



MAPAMED

The database of MArine Protected Areas in the MEDiterranean

User manual, April 2021 version



Mediterranean
Action Plan
Barcelona
Convention



The database of MArine Protected Areas in the MEDiterranean

User manual - 2021-04

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List of acronyms

- ACCOBAMS → [Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area](#)
- Barcelona Convention → [Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean](#)
- BLI → [BirdLife international](#)
- CBD → [Convention on Biological Diversity](#)
- CCH → [Critical Habitat for Cetaceans](#)
- CDDA → [European Inventory of Nationally Designated Protected Areas](#)
- CRS → [Coordinate Reference System](#)
- EBSA → [Ecologically or Biologically Significant Marine Area](#)
- EEA → [European Environment Agency](#)
- EFH → [Essential Fish Habitat](#)
- EU → [European Union](#)
- FRA → [Fisheries Restricted Area](#)
- GFCM → [General Fisheries Commission for the Mediterranean](#)
- ICZM → [Integrated Coastal Zone Management](#)
- IBA → [Important Bird and Biodiversity Area](#)
- IHO → [International Hydrographic Organization](#)
- IMMA → [Important Marine Mammal Area](#)
- IMO → [International Maritime Organization](#)
- IUCN → [International Union for the Conservation of Nature](#)
- KBA → [Key Biodiversity Area](#)
- MAPAMED → [The database of MARine Protected Areas in the MEDiterranean](#)
- MARPOL → [International Convention for the Prevention of Pollution from Ships](#)
- MedPAN → [Network of Marine Protected Areas Managers in the Mediterranean](#)
- MMPATF → [Marine Mammal Protected Areas Task Force](#)
- MPA → [Marine Protected Area](#)
- MSFD → [Marine Strategy Framework Directive](#)
- Natura 2000 → [European Ecological Network of Protected Areas](#)
- OECM → [Other Effective area-based Conservation Measure](#)
- Protected Planet → [Online interface for the World Database on Protected Areas \(WDPA\) and the World Database on Other Effective area-based Conservation Measures \(WD-OECM\)](#)
- PSSA → [Particularly Sensitive Sea Area](#)
- Ramsar Convention → [Convention on Wetlands of International Importance especially as Waterfowl Habitat](#)
- RSIS → [Ramsar Sites Information Service](#)
- SPA/BD → [Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean](#)
- SPA/RAC → [Specially Protected Areas Regional Activity Centre](#)
- SPAMI → [Specially Protected Area of Mediterranean Importance](#)
- UNESCO → [United Nations Educational, Scientific and Cultural Organization](#)
- VME → [Vulnerable marine ecosystem](#)
- WD-OECM → [World Database of Other Effective area-based Conservation Measures](#)
- WDPA → [World Database on Protected Areas](#)

1. Introduction

The Parties to the Convention on Biological Diversity (CBD) adopted in 2004 the objective of establishing, by 2010 for terrestrial environments and by 2012 for marine environments, comprehensive, well-managed and ecologically representative national and regional systems of protected areas. Within the framework of the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (SPA/DB) of the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention), whose implementation is coordinated by the Regional Activity Centre for Specially Protected Areas (SPA/RAC), the Mediterranean countries contribute to the achievement of this objective through the implementation of the Regional Work Programme for Marine and Coastal Protected Areas in the Mediterranean, including the high seas, adopted in 2009 by the Contracting Parties to the Barcelona Convention. The first step in the implementation of this work programme is to assess the representativeness and effectiveness of the network of marine and coastal protected areas in the Mediterranean.

In 2010, at the initiative of the Mediterranean Protected Areas Network (MedPAN) and in close collaboration with the SPA/RAC, a unique partnership approach was launched at the Mediterranean level aiming to develop in 2011 a common database of Marine Protected Areas (MPAs) in the Mediterranean, entitled MAPAMED (*MARine Protected Areas in the MEDiterranean*). This database contains the perimeters of these areas (spatial data) with the corresponding basic data (attribute data). The database is not only limited to MPAs, but also to potential Other Effective area-based Conservation Measures (OECMs) and other sites of conservation interest. The definitions of these three categories of sites within the MAPAMED framework are detailed in section 2.

The MAPAMED database and website (www.mapamed.org) are therefore the joint property of MedPAN and the SPA/RAC and are jointly administered by MedPAN and the SPA/RAC. MAPAMED data are interoperable with the WDPA, CDDA, Natura 2000 and Ramsar databases (for each site, MAPAMED indicates the corresponding identifiers. The CDDA identifiers are the same as the WDPA identifiers).

By accessing MAPAMED data, you agree to be bound by the terms of use detailed in this document. Please read these terms of use carefully. If you do not agree with any of these terms and conditions, please do not download the database. By downloading the MAPAMED data, you agree to be bound by the terms of use in section 5.

2. Guidelines on selection criteria

The definitions and criteria used as a basis for including sites in MAPAMED are presented in this section. For more details, please refer to the [MAPAMED Site Identification Criteria](#) (Claudet *et al.*, 2011).

In some cases, the criteria described below are not sufficient to decide on the integration of a site in MAPAMED. These may be errors in a source, inconsistencies between different sources, local specificities, etc. These specific cases require an in-depth research of information before being able to finalise a choice (see MAPAMED's release notes).

It is important to specify that the MAPAMED data are validated by all the Focal Points for Specially Protected Areas and Biological Diversity (SPA/DB) of the SPA/RAC, the centre coordinating the implementation of the SPA/DB Protocol of the Barcelona Convention. As a result, the sites included in the database are only those of the [22 Contracting Parties to the Barcelona Convention](#): Albania, Algeria, Bosnia and Herzegovina, Croatia, Cyprus, Egypt, France, Greece, Israel, Italy, Lebanon, Libya, Malta, Monaco, Montenegro, Morocco, Slovenia, Spain, Syrian Arab Republic, Tunisia, Turkey and the European Union.

The designations employed, the presentation of the data herein and the delimitations of MPAs, OECMs and other sites of conservation interest presented do not imply the expression of any opinion whatsoever on the part of MedPAN, SPA/RAC and their partners concerning the legal status of any State, territory, city or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries on land and sea.

It is important to note that MAPAMED does not include data relating to sites, or any area, which are the subject of territorial disputes between the Contracting Parties to the Barcelona Convention, unless a solution is jointly proposed by these parties.

2.1. Mediterranean Sea

The spatial extent considered is the entire Mediterranean Sea, in accordance with the scope of the SPA/BD Protocol and the Barcelona Convention, i.e. :

"For the purposes of this Convention, the Mediterranean Sea area shall mean the maritime waters of the Mediterranean Sea proper, including its gulfs and seas, bounded to the west by the meridian passing through Cape Spartel lighthouse, at the entrance of the Straits of Gibraltar, and to the east by the southern limits of the Straits of the Dardanelles between the Mehmetcik and Kumkale lighthouses."
(Barcelona Convention - Article 1 - Geographical scope)

The geographical scope of the Barcelona Convention is based on the definition published in 1953 by the International Hydrographic Organization (IHO):

"[The Mediterranean Sea] is bounded by the coasts of Europe, Africa and Asia, from the Strait of Gibraltar on the West to the entrances to the Dardanelles and the Suez Canal on the East. [...] On the west, a line joining the extremities of Cape Trafalgar (Spain) and Cape Spartel (Africa). [...] On the

north-east, a line joining Kum Kale (26°11' E) and Cape Helles, the Western entrance to the Dardanelles. On the south-east, the entrance to the Suez Canal. [...]"

Based on the IHO definition, the [Flanders Marine Institute](#) was able to reconstruct the geographical layer of the Mediterranean Sea, "IHO Sea Areas v3" (Flanders Marine Institute, 2018), which represents an area of approximately 2 514 357 km² (measured value, EPSG:3035). This layer has been slightly modified so that the boundaries of the Mediterranean correspond to those set out in the Barcelona Convention: at the Strait of Gibraltar, the entrance to the Dardanelles and the Suez Canal. The internal division (10 Mediterranean seas or basins) has also been modified to correspond to the 4 Mediterranean marine sub-regions of the Marine Strategy Framework Directive (MSFD), "MSFD Europe's seas" (European Environment Agency, 2018) which were adopted by the Barcelona Convention as part of the implementation of the Ecosystem Approach (EcAp). The coastline of the GIS layer "IHO Sea Areas v3" has been preserved. The new GIS layer obtained "Scope of the Barcelona Convention (IHO-MSFD)" (MedPAN & SPA/RAC, 2020) represents an area of approximately 2 513 905 km² (measured value, EPSG:3035).

