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English

Sixth Meeting of National Correspondents of the Strategic Action Programme for the Conservation of Biological Diversity in the Mediterranean Region (SAP BIO)

Portorož, Slovenia, 18 June 2019

**Agenda item 3:** Presentation of the Second Draft of the report on the evaluation of the Strategic Action Programme for the Conservation of Biological Diversity in the Mediterranean region (SAP BIO)

**Information note on the methodology followed for evaluating the implementation of the Strategic Action Programme for the Conservation of Biological Diversity in the Mediterranean Region (SAP BIO)**

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## **Information note on the methodology followed for evaluating the implementation of the Strategic Action Programme for the Conservation of Biological Diversity in the Mediterranean Region (SAP BIO)**

### **1. Introduction**

The methodology followed to evaluate the implementation of SAP BIO is based on the fact that the ultimate objective of this evaluation is to identify to what extent the SAP BIO priority actions have been implemented at national and regional levels and to assess the generated achievements in relation to the objectives pursued by SAP BIO. It consisted therefore in a series of steps starting by a process of data mining to collect available relevant information covering a period of about fifteen years, thus going back to 2004, since SAP BIO was adopted at the end of 2003. The whole process was conducted first by a group of experts familiar with the Mediterranean context and who have extensive working experience on the conservation of marine and coastal biodiversity in most countries of the region as well as at regional level with relevant organizations.

After an initial phase of data collection, the expert group analysed the information available for each of the Mediterranean countries in order to identify the actions that could have contributed to implementing the 30 priority actions of the SAP BIO. The analysis compiled the information to produce a synthesis describing for each priority action, the status of implementation, the support provided by international and regional organizations and the difficulties encountered in implementation. The synthesis included also the identification of gaps and main impeding factors.

The preliminary draft evaluation delivered by the group of experts has been then submitted for consultation with the national correspondent for SAP BIO convened in a meeting held in Marseilles (February, 2019) during which they reviewed the preliminary draft and provided further information including through a questionnaire prepared by SPA/RAC.

Following the consultation meeting held in Marseilles, SPA/RAC prepared a new version of the draft evaluation taking into account the views, remarks and inputs provided by the SAP BIO National Correspondents (UNEP/MED WG.460/3).

### **2. Sources of data and information:**

In addition to the activity reports prepared by the SPA/RAC for each of its focal point meetings, the evaluation of the SAP BIO implementation for the period 2004 - 2018 was made based on data and information from the following sources.

#### National reports of countries to the Barcelona Convention

The main source of information was the national reports submitted by the Contracting Parties to the Barcelona Convention in the context of the reporting system established in accordance with Article 26 of the Convention and Article 23 of the SPA/BD Protocol. These are biennial reports structured to report on what each Party has achieved as actions concerning:

- Legislative aspects
- Marine and coastal protected areas
- SPAMIs
- Protection and conservation of species
- Conservation of the constituent elements of marine and coastal biodiversity
- The implementation of the 9 Action Plans adopted by the Contracting Parties for the conservation of groups of species, habits and to deal with the issue of non-native species.

The structure of these national reports is therefore suited to provide information on the Contracting Parties' efforts on most of the SAP BIO topics. However, these reports are not available for all countries and for some of them the information they contain is succinct and not detailed.

#### National reports submitted to other relevant Conventions or Agreements

National reports of Mediterranean countries to other relevant international and/or regional conventions or agreements have also been used. These are the national reports submitted to the CBD and those submitted to ACCOBAMS.

For the reports submitted to the CBD, as at the time of preparation of the evaluation only one Mediterranean country submitted its Sixth report, the evaluation used mainly the Fourth and Fifth reports. Although the marine biodiversity components are not covered in detail by these reports for the CBD, useful information was found in them which allowed supplementing the data for some countries.

The national reports submitted to ACCOBAMS by Mediterranean countries have been very useful in evaluating the actions undertaken concerning cetacean conservation, especially since most of the Parties to the Barcelona Convention are also Parties to ACCOBAMS. They are committed to submit their national reports on triennial basis at the occasion of each of their Ordinary Meeting (MOP).

