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MEDITERRANEAN ACTION PLAN

Sixth meeting of National Focal Points for SPAs

Marseilles, 17-20 June 2003

REPORT OF THE SIXTH MEETING OF NATIONAL FOCAL POINTS FOR SPAs

UNEP
RAC/SPA - Tunis, 2003

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Introduction

1. At their Twelfth Meeting (Monaco, 14-17 November 2001), the Contracting Parties to the Convention for the Protection of the Mediterranean Sea against Pollution invited the Regional Activity Centre for Specially Protected Areas (RAC/SPA) to convene the Sixth Meeting of the National Focal Points for Specially Protected Areas in 2003.

2. The Meeting was held at the Conseil Régional de Provence-Alpes-Côte d'Azur, Hôtel de la Région, Marseilles, France, from 17 to 20 June 2003, and was organized thanks to the generous financial contribution made by the Région Provence-Alpes-Côte d'Azur.

Participation

3. The Meeting was attended by representatives of the following Contracting Parties: Albania, Bosnia and Herzegovina, Croatia, Cyprus, Egypt, European Community, France, Greece, Israel, Italy, Lebanon, Libyan Arab Jamahiriya, Monaco, Morocco, Slovenia, Spain, Syrian Arab Republic and Tunisia.

4. The Coordinating Unit for the Mediterranean Action Plan (UNEP/MEDU) and the following Regional Activity Centres (RACs) were represented: 100 Historic Sites and REMPEC.

5. The following institutions and organizations were represented by observers: Aegaen Society for the Conservation of Nature, African Eurasian Migratory Waterbird Agreement (AEWA), ARCHELON Sea Turtle Protection Society of Greece, Secretariat of the Convention on Migratory Species of Wild Animals, Groupe Tunisien d'Ornithologues, Inter-Islamic Network for Sciences and Technology on Oceanography (INOC), IUCN Centre for Mediterranean Cooperation, Executive Secretariat of ACCOBAMS, MEDASSET, MEDMARAVIS, MedWet, Seagrass 2000, SEO/BirdLife, Tethys Research Institute, WWF France and WWF Mediterranean Programme Office.

6. RAC/SPA acted as the secretariat for the Meeting.

7. The list of participants is attached as Annex I to the present report

Agenda item 1 - Opening of the Meeting

8. Mr. Mohamed Adel Hentati, Director of RAC/SPA, welcomed participants and expressed thanks to the Government of France and to the Région Provence-Alpes-Côte d'Azur for the assistance provided in hosting the Meeting. Pointing to the important work ahead of participants, he outlined the main points on the agenda.

9. Mr. Arab Hoballah, Deputy Coordinator, Mediterranean Action Plan (UNEP-MAP), also expressed thanks to the Government of France and to the Région Provence-Alpes-Côte d'Azur for their support in organizing the Meeting. He underlined the importance attached to biodiversity by the United Nations and UNEP and stressed

the need for countries to show an increase in the practical results of their work under the SPA Protocol. RAC/SPA found itself at an important crossroads. It had acted as catalyst for the requisite legal structures for conservation of biodiversity and the creation of protected areas, but now came the time for a change of direction towards further implementation. In that connection, it was necessary to identify the major actors, to make them aware of the importance of biological diversity and the conservation of species and areas, and to build constructive partnerships to face the challenges together in a strategic and systematic way.

10. The evaluation of RAC/SPA that was on the agenda at the current Meeting provided an opportunity to give new meaning and vision to the Centre. It was necessary for participants to identify new directions and guidance, which could be reviewed at the next meeting of the MAP Focal Points in September 2003 and translated into measures and activities for consideration by the Meeting of the Parties in November 2003.

11. He hoped that the Meeting would provide an important impetus for the debate on the future of RAC/SPA, one of the central pillars of the Mediterranean Action Plan, and would mark a turning point in the history of the Centre and in its contribution to the sustainable use and conservation of the biodiversity of the Mediterranean.

