the number of species observed in the area and number of species registered in the area, 1 = no change, >1 > decrease, >1 > invasions
DEVOTES indicators	CL_EU_11_DEV	828 CL_EU_11_DEV_828	Species diversity (Shannon index) of plankton	[Lagoons] composition, abundance and biomass of phytoplankton species (diversity indices, evenness, etc.) PH3 Plankton biodiversity indices	62 31 313 345 206	AZTI-JGR 265b Cefas - CL 131a	Species composition and abundance data
DEVOTES indicators	CL_EU_11_DEV	829 CL_EU_11_DEV_829	Species diversity (Shannon index) of macroalgae	Macroalgae-diversity indices. Benthic flora Shannon Diversity Index	73 345 206	HCMR-NP 108d MHI-OK 130	Phytobenthos species - abundance/biomass composition

DEVOTES indicators	CL_EU_11_DEV	83 CL_EU_11_DEV_83	Distribution and abundance of flounder and sea-spawning whitefish fry in shallow sand-bottom habitats	Distribution and abundance of flounder and sea-spawning whitefish fry in shallow sand-bottom habitats	24	SYKE-LU 83
DEVOTES indicators	CL_EU_11_DEV	830 CL_EU_11_DEV_830	Species diversity (Shannon index) of fish	Community Diversity Index (Shannon index) Fishes diversity indices Index of biodiversity Sannon - Weaver	94 315 345 206	KUCORPI-MB-10 HCMR-NP 110d IO-BAS 1
DEVOTES indicators	CL_EU_11_DEV	831 CL_EU_11_DEV_831	Mortality rate of fish	[fish] Population demographic characteristic F (fishery mortality) of selected fish species	79 66 127	AZTI-JGR 175f AU-OKU/JHA AU-OKU/JHA: selected fish species: cod, sole, herring, plaice, haddock, saithe, depending on area
DEVOTES indicators	CL_EU_11_DEV	832 CL_EU_11_DEV_832	MTI - Marine Trophic Index	FW-4 Changes in average trophic level of marine predators (e.g. Marine Trophic Index) Marine Trophic Index (MTI)	31 33 151 306 306 306 306 306 306 306 151 152 278	Cefas - CI 135 IMAR-HV 110 Data from the commercial landings of exploited species (i.e., algae, invertebrates, fish, marine mammals) (Pauly et al., 1998); can also be calculated from any measure of biomass or abundance derived from routine fishery-independent surveys, for different spatial and temporal scales; Also, the index could be applied to any
DEVOTES indicators	CL_EU_11_DEV	833 CL_EU_11_DEV_833	Impacts of anthropogenic removal of target species	Impact/vulnerability of habitats to removal of target species (biological pressure) (Condition of typical species and communities) Impact/vulnerability of habitat to 'removal of target species' (biological pressure) (Condition of typical species and communities)	113 132 154 UHULL-KM 173	UHULL-KM 154 UHULL-KM 173 Level of exposure of habitat to pressure 'removal of target species'
DEVOTES indicators	CL_EU_11_DEV	834 CL_EU_11_DEV_834	Impacts of anthropogenic removal of non-target species	Impact/vulnerability of habitat to 'removal of non-target species' (biological pressure) (Condition of typical species and communities) Impact/vulnerability of habitats to removal of non-target species (biological pressure) (condition of typical species/communities)	133 114 174 UHULL-KM 155	UHULL-KM 174 UHULL-KM 155 Level of exposure of habitat to pressure 'removal of non-target species' Level of exposure to pressure 'removal of non-target species'
DEVOTES indicators	CL_EU_11_DEV	835 CL_EU_11_DEV_835	Impacts of anthropogenic sediment penetration and/or disturbance below the seabed surface	Impact/vulnerability of habitat to 'penetration and/or disturbance of the substratum below the surface of the seabed' (physical pressure) (Extent of seabed significantly affected by human activities for different substratum types) Impact/vulnerability of habitat to penetration and/or disturbance	115 110 134 129 156 151 150 175 176 170	UHULL-KM 156 UHULL-KM 151 UHULL-KM 150 UHULL-KM 175 UHULL-KM 176 UHULL-KM 170 Level of exposure to pressure 'penetration and/or disturbance to the substratum below the surface of the seabed' Level of exposure of habitat to pressure 'penetration and/or disturbance of the substratum below the surface of the seabed' Level of exposure of habitat to pressure 'penetration and/or disturbance of the substratum below the surface of the seabed' Level of exposure of habitat to pressure 'penetration and/or disturbance of the substratum below the surface of the seabed'

DEVOTES indicators	CL_EU_11_DEV	836 CL_EU_11_DEV_836	Impacts of anthropogenic shallow abrasion/penetration damage to seabed surface	Impact/vulnerability of habitat to 'surface abrasion: damage to seabed surface features (physical pressure) (force of impact of seabed significantly affected by human activities for the different substratum types. Impact/vulnerability of habitat to 'surface abrasion: damage to seabed surface ^	117 136 131 111 116 135 112 130	UHULL-KM 158 UHULL-KM 177 UHULL-KM 172 UHULL-KM 152 UHULL-KM 157 UHULL-KM 176 UHULL-KM 153 UHULL-KM 171	Level of exposure to pressure 'surface abrasion:age to seabed surface features' Level of exposure to pressure 'surface abrasion: damage to seabed surface features' Level of exposure to pressure 'surface abrasion: damage to seabed surface features' Level of exposure to pressure 'surface abrasion: damage to seabed surface features' Level of exposure to pressure 'surface abrasion: damage to seabed surface features' Level of exposure to pressure 'surface abrasion: damage to seabed surface features' Level of exposure to pressure 'surface abrasion: damage to seabed surface features' Level of exposure to pressure 'surface abrasion: damage to seabed surface features' Level of exposure to pressure 'surface abrasion: damage to seabed surface features' Level of exposure to pressure 'surface abrasion: damage to seabed surface features' Level of exposure to pressure 'surface abrasion: damage to seabed surface features' Level of exposure to pressure 'surface abrasion: damage to seabed surface features' Level of exposure to pressure 'surface abrasion: damage to seabed surface features' Level of exposure to pressure 'surface abrasion: damage to seabed surface features' Level of exposure to pressure 'surface abrasion: damage to seabed surface features' Level of exposure to pressure 'surface abrasion: damage to seabed surface features'
DEVOTES indicators	CL_EU_11_DEV	837 CL_EU_11_DEV_837	IQI- Infaunal Quality Index	Infaunal quality index Infaunal Quality index IQI	125 194 167 255	UHULL-KM 166 JRC-HT 44	Level of exposure to species composition and abundance, AZTI Marine Biotic Index (AMBI - taxonomical id & classification of taxa
DEVOTES indicators	CL_EU_11_DEV	84 CL_EU_11_DEV_84	State of typical species and communities in various habitats	State of typical species and communities in various habitats	24	SYKE-LU 84	State assessments of selected species and communities
DEVOTES indicators	CL_EU_11_DEV	840 CL_EU_11_DEV_840	Abundance of populations of selected bird species (winter)	Abundance of wintering populations of seabirds: common merganser (Mergus merganser) Abundance of wintering populations of seabirds: great crested grebe (Podiceps cristatus) Abundance of wintering populations of seabirds: long-tailed duck (Clangula hyemalis) Abundance of wintering populations of seabirds: common	94	KUCORPI- MBAZ 3 KUCORPI- MBAZ 4 KUCORPI- MBAZ 1 KUCORPI- MBAZ 6 KUCORPI- MBAZ 5 KUCORPI- MBAZ 7 KUCORPI- MBAZ 2	abundance of species
DEVOTES indicators	CL_EU_11_DEV	841 CL_EU_11_DEV_841	Abundance ratio of selected phytoplankton taxa groups	Abundance of phytoplankton , diatoms, dinoflagellates ; and ratio diatoms/dinoflagellates.	80	AZTI-JGR 308a	species composition and abundance (cell counts)
DEVOTES indicators	CL_EU_11_DEV	842 CL_EU_11_DEV_842	Abundance of harbour porpoise	Harbour porpoise summer abundance Abundance of harbour porpoises	66 26 113	AU-DKI/JHA SYKE-LU 26	
DEVOTES indicators	CL_EU_11_DEV	843 CL_EU_11_DEV_843	WFD British Seagrass index	Intertidal Seagrass Seagrass WFD seagrass tool	171 168 170 124	JRC-HT 25 JRC-HT 24 UHULL-KM 165	Ireland: seagrass species composition (no. taxa), bed area cover (%), shoot density (%) UK: seagrass species composition (no. taxa), bed area cover (m2), shoot density (%)
DEVOTES indicators	CL_EU_11_DEV	844 CL_EU_11_DEV_844	WFD Finnish Assessment system for coastal waters for phytoplankton	Assessment system for coastal waters using phytoplankton total biomass (mg/l) Assessment system for coastal waters using phytoplankton chlorophyll-a	350	JRC-HT 99 JRC-HT 90	total biomass (mg/l), chla concentration