#### Relevant regional evaluation reports

During the period covered by this evaluation, three main regional reports have been published on topics that are closely related to SAP BIO. These reports have therefore been very useful, particularly for evaluating regional developments in relation to SAP BIO's priority actions. These regional reports are:

- The 2017 Mediterranean Quality Status Report issued by UNEP / MAP
- The 2016 Mediterranean MPA status compiled by SPA/RAC and MedPAN
- The State of Mediterranean and Black Sea Fisheries, the 2018 edition by GFCM

#### Proceedings of symposia organized at the Mediterranean level on topics relevant to SAP BIO

Within the framework of the Action Plans for the conservation of endangered species and habitats, SPA/RAC organised a series of symposiums on a regular basis aimed mainly at taking stock of the results of monitoring and research activities undertaken in the Mediterranean countries in relation to the objectives of the Action Plans. Considered by the Mediterranean scientific community working on marine conservation as opportunities for exchange and networking, these events are attended by increasing numbers of scientists who present a significant amount of scientific papers and posters. Their proceedings constituted therefore a valuable source of data and information for the evaluation of the SPA BIO implementation. The proceedings of the following symposiums were included in the data corpus built by the group of experts:

- The Mediterranean Symposiums on Marine Vegetation held in France (Ajaccio, 2000 and Marseilles, 2007), Greece (Athens, 2003), Tunisia (Hammamet, 2010), Slovenia (Portorož, 2014) and Turkey (Antalya, 2019).
- The Mediterranean Symposiums on the conservation of the coralligenous and other calcareous bio-concretions held in Tunisia (Tabarka, 2009), Slovenia (Portorož, 2014) and Turkey (Antalya, 2019). The scientific papers contained in their proceedings addressed mainly the distribution and composition of the assemblages and spatio-temporal monitoring of coralligenous and maërl assemblages.
- The Mediterranean Symposiums on the conservation of Dark Habitats held in Slovenia (Portorož, 2014) and Turkey (Antalya, 2019). It appears from the scientific papers presented in these two symposiums that the knowledge on the dark assemblages and their distribution in the Mediterranean is still very weak and given the location of these habitats, international cooperation networks and programmes are needed to facilitate surveys for their monitoring.
- The Mediterranean Symposium on the Non-Indigenous Species Turkey (Antalya, 2019).

- The Mediterranean Conferences on Marine Turtles held in Italy (Rome, 2001 and Napoli, 2011), Turkey (Kemer, 2005 and Dalaman, 2015), Tunisia (Hammamet, 2008) and Croatia (Porec, 2018)
- The Symposiums on the Conservation of coastal and marine bird species of Annex II (SPA/BD Protocol) held in Spain (Vilanova, 2005) and Tunisia (Hammamet, 2015)
- The Workshop on Mediterranean Cartilaginous Fish with Emphasis on Southern and Eastern Mediterranean held Turkey (Istanbul, 2005). The presentations made during the workshop stressed the seriousness of by-catch and discards in these species and highlighted the importance of some zones as critical habitats.

Concerning cetacean species, the abstract books of the Conferences for the conservation of cetaceans in the South Mediterranean Countries were analyzed to evaluate the progress made in improving knowledge about the populations and the threats. These conferences are organized on biennial basis by the Secretariat of ACCOBAMS in collaboration with SPA/RAC. They took place in Tunisia (Tabarka, 2009), Morocco (Aljadida, 2011), Lebanon (Jounieh, 2014) and Algeria (Oran, 2017).

Reports resulting from the activities undertaken by SPA/RAC and other regional organisations to assist the Mediterranean countries in the implementation of the SPA/BD Protocol

During the period covered by this evaluation, many relevant reports were produced and published within the framework of regional and subregional projects supported and/or coordinated by regional IGOs and NGOs (SPA/RAC, ACCOBAMS, GFCM/FAO, MAVA Foundation, IUCN, WWF, OCEANA, etc.). These reports, whose scope is often national or even local, were very useful for the evaluation of SAP BIO thanks to the information they contained about what has been done in relation to monitoring, inventories of sites of conservation interest, establishment of protected areas and elaboration/implementation of MPA management plans. These topics being particularly relevant for most of the priority actions of SAP BIO.

The ECOLEX Portal

Considering the importance of legislation in achieving the objectives of SAP BIO, the identification of the legal texts promulgated by the Mediterranean countries to address the SAP BIO priority issues was given a special attention for this evaluation. In this context, the ECOLEX Portal was used as the main source of information. It is a joint initiative by FAO, IUCN and UNEP aimed at providing the most comprehensive possible global source of information on environmental law. The access to this information system is free through the following link [www.ecolex.org](http://www.ecolex.org). As part of this evaluation, the ECOLEX Portal was used, through a series of on line queries to identify legal texts promulgated by each of the Mediterranean countries in relation to the conservation and sustainable use of biodiversity.

