



UNITED
NATIONS

EP

UNEP(DEPI)/MED WG.431/Inf.3



UNITED NATIONS
ENVIRONMENT PROGRAMME
MEDITERRANEAN ACTION PLAN

UNEP

30 April 2017
English
Original: English

Thirteenth Meeting of Focal Points for Specially Protected Areas

Alexandria, Egypt, 9-12 May 2017

Agenda Item 4 : Progress report on activities carried out by SPA/RAC since the twelfth meeting of Focal Points for SPAs

**Information Note
on the Mediterranean Platform on marine biodiversity**

For environmental and economy reasons, this document is printed in a limited number and will not be distributed at the meeting. Delegates are kindly requested to bring their copies to meetings and not to request additional copies.

UNEP/MAP
SPA/RAC - Tunis, 2017

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INTRODUCTION :

Biodiversity conservation is inherently spatial; monitoring species and tracking land use need geospatial tools for achievement and sound delineation of priority areas and eco-regions require accurate and up-to-date spatial data. As well, geospatial dimension is a key point for assessing drivers and pressures stressing the ecosystems.

For effective decision-making, this underpinning data needs to adhere to the following key principles:

- Accuracy: Data needs to be high quality and trustworthy;
- Transparency: To be transparent, all data should include supporting information on how and when it was collected;
- Openness: Data should be free to access and use;
- Interoperability: Data should be able to be easily shared and exchanged between users.

Environmental organisations responsible for biodiversity conservation can empower and make faster their strategic decisions by accurate, open and exchangeable spatial data.

The advances made in IT, especially internet technology, enhance the spatial data exchange and ensure their quality. A set of tools are available to produce, quality check, publish and share the spatial data through the web. These tools are integrated into the commonly called Spatial Data Infrastructure (SDI).

Since 2000, SPA/RAC has been producing spatial data. Between 2010 and 2012 some attempts were carried out to organise the produced data into a geodatabase and disseminate them in the web through a geoviewer. Unfortunately, the system was unfriendly for the SPA/RAC staff to allow feeding the database with the continually produced data. Besides, the system presented some bugs that avoid displaying correctly the data into the geoviewer.

With the increasing number of spatial data yearly produced, an urgent need raises to harmonize them in terms of spatial referencing system, data quality and metadata cataloguing, according to International and European standards such as ISO and INSPIRE, then to organise them into a geodatabase and proceed to their dissemination through web mapping.

THE MEDITERRANEAN PLATFORM ON BIODIVERSITY:

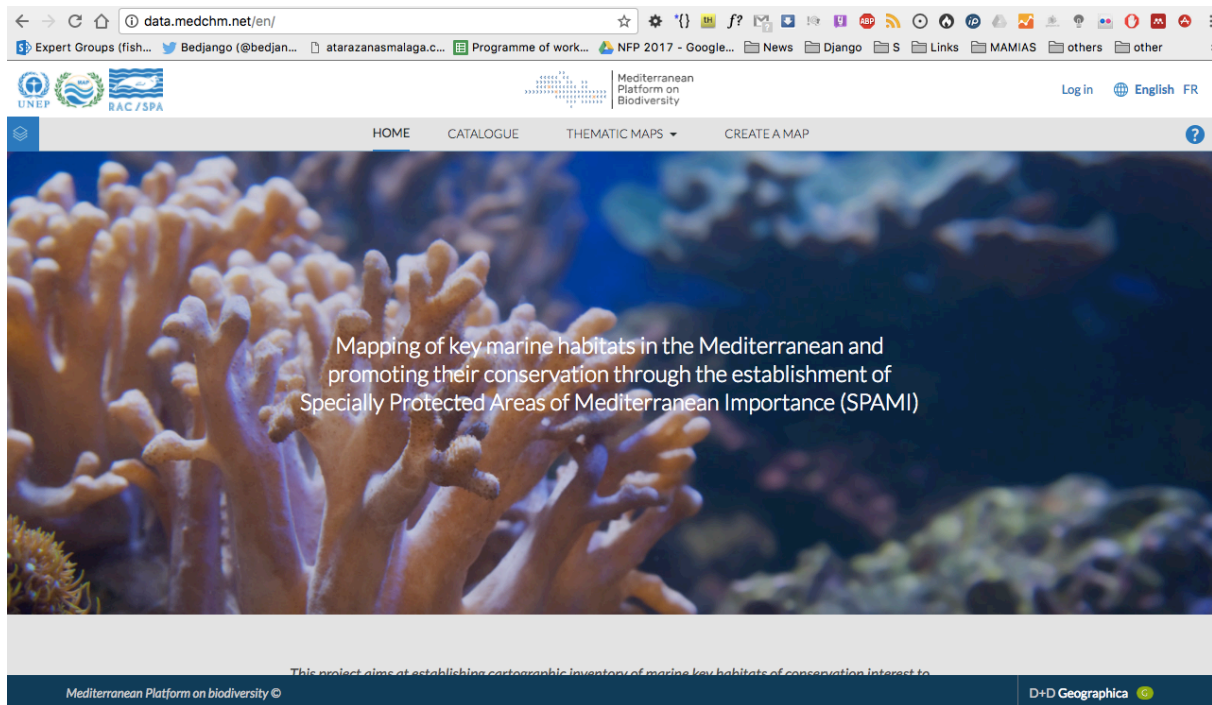
Within the development of the Mediterranean Clearing-House Mechanism on marine and coastal biodiversity, SPA/RAC has launched within the framework of the Medkeyhabitats project the establishment of a Spatial Data Infrastructure (SDI) for its georeferenced data. The name given to this SDI is the Mediterranean Platform on Biodiversity (MPB).

