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# 1 Marine regions and subregions of the Marine Strategy Framework Directive

## 1.1 Background

In 2008, the EU Marine Strategy Framework Directive (MSFD) was adopted with the aim to protect more effectively the marine environment across Europe. The MSFD aims to achieve Good Environmental Status (GES) of the EU's marine waters by 2020 and to protect the resource base upon which marine-related economic and social activities depend. It is the first EU legislative instrument related to the protection of marine biodiversity, as it contains the explicit regulatory objective that "biodiversity is maintained by 2020", as the cornerstone for achieving GES.

The MSFD enshrines in a legislative framework the ecosystem approach to the management of human activities having an impact on the marine environment, integrating the concepts of environmental protection and sustainable use.

In order to achieve its goal, the Directive establishes European *marine regions and sub-regions* on the basis of geographical and environmental criteria. The Directive lists four European marine regions – the Baltic Sea, the North-east Atlantic Ocean, the Mediterranean Sea and the Black Sea (art. 4). These are located *mainly* within the geographical boundaries of the existing Regional Sea Conventions cooperation between the Member States of one marine region and with neighbouring countries which share the same marine waters.

One challenge of the Directive is that the MSFD does not *specify* the boundaries of the marine regions and subregions, and no formal definition of the marine regions and subregions exists elsewhere. As such, a process was initiated in 2010 to help define the individual marine boundaries under the MSFD Common Implementation Strategy.

## 1.2 Aim of the document

Therefore, the aim of this document is 1) to describe the process that led to an agreement between EU Member States on the boundaries of the marine regions for easy future reference, 2) to describe the geometric delineation of the marine regions and subregions identified within the MSFD, art. 4, 3) to establish a common understanding of marine boundaries and thus aid the streamlining of obligations under EU legislation, e.g. coordination between Member States, and 4) support the harmonization between regions as required under other EU legislation and policies, by Regional Sea Conventions, International Council for the Exploration of the Sea (ICES) Ecoregions<sup>1</sup> and other regional delineations. This work is *not pre-empting* any official discussions on maritime boundaries between sovereign States under UNCLOS.

The map officially agreed by Member States (available at <https://www.eea.europa.eu/data-and-maps/data/msfd-regions-and-subregions>), and this supporting document, were prepared by the European Environment Agency upon *request* by DG Environment in order to inform the dialogue with EU Member States in their endeavour to implement the MSFD. As such, the role of the European Environment Agency and its European Topic Centre on Inland, Coastal and Marine waters was *to provide* technical support to the formal process under the CIS to DG Environment and EU member States.

Any official documents related to the process are available to the nominated EU Member States representatives in the MSFD Committee chaired by DG ENV.

Any reference to the map or this document should refer to the *disclaimer* described in section 1.6 (below).

### **1.3 Process leading to the MSFD marine regions map**

The map and the delineation of the marine regions has been under development since 2010. It is based on multiple inputs from representatives from EU Member State participating in groups defined under the MSFD Common Implementation Strategy (CIS) as well as by the reporting under the MSFD Initial Assessment, ICES advice and Marine Regions<sup>2</sup>.

The process has especially been developed under the MSFD CIS Working Group on Data, Information and Knowledge Exchange (WGDIKE) through documents DIKE 3/2011/06 from 5-6<sup>th</sup> September 2011, DIKE 4/2011/05 from 7-8<sup>th</sup> November 2011, DIKE 5/2012/08 from 12-13<sup>th</sup> March 2012, DIKE TG1/2012/04 from 4<sup>th</sup> July 2012 and, lastly, DIKE 6/2012/11 from 30-31<sup>th</sup> October 2012. EU Member States have been consulted on the technical work done by DG ENV, the EEA and the ETC/ICM (via ICES as an ETC-ICM partner). The map has also been through a Commission inter-service consultation with all DG's led by DG ENV. The map was *agreed* by EU Member States in the MSFD Committee in November 2016.

This map may be subject to amendment in light of any new information which may be provided by EU Member States due to e.g. new agreements under UNCLOS. The EEA website will provide access to the latest updated version as well as any older versions. The map will be associated with an updated version of this document in regard to any technical details. Any reference to the map or this document should use the version number and date as presented on the front page of this document.

### **1.4 MSFD marine regions and subregions**

Besides defining the four marine regions, the North-east Atlantic Ocean and Mediterranean Sea marine regions have both been further divided into four subregions each (as identified by the Directive). The marine regions and subregions include:

- The Baltic Sea
- The North-east Atlantic Ocean
  - The Greater North Sea, including the Kattegat and the English Channel
  - The Celtic Seas
  - The Bay of Biscay and the Iberian Coast
  - Macaronesia
- The Mediterranean Sea
  - The Western Mediterranean Sea
  - The Adriatic Sea
  - The Ionian Sea and the Central Mediterranean Sea
  - The Aegean-Levantine Sea
- The Black Sea

The boundaries between marine regions and subregions have, to the extent possible, been harmonised with existing boundaries established under the Regional Sea Conventions, the biogeographic boundaries established under the Habitats Directive and the boundaries of

marine waters reported by EU Member States under the MSFD. The ICES ecoregions are being aligned with the MSFD region and subregion boundaries.

The inner boundary of all regions and subregions has used the “EEA coastline for analysis”<sup>3</sup> available at (<http://www.eea.europa.eu/data-and-maps/data/eea-coastline-for-analysis/>); this is a practical solution because the MSFD inner boundary formally follows that defined for coastal waters under the Water Framework Directive, for which a consistent boundary is not yet available.

For delineating subregions in the North-east Atlantic Ocean region, information on Member States' marine waters, where Member States have and/or exercise jurisdictional rights, has been used, based on submissions of the marine waters under the MSFD when these have been made available by the individual Member States as part of their 2012 reporting. Spain has only submitted assessment areas and not explicit marine waters polygons.

The extent of its marine waters is based on the extent of its assessment areas. Portugal has submitted polygon data on their territorial sea, EEZ and extended continental shelf claim. In the reported polygons, the division by MSFD regions and subregions are not indicated.

For delineating subregions in the Mediterranean Sea, please refer to the details presented in 1.8.3.