Data mining from other sources of information

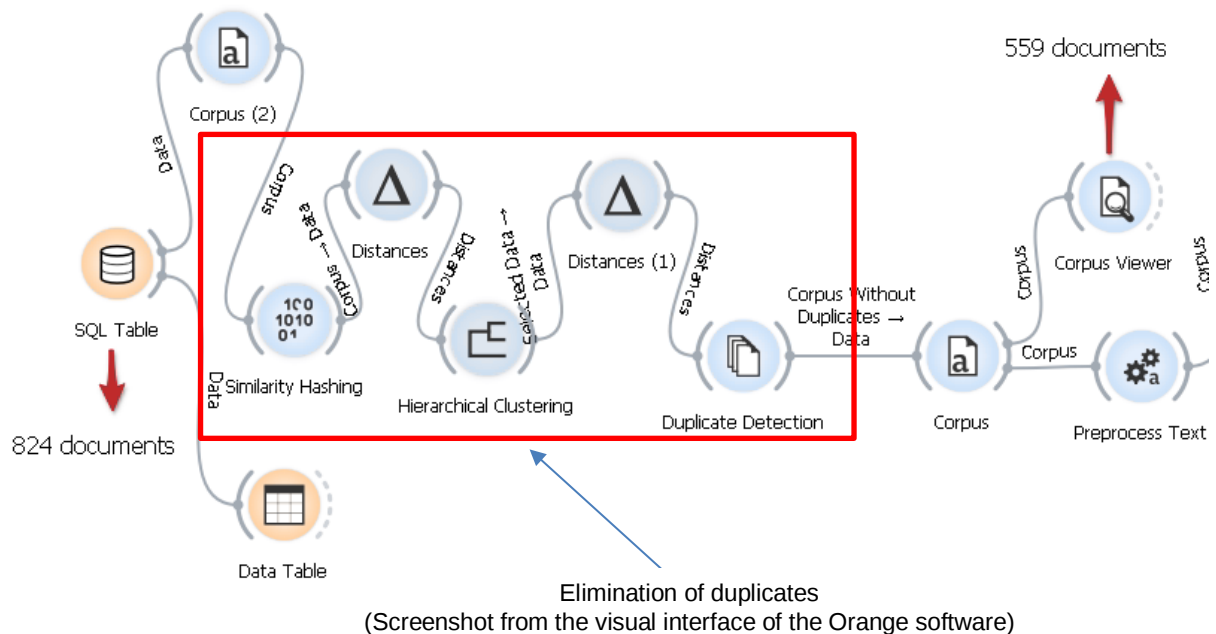
For this evaluation to benefit from the important information available on the Internet and in relevant databases, several data mining tools were used to identify and analyse relevant documentation. This exercise allowed to complement the documentation gathered from the above mentioned sources of information. Since the filters and other classification systems used by the data mining tools are not sufficiently effective in eliminating irrelevant documents for this evaluation, further manual screening has been applied. One of these data mining tools was used also to make statistical analyses and elaborate charts visualizing the results.

### **3. Management of the corpus of documents**

The collected documents were included in a structured database and classified by “Topic”, “File Type”, “Year of publication”, “Country” and “Document Title”. The scientific papers and abstracts contained in the proceedings of symposia and conferences were extracted in individual documents and classified in the database. In Total, about 1250 documents were included in the corpus. The scientific papers represented about 60% of them, the legal text about 14%.

The management of the data corpus was ensured through the Orange software developed at Bioinformatics Laboratory, Faculty of Computer and Information Science, University of Ljubljana (Slovenia), together with open source community. It is a free comprehensive and component-based suite for machine learning and data mining. It has a large toolbox allowing a variety of processing to prepare the documents and where needed convert them to textual format.

