



Biological Conservation & Marine Protected Areas (MPAs)



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- Legal Framework for conservation

- a) 5 international conventions (σύμβαση ή συνθήκη): legally binding international agreements between a number of countries
- b) 5 European Directives (ευρωπαϊκές οδηγίες): all European countries are responsible for agreeing and implementing EU legislation.
- c) Several national regulations & Presidential Decrees: specific for Greece

* IUCN red list – not a legal instrument.



- International conventions

a) 5 Conventions (σύμβαση ή συνθήκη)

- Convention on Biological Diversity – International
 - Barcelona convention – Mediterranean
 - Bern Convention – International
 - Bonn Convention – International
 - CITES – International regulation of wildlife trade
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- Convention on Biological Diversity (CBD)



Convention on
Biological Diversity
www.cbd.int

- United Nations Environmental Program (UNEP).
- **Type:** International legal instrument (adopted in 1992).
- **Parties / countries:** 196 (168 signatures).
- **Aim:** the conservation and sustainable use of biological diversity
- **Tools:**
 - National Biodiversity Strategy (Εθνικές Στρατηγικές) & Action Plans (Σχέδια δράσεις) (NBSAPs)*
 - National reports (Εθνικές εκθέσεις)

The NBSAPs:

- Main tools for implementing the Convention at the national level.
- All countries must prepare a NBSAP.
- The National Biodiversity Strategy must be considered in the planning of those sectors whose activities have an impact (positive or negative) on biodiversity.
- NBSAPs should be revised every 5 years.



• Convention on Biological Diversity (CBD)



**Convention on
Biological Diversity**
www.cbd.int

Summary of the 2020 National Biodiversity Strategy for Greece

The vision for 2050

The biodiversity of Greece and the ecosystem services that it supports, are viewed as being of national importance. Natural capital is evaluated to facilitate the rational management, effective protection and restoration of its intrinsic value, due to the substantial contribution of biodiversity to the society's welfare and economic prosperity. By 2050, it is aimed to have prevented all destructive changes caused by the loss of biodiversity

General Objectives of the Strategy

Halting biodiversity loss - Promoting biodiversity as a national natural capital - Intensifying the contribution of Greece to preventing the loss of global biodiversity

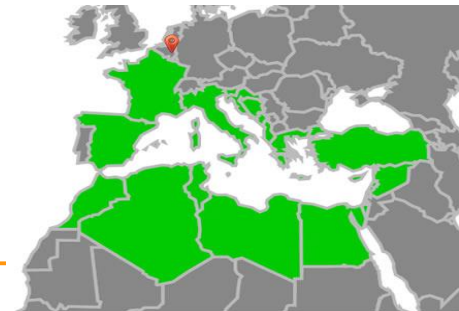
13 Biodiversity Strategic Targets

1 Increasing scientific knowledge	2 Preservation of national natural capital	3 National system of protected areas	4 Conservation of genetic resources	5 Synergistic policies to conserve biodiversity
6 Conservation of landscape diversity	7 Biodiversity and climate change	8 Biodiversity and invasive alien species	9 International and transnational conservation	10 Public administration and the protection of biodiversity
11 Integrating biodiversity conservation in the value system of society	12 Participation of society in biodiversity conservation		13 Valuation of ecosystem services and promotion of the value of Greek biodiversity	

- Barcelona Convention

Barcelona Convention “For the protection of Mediterranean Marine & Coastal Environment”

- United Nations – Mediterranean Action Plan
- **Type:** International legal instrument (adopted 1976, amended 1995)
- **Parties / countries:** 22 contracting countries
- **Aim:** Focusing on pollution & conservation of biological diversity
- **Objectives:**
 - Assess and control marine pollution
 - Ensure sustainable management of natural marine and coastal resources
 - Integrate the environment in social & economic development
 - Protect the marine & coastal zone by reduction & prevention of pollution from land and sea
 - Protect natural heritage
 - Strengthen solidarity among Mediterranean states
 - Improvement of life





• Barcelona Convention

• 7 Protocols:

Dumping from ships and aircraft, Prevention & Emergency (pollution from ships), Land-based Sources and Activities, Offshore Pollution from Exploration & Exploitation, Hazardous wastes, Integrated Coastal Zone Management, **Specially Protected Areas and Biological Diversity**.