DEVOTES indicators	CL_EU_11_DEV	845 CL_EU_11_DEV_845	Species richness of selected habitats	Composition and abundance of typical species on biogenic reef (condition of the typical species and communities) species richness per habitat Sandeelbank richness and evenness number of key species per class or type of habitat	101 61 79 63 78 62 66 142 AZTI-JGR 252 AZTI-JGR 254 AU-DK/JHA 135a AZTI-JGR 257	UHULL-KM 142 AZTI-JGR 252 AZTI-JGR 254 AU-DK/JHA 135a AZTI-JGR 257	abundance, species composition data of different benthic species and communities
DEVOTES indicators	CL_EU_11_DEV	846 CL_EU_11_DEV_846	Species richness of benthic invertebrates	Zoobenthos-diversity indices richness of benthic communities	277 87 276 85 86 109b	HCMR- NP AZTI-JGR 330	Species number
DEVOTES indicators	CL_EU_11_DEV	847 CL_EU_11_DEV_847	Species diversity (Menhinick) of plankton	Plankton biodiversity indices Index of biodiversity Menhinick	31 313 159 314	Cefas - CL 131d IO-BAS 77	species composition, abundance
DEVOTES indicators	CL_EU_11_DEV	848 CL_EU_11_DEV_848	Abundance (per unit of surface) of structuring/engineering species (per habitat)	biomass or abundance (per unit of surface) of structuring/engineering species (per habitat)	86 85 276 87	AZTI-JGR 322a	
DEVOTES indicators	CL_EU_11_DEV	849 CL_EU_11_DEV_849	Substrate condition	hydrographic features, trophic characteristics, sediment characteristics Substratum composition/sediment character sediment characteristics (grain size, porosity, organic content, Eh, pollution) [infralitoral soft bottom habitats]	138	AZTI-JGR 293 UHULL-KM 180 AZTI-JGR 291	U-HULL-KM: Sediment grain size and proportion in bulk sediment classes (sand/silt/gravel) AZTI-JGR: grain size, porosity, organic content, Eh, pollutants
DEVOTES indicators	CL_EU_11_DEV	850 CL_EU_11_DEV_850	Number of endangered habitats and related species	Number of endangered habitats and related species	24	SYKE-LU 85	
DEVOTES indicators	CL_EU_11_DEV	850 CL_EU_11_DEV_850	Abundance ratio of fodder/non-fodder zooplankton	Zooplankton fodder/non-fodder ratio		MHI-AG 116a	species composition, abundance
DEVOTES indicators	CL_EU_11_DEV	851 CL_EU_11_DEV_851	Abundance of selected zooplankton species and taxa groups	[zooplankton] abundance of taxa and characteristic species Abundance/biomass of main zooplanktonic groups	63 83	AZTI-JGR 165 AZTI-JGR 316a	species composition and abundance data
DEVOTES indicators	CL_EU_11_DEV	852 CL_EU_11_DEV_852	Abundance of functional groups of fish	Abundance of key functional groups of coastal fish Trophic composition of fish populations	166	SYKE-LU 17 KAUST-SC 114	SYKE: Species abundances KAUST: species composition and numbers/counts per functional group
DEVOTES indicators	CL_EU_11_DEV	853 CL_EU_11_DEV_853	Abundance of phytoplankton	[Phytoplankton] population abundance and/or biomass biomass and abundance	61 63	AZTI-JGR 156a AZTI-JGR 164a	statistical descriptors (box-plot) of the biomass and abundance of taxa (global, segmented by season, segmented by space).
DEVOTES indicators	CL_EU_11_DEV	854 CL_EU_11_DEV_854	Abundance of seals	Abundance of seals Abundance and long-term development of seal species (grey seal, ringed seal) Size, characteristics and distribution of the population of monk seals in marine subareas	26 24	SYKE-LU 29 SYKE-LU 46 HCMR-NP 1	
DEVOTES indicators	CL_EU_11_DEV	855 CL_EU_11_DEV_855	Abundance of selected benthic invertebrate species	Population size of key benthos fauna species abundance average abundance	72 155	MHI-OK 120a IO-BAS 45 IO-BAS 42 IO-BAS 3 IO-BAS 38	abundance

DEVOTES indicators	CL_EU_11_DEV	856 CL_EU_11_DEV_856	Abundance of selected phytoplankton species and taxa groups	[phytoplankton] abundance of taxa and characteristic species Abundance of phytoplankton, diatoms, dinoflagellates; and ratio diatoms/dinoflagellates.	63 80	AZTI-JGR 161 AZTI-JGR 308a	species composition and abundance data
DEVOTES indicators	CL_EU_11_DEV	857 CL_EU_11_DEV_857	Abundance of zooplankton	[zooplankton] population abundance and/or biomass [zooplankton] biomass and abundance Zooplankton mean size and total abundance Zooplankton mean size and total abundance	61 63 94 24	AZTI-JGR 155a AZTI-JGR 167a KUICORPI- MBAZ 18a SYKE-LU 20 SYKE-LU 68	statistical descriptors (box-plot) of the biomass and abundance of functional groups (global, segmented by season, segmented by species); KUICORPI: mean biomass and total abundance of species SYKE Zooplankton monitoring data
DEVOTES indicators	CL_EU_11_DEV	858 CL_EU_11_DEV_858	Areal extent of eelgrass	Eelgrass coverage Areal extent of intertidal eelgrass	66 46 48 49	AU-DK/JHA 142 MarLim-KF 111	Areal extent data of eelgrass
DEVOTES indicators	CL_EU_11_DEV	859 CL_EU_11_DEV_859	Areal extent of <i>Posidonia oceanica</i> meadows	Area occupied by <i>Posidonia oceanica</i> meadows; Mapping of the <i>Posidonia oceanica</i> meadows	62	AZTI-JGR 238; HCMR-NP 118a	
DEVOTES indicators	CL_EU_11_DEV	860 CL_EU_11_DEV_860	Areal extent of protected sea areas	Area of protected sea areas	24		SYKE-LU 86
DEVOTES indicators	CL_EU_11_DEV	861 CL_EU_11_DEV_861	Abundance of opportunistic macroalgae	Abundance of perennial seaweeds, Abundance of shade-adapted, slow growing calcareous species, Abundance of opportunistic macroalgae, Ecological Evaluation Index (EEI), PREI index ( <i>Posidonia</i> ), BENTIX index			HCMR- NP 115b
DEVOTES indicators	CL_EU_11_DEV	863 CL_EU_11_DEV_863	EEI - Ecological Evaluation Index	Ecological evaluation index (EEI), Ecological evaluation index (EEIc), Ecological Evaluation Index (EEI), PREI index ( <i>Posidonia</i> ), BENTIX index	183 273 271 155 358	IO-BAS 26, IO- BAS 17, IO- BAS 27, HCMR NP 114a	coverage area Ecological State Group I, II species IO-BAS: macroalgae community taxonomic structure (biomass)
DEVOTES indicators	CL_EU_11_DEV	865 CL_EU_11_DEV_865	BENTIX	BENTIX index, BENTIX, BENTIX index	199 167 257 359 360 361 362	HCMR-NP 7a, JRC-HT 51, HCMR-NP 114c	taxonomic identification (or lowest reliable taxon level possible), abundance (individuals count per area)
DEVOTES indicators	CL_EU_11_DEV	866 CL_EU_11_DEV_866	Biomass of engineering species	biomass of engineering species	85 86		AZTI-JGR 328 AZTI-JGR 383
DEVOTES indicators	CL_EU_11_DEV	867 CL_EU_11_DEV_867	Dietary functional group biomass	Dietary functional group biomass	44 34	Cefas-CL 154	Biomass of pelagic planktivores, pelagic piscivores, demersal benthivores, demersal planktivores and omnivores.
DEVOTES indicators	CL_EU_11_DEV	868 CL_EU_11_DEV_868	Biomass of mesozooplankton	Mesozooplankton wet biomass	318	IO-BAS 84 IO-BAS 85 IO-BAS 86	wet biomass
DEVOTES indicators	CL_EU_11_DEV	869 CL_EU_11_DEV_869	Biomass of <i>Mnemiopsis leidyi</i>	wet biomass Biomass of <i>Mnemiopsis leidyi</i>	319 318 71 266 267	IO-BAS 87 MHI-OK 119	wet biomass
DEVOTES indicators	CL_EU_11_DEV	87 CL_EU_11_DEV_87	Ballast water treatment indicator	Ballast water treatment indicator	24		SYKE-LU 87

DEVOTES indicators	CL_EU_11_DEV	870 CL_EU_11_DEV_870	Biomass of structuring species	biomass of structure-forming species biomass of structure-forming or bioconstructor species biomass of structuring species	61 79 63 78 62	AZTI-IGR 278 AZTI-IGR 286 AZTI-IGR 280
DEVOTES indicators	CL_EU_11_DEV	871 CL_EU_11_DEV_871	Biomass ratio of ESG IA species	% of ESG IA species from the total biomass	156 271	IO-BAS 14 IO-BAS 24 IO-BAS 89
DEVOTES indicators	CL_EU_11_DEV	872 CL_EU_11_DEV_872	Biomass ratio of non-indigenous/native species	Ratio non-indigenous/native species biomass	321	IO-BAS 88 IO-BAS 89
DEVOTES indicators	CL_EU_11_DEV	873 CL_EU_11_DEV_873	LFI - Large Fish indicator	Large fish individuals from fishery-based data sources; FC2 ODFAR ECOQ for proportion of large fish (LFI); Large fish indicator (LFI); Proportion of large fish in the community; Abundance index of large (T>250 mm) perch (Perca fluviatilis) in monitoring catches	28 236 32 236 SYKE-LU 104, 150 82 83 80 Cefas-SN 121, 81 66 148 150 AZTI-IGR 304, 26 AU-OKU/JHA 133, IMAR-HV 109, SYKE-LU 16, SYKE-LU 37, JRC-HT	Fishery-dependent data, i.e. catch samples from commercial fishery; trawl survey data. Estimates of biomass by size group and a size limit for each ecosystem is required
DEVOTES indicators	CL_EU_11_DEV	874 CL_EU_11_DEV_874	Body length distribution of demersal fishes, elasmobranchs and invertebrates	[Demersal fishes and elasmobranchs] trends based upon 95th percentile of the fish length distribution [Demersal fishes, elasmobranchs and invertebrates] 95th percentile of the fish length distribution	63 62	AZTI-IGR 177 AZTI-IGR 179
DEVOTES indicators	CL_EU_11_DEV	875 CL_EU_11_DEV_875	Body length distribution of selected (long-living) benthic invertebrate species	Size distribution of long-living macrozoobenthic animals Size distribution of benthic long-living species	24 28	SYKE-LU 69 SYKE-LU 108
DEVOTES indicators	CL_EU_11_DEV	876 CL_EU_11_DEV_876	BQI - Benthic Quality Index	Benthic Quality Index (BQI)	46 329 197 167 327 94	MarLIM-KF 129 SYKE-LU 38 SYKE-LU 39 JRC-HT 48 KUCORPI- MBAZ 20
DEVOTES indicators	CL_EU_11_DEV	877 CL_EU_11_DEV_877	CIMPAL - Cumulative IMPacts of invasive Alien species	CIMPAL - Cumulative IMPacts of invasive Alien species	336 337	JRC-HT - georeferenced species distribution data (abundance or presence-absence); - georeferenced habitat distribution data; - magnitude of all ecological impacts of a species in the ecosystem (be it on species, populations, community or habitat).
DEVOTES indicators	CL_EU_11_DEV	878 CL_EU_11_DEV_878	Fish distributional pattern (FC8)	FC8 Distributional pattern within range of a suite of selected species		JRC-HT
DEVOTES indicators	CL_EU_11_DEV	879 CL_EU_11_DEV_879	MMI - Multi-metric index (BH2)	BH2 Multi-metric index (MMI)		JRC-HT
DEVOTES indicators	CL_EU_11_DEV	880 CL_EU_11_DEV_880	Number of hunted seals (grey seal, ringed seal)	Number of hunted seals (grey seal, ringed seal)	24	SYKE-LU 88
DEVOTES indicators	CL_EU_11_DEV	880 CL_EU_11_DEV_880	Common Size composition in fish communities (FW3)	FW3 Common Size composition in fish communities (Tyl)	339	JRC-HT number of fish in a sample (N) body mass of each fish in a sample (M) length of each fish in a sample (L)

