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**MEDITERRANEAN ACTION PLAN
REGIONAL ACTIVITY CENTRE FOR
SPECIALLY PROTECTED AREAS**

Expert meeting on endangered species
in the Mediterranean

Montpellier, France 22-25 November 1995

**Report of the Expert meeting on endangered species
in the Mediterranean.
(Montpellier, France 22-25 November 1995)**

Introduction:

1. In conformity with the decisions of the eighth Ordinary Meeting of the Contracting Parties to the Convention for the Protection of the Mediterranean Sea against Pollution (Barcelona Convention) and its related Protocol (Antalya, Turkey, 12 - 15 October 1993), the Regional Activity Centre for Specially Protected Areas (SPA/RAC) has organized a meeting of experts on endangered species in the Mediterranean .

2. The meeting has been organized in collaboration with the Secretariat of the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and "La Maison de l'Environnement de Montpellier".

Agenda item 1: Opening of the meeting.

3. The meeting was opened on Wednesday, 22 November 1995, at 09.00 am by the representatives of RAC/SPA, the Secretariat of the Bern Convention and "La Maison de l'Environnement de Montpellier".

4. Mr. André DEMAISON, director of the " Maison de l'Environnement de Montpellier " (MEM) welcomed the participants and expressed the satisfaction of receiving in the City of Montpellier the researchers and managers of protected spaces, who come from various Mediterranean countries. On the other hand, the Professor Jean-Pierre QUIGNARD, president of the scientific committee of the MEM recalled the stakes posed by the protection of species and presented the principal themes which were addressed or planned under the scope of the scientific colloquium of OKEANOS.

5. Mr. Mohamed SAIED, director of the of RAC/SPA, thanked the MEM and the City of Montpellier for their active contribution in the organization of the meeting. He expressed his satisfaction on the collaboration established for several years between RAC/SPA and Bern Convention Secretariat.

6. The director of RAC/SPA then recalled the framework within which the meeting is organized. He reviewed the principal measures which have undertaken for the conservation of species within the scope of the " Mediterranean Action Plan" and the steps which led to the signing, in June 1995 at Barcelona, of the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean. He also reviewed the principal measures of conservation which relate to the lists of species contained in the annexes of the said protocol.

7. Mr. Eladio FERNANDEZ GALIANO, representing the Council of Europe (Bern Convention Secretariat) thanked the MEM for their contribution towards the organization of the meeting and expressed his satisfaction with the collaboration established between the Bern Convention Secretariat and RAC/SPA. Indeed, this

meeting is their third important joint activities. The council of Europe gives great importance to collaboration with other international organizations concerned with species conservation.

8. The representative of the Council of Europe indicated that the aim of this meeting is twofold. In part it will allow the compilation of lists of species which will be annexed to the new SPA protocol and secondly it will allow the Bern Convention to give better consideration to the marine Species of the Mediterranean.

9. The meeting was attended by the representatives of the following countries: Bosnia and Herzegovina, Croatia, Cyprus, Egypt, France, Greece, Italy, Israel, Libya, Malta, Monaco, Morocco, Slovenia, Spain, Syria, Tunisia and Turkey. In addition, representatives of FAO, CIESM, WWF, MEDMARAVIS, Bird Life International, RIMMO, "Agence pour la Protection des Espèces Menacées (APEM)" and "la Station Biologique de la Tour de Valat" were also present as invited observers. A list of participants is enclosed as annex II to this report.

Agenda item 2: Rules of procedure

10. The meeting agreed that the Rules of Procedure applicable to meetings and conferences of the Contracting Parties to the Convention for the Protection of the Mediterranean Sea against Pollution (UNEP/IG.43/6, Annex XI) should apply *mutatis mutandis* to its discussions.

Agenda item 3: Election of the Bureau.

11. The meeting unanimously elected among the representatives of the Contracting Parties:

- a chairman: the representative of France
- two vice-chairpersons: the representatives of Cyprus and Morocco
- a rapporteur: the representative of Malta

Agenda item 4: Adoption of the Agenda and organization of work.

12. The Secretariat presented the main elements of the agenda contained in the document UNEP(OCA)/MED WG.100/1 and annotated in the document UNEP(OCA)/MED WG.100/2. The meeting adopted the agenda as proposed by the secretariat. This is appended as annex I of this report.

Agenda item 5: Evaluation of the status of species and their protection in the Mediterranean countries.

13. The representatives of the Contracting Parties were invited to report on the situation in their respective countries regarding species conservation.

14. It emerges from the experts's reports that the level of species protection varies from one country to the other most notably for the marine species. Certain delegations indicated that in their countries there exist Red Lists that are generally devoted to particular groups of species. It appeared also, that the establishment of protected areas is one of the means used for the conservation of threatened species in many Mediterranean Countries.

15. It was underlined by many delegates, that there was a lack of scientific knowledge, especially for the marine species.

16. The summary of the oral communications given by the representatives of the Contracting Parties is included in the annex III to this report.

Agenda item 6: List of endangered or threatened species.

17. The secretariat presented the document UNEP(OCA)/MED WG.100/3 which related to the selection criteria and the list of endangered or threatened species. It was pointed out that the information contained in this report was presented as an indication and that the experts representing the contracting parties were invited to comment upon it and where necessary complete or correct it. On the basis of the comments from the experts, the secretariat will prepare an updated version of the document which will be diffused as a unofficial information document.

18. Debates of the meeting, relating to this agenda item, allowed the compilation of a list of endangered or threatened species. The meeting agreed to include on this list only marine species or species related to the marine environment (and possibly coastal salt-water environments). The marine environment for these purposes is defined as the all ecosystems situated between the Supralittoral and Bathyal levels included. Endangered or threatened species belonging to terrestrial coastal environments are therefore not covered in this list, but could be subsequently introduced by amendment of the list. On the other hand the recommendations and resolutions of the Contracting Parties relating to species conservation were taken into account in elaborating this list.

