MARINE PROTECTED AREAS IN THE WESTERN MEDITERRANEAN REGION – MEDITERRANEAN DATABASE COMPLETION AND ANALYSIS

December 2018

Version 1

SIMWESTMED

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PU	Public	
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RE	Restricted to other programme participants (including the Commission services)	
CO	Confidential, only for members of the consortium (Including the Commission services)	

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Version History

Date	Document Version	Reviewer	Revision
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1. ABOUT SIMWESTMED

As part of the support to the implementation of the European Directive on Maritime Spatial Planning (Directive 2014/89/EU known as MSP Directive), a series of European projects, have been financed by DG MARE and focus on strengthening the cross-border cooperation in Maritime Spatial Planning (MSP).

The SIMWESTMED project was launched in early 2017 as part of the calls projects corresponding to the "Western Mediterranean" region. The associating partners Spanish, Italian, Maltese and French proposed various actions, aiming to:

- Establish enlightening baselines on cross-border issues in the region.
- Promote the sharing of data necessary for MSP as well as the sharing of good practices concerning several aspects of MSP (determination of roles, involvement of stakeholders, prospective, evaluation of the interactions between activities).
- Support member States in their own implementation of the MSP EU directive.

This report is part of the project component dedicated to the assessment of spatial demands for marine conservation (C1.3.2). It aims at raising planers and decision maker's awareness on the Mediterranean Marine Protected Area (MPA) network (spatial distribution, diversity of management objectives and processes). It has been done by delivering an **updated database,** at a transboundary scale along with figures and analysis on the MPA network.

By fostering better understanding of MPA context, objectives and regulations, this action is a contribution to conservation took into account in MSP processes.

2. INVOLVED PARTNERS

The French Biodiversity agency was in charge of the environmental section of the "Spatial Demands Component" and was supported by MedPAN through a subcontract for the database completion and analysis. Indeed, MedPAN is hosting and maintaining an MPA database at the Mediterranean scale: MAPAMED.

2.1. MedPAN

MedPAN is the network of Marine Protected Areas managers in the Mediterranean. It exists since the 90s. It is run since 2010 by the MedPAN organisation, a permanent structure with dedicated funds established in late 2008.

The network gathers today over 100 institutions and NGOs that either have direct responsibility for managing MPAs or are involved in the development of MPAs in the Mediterranean. These players manage over 100 MPAS in 19 Mediterranean countries.

The MedPAN network's mission is to promote, through a partnership approach, the sustainability and operation of a network of Marine Protected Areas in the Mediterranean which are ecologically representative, connected and effectively managed to help reduce the current rate of marine biodiversity loss.

The activities of the network revolve around 3 strategic components

- Be a network for knowledge, information, anticipation and synthesis
- Develop the life of the network, the exchanges between its members and their capacity to effectively manage their MPAs in link with the other players in their territories.
- Reinforce the sustainability, prominence, governance and resources of the MedPAN network.

The activities carried out by the network are the result of a strong coordination between its members and partners so as to ensure effectiveness and reach.

Key players in the Mediterranean such as SPA / RAC of the United Nations Environment Programme, WWF, the Conservatoire du Littoral, IUCN Mediterranean, the French Biodiversity Agency, ACCOBAMS and GFCM are partners of the network and are working together to synchronise their activities. The MedPAN organisation, which coordinates the MedPAN network has a unifying and dissemination role and also has its own activities on certain themes. One of his main activities is the management of MAPAMED, the Mediterranean MPA database.

MAPAMED (Marine Protected Areas in the Mediterranean) is a GIS database that gathers information on marine protected areas of the Mediterranean, and more generally on sites of interest to the conservation of the marine environment.

It is developed and jointly administered by the MedPAN association and SPA / RAC.

The development of MAPAMED database arose from the need to have a resource centre collecting and structuring information on Mediterranean MPAs. It builds on the first MPA in the Mediterranean database that was developed by MedPAN in 2008.

MAPAMED…

- facilitates the access and the sharing of data on Mediterranean MPAs,
- allows the analysis and the evaluation of the status and trends of the MPA network and
- identifies ecological and management issues at a supra-AMP scale.

2.2. AFB

French biodiversity agency (AFB) is a public institution affiliated to the French environment ministry. FBA support implementation of public policies related to biodiversity through knowledge, preservation and restoration of marine, aquatic and terrestrial environment.

AFB is hosting a national MPA database available through a web portal (http://www.amp.afbiodiversite.fr/accueil_fr). A particular attention was paid on the interoperability between the MAPAMED database at the Mediterranean international scale and the AFB's one at the French national scale.

3. OBJECTIVES OF THE DATABASE COMPLETION AND THE ANALYSIS

Completion work through SIMWESTMED has addressed each designation categories which are considered as MPA by SIMWESTMED countries. MPA categories occurring in the SIMWESTMED study area are listed in annex.

Firstly, the MAPAMED completion aimed to update MPA perimeters and basis data in accordance with the World Database on Protected Areas standards. The WDPA is the United Nation official database of protected areas at the world scale,

Secondly, further information was gathered to provide relevant information to support MPA took into account in MSP processes. Targeted information is from different topics:

- The habitats and species that justified the designation of these MPAs.
- The composition of the governing council of these MPAs.
- The regulations issued by these MPAs. It is considered here the global regulations that apply within its scope.
- As far as possible, subzones associated with the different regulations in force in these MPAs.
- To the extent possible, management plans (if existing) for these MPAs.

Analysis of the database has the objective to draw up a map of the MPA network situation and, from different thematic. It allows a cross-cutting understanding on various protected marine politic applied by the four countries.

3.1. Online data availability

Data gathered via the project are freely available on the SIMWESTMED's page hosted on the MedPAN's website: http://medpan.org/main_activities/projects/simwestmed-project/

4. METHODOLOGY

MPA management needs a continuous survey of the MPA network in order to spot creation and modification of protected area. Analyses of gathered data provide a global view of MPA policies to stakeholder and decision makers.

MedPAN and FBA carry out two complementary approaches to collect MPA information:

- AFB completes its database through its web portal giving MPA manager the opportunity to provide data by themselves. If necessary, MPA managers are directly interviewed by AFB staff to support them in this completion task.
- MedPAN performs regular survey with a questionnaire sent to all Mediterranean MPAs.

SIMWESTMED gave the opportunity for a major update of both databases.

4.1. Task distribution

Data collection was shared between AFB and MEDPAN as follow:

- AFB was in charge of French continental Mediterranean MPAs
- MedPAN was in charge of Corsican MPAs along with MPAs from Spain, Italy and Malta.

In terms of approach, AFB chose to contact the MPA managers directly to collect the information and fill the data directly into the AMP France portal.

MedPAN chose to collect the data through an online questionnaire using LimeSurvey. At the opening of the survey, invitations were sent to all the MPA managers or public institutions found in the MedPAN contact list (if appropriate). During the survey the contact list was updated as well and new contacts were invited to contribute. Reminders were sent regularly. Along with the survey, MedPAN team contacted directly MPA managers and administrations to speed up the collection process. Moreover, concerning N2000 MPAs, the EU database on standard data forms[1] was used, particularly to get information on targeted species and habitats.

4.2. Collected information

MPA boundaries and standard data

Most of the MPA boundaries and WDPA standard data were already part of the MAPAMED database. About 15 MPAs have been added to the MAPAMED database. The major part of the completion effort was targeted to information related to the concrete MPA management.

Table 1 : Standard WDPA attributes

WDPAID	A unique identification number for the area, which is required for the MPA to be added to the database. This can be obtained from the Protected Planet website
WDPA PID	Parent ID

[1] https://www.eea.europa.eu/data-and-maps/data/natura-9

NAME	Official name of the MPA without accents
ORIGINAL NAME	Name of the MPA in the original language (with accents)
COUNTRY	Country of the MPA
DESIGNATION	Type of MPA, in the original language (with accents)
DESIG_ENG	Type of MPA, in English
DESIGNATION TYPE	Describes whether a protected area is National or International by designation
IUCN CATEGORIES	IUCN Category of the MPA for REPORTED MARINE AREAS: marine area of the MPA (in km²) as declared in the designation decree/order (or calculated)
MARINE	Type of protected area (0: terrestrial area; 1: mixed and marine)
REPORTED AREA	Total area of the MPA (in km²) as reported in the designation deed/order (or calculated)
STATUS	Proposed (planned project) or Designated (officially designated site). Only officially designated sites are given a WDPA ID and are therefore included in the database.
STATUS YEAR	Year in which the official status was decreed

Habitats and species

First aim of getting information about habitat and species was to be concentrate on a small but representative list of Mediterranean ecological issue. In a glance, it shows all general objective lead by MPA in SIMWESTMED area about species and habitat conservation as indicator. This information is crucial for planers to take environmental stakes and related policies into account when planning activities that could have effects on ecosystems.

Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean, known as the "Barcelona Convention"[2] propose a representative list of marine species and habitat (see annex 2). Furthermore, Barcelona convention was adopted by four countries and is known of MPA managers.

Information about protected habitats or species was collected for each MPA through various ways:

- Analysis of designation orders which may contain these kind of lists
- Feedback from the survey carried out by MedPAN by which MPA managers were asked to list the 10 more representative species in their MPA
- The EU N2000 database[3] which contain, for each N2000 site, the list of habitat and species of community interest for which the site has been designated. Information of this dataset is directly from Member States declarations.

[2] http://wedocs.unep.org/bitstream/handle/20.500.11822/7096/Consolidated_BC95_Eng.pdf?sequence=1&isAllowed=y

[3] https://www.eea.europa.eu/data-and-maps/data/natura-9

In a survey conducted by MedPAN in 2016, this information was collected for about 40-50 MPAs in the Mediterranean Sea. In order to complete these responses, MedPAN relaunched a specific survey on this subject in 2018:

Section of MedPAN questionnaire dedicated to habitats and species

- *Please specify here what kind of main habitats/species we can find in your MPA. For each habitat/species added, please specify:*
  - *whether it justifies the designation of the site as a MPA,*
  - *whether it is monitored in the MPA,*
  - *whether it is subject to specific conservation or restoration measures in the MPA.*

The data was being entered in two different tables (one for the habitat and one for the species) that could be used to add up to 10 habitats or species.

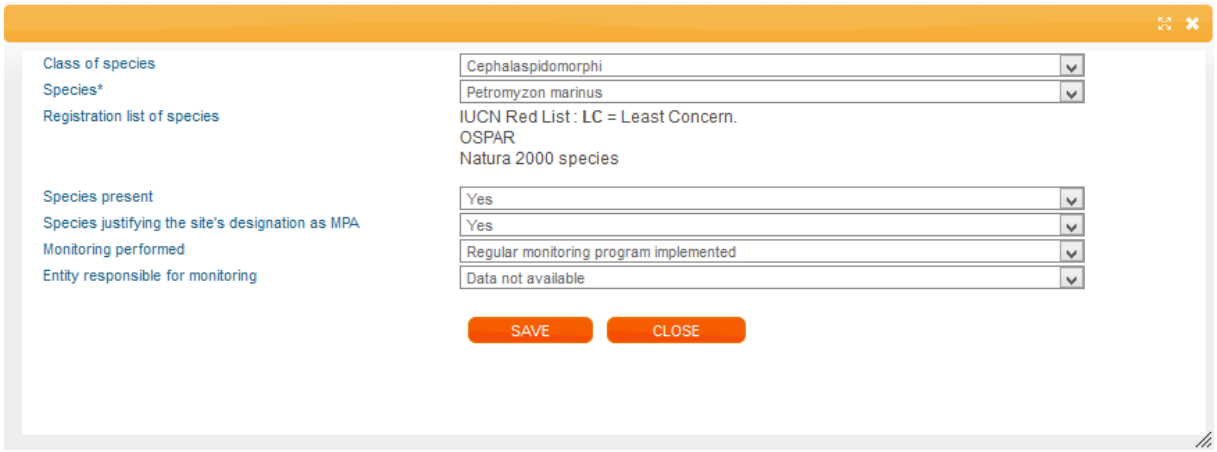


Figure 1 : Online form to complete information about targeted species in the French MPA data portal