DEVOTES indicators	CL_EU_11_DEV	881 CL_EU_11_DEV_881	Changes in average trophic level of marine predators (FW4)	FW4 Changes in average trophic level of marine predators (Marine Trophic Index)	340	JRC-HT	species mean trophic level (TL) species biomass (only high trophic level species > 3.25)
DEVOTES indicators	CL_EU_11_DEV	882 CL_EU_11_DEV_882	Conservation status of elasmobranch and demersal bony-fish species (IUCN) (FCS)	FCS Conservation status of elasmobranch and demersal bony-fish species (IUCN)		JRC-HT	
DEVOTES indicators	CL_EU_11_DEV	883 CL_EU_11_DEV_883	Proportion of mature fish (FC6)	FC6 Proportion of mature fish		JRC-HT	
DEVOTES indicators	CL_EU_11_DEV	884 CL_EU_11_DEV_884	Distributional range (FC7)	FC7 Distributional range			
DEVOTES indicators	CL_EU_11_DEV	885 CL_EU_11_DEV_885	Ecological Network Analysis indicator (FW9)	FW9 Ecological Network Analysis indicator		JRC-HT	The model will need information on the biomass of different trophic groups (e.g. production for phytoplankton) and dietary data that can be obtained from, e.g. stable isotopes, stomach contents, etc. Minimum requirements are biomass of dominant compartments and the local primary production. Other variables for
DEVOTES indicators	CL_EU_11_DEV	886 CL_EU_11_DEV_886	Multimetric BENTIX	Multimetric BENTIX	363 362 360 255	JRC-HT	BENTIX index; Shannon diversity index; Species richness. (Search also respective catalogue entries for further details on BENTIX and Shannon diversity indices).
DEVOTES indicators	CL_EU_11_DEV	887 CL_EU_11_DEV_887	Accumulated cover of perennial macroalgae	Accumulated cover of perennial macroalgae		LU-SYKE	Macroalgae coverage, % ( <a href="http://www.sae.ee/marmoni_pulk/docs/19.pdf">http://www.sae.ee/marmoni_pulk/docs/19.pdf</a> )
DEVOTES indicators	CL_EU_11_DEV	888 CL_EU_11_DEV_888	Accumulated cover of submerged vascular plants	Accumulated cover of submerged vascular plants		LU-SYKE	submerged vascular plant cover ( <a href="http://www.sae.ee/marmoni_pulk/docs/10.pdf">http://www.sae.ee/marmoni_pulk/docs/10.pdf</a> )
DEVOTES indicators	CL_EU_11_DEV	889 CL_EU_11_DEV_889	Beach wrack Macrovegetation Index (BMI)	Beach wrack Macrovegetation Index (BMI)		LU-SYKE	Sampled transects parallel to shore line ( <a href="http://www.sae.ee/marmoni_pulk/docs/11.pdf">http://www.sae.ee/marmoni_pulk/docs/11.pdf</a> )
DEVOTES indicators	CL_EU_11_DEV	89 CL_EU_11_DEV_89	Reproductive health of seals (grey seal, ringed seal)	Reproductive health of seals (grey seal, ringed seal)	24	SYKE-LU 89, JRC-HT	
DEVOTES indicators	CL_EU_11_DEV	890 CL_EU_11_DEV_890	Indicator of macroalgal community structure (MCS)	Indicator of macroalgal community structure (MCS)		LU-SYKE	coverage data of different functional and structural groups of macroalgae ( <a href="http://www.sae.ee/marmoni_pulk/docs/12.pdf">http://www.sae.ee/marmoni_pulk/docs/12.pdf</a> )
DEVOTES indicators	CL_EU_11_DEV	891 CL_EU_11_DEV_891	Habitat diversity index	Habitat diversity index		MARMONI indicator	Habitat data on GIS format ( <a href="http://www.sae.ee/marmoni_pulk/docs/13.pdf">http://www.sae.ee/marmoni_pulk/docs/13.pdf</a> )
DEVOTES indicators	CL_EU_11_DEV	892 CL_EU_11_DEV_892	Seafloor exploitation index	Seafloor exploitation index		MARMONI indicator	LU-SYKE Georeference d data on direct anthropogenic disturbances on seabed ( <a href="http://www.sae.ee/marmoni_pulk/docs/14.pdf">http://www.sae.ee/marmoni_pulk/docs/14.pdf</a> )
DEVOTES indicators	CL_EU_11_DEV	893 CL_EU_11_DEV_893	Spectral variability index	Spectral variability index		MARMONI indicator	LU-SYKE Georeference d remotely sensed imagery of a sea area ( <a href="http://www.sae.ee/marmoni_pulk/docs/15.pdf">http://www.sae.ee/marmoni_pulk/docs/15.pdf</a> )

DEVOTES indicators	CL_EU_11_DEV	894 CL_EU_11_DEV_894	Condition of soft sediment habitats – the aRPD approach	Condition of soft sediment habitats – the aRPD approach	MARMONI indicator	LU-SYKE	RPD depth data ( <a href="http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/116.pdf">http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/116.pdf</a> )
DEVOTES indicators	CL_EU_11_DEV	895 CL_EU_11_DEV_895	Population structure of <i>Macoma balthica</i>	Population structure of <i>Macoma balthica</i>	MARMONI indicator	LU-SYKE	size distribution of <i>M. balthica</i> ( <a href="http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/117.pdf">http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/117.pdf</a> )
DEVOTES indicators	CL_EU_11_DEV	896 CL_EU_11_DEV_896	<i>Cladophora glomerata</i> growth rate	<i>Cladophora glomerata</i> growth rate	MARMONI indicator	LU-SYKE	Growth rate of <i>C. glomerata</i> ( <a href="http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/118.pdf">http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/118.pdf</a> )
DEVOTES indicators	CL_EU_11_DEV	897 CL_EU_11_DEV_897	Community heterogeneity (CH)	Community heterogeneity (CH)	MARMONI indicator	LU-SYKE	Heterogeneity of communities ( <a href="http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/120.pdf">http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/120.pdf</a> )
DEVOTES indicators	CL_EU_11_DEV	898 CL_EU_11_DEV_898	Number of functional traits (NFT)	Number of functional traits (NFT)	MARMONI indicator	LU-SYKE	number of functions (biological traits) in the system ( <a href="http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/121.pdf">http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/121.pdf</a> )
DEVOTES indicators	CL_EU_11_DEV	899 CL_EU_11_DEV_899	Areal extent of reed belts	Reed belt extent – the NDVI approach via high resolution satellite images	MARMONI indicator	LU-SYKE	Extent of reed belts ( <a href="http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/143.pdf">http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/143.pdf</a> )
DEVOTES indicators	CL_EU_11_DEV	900 CL_EU_11_DEV_900	Age/sex ratio of waterbird species (ARI/SRI)	Age/sex ratio of waterbird species (ARI/SRI)	MARMONI indicator	LU-SYKE	<a href="http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/144.pdf">http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/144.pdf</a>
DEVOTES indicators	CL_EU_11_DEV	901 CL_EU_11_DEV_901	Proportion of oiled waterbirds	Proportion of oiled waterbirds	MARMONI indicator	LU-SYKE	<a href="http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/145.pdf">http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/145.pdf</a>
DEVOTES indicators	CL_EU_11_DEV	902 CL_EU_11_DEV_902	Abundance index of beached birds	Abundance index of beached birds	MARMONI indicator ( <a href="http://www.s ea.ee/marmo ni/project.php">http://www.s ea.ee/marmo ni/project.php</a> )	LU-SYKE	<a href="http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/146.pdf">http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/146.pdf</a>
DEVOTES indicators	CL_EU_11_DEV	903 CL_EU_11_DEV_903	Indicator on condition of waterbirds	Indicator on condition of waterbirds	MARMONI indicator ( <a href="http://www.s ea.ee/marmo ni/project.php">http://www.s ea.ee/marmo ni/project.php</a> )	LU-SYKE	<a href="http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/148.pdf">http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/148.pdf</a>
DEVOTES indicators	CL_EU_11_DEV	904 CL_EU_11_DEV_904	Feeding pressure on waterbird food sources	Feeding pressure on waterbird food sources	MARMONI indicator ( <a href="http://www.s ea.ee/marmo ni/project.php">http://www.s ea.ee/marmo ni/project.php</a> )	LU-SYKE	<a href="http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/149.pdf">http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/149.pdf</a>
DEVOTES indicators	CL_EU_11_DEV	905 CL_EU_11_DEV_905	Abundance and distribution of juvenile flounder	Abundance and distribution of juvenile flounder	MARMONI indicator ( <a href="http://www.s ea.ee/marmo ni/project.php">http://www.s ea.ee/marmo ni/project.php</a> )	LU-SYKE	<a href="http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/150.pdf">http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/150.pdf</a>
DEVOTES indicators	CL_EU_11_DEV	906 CL_EU_11_DEV_906	Long term abundance and distribution of demersal fish in relation to benthic communities (fourhorn sculpin <i>Myoxocephalus quadricornis</i> and eelpout <i>Zoarces viviparus</i> example)	Long term abundance and distribution of demersal fish in relation to benthic communities (fourhorn sculpin <i>Myoxocephalus quadricornis</i> and eelpout <i>Zoarces viviparus</i> example)	MARMONI indicator ( <a href="http://www.s ea.ee/marmo ni/project.php">http://www.s ea.ee/marmo ni/project.php</a> )	LU-SYKE	<a href="http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/152.pdf">http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/152.pdf</a>
DEVOTES indicators	CL_EU_11_DEV	907 CL_EU_11_DEV_907	Abundance and impact of non-native fish species (round goby example)	Abundance and impact of non-native fish species (round goby example)	MARMONI indicator ( <a href="http://www.s ea.ee/marmo ni/project.php">http://www.s ea.ee/marmo ni/project.php</a> )	LU-SYKE	<a href="http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/153.pdf">http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/153.pdf</a>
DEVOTES indicators	CL_EU_11_DEV	908 CL_EU_11_DEV_908	The length at sexual maturation of female pikeperch ( <i>Sander lucioperca</i> ) in monitoring catches	The length at sexual maturation of female pikeperch ( <i>Sander lucioperca</i> ) in monitoring catches	MARMONI indicator ( <a href="http://www.s ea.ee/marmo ni/project.php">http://www.s ea.ee/marmo ni/project.php</a> )	LU-SYKE	<a href="http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/154.pdf">http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/154.pdf</a>
DEVOTES indicators	CL_EU_11_DEV	909 CL_EU_11_DEV_909	Trophic diversity index of juvenile fish	Trophic diversity index of juvenile fish	MARMONI indicator ( <a href="http://www.s ea.ee/marmo ni/project.php">http://www.s ea.ee/marmo ni/project.php</a> )	LU-SYKE	<a href="http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/157.pdf">http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/157.pdf</a>
DEVOTES indicators	CL_EU_11_DEV	91 CL_EU_11_DEV_91	Number of dredging permits and the amount dredged related to them	Number of dredging permits and the amount dredged related to them		24	SYKE-LU 91
DEVOTES indicators	CL_EU_11_DEV	910 CL_EU_11_DEV_910	Habitat-related functional diversity of juvenile fish	Habitat-related functional diversity of juvenile fish	MARMONI indicator ( <a href="http://www.s ea.ee/marmo ni/project.php">http://www.s ea.ee/marmo ni/project.php</a> )		<a href="http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/184.pdf">http://www.s ea.ee/marmo ni/marmoni_p ulk/docs/184.pdf</a>