19. The list of endangered or threatened species as adopted by the meeting appears in the annex IV to this report.

20. The selection of these species was based also on the following principles¹:

21. **-(1)** Species were addressed irrespective of the degree of threat to which they are subjected: (i) most of the species which **already enjoy protection**, of whatever sort, in a region or country that borders the Mediterranean. (ii) the species appearing in **Appendix II** and/or **IV** of the European Union's Habitats Directive (**HD**) and/or the Appendix of the Bern Convention (**BC**). (iii) the species

¹Abbreviations and the levels of threat mentioned are set out in the annex VI to this report.

for which protection measures were recommended at the close of the international conference "Marine species to protect in the Mediterranean". -(iv) the species considered as "imperatively needing legal protection status" by the **STOA** European Parliament's working group meeting in Corfu (Greece) in September 1993, have been included. (v) species considered as needing protection status by the Alghero convention on coastal and marine biodiversity in the Mediterranean(**AC**).

22. -(2) Species which are the object of significant **commercial fishing** have, however, been left out of the present list: they are dealt within the framework of the list of species whose exploitation should be regulated.

23. -(3) Introduced species (allochthonous species) have been excluded from the list.

24. -(4) The species of birds were not included except for those that have a direct relation with the marine medium (possibly with the coastal saline medium) principally for their feeding. The choice to propose a restricted list derives from the fact that they are already the object of protective measures in many countries and are listed in the Annexes of many International Conventions (RAMSAR, etc.).

25. -(5) The species of which the Mediterranean populations are marginal relative to their world populations, were not included, except if (i) they are included for reasons listed under point (1) above, or (ii) if the Mediterranean populations show a significant decline, or (iii) if they are marine mammals or turtles.

26. -(6) A certain number of taxa which appear in lists of threatened species (**IUCN**, **LRF**, **UNEP**) have not been included.. This is the case for one of the four Mediterranean species mentioned by **IUCN**, the gorgonian *Eunicella verrucosa*, for which **CLR** decided that protection measures were not justified. This is equally the case, for a certain number of seaweeds mentioned by **LRV** for which the intensity of threat was judged to be level 1: "Threat still moderate, but could become serious in the next decade". Generally speaking, apart from the species taken up for reasons, species are included only starting from level 2 of threat: "Threat serious at least locally".

27. -(7) The taxa considered were at the specific level or occasionally at the generic. The infra-specific level was not considered.

28. -(8) Species the validity of which is strongly contested in the recent literature, or in which the taxonomic status appears confused, were not considered.

29. -(9) Rare species for which we do not know the nature of the threats likely to affect them, and/or the protection measures allowing us to avoid this, have not been included (except when they have been for reasons 1). This is the case, for example, of species living at great depths (500 m. and more) at deep-sea level.

30. Within the framework of the discussion on this agenda item, and on the proposal of some delegations, the meeting decided the two following recommendations:

31. -"The participating experts recommend to the countries that all efforts be implemented to reach an agreement under the aegis of the Bonn Convention, for the protection of cetaceans in the Mediterranean and Black Seas. and adjacent zones and strongly encourages these countries to sign this agreement."

32. -"The **scientific data** concerning an important number of species is **almost totally insufficient**, such that it is not possible to include them, except for those whose decline is dramatic. To avoid that the conservation of the marine environment is not gravely affected by this deficiency, it is necessary to accord more importance to the study of Mediterranean marine species and ecosystems. The meeting of experts recommends to the countries and international organizations concerned to take the necessary measures to rapidly fill in the gaps in this area."

Agenda item 7: List of species whose exploitation is regulated

33. The secretariat presented the document UNEP(OCA)/MED WG.100/4 relating to the selection criteria and the list of species whose exploitation is regulated. The meeting was then invited to consider the information contained in this document.

34. The debate relative to this agenda item allowed the compilation of a list of species whose exploitation should be regulated.

35. This list appears in the annex V to this report, it was elaborated according to the principles set out below ²:

36. - (1) The following were taken into account. (i) All species whose exploitation is already regulated in a region or country bordering the Mediterranean, other than cases where regulation is limited to definition of size. - (ii) All the species which are exploited in the Mediterranean and appear in the **Appendices** of the Habitat Directive of the European Union (**HD**), Appendices of the Washington Convention (**WC**), and/or in the Appendices of the Berne Convention (**BC**). (iii) All species for which management measures were recommended during the international colloquium 'Marine Species to be Protected in the Mediterranean (**CLR**)

37. -(2) As a general rule, apart from the species taken into account because of the reasons listed under (1) above, we have only included species from level 2 upwards, as regards the gravity of the problem (see table 2, annex VI) (Locally, stocks have more or less declined; exploitation nevertheless remains possible. It is possible that this exploitation will result in problems affecting other species or the

² The abbreviations used are set out in the annex VI to this report

ecosystem. The species is not threatened, and it is improbable that it will be in the foreseeable future.

38. - (3) Both benthic and pelagic species have been taken into account. Protection of the pelagic species is important for the conservation of the basic links of food chains.

39 - (4) Species which are **protected** in the Mediterranean countries as a whole (or in most of them), and whose fishing is prohibited, are not discussed here, even if examples of deliberate taking of these species are indicated, as is the case with the turtle *Caretta caretta*. Similarly, **accidental catches** of protected marine mammals are not discussed in the present document.

40. At the end of the discussion concerning this agenda item, the experts recommended the following: "This list of species whose exploitation should be regulated is given as an indication. The competent regional bodies (GFCM, ICCAT, ICSEM) are invited to study the scientific and technical means to allow the protection of these species while taking into consideration the interest of the fishing communities which exploit these resources. These bodies are also invited, each according to its particular competence, to consider means of planning and management which they judge necessary to reach such objective."

Agenda item 8: Measures to improve national capabilities, collaboration and exchange of information in the field of the conservation of Mediterranean species.

41. The secretariat presented the document UNEP(OCA)/MED WG.100/Inf.4 relevant to the improvement of the national capabilities and exchange of information in the field of conservation of Mediterranean species. The principal actions of training in the domain of conservation of protected species realized by the RAC/SPA in collaboration with the Mediterranean countries and NGOs, the difficulties encountered with their implementation were recognized and highlighted. The secretariat then invited the meeting to propose, on the basis of the needs in the Mediterranean countries, recommendations on the species and on the themes to which priority should be accorded. On the other hand, the secretariat proposed some measures which could contribute to improve the diffusion of information and exchange among Mediterranean specialists. These measures included the preparation of directories, databases, the setting up of networks etc.