The sites included, totally or partially, within the limits of the "Scope of the Barcelona Convention (IHO-MSFD)" layer are integrated into MAPAMED (selection by location). The wetlands included in this layer are an integral part of the Mediterranean basin and are counted as marine surface (only overlapping areas and only where the wetlands are permanently or temporarily connected to the sea).

2.2. Marine protected areas

The CBD and the International Union for Conservation of Nature (IUCN) have defined Protected Areas as follows:

"Protected area" means a geographically defined area which is designated or regulated and managed to achieve specific conservation objectives. [These are areas] where special measures need to be taken to conserve biological diversity. "(CBD Convention, 1992: [Article 2](#) and [Article 8](#)).

"IUCN defines a protected area as: 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. This definition will make it much harder for actions that involve exploitation, such as fisheries, to be claimed as MPAs that protect the ocean. If marine areas involve extraction and have no defined long-term goals of conservation and ocean recovery, they are not MPAs." (IUCN, 2012: [When is a Marine Protected Area really a Marine Protected Area](#))

In the light of these definitions, and in the framework of MAPAMED, we consider as MPAs ***"a clearly defined marine geographical space - including subtidal, intertidal and supratidal terrain and coastal lakes and lagoons connected permanently or temporarily to the sea, together with its overlying water - recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values."*** (Claudet *et al.*, 2011).

Some MPAs are on the IUCN Green List of Protected and Conserved Areas. "*The IUCN Green List of Protected and Conserved Areas is the first global standard of best practice for area-based conservation. It is a programme of certification for protected and conserved areas – national parks, natural World Heritage sites, community conserved areas, nature reserves and so on – that are effectively managed and fairly governed.*"([IUCN Green List of Protected and Conserved Areas](https://iucngreenlist.org/explore/)). The list of inscribed or candidate sites is available at: <https://iucngreenlist.org/explore/>

2.2.1. MPA with a national statute

These are all MPAs that have been legally designated by a State. For more details on the different types of national designations existing in the Mediterranean, please consult the [2016 Status of Mediterranean Marine Protected Areas](#) (MedPAN and SPA/RAC, 2019).

For sites in European Union (EU) member states, the European Environment Agency (EEA) provides the [European Inventory of Nationally Designated Protected Areas \(CDDA\)](#) in open access. Table 1 specifies the attribute data used to select the CDDA sites to be integrated into MAPAMED.

The internal areas of the French and Greek National Parks are part of the CDDA database. In MAPAMED, only the external perimeters of the MPAs are taken into account. MAPAMED does not contain the internal areas even if they meet the other selection criteria.

For information, France does not consider as MPA the sites that are not, at least partially, on the public maritime domain. Wetlands are outside the French public maritime domain and are therefore not listed among French MPAs when they have a protected status. MAPAMED does not include French national protected wetland sites even if they meet the other selection criteria. This is true even in case of overlap with the "Scope of the Barcelona Convention (IHO-MSFD)" layer.

For some sites, it is possible to observe disparities between the CDDA data and the official legal texts. Other sites may be absent from the dataset. When encountered, these anomalies are reported to the competent national authorities. Thus, the CDDA data can be completed or corrected in the MAPAMED database according to the instructions of the European national public institutions.

For non-European sites, exchanges with the various national public institutions enable MAPAMED to be fed and updated.

Table 1. CDDA attribute data and MAPAMED criteria

Fields	CDDA Definitions	MAPAMED criteria
iucn Category	<i>IUCN protected area management categories (2008) classify protected areas according to their management objectives. The categories are recognised by international bodies such as the United Nations and by many national governments as the global standard for defining and recording protected areas and as such are increasingly being incorporated into government legislation.</i> https://www.iucn.org/theme/protected-areas/about/protected-area-categories	Removal of sites that cannot be assigned an IUCN management category. Attribute equal to "notApplicable".
major Ecosystem Type	<i>The major ecosystem type can be: marine, marine and terrestrial (incl. freshwater) or terrestrial (incl. freshwater).</i>	Removal of terrestrial sites. Attribute equal to "terrestrial".
marine Area Percentage	<i>Percentage of the total area of marine ecosystems in the designated area.</i>	Removal of sites with a zero percentage of marine area. Attribute equal to "0".
designation Type Name English	<i>English translation of the official title of the designation.</i>	Verification of each type of national designation to remove those that cannot be considered as MPAs (see MAPAMED release notes).

2.2.2. Marine Natura 2000 sites

"Natura 2000 is a network of protected areas covering Europe's most valuable and threatened species and habitats. It is the largest coordinated network of protected areas in the world, extending across all 28 EU countries, both on land and at sea. The sites within Natura 2000 are designated under the Birds and the Habitats Directives. [...] The target of both directives (specifically set out within the Habitats Directive and echoed in the Birds Directive) is to ensure the long-term sustainability of the habitats and species they have been set up to protect."([The Natura 2000 protected areas network](#)).

The procedure for designating a Natura 2000 site varies according to the directive which justifies the creation of the site: Birds (Directive 2009/147/EU of 30 November 2009) or Habitats (Directive 92/43/EEC of 21 May 1992).

Under the Habitats Directive, Member States submit lists of proposed Sites of Community Importance (pSCI) to the European Commission. Once adopted by the Commission, these proposed sites become Sites of Community Importance (SCIs) and Member States must then designate them as Special Areas of Conservation (SACs) within a maximum period of six years.

The procedure for establishing sites under the Birds Directive requires Member States to directly designate Special Protection Areas (SPAs) on the basis of scientific criteria.

It is important to note that the four categories of Natura 2000 designation do not offer the same level of protection (more details in Annex I):

- **pSCI**: sites included by the States on the national lists as proposals for sites of Community interest under the Habitats Directive. It is a simple proposal which, as such, does not benefit from any recognition or protection beyond the State making the proposal. This category cannot be assimilated to an MPA but rather to a site of conservation interest.
- **SCI**: provisional designation under the Habitats Directive, which marks the recognition of the importance of the site at EU level. This is not a simple proposal, however, as certain protection measures are planned, with the site having the vocation to become a SAC within 6 years. This category is assimilated to an MPA.
- **SAC**: the main category of protected area under the Habitats Directive, which constitutes a genuine protection regime, the implementation of which is the responsibility of the State. This category is assimilated to an MPA.
- **SPA**: category of protected area established under the Birds Directive. The protection regime provided for is at the same time more restricted, more flexible and less precise than that provided for SACs, or even that applicable to SCIs. This category is assimilated to an MPA.

The EEA provides open access to the [Natura 2000 database](#) (the European network of protected sites). Table 2 specifies the attribute data used to select Natura 2000 sites to be integrated into MAPAMED.

Table 2. Natura 2000 attribute data and MAPAMED criteria

Fields	Natura 2000 definitions	MAPAMED criteria
SITETYPE	<i>Type of classification for the site: A: SPAs (Special Protection Areas - sites designated under the Birds Directive); B: SCIs and SACs (Sites of Community Importance and Special Areas of Conservation - sites designated under the Habitats Directive); C: where SPAs and SCIs/SACs boundaries are identical (sites designated under both directives).</i>	Identification of the different categories as shown in Table 3
DATE_SPA	<i>Date site classified as SPA.</i>	
DATE_PROP_SCI	<i>Date site proposed as eligible for identification as a Site of Community importance (SCI).</i>	
DATE_CONF_SCI	<i>Date site has been confirmed as a Site of Community importance (SCI).</i>	
DATE_SAC	<i>Date site designated as SAC.</i>	
MARINE AREA PERCENTAGE	<i>Percentage of the site considered as marine.</i>	Removal of sites with a zero percentage of marine space. Attribute equal to "0".