DEVOTES indicators	CL_EU_11_DEV	911 CL_EU_11_DEV_911	Phytoplankton species assemblage clusters based on environmental factors	Phytoplankton species assemblage clusters based on environmental factors	MARMONI indicator ( <a href="http://www.sae.ee/marmoni/marmoni_pulk/docs/124.pdf">http://www.sae.ee/marmoni/marmoni_pulk/docs/124.pdf</a> )	phytoplankton biomass ( <a href="http://www.sae.ee/marmoni/marmoni_pulk/docs/126.pdf">http://www.sae.ee/marmoni/marmoni_pulk/docs/126.pdf</a> )
DEVOTES indicators	CL_EU_11_DEV	912 CL_EU_11_DEV_912	Cyanobacterial surface accumulations - the CSA-index	Cyanobacteria I surface accumulations - the CSA-index	MARMONI indicator ( <a href="http://www.sae.ee/marmoni/marmoni_pulk/docs/126.pdf">http://www.sae.ee/marmoni/marmoni_pulk/docs/126.pdf</a> )	<a href="http://www.sae.ee/marmoni/marmoni_pulk/docs/126.pdf">http://www.sae.ee/marmoni/marmoni_pulk/docs/126.pdf</a>
DEVOTES indicators	CL_EU_11_DEV	913 CL_EU_11_DEV_913	Phytoplankton trait- and dendrogram based functional diversity index (FD)	Phytoplankton trait- and dendrogram based functional diversity index (FD)	MARMONI indicator ( <a href="http://www.sae.ee/marmoni/marmoni_pulk/docs/128.pdf">http://www.sae.ee/marmoni/marmoni_pulk/docs/128.pdf</a> )	microscopy results of phytoplankton ( <a href="http://www.sae.ee/marmoni/marmoni_pulk/docs/128.pdf">http://www.sae.ee/marmoni/marmoni_pulk/docs/128.pdf</a> )
DEVOTES indicators	CL_EU_11_DEV	914 CL_EU_11_DEV_914	Spring bloom intensity index	Spring bloom intensity index	MARMONI indicator ( <a href="http://www.sae.ee/marmoni/marmoni_pulk/docs/129.pdf">http://www.sae.ee/marmoni/marmoni_pulk/docs/129.pdf</a> )	<a href="http://www.sae.ee/marmoni/marmoni_pulk/docs/129.pdf">http://www.sae.ee/marmoni/marmoni_pulk/docs/129.pdf</a>
DEVOTES indicators	CL_EU_11_DEV	915 CL_EU_11_DEV_915	Copepod biomass	Copepod biomass	MARMONI indicator ( <a href="http://www.sae.ee/marmoni/marmoni_pulk/docs/130.pdf">http://www.sae.ee/marmoni/marmoni_pulk/docs/130.pdf</a> )	<a href="http://www.sae.ee/marmoni/marmoni_pulk/docs/130.pdf">http://www.sae.ee/marmoni/marmoni_pulk/docs/130.pdf</a>
DEVOTES indicators	CL_EU_11_DEV	916 CL_EU_11_DEV_916	Zooplankton diversity	Zooplankton diversity	MARMONI indicator ( <a href="http://www.sae.ee/marmoni/marmoni_pulk/docs/131.pdf">http://www.sae.ee/marmoni/marmoni_pulk/docs/131.pdf</a> )	<a href="http://www.sae.ee/marmoni/marmoni_pulk/docs/131.pdf">http://www.sae.ee/marmoni/marmoni_pulk/docs/131.pdf</a>
DEVOTES indicators	CL_EU_11_DEV	918 CL_EU_11_DEV_918	Biomass of micropagous mesozooplankton	Micropagous mesozooplankton biomass	MARMONI indicator ( <a href="http://www.sae.ee/marmoni/marmoni_pulk/docs/132.pdf">http://www.sae.ee/marmoni/marmoni_pulk/docs/132.pdf</a> )	<a href="http://www.sae.ee/marmoni/marmoni_pulk/docs/132.pdf">http://www.sae.ee/marmoni/marmoni_pulk/docs/132.pdf</a>
DEVOTES indicators	CL_EU_11_DEV	92 CL_EU_11_DEV_92	Cumulative effect of human activities	Cumulative effect of human activities		24 SYKE-LU 92
DEVOTES indicators	CL_EU_11_DEV	920 CL_EU_11_DEV_920	Habitat distributional range (Comind1)	Habitat distributional range (Common Indicator 1)	MedCommInd ( <a href="https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast">https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast</a> )	JRC-HT
DEVOTES indicators	CL_EU_11_DEV	921 CL_EU_11_DEV_921	Condition of the habitat's typical species and communities (Comind2)	Condition of the habitat's typical species and communities (Common Indicator 2)	MedCommInd ( <a href="https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast">https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast</a> )	JRC-HT
DEVOTES indicators	CL_EU_11_DEV	922 CL_EU_11_DEV_922	Species distributional range (Comind3)	Species distributional range (related to marine mammals, seabirds, marine reptiles) (Common Indicator 3)	MedCommInd ( <a href="https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast">https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast</a> )	JRC-HT
DEVOTES indicators	CL_EU_11_DEV	923 CL_EU_11_DEV_923	Population abundance of selected species (Comind4)	Population abundance of selected species (related to marine mammals, seabirds, marine reptiles) (Common Indicator 4)	MedCommInd ( <a href="https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast">https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast</a> )	JRC-HT
DEVOTES indicators	CL_EU_11_DEV	924 CL_EU_11_DEV_924	Population demographic characteristics (Comind5)	Population demographic characteristics (e.g. body size or age class structure, sex ratio, fecundity rates, survival/mortality rates related to marine mammals, seabirds, marine reptiles) (Common Indicator 5)	MedCommInd ( <a href="https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast">https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast</a> )	JRC-HT
DEVOTES indicators	CL_EU_11_DEV	925 CL_EU_11_DEV_925	Trends in abundance, temporal occurrence, and spatial distribution of NIS, particularly IAS, notably in risk areas (Comind6)	Trends in abundance, temporal occurrence, and spatial distribution of non-indigenous species, particularly invasive, non-indigenous species, notably in risk areas (Common Indicator 6)	MedCommInd ( <a href="https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast">https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast</a> )	JRC-HT

DEVOTES indicators	CL_EU_11_DEV	926 CL_EU_11_DEV_926	Bycatch of vulnerable and non-target species (Comind12)	Bycatch of vulnerable and non-target species (Common Indicator 12)	MedCommInd ( <a href="https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast">https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast</a> )	JRC-HT
DEVOTES indicators	CL_EU_11_DEV	927 CL_EU_11_DEV_927	Location and extent of the habitats impacted directly by hydrographic alterations (Comind15)	Location and extent of the habitats impacted directly by hydrographic alterations (Common Indicator 15)	MedCommInd ( <a href="https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast">https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast</a> )	JRC-HT
DEVOTES indicators	CL_EU_11_DEV	928 CL_EU_11_DEV_928	Length of coastline subject to physical disturbance due to the influence of man-made structures (Comind16)	Length of coastline subject to physical disturbance due to the influence of man-made structures (Common Indicator 16)	MedCommInd ( <a href="https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast">https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast</a> )	JRC-HT
DEVOTES indicators	CL_EU_11_DEV	929 CL_EU_11_DEV_929	Spawning stock Biomass (Comind7)	Spawning stock Biomass (Common Indicator 7)	MedCommInd ( <a href="https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast">https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast</a> )	JRC-HT
DEVOTES indicators	CL_EU_11_DEV	93 CL_EU_11_DEV_93	Index describing recovery of underwater deposition sites	Index describing recovery of underwater deposition sites		24 SYKE-LU 93
DEVOTES indicators	CL_EU_11_DEV	930 CL_EU_11_DEV_930	Total landings (Comind8)	Total landings (Common Indicator 8)	MedCommInd ( <a href="https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast">https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast</a> )	JRC-HT
DEVOTES indicators	CL_EU_11_DEV	931 CL_EU_11_DEV_931	Fishing Mortality (Comind9)	Fishing Mortality (Common Indicator 9)	MedCommInd ( <a href="https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast">https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast</a> )	JRC-HT
DEVOTES indicators	CL_EU_11_DEV	932 CL_EU_11_DEV_932	Fishing Effort (Comind10)	Fishing Effort (Common Indicator 10)	MedCommInd ( <a href="https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast">https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast</a> )	JRC-HT
DEVOTES indicators	CL_EU_11_DEV	933 CL_EU_11_DEV_933	CPUE - Catch per unit of effort (Comind11)	Catch per unit of effort (CPUE) (Common Indicator 11)	MedCommInd ( <a href="https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast">https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast</a> )	JRC-HT
DEVOTES indicators	CL_EU_11_DEV	934 CL_EU_11_DEV_934	Concentration of key nutrients in water column (Comind13)	Concentration of key nutrients in water column (Common Indicator 13)	MedCommInd ( <a href="https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast">https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast</a> )	JRC-HT
DEVOTES indicators	CL_EU_11_DEV	935 CL_EU_11_DEV_935	Chlorophyll-a concentration in water column (Comind14)	Chlorophyll-a concentration in water column (Common Indicator 14)	MedCommInd ( <a href="https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast">https://www.medqr.org/integrated-monitoring-and-assessment-programme-mediterranean-sea-and-coast</a> )	364 JRC-HT