42. In the course of discussion on this agenda item some delegations expressed their satisfaction with regards to actions undertaken by RAC/SPA in this field. The delegations stressed the lack of training possibilities in the field of marine and coastal environment. They also issued the following recommendations:

43. - To allocate high priority to the management of sites and to protected species.

44. - To pursue the training of experts in the field of implementation of priority measures provided for by the different Action Plans.
45. - To establish training courses related to the new theme arising from the adoption of the new protocol and its annexes.
46. - To pursue the practical training courses on the systematics of the fauna and flora of the Mediterranean.
47. - To popularize the information relative to the species appearing in the annexes IV and V to this report.
48. - To pursue and improve the exchange between conservation personnel at all levels of management in order to better utilise the experience acquired.
49. - To promote popularization actions oriented toward the general public as well as interested groups (fishermen, managers, officers responsible for the elaboration of regulations etc.).
50. - To encourage the development of networks in the field of study and conservation of threatened species.
51. - To facilitate the establishment of Mediterranean databases which target the themes of common interest relative to the biology and state of populations and the different threatened species.
52. - To compile thematic directories of the existing capabilities in the Mediterranean in the field of study and conservation of threatened species with a view to facilitating direct contact between actors.
53. In order to permit the development of these actions, the delegations expressed their wish to see improvement of exchanges between the countries by means of courses and training sessions (workshops). The role of the international organizations such as RAC/SPA, Council of Europe, FAO was underlined

Agenda Item 9: Adoption of the meeting report

54. The draft report of the meeting and the lists of species appearing in its annexes IV and V were submitted to the participants by the rapporteur, and were adopted after discussion.

Agenda Item 10: Closure of the meeting

55. After the customary exchange of courtesies, the Chairman declared the meeting closed on Saturday 25 November 1995 at 12H00.

AGENDA OF THE MEETING

1. Opening of the meeting
2. Rules of procedures
3. Election of officers
4. Adoption of the Agenda and organization of work
5. Evaluation of the status of species and their protection in the Mediterranean countries.
6. Endangered or threatened species in Mediterranean
 - 6.a Selection Criteria
 - 6.b List of Endangered or threatened species in Mediterranean
7. Species whose exploitation is regulated in the Mediterranean
 - 7.a Selection Criteria
 - 7.b List of species whose exploitation is regulated in the Mediterranean
8. measures to improve national capabilities and collaboration in the field of species conservation in the Mediterranean region.
9. Adoption of the meeting report.
10. Closure of the meeting

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**SUMMARY OF THE ORAL COMMUNICATIONS GIVEN BY THE
REPRESENTATIVES OF THE PARTIES**

**RÉSUMÉ DES EXPOSÉS ORAUX FAITS PAR LES
REPRÉSENTANTS DES PARTIES**

**BOSNIA AND HERZEGOVINA
BOSNIE-HERZEGOVIE**

Bosnia and Herzegovina has a coastal zone about 30 kilometres long. All the area is easy approachable and very picturesque. Geological foundation is formed of Mesozoic limestone, and natural soil is "terra rossa".

After it gained its sovereignty and independence, Bosnia and Herzegovina has undertaken serious measures to manage and protect the environment, especially the coast, because the sea access is now of the greater importance for Bosnia and Herzegovina than before.

Those activities were interrupted by the brutal aggression against our country (1992-1995).

There was no systematically attention paid on endangered species problem in Bosnia and Herzegovina before the war. Activities undertaken on that field have not produced any satisfactory result. There is no established any concrete list of endangered species nor the Red Book. Until today there is no species protected by law.

For the first time in history, Bosnia and Herzegovina has made basic laws in this field-Environment Protection Law and Nature Protection Law that will provide all other relevant laws concerning protection and management of particular parameters of the environment.

Natural Protection Law has special chapter concerning the regulation of protection of endangered plant and animal species, biocenosis and ecosystems.

The proposed List of endangered or threatened species in the Adriatic sea contains: *Cymodocea nodosa*, *Posidonia oceanica*, *Zostera maritima*, *Cystoseira sedoides*, *Lithophyllum lichenoides*, *Fucus virsoides*, *Cystoseira barbata*, *Lithophaga lithophaga*, *Patella nigra*, *Caretta caretta*, *Chelonia mydas*, *Monachus monachus*. Definitive list will be formed after bilateral agreements with the Republic of Croatia (consultation is in progress).

For the successful realization of planned activities in this field, considerable help (in materials, experience, experts, equipment and adequate literature) is needed.

**CROATIA
CROATIE**

La Croatie dispose de trois lois spécifiques qui règlent la protection du milieu naturel, la lutte contre la pollution, la conservation de la flore et de la faune sauvages ainsi que la réglementation de la pêche et la récolte des espèces marines commercialement exploitées: La loi de la protection de la nature (NN30/1994), la

loi de la protection de l'Environnement (NN82/1995) et la loi de la pêche marine (NN74/1994).

La côte croate de l'Adriatique compte plusieurs sites déclarés protégées par la loi tant pour leurs beautés naturelles que pour leur importance écologique. Le réseau d'aires protégées en Croatie comporte quatre Parc Nationaux avec aire marine (Brijuni, Kornati, Krka, Mljet) et un Parc de la nature (Telascica). Malgré l'existence de la protection légale, on peut considérer qu'il y a encore des insuffisances au niveau de l'aménagement, de la structure, de la gestion et de la protection effective.

Actuellement un projet est en cour de finalisation en Croatie, il concerne la création d'un réseau d'aires spécialement protégées avec programmes de gestion et de surveillance continue pour une meilleure protection des espèces, de la diversité biologique et de la conservation des différents écosystèmes naturels.

Pour ce qui de la conservation des espèces, une liste rouge est établie pour les plantes terrestres et les mammifères. Certaines espèces marines sont protégées par la loi.

CYPRUS

CHYPRE

In Cyprus all dolphins, seals and marine turtles have been protected by law since 1971 (Fisheries Regulations made under the Fisheries Law Cap 135).

Since 1981 the freshwater terrapin *Mauremys caspica* has been added to this list. In 1989 *Ocypode cursor* was also added as this disappeared from the tourist beaches of the east coast of Cyprus. In 1989 the main Green turtle nesting beaches in the Lara / Toxeftra area were also strictly protected, as was the adjacent sea area to a depth of 20m. (No boats, no fishing, no driving on beaches, no one allowed on the beaches at night, no umbrellas. Swimming is allowed during the day).