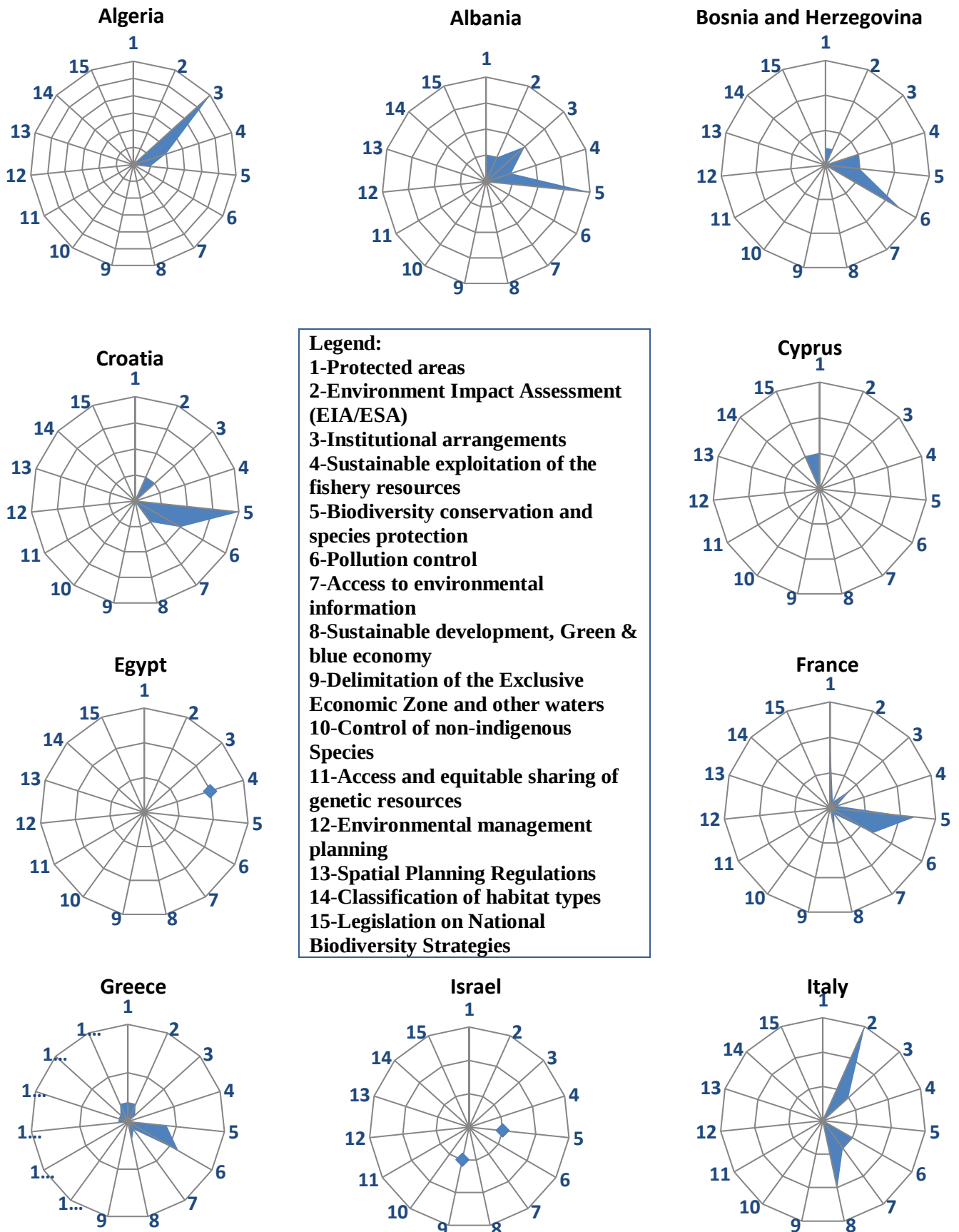
The most time consuming processing was the elimination of duplicates, especially in the documents containing both English and French versions of the same text. In this context the visual interface of the software was very helpful.

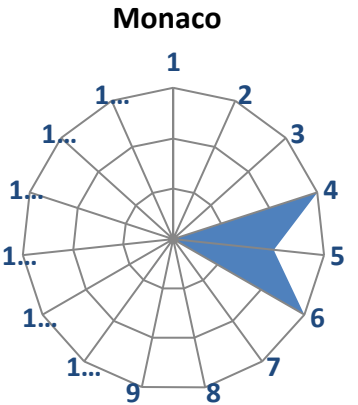
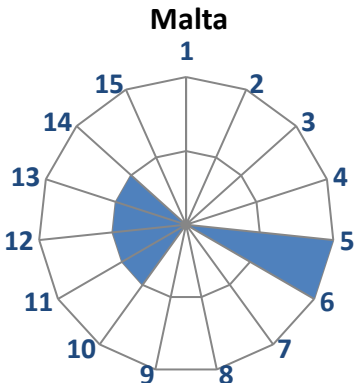
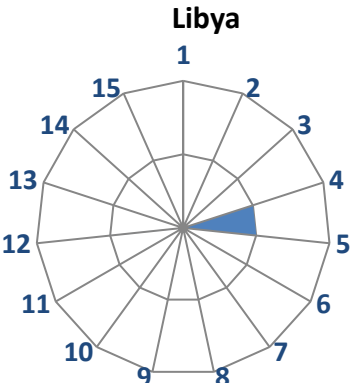
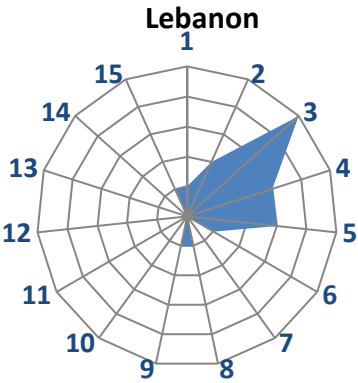