DEVOTES indicators	CL_EU_11_DEV	936 CL_EU_11_DEV_936	MFCI - Marine Fish Community Index	Marine Fish Community Index (MFCI)	365	JRC-HR	Total number of species; Number of rare or uncommon species/total number of species; Pelagic/demersal ratio (in number of species) (for intermediate and deep soft-bottoms); Total Abundance ( $\ln(n+1)$ ) or simply Total Abundance for rocky subtidal; Number of species that make up 90% of abundance excluding gregarious
DEVOTES indicators	CL_EU_11_DEV	937 CL_EU_11_DEV_937	Oceanic fronts	Oceanic fronts	366 368	JRC-HT	Use of thermal and colour fronts using Earth Observation (EO) data to develop frequent front maps. Front locations are composited to calculate the mean frontal gradient ( $F_{mean}$ ), the probability of detecting a front ( $P_{front}$ ), and the evidence for a front proximity ( $P_{prox}$ ). These weighting factors are recombinined as the composite front map
DEVOTES indicators	CL_EU_11_DEV	938 CL_EU_11_DEV_938	Glophymed - Global phytoplankton Mediterranean	Glophymed - Global phytoplankton Mediterranean	369	JRC-HT	The biomass metric requires data on 90th percentile of Chl a (for a five-year period), both in the water body and in a reference site. The Composition metric requires data on Total Eukaryotic cells, Cyanobacteria, Picocyanobacteria, Prymnesiophyceae, Diatom, Cryptophyceae. The Bloom metric
DEVOTES indicators	CL_EU_11_DEV	939 CL_EU_11_DEV_939	TL - Trophic Level-based indicators	TL - Trophic Level-based indicators	370	JRC-HT	-TL (trophic level) of species ; -Total landings (for 1% of the landings) or Total biomass (for 1% of surveyed or modelled ecosystems); -Landings or Biomass of species i.
DEVOTES indicators	CL_EU_11_DEV	94 CL_EU_11_DEV_94	Index for the sea-floor geological stability (physical integrity)	Index for the sea-floor geological stability (physical integrity)	24	SYKE-LU 94	"
DEVOTES indicators	CL_EU_11_DEV	940 CL_EU_11_DEV_940	ESCA - Ecological Status of Coralligenous Assemblages	ESCA - Ecological Status of Coralligenous Assemblages	371 372	JRC-HT	presence/absence and abundance of several taxon groups; assemblage taxonomic composition

DEVOTES indicators	CL_EU_11_DEV	941 CL_EU_11_DEV_941	COARSE - Coralligenous Assessment by Reefscape Estimate index	Coralligenous Assessment by Reefscape Estimate index (COARSE)	373 374	JRC-HT	Biotic cover (%), conspicuous species richness, three dimensional structure of coralligenous reefs (e.g. thickness and consistency of calcareous layer, erect calcified organisms, maximum height), necrosis status, traits (e.g. species sensitivity). See details in Sources: Gatti et al. 2015.
DEVOTES indicators	CL_EU_11_DEV	942 CL_EU_11_DEV_942	CAI - Coralligenous Assemblage Index	Coralligenous Assemblage Index (CAI)	375	JRC-HT	Bryozoa percent cover, periphyton percent cover, boulder species percent cover; (and depth as supporting parameter, not entering the index).
DEVOTES indicators	CL_EU_11_DEV	96 CL_EU_11_DEV_96	By-catch of marine mammals, sea-birds and non-target fish	By-catch of marine mammals, sea-birds and non-target fish	28	SYKE-LU 96	
DEVOTES indicators	CL_EU_11_DEV	97 CL_EU_11_DEV_97	Impacts of anthropogenic under-water noise on marine mammals	Impacts of anthropogenic under-water noise on marine mammals	28	SYKE-LU 97	Monitoring and modelling of underwater noise; abundance surveys of marine mammals; mammal habitat modelling.
DEVOTES indicators	CL_EU_11_DEV	98 CL_EU_11_DEV_98	Fatty-acid composition of seals as measure of food composition	Fatty-acid composition of seals as measure of food composition	28	SYKE-LU 98	
EBV	CL_INTL_02_EBV_V	1 CL_INTL_02_EBV_1	able to capture critical scales and dimensions of biodiversity	A central question to GEO BON is: what is the magnitude and direction of biodiversity change for the essential dimensions of biodiversity? But what are the essential dimensions of biodiversity? A useful approach is to use the different levels of biological organization: genes, species, populations, and ecosystems, as well as ...			
EBV	CL_INTL_02_EBV_V	2 CL_INTL_02_EBV_2	biological	<a href="https://geobon.n.org/downloads/ads/government/ce-documents/Essential_Biodiversity_Variability_Strategy_v2.pdf">https://geobon.n.org/downloads/ads/government/ce-documents/Essential_Biodiversity_Variability_Strategy_v2.pdf</a>	biological values		
EBV	CL_INTL_02_EBV_V	3 CL_INTL_02_EBV_3	a state variable (in general)	<a href="https://geobon.n.org/downloads/ads/government/ce-documents/Essential_Biodiversity_Variability_Strategy_v2.pdf">https://geobon.n.org/downloads/ads/government/ce-documents/Essential_Biodiversity_Variability_Strategy_v2.pdf</a>	state variable		
EBV	CL_INTL_02_EBV_V	4 CL_INTL_02_EBV_4	ecosystem agnostic (to the degree possible)	<a href="https://biomes.net.ac.uk/main/outputs/files/2018/05/2018_Zurich_v2.pdf">https://biomes.net.ac.uk/main/outputs/files/2018/05/2018_Zurich_v2.pdf</a>	ecosystem		
EBV	CL_INTL_02_EBV_V	5 CL_INTL_02_EBV_5	technically feasible, economically viable and sustainable in time	<a href="https://biomes.net.ac.uk/main/outputs/files/2018/05/2018_Zurich_v2.pdf">https://biomes.net.ac.uk/main/outputs/files/2018/05/2018_Zurich_v2.pdf</a>	economic value		

EBV	CL_INTL_02_EB_V	6 CL_INTL_02_EBV_6	sensitive to change	<a href="https://bioRxiv.sensitivity.ncbi.ac.uk/mari/onefile/files/2018/05/2018_Zurich_v2.pdf">https://bioRxiv.sensitivity.ncbi.ac.uk/mari/onefile/files/2018/05/2018_Zurich_v2.pdf</a> <a href="https://geobon.org/downloads/Essential_Biodiversity_Variability_V2.pdf">https://geobon.org/downloads/Essential_Biodiversity_Variability_V2.pdf</a>
EBV	CL_INTL_02_EB_V	A1	CL_INTL_02_EBV_A1	Intraspecific genetic diversity: The variation in DNA sequences among individuals of the same species.
EBV	CL_INTL_02_EB_V	A2	CL_INTL_02_EBV_A2	Genetic differentiation: Divergence in genetic composition (identity and frequencies of alleles) among multiple populations.
EBV	CL_INTL_02_EB_V	A3	CL_INTL_02_EBV_A3	Effective population size: The number of individuals in an idealized population that will exhibit the same amount of genetic diversity loss as the population under consideration.
EBV	CL_INTL_02_EB_V	A4	CL_INTL_02_EBV_A4	Inbreeding: Mating between related individuals.
EBV	CL_INTL_02_EB_V	B1	CL_INTL_02_EBV_B1	Species distributions: The species occurrence probability over contiguous spatial and temporal units addressing the global extent of a species group.
EBV	CL_INTL_02_EB_V	B2	CL_INTL_02_EBV_B2	Species abundances: Predicted count of individuals over contiguous spatial and temporal units addressing the global extent of a species group.
EBV	CL_INTL_02_EB_V	C1	CL_INTL_02_EBV_C1	Morphology: The variation in physical attributes of organisms of the same species.
EBV	CL_INTL_02_EB_V	C2	CL_INTL_02_EBV_C2	Physiology: Chemical or physical functions promoting organism fitness and responses to environment.
EBV	CL_INTL_02_EB_V	C3	CL_INTL_02_EBV_C3	Phenology: Presence, absence, abundance or duration of seasonal activities of organisms.
EBV	CL_INTL_02_EB_V	C4	CL_INTL_02_EBV_C4	Movement: Behaviors related to the spatial mobility of organisms such as dispersal and migration routes.
EBV	CL_INTL_02_EB_V	C5	CL_INTL_02_EBV_C5	Reproduction: Sexual or asexual production of new individual organisms ('offspring') from parents. Examples: Age at maturity, number of offspring, lifetime reproductive output.
EBV	CL_INTL_02_EB_V	D1	CL_INTL_02_EBV_D1	Community abundance: The abundance of organisms in ecological assemblages.
EBV	CL_INTL_02_EB_V	D2	CL_INTL_02_EBV_D2	Taxonomic/phylogenetic diversity: The diversity of species identities, and/or phylogenetic positions, of organisms in ecological assemblages.
EBV	CL_INTL_02_EB_V	D3	CL_INTL_02_EBV_D3	Trait diversity: The diversity of functional traits of organisms in ecological assemblages.
EBV	CL_INTL_02_EB_V	D4	CL_INTL_02_EBV_D4	Interaction diversity: The diversity and structure of multi-trophic interactions between organisms in ecological assemblages.
EBV	CL_INTL_02_EB_V	E1	CL_INTL_02_EBV_E1	Primary productivity: The rate at which energy is transformed into organic matter primarily through photosynthesis.
EBV	CL_INTL_02_EB_V	E2	CL_INTL_02_EBV_E2	Ecosystem phenology: Duration and magnitude of cyclic processes observed at the ecosystem level, such as in vegetation activity, phytoplankton blooms, etc.
EBV	CL_INTL_02_EB_V	E3	CL_INTL_02_EBV_E3	Ecosystem disturbances: Abrupt deviances in the functioning of the ecosystem from its regular dynamics.
EBV	CL_INTL_02_EB_V	F1	CL_INTL_02_EBV_F1	Live cover fraction: The horizontal (or projected) fraction of area covered by living organisms, such as vegetation, macroalgae or live hard coral.
EBV	CL_INTL_02_EB_V	F2	CL_INTL_02_EBV_F2	Ecosystem distribution: The horizontal distribution of discrete ecosystem units.
EBV	CL_INTL_02_EB_V	F3	CL_INTL_02_EBV_F3	Ecosystem vertical profile: The vertical distribution of biomass in ecosystems, above and below the land surface.
Essential Ocean Variable	CL_INTL_03_E_OV	BC1	CL_INTL_03_EOV_BC1	Oxygen
Essential Ocean Variable	CL_INTL_03_E_OV	BC2	CL_INTL_03_EOV_BC2	Nutrients
Essential Ocean Variable	CL_INTL_03_E_OV	BC3	CL_INTL_03_EOV_BC3	Inorganic carbon
Essential Ocean Variable	CL_INTL_03_E_OV	BC4	CL_INTL_03_EOV_BC4	Transient tracers
Essential Ocean Variable	CL_INTL_03_E_OV	BC5	CL_INTL_03_EOV_BC5	Particulate matter
Essential Ocean Variable	CL_INTL_03_E_OV	BC6	CL_INTL_03_EOV_BC6	Nitrous oxide
Essential Ocean Variable	CL_INTL_03_E_OV	BC7	CL_INTL_03_EOV_BC7	Stable carbon isotopes
Essential Ocean Variable	CL_INTL_03_E_OV	BC8	CL_INTL_03_EOV_BC8	Dissolved organic carbon
Essential Ocean Variable	CL_INTL_03_E_OV	BE1	CL_INTL_03_EOV_BE1	Phytoplankton biomass and diversity
Essential Ocean Variable	CL_INTL_03_E_OV	BE10	CL_INTL_03_EOV_BE10	Invertebrate abundance and distribution (*emerging)
Essential Ocean Variable	CL_INTL_03_E_OV	BE2	CL_INTL_03_EOV_BE2	Zooplankton biomass and diversity
Essential Ocean Variable	CL_INTL_03_E_OV	BE3	CL_INTL_03_EOV_BE3	Fish abundance and distribution
Essential Ocean Variable	CL_INTL_03_E_OV	BE4	CL_INTL_03_EOV_BE4	Marine turtles, birds, mammals abundance and distribution
Essential Ocean Variable	CL_INTL_03_E_OV	BE5	CL_INTL_03_EOV_BE5	Hard coral cover and composition
Essential Ocean Variable	CL_INTL_03_E_OV	BE6	CL_INTL_03_EOV_BE6	Seagrass cover and composition
Essential Ocean Variable	CL_INTL_03_E_OV	BE7	CL_INTL_03_EOV_BE7	Macroalgal canopy cover and composition
Essential Ocean Variable	CL_INTL_03_E_OV	BE8	CL_INTL_03_EOV_BE8	Mangrove cover and composition
Essential Ocean Variable	CL_INTL_03_E_OV	BE9	CL_INTL_03_EOV_BE9	Microbe biomass and diversity (*emerging)
Essential Ocean Variable	CL_INTL_03_E_OV	CD1	CL_INTL_03_EOV_CD1	Ocean colour
Essential Ocean Variable	CL_INTL_03_E_OV	CD2	CL_INTL_03_EOV_CD2	Marine debris (*emerging)
Essential Ocean Variable	CL_INTL_03_E_OV	CD3	CL_INTL_03_EOV_CD3	Ocean sound
Essential Ocean Variable	CL_INTL_03_E_OV	P1	CL_INTL_03_EOV_P1	Sea state
Essential Ocean Variable	CL_INTL_03_E_OV	P10	CL_INTL_03_EOV_P10	Subsurface salinity
Essential Ocean Variable	CL_INTL_03_E_OV	P11	CL_INTL_03_EOV_P11	Ocean surface heat flux
Essential Ocean Variable	CL_INTL_03_E_OV	P2	CL_INTL_03_EOV_P2	Ocean surface stress
Essential Ocean Variable	CL_INTL_03_E_OV	P3	CL_INTL_03_EOV_P3	Sea ice
Essential Ocean Variable	CL_INTL_03_E_OV	P4	CL_INTL_03_EOV_P4	Sea surface height
Essential Ocean Variable	CL_INTL_03_E_OV	P5	CL_INTL_03_EOV_P5	Sea surface temperature
Essential Ocean Variable	CL_INTL_03_E_OV	P6	CL_INTL_03_EOV_P6	Subsurface temperature
Essential Ocean Variable	CL_INTL_03_E_OV	P7	CL_INTL_03_EOV_P7	Surface currents
Essential Ocean Variable	CL_INTL_03_E_OV	P8	CL_INTL_03_EOV_P8	Subsurface currents
Essential Ocean Variable	CL_INTL_03_E_OV	P9	CL_INTL_03_EOV_P9	Sea surface salinity