The regulations are strictly enforced. The Cyprus Turtle Conservation Project is centred on Lara / Toxeftra Reserve (10 km of coastline) but turtles are protected on all beaches in Cyprus. Protection against predators is given on Lara / Toxeftra beaches (Green and loggerhead turtles) and on Polis beaches (loggerhead turtles).

All species in inland waters (including salt lakes) are protected under the same fisheries regulations.

There are plans for turning the Akamas area into a National Park to protect inter alia the hinterland and of the nesting beaches of Lara / Toxeftra.

The Fisheries legislation foresees for the regulation of fishing by scuba (days, quotas, species, sizes) by conditions on the licences needed.

Posidonia is indirectly protected by a ban on trawling in waters shallower than 55 metres.

EGYPT
EGYPTE

In Egypt seventeen protected areas have been established to protect the natural heritage. These protected areas cover different types of habitats and ecosystems. In the Mediterranean coast of Egypt there are three protected areas:

-The Omayed Nature Reserve which includes a coastal zones as well as part of the Egyptian northern desert. Extensive research have carried out in this areas.

-The Bardaweel/El Zaranik Wetland reserve which covers the eastern part of the Bardaweel lagoon located along the northern shore of the Sinai Peninsula. this Nature Reserve constitutes a very important site for the migratory species of birds crossing from Europe to Africa.

- The Ashtoun El Gamil Nature Reserve located on the lake Manzalah Which is connected to the Mediterranean Sea through Ashtoun El Gamil (West of Port Saïd). The lake Manzalah covers about 144,00 hectares with brackish and very shallow waters. This area is very important for bird populations.

In the field of research and data collection on species and habitats in the protected areas, only the Omayed Nature reserve have enjoyed a lot of studies as a full ecosystem, effort is made to cover the other protected areas

Concerning species conservation, there is in Egypt a red book for endangered species covering mostly terrestrial species and different legislations have been established to regulate hunting and fishing. Under these regulations hunting is prohibited at lake Bardaweel, on the other hand endangered reptile species are protected by the Decree 1403/1990 which prohibits the killing, capture, possession, transfer and sale of specimens of such species. The knowledge on the marine endangered species in Egypt should be improved.

FRANCE:

En France un livre rouge des espèces marines et côtières a été élaboré depuis sept ans, il regroupe environ deux cent espèces menacées, ce document n'a évidemment pas un caractère législatif. Pour ce qui est de la protection juridique des espèces marines et côtières en France, les oiseaux de mer et les mammifères marins dans leur majorité et les tortues marines sont protégés par loi. En outre 2 espèces végétales et 8 espèces d'invertébrés sont protégées légalement sur le plan national. Par ailleurs, deux espèces de végétaux sont protégées au niveau régional dans une des régions côtières de la Méditerranée.

La superficie des aires protégées marines et encore relativement faible sur la côte méditerranéenne française. Quatre réserves marines de petite dimension ont été créés dont deux en Corse et deux sur le continent ainsi qu'un parc national: Le Parc

National De Port-cros.

Actuellement il y a deux importants projets de création de parcs marins:

- le Parc National de corse qui englobera une des réserves marines existantes.
- le parc international marin des Bouches de Bonifacio qui sera mis en place en collaboration avec l'Italie.

GREECE

GRECE

A number of species are protected in Greece, as they are listed in Annexes of International Conventions (Bern, Bonn), or in the Annexes of European Union Directives.

Furthermore, several species which are not included in any of the above mentioned Annexes, are subject to national protection status, since 1980.

Species whose exploitation and/or hunting is regulated are mentioned in separate legislation texts, issued by the Ministry of Agriculture.

The compilation of an official updated list of endangered species at the national level, is required by the Law for Environment Protection (L. 1650/86). Several efforts have been made in order to allow competent authorities to prepare this list. The most important are the compilation of the Red Data Book of vertebrates in Greece (1992), the on going project for the compilation of the Red Data Book of Plants in Greece and the on going project for the compilation of FLORA HELLENICA.

As for marine and coastal species, some of them are included in the Annexes of International Conventions and Directives. Others are included in the existing protected species lists. Others have regulations set for their exploitation and/or hunting.

Attention to the marine and coastal species is very limited when compared to that attributed to the terrestrial ones. The Red Data Book of Vertebrates in Greece, includes the most known marine species. Work on estimating the status of other marine species is currently being done for plants and some invertebrates, by related research groups. This work will be soon available.

As site protection is concerned, there are two protected areas in Greece created especially for the conservation of marine species. The Alonissos Marine Park in Northern Sporades, created in 1990, provides refuge to monk seal, sea birds, red coral beds, fish, and numerous sponge species, some of which are endemic. The Laganas Bay protected area, on Zakynthos Island, provides refuge and breeding grounds to the sea Turtles *Caretta caretta*, and protection to sea birds and underwater *Posidonia* beds. This area is soon to be established as the National Marine Park of Zakynthos.

ISRAEL

The Nature Reserves Authority is the governmental authority which is responsible for nature conservation (including law enforcement) in Israel.

There is no specific red data book for marine species in Israel and evaluating the status of most species requires further research.

Protected areas: 13 short strips along the Mediterranean coast line of Israel are protected. These strips are spread from north to south and are intervened by urbanized and developed areas. Only two of these protected marine reserves have a full legal status while the rest are in various stages of legislation. All species are fully protected by law in these reserves.

Protected species: All the marine mammals, birds and turtles are fully protected by law in Israel. Most of the fish species are not protected (outside reserves), including all sharks. Only the following families of bone-fish are (fully) protected by law (this list was updated recently) *Fistularidae*; *Syngnethidae*; *Cararidae*; *Pegasidae*; *Solenostomidae*; *Centriscidae*; *Antennaridae*; *Pseudochromidae*; *Anomalopidae*; *Plesiopidae*; *Malacanthidae*; *Mugiloididae*; *Acanthuridae*; *Ostraciidae*; *Diodontidae*; *Molidae*; *Gobiesocidae*; *Apogonidae*; *Nemipteridae*; *Ephippidae*; *Monodaetyliidae*; *Pomacentridae*; *Chaetodontidae*; *Pomacanthidae*.