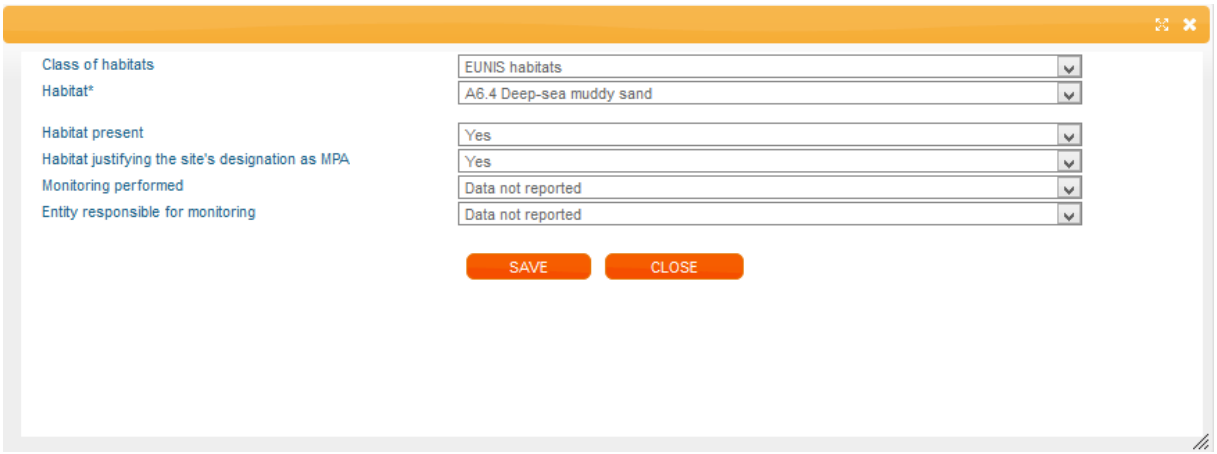


Figure 2 : Online form to complete information about targeted habitats in the French MPA data portal

Governance

MedPAN has collected numbers of designation orders concerning MPAs in the project area. The first approach chosen was to collect the composition of the governance boards in these legal texts. But our research has shown that only the 2 French marine nature parks have this information in their designation

orders. Most of the time, the governance board is not mentioned. Sometimes it can be, but in an evasive way. We therefore decided to add a section to the questionnaire on this topic.

Section of MedPAN questionnaire dedicated to governance

- *Does your MPA have a governance council?*
- *How many members are involved in your MPA governance council?*
- *Could you give us more details about the composition of this governance council? For each category, please indicate the number of people who are members of this council*

Actor typology comes from the list used by the French MPA database:

List of maritime actors displayed in the MedPAN questionnaire

- *Public administrations*
- *Local representatives*
- *Scientists*
- *Professional fishermen*
- *Recreational fishing representatives*
- *Representatives of water sports (scuba diving, kayaking, motor boating, jet skiing, windsurfing)*
- *Trade group representatives*
- *Renewable energies representatives*
- *Representatives of fossil energies*
- *Representatives of the transport sector (ports, maritime transport)*
- *Tourism representatives*
- *NGOs*
- *Other stakeholders*

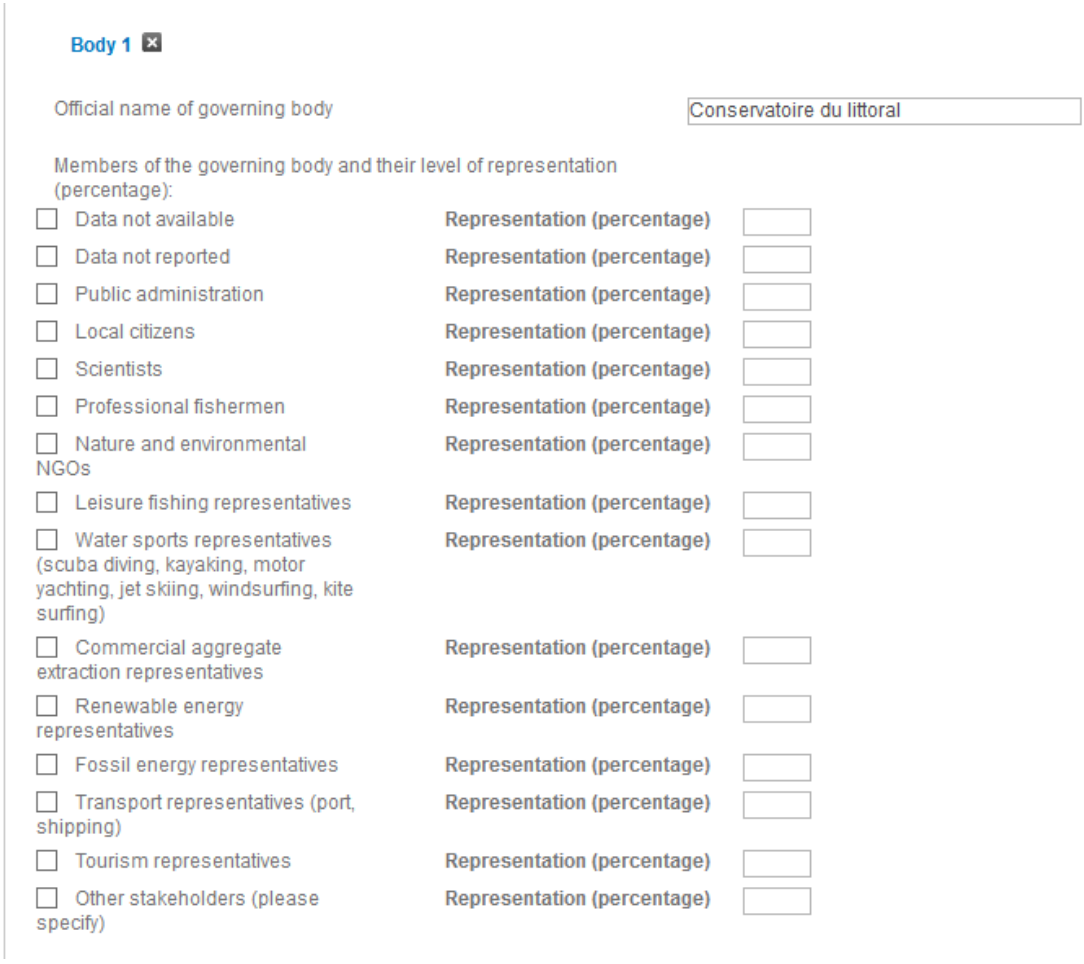


Figure 3 : Online form to complete information about governance in the French MPA data portal

Regulation

This is the most complex topic to address. Once again it was planned to retrieve the information in designation orders or MPAs presentation maps. However, regulations are very heterogeneous from one MPA to another and can sometimes be extremely complex. The first challenge, even before knowing how to retrieve the information, was to define what exactly we would collect and in what format to present it. It was finally decided to include this topic in the MedPAN questionnaire as well. The best compromise between data completeness and questionnaire simplicity was sought.

Section of MedPAN questionnaire dedicated to regulations

- *What is the regulation for these types of activities?*
  - *Authorized without MPA's specific regulations*
  - *Authorized with MPA's specific regulations*
  - *Forbidden*
  - *Data not available*
- *This regulation...*
  - *...is the same in the whole MPA*
  - *...differs according to sub-areas*
  - *Data not available*

The objective was to optimise the rate of responses received from managers.

Maritime sectors categories are inspired by the French MPA database

List of maritime uses displayed in the MedPAN questionnaire

- *Small-scale fisheries*
- *Other professional fishing activities*
- *Spear fishing*
- *Other recreational fishing activities*
- *Extraction of non-living resources (minerals, oil, gas)*
- *Scuba diving*
- *Non-motorized water sports or leisure activities*
- *Motorized water sports or leisure activities*
- *Yachting*
- *Anchoring*
- *Aquaculture*
- *Energy production*
- *Maritime traffic*
- *Maritime construction (seawalls, artificial reefs)*
- *Aerial flight*
- *Military activities*
- *Scientific Research*

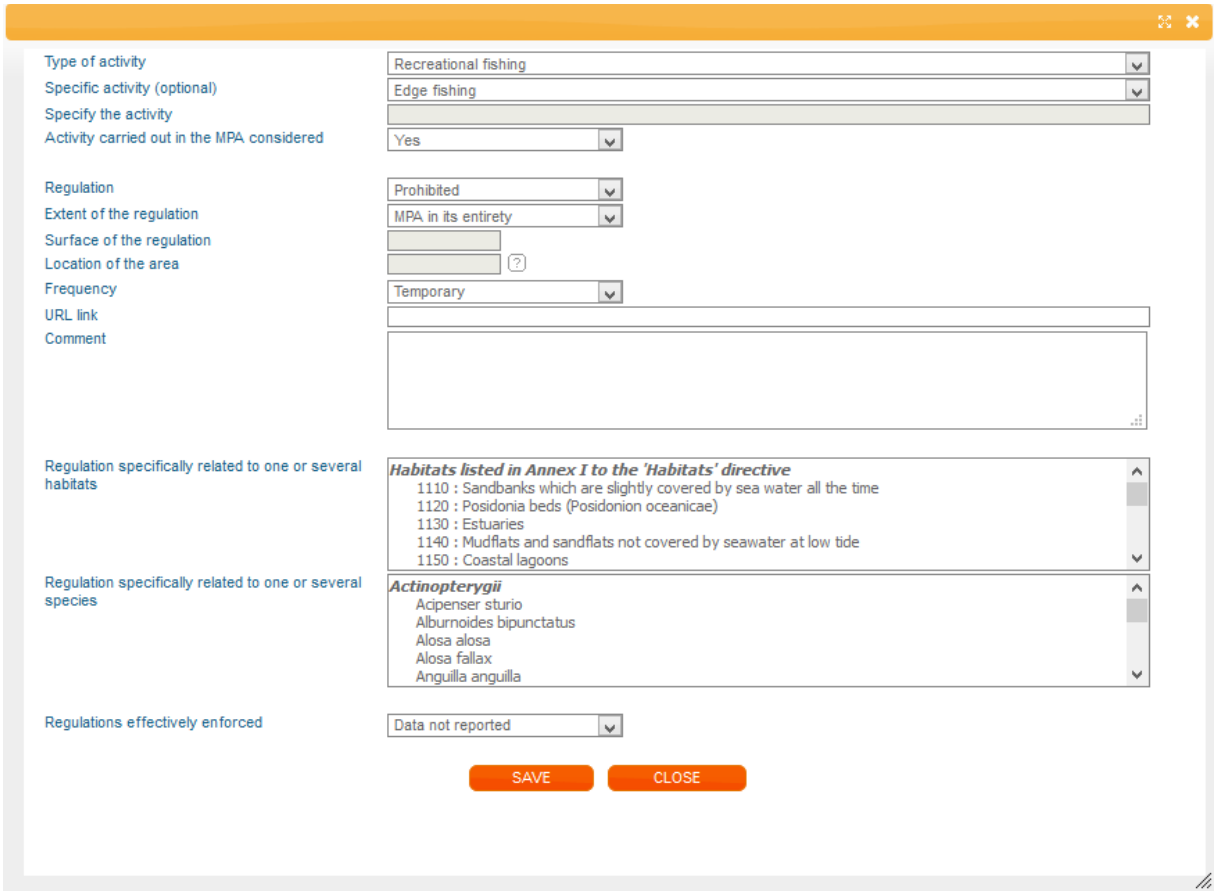


Figure 4 : Online form to complete information about regulations in the French MPA data portal

Sub-zoning

Subject strongly related to the previous one. MedPAN already has a number of documents in image or PDF format that have been digitalised in shapefile format. The questionnaire aimed to collect more documents:

Section of MedPAN questionnaire dedicated to regulations and sub-zoning

- *Could you please provide us with the documents relating to the regulations in your MPA? (legal text, map, etc. If various files, please join them in a compressed ZIP file)*

Management plans

MedPAN already has a number of documents in PDF format. The questionnaire aimed to collect more documents.

Section of MedPAN questionnaire dedicated to management plans

- *Does your MPA have a management plan?*
- *Can you share it with us? We would like to have a link to this management plan or, if not possible, to retrieve the document. Please choose an option:*
  - *Paste a link to the document*
  - *Upload the document*
  - *It is not possible to share this document*

5. RESULTS AND ANALYSIS

5.1. Data collected

Thanks to the completion effort, 15 MPAs are integrated in the MAPAMED database within the SIMWESTMED area with at least their perimeter and the WDPA standard information.

Moreover, complementary information was collected for a significant part of the SIMWESTMED MPAs. This kind of information was lacking for most of them in MAPAMED before SIMWESTMED (table 2) Numbers of MPA completed through the project with information about protected habitat or species, management plans, governance or regulation, are summarized in the table 3. Percentages of the 483 MPAs identified in the region completed with this kind of information show the outstanding step taken thanks to the project.