The IUCN Red List of Threatened Species	CL_INTL_04_RL_V. The criteria for critically endangered, endangered and vulnerable - Critically endangered: reduction in population size	CR.A1	CL_INTL_04_RL_spC_CR.A1	<p>Reduction in population size based on: An observed, estimated, inferred or suspected population size reduction of ≥90% over the last 10 years or three generations, whichever is longer, where the causes of the reduction are clearly reversible AND understood AND ceased, based on (and specifying) any of the following: (a) direct observation, (b) an index of abundance appropriate to the taxon, (c) a decline in area of occupancy, extent of occurrence and/or quality of habitat, (d) actual or potential levels of exploitation, (e) the effects of introduced taxa, hybridization, pathogens, pollutants, competitors or parasites.</p>	<p>A taxon is Critically Endangered when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing an extremely high risk of extinction in the wild</p>	Population size
The IUCN Red List of Threatened Species	CL_INTL_04_RL_V. The criteria for critically endangered, endangered and vulnerable - Critically endangered: reduction in population size	CR.A2	CL_INTL_04_RL_spC_CR.A2	<p>Reduction in population size based on: An observed, estimated, inferred or suspected population size reduction of ≥80% over the last 10 years or three generations, whichever is longer, where the reduction or its causes may not have ceased OR may not be understood OR may not be reversible, based on (and specifying) any of (a) to (e) under A1.</p>	<p>A taxon is Critically Endangered when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing an extremely high risk of extinction in the wild</p>	Population size
The IUCN Red List of Threatened Species	CL_INTL_04_RL_V. The criteria for critically endangered, endangered and vulnerable - Critically endangered: reduction in population size	CR.A3	CL_INTL_04_RL_spC_CR.A3	<p>Reduction in population size based on: A population size reduction of ≥80%, projected or suspected to be met within the next 10 years or three generations, whichever is the longer (up to a maximum of 100 years), based on (and specifying) any of (b) to (e) under A1.</p>	<p>A taxon is Critically Endangered when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing an extremely high risk of extinction in the wild</p>	Population size
The IUCN Red List of Threatened Species	CL_INTL_04_RL_V. The criteria for critically endangered, endangered and vulnerable - Critically endangered: reduction in population size	CR.A4	CL_INTL_04_RL_spC_CR.A4	<p>Reduction in population size based on: An observed, estimated, inferred, projected or suspected population size reduction of ≥80% over any 10 year or three generation period, whichever is longer (up to a maximum of 100 years in the future), where the time period must include both the past and the future, and where the reduction or its causes may not have ceased OR may not be understood OR may not be reversible, based on (and specifying) any of (a) to (e) under A1.</p>	<p>A taxon is Critically Endangered when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing an extremely high risk of extinction in the wild</p>	Population size
The IUCN Red List of Threatened Species	CL_INTL_04_RL_V. The criteria for critically endangered, endangered and vulnerable - Critically endangered: geographic range	CR.B1	CL_INTL_04_RL_spC_CR.B1	<p>Geographic range in the form of: Extent of occurrence estimated to be less than 100 km<sup>2</sup>, and estimates indicating at least two of a-c: (i) Severely fragmented or known to exist at only a single location, (ii) Continuing decline, observed, inferred or projected, in any of the following: (i) extent of occurrence, (ii) area of occupancy, (iii) area, extent and/or quality of habitat, (iv) number of locations or subpopulations, (v) number of mature individuals. (v) Extreme fluctuations in any of the following: (i) extent of occurrence, (ii) area of occupancy, (iii) number of locations or subpopulations, (iv) number of mature individuals.</p>	<p>A taxon is Critically Endangered when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing an extremely high risk of extinction in the wild</p>	areas
The IUCN Red List of Threatened Species	CL_INTL_04_RL_V. The criteria for critically endangered, endangered and vulnerable - Critically endangered: geographic range	CR.B2	CL_INTL_04_RL_spC_CR.B2	<p>Area of occupancy estimated to be less than 10 km<sup>2</sup>, and estimate indicating at least two of a-c: (i) Severely fragmented or known to exist at only a single location, (ii) Continuing decline, observed, inferred or projected, in any of the following: (i) extent of occurrence, (ii) area of occupancy, (iii) area, extent and/or quality of habitat, (iv) number of locations or subpopulations, (v) number of mature individuals. (v) Extreme fluctuations in any of the following: (i) extent of occurrence, (ii) area of occupancy, (iii) number of locations or subpopulations, (iv) number of mature individuals</p>	<p>A taxon is Critically Endangered when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing an extremely high risk of extinction in the wild</p>	areas
The IUCN Red List of Threatened Species	CL_INTL_04_RL_V. The criteria for critically endangered, endangered and vulnerable - Critically endangered: population size	CR.C1	CL_INTL_04_RL_spC_CR.C	<p>Population size estimated to number fewer than 250 mature individuals and either 1. An estimated continuing decline of at least 25% within three years or one generation, whichever is longer, (up to a maximum of 100 years in the future) OR 2. Continuing decline, observed, projected, or inferred, in numbers of mature individuals AND at least one of the following (a-b): a) Population structure in the form of one of the following: (i) no subpopulation estimated to contain more than 50 mature individuals, OR (ii) at least 90% of mature individuals in one subpopulation. b) Extreme fluctuations in number of mature individuals.</p>	<p>A taxon is Critically Endangered when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing an extremely high risk of extinction in the wild</p>	Population size