12. Mr. Jean-Marc Michel, representative of the French Ministry of Ecology and Sustainable Development, welcomed participants and expressed thanks to the Région Provence-Alpes-Côte d'Azur for hosting the Meeting and helping in its organisation. He added that after Port-Cros in 1998 and Montpellier in 1995 and 2000, France expressed its interest in the technical and scientific work that RAC/SPA is leading with the Contracting Parties to the Barcelona Convention. Stressing his Government's commitment to the activities under the Barcelona Convention, he pointed to the progress France had made in the protection of natural heritage and the creation of SPAs. He notably announced the creation by his country (April 2003) of an ecological protection area (Z.P.E) specific to the Mediterranean that is likely to extend the right of the fight against pollution. He also indicated that France adopted international agreements on migratory birds (AEWA) and on marine mammals (ACCOBAMS). Mentioning the Sanctuary for marine mammals, Mr. Michel underlined that the latter enjoyed a regulatory recognition (decree of 18 July 2002) and will be the subject of a programme for specific study and research. Thus, the management of the area will allow a better involvement of sea workers. Concerning the development of RAC/SPA, one needed to be proud of past achievements, but realistic about what it was possible to accomplish in the future. Referring to the deliberations of the Earth Summits of Rio and Johannesburg, Mr. Michel indicated that it was necessary to find a way to integrate concerns about biodiversity into economic aspects and considerations. The Mediterranean region faced huge challenges, and he expressed hope that new policies and strategies would be found to meet them.

13. Mr. Michel Vauzelle, President of the Conseil Régional de Provence-Alpes-Côtes d'Azur, after welcoming participants, stressed that the Région Provence-Alpes-Côtes d'Azur had always been interested in cooperation with the other regions of the Mediterranean basin and that the present meeting is stressing this

tendency. He stressed that such meetings are important instrument of rapprochement between the Mediterranean countries and a means towards the reinforcement of the links of solidarity and cooperation between them, through activities carried out for the conservation of the environment in the Mediterranean area. In addition, he pointed out the Région's efforts for the protection of its coastal and marine environment. He finally wished a good continuation and full success for the deliberations of the meeting.

14. Mr. Robert Allione, Vice-President of the Région Provence-Alpes-Côte d'Azur, welcomed participants and expressed gratitude at the honour of hosting the Meeting, which he hoped would be significant for the future activities of RAC/SPA. Pointing to the Région's efforts to do its utmost for the protection of its coastal and marine environment, he underlined the need to strike a balance between conservation and economic, cultural and recreational factors. It was necessary to work in close collaboration with all the major actors, and the Région consistently pursued a multi-partnership policy.

15. He wished participants success in their deliberations and in the drafting of their recommendations, and wished them all a pleasant stay in Marseilles. He officially declared the Meeting open at 10 a.m. on Tuesday, 17 June 2003.

Agenda item 2 - Rules of Procedure

16. The Meeting noted that the Rules of Procedure adopted for Meetings and Conferences of the Contracting Parties to the Convention for the Protection of the Mediterranean Sea against Pollution and its Protocols (UNEP(OCA)/IG.43/6, Annex XI) would apply *mutatis mutandis* to its deliberations.

Agenda item 3 - Election of Officers

17. After informal consultations, the Meeting unanimously elected the following officers:

Chairperson:	Mr. Patrick VAN KLAVEREN (Monaco)
Vice-Chairpersons:	Mr. Moustafa Mokhtar FOUDA (Egypt) Ms. Stavroula SPYROPOULOU (Greece)
Rapporteur:	Ms. Myroula HADJICHRISTOFOROU (Cyprus)

Agenda item 4 - Adoption of the agenda and organization of work

18. The Meeting adopted the provisional agenda contained in document UNEP(DEC)/MED WG.232/1. The agenda is attached as Annex II to the present report.

19. The Meeting approved the organization of work proposed by the Secretariat, as contained in the annotated provisional agenda of the Meeting (document UNEP(DEC)/MED WG.232/2), with the amendment that the consideration of item

11, on the evaluation of RAC/SPA, would take place in the morning session on Wednesday, 18 June 2003.

Agenda item 5 - Country Reports on Conservation of Natural Sites and Species

20. The Director of RAC/SPA introduced document UNEP(DEC)/MED WG.232/3, "Status of the Implementation of the SPA Protocol" which, in line with the format agreed at the Fifth Meeting of the Focal Points for SPAs, contained a synthesis of the reports received by the Secretariat from the NFPs for SPAs on the activities undertaken in their countries to implement the SPA Protocol, as well as the full reports themselves. He explained that, for reasons of completeness, those Parties that had not yet done so were still able to submit their reports and amendments by 15 July 2003, to enable the Secretariat to incorporate them into the document. Parties that wished to provide supplementary information were invited to address the Meeting.

21. It was explained that the information contained in document UNEP(DEC)/MED WG.232/3 would be amended by RAC/SPA in light of the comments made by participants and attached to the present report as Annex III.