Table 2 : Number of MPAs of the SIMWESTMED area completed with information in MAPAMED before the project.

	Habitats	Species	Management plans	Governance	Regulations
France	0	8	12	11	8
Italy	0	2	6	5	2
Malta	0	0	0	0	0
Spain	0	8	16	15	6

Table 3 : Number of MPAs and percentage of the 483 MPAs of the SIMWESTMED area completed with information in MAPAMED at the end of the project

	Habitats		Species		Management plans		Governance		Regulations	
	Nb	%	Nb	%	Nb	%	Nb	%	Nb	%
France	71	90%	72	91%	78	99%	52	66%	57	72%
Italy	5	2%	5	2%	6	3%	8	4%	4	2%
Malta	10	56%	12	67%	18	100%	18	100%	18	100%
Spain	15	8%	13	7%	18	10%	18	10%	13	7%

Data collection for France was quite easy as the French Biodiversity Agency is centralising all the information about the MPAs and their contacts. In addition to that they were actively updating their database during the SIMWESTMED project in cooperation with MedPAN.

Italy was the most difficult case as there is no centralised entity so it is an obligation to reach directly the MPA managers to collect data. The first challenge is to retrieve the updated contacts and, secondly, to have them taking some of their precious time to answers the questions.

Malta, as France, has a centralised public administration that was very helpful in explaining Malta's context and giving information about the situation of their MPAs.

Spain is not totally centralised but contacts with the Spanish government as well as the autonomous governments (Andalucia, Balears, Catalunya, etc.) were very helpful to spot direct information or other contacts.

The main difficulty is that MPA managers or public administrations are very busy with their work. Even if most of them are very kind and willing to participate, many of them just couldn't answer within the proposed time frame.

Finally, since lots of MPAs in the area are Natura 2000 site, the EU database on N2000 provided a large part of information concerning this category, particularly regarding protected habitats and species.

5.2. MPAs in the SIMWESTMED area and key figures

Technical details and Disclaimer

The designations used in this document, the presentation of the data and the demarcation of the MPAs do not imply the expression of any opinion whatsoever on the part of the French Biodiversity Agency, MedPAN, UN Environment/MAP SPA/RAC and their partners neither concerning the legal status of any state, territory, city, zone or of their authorities, nor concerning the delimitation of their terrestrial and marine borders or limits.

Since the Exclusive Economic Zones (EEZ) in Mediterranean countries are not yet all established, the theoretical EEZ (Source: Flanders Marine Institute, World v10 EEZ[4]) was used as an indication for the calculation of these percentages. They may vary from the surfaces declared by the States and are not binding for the authors and partners of this document.

For France, official claimed delimitations delivered by SHOM were used. It means that some parts are double counted when limits overlap with Flanders Marine Institute ones.

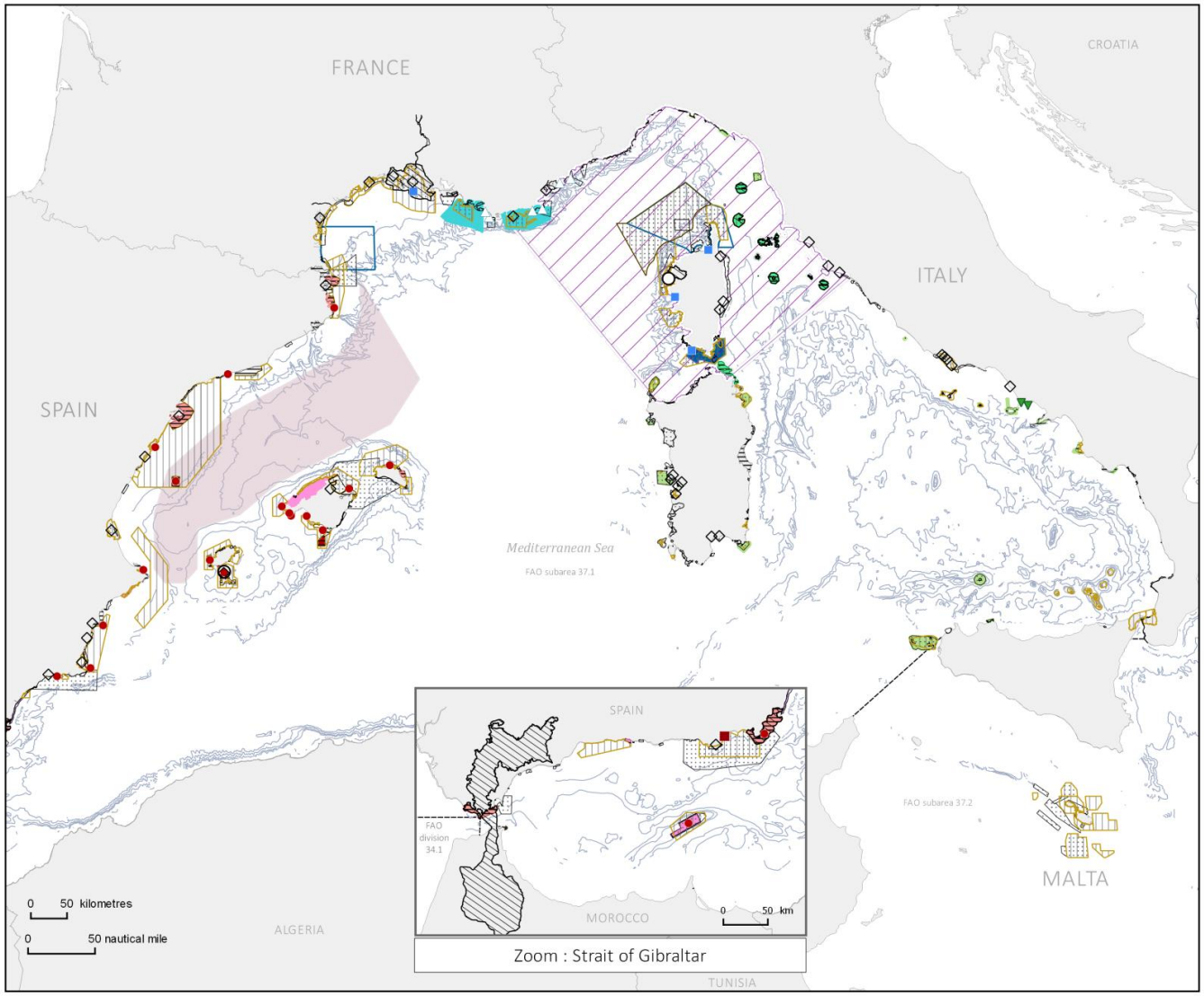
Surfaces are calculated with the projection system World Mollweide (ESRI: 54009[5]) to be conform to Union Nation (WCMC-UNEP/IUCN) geographical referential.

Only marine parts of the MPA are calculated with the Food and Agriculture Organisation coastline[6]. Indeed, some protected area has both terrestrial and marine part. Spatial analysis only consider marine perimeter. Furthermore, French protected lagoon and ponds are not considered as marine part (according to the State decision not to consider them as MPAs).

[4] Flanders Marine Institute (2018). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 10. Available online at http://www.marineregions.org/. https://doi.org/10.14284/312
[5] http://spatialreference.org/ref/esri/54009/
[6] http://www.fao.org/geonetwork/srv/en/main.home

SIMWESTMED AREA STUDY - MEDITERRANEAN SEA

Marine protected areas network



International marine protected areas

- Biosphere reserve (5)
- Natura 2000 - EU Birds directive (71)
- Natura 2000 - EU Habitats directive (241)
- Natura 2000 - EU Habitats and Birds directive (45)
- Pelagos sanctuary for mediterranean marine mammals
- Specially protected areas of mediterranean importance (Barcelona Convention) (20)
- Wetlands of International Importance (Ramsar) (point) (35)
- World heritage site (UNESCO) (2) (point)

French marine protected areas

- Biotope protection order (4) (point)
- Maritime public domain assigned (7) (point)
- National park (2)
- Natural marine park (2)
- Nature reserve (2)

Italian marine protected areas

- Marine protected area (18)
- National park (2)
- Underwater park (2) (point)

Spanish marine protected areas

- Marine protected area (1)
- Marine reserve and nature reserve (19) (point)
- National park (1)
- Nature park (7)
- Protected landscape (3)
- Natural monument (1)

Additional information :

- Isobath
- Limit between FAO subareas 34.1, 37.1 and 37.2

AGENCE FRANÇAISE POUR LA BIODIVERSITÉ
ÉTABLISSEMENT PUBLIC DE L'ÉTAT

MedPAN

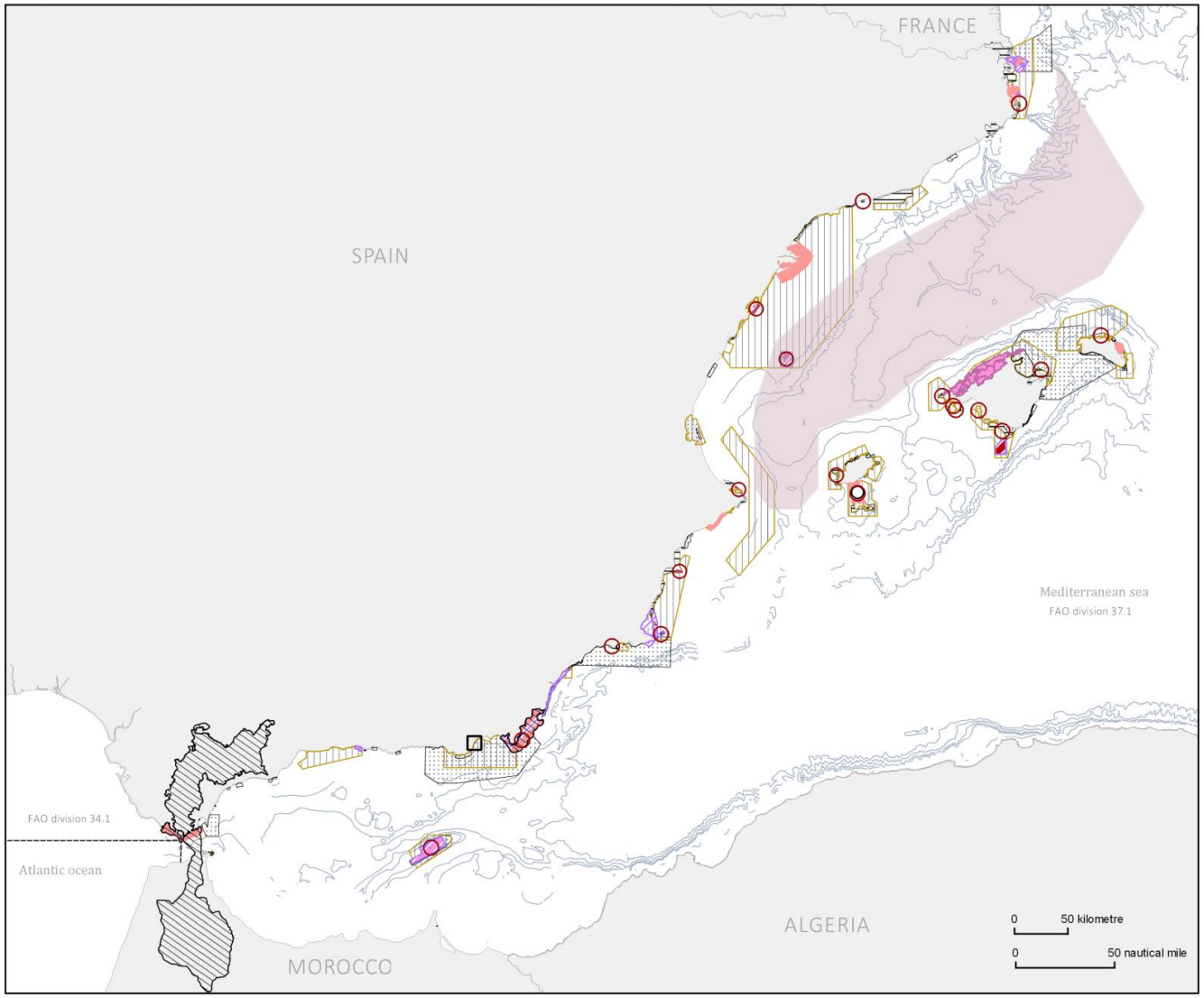
SIMWESTMED

Data source:
AFB (ges_omon_amp_aamp_pol_wgs84); MedPAN (National_MPAs_WGS84, Natura_2000_WGS84, World_heritage_sites_WGS84, SPAMIs_WGS84, Biosphere_reserves_WGS84)
Système de coordonnées : EPSG 4326 - WGS84