The IUCN Red List of Threatened Species	CL_INTL_04_RL_V. The criteria for critically endangered, endangered and vulnerable - Critically endangered: population size	CR.D	CL_INTL_04_RL_spC_CR.D	Population size estimated to number fewer than 50 mature individuals.	A taxon is Critically Endangered when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing an extremely high risk of extinction in the wild	Population size
The IUCN Red List of Threatened Species	CL_INTL_04_RL_V. The criteria for critically endangered, endangered and vulnerable - Critically endangered: probability of extinction	CR.E	CL_INTL_04_RL_spC_CR.E	Quantitative analysis showing the probability of extinction in the wild is at least 50% within 10 years or three generations, whichever is the longer (up to a maximum of 100 years).	A taxon is Critically Endangered when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing an extremely high risk of extinction in the wild	Population size
The IUCN Red List of Threatened Species	CL_INTL_04_RL_V. The criteria for critically endangered, endangered and vulnerable - Endangered: reduction in population size	EN.A1	CL_INTL_04_RL_spC_EN.A1	Reduction in population size based on: An observed, estimated, inferred or suspected population size reduction of ≥70% over the last 10 years or three generations, whichever is the longer, where the causes of the reduction are clearly reversible AND understood AND ceased, based on (and specifying) any of the following: (a) direct observation, (b) an index of abundance appropriate to the taxon, (c) a decline in area of occupancy, extent of occurrence and/or quality of habitat, (d) actual or potential levels of exploitation, (e) the effects of introduced taxa, hybridization, pathogens, pollutants, competitors or parasites.	A taxon is Endangered when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing a very high risk of extinction in the wild	Population size
The IUCN Red List of Threatened Species	CL_INTL_04_RL_V. The criteria for critically endangered, endangered and vulnerable - Endangered: reduction in population size	EN.A2	CL_INTL_04_RL_spC_EN.A2	Reduction in population size based on: An observed, estimated, inferred or suspected population size reduction of ≥50% over the last 10 years or three generations, whichever is the longer, where the reduction or its causes may not have ceased OR may not be understood OR may not be reversible, based on (and specifying) any of (a) to (e) under A1.	A taxon is Endangered when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing a very high risk of extinction in the wild	Population size
The IUCN Red List of Threatened Species	CL_INTL_04_RL_V. The criteria for critically endangered, endangered and vulnerable - Endangered: reduction in population size	EN.A3	CL_INTL_04_RL_spC_EN.A3	Reduction in population size based on: A population size reduction of ≥50%, projected or suspected to be met within the next 10 years or three generations, whichever is the longer (up to a maximum of 100 years), based on (and specifying) any of (b) to (e) under A1.	A taxon is Endangered when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing a very high risk of extinction in the wild	Population size
The IUCN Red List of Threatened Species	CL_INTL_04_RL_V. The criteria for critically endangered, endangered and vulnerable - Endangered: reduction in population size	EN.A4	CL_INTL_04_RL_spC_EN.A4	Reduction in population size based on: An observed, estimated, inferred, projected or suspected population size reduction of ≥50% over any 10 year or three generation period, whichever is longer (up to a maximum of 100 years in the future), where the time period must include both the past and the future, AND where the reduction or its causes may not have ceased OR may not be understood OR may not be reversible, based on (and specifying) any of (a) to (e) under A1.	A taxon is Endangered when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing a very high risk of extinction in the wild	Population size
The IUCN Red List of Threatened Species	CL_INTL_04_RL_V. The criteria for critically endangered, endangered and vulnerable - Endangered: geographic range	EN.B1	CL_INTL_04_RL_spC_EN.B1	Extent of occurrence estimated to be less than 5,000 km <sup>2</sup> , and estimates indicating at least two of a: a) Severely fragmented or known to exist at no more than five locations b) Continuing decline, observed, inferred or projected, in any of the following: (i) extent of occurrence, (ii) area of occupancy, (iii) area, extent and/or quality of habitat, (iv) number of locations or subpopulations, (v) number of mature individuals.c) Extreme fluctuations in any of the following: (i) extent of occurrence, (ii) area of occupancy, (iii) number of locations or subpopulations, (iv) number of mature individuals.	A taxon is Endangered when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing a very high risk of extinction in the wild	areas

The IUCN Red List of Threatened Species	CL_INTL_04_RL_V. The criteria for critically endangered, endangered and vulnerable - Endangered: geographic range	EN.B2	CL_INTL_04_RL_spC_EN.B2	Area of occupancy estimated to be less than 500 km <sup>2</sup> , and estimates indicating at least two of a-c: a) Severely fragmented or known to exist at no more than five locations. B) Continuing decline, observed, inferred or projected, in any of the following: (i) extent of occurrence, (ii) area of occupancy, (iii) area, extent and/or quality of habitat, (iv) number of locations or subpopulations, (v) number of mature individuals. c) Extreme fluctuations in any of the following: (i) extent of occurrence, (ii) area of occupancy, (iii) number of locations or subpopulations (iv) number of mature individuals	A taxon is Endangered when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing a very high risk of extinction in the wild	areas
The IUCN Red List of Threatened Species	CL_INTL_04_RL_V. The criteria for critically endangered, endangered and vulnerable - Endangered: population size	EN.C	CL_INTL_04_RL_spC_EN.C	Population size estimated to number fewer than 2,500 mature individuals and either: 1. An estimated continuing decline of at least 20% within five years or two generations, whichever is longer, (up to a maximum of 100 years in the future) OR 2. a continuing decline, observed, projected, or inferred, in numbers of mature individuals AND at least one of the following (a-b): a) Population structure in the form of one of the following: (i) no subpopulation estimated to contain more than 250 mature individuals, OR (ii) at least 95% of mature individuals in one subpopulation b) Extreme fluctuations in number of mature individuals.	A taxon is Endangered when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing a very high risk of extinction in the wild	Population size
The IUCN Red List of Threatened Species	CL_INTL_04_RL_V. The criteria for critically endangered, endangered and vulnerable - Endangered: population size	EN.D	CL_INTL_04_RL_spC_EN.D	Population size estimated to number fewer than 250 mature individuals	A taxon is Endangered when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing a very high risk of extinction in the wild	Population size
The IUCN Red List of Threatened Species	CL_INTL_04_RL_V. The criteria for critically endangered, endangered and vulnerable - Endangered: probability of extinction	EN.E	CL_INTL_04_RL_spC_EN.E	Quantitative analysis showing the probability of extinction in the wild is at least 20% within 20 years or five generations, whichever is the longer (up to a maximum of 100 years).	A taxon is Endangered when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing a very high risk of extinction in the wild	Population size
The IUCN Red List of Threatened Species	CL_INTL_04_RL_V. The criteria for critically endangered, endangered and vulnerable - Vulnerable: reduction in population size	VU.A1	CL_INTL_04_RL_spC_VU.A1	Reduction in population size based on: An observed, estimated, inferred or suspected population size reduction of ≥50% over the last 10 years or three generations, whichever is the longer, where the causes of the reduction are clearly reversible AND understood AND ceased, based on (and specifying) any of the following: (a) direct observation, (b) an index of abundance appropriate to the taxon, (c) decline in area of occupancy, extent of occurrence and/or quality of habitat, (d) actual or potential levels of exploitation (e) effects of introduced taxa, hybridization, pathogens, pollutants, competitors or parasites.	A taxon is Vulnerable when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing a high risk of extinction in the wild	Population size
The IUCN Red List of Threatened Species	CL_INTL_04_RL_V. The criteria for critically endangered, endangered and vulnerable - Vulnerable: reduction in population size	VU.A2	CL_INTL_04_RL_spC_VU.A2	Reduction in population size based on: An observed, estimated, inferred or suspected population size reduction of ≥30% over the last 10 years or three generations, whichever is the longer, where the reduction or its causes may not have ceased OR may not be understood OR may not be reversible, based on (and specifying) any of (a) to (e) under A1.	A taxon is Vulnerable when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing a high risk of extinction in the wild	Population size
The IUCN Red List of Threatened Species	CL_INTL_04_RL_V. The criteria for critically endangered, endangered and vulnerable - Vulnerable: reduction in population size	VU.A3	CL_INTL_04_RL_spC_VU.A3	Reduction in population size based on: A population size reduction of ≥30% projected or suspected to be met within the next 10 years or three generations, whichever is the longer (up to a maximum of 100 years), based on (and specifying) any of (b) to (e) under A1.	A taxon is Vulnerable when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing a high risk of extinction in the wild	Population size
The IUCN Red List of Threatened Species	CL_INTL_04_RL_V. The criteria for critically endangered, endangered and vulnerable - Vulnerable: reduction in population size	VU.A4	CL_INTL_04_RL_spC_VU.A4	Reduction in population size based on: An observed, estimated, inferred, projected or suspected population size reduction of ≥30% over any 10 year or three generation period, whichever is longer (up to a maximum of 100 years in the future), where the time period must include both the past and the future, AND where the reduction or its causes may not have ceased OR may not be understood OR may not be reversible, based on (and specifying) any of (a) to (e) under A1.	A taxon is Vulnerable when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing a high risk of extinction in the wild	Population size