Given that the same site can be designated under both Directives (at the same time or staggered), there are therefore seven combinations of Natura 2000 site categories. Table 3 shows how the attribute data

are used to identify the different combinations of Natura 2000 sites, how they are considered in MAPAMED and the selected date of designation.

Table 3. Summary of the different categories of Natura 2000 sites integrated in MAPAMED ("A": "Birds" sites; "B": "Habitats" sites; "C": "Birds" and "Habitats" sites. The "x" marks the presence of an official date)

Combinations	SITETYPE	DATE_SPA	DATE_PROP_SCI	DATE_CONF_SCI	DATE_SAC	STATUS_YR	MAPAMED criteria
SPA	A	x				DATE_SPA	MPA
pSCI	B		x			DATE_PROP_SCI	Site of conservation interest
SCI	B		x	x		DATE_CONF_SCI	MPA
SAC	B		x	x	x	DATE_CONF_SCI	MPA
SPA + pSCI	C	x	x			DATE_SPA	MPA
SPA + SCI	C	x	x	x		SPA - CONF_SCI*	MPA
SPA + SAC	C	x	x	x	x	SPA - CONF_SCI*	MPA

*The earliest date between "DATE_SPA" and "DATE_CONF_SCI".

For some sites, it is possible to observe disparities between Natura 2000 data and official legal texts. When encountered, these anomalies are reported to the competent national authorities. Thus, Natura 2000 data can be completed or corrected in the MAPAMED database according to the instructions of the European national public institutions.

2.2.3. The Pelagos Sanctuary for marine mammals in the Mediterranean Sea

"On November 25th, 1999, the Pelagos Agreement, creating the Sanctuary for Mediterranean Marine Mammals, was signed in Rome by France, Italy and the Principality of Monaco, where the project was officially registered. Having come into effect on February 21th, 2002, the Agreement seeks to enable the three countries to create jointly coordinated initiatives to protect cetaceans and their habitats from all sources of disturbance: pollution, noise, accidental capture and injury, disruption etc.

What makes the Pelagos Sanctuary for Mediterranean Marine Mammals unique is the fact that it is a site managed by three different authorities and includes coastal areas and international waters that form a large ecosystem of major scientific, socio-economic, cultural and educational interest."([Presentation of the Pelagos Agreement](#)).

2.2.4. Specially Protected Areas of Mediterranean Importance (SPAMI)

Through the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (SPA/DB Protocol), whose implementation is coordinated by the SPA/RAC, the Contracting Parties to the Barcelona Convention established, in 2001, the List of Specially Protected Areas of Mediterranean

Importance (SPAMI) in order to promote cooperation in the management and conservation of natural areas and the protection of endangered species and their habitats. The conservation of the natural heritage is thus the fundamental objective that characterises the SPAMIs.

The [SPA/BD Protocol](#) provides the criteria for the selection of marine and coastal protected areas suitable for inclusion in the SPAMI List ([Annex I of the SPA/BD Protocol](#)) as well as the procedure and steps to be followed for the inclusion of a site in the List ([SPAMI](#)).

On the one hand, the SPAMI may seem to be a simple designation since it is necessarily superimposed on an already existing legal status. Designation as a SPAMI does not necessarily strengthen the MPA insofar as it is only a question, for the State on whose territory the SPAMI is located, of applying the management measures set out in its nomination (measures which it may already be applying) and, for the other States Parties to the Protocol, of recognising the value of the MPA and complying with its regulations. However, the principle of territorial sovereignty requires third States that operate, directly or indirectly, activities on the territory of a State to respect its laws, including in MPAs. Consequently, the SPAMI status does not create any legal obligation with regard to third States as long as the site in question is located in an area of national jurisdiction (which is, for the time being, the case for almost all SPAMIs, except for the Pelagos Sanctuary) where the obligation to comply with the protection measures in force already exists.

However, it should be noted that legal obligations are attached to the SPAMI status and are formulated in binding terms in the Protocol. Although these obligations are most often devoid of any useful effect, this may not be the case in certain situations and the SPAMI status may provide added value in terms of protection. This is notably the case for an MPA partly or totally in the high seas (e.g. the Pelagos Sanctuary, which has been a SPAMI since 2001). The main way to create an MPA on the high seas is to conclude a treaty. However, an international treaty only applies to its signatories. Registering the site on the SPAMI List makes it possible to establish the existence of such an MPA vis-à-vis all the Mediterranean countries, Parties to the SPA/BD Protocol, and to bring them to comply with regulations on the high seas which were not previously enforceable against them (more details in Annex II).

There is a collaborative SPAMI platform, managed by the SPA/RAC (<http://spami.medchm.net/en>), which centralises all documents, references and tools related to SPAMIs, ranging from procedures and reports for registration on the SPAMI List to details concerning each registered SPAMI. All this centralised data is mainly available to SPAMI managers and stakeholders concerned (country authorities, donors, scientists, public). The underlying objective is to facilitate exchanges between managers, to promote the visibility of the SPAMI List, but also to allow continuous updates of the platform, with different degrees of accessibility.

The platform presents information on SPAMIs in two parts. The first concerns the institutional aspect, in particular the steps to be taken to become an SPAMI, the eligibility criteria and the forms for first application or revision of SPAMI status. While the second part presents data on each SPAMI (management plan, content of the SPAMI presentation report, official website, contact details of managers) and a presentation of the twinning programme aimed at developing and strengthening

effective management of SPAMIs. The GIS layers are retrieved and compiled by the SPA/RAC from the different States Parties to the Protocol.

2.3. Other effective area-based conservation measures

The [Aichi Biodiversity Objective 11](#) introduces the notion of "other effective area-based conservation measures" (OECM) in 2010:

"By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscape and seascapes." ([Strategic Plan for Biological Diversity 2011-2020 and the Aichi Targets](#))

The CBD COP 14 adopted a definition in 2018:

"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](#))

The distinguishing criterion is that protected areas must have the conservation of biological diversity as their main objective, whereas an OECM must ensure effective *in situ* biodiversity conservation, even if its main objectives are other. The fact that an area has biodiversity conservation as one of its main objectives is not sufficient to be considered as a protected area. Its management actions must also focus on this conservation: management plan, conservation measures, regulations, monitoring, etc.

Until States officially declare their OECMs, the sites included in MAPAMED are **potential OECMs**. Indeed, neither MedPAN nor the SPA/RAC has the authority to declare a site as an OECM.

In the light of these definitions, and within the framework of MAPAMED, we consider as potential marine OECM **any area (except MPAs), totally or partially marine, clearly defined geographically, legally designated, and whose management contributes, directly or indirectly, to the conservation of marine biodiversity.**

2.3.1 Fisheries Restricted Areas (FRAs)

"A Fisheries Restricted Area (FRA) is a geographically defined area in which some specific fishing activities are temporarily or permanently banned or restricted in order to improve the exploitation patterns and conservation of specific stocks as well as of habitats and deep-sea ecosystems.

In the Mediterranean and the Black Sea, 1,760,000 km² of sea habitats are protected by nine FRAs established by the GFCM. This includes one large deep-water FRA (1,730,000 km²) in which the use of towed dredges and trawl nets in all waters deeper than 1000 metres is banned to protect deep-sea benthic habitats."([Fisheries Restricted Areas of GFCM](#)).

The GFCM provides open access to the geographical layers and other data concerning the different [FRAs of the Mediterranean](#) (click on a site on the map to access the data, see also the database on [VMEs](#)). In the Mediterranean, there are three categories of FRA :

Protection of Vulnerable Marine Ecosystems (VME)

"The vulnerable marine ecosystem (VME) concept emerged from discussions at the United Nations General Assembly (UNGA) and gained momentum after UNGA Resolution 61/105. VMEs constitute areas that may be vulnerable to impacts from fishing activities.