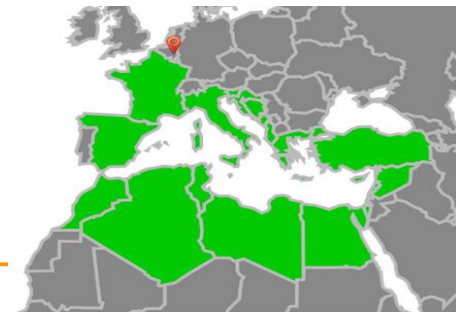
Including 3 Annexes regarding:

1. Criteria for the selection of Specially Protected Areas of Mediterranean Importance - SPAMIs (*habitats*) – Annex I
2. List of endangered or threatened *species* – Annex II
3. List of *species* whose exploitation is regulated – Annex III

RAC / SPA
Regional Activity Center for Specially Protected Areas



www.rac-spa.org/publications





• Barcelona Convention

• Annex I: Criteria for selection of SPAMIs

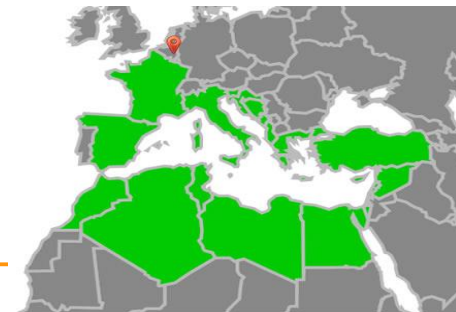
Sites should fulfill at least one of the following criteria:

- Sites that are important for the conservation of biodiversity components in the Mediterranean
- Sites that contain ecosystems specific to Mediterranean or habitats of endangered species
- Sites that are of special interest at the scientific, aesthetic, cultural or educational levels.

The Regional Value is a basic requirement for the inclusion of an area in the SPAMI list



www.rac-spa.org/publications



• Barcelona Convention

• **Criteria for assessing Regional Value = Importance for the Mediterranean**

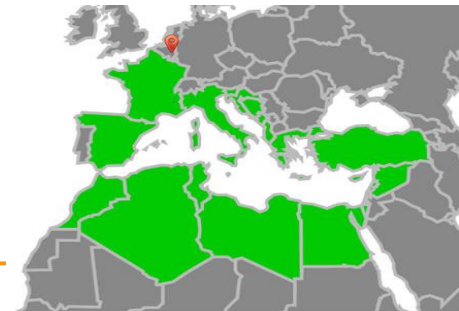
a) **Uniqueness** – the area contains unique or rare ecosystems, rare or endemic species.

b) **Natural representativeness** – the degree to which an area represents a habitat type, ecological process, biological community, physiographic feature, or other natural characteristic.

c) **Diversity** – the area has a high diversity of species, communities, habitats or ecosystems.

d) **Naturalness** – the area has a high degree of naturalness as a result of the lack or low level of human-induced disturbances and degradation.

e) **Cultural representativeness** – high representative value with respect to cultural heritage, due to the existence of environmentally sound traditional activities integrated with nature which support the well-being of local populations.





• Barcelona Convention

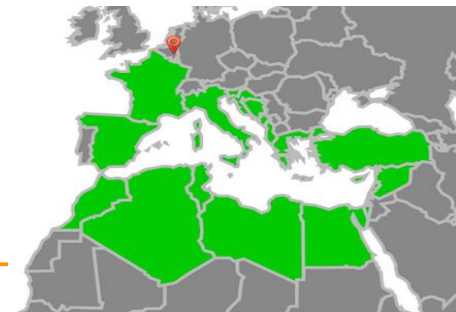
- **Annex II: List of endangered or threatened species**

Endangered – Any species that is in danger of extinction throughout all or part of its range.