Figure 5 : MPA network of the SIMWESTMED area

REGION SIMWESTMED - MEDITERRANEAN SEA

Marine protected areas network in Spain



International marine protected areas

- Biosphere reserve (2)
- Natura 2000 - EU Birds directive (30)
- Natura 2000 - EU Habitats directive (65)
- Natura 2000 - EU Habitats and Birds directive (33)
- Specially Protected Areas of Mediterranean Importance (Barcelona Convention) (9)
- World heritage site (UNESCO) (1) (point)

Spanish marine protected areas

- Marine protected area (1)
- Marine reserve and nature reserve (19) (point)
- Nature park (7)
- National park (1)
- Protected Landscape (3)
- Natural monument (1) (point)

Additional information :

- Isobath
- Limits between FAO subareas 34.1 and 37.1

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ÉTABLISSEMENT PUBLIC DE L'ÉTAT

MedPAN

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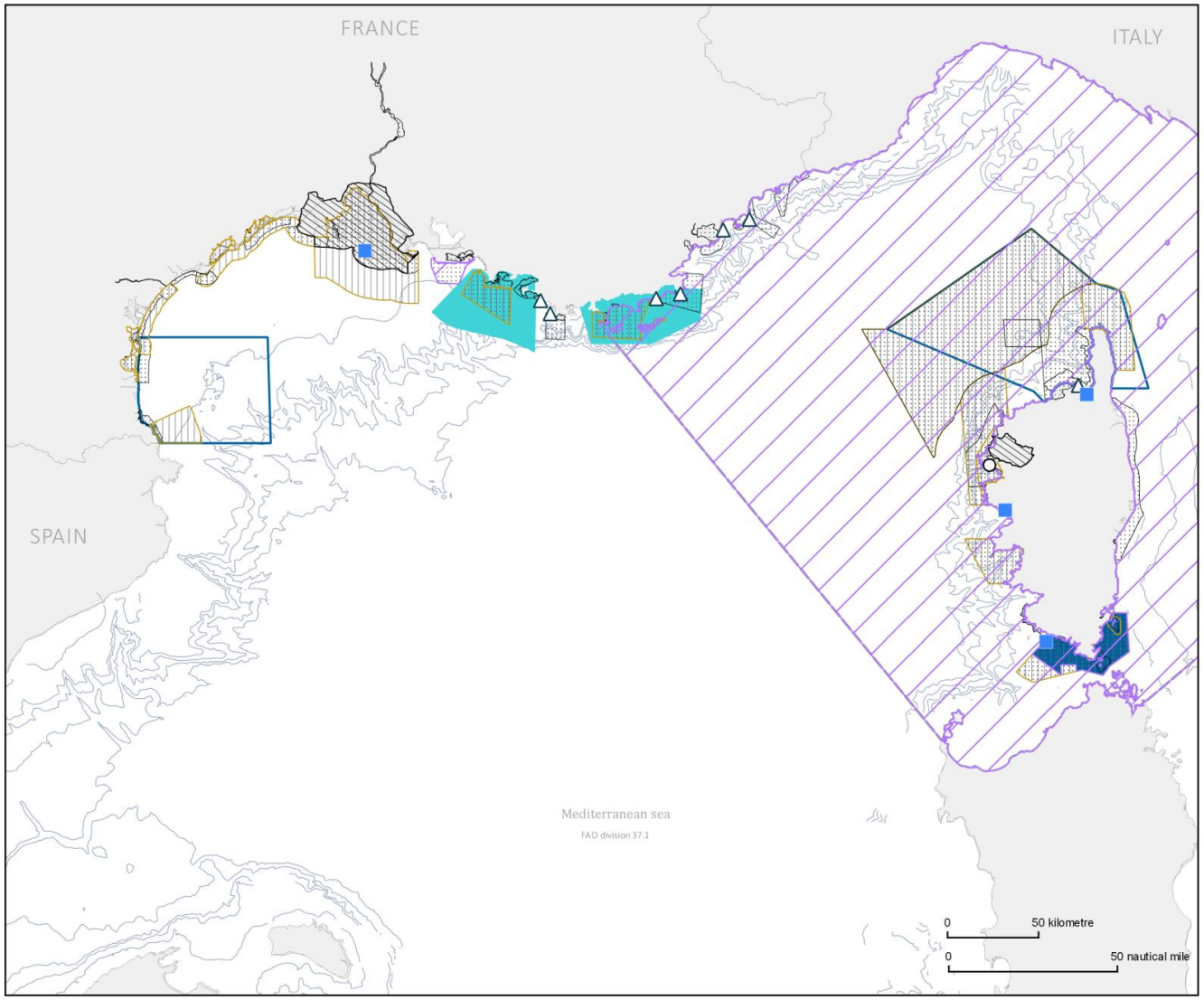
Système de coordonnées : EPSG 4326 - WGS84

Figure 6 : Spanish MPA network of the SIMWESTMED area

REGION SIMWESTMED - MEDITERRANEAN SEA

Marine protected areas network in France

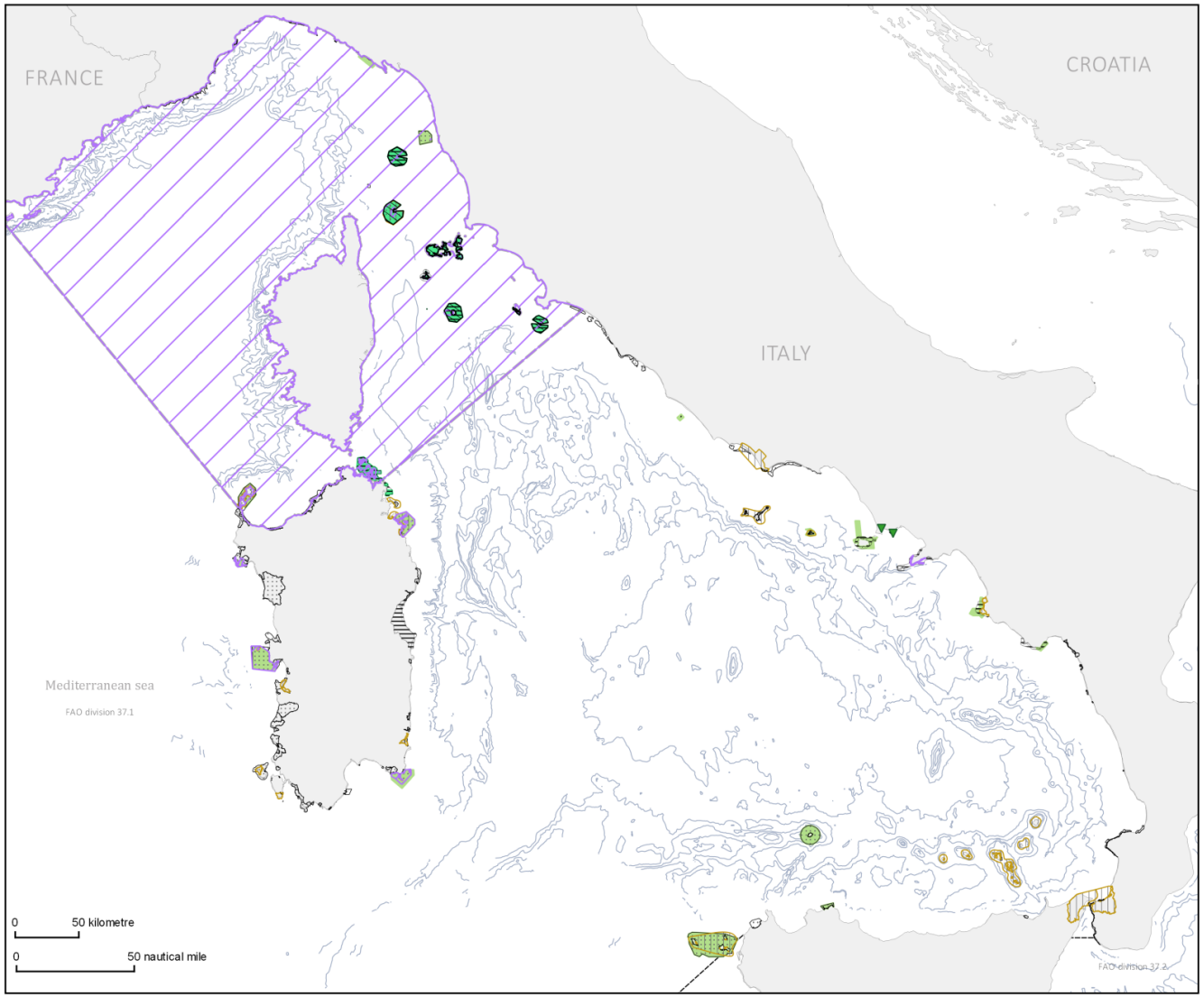


Data source:
AFB (ges_omon_amp_aamp_pol_wgs84); MedPAN (National_MPAs_WGS84, Natura_2000_WGS84, World_heritage_sites_WGS84, SPAMIs_WGS84, Biosphere_reserves_WGS84)
Système de coordonnées : EPSG 4326 - WGS84

Figure 7 : French MPA network of the SIMWESTMED area

REGION SIMWESTMED - MEDITERRANEAN SEA

Marine protected areas network in Italy



International marine protected areas

- Biosphere reserve (1)
- Natura 2000 - EU Birds directive (19)
- Natura 2000 - EU Habitats directive (127)
- Natura 2000 - EU Habitats and Birds directive (12)
- Pelagos sanctuary for mediterranean marine mamals
- Specially protected areas of mediterranean importance (Barcelona convention) (6)

Italian marine protected areas

- Marine protected area (18)
- National park (2)
- Underwater park (2) (point)

Additional information :

- Isobath
- Limit between FAO subareas 37.1 and 37.2

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ÉTABLISSEMENT PUBLIC DE L'ÉTAT

MedPAN

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Système de coordonnées : EPSG 4326 - WGS84