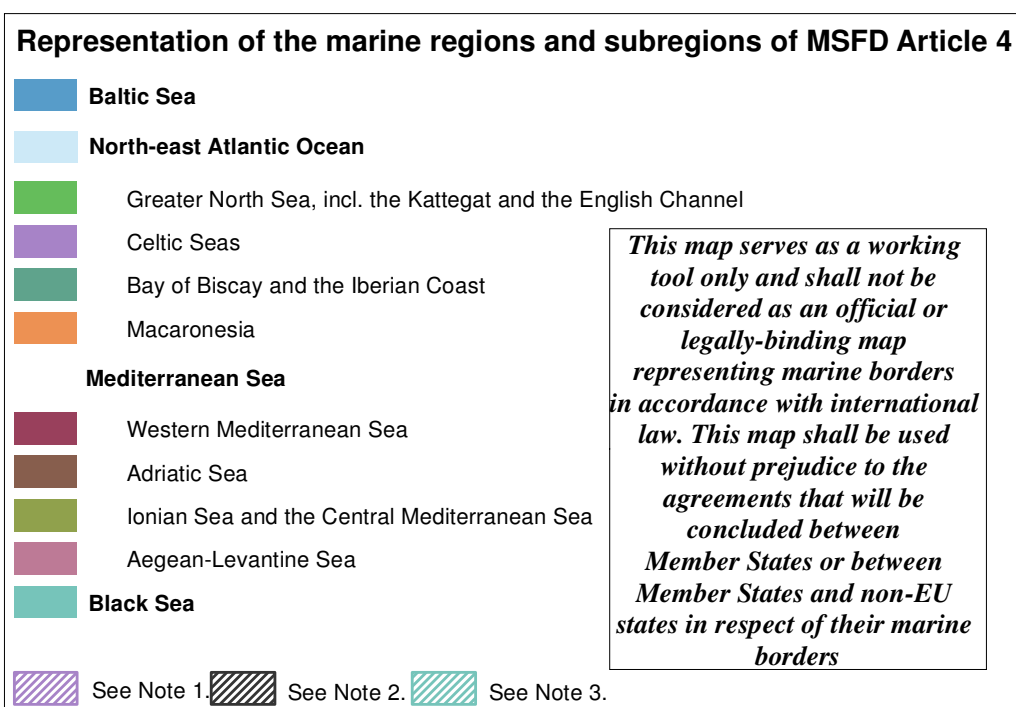
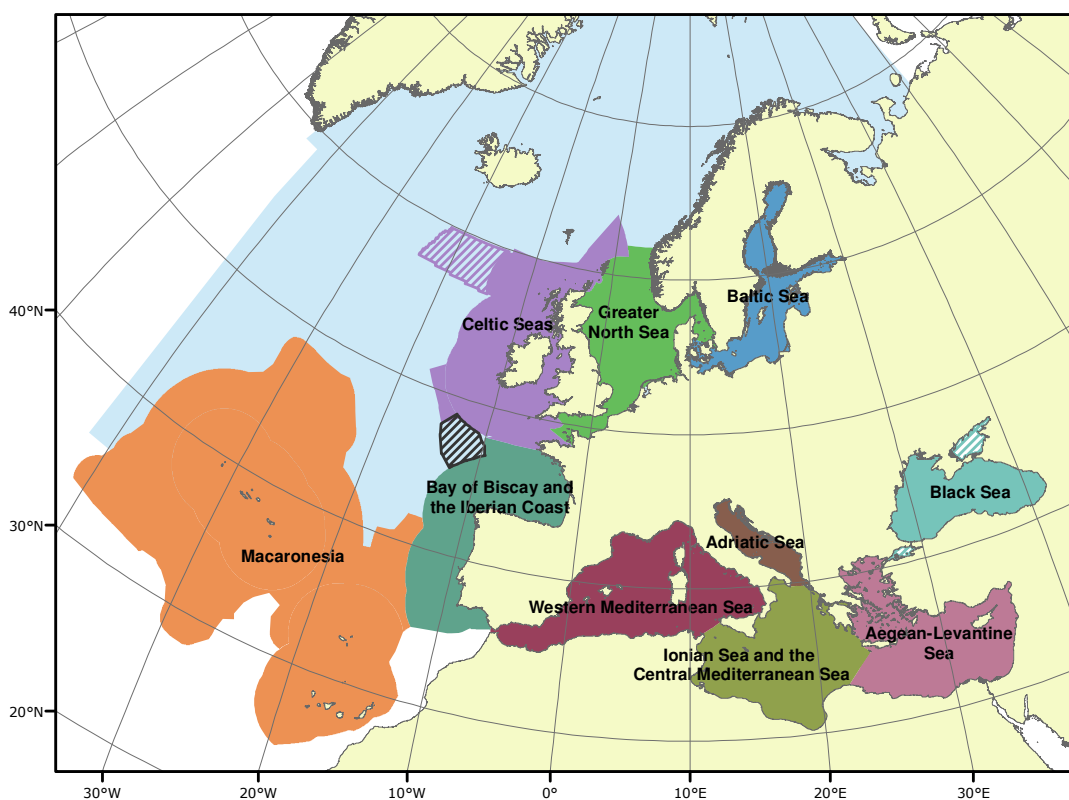
A map of the regions and subregions listed in Article 4 MSFD is provided in Map 1.0. The document sets out the technical basis for the map, including the coordinates of the boundaries between regions and subregions and the basis for their delineation. The Geographic Information System (GIS) data files for the boundaries of these regions and subregions are available on the web site of the European Environment Agency, and subject to use as defined below.

### **1.5 Application of the map, including GIS data files**

The map and associated GIS data files should be used on the following basis:

- a. They are intended for the sole purposes of supporting the implementation of the MSFD by Member States, stakeholders and the European Commission and its agencies.
- b. They provide the boundaries of the marine regions and subregions, as listed in MSFD Article 4. In accordance with MSFD Article 4(1), Member States shall, when implementing the MSFD, take due account of the fact that their marine waters form an integral part of these marine regions. The map and associated GIS data files are solely meant to depict these marine regions and subregions that Member States shall take due account of, including in relation to transboundary effects on the quality of the marine environment of third States in the same marine region or subregion, in accordance with MSFD Article 2(1).
- c. They are not intended to provide boundaries of the marine waters of Member States as defined under MSFD Article 3(1). This means that the map in Figure I and associated GIS data files do not represent the geographic scope of application of the MSFD as the MSFD only applies to Member States' marine waters, which are understood to lie within the marine regions and subregions. Further, in those areas of Member States' marine waters, the map makes no distinction between the jurisdiction over both the water column and the seabed or only the seabed.

- d. As such the map should not be understood as representing international marine borders. To this end, the following disclaimer will accompany the map: "*This map serves as a working tool only and shall not be considered as an official or legally-binding map representing marine borders in accordance with international law. This map shall be used without prejudice to the agreements that will be concluded between Member States or between Member States and non-EU states in respect of their marine borders.*".
- e. As they are not intended to provide boundaries of Member States' marine waters, the landward boundaries used do not constitute the formal boundary of these marine waters, but instead uses a harmonised coastline boundary for cartographic consistency.
- f. In the North East Atlantic Ocean region, the outer boundary of the Celtic Seas, Bay of Biscay and the Iberian Coast and Macaronesia subregions is intended to fully encompass the marine waters of the relevant Member States. This includes the Continental Shelf areas where these extend beyond Exclusive Economic Zones. For the North East Atlantic Ocean region, the boundaries shown in the present map include those Continental Shelf areas which have so far been reported by the Member States concerned. As and when Member States report modifications to the boundaries of their marine waters, such as further Continental Shelf areas following conclusions under UNCLOS processes, this MSFD map should be updated.
- g. Notwithstanding the need to update the map on the basis of point (f), the boundaries of the marine regions and subregions should be periodically reviewed to ensure they serve the purposes of the MSFD, and in particular an ecosystem-based approach to management of the marine environment. Such review should be undertaken in advance of the periodic updates of Article 8 and take into account the latest scientific evidence on the characteristics of the marine ecosystems, as reflected in MSFD Art. 3(2).



**Map 1.0: Representation of the marine regions and subregions of MSFD Article 4.** Note: Within the North-East Atlantic Ocean region, the four subregions listed in MSFD Article 4(2) are shown, without addressing the remaining parts of the region (e.g. waters in the Iceland Sea, Norwegian Sea and Barents Sea). The map is identical to Map 1.6 shown later in the document. <https://www.eea.europa.eu/data-and-maps/data/msfd-regions-and-subregions>

**Note 1:** The area hatched in purple and white indicates an area to which both the United Kingdom and the Government of the Kingdom of Denmark together with the Government of the Faroes have transmitted overlapping submissions to the Commission on the Limits of the Continental Shelf (CLCS) in fulfilment of their respective rights and obligations under Article 76 and Annex II to the United Nations Convention on the Law of the Sea in order to determine entitlement of outer continental shelf areas. This map should not be used in any way to prejudice the determination of that question by the CLCS in due course.