22. Several representatives underlined the need for the report to be supplemented, rechecked and harmonized by the Secretariat before being submitted for further consideration by another body. One considered that a gap analysis should be carried out prior to the next meeting of NFPs. In addition, she considered that it was necessary to draw greater attention to the positive points that had been mentioned by Parties in their national reports. Perhaps it would also be possible to make use of the reporting formats already used by Parties with respect to other international environmental conservation agreements. One representative confirms his interest of including in the report the efforts displayed par the countries of the region in implementing the Protocol and added that his country will send its report to the Secretariat as soon as possible.

23. Some representatives highlighted the good cooperation with RAC/SPA during the period under review and expressed gratitude for the assistance provided.

Institutional and legal framework governing the conservation of species and sites

24. A number of representatives described the establishment of new management bodies in their countries, and the introduction of administrative changes to formalize and enhance the status of a number of protected areas, as well as plans to create new areas for the protection of marine and coastal biodiversity.

Status of signature/ratification of relevant international agreements

25. A number of representatives said that their Governments had taken decisions to complete or initiate ratification procedures for the several biodiversity-related agreements. Attention was drawn to the need to complement the ratification of action plans by clearly identifying the ways and means to implement them.

26. The Executive Secretary of AEWA noted the good progress made in the ratification of the Agreement by the Parties to the Barcelona Convention, and looked forward to close cooperation with RAC/SPA in the future.

Protected marine and coastal species of fauna and flora

27. One representative, noting the variations in abundance of populations of various listed species in the different countries, considered that there was a need to review the list of protected species, which might not be applicable for all Parties. It was necessary to provide a justification for listing, for use by decision-makers.

28. In that context, one view held that it was necessary to move beyond the mere listing of species on appendices and to initiate concrete measures to implement conservation decisions. In place of long technical reports, it was desirable for countries to produce short, strategic reports on the activities undertaken for a particular species. It was necessary to raise the awareness of policy makers concerning important issues of biodiversity conservation, but RAC/SPA could not and should not try to implement the relevant activities on its own. A new approach, with the emphasis on partnerships had to be catalysed and that could not happen overnight -- a transition period would be needed.

Activities undertaken in the framework of the implementation of the Action Plans for the conservation of species adopted within MAP

29. Several representatives reported on ongoing and completed work to finalize activities in pursuit of the action plans for the conservation of species.

Collaborative activities undertaken within the framework of the implementation of the Protocol and/or the Action Plans, especially at bilateral or subregional levels

30. One representative said that, within the context of SAP BIO, her Government had prepared an action plan on strategic protection measures and on the physical parameters for SPAs. The plan had been submitted for funding and she expressed the hope that it would be favourably considered.

Agenda item 6 - New Action Plans for Species

31. The Secretariat introduced three new Action Plans, prepared by RAC/SPA in collaboration with experts on the Mediterranean region and the competent organizations. Explaining that the plans were only drafts, he invited participants to propose ways of completing them, with a view to submitting them to the Contracting Parties to the Barcelona Convention.

a) Draft Action Plan for the Conservation of Bird Species listed in Annex II to the Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean

32. The Secretariat emphasized that, as demonstrated by the SAP BIO Project findings, the conservation of birds was an important concern of the countries of the southern Mediterranean. In addition, as a number of representatives of those

countries had stressed, it was necessary to provide adequate means for collection of statistics (population counts), public information and training of local specialists.

33. Several representatives underlined the need for a coherent and concerted regional effort, in order to avoid redundancies and to define clearly the roles and responsibilities of each actor.

34. Participants considered a conference room paper, incorporating the amendments made to the preliminary Draft Action Plan.

35. The Meeting approved the Draft Action Plan for the Conservation of Bird Species listed in Annex II to the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean, as amended, for transmission to the next Meeting of the Contracting Parties to the Barcelona Convention. The Draft Action Plan is contained in Annex V to the present report.

36. The Meeting also approved the recommendations on the Draft Action Plan, for transmission to the next Meeting of the Contracting Parties to the Barcelona Convention. The recommendations are contained in Annex IV to the present report.

b) Draft Action Plan for the Conservation of Cartilaginous Fishes (chondrichthyans) in the Mediterranean Sea

37. The Secretariat recalled that this draft lay within the framework of the Barcelona Convention, the International Plan of Action for the Conservation and Management of Sharks (IPOA-Sharks) of FAO, and the follow-up to the Johannesburg Summit. It was a regional project which aimed to supplement the targeted conservation measures for certain species by operating at the level of habitats and fisheries management.