#### 4. Statistical Analysis

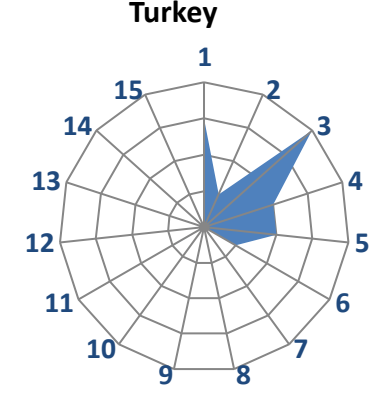
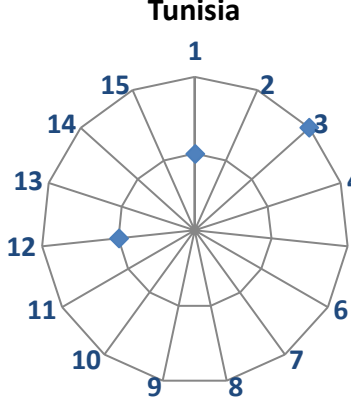
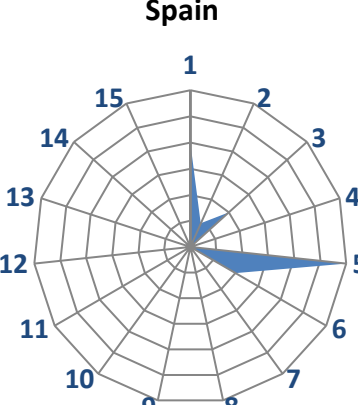
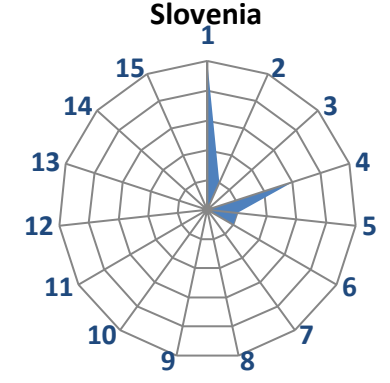
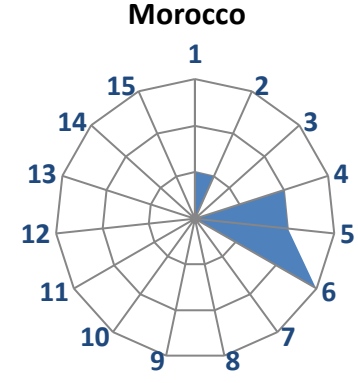
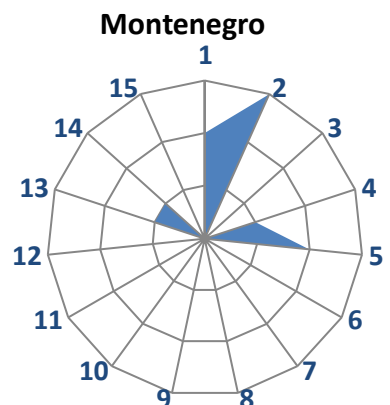
The evaluation of the implementation of SAP BIO was made through desktop analysis by experts and consultation with the National correspondents. In addition, using the statistical utilities provided by one of the data mining and analysis tools, breakdowns of available documents by topics were elaborated to identify the most frequent topics in scientific research of relevance to SAP BIO and the most addressed issues in legislation during the evaluation period. The results of these analyses are reflected in the following charts.

**Distribution by topic of the relevant legal texts promulgated by the Mediterranean countries during the period covered by the evaluation (2004-2018)**





**Legend:**  
1-Protected areas  
2-Environment Impact Assessment (EIA/ESA)  
3-Institutional arrangements  
4-Sustainable exploitation of the fishery resources  
5-Biodiversity conservation and species protection  
6-Pollution control  
7-Access to environmental information  
8-Sustainable development, Green & blue economy  
9-Delimitation of the Exclusive Economic Zone and other waters  
10-Control of non-indigenous Species  
11-Access and equitable sharing of genetic resources  
12-Environmental management planning  
13-Spatial Planning Regulations  
14-Classification of habitat types  
15-Legislation on National Biodiversity Strategies



## Relative abundance by country of documents addressing the ten most frequent topics<sup>1</sup> in available documentation

(Analysis made for the documents collected in the corpus built for the evaluation of SAP BIO implementation).