**Note 2:** The area hatched in black and white shows the delineation of the outer limits of the continental shelf beyond 200 M from the territorial sea baselines of France, Ireland, Spain and the United Kingdom in respect of the area of the Celtic Sea and the Bay of Biscay, as provided by the four countries to the Commission on the Limits of the Continental Shelf (CLCS) and included in its recommendations issued on 24 March 2009. The map of the continental shelf's extent shall be used without prejudice to the agreements that will be concluded in due course between these Member States on their marine borders in this area.

**Note 3:** The seas of Azov and Marmara are shown as hatched as they do not fall within the geographic scope of application of the Bucharest Convention.

## **1.6 General disclaimer**

Please note that neither the European Commission, the European Environment Agency nor its European Topic Centre for Inland, Coastal and Marine waters has competence in the geographical demarcation of EU Member States' borders. This is also the case for establishing the limits of the continental shelf of EU Member States, where international law applies. According to UNCLOS art. 76 (8), only the coastal State is competent to establish the outer limits of its continental shelf. It is to act on the basis of the recommendations of the Commission on the Limits of the Continental Shelf.

The maps and tables provided in this report and resulting from the evaluation of the available datasets *are not intended* to influence or question any ongoing negotiations occurring in UNCLOS or jurisdictional issues regarding maritime boundaries pertaining to EU Member States or to non-EU countries.

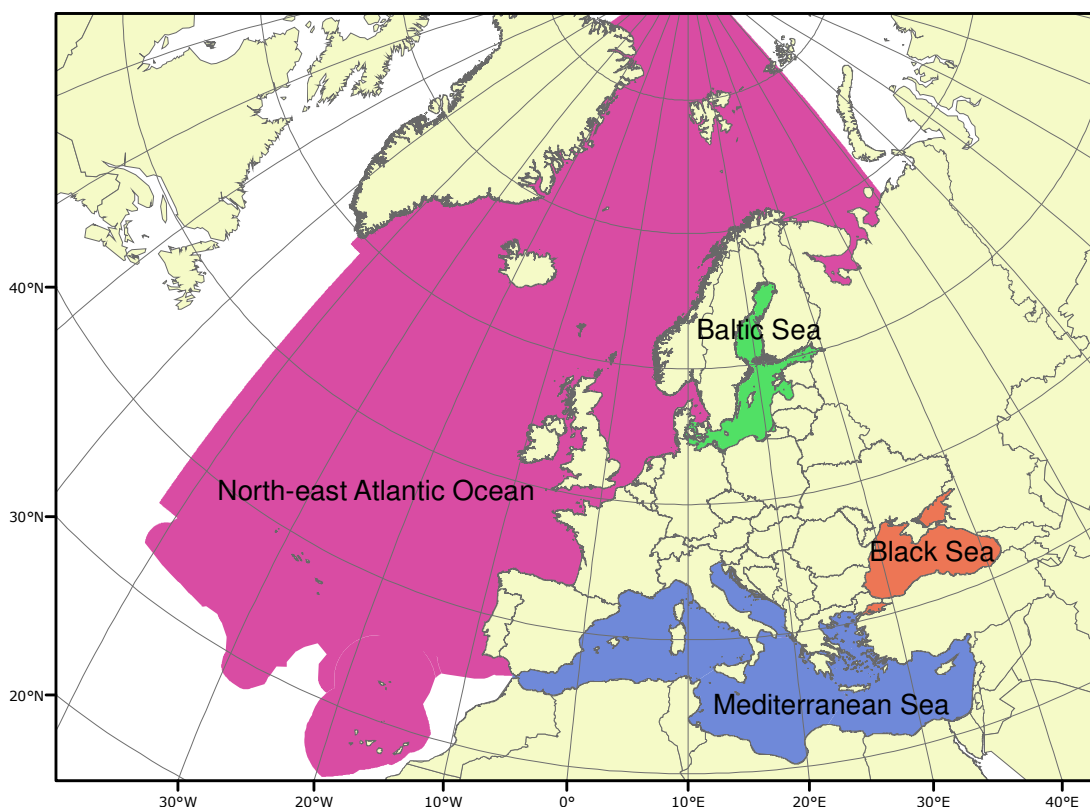
Please note that non-EU countries have not been consulted in the preparation of these maps. Some claims by EU-Member States to marine waters, particularly to Continental Shelf areas, may be contested by non-EU-countries. The claims for extended continental shelf from Spain are not represented in these maps.

Neither the European Commission, the European Environment Agency nor its European Topic Centre for Inland, Coastal and Marine waters is responsible for the use that may be made of the information provided in the tables and maps in this report. As such, there is a disclaimer associated with all maps: *This map serves as a working tool only and shall not be considered as an official or legally-binding map representing marine borders in accordance with international law. This map shall be used without prejudice to the agreements that will be concluded between Member States or between Member States and non-EU states in respect of their marine borders.*

EEA will continue to update the maps as and when new information is made available by EU Member States (e.g. as part of their on-going dialogue with neighbouring states, or when new agreements are reached under UNCLOS) and/or requested by DG ENV to further provide technical support to the MSFD CIS process.

## 2 Delineation of MSFD marine regions

In this section the delineation of the four MSFD marine regions are described (Map 2.1). The 'Baltic Sea', 'Black Sea' and 'Mediterranean Sea' are all defined to a large extent by the coastline of the surrounding countries. For the North-east Atlantic Ocean, the region boundary follows that of the OSPAR Convention. However, for the North-east Atlantic Ocean marine region two adjustments have been made when compared to the OSPAR Convention area. Firstly, it extends further south where the marine waters (EEZ and Continental Shelf areas) of Portugal and Spain extend beyond the OSPAR boundary. Secondly, the boundary in the Kattegat has been adjusted as described in section 2.1.



Map 2.1 Representation of the marine regions of MSFD Article 4.

### 2.1 Border between 'Baltic Sea' and 'North-east Atlantic Ocean' MSFD marine regions

The border between the 'Baltic Sea' and 'North-east Atlantic Ocean' subregions is based on a bilateral agreement between Denmark and Sweden, announced by Denmark at the Habitats Committee on 25/4 2012<sup>4</sup>. In the Sound area of the Kattegat the border follows the Øresund/Öresund bridge between Denmark and Sweden and in Copenhagen harbour, the border is defined by a lock just north of the bridge, connecting the positions shown in Table 2.1 and Map 2.2.



**Table 2.1 Delineation between ‘Baltic Sea’ and ‘North-east Atlantic Ocean’ MSFD marine regions: positions in The Sound, Kattegat.**

No	Name	Latitude	Longitude
1	Sweden	55° 33' 56.1'' N	12° 53' 30.3'' E
2	Östra Pepparholmen	55° 35' 20.1'' N	12° 46' 37.4'' E
3	Västra Pepparholmen	55° 36' 40.2'' N	12° 43' 35.0'' E
4	Denmark	55° 37' 47.8'' N	12° 40' 49.6'' E
5	Amager	55° 38' 33.6'' N	12° 33' 09.1'' E
6	Copenhagen	55° 38' 36.3'' N	12° 33' 02.0'' E