According to INSPIRE directive, the MPB provides 3 main services:

- Discovery: search and access information;
- View: display spatial datasets on an interactive map (WebGIS features);
- Download: public / authorised users (depending on Data Policy rules applicable to the specific dataset) are able to select and download numerical data or maps of their interest.

The MPB relies on open source softwares compliant with the Open Geospatial Consortium (OGC)¹: (i) PosgreSQL/PostGIS² (ii) GeoServer³ (iii) the GeoNetwork is a catalogue application to manage spatially referenced resources. It provides powerful tools for metadata⁴ management such as storage, editing and search.

The visible part of the MPB is the Geoportal. It is a web portal used to find and access geospatial information and associated geographic services (display, editing, analysis, etc.). Geoportals are an effective tool to publish, share and disseminate the geographic data and a key element of Spatial Data Infrastructure (SDI).



The Geoportal deliver three main services.

- The first is the catalogue containing the metadata of the 150 layers already fed in the system. These layers are organised in three topics **(i)** biodiversity, **(ii)** physical-chemical features and **(iii)** responses. Each topic is broken down into several sub-topics with relevance to marine and coastal biodiversity.
- The second service display eight thematic maps organised in different themes such as Mediterranean MPA and Specially Protected Areas of Mediterranean importance.
- The third service provided by the MPB is the possibility to create one's own map. The user chooses from the catalogue which data wants to display in the map. The geoviewer offers multiple functionalities such as zoom, distance and areas measures, print,).

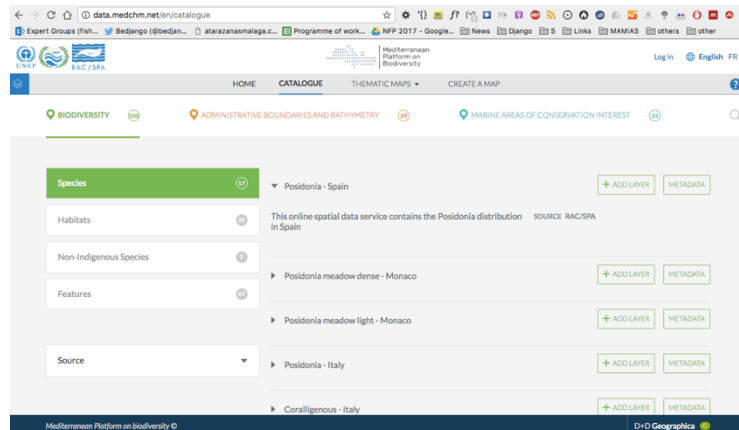
¹ <http://www.opengeospatial.org/>

² spatial database management system providing a tool to organise the data into a geodatabase and access to spatial tables for display and further analysis