[As a result,] fisheries measures [were] adopted in areas beyond national jurisdiction to prevent significant adverse impacts of bottom fisheries on vulnerable marine ecosystems. "[vulnerable marine ecosystem](#))

Protection of Essential Fish Habitats (EFH)

"Essential Fish Habitats are the waters and substrates vital for fish to spawn, breed, feed, and grow to maturity." ([Valavanis, 2008 in "Towards a Mediterranean network of EFH"](#))

"In 2017, following the Malta Ministerial Declaration, the General Fisheries Commission for the Mediterranean Sea adopted Resolution GFCM/41/2017/5 on a network of Essential Fish Habitats including Sensitive Habitats. It aimed at protecting most vulnerable life stages of fish population through fishing closure areas like Fisheries Restricted Areas. Such spatial management measures would help reduce the high fishing exploitation rate of many juvenile demersal stocks in the Mediterranean Sea." ([Oceana priorities for GFCM 2019](#))

Protection of deep-sea habitats and resources

Ban on the use of towed dredges and trawls at depths greater than 1000 m.

[2.3.2 Particularly Sensitive Sea Areas \(PSSAs\)](#)

"A Particularly Sensitive Sea Area (PSSA) is an area that needs special protection through action by IMO because of its significance for recognized ecological or socio-economic or scientific reasons and which may be vulnerable to damage by international maritime activities.

When an area is approved as a particularly sensitive sea area, specific measures can be used to control the maritime activities in that area, such as routeing measures, strict application of MARPOL [International Convention for the Prevention of Pollution from Ships] discharge and equipment requirements for ships, such as oil tankers; and installation of Vessel Traffic Services (VTS)."[Particularly Sensitive Sea Areas](#))

There is only one site declared in the Mediterranean by the IMO: the Strait of Bonifacio (France and Italy).

2.4. Other sites of conservation interest

There is no official definition of these sites of conservation interest, but we consider, within the framework of MAPAMED, that they are **any area, apart from MPAs or OECMs, that is totally or partially marine, clearly defined geographically, has a clearly identified interest for the conservation of marine biodiversity and has the potential to be delimited and managed for conservation purposes.**

2.4.1. Ramsar sites

"The Convention on Wetlands is an intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources." ([About the Convention on Wetlands](#))

"Resolution 5.7 and Resolution VIII.14 called for management plans for all Ramsar Sites, with appropriate support and funds for implementation and training of staff, and including a monitoring programme with indicators on the Site's ecological character."([Managing Ramsar Sites](#))

Despite this invitation to States to take a range of measures to manage and protect designated sites, this designation is not always linked to an effective protection regime. Nevertheless, an effort to adapt and strengthen the legal framework has been made by the Parties through successive COPs by adopting resolutions. These provide definitions of certain terms and guidelines, including for encouraging States to adopt national wetland policies and legal measures (Resolution VII.7).

In the Mediterranean, Ramsar sites are located in the area of application of the Protocol on Integrated Coastal Zone Management (ICZM), which includes provisions on wetlands (art. 10-1). These sites are included in the MAPAMED database, but they do not constitute an MPA. They are sites of international interest or recognition (more details in Annex III).

The Ramsar Secretariat provides open access to the [Ramsar Sites Information Service](#) (RSIS) and its data. Table 4 specifies the attribute data used to select Ramsar sites for inclusion in MAPAMED.

Table 4. Ramsar award data and MAPAMED criteria

Fields	Ramsar Definitions	MAPAMED criteria
Wetland Type	<i>List of the different types of wetlands existing on the site.</i>	Removal of sites with no marine habitats (absence of the attribute "Marine or coastal wetlands". Attention, type "K: Coastal freshwater lagoons" alone is not sufficient).

Within the framework of MAPAMED, Ramsar data can be completed or corrected by national public institutions.

2.4.2. World Heritage Sites and Biosphere Reserves

"The United Nations Educational, Scientific and Cultural Organization (UNESCO) seeks to encourage the identification, protection and preservation of cultural and natural heritage around the world considered

to be of outstanding value to humanity. This is embodied in an international treaty called the Convention concerning the Protection of the World Cultural and Natural Heritage, adopted by UNESCO in 1972." ([World Heritage](#))

"The most significant feature of the 1972 World Heritage Convention is that it links together in a single document the concepts of nature conservation and the preservation of cultural properties. The Convention recognizes the way in which people interact with nature, and the fundamental need to preserve the balance between the two. [...] The Convention defines the kind of natural or cultural sites which can be considered for inscription on the World Heritage List." ([The World Heritage Convention](#))

The status of a UNESCO World Heritage Site is not enough to guarantee a protective legal framework. It is more a question of international recognition of the importance of the site, the value of which lies mainly in the international assistance and cooperation mechanisms that can be mobilised to help the State to provide effective protection (more details in Annex IV).

The list, of UNESCO World Heritage Sites, is available here: <http://whc.unesco.org/en/list/>.

"Biosphere reserves are 'learning places for sustainable development'. They are sites for testing interdisciplinary approaches to understanding and managing changes and interactions between social and ecological systems, including conflict prevention and management of biodiversity. They are places that provide local solutions to global challenges. Biosphere reserves include terrestrial, marine and coastal ecosystems. Each site promotes solutions reconciling the conservation of biodiversity with its sustainable use." ([What are Biosphere Reserves?](#))

Biosphere reserve status offers international recognition to a site whose protection is set up by the State. In the biosphere reserve nomination form, information on the national legal status and on the competent authorities must be provided concerning the reserve on the one hand, and its core area on the other. Designation therefore presupposes at the very least the existence of a status for the core area.

The biosphere reserve must necessarily be accompanied by a protection regime in the domestic law of States. Indeed, the legal foundations of the reserve (UNESCO resolutions) make it much more of an incentive than a real constraint in terms of protection. It would therefore be an international recognition without legal force (more details in Annex IV).

The World Network of Biosphere Reserves: <https://en.unesco.org/biosphere/wnbr>

2.4.3 Ecologically or Biologically Significant Marine Areas (EBSAs)

"The EBSAs are 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. [...] In 2008, the ninth meeting of the Conference of the Parties to the Convention on Biological Diversity (COP 9) adopted the following [scientific criteria](#) for identifying ecologically or biologically significant marine areas in need of protection in open-ocean waters and deep-sea habitats." ([Background on the EBSA Process](#))

2.4.4 Cetaceans Critical Habitats (CCH)

"ACCOBAMS [Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area] is working on the identification of new relevant of Cetaceans Critical Habitats (CCH) in the ACCOBAMS area, in order to propose appropriate threats management or spatial management measures. The identification is based on the overlapping of areas of interest for Marine Mammals (IMMAs) and mapping of anthropogenic threats." ([CCH in ACCOBAMS](#))

2.4.5. Important Marine Mammal Areas (IMMA)

"Important Marine Mammal Areas (IMMAs) are defined as discrete portions of habitat, important to marine mammal species, that have the potential to be delineated and managed for conservation. IMMAs consist of areas that may merit place-based protection and/or monitoring. 'Important' in the context of the IMMA classification refers to any perceivable value, which extends to the marine mammals within the IMMA, to improve the conservation status of those species or populations." ([Important Marine Mammal Areas](#))

NB: This dataset cannot be integrated into the MAPAMED database because of its conditions of use, but it is available upon request to the IUCN Marine Mammal Protected Areas Task Force (MMPATF) ([IMMA Spatial Layer Download](#)).

2.4.6 Marine Important Bird and Biodiversity Areas (IBA and KBA)

"Since the late 1970s, the BirdLife Partnership has worked collectively to identify, document and protect the places of greatest significance for the conservation of the world's birds called Important Bird and Biodiversity Areas (IBAs). [...] Building on the IBA criteria and similar site designations, BirdLife supported the development by IUCN of the Key Biodiversity Area (KBA) Standard for identifying sites that contribute significantly to the global persistence of biodiversity: the world's most important sites for nature in terrestrial, freshwater and marine environments. All existing IBAs qualify as KBAs, either as Global KBAs if they meet the criteria in the Global Standard, or as Regional KBAs otherwise." ([Identifying the most important sites for birds and biodiversity](#))

NB: These two datasets cannot be integrated into the MAPAMED database due to their condition of use, but they are available on request from BirdLife International (BLI) (request for GIS data from [IBAs](#) or [KBAs](#)).