There is also special legislation to control methods used in fishing.

Invertebrates: All mollusc species are fully protected by law in Israel, as well as all species of the Phylums: *Coelenterata* and *Echinodermata*. No other marine invertebrates are protected in the Mediterranean coast line, outside the reserves.

ITALY

ITALIE

Une des formes de protection des espèces employées en Italie est la mise en place d'aires protégées, pour le milieu marin se sont les réserves marines telles que la réserve marine de Miramare dans l'Adriatique et la réserve marine d'Ustica en Sicile. Mais l'Italie dispose aussi de textes ciblés sur la protection de certaines espèces telles que le phoque moine, les tortues marines, les cétacés et certaines espèces de poisson. C'est ainsi que le décret promulgué par le Ministère de la Marine Marchande en mai 1989 interdit la pêche, la possession, le transport et la vente de cétacés, tortues marines et esturgeons. Généralement on peut dire que la surveillance de l'application de ces lois est relativement efficace.

La législation régissant la pêche permet aussi la protection de certaines espèces c'est le cas des deux espèces de *Lithophaga*. Cette législation se compose de plusieurs textes dont notamment deux lois de base. Ces textes réglementent les types de pêche, les saisons et d'autres aspects relatifs aux engins et les dimensions minimales de capture. Plusieurs espèces de poisson sont concernées par cette législation mais aussi d'autres organismes tels que les crustacés, les

mollusques, les coelentérés, porifères etc...

La protection de la faune marine a fait l'objet d'un volume du "BOLLETTINO DEI MUSEI E DEGLI ISTITUTI BIOLOGICI DELL'UNIVERSITA DI GENOVA". Ce document contient plusieurs informations sur l'état des populations et l'impact sur les espèces de certaines pratiques humaines telles que la pêche. Des articles ont été consacrés aux espèces et écosystèmes les plus menacés avec évaluation des degrés de menaces.

LIBYA

LIBYE

Protected areas

There are three protected areas that differ in their marine ecology, one of them is El kouf National Park (the only protected area) and the other two areas, El hisha and Garabulli

1- EL Kouf National Park: 20 Km of shoreline are included within the park area , which amounts in total to 32,000 Km.

2- EL Hisha Reserve: the project involves a large reserve that are extends across an area of some 160,000 km.

3- Garabulli area: This proposed as protected site for conservation , all the necessary studied has been finished long time ago but its establishment as protected area was delayed.

Legislation and rules

The law No. 14 and technical interpretation(1989) including the items,75,76, 77, concerning the protected areas and endangered species the endangered marine creatures. The items 31 and 39 concerning the fishing method.

The General Secretariat of Marine Wealth proposal in 1993 which declared two protected areas a long the Libyan National water located at:long 11:30E to 12:00N of the Eastern part of Libya, From Long 24:30 N to 25:50 E of the Western part. This is to give a chance for the marine life reproduction.

MALTA

MALTE

Documentation

(1) Localities with conservation value in the Malta Islands (1987)

(2) Red Data Book for the Maltese Islands (1989)

-(1) is now being thoroughly revised the new version is expected in early 1996

-(2) covers biota from all taxa about which sufficient information is available whether marine or terrestrial. Several marine biota included in sections or respective taxa. A separate section on marine plants is included.

Main legislation

(1) Environment Protection text 1991 [EPA]

- empower responsible Minister to declare nature reserves as well as to protect specific taxa.

(2) Development planning text 1992 [DPA]

- proposes to harmonise the needs of development with those of conservation
- backed by the structure plan for the Maltese Islands which set out criteria for conservation and development.

Protected areas (by virtue of EPA)

(1) Islands of Filfla: Fungees Rock; St. Paul's Island

(2) Saline Marshes: Ghadira; also in consideration, Marsaxlokk marshes.

Protected Areas (by virtue of DPA)

(1) Ramla (Gozo) Dune

(2) Ghadira

Protected biota (by virtue of EPA)

- Legal nature 76-1992- All reptiles including marine turtles

- Legal nature 77-1992 - All marine mammals

- Legal nature 79-1993 - Some plant species including cliff species

-See birds (all)

Structure Plan (document booking DPA)

- suggests a number of localities to be considered as Marine Parks -one of them in Gozo will be established in the near future.

Fishing no fish specifically protected but several regulation covering fishing methods etc.

Imminent Legislation

- Parliamentary secretary for the Environment declared publicly (15/06/1995) the interest in legislation in favour of Posidonia protection.

- Some source: regulation to prohibit fishing by scuba divers.

MONACO

La protection de la faune et de la flore se fait à Monaco par le biais de l'ordonnance Souveraine du 2 Juillet 1908 sur le Service de la Marine et de la Police Maritime telle que modifiée par des Ordonnances ultérieures.

Il existe deux aires protégées à Monaco:

- La réserve sous-marine du Larvotto créée en 1976 principalement pour la protection de l'herbier de Posidonies.

- la réserve à corail rouge créée en 1986.

Toute activité de pêche et de pêche sous marine est interdites dans ces zones. Y

sont également prohibés tout fait de nature à porter atteinte à la faune, à la flore et aux fonds marins.

La protection s'est accrue au fil des amendements avec extension des zones à pêche interdite et à navigation interdite.

L'Ordonnance Souveraine du 2 juillet 1908 régleme la pêche et les captures des espèces marines comme la langouste, le homard, l'oursin, la crevette grise ou rouge. Le mérou, le corb et les mammifères marins sont totalement protégés, des dispositions particulières ont été prises pour les mammifères marins. Ces dispositions stipulent qu'"en cas de capture accidentelle, ces animaux doivent être immédiatement relâchés dans des conditions propres à assurer leur survie". D'autre part des dispositions novatrices sont introduites sur les filets maillants dérivants ou chaluts pélagiques dont l'usage, la tentative d'usage et la complicité d'usage sont prohibés. Il est à noter que des négociations sont en cours avec l'Italie et la France pour la création d'un Sanctuaire Corso-Liguro-Provinçal pour les mammifères marins.