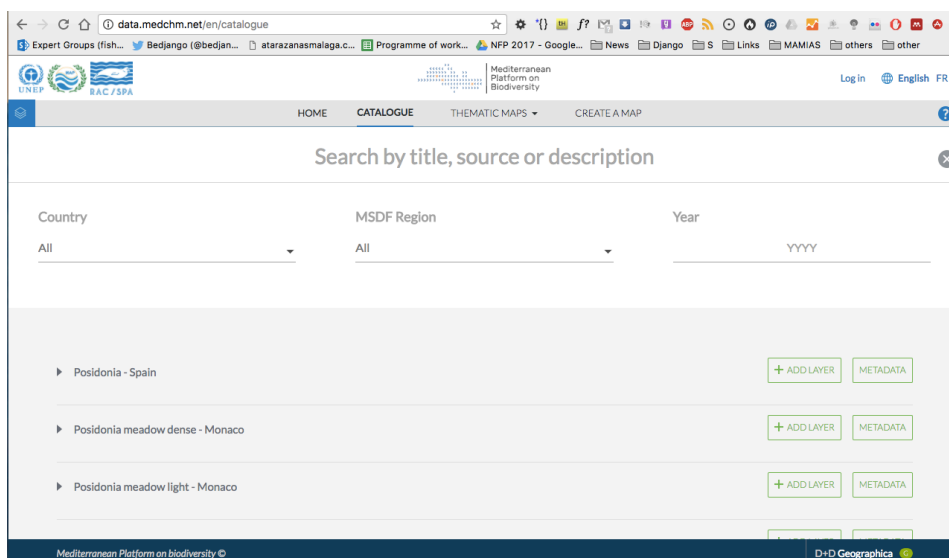
³ web server for sharing geospatial data via internet, designed for interoperability and publishing data from any major spatial data source and

⁴ Metadata is defined as data on the data. It describes and gives relevant items on the produced data such as the purpose, date of creation and publication, scale and so on

The access control to the SDI is threefold; access as administrator, as collaborator and as user. The administrator has all the rights to manage the platform; add, delete spatial data and metadata, add thematic maps, delete and add layers in a specific thematic map and add news collaborators accounts. This control level is assigned to the SPA/RAC. The collaborator has the privilege to add layers and their metadata and delete them if needed. However, removal of layers added by third parties is not authorized. Assigning a collaborator account to the providers able them to use the Geoportal in order to publish their own spatial data and the corresponding metadata.

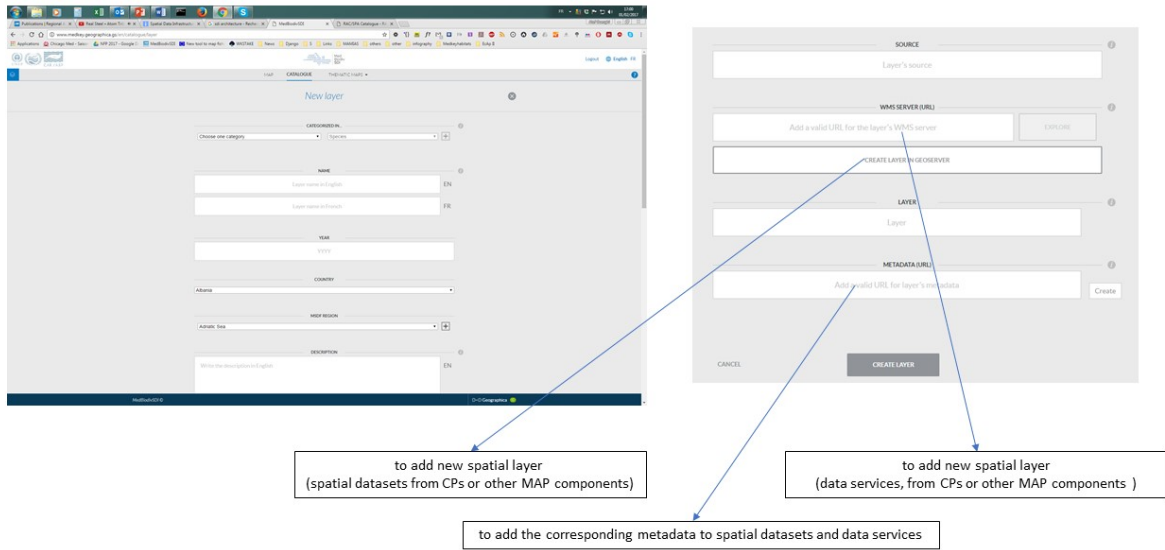


The user level is the most restrictive level. It has the basic roles to display and create the maps from the layers already available in the database. The users have not the permission to enter in the system and add or delete any layer or Othematic map. This level is attributed to all kind of public interested in Mediterranean ecosystems and biodiversity such as scientists and NGOs. They can made use of the Geoportal to search and access the information they need, customize, and print their elaborated maps.



Thus the Geoportal serves an increasingly important role in the sharing of geographic information and can avoid duplicated efforts, inconsistencies, delays, confusion, and wasted resources.