3. MAPAMED data standards

The MAPAMED data are based on and conform as much as possible to the *Protected Planet Data Standards* used by the *WDPA* and *WD-OECM* databases.

3.1. Spatial data

Spatial data is used to delimit the outer perimeter of the sites listed in MAPAMED. A "multipolygon" type object is used, because MAPAMED only contains sites whose boundaries are known and officially designated. Contrary to the *Protected Planet* data standards, a site in the MAPAMED database can only be assigned to a single geographical object (the internal zoning of sites is not taken into account in MAPAMED). The geographical layers are shared in the GeoPackage ([GPKG](#)) format. The layer "Scope of the Barcelona Convention (IHO-MSFD)" is also included in the GeoPackage.

MAPAMED is based on the Coordinate Reference System (CRS) *ETRS89-extended / LAEA Europe* ([EPSG:3035](#)). This is the current European system that preserves areas. It is used for statistical mapping where true area representation is required.

Tips for visual rendering

You will probably use an online map provider (such as [OpenStreetMap](#)) with MAPAMED data to get a background. In this case it is advisable to use *WGS 84 / Pseudo-Mercator* ([EPSG:3857](#)) for a better visual rendering. This is not a recognised geodetic system, but it is a standard for web mapping applications. If your mapping software (e.g. [QGIS](#)) allows "on-the-fly projections", you can simply modify the CRS of your GIS project to apply the visual rendering adapted to your needs without the need to convert the CRS of your GIS layers.

3.2. Attribute data

The attribute data is used to describe the sites referenced by MAPAMED. A list of thirty-three attributes are used and constitute the core data of a site (Table 5). Some of these attributes are required when adding a new site to the database. The other fields are not necessarily filled in, but allow to reinforce the knowledge of the site when they are. Attribute identifiers (IDs) allow interoperability with other databases (*WDPA* and *CDDA* identifiers are identical). The attribute data are shared as tab-separated values ([TSV](#)). The dataset definitions are also shared in this format (countries, designations and designation categories).

Table 5. MAPAMED attribute data (core data). Attributes in yellow have an equivalent in *Protected Planet*.

FIELD NAME	REQUIRED	PROVIDED BY	FORMAT	DESCRIPTION
MAPAMED_ID	x	MedPAN-SPA/RAC	int4	Unique identifier for a site, assigned by the MAPAMED team.
PARENT_ID		MedPAN-SPA/RAC	int4	MAPAMED identifier of the main site to which the site is related.
WDPA_ID		UNEP-WCMC	int4	Unique identifier for a site assigned by the World Conservation Monitoring Centre (WCMC) of the United Nations Environment Programme (UNEP). Identical to the CDDA identifier.
N2000_ID		EEA	varchar	Unique Natura 2000 site code assigned by the European Environment Agency (EEA).
RAMSAR_ID		RSIS	int4	Unique identification number assigned by the Ramsar Sites Information Service.
NAME	x	data provider	varchar	Name of the site as transmitted by the data provider. Languages that uses non-Latin characters are translated into English or French.
ORIG_NAME	x	data provider	varchar	Name of the site in original language.
DESIG_ENG	x	data provider	varchar	Designation of the site in English.
DESIG	x	data provider	varchar	Designation of the site in original language.
DESIG_TYPE	x	data provider	varchar	<u>Allowed values:</u> National, Regional (e.g. European or Mediterranean) and International .
DESIG_CAT_ENG	x	MedPAN-SPA/RAC	varchar	Designation category in English.
SITE_TYPE_ENG	x	MedPAN-SPA/RAC	varchar	<u>Allowed values:</u> Marine Protected Area, OECM (potential) and Site of conservation interest .
PARENT_TYPE		MedPAN-SPA/RAC	varchar	<u>Allowed values:</u> Main (main site), Secondary (secondary site animated by a main site) and Not reported .
IUCN_CAT_ENG		data provider	varchar	<u>Allowed values:</u> Ia, Ib, II, III, IV, V, VI, Not applicable, Not assigned and Not reported .
ISO3	x	data provider	text	ISO 3166-3 code for the country of the site (there may be more than one). ¹
MSFD_REGION		MedPAN-SPA/RAC	text	<u>Allowed values:</u> MAD (Adriatic Sea), MAL (Aegean-Levantine Sea), MIC (Ionian Sea and the Central Mediterranean Sea), MWE (Western Mediterranean Sea) and N/A (Not reported) (there may be more than one). ²

¹ ISO Online Browsing Platform: <https://www.iso.org/obp/ui/#search/code/>

Official website of the European Union: https://europa.eu/european-union/about-eu/countries_en

² Europe's seas : <https://www.eea.europa.eu/data-and-maps/data/europe-seas>

REP_M_AREA		data provider	float8	Total marine extent of the site as officially declared (in km ²).
GIS_M_AREA		MedPAN-SPA/RAC	float8	Total marine extent of the site calculated from available GIS data (EPSG:3035, in km ²).
REP_AREA		data provider	float8	Total extent of the site, marine and terrestrial, as officially declared (in km ²).
GIS_AREA		MedPAN-SPA/RAC	float8	Total extent of the site, marine and terrestrial, calculated from available GIS data (EPSG:3035, in km ²).
REP_M_PCT		data provider	int4	Proportion of marine area of the site, calculated from official declarations (in %).
GIS_M_PCT		MedPAN-SPA/RAC	int4	Proportion of marine area of the site, calculated from available GIS data (EPSG:3035, in %).
STATUS_ENG	x	data provider	varchar	<u>Allowed values</u> : Adopted, Designated, Inscribed and Proposed.
STATUS_YR		data provider	int4	Year of enactment of status. For the Natura 2000 sites, refer to the Standard Data Forms.
GOV_TYPE_ENG		data provider	varchar	<u>Allowed values</u> : Federal or national ministry or agency, Sub-national ministry or agency, Government-delegated management, Transboundary governance, Collaborative governance, Joint governance, Individual landowners, Non-profit organisations, For-profit organisations, Indigenous peoples, Local communities and Not reported.
MANG_AUTH		data provider	varchar	Person or group managing the site.
MANG_PLAN_ENG		data provider	varchar	<u>Allowed values</u> : Inexistent, In preparation / Not implemented, Partially implemented, Fully implemented and Not reported.
PLAN_REF		data provider	varchar	Link or reference to management plan.
GREEN_LIST		MedPAN-SPA/RAC	varchar	<u>Allowed values</u> : Listed (the site is on the IUCN Green List), Candidate (an application is pending) and Not listed (the site is not on the IUCN Green List).
WEBSITE		data provider	varchar	Official URL of the site.
GIS_PROVIDER	x	MedPAN-SPA/RAC	varchar	Provider of the GIS layer.
GIS_UPDATE		MedPAN-SPA/RAC	date	Date of last update of the GIS layer.
GIS_LOG		MedPAN-SPA/RAC	varchar	Further details on the source database. Information on the creation or modification of the GIS layer.

4. Compilation of MAPAMED data

The MAPAMED data come from various sources, including other existing databases (i.e. Protected Planet, Natura 2000, Ramsar, etc.), and legal documents (official decrees, presentation maps, etc.). MAPAMED is essentially the result of collaboration with the managers and partners of the MedPAN network and the National Focal Points of the SPA/BD Protocol (of the SPA/RAC) of the Barcelona Convention, but also with several other regional and international partners.

4.1. Collecting data

MedPAN and SPA/RAC are responsible for the collection of MAPAMED data. They monitor existing databases and regularly solicit members and partners of their respective networks in order to identify any new site to be added or updated in the MAPAMED database. MedPAN and SPA/RAC are also contacted by different users on this subject. Being the depositary of the SPAMI List, the SPA/RAC provides the data collected from its Focal Points (SPA/DB) concerning SPAMIs (designation of new SPAMIs, extensions of existing SPAMIs, etc.).

4.2. Validation of data

The SPA/RAC is responsible for the validation process of the MAPAMED data. At least every 4 years, updated data are presented to the SPA/BD Focal Points of the Barcelona Convention for validation. Once the data have been validated, MAPAMED is updated, renamed according to its temporal coverage and published in place of the previous version (e.g. in 2021, publication of MAPAMED 2019 edition presenting the updated sites as of 31 December 2019). Corrections to the database that do not require a new validation process may lead to the publication of a new version (for example: 2019 edition, version 2).