### Legend (in Alphabetical order):

Cetaceans: Conservation of cetaceans

Coralligenous: Monitoring of Coralligenous assemblages

Ecosystem approach: promoting ecosystem approach

Fisheries: sustainable management of fisheries and aquaculture

Marine vegetation: inventory of marine vegetation species and mapping of seagrass meadows

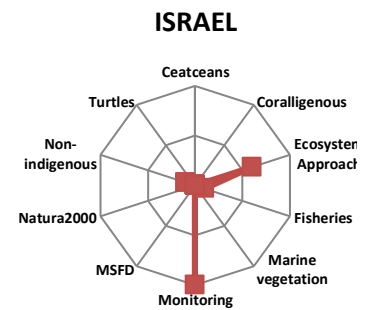
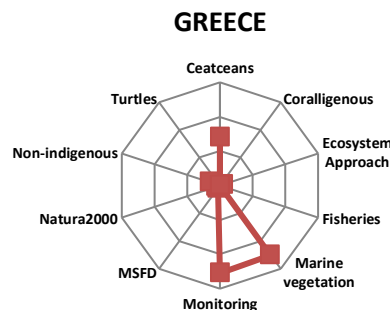
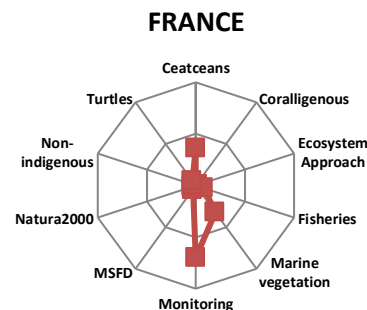
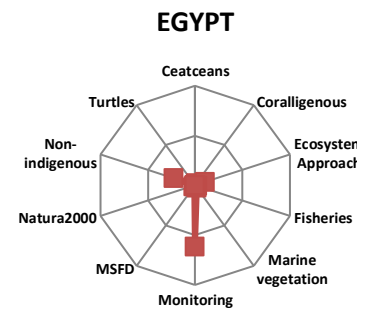
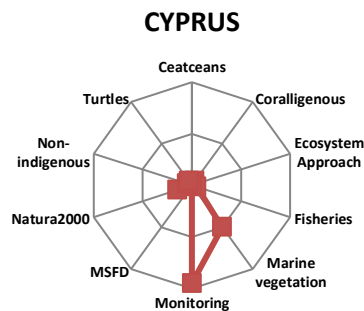
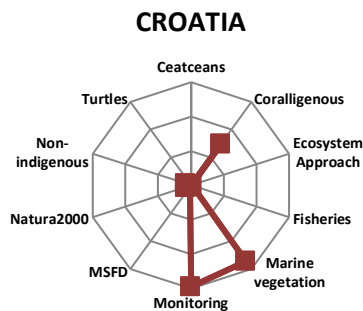
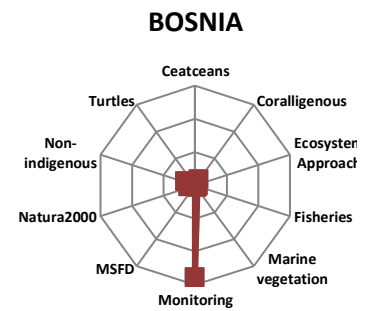
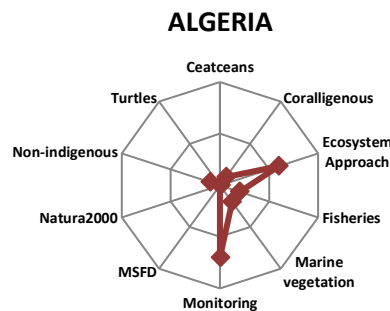
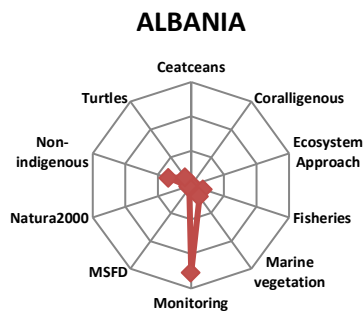
Monitoring: Monitoring programmes

MSFD: Definition of indicators and of Good Environmental Status in application of the EU Marine Strategy Framework Directive