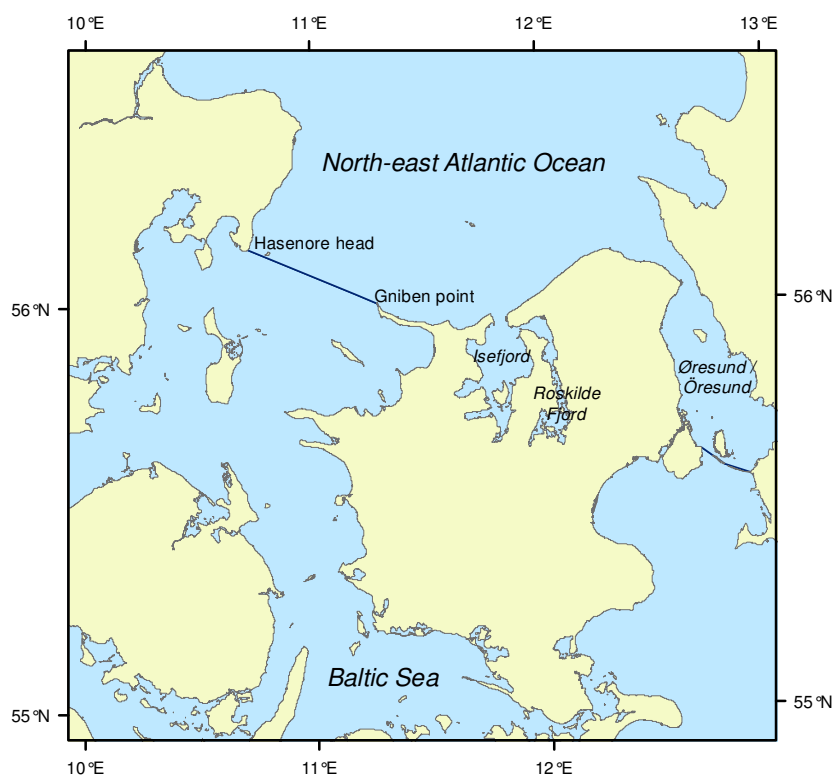
**Map 2.2 Delineation between ‘Baltic Sea’ and ‘North-east Atlantic Ocean’ MSFD marine regions in the Sound, Kattegat**

On the west side of Sjælland the border follows the OSPAR Convention boundary connecting Griben Point on Sjællands Odde with Hasenore Head on the coast of Jutland<sup>5</sup>. The estimated positions of Griben Point and Hasenore Head are given in Table 2.2 and shown in Map 2.3. They are in line with the positions used to delineate OSPAR Region II in the current OSPAR regions polygon layer<sup>6</sup>. Note that both Roskilde and Isefjord are included in the MSFD ‘North-east Atlantic Ocean’ marine region. These two fjords are not part of the OSPAR Convention area. The boundary presented here is not identical with the definition of the Baltic Sea area as

defined in the Helsinki Convention. The HELCOM boundary extends in the north to the parallel of the Skaw in the Skagerrak at 57° 44.43'N. The MSFD requires the Kattegat to be part of the Greater North Sea, which results in Kattegat being covered by both the Helsinki Convention and the OSPAR Convention.

**Table 2.2 Delineation between 'Baltic Sea' and 'North-east Atlantic Ocean' MSFD marine regions: estimated positions for Griben Point and Hasenore Head, Kattegat.**

Name	Latitude	Longitude
<b>Griben point</b>	56° 00' 28.8'' N	11° 16' 37.2'' E
<b>Hasenore Head</b>	56° 08' 31.2'' N	10° 42' 57.6'' E

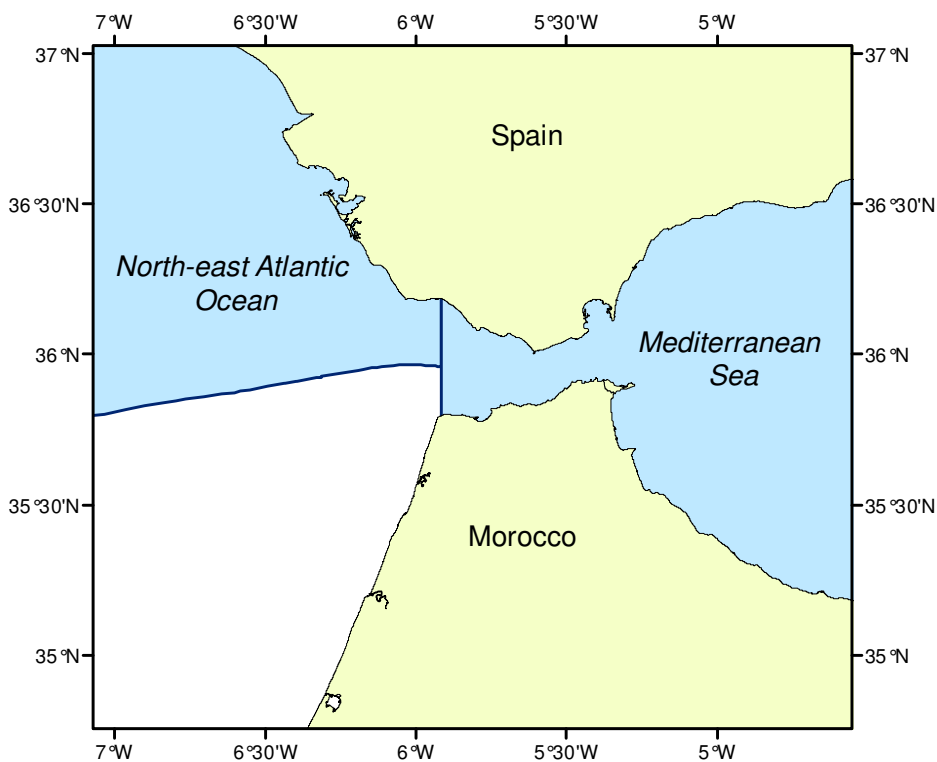


**Map 2.3 Delineation between 'Baltic Sea' and 'North-east Atlantic Ocean' MSFD marine regions**

## **2.2 Border between 'North-east Atlantic Ocean' and 'Mediterranean Sea' MSFD marine regions**

The border between the 'North-east Atlantic Ocean' and 'Mediterranean Sea' marine regions follows the delineation of the Barcelona Convention<sup>7</sup>. The Barcelona Convention area is

bounded to the west by “the meridian passing through Cape Spartel lighthouse, at the entrance of the Straits of Gibraltar”. This corresponds to a meridian line of 5° 55’ W (Map 2.4)



**Map 2.4** Delineation between ‘North-east Atlantic Ocean’ and ‘Mediterranean Sea’ MSFD marine regions

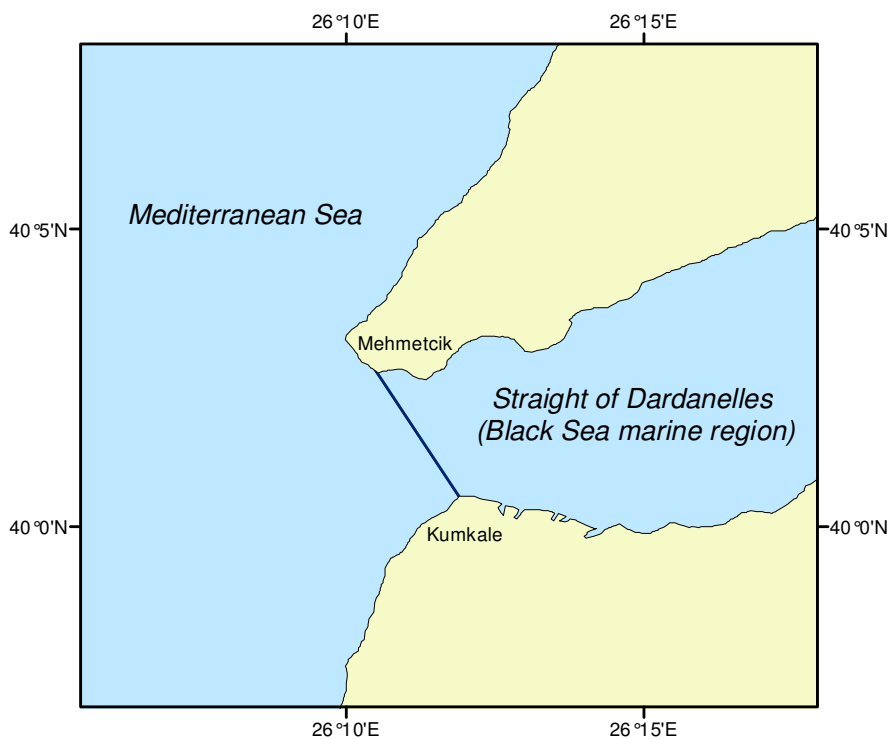
### **2.3** *Border between ‘Mediterranean Sea’ and ‘Black Sea’ MSFD marine regions*