Threatened – Any species that is likely to become extinct within the foreseeable future, and whose survival is unlikely if factors causing population decline or habitat degradation continue to operate.

- **Annex III: List of species whose exploitation is regulated**

Examples – Several species of sponges, corals, sea urchins, crabs & lobsters, and fish





- Bern Convention

Bern Convention “Conservation of European Wildlife and Natural Habitats”

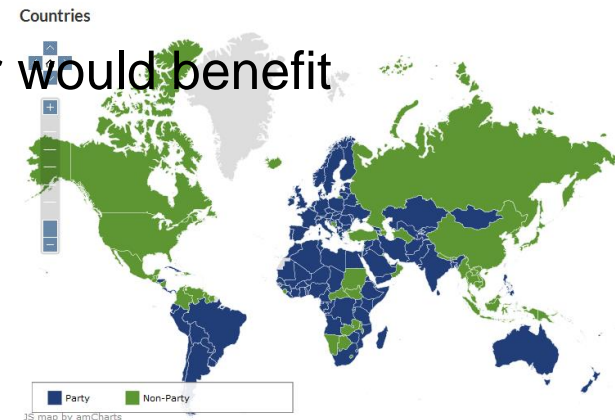
- **Type:** international legal instrument (enforced 1982)
- **Parties / countries:** European (44), and some non-european countries (6)
- **Aim:** Protection of habitats, species, and migratory species
- **Tools:** Four Appendices
 - Appendix I – Strictly protected flora species
 - Appendix II – Strictly protected fauna species
 - Appendix III – Protected fauna species
 - Appendix IV – Prohibited means and methods of killing, capture and other exploitation

- Bonn Convention

Bonn Convention

“Conservation of migratory species of wild animals”