38. In the face of the disturbing decline in populations, representatives underscored the need for measures to reduce accidental capture, protect critical habitats, develop research and monitoring programmes, and step up the efforts for training of specialists and for public awareness.

39. Several representatives said that other institutions should have been invited to participate in the elaboration of the Draft Action Plan. The Director of RAC/SPA replied that the draft had been prepared with the collaboration of IUCN; GFCM-FAO; and the EU.

40. One representative considered the Action Plan to be one of the most important ever drafted, since some cartilaginous fish were among the most endangered Mediterranean species. He also stressed its urgency, in the light of the fact that fisheries were involved in the issue.

41. One representative expressed concern at the lack of techniques available to reduce by-catch of the species covered by the Action Plan, and considered that there was insufficient knowledge of the species to enable protection measures to be taken. Other representatives considered that methods to reduce by-catch were

already available. Moreover, the new EU fisheries policy took into account the need to reduce by-catch of all pelagic fish, including cartilaginous fish. In any case, it was considered that the precautionary approach should apply.

42. The Meeting approved the Draft Action Plan for the Conservation of Cartilagenous Fishes (chondrichthyans) in the Mediterranean Sea, for transmission to the Thirteenth Meeting of the Contracting Parties to the Barcelona Convention. The Draft Action Plan is contained in Annex VI to the present report.

43. The Meeting approved the recommendations on the Draft Action Plan, for transmission to the Thirteenth Meeting of the Contracting Parties to the Barcelona Convention. The recommendations are contained in Annex IV to the present report.

c) Draft Action Plan concerning species introductions and invasive species in the Mediterranean Sea

44. The Secretariat emphasized the special nature of this draft, which was related to the complexity of the problem and to the scarcity of available data and expertise on the subject. It was pointed out that the Draft Action Plan before the current Meeting had been approved by a meeting of experts, organized by RAC/SPA in Barcelona in October 2002.

45. In the course of the discussion on biological invasion, participants underlined the difference between the natural expansion of the areas of distribution of species and the biological invasions. The role played by global warming in such expansion and/or the changes in the areas of distribution of species was also underlined.

46. The Meeting approved the Draft Action Plan concerning species introductions and invasive species in the Mediterranean Sea, as amended, for transmission to the Thirteenth Meeting of the Contracting Parties to the Barcelona Convention. The Draft Action Plan is contained in Annex VII to the present report.

47. The representative of REMPEC confirmed the will of its organisation to collaborate with RAC/SPA on the issue of ballast water in the framework of the implementation of the Action Plan.

48. The Meeting also approved the recommendations on the Draft Action Plan, for transmission to the Thirteenth Meeting of Contracting Parties to the Barcelona Convention. The recommendations are contained in Annex IV to the present report.

Agenda item 7 - Strategic Action Plan for the Conservation of Biological Diversity (SAP BIO) in the Mediterranean Region

49. The Director of RAC/SPA introduced document UNEP(DEC)/MED WG.232/7, “Draft Strategic Action Plan for the Conservation of Biological Diversity in the Mediterranean Region (SAP BIO)”, and outlined the process that had led to its production. In essence, the aims of the process corresponded directly to the targets set by the World Summit on Sustainable Development (Johannesburg,

September 2002). From the outset, it had been decided that the SAP BIO would be on two levels: regional and national.

50. The national-level process aimed to identify the major threats facing countries' marine and coastal biodiversity, the strategies to overcome them, and the actions for the management and conservation of such biodiversity.

51. The National Correspondents for the SAP BIO had held two meetings, and the Advisory Committee for SAP BIO had met three times: the results of their work were fully reflected in the document before the current Meeting.

52. Mr. Ante Baric, Mediterranean GEF Project Manager, said that the SAP BIO was a strategic document, intended to guide and to commit the Mediterranean countries for the coming 10 to 15 years in the planning, development and implementation of regional and national activities for the preservation of the biodiversity of the Mediterranean region. For that reason, the document had to be concise, concrete and specific. He expressed thanks to RAC/SPA, the members of the Advisory Committee, the National Correspondents for SAP BIO and to all involved in the work to prepare the SAP BIO.

53. He noted that, once the SAP BIO had been finalized and adopted by the Contracting Parties, it would also be a valuable background document for potential donors for follow-up projects. GEF had already expressed interest in financing a large regional project for the protection of biodiversity in the Mediterranean region and the management of its living resources. It was hoped that an outline of the project could be drafted by the end of 2003, following the Thirteenth Meeting of the Contracting Parties.