Figure 8 : Italian MPA network of the SIMWESTMED area

REGION SIMWESTMED - MEDITERRANEAN SEA

Marine protected areas network in Malta

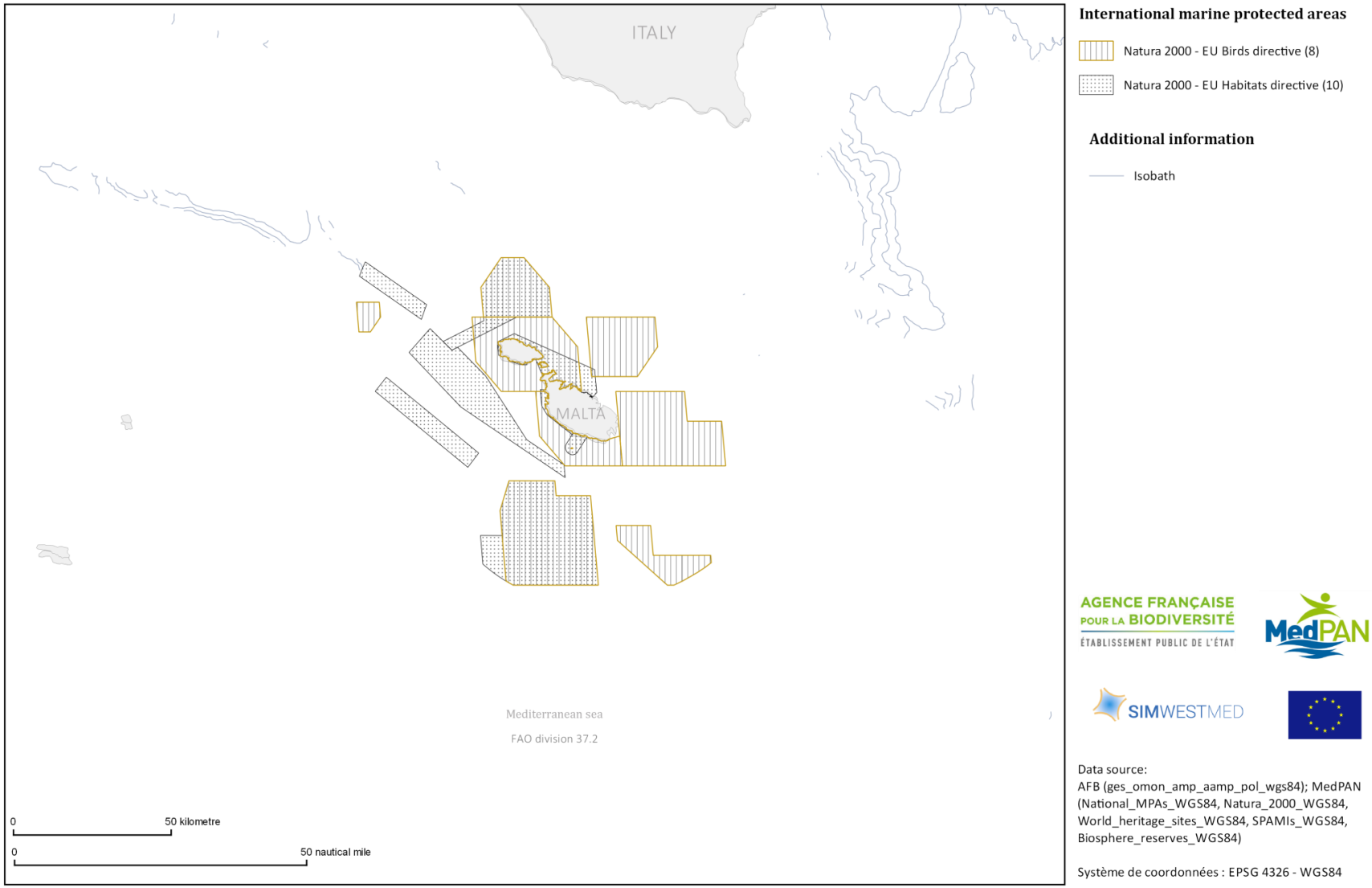

Figure 9 : Maltese MPS network in the SIMWESTMED area

Table 4 : Number and coverage statistics by country and by each MPA category (white=international; green=EU; blue=national)

	France		Italy		Malta		Spain		Total	
	Number	Area (km²)	Number	Area (km²)	Number	Area (km²)	Number	Area (km²)	Number	Area (km²)
Biosphere reserve	2	390	1	731			2	334	5	1455
World heritage site (UNESCO)	1	36					1	131	2	167
RAMSAR (French Ramsar site are not considered as MPA and therefore not integrated in sum and calculations)	(9)		15	20			11	174	26	194
Specially Protected Areas of Mediterranean Importance (without Pelagos)	5	1 011	6	554			9	1488	20	3053
Pelagos (divided in French and Italy parts)	1	45 439	1	42015					2	87454
Special Area of Conservation (SAC) EU Habitats directive	36	7 703	127	2305	10	2290	65	10515	241	22813
Special Protected Area (SPA) EU Birds directive	14	12 884	19	1639	8	3233	30	22034	71	39791
EU Habitats and Birds directive (SAC+SPA)			12	859			33	1838	45	2697
Marine protected area (IT)			18	1733					18	1733
National Park (IT)			2	734					2	734
Underwater Park (IT)			2	2					2	2
Maritime Public Domain Assigned to the « conservatoire du littoral » (FR)	7	7							7	7
National park (FR)	2	2 365							2	2 365
Nature Marine Park (FR)	2	10 838							2	10838
National Nature Reserve (FR)	4	809							4	809
Biotope protection order (FR)	4	13							4	13
Marine Reserve (SP)							19	817	19	817
Marine Protected Area (SP)							1	46474	1	46474
National Park (SP)							1	86	1	86
Natural Monument (SP)							1	1	1	1
Nature Park (SP)							8	760	8	760
Protected Landscape (SP)							3	303	3	303
Total	79		203		18		184		484	

Along with the key figures show in table 4, some statistics can be calculated to analyse characteristics of national MPA networks.

Size of MPAs

Table 5 shows different tendencies for each country in the size of designed MPAs.

Italian MPA network is composed of smaller site than for the 3 other countries.

French exhibit the highest average MPA size. However, the noticeably high difference with the median suggests that few large MPA increase the average size value and that lots of small sites make up the network. This tendency is observed for Spain as well.

The Maltese network is the most homogeneous with quite large sites (average between France and Spain) which have comparable size.

Table 5 : Average and Median MPA size by country

	Surface (km²)	
	Average	Median
France	454,8	147,4
Italy	43,4	5,4
Malta	306,9	238,8
Spain	218,8	21,4

Note: Pelagos Sanctuary and the Spanish cetacean corridor are not taken into account in these figures. Only marine parts of protected area were counted.

Coverage of the MPA network

Table 6 show the proportion countries' waters covered by at least one MPA designation (overlapping are not double counted). It points at a strong tendency to a better developed coastal protection in the SIMWESTMED area. When France, Spain and Malta exhibit about 50% of territorial sea (0-12NM) covered by MPAs, figures drop below 30% for Spain, 25% for France when Pelagos is not counted and 10% for Malta.

Although numbers of environmental stakes are located offshore, the majority of issues concern particularly the coastal zones in the Mediterranean. Therefore, this result is not surprising.

Table 6 : MPA network coverage figures

		Without Pelagos	With Pelagos
	0-12NM	Waters under jurisdiction - from coasts to the theoretical limit (Flanders Marine Institute) or to the claimed limit (France)	
France	47%	25%	62%
Italy	5%	1%	12%
Malta	58%	8%	8%
Spain	50%	29%	29%

Overlapping between various designation categories

In some cases, MPAs of different categories overlap. However, this overlap of designations does not necessarily mean that a site is better protected than if there is only one designation.

Table 7 shows that France has the highest tendency to proceed to multi-designation in the same area. Indeed, more than 50% of its protected waters are covered by more than one MPA category.

This can generate confusion when objectives, management, regulation or governance are different between overlapped MPAs. Therefore, it's crucial to provide a clear understanding to the decision makers of each MPA category objectives and management processes.

Table 7 : Statistics for overlaps between several designation categories

	Proportion the network that show overlaps			
	France	Italy	Malta	Spain
No overlap	44%	66%	66%	76%
Overlap between 2 designations	40%	23%	34%	18%
Overlap between 3 designations	15%	10%	0%	5%
Overlap between 4 designations	1%	0%	0%	1%

Note: Pelagos Sanctuary and the Spanish cetacean corridor are not taken into account in these figures.

5.3. Thematic Analysis

Information collected for each MPA of the study area can be analysed to give an original view of the MPA network, introducing the variety of MPA objectives, regulation or governance processes.

Conservation objectives

Based on the habitats and species that have justified the designations of the different sites, it can be shown locations, numbers and percentages of sites aiming to conserve different kind of environmental features: benthic habitats, marine birds, marine mammals and some emblematic species.

Since most of considered MPAs don't prohibit every uses within their boundaries, this view of the network could be of interest for planning activities that can potentially impact habitat and species protected by MPAs. Moreover, it gives an integrated view of the MPA network, far from the old fashioned idea that economic development is impossible within MPAs.

Benthic habitats

Table 8 : MPAs with benthic habitat conservation objectives

	YES	NO	NA
Number	342	34	107
Percentage	64%	6%	20%

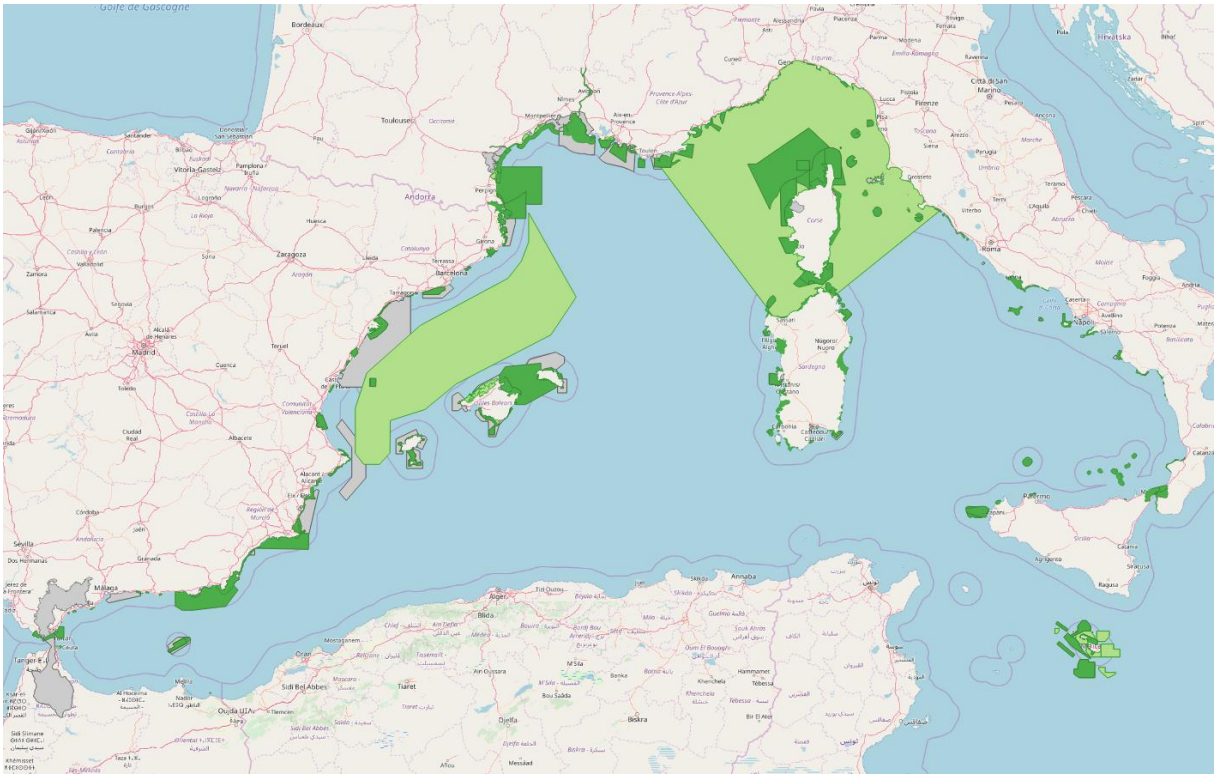

Figure 10 : MPAs with benthic habitat conservation objectives

Legend:

YES values are displayed in dark green, NO in light green and NA (no data available) in light grey.

Dataset:

MPAs: MAPAMED, the database on Sites of interest for the conservation of marine environment in the Mediterranean Sea. MedPAN, UN Environment/MAP SPA/RAC. November 2018 release.

Background: © OpenStreetMap contributors

Figures show that a great majority of MPAs of the SIMWESTMED area for which info is available have benthic habitats objectives. Concerned MPAs are mainly coastal.

Marine Birds

Table 9 : MPAs with Marine bird conservation objectives

	YES	NO	NA
Number	214	178	91
Percentage	40%	33%	17%

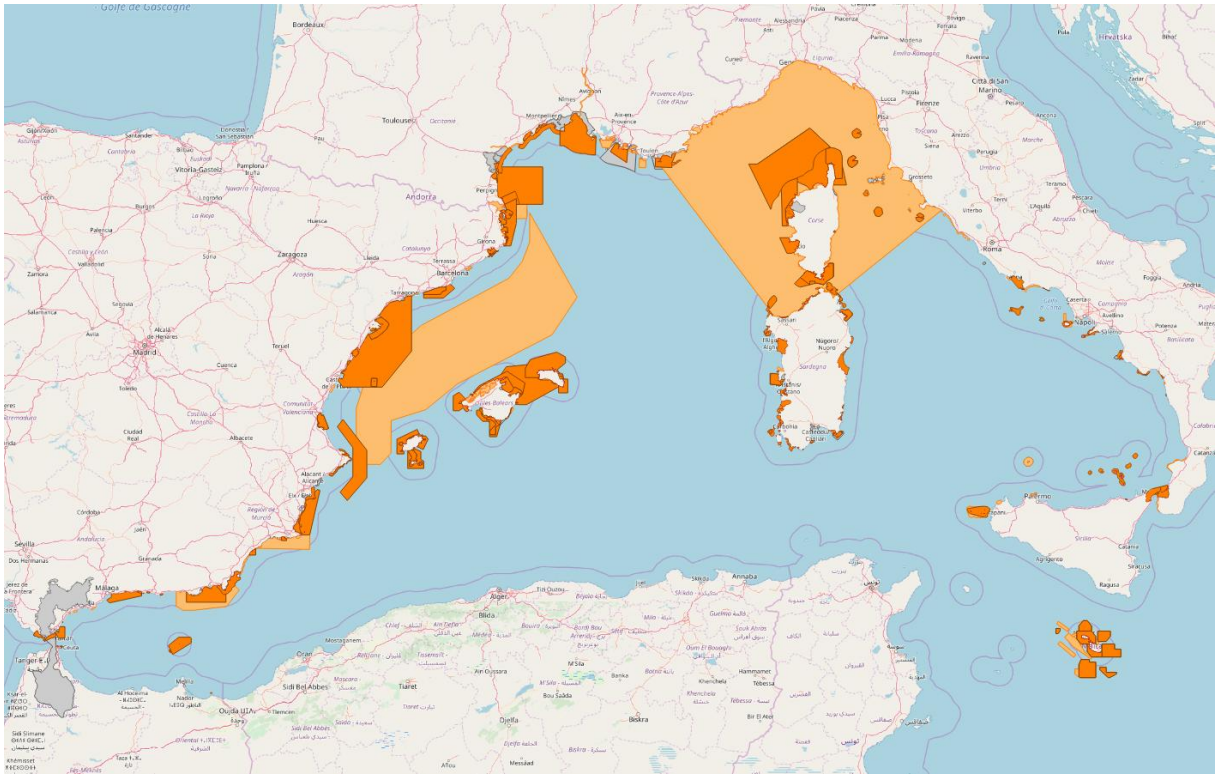

Figure 11 : MPAs with bird conservation objectives

Legend:

YES values are displayed in dark orange, NO in light orange and NA (no data available) in light grey.