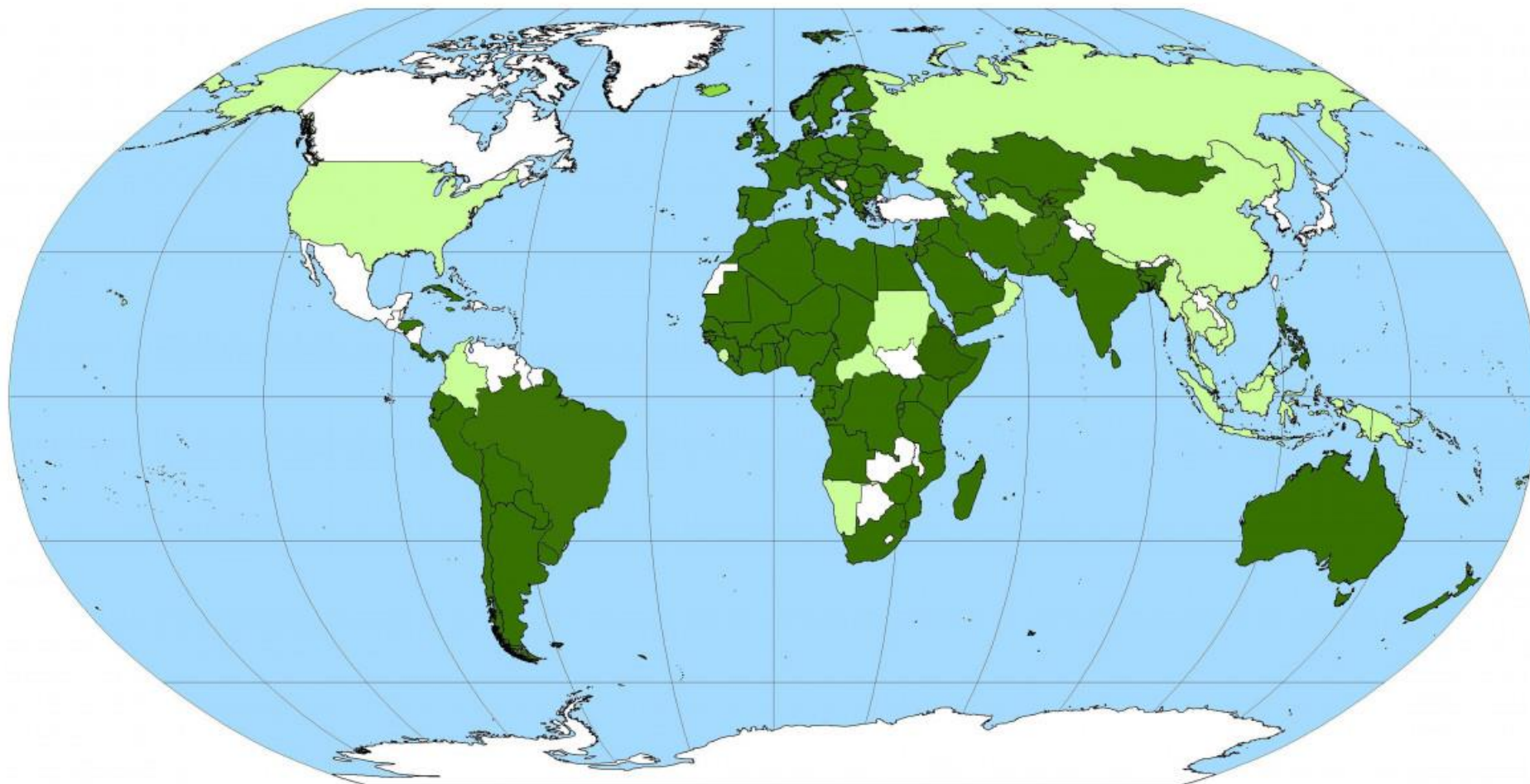
- United Nations Environmental Program (UNEP).
- **Type:** international framework (enforced 1983) and includes
 - legally binding Agreements
 - Not legally binding instruments (e.g. Memoranda of understanding).
- **Parties / countries:** 124
- **Aim:** Protection of migratory species
- **Tools:** Two Appendices
 - Appendix I – List of migratory species threatened with extinction
 - Appendix II – List of migratory species that need or would benefit from international co-operation



- Bonn Convention

Convention on the Conservation of Migratory Species of Wild Animals

Map of 124 Parties (as of 1 August 2016)



2000 0 2000 KM

The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.
The final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined.

- CMS Party
- Non-Party participating in Agreement or MOU
- No CMS Family involvement

- CITES

CITES

“Convention on International Trade of Endangered Species of wild fauna and flora”

- **Type:** international agreement (enforced 1975)
- **Parties / countries:** 183
- **Aim:** Ensure that international trade of wild animals and plants does not threaten their survival. – Controlling trade of selected species
- **Tools:** Three Appendices
 - Appendix I – Species threatened with extinction. Their trade is permitted only in exceptional circumstances.
 - Appendix II – Species not threatened, but their trade must be controlled to ensure their survival.
 - Appendix III – Species protected in at least one country, which has asked other CITES Parties for assistance in controlling trade.



- European Directives

b) Five European Directives (ευρωπαϊκές οδηγίες):

1. Habitats and Species Directive (92/43/EEC)

- related to the NATURA 2000 network of protected areas
- Aim: Favourable conservation status for species & habitats

2. Wild birds Directive (2009/147/EC)

- related to the NATURA 2000 network of protected areas
- Aim: Favourable conservation status for bird species

3. Water Framework Directive (2000/60/EEC)

- improve quality of inland and coastal waters, covers all water categories (rivers, lakes, groundwater, coastal and transitional waters)
- Aim: Good Ecological Status by 2015

4. Marine Strategy Framework Directive (2008/56/EEC)

- ecosystem-based management approach.
- Aim: Good Environmental Status (GES) by 2020

5. Maritime Spatial Planning Directive (2014/89/EU)

- planning of human activities and conservation management actions



- Habitats & Birds Directives

1. Habitats and Species Directive (92/43/EEC)

2. Wild birds Directive (2009/147/EC)*

Annex I – Natural habitat types whose conservation requires the designation of Special Areas of Conservation (SACs)

Annex II – Animal & plant species whose conservation requires the designation of Special Areas of Conservation (SACs)

Annex III – Criteria for selecting sites for identification as sites of community importance (SCI) and designation as SACs.