5. Use of MAPAMED data

MAPAMED data are primarily intended to be useful to MPA managers and conservation decision-makers in the Mediterranean. However, they are publicly accessible and used by numerous stakeholders for educational and non-profit (and therefore non-commercial) purposes, and provided that the source is mentioned: scientists, civil society, regional or international organisations, donors, etc. The database is also used by MedPAN and the SPA/RAC to produce regular reports presenting the situation of Mediterranean MPAs for communication to Mediterranean decision-makers and international institutions.

For this section, the following definitions are used:

- **MAPAMED data:** all spatial data and associated attribute data contained in the MAPAMED database.
- **Derived works:** any work derived or based on MAPAMED data.
- **Commercial Use:** Any use for profit or any use by an individual, a group of individuals or entity operating within or on behalf of or for the benefit of or to assist the activities of any entity -other than a non-profit organisation- to generate revenue.

5.1. Accessing data

The MAPAMED data are visible on the mapamed.org website. This online viewer allows users to navigate and search in the spatial and attribute data.

The site also permits the downloading of data. To do so, click on the "Download" link and fill in the form. This form is used to :

- collect data in order to make user statistics,
- remind the licence and the terms and conditions of use of MAPAMED data,
- commit the user to respect this licence and these terms and conditions of use,
- send a download link to the user's email address.

To facilitate the exchange, the data are gathered in a compressed archive in ZIP format (less than 50 MB). This archive contains the following elements:

- The user manual in English and French in PDF format (2 files)
- The attribute data in TSV format (1 file)
- The data definitions in TSV format (3 files)
- The release notes in English and French in PDF format (2 files)
- The spatial data in GPKG format (1 file)

If you have any questions about the MAPAMED database, please send a message to

contact@mapamed.org.

5.2. Terms and conditions of use

Unless otherwise stated, MAPAMED data may be used freely for non-commercial purposes, provided that the source is duly cited (see Section 5.3). MAPAMED data is licensed under the [Creative Commons CC BY-NC-SA 4.0](#) licence. This licence allows **sharing** and **adapting** under the following conditions: "**Attribution**", "**NonCommercial**", "**ShareAlike**". Please refer to the Creative Commons documentation to ensure that your use of the data complies with the licence conditions.

You may publish the MAPAMED data in whole or in part, including online, provided that the source is clearly and properly cited (see Section 5.3). You must ensure that the most recent available version of the MAPAMED data is used and that the numbers of edition and version are visible on the published version. MAPAMED data published online must have a clear link to the original online MAPAMED source (<http://www.mapamed.org>).

Two copies of any published material will be provided free of charge to MedPAN and SPA/RAC. Hard copies will be sent to MedPAN, 58 quai du Port, 13002 Marseille, France; and to the SPA/RAC, Boulevard du Leader Yasser Arafat, B.P. 337, 1080 Tunis Cedex, Tunisia. Electronic versions will be sent to contact@mapamed.org.

The MAPAMED data or any derivative work may not be used for commercial purposes without the prior written consent of MedPAN and the SPA/RAC. Any request for permission to use the MAPAMED data for commercial purposes should be sent by e-mail to contact@mapamed.org. Each request will be considered by the MedPAN Board of Directors and the SPA/RAC, and they will decide on the specific conditions to be applied.

5.3. Citation of MAPAMED

Each edition of MAPAMED is numbered according to its time coverage and not according to its publication date. For example, the 2019 edition includes all officially designated sites up to 31 December 2019. If corrections require the re-publication of an edition, it will receive a version number. For example, MAPAMED Edition 2019, Version 2. A new edition of the database will be published as soon as newly created sites are added and validated.

You must ensure that the citation below is always clearly mentioned in any publication, analysis or work involving MAPAMED's unaltered data in any form whatsoever:

MAPAMED, the database of MARine Protected Areas in the MEDiterranean. 2019 edition. © 2020 by SPA/RAC and MedPAN. Licensed under [CC BY-NC-SA 4.0](#). Available at: <https://www.mapamed.org/>

If the MAPAMED data have been modified, aggregated with other data or have undergone any type of modification, you must clearly state that this is a derivative work or based on the MAPAMED data in the

citation. For example :

Modified from MAPAMED, the database of MArine Protected Areas in the MEDiterranean. 2019 edition. © 2020 by SPA/RAC and MedPAN. Licensed under [CC BY-NC-SA 4.0](https://creativecommons.org/licenses/by-nc-sa/4.0/). Available at: <https://www.mapamed.org/>

MedPAN and the SPA/RAC cannot be held responsible for any publication of an altered version of the MAPAMED data, or for any work based on these data, unless they are officially identified as co-authors of the said publication.

6. Points of vigilance

The MAPAMED database contains a large amount of data from a variety of sources. It is important to understand its complexity in order to avoid drawing hasty conclusions after analysis.

6.1. Overlaps

In many cases, a site belonging to one type of designation will overlap with other sites having a different or identical designation. Some geographical areas may thus accumulate numerous overlaps of different designations. This often implies a complexity of governance and operation that is difficult to apprehend when the area is not well known. It is strongly recommended contacting the managers on site in order to avoid misinterpretation.

These overlaps make it impossible to perform surface analyses based solely on attribute data. Simply adding up the surfaces will produce a result that is far from reality. It is therefore essential to carry out these analyses using spatial data in order to take into account the different overlaps.

6.2. Marine Sanctuaries

The MAPAMED dataset contains 3 large-scale sites dedicated to the protection of marine mammals: the Pelagos Sanctuary (France, Italy and Monaco; about 3.5% of the Mediterranean), the Mediterranean Cetacean Migratory Corridor (Spain; about 1.8% of the Mediterranean) and the proposed Site of Community Importance called Oceanid (Cyprus; about 0.3% of the Mediterranean).

Because of their specific status and their large surface area, their systematic inclusion in analyses can mask certain results or introduce a bias. In such cases it would be relevant to present the results with and without taking marine sanctuaries into account.

6.3. Complexity of designations

The MAPAMED database lists many designations. Section 2 is limited to a theoretical description of these designations and does not discuss their effectiveness in the field. The names of some designations may be misleading as to the actual status of the designation. For example, the word "protected" in the designation's name does not guarantee the implementation of protective measures in the field.

The levels of protection and characteristics of a designation of the same name are not necessarily identical from one country to another (marine reserves, national parks, etc.).

In addition, it should be noted that the scope and implementation of conservation measures may vary from one site to another with the same designation at both national and regional level. This may be due to a difference in age, a difference in the will of local actors, a difference in means or any other difference in context. The official status of a site therefore does not allow its effectiveness to be assessed.

7. Disclaimers and intellectual property

7.1. No warranty and waiver of liability

The MAPAMED database is provided to you 'as is', and no warranty of any kind is given as to its completeness or accuracy, nor do we make any commitment to ensure that MAPAMED data are kept up to date. All warranties, representation and conditions, express or implied, are hereby excluded to the fullest extent permitted by law. You agree that you download and make use of MAPAMED data entirely at your own risk. You hereby waive and release MedPAN organisation and SPA/RAC from any liability whatsoever, wherever and howsoever arising in connection with any use of the MAPAMED database. You agree that this waiver and release is effective in any and every jurisdiction in the world. You agree that MedPAN organisation and SPA/RAC will not be liable on any grounds (including without limitation negligence, strict liability or under any other legal theory) for any loss or damage (direct or indirect) incurred by you or any third party as a result of the use by you or any third party of MAPAMED data or any Derivative Works. You also agree to indemnify and hold harmless MedPAN organisation and SPA/RAC in respect of any loss or damage (direct or indirect) suffered by any third party as a result of any use by that third party of any MAPAMED data or Derivative Works published by you. Without limitation to the above, any damage occurring to computer systems as a result of attempts to download MAPAMED data is entirely your own responsibility.