Dataset:

MPAs: MAPAMED, the database on Sites of interest for the conservation of marine environment in the Mediterranean Sea. MedPAN, UN Environment/MAP SPA/RAC. November 2018 release.

Background: © OpenStreetMap contributors

Even if the rate is not as high as for benthic habitats, marine birds conservation is an aim for nearly half of the sites.

Marine Mammal

Table 10 : MPAs with Marine Mammal conservation objectives

	YES	NO	NA
Number	183	209	91
Percentage	34%	39%	17%

Figure 12 : MPAs with marine mammal conservation objectives

Legend:

YES values are displayed in dark blue, NO in light blue and NA (no data available) in light grey.

Dataset:

MPAs: MAPAMED, the database on Sites of interest for the conservation of marine environment in the Mediterranean Sea. MedPAN, UN Environment/MAP SPA/RAC. November 2018 release.

Background: © OpenStreetMap contributors

More than one third of the sites have conservation objectives regarding marine mammals. It is specially the case of offshore sites like the Pelagos sanctuary and the new Spanish cetaceans' migration corridor.

Emblematic species

MPAs which have specifically mentioned one of the 4 most emblematic Mediterranean species are pointed out in this section. Maps and figures provided here must be looked carefully because of the low confidence level of these results.

Actually, these analyses can emphasize MPAs that have a proactive action on these species thanks to their dedicated conservation objective. However, it doesn't mean that an MPA which doesn't have a specific objective on these species can't undertake any action or have any effect on them. For instance, an MPA

which aim to protect benthic habitats such as Posidonia beds must have a positive effect on the noble pen shell *Pinna nobilis* conservation.

Dusky Grouper - *Epinephelus marginatus*

Table 11 : MPAs with conservation objectives dedicated to the Dusky Grouper

	YES	NO	NA
Number	49	343	91
Percentage	9%	64%	17%

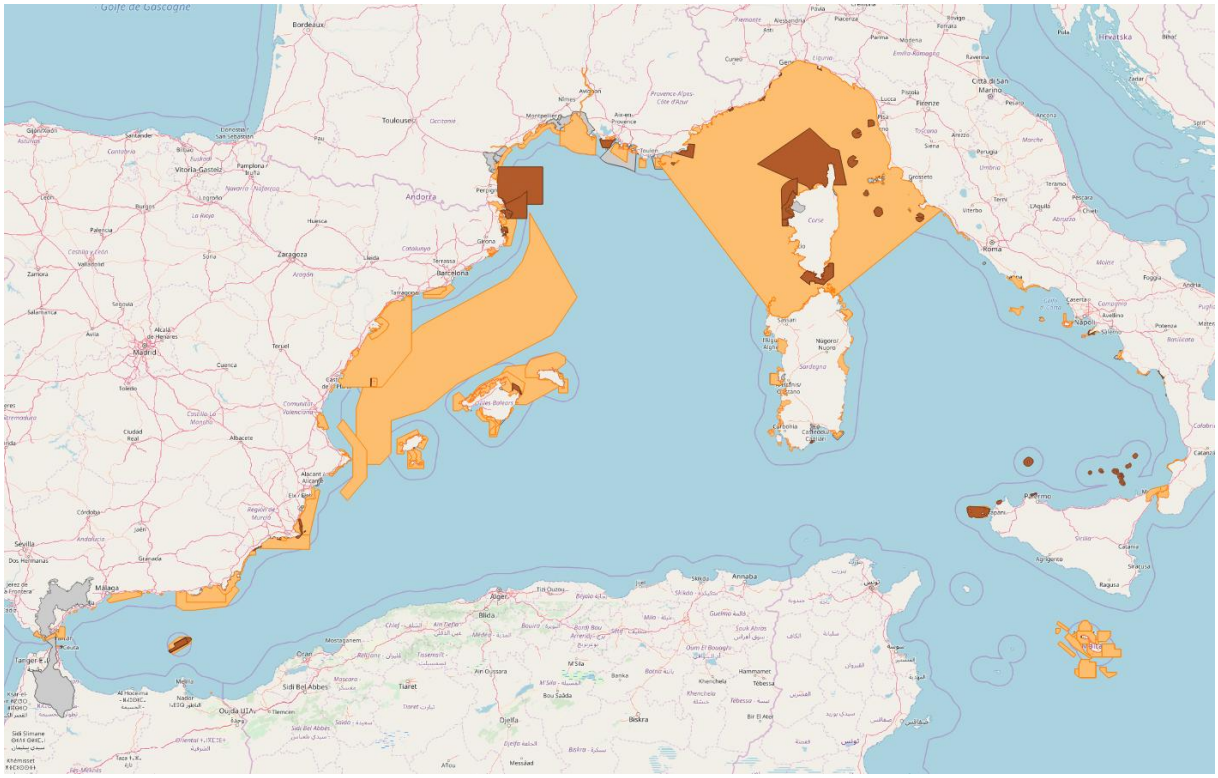

Figure 13 : MPAs with conservation objectives regarding *Epinephelus marginatus*

Legend:

YES values are displayed in dark brown, NO in light orange and NA (no data available) in light grey.

Dataset:

MPAs: MAPAMED, the database on Sites of interest for the conservation of marine environment in the Mediterranean Sea. MedPAN, UN Environment/MAP SPA/RAC. November 2018 release.

Background: © OpenStreetMap contributors

Less than 10% of the sites have specific conservation objectives regarding *Epinephelus marginatus*. Most of them are found in France and Italy.

Corb - *Sciaena umbra*

Table 12 : MPAs with conservation objectives dedicated to the Corb

	YES	NO	NA
Number	52	340	91
Percentage	10%	63%	17%

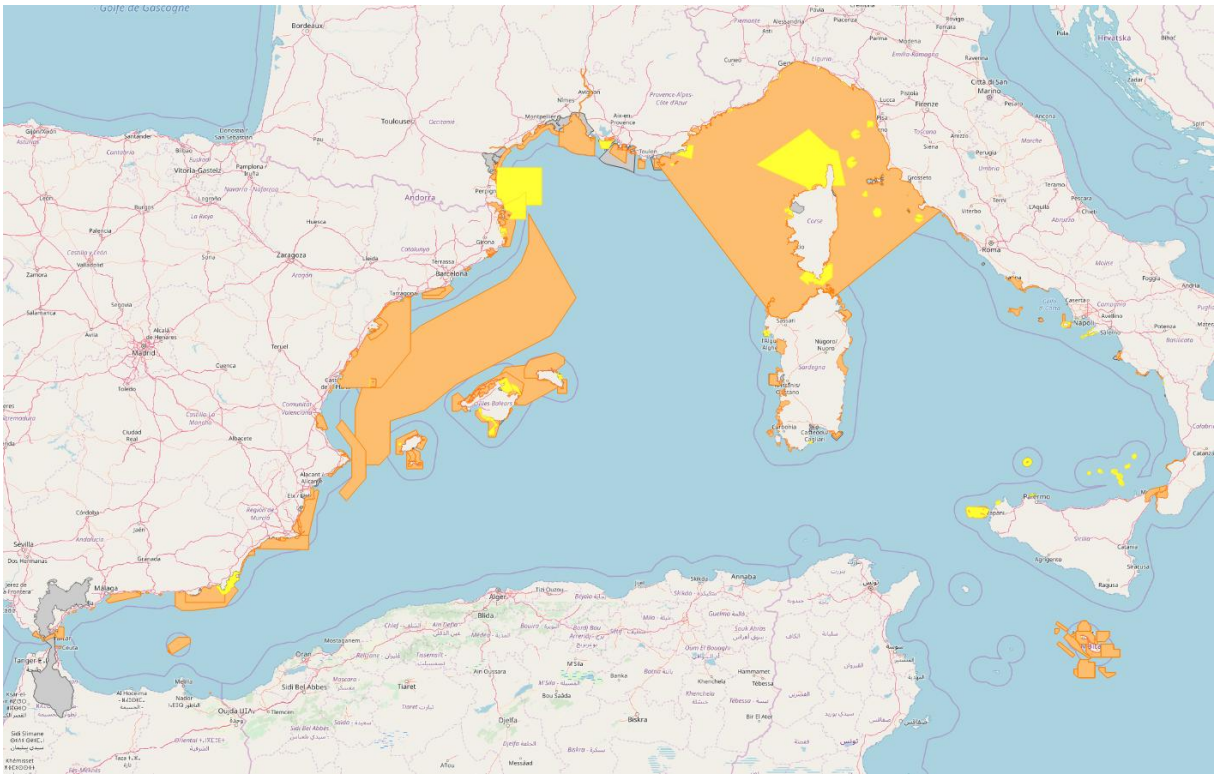

Figure 14 : MPAs with conservation objectives regarding *Sciaena umbra*

Legend:

YES values are displayed in yellow, NO in light orange and NA (no data available) in light grey.

Dataset:

MPAs: MAPAMED, the database on Sites of interest for the conservation of marine environment in the Mediterranean Sea. MedPAN, UN Environment/MAP SPA/RAC. November 2018 release.

Background: © OpenStreetMap contributors

The observation is quite the same for *Sciaena umbra* than for *Epinephelus marginatus*.

Noble Pen Shell - *Pinna nobilis*

Table 13 : MPAs with conservation objectives dedicated to the Noble Pen Shell

	YES	NO	NA
Number	155	237	91
Percentage	29%	44%	17%

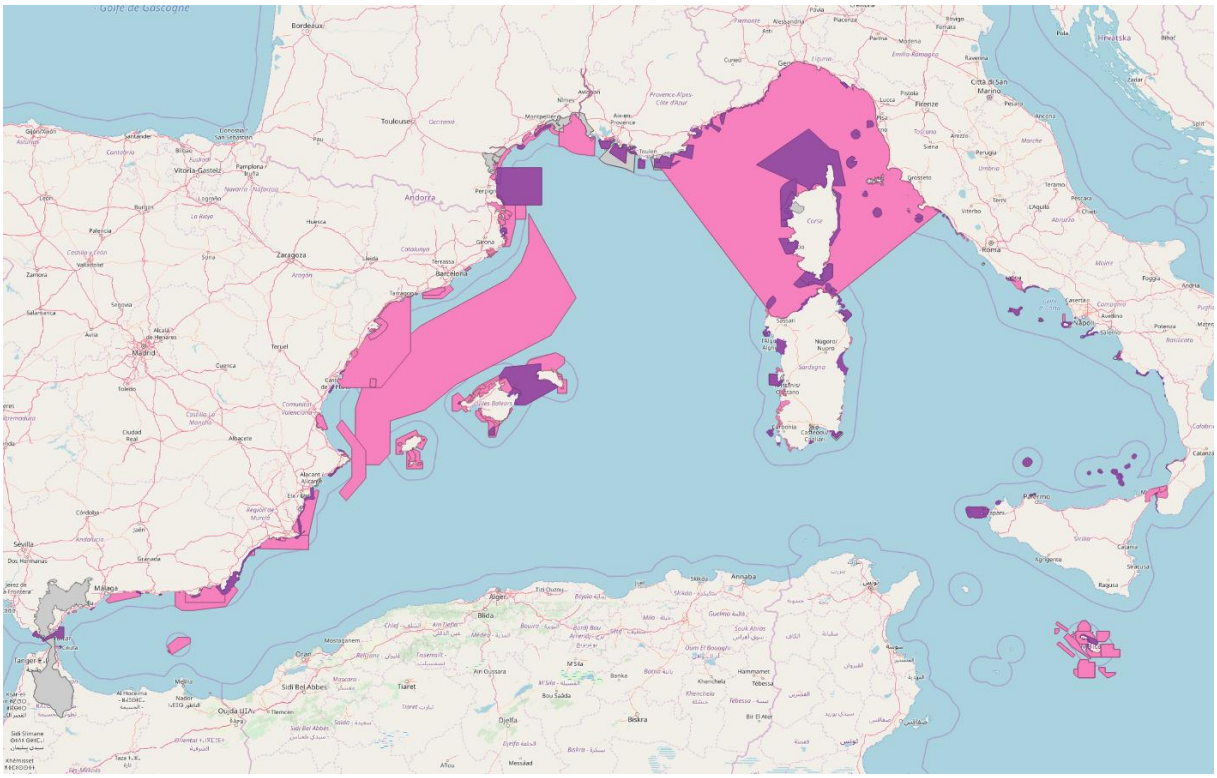

Figure 15 : MPAs with conservation objectives regarding *Pinna nobilis*

Legend:

YES values are displayed in dark purple, NO in light pink and NA (no data available) in light grey.