Annex IV – Animal & plant species in need of strict protection both within and outside Natura 2000 sites

Annex V – Animal & plant species whose exploitation in the wild should be managed in order to maintain a good conservation status.

Annex VI – Prohibited methods of capture and killing, and modes of transport.

* Wild birds Directive has corresponding Annexes (I – IV) referring to birds, and the designation of Special Protection Areas (SPAs) for their survival, and for all migratory bird species.

- Habitats Directive

Habitats and Species Directive (92/43/EEC) & Wild birds Directive (2009/147/EC)

- Provide specific guidelines and scientific criteria for the selection of sites to be included in the NATURA 2000 network.
- 92/43/EEC Provides an “interpretation manual of European Union habitats” [http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/Int_Manual_EU28.pdf]
- Identifies priority habitats & species
- Identifies existing or potential human-induced threats





- Habitats Directive

Habitats and Species Directive (92/43/EEC) & Wild birds Directive (2009/147/EC)

Procedure of site selection:

1. Member states carry out assessments on habitats & species
2. Propose Sites of Community Importance (SCIs).
3. Need to designate SCIs as Special Areas of Conservation (SACs) within 6 years the most!
4. Member states should give priority to sites that are most threatened / most important for conservation
5. Member states should take necessary management or restoration measures to maintain favorable conservation status.
6. Every 6 years member states should provide an assessment report of the conservation measures taken, and an evaluation of the conservation status of natural habitats and species (i.e. to assess whether they are in Favourable Conservation Status)

Natura 2000 viewer: natura2000.eea.europa.eu/#



- Habitats Directive

Habitats and Species Directive (92/43/EEC) & Wild birds Directive (2009/147/EC)

Definitions:

Site of Community Importance (SCI):

A site which contributes significantly to the maintenance or restoration of a natural habitat type or of a species (enlisted in Annex I, II), in the biogeographical region/s it belongs to.

Special Area of Conservation (SAC):

An SCI where the necessary conservation measures are applied for the maintenance or restoration of natural habitats and or the populations of the species.

Special Protection Areas (SPA):

Areas designated based on specific scientific criteria, for the protection of 194 threatened and for all migratory bird species.



- Habitats Directive

Favourable Conservation Status - Habitats

“Conservation status” of a natural habitat:

the sum of the influences acting on a natural habitat and its typical species that may affect its long-term natural distribution, structure and functions, as well as the long-term survival of its typical species.

“Favourable” when:

- the habitat’s natural range and area cover within its range is stable or increasing.
- the specific structure and functions that are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future

Priority natural habitats are indicated by an asterisk (*) and are natural habitat types in danger of disappearance.



- Habitats Directive

Favourable Conservation Status - Species

“Conservation status” of a species:

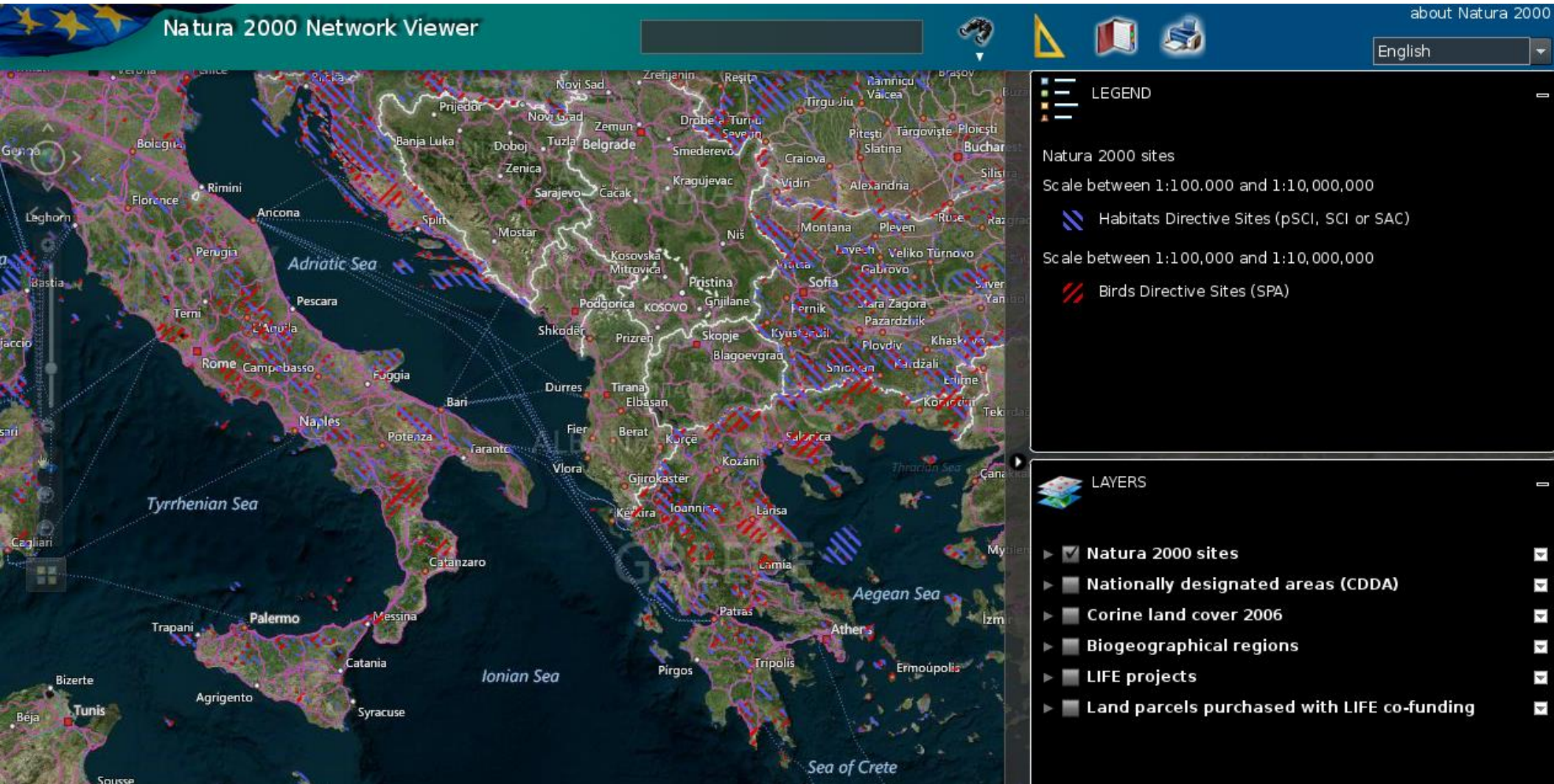
the sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its populations within a specific territory.

“Favourable” when:

- Population dynamics data indicate that the species is maintaining itself on a long-term basis as a viable component of its natural habitats.
- Its natural range is neither reduced nor likely to be reduced in the foreseeable future
- There is sufficiently large habitat to maintain its populations on a long-term basis

Priority species are indicated by an asterisk (*)

Mediterranean MPAs – useful web sites



<http://ec.europa.eu/environment/nature/natura2000/data>

<http://natura2000.eea.europa.eu>

<http://medpan.org/marine-protected-areas/>



• Habitats & Birds Directives

1. Habitats and Species Directive (92/43/EEC) & 2. Wild birds Directive (2009/147/EC)*

- The Habitats Directive: contributes towards protection of EU biodiversity, including the marine environment, through measures designated to maintain and/or restore natural habitats and wild flora / fauna.
- The Birds Directive: conservation of all naturally occurring wild bird species, and covers their protection, management and control.