Certaines pratiques de pêche sont prohibées telles que l'usage des explosifs, des drogues, des armes à feu, des dragues et l'électrocution. De même le maillage de certains engins est réglementé.

Sur le plan terrestre, la chasse est prohibée à Monaco par une Ordonnance Souveraine de 1887. La protection de la flore est une préoccupation ancienne, diverses Ordonnances Souveraines visent à assurer cette protection sous forme par exemple d'interdiction d'"abattre ou d'ébrancher aucun arbre quelle qu'en soit l'espèce".

Actuellement une loi cadre sur l'Environnement est en cour de réalisation.

MOROCCO

MAROC

Le royaume du Maroc a procédé à une étude globale sur les sites d'intérêt écologique et biologique à travers le pays. Ce travail a débouché sur l'établissement du plan directeur des aires protégées qui comprend une vingtaine de sites littoraux de Méditerranée. Ce plan directeur compte également une "liste rouge" d'espèces de faune et de flore du domaine continental.

Sur le littoral atlantique, un parc national est encours de création pour la protection dans sa zone maritime de la plus importante colonie de Phoque-Moine (*Monachus monachus*) qui existe actuellement. Pour la protection de cette même espèce, l'arrêté annuel de la chasse du Ministère de l'Agriculture et de la mise en valeur Agricole la classe dans la liste des "espèces protégées" depuis 1992. De même, un arrêté du Ministère de pêche maritime et de la marine marchande a été pris en 1994 pour interdire la pêche autour de la colonie des Phoques sur les côtes atlantiques marocaines.

Le respect de la période du "repos biologique" décrété par le Ministère des pêches annuellement est une autre mesure de conservation des ressources halieutiques.

Pour les espèces migratrices telles que l'Alose (*Alosa alosa*) et l'Anguille (*Anguilla anguilla*) qui connaissent des problèmes au cours de leur migration dans les eaux intérieures au niveau des principales rivières (Sebou, Oum Erbia), un plan de dépollution de ces rivières est entamé en s'attaquant aux causes des pollutions organiques et industrielles par la prise de mesures appropriées par les différentes branches concernées.

Enfin, une loi sur l'eau vient d'être approuvée celles sur l'environnement et sur la protection de la nature et des forêts sont en cours d'étude dans un stade avancé.

SLOVENIA **SLOVENIE**

The Slovenian coast is short (46 km) and rather highly urbanized. There are just about 18% of natural coastline left but even in this case the direct hinterland is used for agricultural and touristical purposes.

The conservation of species and the institution of protected areas are regulated by the law on natural and cultural heritage protection (1981) and by the latest law on the protection of the environment (1973). As the species protection is concerned, there is an old governmental decree on protected plant species which covers truly some twenty terrestrial ones and none of the marine flora. Nevertheless, *Posidonia oceanica* is now listed on the Plant Red Data Book. In 1993 the government adopted a decree on the protected animal species both terrestrial and marine. There are more than 50 species on the list. The high number is mostly due to the threats of urbanization, including tourism, and fishing (trawling).

There are seven marine and coastal protected areas (or bound to be protected) on the Slovenian coast, two of them are important bird areas. Among the five left, there is the only *Posidonia oceanica* meadow in the gulf of Trieste, and a marine and coastal nature reserve that covers almost 10% of the Slovenian coast with all the typical geomorphological and biological features.

SPAIN **ESPAGNE**

In Spain the main regulation in the field of the protection of nature is the Law concerning the conservation of natural areas and wild fauna and flora. This law have been declared in 1989 and it cover the protection of both natural sites and species. On the other hand there are different regulations established by the authorities of the autonomic regions.

For the Mediterranean coasts of Spain these regions are Catalonia, Valencia, Murcia, Andalusia and Balearic Islands. Along the Mediterranean coast of Spain, while important steps are undertaken in the field of natural areas conservation, the

conservation of species remains not well developed. Under the Law for the conservation of natural areas and wild fauna and flora several marine protected areas have been established.

Concerning species, a red book have been elaborated for the species in need of special protection in Spain. A limited number of marine species are listed in the red book which include some birds, all the marine mammal species recorded in Spain and the marine turtle species. *Valencia hispanica* and *Aphanius iberus* are among the fish species listed in the red book.

In Spain the conservation of species is also covered by fishing laws. This is the case of some sponge species and the red coral.

Spain started the elaboration of the national strategy for the conservation and management of biodiversity. Under this project a document on habitats and species will be prepared, a scientific committee is being established for the preparation of the sections relative to the marine environment.

SYRIA **SYRIE**

La côte syrienne fait partie du bassin méditerranéen oriental. Elle s'étend sur 180 km et elle est caractérisée par sa pauvreté en ressources biologique marines. L'expédition du bateau de recherche russe Viteaze effectuée dans les eaux syriennes en 1992 a estimé la biomasse Benthique dans les profondeurs de 45m à 20g/m², à 0,6g/m² dans les profondeurs de 200 à 500m et à 0,3g/m² entre 500 et 1200m. Cette pauvreté est confirmée par les faibles apports de la pêche, qui ne dépassent pas 1200 T/an.

La protection légale des espèces est régie par la "Loi de protection des êtres vivants aquatiques" de 1964. Cette loi interdit notamment la pêche à la dynamite et au poison, l'utilisation d'engins dévastateurs ainsi que toute activité pouvant nuire aux espèces aquatiques, même celles n'ayant pas un intérêt commercial.

Il est à noter que plusieurs espèces considérées menacées à travers la Méditerranée ne le sont pas en Syrie en raison de l'absence de certaines pratiques nocives ainsi que l'inexistence d'exploitation en raison des habitudes alimentaires. C'est le cas de certains mollusques bivalves et de l'oursin.

Pour ce qui est des tortues marines, la Syrie participe dans les programmes d'études lancés par le CAR/ASP. Le phoque moine semble encore exister en Syrie dans la région de Lattaquie. Les oiseaux jouissent en Syrie d'une protection totale puisque la chasse des oiseaux est complètement interdite en Syrie.

Les principales menaces pesant sur les espèces marines en Syrie sont: la pêche illégale par dynamitage, la pollution par hydrocarbure (raffinerie terminal d'Oléoduc), l'extraction de sable de plage et le déversement directe des eaux usées surtout près des grandes villes.