54. The Secretariat gave a detailed presentation on the SAP BIO, explaining its principles, objectives and operational approaches, and elaborating on the content of each of the chapters. Particular attention was drawn to the chapter on the investment portfolio and to the breakdowns and budgets of the resources necessary to carry out activities at both the national and regional levels, as well as follow-up.

55. A number of participants congratulated RAC/SPA and its partners on the production of such a valuable and detailed document and wished to see all organisations concerned by the exploitation and conservation of living resources in the implementation of SAP BIO.

56. One representative said that it would be useful to have a summarized version of SAP BIO. Expressing the view that it set out too many priority activities, he considered that, to make implementation more feasible, it might be useful to focus on fewer thematic programmes, each to include a number of interested countries. He also pointed to the importance of securing counterpart contributions for national activities.

57. Another representative, pointing to the importance of the SAP BIO, questioned the budgetary prioritization and distribution for some activities. He considered that the budget allocation to activities to overcome the threats to marine and coastal

biodiversity resulting from fisheries was inadequate to address the problem. In addition, the budget allocation for acquisition of information and inventorying seemed out of proportion to what was allocated for training. He wondered whether budgets could be merged to allow the Mediterranean countries to be given training to carry out their own inventorying. In addition, the relatively large proportion of the budget allocated for "other national actions" needed further clarification. It was necessary to concentrate on those components that were linked to the SPA Protocol.

58. One representative, supporting the breakdown of the budget given in the draft SAP BIO, believed that, since the SPA Protocol concerned conservation of species and habitats, it was first necessary to identify what actually existed, before it could be protected. Regarding the impact of fisheries on marine and coastal biodiversity, he considered that, since a number of other organizations were working in the field of fisheries, it was necessary to work in partnership with them. Another representative considered that RAC/SPA and the SPA Protocol needed to cover the interface between fisheries activities and biodiversity conservation needs.

59. The observer from MedWet pointed to the existing close collaboration between his organization and RAC/SPA, particularly in the process of preparing the SAP BIO, where MedWet was a member of the Advisory Committee. He reported that, during the recently held MedWet meeting in Izmir, Turkey, representatives of 25 countries had expressed their full support for SAP BIO and declared their interest in participating in its implementation. Consequently, MedWet was extending its Memorandum of Understanding with RAC/SPA, which was expected to be signed in the near future. He looked forward to very close cooperation in the implementation of the SAP BIO project.

60. The observer from ACCOBAMS, as a member of the Advisory Committee, also pointed to the close cooperation in the preparation of the SAP BIO and underlined the importance of the document as a basis for further collaboration with other organizations. She noted that the last meeting of National Correspondents had called for a review of the guidelines concerning biodiversity and fisheries, and for a reduction in the measures for invasive alien species. In that connection, expressing concern at the apparently low budget for activities to address the impact of fisheries, she wondered whether it would be possible to reallocate budget funds to serve both those ends.

61. Following an inquiry by one representative concerning changes to be made in the respective national investment portfolio, the Secretariat explained that such changes to the draft SAP BIO were possible but, since the document had to be submitted for processing to the MAP Coordinating Unit by 25 June 2003, in time for the September 2003 meeting of MAP National Focal Points, he stressed that all corrections and amendments had to be received by that date.

62. The representative of Israel congratulated the Secretariat on the quality of SAP BIO. However, since it had not yet been possible to conclude the national process of consultation in his country, he could not currently give an official statement on the document.

63. One representative, commenting on the provisions for SAP BIO follow-up, recommended that simple mechanisms be applied and that other funding opportunities be sought in addition to those from UNEP-GEF.

64. The Meeting endorsed the Draft Strategic Action Plan for the Conservation of Biological Diversity (SAP BIO) in the Mediterranean Region for transmission to the Thirteenth Meeting of the Contracting Parties to the Barcelona Convention.

65. The Meeting also approved the recommendations on the Draft SAP BIO for transmission to the Thirteenth Meeting of the Contracting Parties to the Barcelona Convention. The recommendations are contained in Annex IV to the present report.