In the east, the ‘Mediterranean Sea’ is separated from the ‘Black Sea’ by a line connecting the Mehmetcik and Kumkale lighthouses in the Strait of the Dardanelles. This definition is in line with the Barcelona Convention<sup>8</sup>. The Strait of Dardanelles and Sea of Marmara are included in the MSFD ‘Black Sea’ marine region, together with the Sea of Azov. The estimated positions of the two lighthouses are given in Table 2.3 and shown in Map 2.5

**Table 2.3** Positions of the two lighthouses used to separate the ‘Mediterranean Sea’ and ‘Black Sea’ MSFD marine regions

Name	Latitude	Longitude
Mehmetcik lighthouse	40° 02’ 38.4’’ N	26° 10’ 30.0’’ E

<b>Kumkale lighthouse</b>	40° 00' 32.4'' N	26° 11' 52.8'' E
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**Map 2.5 Delineation between 'Mediterranean Sea' and 'Black Sea' MSFD marine regions**

#### **2.4 The 'Black Sea' MSFD marine region and the Bucharest convention**

The 'Black Sea' MSFD marine region includes Sea of Marmara and Sea of Azov. It should be noted that both of these areas are outside the geographic scope of the Bucharest Convention<sup>9</sup>. The Bucharest convention only includes the Black Sea proper in its area of application. In Map 1.6 the areas of the 'Black Sea' MSFD marine region outside the scope of the Bucharest Convention are indicated with hatched lines.

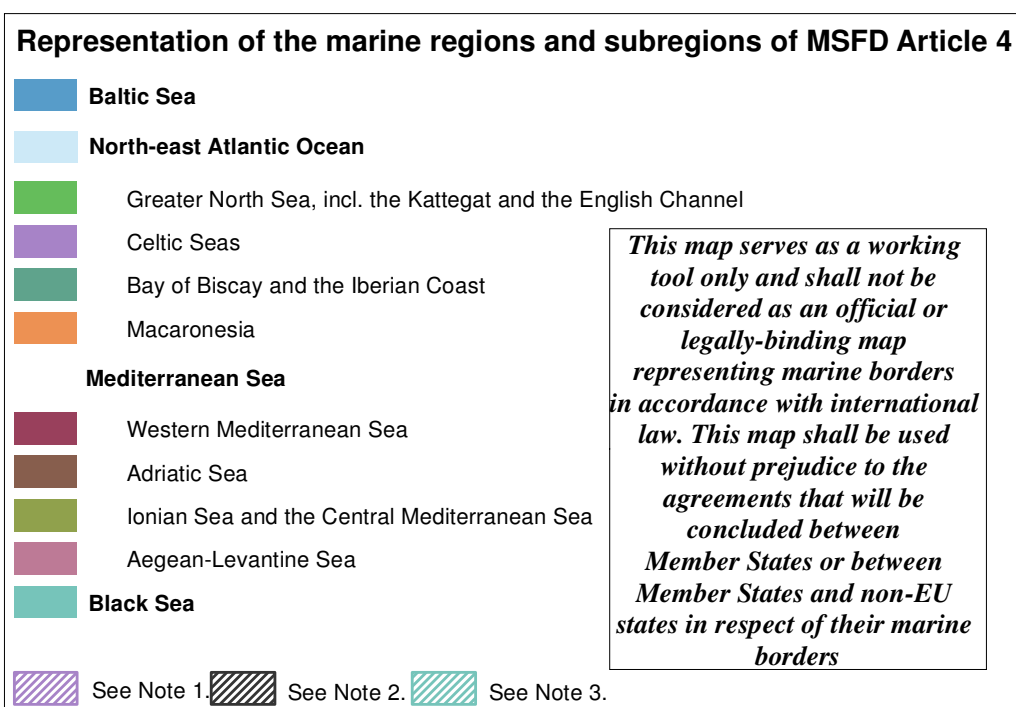
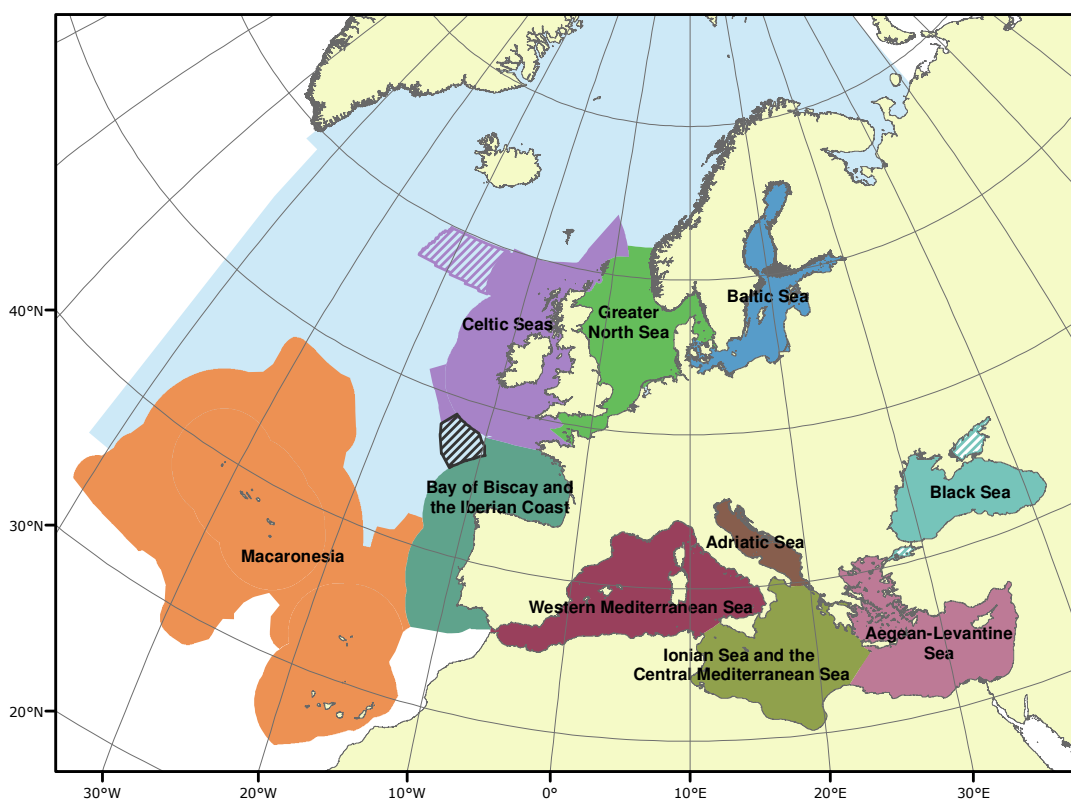
## **2.5 Delineation of MSFD subregions**

The 'Baltic Sea' and 'Black Sea' marine regions are not further divided into subregions, but the 'North-east Atlantic Ocean' and 'Mediterranean Sea' marine regions are both divided into four subregions.

The sum of the subregions for the Mediterranean Sea exactly outlines the marine region to which they belong. However in the North-east Atlantic Ocean, the four subregions specified in MSFD Art. 4 cover only a part of the area covered by the OSPAR Convention, relating mainly to the areas covered by marine waters of the Member States as defined in MSFD Art. 3(1).