Dataset:

MPAs: MAPAMED, the database on Sites of interest for the conservation of marine environment in the Mediterranean Sea. MedPAN, UN Environment/MAP SPA/RAC. November 2017 release.

Background: © OpenStreetMap contributors

Almost one third of the sites have conservation objectives regarding *Pinna nobilis*.

Red Coral - *Corallium rubrum*

Table 14 : MPAs with conservation objectives dedicated to the red coral

	YES	NO	NA
Number	79	313	91
Percentage	15%	58%	17%

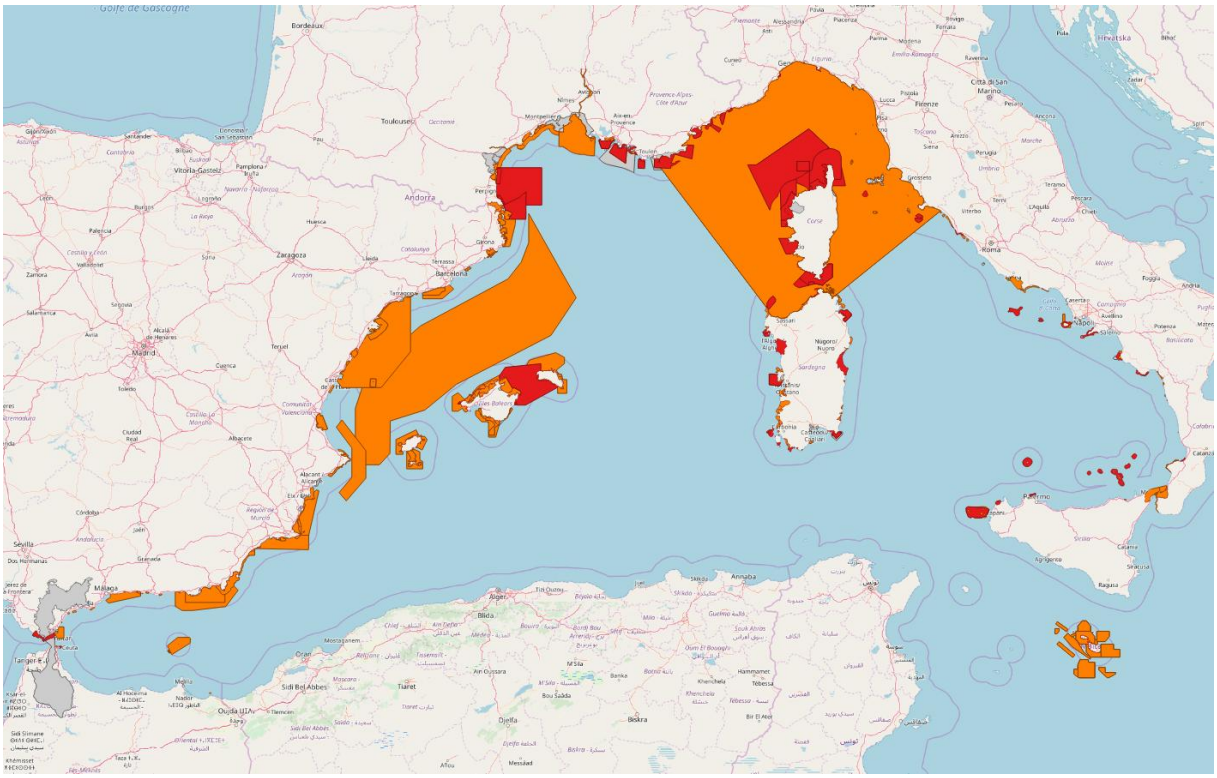

Figure 16 : MPAs with conservation objectives regarding *Corallium rubrum*

Legend:

YES values are displayed in dark red, NO in orange and NA (no data available) in light grey.

Dataset:

MPAs: MAPAMED, the database on Sites of interest for the conservation of marine environment in the Mediterranean Sea. MedPAN, UN Environment/MAP SPA/RAC. November 2017 release.

Background: © OpenStreetMap contributors

The observation is quite the same for *Corallium rubrum* than for *Pinna nobilis* even if less sites have a conservation objective for this specie.

Governance

This section is based only upon the answers to the survey for MPAs which declared to have a governance council. This represents only 77 MPAs. Moreover, the complete composition of governance councils is only known for 25 of them. Figures presented here can be considered as primary results. There is still a lack of data to present strong results.

Stakeholder engagement and local governance are key elements for MSP. Therefore, taking into consideration existing areas of governance is crucial. MPAs, covering significant part of national waters and often experimenting shared governance (involving broad range of stakeholders as well as national and local administrations), must be considered on this aspect in MSP processes and could constitute local scales of planning which national processes could draw on.

MPAs with an established governance involving economic actors

Only 2 sites were identified without economic stakeholder in their governance board.

	YES	NO	NA
Number	30	2	45
Percentage	39%	3%	58%

MPAs with an established governance involving fishing sector

Only 3 sites were identified without fishermen representatives in their governance board.

	YES	NO	NA
Number	22	3	52
Percentage	29%	4%	68%

Regulation

This section is based only upon the answers from the 77 sites that we found having established governance. It is representing only 16% of the 484 sites so these results must be taken with hindsight.

Attention as to be paid on the fact that the majority of these 77 MPA are located in France. Results may not be representative of the whole SIMWESTMED area.

Table 15 : Statistics on level of uses regulation within the 77 for which information is available

	Authorised without MPA's specific regulations	Authorised with MPA's specific regulations	Forbidden	*Data not available*
Small-scale fisheries	**33**	**29**	3	*3*
Other professional fishing activities	**31**	**20**	10	*7*
Spear fishing	**34**	10	**21**	*3*
Other recreational fishing activities	**33**	**20**	13	*2*
Extraction of non-living resources (minerals, oil, gas)	6	1	**22**	***39***
Scuba diving	**36**	**21**	8	*3*
Non-motorized water sports or leisure activities	**44**	12	2	*10*
Motorized water sports or leisure activities	**40**	13	5	*10*
Yachting	**45**	12	2	*9*

Anchoring	**32**	**21**	11	*4*
Aquaculture	15	1	10	***42***
Energy production	14	1	7	***46***
Maritime traffic	**39**	9	2	*18*
Maritime construction (seawalls, artificial reefs)	20	4	3	***41***
Aerial flight	17	9	3	***39***
Military activities	24	2	2	***40***
Scientific Research	21	10	0	***37***

Some tendencies can be shown depending on considered uses and are summarised in the table 16.

Table 16 : Cross analysis on uses regulation within MPAs

Uses	Observations
Small-scale fisheries **Non-motorized water sports or leisure activities** **Motorized water sports or leisure activities** **Yachting** **Maritime traffic**	It is very rare to see this activity forbidden in the entire site. It is very frequent to see it authorised and, most of the time, without any supplementary regulation.
Other professional fishing activities **Other recreational fishing activities** **Scuba diving** **Anchoring**	Most of the time this activity is authorised without any supplementary regulation. But it can happen to see it forbidden in the entire site.
Spear fishing	Most of the time this activity is authorised without any supplementary regulation. But it is also frequent to see it forbidden in the entire site.
Extraction of non-living resources (minerals, oil, gas)	This activity is rarely mentioned. But, when it's the case, it is most of the time forbidden in the entire site. There is some cases where it is authorised.
Aquaculture **Energy production**	This activity is rarely mentioned. But, when it's the case, it is most of the time whether authorised without specific regulation or forbidden in the entire site. There is only one case of specific regulation.
Maritime construction (seawalls, artificial reefs)	This activity is rarely mentioned. But, when it's the case, it is most of the time authorised without specific regulation. There is some cases of specific regulation or prohibition.

Aerial flight **Military activities**	This activity is rarely mentioned. But, when it's the case, it is most of the time authorised. Authorisations are most of the time without any supplementary regulation. There is some cases of prohibition.
Scientific research	This activity is rarely mentioned. But, when it's the case, it is most of the time authorised. Authorisations are most of the time without any supplementary regulation. It is the only activity for which no cases of prohibition have been found.

6. CONCLUSION

SIMWESTMED project was a unique opportunity to make a step forward on the knowledge on MPA networks in the western Mediterranean.

Hundreds of information was collected through different ways. However, this task has shown again the difficulty to access to data and information, which are spread out between multiple holders.

Moreover, the lack of homogeneity between national references frames is another barrier to reach a shared international database on MPA. Setting reference such as the ones provided by the Barcelona convention on Mediterranean species and habitat is an example to be followed for other topics related to MPA management. This need is particularly important concerning regulations processes and measures.

Faced difficulties point at the remaining efforts to be done in transboundary cooperation for a mutual understanding of national conservation policies.

Even if lots of figures delivered in this report suffer of this lack of information, analysis carried out show the great adding value to complete such an MPA database. MSP oriented views of the MPA network were crated, raising decision makers awareness on what is targeted by MPA networks (conservation objectives) and what does it means to be within an MPA (specific management, regulations and governance).

7. ANNEXES

Annex 1: Barcelona convention list on species and habitats

aphiaid	valid_scientificname	kingdom	class	iucn_monde
126279	*Acipenser sturio*	*Animalia*	*Actinopterygii*	CR
105836	*Alopias vulpinus*	*Animalia*	*Elasmobranchii*	VU
126413	*Alosa alosa*	*Animalia*	*Actinopterygii*	LC
126415	*Alosa fallax*	*Animalia*	*Actinopterygii*	LC
126281	*Anguilla anguilla*	*Animalia*	*Actinopterygii*	CR
126428	*Aphanius fasciatus*	*Animalia*	*Actinopterygii*	LC
126429	*Aphanius iberus*	*Animalia*	*Actinopterygii*	EN
133911	*Aplysina aerophoba*	*Animalia*	*Demospongiae*	NE
133913	*Aplysina cavernicola*	*Animalia*	*Demospongiae*	NE
123989	*Asterina pancerii*	*Animalia*	*Asteroidea*	NE
135178	*Astroides calycularis*	*Animalia*	*Anthozoa*	NE
132470	*Axinella cannabina*	*Animalia*	*Demospongiae*	NE
132487	*Axinella polypoides*	*Animalia*	*Demospongiae*	NE
137087	*Balaenoptera acutorostrata*	*Animalia*	*Mammalia*	LC
137088	*Balaenoptera borealis*	*Animalia*	*Mammalia*	EN
137091	*Balaenoptera physalus*	*Animalia*	*Mammalia*	EN
137194	*Calonectris diomedea*	*Animalia*	*Aves*	LC
105797	*Carcharhinus plumbeus*	*Animalia*	*Elasmobranchii*	VU
105843	*Carcharias taurus*	*Animalia*	*Elasmobranchii*	VU
105838	*Carcharodon carcharias*	*Animalia*	*Elasmobranchii*	VU
137205	*Caretta caretta*	*Animalia*	*Reptilia*	VU
144469	*Caulerpa ollivieri*	*Plantae*	*Ulvophyceae*	NE
105899	*Centrophorus granulosus*	*Animalia*	*Elasmobranchii*	NE
124331	*Centrostephanus longispinus*	*Animalia*	*Echinoidea*	NE
105837	*Cetorhinus maximus*	*Animalia*	*Elasmobranchii*	VU
212611	*Charadrius alexandrinus*	*Animalia*	*Aves*	LC
141101	*Charonia lampas*	*Animalia*	*Gastropoda*	NE
137206	*Chelonia mydas*	*Animalia*	*Reptilia*	EN
125416	*Corallium rubrum*	*Animalia*	*Anthozoa*	NE
145793	*Cymodocea nodosa*	*Plantae*	*Equisetopsida*	LC
145506	*Cystoseira amentacea*	*Chromista*	*Phaeophyceae*	NE
145507	*Cystoseira baccata*	*Chromista*	*Phaeophyceae*	NE
145508	*Cystoseira barbata*	*Chromista*	*Phaeophyceae*	NE
145510	*Cystoseira brachycarpa*	*Chromista*	*Phaeophyceae*	NE
145511	*Cystoseira compressa*	*Chromista*	*Phaeophyceae*	NE
145514	*Cystoseira crinita*	*Chromista*	*Phaeophyceae*	NE
145515	*Cystoseira crinitophylla*	*Chromista*	*Phaeophyceae*	NE
145517	*Cystoseira elegans*	*Chromista*	*Phaeophyceae*	NE
145518	*Cystoseira foeniculacea*	*Chromista*	*Phaeophyceae*	NE
374116	*Cystoseira funkii*	*Chromista*	*Phaeophyceae*	NE