Pour améliorer la conservation des espèces marines les mesures suivantes sont

envisagées en plus de l'application stricte des lois existantes: Intensifier les études dans le domaine marin pour combler les lacunes existantes dans ce domaine, la création d'aires protégées et la construction de stations d'épuration.

TUNISIA

TUNISIE

Actuellement, la Tunisie compte 8 parcs nationaux et une vingtaine de réserves naturelles parmi lesquels 5 sont côtiers ou marins. Ces aires protégées sont notamment créées pour conserver un certain nombre d'écosystèmes fragiles et des espèces menacées. Elles jouent aussi un rôle important dans la conservation de la diversité biologique dans le pays.

La loi n°94 -13 du 31 Janvier 1994 relative à l'exercice de la pêche aborde dans son chapitre IV la protection des espèces aquatiques. Cette loi est complétée par d'autres textes dont notamment l'arrêté du Ministre de l'Agriculture relatif à l'exercice de la pêche qui régit l'exploitation des espèces de poisson de mollusques et d'éponges à travers des dispositions relatives aux tailles minimales, aux périodes de pêche et au zonage. Ce texte protège aussi le phoque moine, les tortues marines et les cétacés.

La chasse est réglementée par l'arrêté annuel de la chasse qui fixe les périodes, les espèces, les méthodes etc... C'est à travers cet arrêté que plusieurs espèces sont protégées, notamment celles listées dans son article 7. En fait cet article, constitue de nos jours la seule liste (implicitement rouge) des espèces de mammifères, oiseaux, reptiles et batraciens dont la chasse (ou pêche), la destruction, la vente, le colportage, la détention, l'exportation, l'importation et le transit sont prohibés.

Une étude est en cours en vue d'évaluer l'état actuel de la diversité biologique en Tunisie afin de pouvoir mettre dans des étapes ultérieures une stratégie de sa conservation.

TURKEY

TURQUIE

For the conservation of flora and fauna species and their habitats 6 special laws have been entered into force in Turkey, these are: National Park Law, Hunting Law, Forest Law, Environment Law, Aquatic products Law and the Law on Natural and Cultural Heritage.

Under the provisions of this legislative framework 29 National Parks, 11 Natural parks, 54 Natural Monuments, 32 Nature Reserve Areas, more than a hundred game and wild life reserves, 12 Specially Protected Areas and 48 protection Forests were established for the protection of threatened species and unique habitats. 10 National Parks, 4 Nature Parks, 6 Nature reserves and 9 specially protected Areas lies within the mediterranean region.

In order to provide better conservation for the most threatened species of

mediterranean marine environment; mediterranean monk seal and two species of marine turtles (*Caretta caretta* and *chelonia mydas*) some specially protected areas were established. Furthermore two national committees for research, monitoring and review of conservation activities for these species were established since 1986. These committees constitute representatives of related ministries, universities and NGO'S.

We have data lists for plants, mammals, birds, reptiles, amphibians and freshwater fishes. But these lists not cover all marine species.

Turkey is in the process of formulating a National Environmental strategy and action plan with the technical support of world Bank. In this framework, more than 10 working groups have been set up with the participation from public and private sectors, NGO'S and academic institutions with a view to identify environmental priorities and integrating environmental considerations to sectoral policies.

List of endangered or threatened species

Magnoliophyta

1. *Cymodocea nodosa*
2. *Posidonia oceanica*
3. *Zostera marina*
4. *Zostera noltii*

Chlorophyta

5. *Caulerpa ollivieri*

Phaeophyta

6. *Cystoseira amentacea*(inclus var. *stricta* et var. *spicata*)
7. *Cystoseira mediterranea*
8. *Cystoseira sedoides*
9. *Cystoseira spinosa*
(inclu *C. adriatica*)
10. *Cystoseira zosteroides*
11. *Laminaria rodriguezii*

Rhodophyta

12. *Goniolithon byssoides*
13. *Lithophyllum lichenoides*
14. *Ptilophora mediterranea*
15. *Schimmelmannia schousboei*

Porifera

16. *Abestopluma hypogea*
17. *Aplysina* sp. plur.
18. *Axinella cannabina*
19. *Axinella polypoides*
20. *Geodia cydonium*
21. *Ircinia foetida*
22. *Ircinia pipetta*
23. *Petrobiona massiliana*
24. *Tethya* sp. plur.

Cnidaria

25. *Astroides calycularis*
26. *Errina aspera*
27. *Gerardia savaglia*

Echinodermata

28. *Asterina pancerii*
29. *Centrostephanus longispinus*
30. *Ophidiaster ophidianus*

Bryozoa

31. *Hornera lichenoides*

Mollusca

32. *Ampulla priamus*
33. *Argobuccinum olearium*
(= *A. giganteum*)
34. *Charonia rubicunda*
(= *Ch. lampas*, = *Ch. nodiferum*)
35. *Charonia tritonis*
(= *Ch. seguenziae*)
36. *Dendropoma petraeum*
37. *Erosaria spurca*
38. *Gibbula nivosa*
39. *Lithophaga lithophaga*
40. *Luria lurida* (= *Cypraea lurida*)
41. *Mitra zonata*
42. *Panopea glycymeris*
43. *Patella ferruginea*
44. *Patella nigra*
45. *Pholas dactylus*
46. *Pinna nobilis*
47. *Pinna pernula*
48. *Schilderia achatidea*
49. *Solemya togata*
50. *Tonna galea*
51. *Zonaria pyrum*

Crustacea

52. *Ocypode cursor*
53. *Pachylasma giganteum*

Pisces

54. *Acipenser naccarii*
55. *Acipenser sturio*
56. *Aphanius fasciatus*
57. *Aphanius iberus*
58. *Cetorhinus maximus*
59. *Carcharodon carcharias*
60. *Hippocampus ramulosus*
61. *Hippocampus hippocampus*
62. *Huso huso*
63. *Lethenteron zanandrai*
64. *Pomatoschistus canestrinii*
65. *Pomatoschistus tortonesei*
66. *Valencia hispanica*

Reptiles

- 67. *Caretta caretta*
- 68. *Chelonia mydas*
- 69. *Dermochelys coriacea*
- 70. *Lepidochelys kempii*
- 71. *Trionyx triunguis*