There are no overlaps and no gaps between the subregions within the overall outline of the regions except for the areas beyond Member State marine waters in the 'North-east Atlantic Ocean' region which are not at present part of an MSFD subregion. Therefore the border between the 'Baltic Sea' region and 'Greater North Sea' subregion is the same as the border between the 'Baltic Sea' and 'North-east Atlantic Ocean' regions, the border between the 'Bay of Biscay and the Iberian Coast' and 'Western Mediterranean Sea' subregions is the same as the border between the 'North-east Atlantic Ocean' and 'Mediterranean Sea' and also the border between the 'Black Sea' region and 'Aegean-Levantine Sea' subregion is the same as between the 'Black Sea' and 'Mediterranean Sea' regions (see section 1.2).

For the continental shelf areas in the North-east Atlantic Ocean, which extend beyond the EEZs, were reported by Member States in the 2012 reporting cycle for Articles 8, 9 and 10 of the MSFD. Extended Continental Shelf areas which were not reported under the MSFD have not been included in the map. The Continental Shelf area of Portugal has been allocated to the Macaronesian subregion within the North-east Atlantic Ocean Region, based on advice from Portugal in October 2015.



**Map 2.6 Representation of the marine regions and subregions of MSFD Article 4.** Note: Within the 'North-east Atlantic Ocean' region, the four subregions listed in the Directive are shown, without addressing the remaining parts of the region (e.g. waters in the Iceland Sea, Norwegian Sea and Barents Sea). The map is identical to Map 1.0.

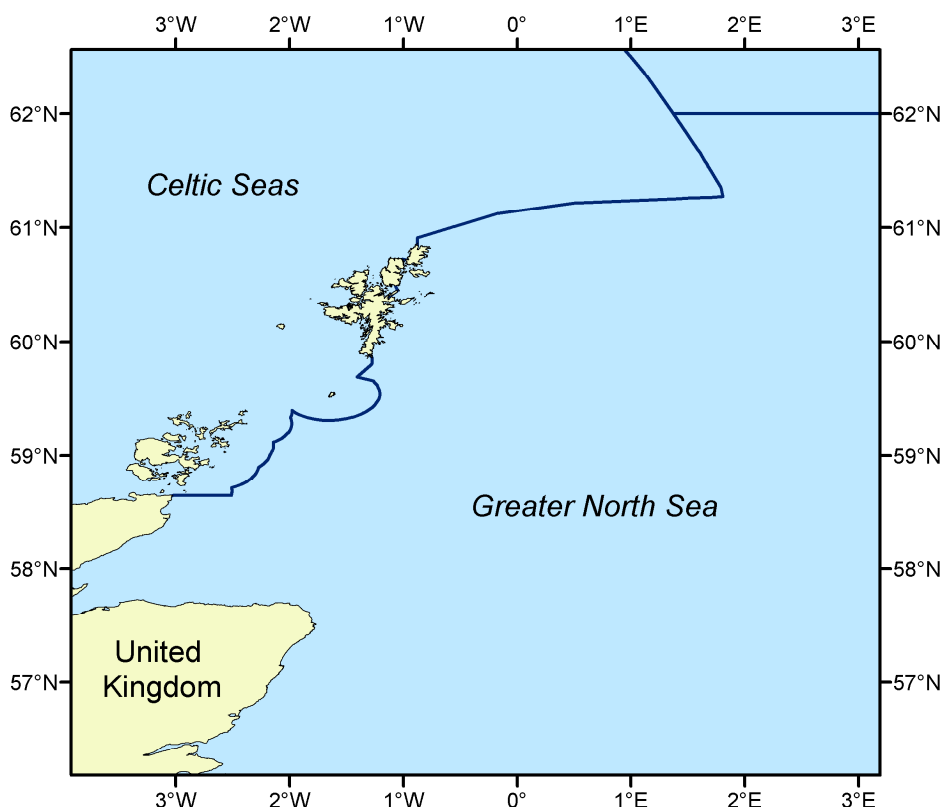
**Note 1:** The area hatched in purple and white indicates an area to which both the United Kingdom and the Government of the Kingdom of Denmark together with the Government of the Faroes have transmitted overlapping submissions to the Commission on the Limits of the Continental Shelf (CLCS) in fulfilment of their respective rights and obligations under Article 76 and Annex II to the United Nations Convention on the Law of the Sea in order to determine entitlement of outer continental shelf areas. This map should not be used in any way to prejudice the determination of that question by the CLCS in due course.

**Note 2:** The area hatched in black and white shows the delineation of the outer limits of the continental shelf beyond 200 M from the territorial sea baselines of France, Ireland, Spain and the United Kingdom in respect of the area of the Celtic Sea and the Bay of Biscay, as provided by the four countries to the Commission on the Limits of the Continental Shelf (CLCS) and included in its recommendations issued on 24 March 2009. The map of the continental shelf's extent shall be used without prejudice to the agreements that will be concluded in due course between these Member States on their marine borders in this area.

**Note 3:** The seas of Azov and Marmara are shown as hatched as they do not fall within the geographic scope of application of the Bucharest Convention.

## 2.6 Border between 'Greater North Sea' and 'Celtic Seas' MSFD subregions

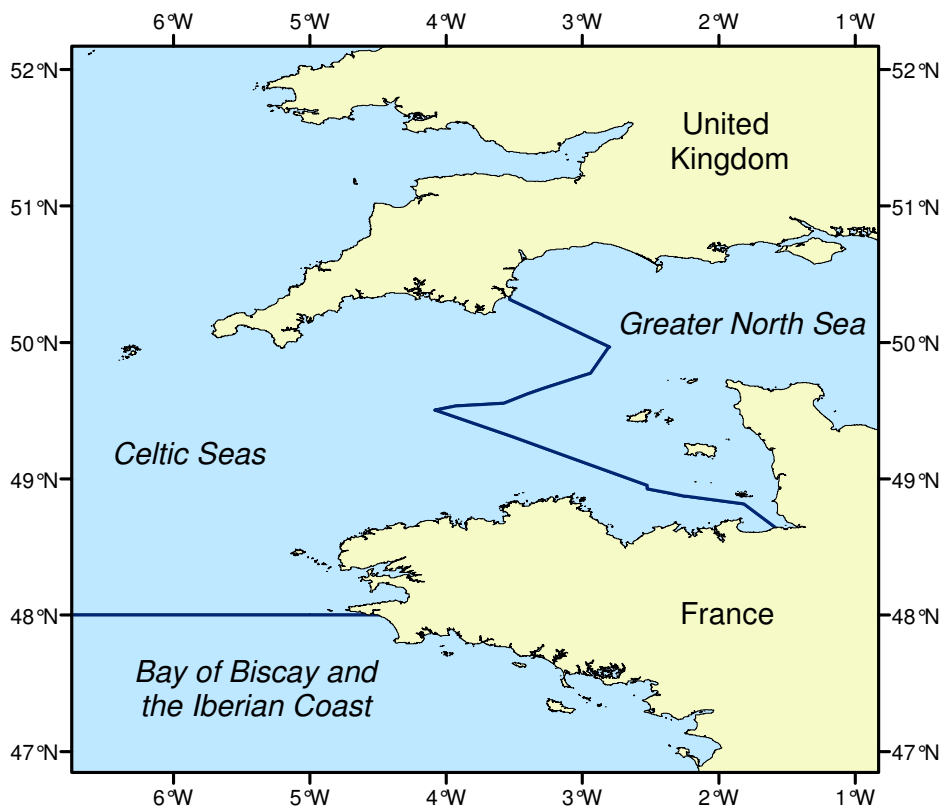
For the 'Greater North Sea, including the 'Kattegat and English Channel' subregion, the northern boundary in Norwegian waters<sup>10</sup> follows the OSPAR delineation for OSPAR region II (62°N). This is in agreement with the delineation set by Norwegian authorities (<http://dnweb12.dirnat.no/wmsdn/marint.asp>). The northern boundary between the 'Greater North Sea' and 'Celtic Seas' in UK waters has changed slightly compared to the UK regional sea boundaries as defined in "Charting Progress 2"<sup>11</sup> based on advice from the UK in October 2015 (Map 2.7).