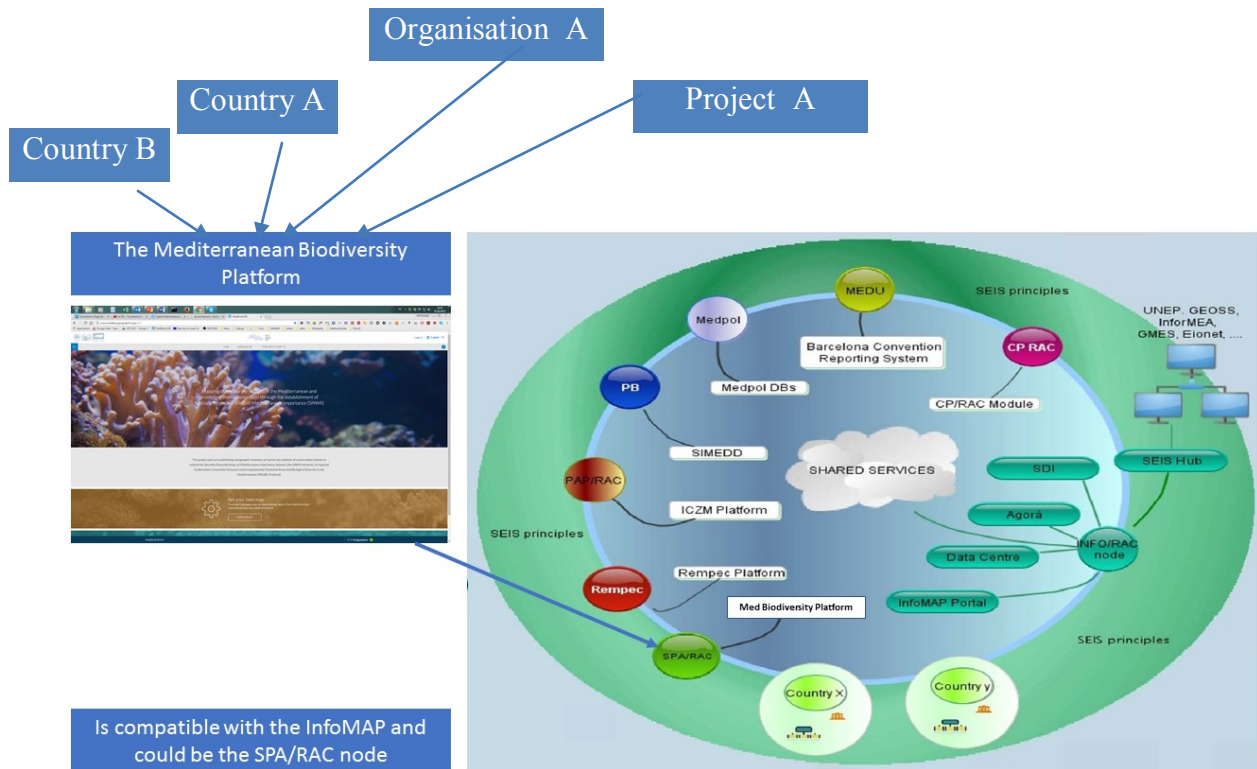
The Mediterranean Biodiversity Platform all to add new spatial layer
(spatial datasets and data services and the corresponding metadata)



For further details on the geoportal functionalities, an “how to use it” section is available at <http://data.medchm.net/en/howto>.

THE MPB AS REGIONAL NODE:

The capacity to manage data and connect together different databases located in different countries, privilege this platform to act as regional node of spatial data on marine and coastal biodiversity. Indeed, it could play the role of the infoMAP SDI. Each partner manages its own data hosted in its own server and publish it in the MBP through a simple link. The spatial data is then ready to be displayed by any user when needed. SPA/RAC will be in charge of the MBP management.



FUTURE DEVELOPMENT OF THE MPB:

Currently, the MPB is online at <http://data.medchm.net> and provides access to more than 150 layers organised in three topics (i) biodiversity, (ii) physical-chemical features and (iii) responses. Within each topic, the layers are broken down into sub-topics with relevance to data on marine and coastal biodiversity.

SPA/RAC will work on the promotion of this tool by integrating layers and online services from other organisations, projects and Contracting Parties according to the scope and mission of SPA/RAC, the SPA/BD Protocol and the regional Action Plan for the conservation of threatened species, marine key habitats and invasive species.

SPA/RAC could also replicate this platform for the Contracting Parties as part of its assistance, providing the necessary capacity building. This depends on availability of budget.

SPA/RAC will continue the development and improvement of this platform based on the feedback from Contracting Parties and the new needs that will emerge.