7.2. Disclaimer on frontiers, national boundaries

The designations employed and the presentation of the material in the MAPAMED database do not imply the expression of any opinion whatsoever on the part of MedPAN or SPA/RAC concerning the legal status of any State, Territory, city or area, or of its authorities, or concerning the delimitation of their frontiers or boundaries.

7.3. Feedback and revised information

Our goal is to keep MAPAMED data timely and accurate. If errors are brought to our attention, we will try to correct them. We welcome any feedback on the quality, reliability and accuracy of MAPAMED data. Such contributions should be free of restrictions. The objective is to improve the MAPAMED content for the benefit of the global conservation community. To provide feedback on MAPAMED data, or for general queries related to the MAPAMED database or MAPAMED data, please contact contact@mapamed.org.

7.4. No grant of intellectual property rights

Neither MedPAN organisation nor SPA/RAC assert any intellectual property rights in the data that is made available by third party data providers for inclusion in the MAPAMED database. However, all intellectual property rights in the database itself are the property of MedPAN organisation and SPA/RAC. No rights in MAPAMED data are granted to you by virtue of these Terms and Conditions or as a result of any use by you of MAPAMED data.

7.5. Communication

Any communication with respect to these Terms and Conditions and any issue arising from them shall be in writing, in either English or French, and sent by email. The address for communication with the MAPAMED supplier is contact@mapamed.org.

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9. Annexes

Annex I - Levels of protection of Natura 2000 sites

Natura 2000 sites are a category of protected area created by the European Union (EU). The legal regime of Natura 2000 sites is defined by two EU texts³: Directive 92/43/EEC of 21 May 1992 ("Habitats" Directive) and Directive 2009/147/EU of 30 November 2009 ("Birds" Directive).

1. Habitats Directive

General objectives:

- Contribute to ensuring biodiversity through the conservation of natural habitats and wild fauna and flora.
- To create a **coherent European ecological network of protected sites**, known as "Natura 2000". This network includes sites classified not only under the Habitats Directive but also under the Birds Directive (see Part 2).

The Directive defines and lists natural habitats and species of fauna and flora in its Annexes I (habitats of Community interest) and II (species). Among the habitats of Community interest listed in the annexes, some are designated as priority habitats when they are in danger of disappearing (they are indicated by an asterisk (*) in Annex I).

On this basis, the text distinguishes between two types of sites with a special status:

- **Site of Community Importance (SCI)**: "a site which, in the biogeographical region(s) to which it belongs, contributes significantly to maintaining or restoring an Annex I natural habitat type or an Annex II species to a favourable conservation status and can also contribute significantly to the coherence of Natura 2000 [...] or contributes significantly to the maintenance of biological diversity in the biogeographical region(s) concerned". Given the definition of natural habitats⁴, SCIs may be terrestrial, aquatic or mixed.
- **Special Area of Conservation (SAC)**: "a site of Community importance designated by the Member States by means of a regulatory, administrative or contractual act, where the conservation measures necessary for maintaining or restoring to a favourable conservation status the natural habitats or populations of the species for which the site is designated are applied".

Obligation for each Member State: to designate sites as SACs to contribute to the Natura 2000 network

³ The EU is empowered by its Member States to legislate on environmental protection. As such, it adopts legal acts that are binding on the Member States. There are two main categories of EU acts: regulations and directives. While the former apply directly in the national law of the Member States, the latter allow them a period of time to transpose the rules they prescribe into their own legislation.

⁴ The Directive defines natural habitats as "areas of land or water distinguished by their geographical, abiotic and biotic features, whether entirely natural or semi-natural".

on the basis of the representation on its territory of the natural habitats and species of fauna and flora referred to in Annexes I and II.

Procedure to be followed for the classification of sites as SACs:

1. Each State proposes to the Commission a list of sites on the basis of the selection criteria specified in Annex III of the Directive (the first lists had to be transmitted within 3 years after notification of the Directive).
2. On the basis of these lists, the Commission draws up a draft list of SCIs for each of the five bio-geographical regions (Alpine, Atlantic, Continental, Macaronesian and Mediterranean)⁵. The **Community list of SCIs** is adopted after the opinion of a committee composed of representatives of the Member States (first list drawn up within 6 years of notification of the Directive).
3. The Member State shall designate as SACs the SCIs included in the Community list within six years of the establishment of the list.

The Directive provides for conservation measures to be taken by States in SACs. These measures include, inter alia, "where appropriate, appropriate site-specific **management plans** or integrated into other management plans and ... appropriate **regulatory, administrative or contractual measures**" (art. 6).

Pending their classification as SACs, SCIs also benefit from a **lesser degree of protection** (art. 4-5). This protection comprises two sets of obligations incumbent on the State which are common to those applicable to SACs :

- (Relatively vague) obligation to take protective measures to avoid deterioration of the habitats and species for which the areas have been designated, "*provided that such disturbance is likely to have a significant effect having regard to the objectives of this Directive*" (Art. 6-2).
- Obligation to submit to an **environmental impact study** any plan or project not directly related or necessary to the management of the site but likely to significantly affect the site. The national authorities must thus ensure that the project does not affect the integrity of the site before giving authorisation. A special clause nevertheless allows plans or projects to be carried out "*for imperative reasons of overriding public interest*" despite their negative impact on the site. In this case, the authorities must take compensatory measures (Art. 6-4).

Monitoring the implementation of the Directive:

- States are responsible for the implementation of protection measures in SCIs and SACs on their territory.
- They prepare and transmit every 6 years a national report evaluating the implementation of the Directive on their territory.
- Within 2 years of the transmission of the national reports, the Commission shall publish a

⁵ A special clause is provided for in Article 4 for Member States whose total of designated sites represents more than 5% of the national territory. This clause allows a more flexible application of the criteria for the selection of SCIs and SACs, in agreement with the Commission, "with a view to selecting all sites".

synthesis report.

The classification of new sites or the decommissioning of old sites is based on these periodic assessments. Member States shall suggest, if necessary, the adaptation of their national list "in the *light of the results of the monitoring referred to in Article 11*" (Art. 4-1).

2. Birds Directive

The scope of this text is much narrower than that of the Habitats Directive, since it aims to protect only certain species of wild birds living on European territory.

These species are listed in Annex I of the Directive, taking into account the following criteria: a) species threatened with extinction; b) species vulnerable to certain modifications of their habitats; c) species considered rare because their populations are small or their local distribution is restricted; d) other species requiring special attention because of the specificity of their habitat (art. 4).

Member States are obliged to take "*all necessary measures to preserve, maintain or re-establish a sufficient diversity and area of habitats*" for these species living in their territory. To this end, they shall classify as **Special Protection Areas (SPAs)** "*the territories most suitable in number and size for the conservation of these species in the geographical sea and land area to which this Directive applies*" (Article 4(1)).

SPAs may also be established to protect non-Annex I migratory species that regularly occur "taking into account the *protection needs of the area*", while attaching "*particular importance to the protection of wetlands, especially those of international importance*" (Art. 4-2).

The protection regime provided for in SPAs is similar to that applicable in SCIs: the obligation to take "appropriate measures to avoid [...] pollution or deterioration of habitats as well as disturbances affecting birds, provided that they have a significant effect [...]" (art. 4-4). However, the rule on impact assessments in the Habitats Directive is not mentioned in the Birds Directive. **The protection regime for SPAs therefore seems to be weaker than that of SCIs and a fortiori that of SACs.**

On the other hand, this regime is more flexible: unlike the procedure for classifying SACs, which goes through the EU Commission, States classify SPAs directly on their territory without involving the Commission. In other words, the **States are freer in the classification and management of this category of Natura 2000 sites.**

EU-level monitoring of the implementation of the Directive is nevertheless provided for: every three years, each State sends a national report to the Commission, which then prepares a summary evaluation report (art. 12).

Annex II - Level of protection of SPAMIs

Specially Protected Areas of Mediterranean Importance (SPAMI) is an instrument provided for by the

Protocol to the Barcelona Convention on Specially Protected Areas and Biological Diversity in the Mediterranean (SPA/BD Protocol). The SPAMI regime established by this Protocol applies to those Mediterranean countries which have signed and ratified it⁶.