**Map 2.7 Delineation of the 'Greater North Sea' and 'Celtic Seas' MSFD subregions northern boundary**

The southern boundary between the 'Greater North Sea' and 'Celtic Seas' (in the 'English Channel') subregions follows specification (provided as GIS polygon files) by France (direct communication<sup>12</sup>) in French waters. On the UK side it follows the marine areas defined in "Charting Progress 2"<sup>13</sup>. These two lines are connected by a line following the national boundary between France and the UK (Map 2.8). Correspondance has been made with the UK (Defra) and France (Ministère de l'écologie, de l'énergie, du développement durable et de la mer) regarding this boundary<sup>14</sup>.





**Map 2.8 Delineation of the 'Greater North Sea' and 'Celtic Seas' MSFD subregions in the English Channel**

### **2.7 Border between 'Bay of Biscay and the Iberian Coast' towards 'Greater North Sea' and 'Celtic Seas' MSFD subregions**

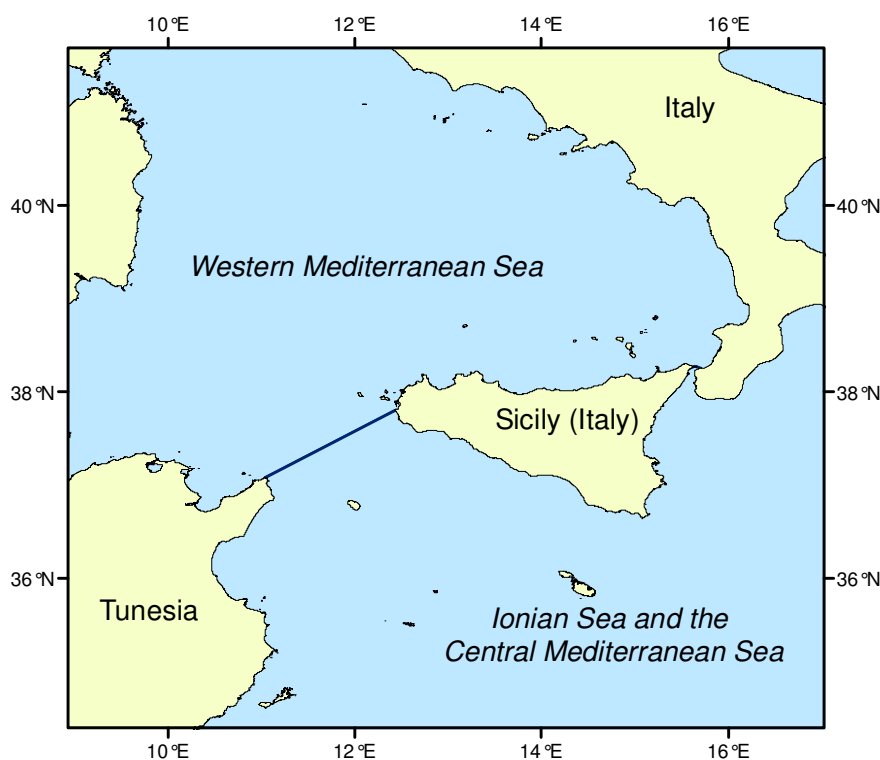
The northern boundary of the 'Bay of Biscay and the Iberian Coast' borders towards the 'Greater North Sea' and 'Celtic Seas' respectively. The boundary follows the parallel at 48° N, in accordance with the OSPAR Convention<sup>15</sup> delineation of regions II/III from region IV (Map 2.8).

### **2.8 Border between the 'Western Mediterranean Sea' and 'Ionian Sea and the Central Mediterranean Sea' MSFD subregions**

The border between the 'Western Mediterranean Sea' and the 'Ionian Sea and the Central Mediterranean Sea' is based on the draft 4<sup>th</sup> Edition (2002) of the 'Limits of Oceans and Seas' by the International Hydrographic Organization<sup>16</sup>. The border between the two subregions is a line joining Cape Bon in Tunisia with Cape Lilibeo on western Sicily. Between Sicily and the mainland of Italy, the border is a line connecting Cape Peloro on Sicily with Cape Paco on the Italian mainland (Table 2.4; Map 2.9).

**Table 2.4 Positions used for the delineation of 'Western Mediterranean Sea' and 'Ionian Sea and the Central Mediterranean Sea' MSFD subregions**

Name	Latitude	Longitude
<b>Cape Paci (south-west Italy)</b>	38° 15' N	15° 42' E
<b>Cape Peloro (north-east Sicily)</b>	38° 16' N	15° 39' E
<b>Cape Lilibeo (western Sicily)</b>	37° 48' N	12° 26' E
<b>Cape Bon (Tunisia)</b>	37° 05' N	11° 03' E



**Map 2.9 Delineation between 'Western Mediterranean Sea' and 'Ionian Sea and Central Mediterranean Sea' MSFD subregions**

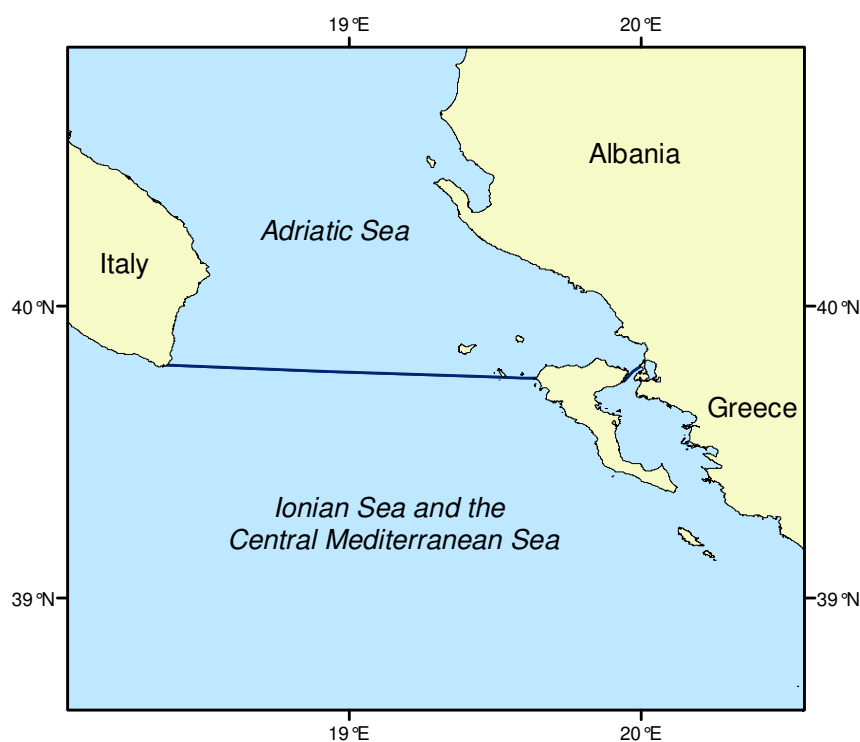
## **2.9 Border between 'Ionian Sea and the Central Mediterranean Sea' and 'Adriatic Sea' MSFD subregions**

The border between the 'Ionian Sea and the Central Mediterranean Sea' and the 'Adriatic Sea' subregions is based on the reporting by Greece of its marine waters in 2012 under MSFD Article 8, 9 and 10<sup>17</sup> (Table 2.5; Map 2.10). It is based on the draft 3<sup>th</sup> Edition publication

(1953) of the 'Limits of Oceans and Seas' by the International Hydrographic Organization<sup>18</sup>. Exact locations are estimated by Greece, based on the Hellenic Navy Hydrographic Service's maps. To cover the entire boundary including Italian marine waters the division has been extended as a straight line) towards the Italian coast at Cape Santa Marie di Leuca.