Aves

- 72. *Pandion haliaetus*
- 73. *Calonectris diomedea*
- (74. *Falco eleonora*)*
- 75. *Hydrobates pelagicus*
- 76. *Larus audouinii*
- 77. (*Numenius tenuirostris*)*
- 78. *Phalacrocorax aristotelis*
- 79. *Phalacrocorax pygmaeus*
- 80. *Pelecanus onocrotalus*
- 81. *Pelecanus crispus*
- 82. (*Phoenicopterus ruber*)*
- 83. *Puffinus yelkouan*
- 84. *Sterna albifrons*
- (85. *Sterna bengalensis*)*
- 86. *Sterna sandvicensis*

Mammalia

- 87. *Balaenoptera acutorostrata*
- 88. *Balaenoptera borealis*
- 89. *Balaenoptera physalus*
- 90. *Delphinus delphis*
- 91. *Eubalaena glacialis*
- 92. *Globicephala melas*
- 93. *Grampus griseus*
- 94. *Kogia simus*
- 95. *Megaptera novaeangliae*
- 96. *Mesoplodon densirostris*
- 97. *Monachus monachus*
- 98. *Orcinus orca*
- 99. *Phocoena phocoena*
- 100. *Physeter macrocephalus*
- 101. *Pseudorca crassidens*
- 102. *Stenella coeruleoalba*
- 103. *Steno bredanensis*
- 104. *Tursiops truncatus*
- 105. *Ziphius cavirostris*

*The inclusion of this species should be confirmed

List of species whose exploitation should be regulated

Porifera

1. *Hippospongia communis*
2. *Spongia agaricina*
3. *Spongia officinalis*
4. *Spongia zimocca*

Cnidaria

5. *Antipathes* sp. plur.
6. *Corallium rubrum*

Echinodermata

7. *Paracentrotus lividus*

Crustacea

8. *Homarus gammarus*
9. *Maja squinado*
10. *Palinurus elephas*
11. *Scyllarides latus*
12. *Scyllarides pigmeus*
13. *Scyllarus arctus*

Pisces

14. *Alosa alosa*
15. *Alosa fallax*
16. *Anguilla anguilla*
17. *Epinephelus marginatus*
18. *Isurus oxyrinchus*
19. *Lamna nasus*
20. *Lampetra fluviatilis*
21. *Mobula mobula*
22. *Petromyzon marinus*
23. *Prionace glauca*
24. *Raja alba*
25. *Sciaena umbra*
26. *Squatina squatina*
27. *Thunnus thynnus*
28. *Umbrina cirrosa*
29. *Xiphias gladius*

USED ABBREVIATIONS

AC : Alghero convention (1995) on coastal and marine biodiversity in the Mediterranean.

BC : Convention on the conservation of European wildlife and natural habitats ("Bern Convention"). Convention relative à la conservation de la vie sauvage et du milieu naturel en Europe ("Convention de Berne"). Appendices to the Convention. Annexes à la Convention. Strasbourg, T-PVS (93) 16 : 1-18.

CLR : BOUDOURESQUE C.F., AVON M., GRAVEZ V. (édit.), 1991. Les espèces marines à protéger en Méditerranée. Deuxièmes Rencontres Scientifiques de la Côte Bleue, Carry-le-Rouet, 18-19 Nov. 1989. GIS Posidonie publ., Fr. : 1-448.

HD : Habitats Directive, EEC 1991.

IUCN : WELLS S.M., PYLE R.M., COLLINS N.M., 1983. The IUCN invertebrate red data book. IUCN publ., Gland, Suisse : i-ii + 1-632.

LRF : BEAUFORT F. de, LACAZE J.C. (édit), 1987. Livre rouge des espèces menacées en France. Tome 2. Espèces marines et littorales menacées. Muséum National d'Histoire Naturelle publ., Paris, Fr. : 1-356.

LRV : Livre rouge "Gérard VUIGNIER" des végétaux, peuplements et paysages marins menacés de Méditerranée. Programme des Nations Unies pour l'Environnement (PNUE-PAM-CAR-ASP-IUCN) et GIS Posidonie publ. : 1-250.

STOA : BOUDOURESQUE C.F., 1993. Etat actuel de la biodiversité marine en Méditerranée. *Pollution of the Mediterranean Sea : pollution research and environmental monitoring. Analyses, recommendations and assessment of the scientific and technological options.* BRIAND F. édit, European Parliament, Directorate General for Research, Scientific and Technological Options Assessment (STOA), CIESM publ., Monaco : 75-90.

UNEP : HUNNAM P.J., 1980. Mediterranean marine species in possible need of protection. UNEP/IG.20/INF.6, UNEP publ., Athènes, Gr. : 1-41.

WC : CITES: Convention on International Trade in Endangered Species of Wild Fauna and Flora (Washington Convention).

Table 1: Scale of intensity of threat (see Agenda item 6).

Level	Definition of intensity of problem
0	No threat.
1	Still average, but could become serious in the next decade
2	Serious at least locally.
3	Serious, in a large part of the species' Mediterranean area.
4	Very serious; the species, or its Mediterranean sites, could disappear over the coming decades.
5	Perhaps irreversible decline; efforts should be increased to save the species.

Table 2: Scale of intensity of the problem posed by a species (see Agenda item 7).

Level	Definition of intensity of problem
0	There does not appear to be any major problem.
1	It is not sure whether stocks have begun to decline, but it is probable that such decline will occur in the short or medium term if no measures are taken to control exploitation.
2	Locally, stocks have more or less declined; exploitation nevertheless remains possible. It is possible that this exploitation will result in problems affecting other species or the ecosystem. The species is not threatened, and it is improbable that it will be in the foreseeable future.
3	Locally, stocks have declined strongly, to the point where exploitation is no longer possible there. Nevertheless, the species is not threatened, and it is unlikely to be so in the foreseeable future.
4	Stocks have strongly declined locally, to the point where exploitation is no longer possible there. If current trends continue, and in the absence of regulation, the species might, in the medium or long term, move into the category of threatened species.
5	The state of stocks is such that exploitation is no longer possible in the greater part of the Mediterranean, and the species might move into the category of threatened species if its exploitation is not regulated as a matter of urgency.