SEAWETRA

A MSP TOOL TO SUPPORT THE CONSERVATION OF THE MARINE MAMMALS FOR THE PELAGOS SANCTUARY

A. Moulins
CIMA Research Foundation
BACKGROUND
International Marine Policies

European Commission – DG Mare
  MSFD (11 Descriptors)
  MSP (“Relevant activities and uses”)

UNEP environment UNEP/MAP
  EcAp (11 Descriptors)

International Maritime Organization (IMO)

Intergovernmental Oceanographic Commission (IOC-UNESCO)

TOP – PRIORITIES
Achieve Good Environmental Status
Use & reuse of geographic information
Increase interoperability data
NEEDS
Multi-disciplinary web-platform

**Type of data**
- Static data
  - no time frame
- Dynamic data
  - time frame decided by the end-user

**Source of data**
- Observations
- Models to interpolate data
- Models to forecasts
RECOMMENDATIONS
Inspire standard
34 Themes
Reference grid system

- Protected sites
- Species distribution
- Habitats and biotopes
- Transport networks
- Area management/restriction/ regulation zones and reporting units
- Oceanographic geographical features
- Sea regions
SEAWETRA: Case study

CETACEAN CONSERVATION IN THE PELAGOS SANCTUARY

8 cetacean species

Descriptor 1 MFSD
Descriptor 1 EcAp Initiative

Ligurian sea

Dynamic complex oceanographic features

Pelagos Sanctuary

Protected site with overlapping jurisdictions

Human impact

Overlapped pressures
Various intensities
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1. Observations (DL)
2. Models (DL)
3. Statics (SL)
4. Tools
5. Magic search

Potential:
various standard of GI (NetCDF, etc.)
⇒ Virtual layers according to query
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Selection of the layer by keywords/path

1. Tag
2. Folder
For all layers: on/off, zoom to extent, opacity, download to desktop, refresh, metadata
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Metadata (compliant with INSPIRE): Geoportal
End-user settings for dynamic layer: Parameter, legend scale, date

1. Parameter filter
2. Dynamic scale
3. Temporal frame
End-user settings for dynamic layer:
Example for the legend scale
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Cetacean data collection
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Cetacean sightings query to filter by end-user
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Cetacean sightings
link to register (INSPIRE compliant)
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Cetacean sightings
query to filter by end-user
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Cetacean sightings
query to filter by end-user
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Observations - Dynamic layer

Observations
- SST
- Chlorophyll
- Sea level
- Wind field

Models
- Carbonate system
- Dissolved oxygen
- Nutrient system
- Salinity
- Phytoplankton
- Layer depth
- Sea water velocity
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Observations - Dynamic layer
Fin whale habitat model
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Observations - Dynamic layer
AIS
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Observations - Dynamic layer
AIS
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Static layers
Whale-watching activity area
Whale risk analysis
as relative abundance x relative density of ferries
Whale risk analysis
as relative abundance x relative density of ferries
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Cetacean strandings
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Cetacean strandings
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**Italian Marine Protected Areas**

<table>
<thead>
<tr>
<th>Zone</th>
<th>Character Varying</th>
<th>Value Character Varying</th>
<th>Normative Character Varying</th>
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<td>scientific research</td>
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<td>according to bylaw of the MPAs managers</td>
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<td>underwater guided tours</td>
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<tr>
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Upload a static layer by end-user
Attribute a style
Publication