Natura 2000: inventory and management of sites of the Natura 2000 network

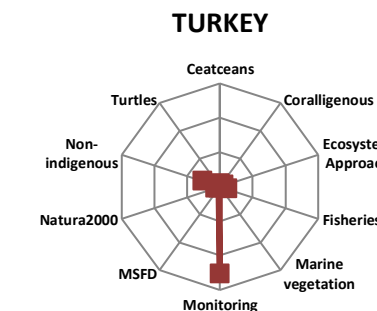
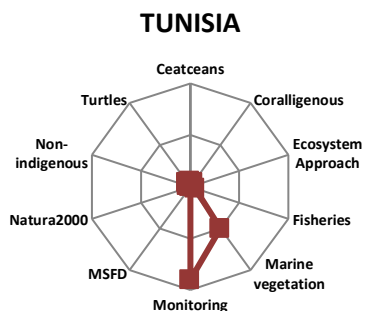
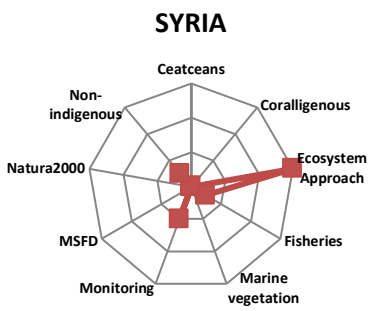
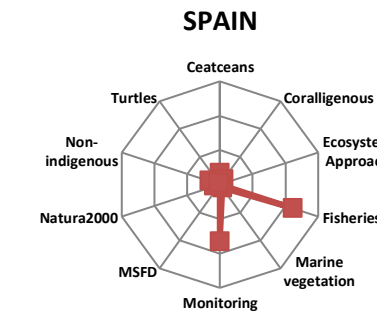
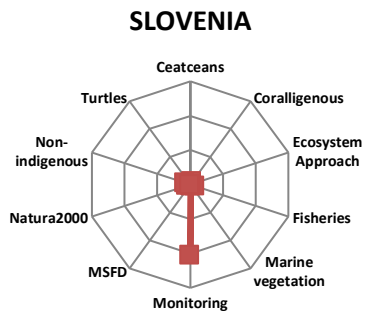
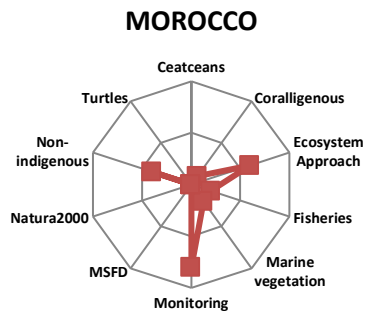
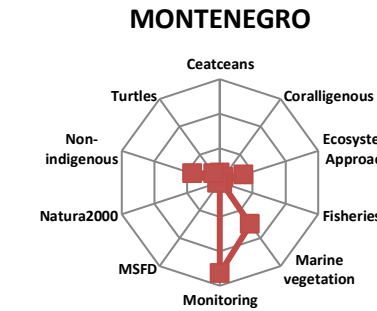
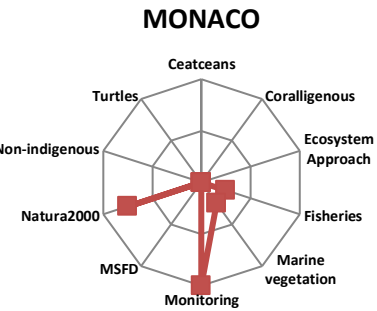
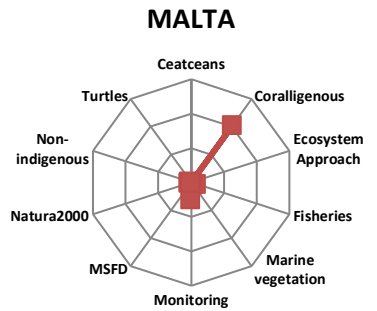
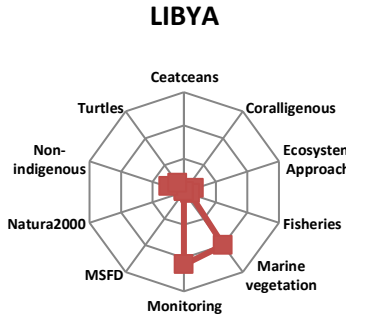
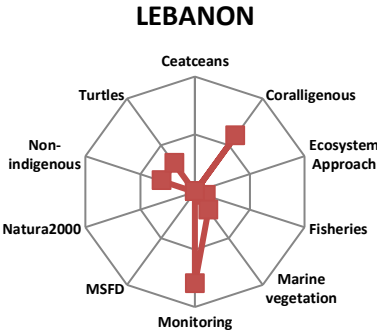
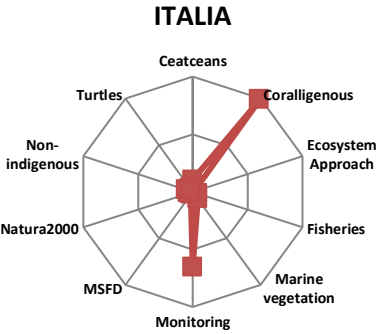
Non-indigenous: inventory and notification of non-indigenous species

Turtles: Conservation of turtles



<sup>1</sup> ABNJ and Tourism were also frequent topics (ranked respectively 11<sup>th</sup> and 12<sup>th</sup>)

Generic topics (as Biodiversity, MPAs, sustainable development) are not included in this ranking since they were among the criteria for the data mining.