**Table 2.5 Geographic location of Cape Santa Marie di Leuca<sup>19</sup>**

<b>Name</b>	<b>Latitude</b>	<b>Longitude</b>
<b>Corfu west coast (Greece)</b>	39° 45' 07.2'' N	19° 37' 40.8 E
<b>Cape Santa Marie di Leuca (Italy)</b>	39° 48' N	18° 22' E

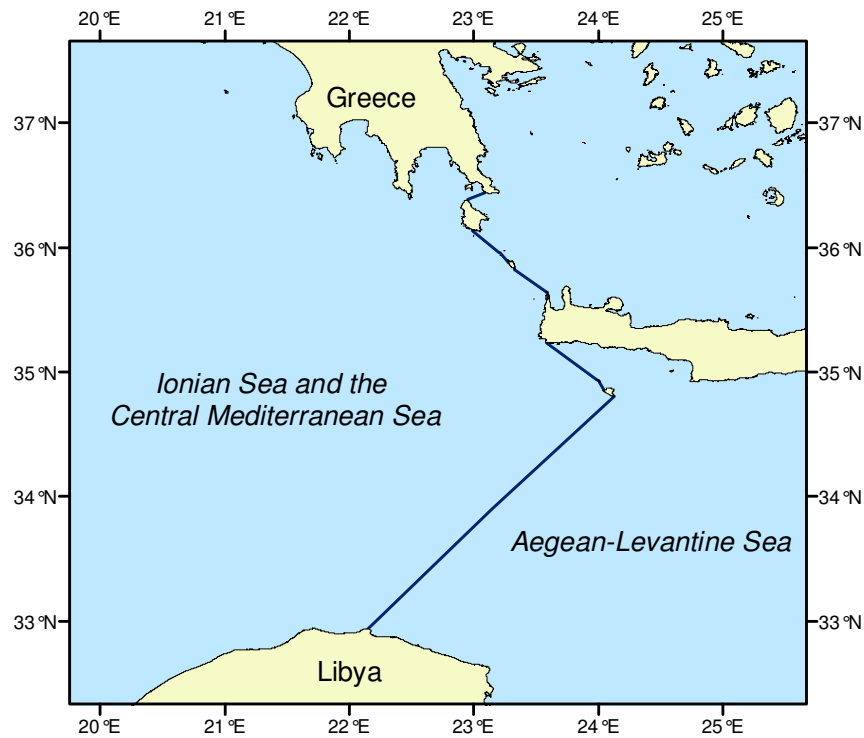


**Map 2.10 Delineation between 'Ionian Sea and the Central Mediterranean Sea' and 'Adriatic Sea' MSFD subregions**

### **2.10 Border between 'Ionian Sea and the Central Mediterranean Sea' and 'Aegean-Levantine Sea' MSFD subregions**

The border between the 'Ionian Sea and the Central Mediterranean Sea' and 'Aegean-Levantine Sea' subregions is based on the reporting of Greece of its marine waters in 2012

under MSFD Article 8, 9 and 10<sup>20</sup> (Map 2.11). For the area north of the island of Crete, the delineation is based on the draft 3<sup>th</sup> Edition publication (1953) of the 'Limits of Oceans and Seas' by the International Hydrographic Organization<sup>21</sup>. South of Crete the delineation is based on 'A new bathymetric chart and physiography of the Mediterranean Sea' (Carter, G.T. et al, 1972)<sup>22</sup>. The exact locations are estimated by Greece, based on the Hellenic Navy Hydrographic Service's maps.



**Map 2.11 Delineation between 'Ionian Sea and the Central Mediterranean Sea' and 'Aegean-Levantine Sea' MSFD subregions**

### 3 References

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- <sup>2</sup> Marine Regions (<http://www.marineregions.org>)
- <sup>3</sup> EEA coastline for analysis (<http://www.eea.europa.eu/data-and-maps/data/eea-coastline-for-analysis/>)
- <sup>4</sup> Minutes from Habitats Committee 25/4 2012, see point 12 in document. The minutes are available at <http://ec.europa.eu/transparency/regcomitology/index.cfm?do=search.documentdetail&cz94XNi0FFVYxPsayL8Pmc3DMXcAjETM3wCQs0zuFMiUyRNldL7I/SVpCmnySTSZ..>
- <sup>5</sup> OSPAR convention (<http://www.ospar.org/content/content.asp?menu=01481200000000000000000000000000>)
- <sup>6</sup> OSPAR regions ([http://geo.ices.dk/viewer.php?show\\_meta\\_layer=ext\\_ref:ospar\\_regions\\_without\\_coastline](http://geo.ices.dk/viewer.php?show_meta_layer=ext_ref:ospar_regions_without_coastline))
- <sup>7</sup> Barcelona convention ([http://www.unep.ch/regionalseas/regions/med/t\\_barcel.htm](http://www.unep.ch/regionalseas/regions/med/t_barcel.htm))
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- <sup>9</sup> Bucharest Convention (<http://www.blacksea-commission.org/convention.asp>)
- <sup>10</sup> OSPAR convention (<http://www.ospar.org/content/content.asp?menu=01481200000000000000000000000000>)
- <sup>11</sup> Charting Progress 2: The state of UK seas. 2010. DEFRA, London. <http://chartingprogress.defra.gov.uk>. The use of the boundary has been confirmed by Richard Emmerson, DEFRA with the provision “that it might change in the future”
- <sup>12</sup> French polygon GIS files provided (7 December 2015) by Steven Piel from Agence des aires marines protégées
- <sup>13</sup> Charting Progress 2: The state of UK seas. 2010. DEFRA, London. <http://chartingprogress.defra.gov.uk>. The use of the boundary has been confirmed by Richard Emmerson, DEFRA with the provision “that it might change in the future”
- <sup>14</sup> The justification for this use of the boundary has been confirmed by Richard Emmerson, DEFRA and Julie Percelay at Ministère de l'écologie, de l'énergie, du développement durable et de la mer with the provision “that it might change in the future” by email 2 March 2012. David Connor DG ENV got a copy of the correspondence.
- <sup>15</sup> OSPAR convention (<http://www.ospar.org/content/content.asp?menu=01481200000000000000000000000000>)
- <sup>16</sup> Limits of Oceans and Seas, International Hydrographic Organization, Publication S-23, Draft 4<sup>th</sup> Edition, 2002 ([http://www.iho.int/mtg\\_docs/com\\_wg/S-23WG/S-23WG\\_Misc/Draft\\_2002/Draft\\_2002.htm](http://www.iho.int/mtg_docs/com_wg/S-23WG/S-23WG_Misc/Draft_2002/Draft_2002.htm))
- <sup>17</sup> EIONET Central Data Repository (<http://cdr.eionet.europa.eu/>)
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- <sup>22</sup> Carter T.G. et al, 1972, A new bathymetric chart and physiography of the Mediterranean Sea. In: A.D. Stanley and A.D. Dowden (eds.), The Mediterranean Sea: A Natural Sedimentation Laboratory, pp. 1-23, Hutchinson & Ross, Stroudsburg