The objective of the Protocol is to protect and manage in a sustainable and environmentally friendly manner areas of special natural or cultural value. To this end, the Contracting Parties undertake to draw up a **SPAMI List** which includes sites chosen on the basis of the following characteristics (art. 8) :

- Importance for the conservation of the components of biological diversity in the Mediterranean ;
- Presence of ecosystems specific to the Mediterranean region or of habitats or species threatened with extinction;
- Special scientific, aesthetic, cultural or educational interest.

Procedure for the inclusion of SPAMIs in the List (art. 9):

1. **Nomination of a site by the State Party** exercising territorial jurisdiction in the area or, if the area is located wholly or partly on the high seas or in an area where maritime delimitations have not yet been defined, by the neighbouring Parties concerned.
2. **Presentation to the SPA/RAC of a report** including information on the geographical location, the physical and ecological characteristics, the legal status, the management plan and the means of its implementation, as well as a "*statement justifying the Mediterranean importance of the area*".
3. **Transmission of the proposal to the National Focal Points of the SPA/BD Protocol** to examine its compliance with the common guidelines and criteria (art. 16).
4. **Final decision on listing taken by consensus by the Conference of the Contracting Parties (COP).**

NB: the mention of the legal status and management plan among the elements required in the SPAMI proposal file seems to imply that **the area must benefit from a protection regime at the national level in order to receive SPAMI designation** (this is furthermore confirmed by art. 4-3 b)⁷.

The inclusion of an MPA in the SPAMI List creates **two categories of obligations**:

- An obligation on the proposing Party to implement **protective measures in accordance with its proposal** (art. 9-3).
- Obligations with regard to all Contracting Parties: to recognise the particular importance of the area, to **comply with the protection measures adopted** in the SPAMI and "*not to undertake activities which could run counter to the objectives which motivated [the] creation [of SPAMI]*"

⁶ The Mediterranean countries Parties to the Barcelona Convention that are not Parties to the SPA/BD Protocol are Bosnia and Herzegovina, Greece, Israel, Lebanon and Libya. (updated information on COP 21, December 2019, available on the Convention's website: <https://www.unenvironment.org/unepmap/who-we-are/contracting-parties/specially-protected-areas-protocol-spa-and-biodiversity-protocol>)

⁷ "*Proposals made in respect of an area referred to in paragraph 2 of this Article shall indicate the protection and management measures applicable to the area and the means of their implementation*".

(Art. 8-3).

Appendix III - Level of protection of Ramsar sites

Source: Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat, 2 February 1971.

Definition of wetlands (Art.1st): "Areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres".

General objectives:

- "To halt, now and in the future, the progressive encroachment on (wetlands) and loss of wetlands" (Preamble, para. 4).
- Increase waterbird populations (art. 4-4).
- **Designate areas for inclusion in the List of Wetlands of International Importance (Art. 2-1).**

Specific rights and obligations:

- **Each State Party must designate at least one wetland in its territory (Art. 2-4).**
- Precise description of the boundaries of the designated areas, which may include "areas of shoreline or coastline adjacent to the wetland and islands or bodies of marine water deeper than six metres at low tide surrounded by the wetland". In other words, **the Ramsar site may be larger than the wetland as defined in Article¹.**
- **Freedom of each Party to add other wetlands in its territory to the List.**
- Possibility of withdrawing an area listed "for urgent reasons of national interest" (art. 2-5). If it does so, it "should" take compensatory measures (art. 4-2).
- Obligation to ensure the **rational use of areas through development plans** (art. 3-1). This is a **general, if not vague, formulation** (no prescription indicating the adoption of conservation measures).
- "Each Contracting Party shall promote the conservation of wetlands and waterfowl by establishing nature reserves in wetlands, whether they are included in the List" (Art. 4-1).

Criteria for the selection of sites: "international importance from the ecological, botanical, zoological, limnological or hydrological point of view [...] in the first instance, wetlands of international importance for waterfowl in all seasons" (art. 2-2).

Procedure:

- Additions and changes to the List are discussed in the ordinary sessions of the COP (Art. 6-2).
- IUCN carries out the administrative functions of the Convention: it prepares with the Parties additions or modifications to the List.

NB: The Ramsar Convention is flexible and not very binding. Each State Party "*takes into account its commitments*" (art. 2-6), "*promotes*" the conservation of wetlands (art. 4-1) and ensures their "*as far as possible*" wise use (art. 3-1).

Annex IV - Level of protection of UNESCO sites

1. Natural and cultural world heritage sites

This status is provided for in the 1972 UNESCO Convention on the World Natural and Cultural Heritage. A few remarks on the originality of this text which is almost 50 years old:

- The concept of "*World Heritage of Humanity*" which allows for the recognition that certain properties are of "*outstanding universal value*". This recognition translates legally into the **internationalisation of protection** (while ownership of the property remains national).
- Nature-culture unit: **the Convention considers natural⁸ and cultural properties⁹ together**, without ranking or differentiating them in terms of legal status.
- Participation of NGOs (ICOMOS and IUCN) which have a role of expertise and support in the management of the sites.

The Convention established an **Intergovernmental Committee for the Protection of the World Cultural and Natural Heritage**, composed of 21 States Parties elected at the General Conference of UNESCO (competences and functioning in Art. 8 et seq.).

Procedure for designating sites :

- **Each State Party shall submit to the Committee an inventory of properties in its territory** suitable for inclusion in the "**World Heritage List**".
- On this basis, **the Committee draws up the List**, disseminates it and updates it every 2 years.
- The Committee also establishes a "**List of World Heritage in Danger**".
- 10 criteria for inclusion of sites on either of these lists have been defined by the Committee in the "**Operational Guidelines for the Implementation of the Convention**"¹⁰.

The site protection regime is very flexible. States are free to identify and delimit the properties concerned. The Convention uses "**soft**" formulations such as: "*States Parties shall endeavour to the extent possible*" to take measures ... "*undertake ... to assist*" in the identification and protection of sites,

⁸ According to the Convention, natural properties include natural monuments, geological and physiographical formations, "*natural sites or strictly delimited natural areas which are of outstanding value from the point of view of science, conservation or natural beauty*".

⁹ Cultural property includes monuments, groups of buildings and sites ... including "*combined works of man and nature, as well as areas including archaeological sites which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological point of view*".

¹⁰ These guidelines compile a series of recommendations adopted by the Contracting Parties. They clarify and supplement the provisions of the Convention, which are very general. They are regularly updated (latest edition 2019).

etc. The Convention also uses "soft" formulations such as: "*States Parties shall endeavour as far as possible*" to take measures ... "*undertake ... to assist*" in the identification and protection of sites, etc.

2. Biosphere Reserves

This designation comes from the intergovernmental scientific programme Man and Biosphere (MAB) launched in 1974 within the framework of UNESCO. A **statutory framework** was adopted in 1995 (28 C/Resolution 2.4), in which the rules relating to these reserves are set out.

Biosphere Reserves are "***areas covering ecosystems or a combination of terrestrial and coastal/marine ecosystems, internationally recognised within the framework of UNESCO's Man and the Biosphere (MAB) programme***" (Statutory Framework, art. ¹). The sites include terrestrial, marine and coastal ecosystems. They are designed as "places for learning about sustainable development" and thus fulfil a triple function:

- Contribute to the conservation of landscapes, ecosystems, species and genetic variation
- Encouraging sustainable economic and human development
- Provide logistical support for projects and activities in environmental education and training, research and monitoring on conservation and sustainable development issues.

The reserves consist of **3 sub-areas**:

- **Central area**: strictly protected area
- **Buffer zone**: surrounds or adjoins the core area and is used for activities compatible with environmentally sustainable practices that can enhance research, monitoring, training and scientific education.
- **Transition zone**: Here, socio-culturally and ecologically sustainable economic and human activities are encouraged.

Appointment procedure (Statutory framework, art. 4):

- Each State, through its National Committee, sends its **proposals for designation to the Secretariat**.
- Verification of the file by the secretariat, then **study by the Advisory Committee**.
- **Decision on appointment by the Coordination Council**.