The IUCN Red List of Threatened Species	CL_INTL_04_RL_V. The criteria for critically endangered, endangered and vulnerable - Vulnerable: geographic range	VU.B1	CL_INTL_04_RL_spC_VU.B1	Extent of occurrence estimated to be less than 20,000 km <sup>2</sup> , and estimates indicating at least two of a-c: a) Severely fragmented or known to exist at no more than 10 locations b) Continuing decline, observed, inferred or projected, in any of the following: (i) extent of occurrence, (ii) area of occupancy, (iii) area, extent and/or quality of habitat, (iv) number of locations or subpopulations, (v) number of mature individuals. c) Extreme fluctuations in any of the following: (i) extent of occurrence, (ii) area of occupancy, (iii) number of locations or subpopulations, (iv) number of mature individuals.	A taxon is areas when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing a high risk of extinction in the wild
The IUCN Red List of Threatened Species	CL_INTL_04_RL_V. The criteria for critically endangered, endangered and vulnerable - Vulnerable: geographic range	VU.B2	CL_INTL_04_RL_spC_VU.B2	Area of occupancy estimated to be less than 2,000 km <sup>2</sup> , and estimates indicating at least two of a-c: a) Severely fragmented or known to exist at no more than 10 locations b) Continuing decline, observed, inferred or projected, in any of the following: (i) extent of occurrence, (ii) area of occupancy, (iii) area, extent and/or quality of habitat, (iv) number of locations or subpopulations, (v) number of mature individuals. c) Extreme fluctuations in any of the following: (i) extent of occurrence, (ii) area of occupancy, (iii) number of locations or subpopulations, (iv) number of mature individuals.	A taxon is areas when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing a high risk of extinction in the wild
The IUCN Red List of Threatened Species	CL_INTL_04_RL_V. The criteria for critically endangered, endangered and vulnerable - Vulnerable: population size	VU.C	CL_INTL_04_RL_spC_VU.C	Population size estimated to number fewer than 10,000 mature individuals and either: 1. An estimated continuing decline of at least 10% within 10 years or three generations, whichever is longer, (up to a maximum of 100 years in the future) OR 2. A continuing decline, observed, projected, or inferred, in numbers of mature individuals AND at least one of the following (a-b): a) Population structure in the form of one of the following: (i) no subpopulation estimated to contain more than 1,000 mature individuals, OR (ii) all mature individuals in one subpopulation. b) Extreme fluctuations in number of mature individuals.	A taxon is Population size when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing a high risk of extinction in the wild
The IUCN Red List of Threatened Species	CL_INTL_04_RL_V. The criteria for critically endangered, endangered and vulnerable - Vulnerable: population size	VU.D	CL_INTL_04_RL_spC_VU.D	Population very small or restricted in the form of either of the following: 1. Population size estimated to number fewer than 1,000 mature individuals. 2. Population with a very restricted area of occupancy (typically less than 20 km <sup>2</sup> ) or number of locations (typically five or fewer) such that it is prone to the effects of human activities or stochastic events within a very short time period in an uncertain future, and is thus capable of becoming Critically Endangered or even Extinct in a very short time period.	A taxon is Population size when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing a high risk of extinction in the wild
The IUCN Red List of Threatened Species	CL_INTL_04_RL_V. The criteria for critically endangered, endangered and vulnerable - Vulnerable: probability of extinction	VU.E	CL_INTL_04_RL_spC_VU.E	Quantitative analysis showing the probability of extinction in the wild is at least 10% within 100 years.	A taxon is Population size when the best available evidence indicates that it meets any of the following criteria (A to E), and it is therefore considered to be facing a high risk of extinction in the wild
The IUCN Red List of Ecosystems	CL_INTL_05_RL_ecosC	A	CL_INTL_05_RL_ecosC_A	Reduction in geographic distribution	geographic distribution
The IUCN Red List of Ecosystems	CL_INTL_05_RL_ecosC	B	CL_INTL_05_RL_ecosC_B	Restricted geographic distribution	geographic distribution
The IUCN Red List of Ecosystems	CL_INTL_05_RL_ecosC	C	CL_INTL_05_RL_ecosC_C	Environmental degradation	degradation
The IUCN Red List of Ecosystems	CL_INTL_05_RL_ecosC	D	CL_INTL_05_RL_ecosC_D	Disruption of biotic processes or interactions	biotic processes
The IUCN Red List of Ecosystems	CL_INTL_05_RL_ecosC	E	CL_INTL_05_RL_ecosC_E	Quantitative analysis that estimates the probability of ecosystem collapse	ecosystems
Ecosystem attributes to evaluate recovery	CL_INTL_18_SE_R	A1a	CL_INTL_18_SER_A1a	Absence of threats: Over-utilization	
Ecosystem attributes to evaluate recovery	CL_INTL_18_SE_R	A1b	CL_INTL_18_SER_A1b	Absence of threats: Invasive species	
Ecosystem attributes to evaluate recovery	CL_INTL_18_SE_R	A1c	CL_INTL_18_SER_A1c	Absence of threats: Contamination	
Ecosystem attributes to evaluate recovery	CL_INTL_18_SE_R	A2a	CL_INTL_18_SER_A2a	Physical conditions: Substrate physical	
Ecosystem attributes to evaluate recovery	CL_INTL_18_SE_R	A2b	CL_INTL_18_SER_A2b	Physical conditions: Substrate chemical	
Ecosystem attributes to evaluate recovery	CL_INTL_18_SE_R	A2c	CL_INTL_18_SER_A2c	Physical conditions: Water chemo-physical	
Ecosystem attributes to evaluate recovery	CL_INTL_18_SE_R	A3a	CL_INTL_18_SER_A3a	Species composition: Desirable plants	
Ecosystem attributes to evaluate recovery	CL_INTL_18_SE_R	A3b	CL_INTL_18_SER_A3b	Species composition: Desirable animals	
Ecosystem attributes to evaluate recovery	CL_INTL_18_SE_R	A3c	CL_INTL_18_SER_A3c	Species composition: No undesirable species	
Ecosystem attributes to evaluate recovery	CL_INTL_18_SE_R	A4a	CL_INTL_18_SER_A4a	Structural diversity: All vegetation strata	
Ecosystem attributes to evaluate recovery	CL_INTL_18_SE_R	A4b	CL_INTL_18_SER_A4b	Structural diversity: All trophic levels	

Ecosystem attributes to evaluate recovery	CL_INTL_18_SE_R	Attribute 4: Structural diversity	A4c	CL_INTL_18_SER_A4c	Structural diversity: Spatial mosaic	
Ecosystem attributes to evaluate recovery	CL_INTL_18_SE_R	Attribute 5: Ecosystem functionality	A5a	CL_INTL_18_SER_A5a	Ecosystem functionality: Productivity, cycling etc.	
Ecosystem attributes to evaluate recovery	CL_INTL_18_SE_R	Attribute 5: Ecosystem functionality	A5b	CL_INTL_18_SER_A5b	Ecosystem functionality: Habitat & plant-animal interactions	
Ecosystem attributes to evaluate recovery	CL_INTL_18_SE_R	Attribute 5: Ecosystem functionality	A5c	CL_INTL_18_SER_A5c	Ecosystem functionality: Resilience, recruitment etc	
Ecosystem attributes to evaluate recovery	CL_INTL_18_SE_R	Attribute 6: External exchanges	A6a	CL_INTL_18_SER_A6a	External exchanges: Landscape flows	
Ecosystem attributes to evaluate recovery	CL_INTL_18_SE_R	Attribute 6: External exchanges	A6b	CL_INTL_18_SER_A6b	External exchanges: Gene flows	
Ecosystem attributes to evaluate recovery	CL_INTL_18_SE_R	Attribute 6: External exchanges	A6c	CL_INTL_18_SER_A6c	External exchanges: Habitat links	
OSPAR Biodiversity Common Indicators	CL_REG_01_OS_PAR_Cibio	B1	CL_REG_01_OSPAR_Cibio_B1	Marine bird abundance	birds	II, III, IV (Common in OSPAR Region)
OSPAR Biodiversity Common Indicators	CL_REG_01_OS_PAR_Cibio	B3	CL_REG_01_OSPAR_Cibio_B3	Marine Bird Breeding Success / Failure	birds	II, III, IV (Common in OSPAR Region)
OSPAR Biodiversity Common Indicators	CL_REG_01_OS_PAR_Cibio	BH1	CL_REG_01_OSPAR_Cibio_BH1	Typical species composition	species	IV (Common in OSPAR Region)
OSPAR Biodiversity Common Indicators	CL_REG_01_OS_PAR_Cibio	BH2	CL_REG_01_OSPAR_Cibio_BH2	Condition of Benthic Habitat Communities	communities	II, III, IV (Common in OSPAR Region)
OSPAR Biodiversity Common Indicators	CL_REG_01_OS_PAR_Cibio	BH3	CL_REG_01_OSPAR_Cibio_BH3	Extent of Physical Damage to Predominant and Special Habitats	habitats	II, III, IV (Common in OSPAR Region)
OSPAR Biodiversity Common Indicators	CL_REG_01_OS_PAR_Cibio	FC1	CL_REG_01_OSPAR_Cibio_FC1	Recovery in the population abundance of sensitive fish species	species	II, III (Common in OSPAR Region)
OSPAR Biodiversity Common Indicators	CL_REG_01_OS_PAR_Cibio	FC2	CL_REG_01_OSPAR_Cibio_FC2	Proportion of large fish (Large Fish Index)	species	II, III (Common in OSPAR Region)
OSPAR Biodiversity Common Indicators	CL_REG_01_OS_PAR_Cibio	FW3	CL_REG_01_OSPAR_Cibio_FW3	Size composition in fish communities	fish communities	II, III, IV (Common in OSPAR Region)
OSPAR Biodiversity Common Indicators	CL_REG_01_OS_PAR_Cibio	FW4	CL_REG_01_OSPAR_Cibio_FW4	Change in average trophic level of marine predators in the Bay of Biscay	species	IV (Common in OSPAR Region)
OSPAR Biodiversity Common Indicators	CL_REG_01_OS_PAR_Cibio	M3	CL_REG_01_OSPAR_Cibio_M3	Seal Abundance and Distribution	species	II (Common in OSPAR Region)
OSPAR Biodiversity Common Indicators	CL_REG_01_OS_PAR_Cibio	M4	CL_REG_01_OSPAR_Cibio_M4	Abundance and Distribution of marine mammals	species	II, III, IV (Common in OSPAR Region)
OSPAR Biodiversity Common Indicators	CL_REG_01_OS_PAR_Cibio	M5	CL_REG_01_OSPAR_Cibio_M5	Grey seal pup production	species	II, III (Common in OSPAR Region)
OSPAR Biodiversity Common Indicators	CL_REG_01_OS_PAR_Cibio	M6	CL_REG_01_OSPAR_Cibio_M6	Marine mammal bycatch	species	II (Common in OSPAR Region)
OSPAR Biodiversity Common Indicators	CL_REG_01_OS_PAR_Cibio	NIS	CL_REG_01_OSPAR_Cibio_NIS	Trends in New Records of Non-Indigenous Species (NIS) Introduced by Human Activities	species	II, III, IV (Common in OSPAR Region)
OSPAR Biodiversity Common Indicators	CL_REG_01_OS_PAR_Cibio	PH1/FW5	CL_REG_01_OSPAR_Cibio_PH1 /FW5	Changes in plankton functional types (life form) index Ratio	species	II, III, IV (Common in OSPAR Region)
OSPAR Biodiversity Common Indicators	CL_REG_01_OS_PAR_Cibio	PH2	CL_REG_01_OSPAR_Cibio_PH2	Plankton biomass and/or abundance	species	II, III, IV (Common in OSPAR Region)
OSPAR Biodiversity Common Indicators	CL_REG_01_OS_PAR_Cibio	PH3	CL_REG_01_OSPAR_Cibio_PH3	Changes in biodiversity index(s)	biodiversity	III (Common in OSPAR Region)
Black Sea species list criteria	CL_REG_09_BIackSeaMPAs	1	CL_REG_09_BIackSeaMPAs_01	Fish stocks are sufficient for commercial exploitation and are above biological safety limits		
Black Sea species list criteria	CL_REG_09_BIackSeaMPAs	2	CL_REG_09_BIackSeaMPAs_02	Local stocks are to be regulated nationally but reported regionally		
Black Sea species list criteria	CL_REG_09_BIackSeaMPAs	3	CL_REG_09_BIackSeaMPAs_03	Shared stocks and migratory stocks are regulated by Parties concerned but reported regionally		
Black Sea species list criteria	CL_REG_09_BIackSeaMPAs	4	CL_REG_09_BIackSeaMPAs_04	Highly migratory stocks are regulated by the special Black Sea body on fisheries		
Black Sea species list criteria	CL_REG_09_BIackSeaMPAs	5	CL_REG_09_BIackSeaMPAs_05	Species that fall under category extinct, critically endangered, critical, vulnerable or rare are automatically assigned zero quota by the Party of concern (Ref. CITES requirements)		
Black Sea species list criteria	CL_REG_09_BIackSeaMPAs	6	CL_REG_09_BIackSeaMPAs_06	Species that fall under category endangered, vulnerable and rare are allowed for exploitation on scientifically based information for the status of their populations and after fishing quota common for the Black Sea and the flowed rivers, has been negotiated and agreed by the Parties. In case if one of the Parties disagrees the common quota, the fishing is prohibited for all Parties of concern		