Together these two directives form the backbone of EU environmental legislation, covering:

- all wild birds (>500 species),
- more than 1000 species of flora & fauna (including marine),
- more than 230 habitat types (including marine).

In 2011 the NATURA 2000 network included approximately 26.000 sites (SCI, SAC, SPA)



- Marine Strategy Framework Directive

Marine Strategy Framework Directive (2008/56/EEC)

Ecosystem-based management approach.

Achieve Good Environmental Status (GES) by 2020

GES – *Good Environmental Status*

“The environmental status of marine waters where these provide ecologically diverse and dynamic oceans and seas which are clean, healthy and productive” Article 3

11 descriptors of GES



- Marine Strategy Framework Directive

Marine Strategy Framework Directive (2008/56/EEC)

11 environmental descriptors of GES (Annex I)

Descriptor 1. **Biodiversity** is maintained

Descriptor 2. **Non-indigenous** species do not adversely alter the ecosystem

Descriptor 3. The population of **commercial fish species** is healthy

Descriptor 4. Elements of **food webs** ensure long-term abundance and reproduction

Descriptor 5. **Eutrophication** is minimized

Descriptor 6. The **sea floor integrity** ensures functioning of the ecosystem

Descriptor 7. Permanent alteration of **hydrographical conditions** does not adversely affect the ecosystem

Descriptor 8. Concentrations of **contaminants** give no effects

Descriptor 9. **Contaminants in seafood** are below safe levels

Descriptor 10. **Marine litter** does not cause harm

Descriptor 11. Introduction of energy (including **underwater noise**) does not adversely affect the ecosystem



- Marine Strategy Framework Directive

Habitats and Species Directive (92/43/EEC) - HD

+

Wild birds Directive (2009/147/EC) - BD

+

Marine Strategy Framework Directive (2008/56/EEC) - MSFD

Similarities:

- a) Conservation of biodiversity in the marine environment.
- b) Establishment of protected areas
- c) Proactive & Reactive elements: not just protect, manage and maintain, but also restore and recover habitats and species.
- d) Set specific criteria for achievement of good environmental status
- e) Require monitoring, periodic assessment and reporting.



- Marine Strategy Framework Directive

Habitats and Species Directive (92/43/EEC) - HD

+

Wild birds Directive (2009/147/EC) - BD

+

Marine Strategy Framework Directive (2008/56/EEC) - MSFD

Differences:

- a) MSFD is strictly marine and includes all marine biodiversity
- b) Ultimate objectives to be achieved: same but different
 - MSFD – GES – more ecosystem-based approach to the management of human activities
 - HB – FCS
 - BD – FCS / maintain populations at a level which corresponds to particular ecological, scientific and cultural requirements.
- c) Different timetable MSFD (2020), HB & BD (no formal deadline)



- Marine Strategy Framework Directive

Habitats and Species Directive (92/43/EEC) - HD

+

Wild birds Directive (2009/147/EC) - BD

+

Marine Strategy Framework Directive (2008/56/EEC) - MSFD

Differences:

d) Types of measures are different

MSFD – 11 descriptors monitored through national marine strategies

HB & BD – Protect habitats and species

But they complement each other:

- Collection of information
- Assessment of certain features
- MSFD ensures that Natura 2000 sites are not compromised because of degradation outside of protected areas



- National regulations

c) National presidential decrees & regulations (προεδρικά διατάγματα & κανονισμοί)

Examples:

- PD 67/81 – protection of native flora & fauna
- PD 86/1998 – regarding molluscan fisheries

Διεύθυνση ελέγχου αλιείας – <http://www.hcg.gr/alieia/main.php>

See you next week...