## Occurrence in the corpus of documents relating to the most frequent topics<sup>2</sup> in the analysed documentation

(Analysis made for the documents collected in the corpus built for the evaluation of SAP BIO implementation).

### Legend (in Alphabetical order):

Cetaceans: Conservation of cetaceans

Coralligenous: Monitoring of Coralligenous assemblages

Ecosystem approach: promoting ecosystem approach

Fisheries: sustainable management of fisheries and aquaculture

Marine vegetation: inventory of marine vegetation species and mapping of seagrass meadows

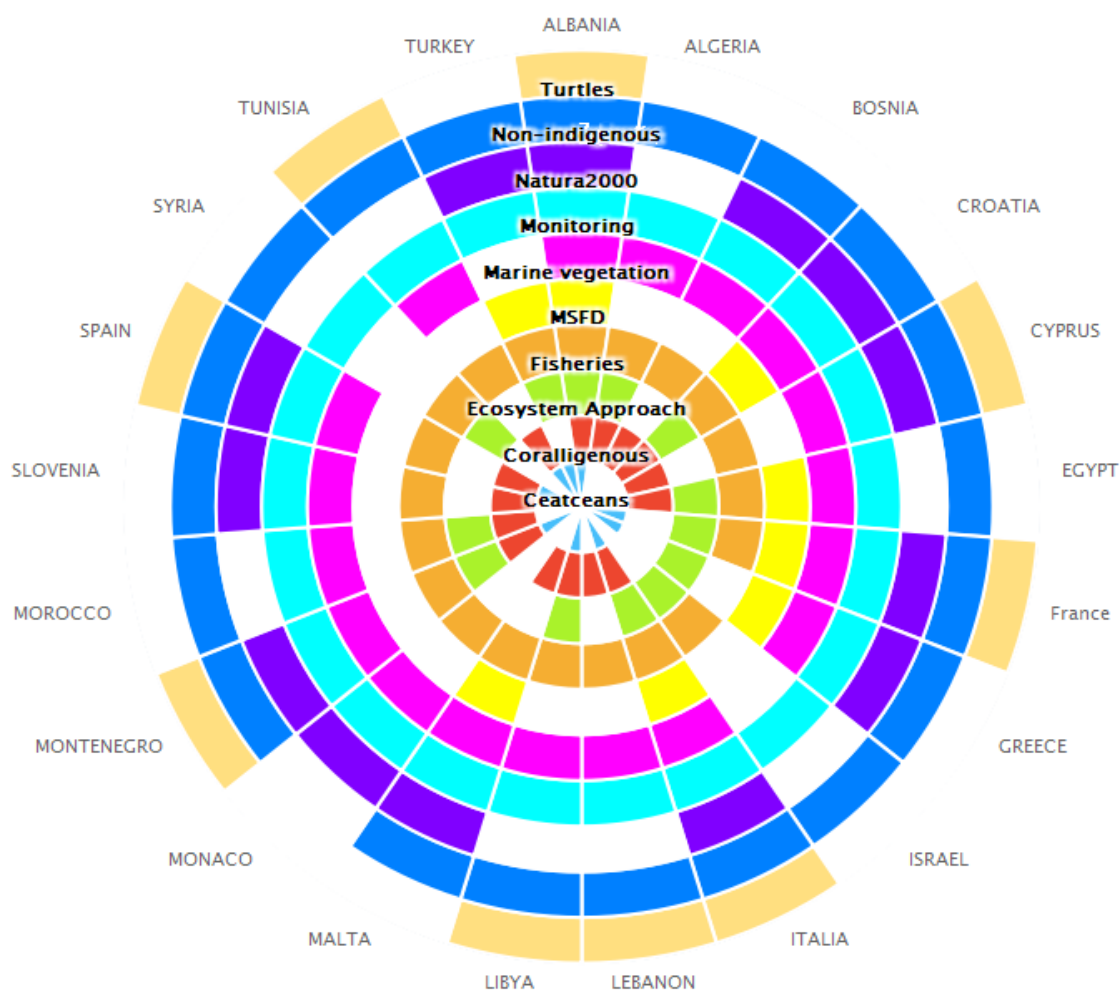
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Turtles: Conservation of turtle



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