145520	*Cystoseira humilis*	*Chromista*	*Phaeophyceae*	NE
145524	*Cystoseira mediterranea*	*Chromista*	*Phaeophyceae*	NE
145525	*Cystoseira montagnei*	*Chromista*	*Phaeophyceae*	NE
145526	*Cystoseira nodicaulis*	*Chromista*	*Phaeophyceae*	NE
145529	*Cystoseira platyclada*	*Chromista*	*Phaeophyceae*	NE
145530	*Cystoseira sauvageauana*	*Chromista*	*Phaeophyceae*	NE
548040	*Cystoseira selaginoides*	*Chromista*	*Phaeophyceae*	NE
145533	*Cystoseira spinosa*	*Chromista*	*Phaeophyceae*	NE
145534	*Cystoseira squarrosa*	*Chromista*	*Phaeophyceae*	NE
145536	*Cystoseira tamariscifolia*	*Chromista*	*Phaeophyceae*	NE
145537	*Cystoseira usneoides*	*Chromista*	*Phaeophyceae*	NE
145539	*Cystoseira zosteroides*	*Chromista*	*Phaeophyceae*	NE
137094	*Delphinus delphis*	*Animalia*	*Mammalia*	LC
195911	*Dendropoma cristatum*	*Animalia*	*Gastropoda*	NE
137209	*Dermochelys coriacea*	*Animalia*	*Reptilia*	VU
105869	*Dipturus batis*	*Animalia*	*Elasmobranchii*	CR
127036	*Epinephelus marginatus*	*Animalia*	*Actinopterygii*	EN
137207	*Eretmochelys imbricata*	*Animalia*	*Reptilia*	CR
139497	*Erosaria spurca*	*Animalia*	*Gastropoda*	NE
159023	*Eubalaena glacialis*	*Animalia*	*Mammalia*	EN
212680	*Falco eleonorae*	*Animalia*	*Aves*	LC
105820	*Galeorhinus galeus*	*Animalia*	*Elasmobranchii*	VU
148798	*Gelochelidon nilotica*	*Animalia*	*Aves*	LC
134025	*Geodia cydonium*	*Animalia*	*Demospongiae*	NE
1016062	*Glaucostegus cemiculus*	*Animalia*	*Elasmobranchii*	EN
137097	*Globicephala melas*	*Animalia*	*Mammalia*	DD
137098	*Grampus griseus*	*Animalia*	*Mammalia*	LC
145656	*Gymnogongrus crenulatus*	*Plantae*	*Florideophyceae*	NE
105856	*Gymnura altavela*	*Animalia*	*Elasmobranchii*	VU
105832	*Heptranchias perlo*	*Animalia*	*Elasmobranchii*	NT
154776	*Hippocampus guttulatus*	*Animalia*	*Actinopterygii*	DD
127380	*Hippocampus hippocampus*	*Animalia*	*Actinopterygii*	DD
132377	*Hippospongia communis*	*Animalia*	*Demospongiae*	NE
107253	*Homarus gammarus*	*Animalia*	*Malacostraca*	LC
111723	*Hornera lichenoides*	*Animalia*	*Stenolaemata*	NE
137189	*Hydrobates pelagicus*	*Animalia*	*Aves*	LC
567825	*Hydroprogne caspia*	*Animalia*	*Aves*	LC
105839	*Isurus oxyrinchus*	*Animalia*	*Elasmobranchii*	VU
145270	*Kallymenia spathulata*	*Plantae*	*Florideophyceae*	NE
159025	*Kogia sima*	*Animalia*	*Mammalia*	DD
145729	*Laminaria rodriguezii*	*Plantae*	*Phaeophyceae*	NE
105841	*Lamna nasus*	*Animalia*	*Elasmobranchii*	VU
101172	*Lampetra fluviatilis*	*Animalia*	*Cephalaspidomorphi*	LC
137208	*Lepidochelys kempii*	*Animalia*	*Reptilia*	CR
105873	*Leucoraja circularis*	*Animalia*	*Elasmobranchii*	EN

140459	*Lithophaga lithophaga*	*Animalia*	*Bivalvia*	NE
145140	*Lithophyllum byssoides*	*Plantae*	*Florideophyceae*	NE
145161	*Lithophyllum tortuosum*	*Plantae*	*Florideophyceae*	NE
139499	*Luria lurida*	*Animalia*	*Gastropoda*	NE
863529	*Lycopodina hypogea*	*Animalia*	*Demospongiae*	NE
107350	*Maja squinado*	*Animalia*	*Malacostraca*	NE
137092	*Megaptera novaeangliae*	*Animalia*	*Mammalia*	LC
137122	*Mesoplodon densirostris*	*Animalia*	*Mammalia*	DD
140363	*Mitra zonata*	*Animalia*	*Gastropoda*	NE
105858	*Mobula mobular*	*Animalia*	*Elasmobranchii*	EN
137081	*Monachus monachus*	*Animalia*	*Mammalia*	EN
105821	*Mustelus asterias*	*Animalia*	*Elasmobranchii*	LC
105822	*Mustelus mustelus*	*Animalia*	*Elasmobranchii*	VU
105823	*Mustelus punctulatus*	*Animalia*	*Elasmobranchii*	DD
366864	*Numenius tenuirostris*	*Animalia*	*Aves*	CR
105844	*Odontaspis ferox*	*Animalia*	*Elasmobranchii*	VU
124101	*Ophidiaster ophidianus*	*Animalia*	*Asteroidea*	NE
137102	*Orcinus orca*	*Animalia*	*Mammalia*	DD
105914	*Oxynotus centrina*	*Animalia*	*Elasmobranchii*	VU
107703	*Palinurus elephas*	*Animalia*	*Malacostraca*	VU
159377	*Pandion haliaetus*	*Animalia*	*Aves*	LC
124316	*Paracentrotus lividus*	*Animalia*	*Echinoidea*	NE
140679	*Patella ferruginea*	*Animalia*	*Gastropoda*	NE
137175	*Pelecanus crispus*	*Animalia*	*Aves*	NT
137176	*Pelecanus onocrotalus*	*Animalia*	*Aves*	LC
164644	*Petrobiona massiliana*	*Animalia*	*Calcarea*	NE
101174	*Petromyzon marinus*	*Animalia*	*Cephalaspidomorphi*	LC
137178	*Phalacrocorax aristotelis*	*Animalia*	*Aves*	LC
343953	*Phalacrocorax pygmaeus*	*Animalia*	*Aves*	LC
137117	*Phocoena phocoena*	*Animalia*	*Mammalia*	LC
140770	*Pholas dactylus*	*Animalia*	*Bivalvia*	NE
137119	*Physeter macrocephalus*	*Animalia*	*Mammalia*	VU
140780	*Pinna nobilis*	*Animalia*	*Bivalvia*	NE
140781	*Pinna rudis*	*Animalia*	*Bivalvia*	NE
145794	*Posidonia oceanica*	*Plantae*	*Equisetopsida*	LC
105801	*Prionace glauca*	*Animalia*	*Elasmobranchii*	NT
105848	*Pristis pectinata*	*Animalia*	*Elasmobranchii*	CR
105849	*Pristis pristis*	*Animalia*	*Elasmobranchii*	CR
137104	*Pseudorca crassidens*	*Animalia*	*Mammalia*	DD
445503	*Puffinus mauretanicus*	*Animalia*	*Aves*	CR
137204	*Puffinus yelkouan*	*Animalia*	*Aves*	VU
141115	*Ranella olearium*	*Animalia*	*Gastropoda*	NE
105898	*Rhinobatos rhinobatos*	*Animalia*	*Elasmobranchii*	EN
105896	*Rostroraja alba*	*Animalia*	*Elasmobranchii*	EN
132371	*Sarcotragus foetidus*	*Animalia*	*Demospongiae*	NE

165085	*Sarcotragus pipetta*	*Animalia*	*Demospongiae*	NE
145552	*Sargassum acinarium*	*Plantae*	*Phaeophyceae*	NE
145556	*Sargassum flavifolium*	*Plantae*	*Phaeophyceae*	NE
494809	*Sargassum hornschuchii*	*Plantae*	*Phaeophyceae*	NE
145564	*Sargassum trichocarpum*	*Plantae*	*Phaeophyceae*	NE
383014	*Savalia savaglia*	*Animalia*	*Anthozoa*	NE
145234	*Schimmelmannia schousboei*	*Plantae*	*Florideophyceae*	NE
127010	*Sciaena umbra*	*Animalia*	*Actinopterygii*	NT
107708	*Scyllarides latus*	*Animalia*	*Malacostraca*	DD
107709	*Scyllarus arctus*	*Animalia*	*Malacostraca*	LC
107712	*Scyllarus pygmaeus*	*Animalia*	*Malacostraca*	LC
145909	*Sphaerococcus rhizophylloides*	*Plantae*	*Florideophyceae*	NE
105816	*Sphyrna lewini*	*Animalia*	*Elasmobranchii*	EN
105819	*Sphyrna zygaena*	*Animalia*	*Elasmobranchii*	VU
266969	*Spongia (Spongia)*	*Animalia*	*Demospongiae*	NE
105923	*Squalus acanthias*	*Animalia*	*Elasmobranchii*	VU
105926	*Squatina aculeata*	*Animalia*	*Elasmobranchii*	CR
105927	*Squatina oculata*	*Animalia*	*Elasmobranchii*	CR
105928	*Squatina squatina*	*Animalia*	*Elasmobranchii*	CR
137107	*Stenella coeruleoalba*	*Animalia*	*Mammalia*	LC
137110	*Steno bredanensis*	*Animalia*	*Mammalia*	LC
567480	*Sternula albifrons*	*Animalia*	*Aves*	LC
134311	*Tethya aurantium*	*Animalia*	*Demospongiae*	NE
134312	*Tethya citrina*	*Animalia*	*Demospongiae*	NE
413039	*Thalasseus bengalensis*	*Animalia*	*Aves*	LC
413044	*Thalasseus sandvicensis*	*Animalia*	*Aves*	LC
127029	*Thunnus thynnus*	*Animalia*	*Actinopterygii*	EN
376539	*Titanoderma ramosissimum*	*Plantae*	*Florideophyceae*	NE
141687	*Tonna galea*	*Animalia*	*Gastropoda*	NE
137111	*Tursiops truncatus*	*Animalia*	*Mammalia*	LC
127012	*Umbrina cirrosa*	*Animalia*	*Actinopterygii*	NE
127094	*Xiphias gladius*	*Animalia*	*Actinopterygii*	LC
137127	*Ziphius cavirostris*	*Animalia*	*Mammalia*	LC
139502	*Zonaria pyrum*	*Animalia*	*Gastropoda*	NE
145795	*Zostera marina*	*Plantae*	*Liliopsida*	LC
145796	*Zostera noltei*	*Plantae*	*Equisetopsida*	NE