Agenda item 8 - Development of Marine and Coastal Protected Areas

66. The Director of RAC/SPA introduced the activities carried out by RAC/SPA since the last meeting of the NFPs for SPAs, referring to the relevant section of document UNEP(DEC)MED WG.232/8. He reported on the contacts made with the International Maritime Organization (IMO) in order to provide information about the marine SPAMIs. Those contacts had shown that the best way to ensure adequate recognition of the SPAMIs within the framework of IMO was to establish them as "Particularly sensitive sea areas (PSSAs)". The proposal to establish these PSSAs had to be made by the Party or Parties concerned and would be examined by the IMO committee for protection of the marine environment.

67. Several representatives expressed satisfaction at the steps taken with regard to IMO and the Meeting recommended follow-up to those steps and asked that the Contracting Parties be invited to support the requests formulated to make SPAMIs into PSSAs.

68. One observer recalled that the general trend within IMO was to set up PSSAs only in marine zones with a large area, where marine transportation could represent a threat to the marine environment. His organization had a permanent representative at IMO and was ready to support the steps to make SPAMIs into PSSAs.

SPAMI List (document UNEP(DEC)/MED WG.232/9)

69. The representative of Tunisia reported on activities undertaken in his country to elaborate management plans for the three Tunisian SPAMIs. He said that the documents related to the plans had been transmitted to RAC/SPA. The Meeting noted with satisfaction that the inclusion of the sites in the list of SPAMIs had had a positive impact, namely concerning financial and technical support.

70. The representative of Spain introduced his country's proposals for including the following sites on the SPAMI list: the Cabrera Archipelago; the Chaffarinas Islands; and the Maro-Cerro Gordo cliffs.

71. Concerning the proposals for inclusion on the SPAMI list, the representative of Morocco reported that he wished to consult the relevant authorities in his country before giving a final opinion on the subject.

72. One observer was concerned that the protected areas were too small to ensure the protection of birds, since they covered solely the nesting area. He proposed that the next meeting of NFPs for the SPA Protocol examine the possibility of creating SPAMIs covering large marine areas.

73. Following the discussion on the proposals submitted by Spain to include the three sites in the SPAMI list, the Meeting expressed approval and recommended that the proposals in question be forwarded to the Thirteenth Meeting of the Contracting Parties to the Barcelona Convention. The recommendation is contained in Annex IV to the present report.

Draft criteria and procedures for awarding the "Mediterranean Diploma" for Specially Protected Areas of Mediterranean Importance (SPAMIs) distinguished by the implementation of specific and concrete activities in the field of management and conservation of the Mediterranean natural heritage

74. Introducing the draft criteria and procedures for awarding the "Mediterranean Diploma" for Specially Protected Areas of Mediterranean Importance (SPAMIs) distinguished by the implementation of specific and concrete activities in the field of management and conservation of the Mediterranean natural heritage (document UNEP(DEC)/MED WG.232/10), the Director of RAC/SPA explained that this 'Mediterranean diploma' had been introduced by MAP Phase II. Every two years, a detailed report would be transmitted to RAC/SPA.

75. While they acknowledged the value of the document, several representatives requested that a working group be set up to further refine it. The Meeting decided to recognize the value of the draft submitted, to approve it in principle, and to request RAC/SPA to have a more elaborate text ready for submission to the Meeting of MAP national focal points in order to submit to the next Meeting of Contracting Parties.

Agenda item 9 - Implementation of the Action Plans for the conservation of species adopted within MAP

a) Action Plan for the Management of the Mediterranean Monk Seal

76. The Director of RAC/SPA drew participants' attention to section 1 of the report on the activities carried out by RAC/SPA since the Fifth Meeting of the National Focal Points for SPAs (UNEP(DEC)/MED WG. 232/8). Drawing the attention of the meeting on the importance that the Bureau of the Contracting Parties assign to the issue of the rapid decline of monk seal in the Mediterranean, he reminded that RAC/SPA had pointed out that the actions undertaken for the conservation of the Mediterranean monk seal were, so far, insufficient to ensure its survival. At the request of that meeting, in September 2002 RAC/SPA had organized a meeting of experts to identify and plan concrete actions to protect the species and counter its decline. The report of the expert group was contained in document UNEP(DEC)/MED WG.232/Inf.6, which contained proposals for priority activities for the species, including a timetable and a budget. After that report had been finished, the MAP Bureau stressed the need for RAC/SPA to formulate more

effective measures. RAC/SPA subsequently formulated a set of recommendations, which were contained in Annex 1 of document UNEP(DEC)/MED WG.232/8.

77. One representative, stressing the critical status of the species and its importance as a part of the heritage of the Mediterranean, pointed to the need for a political declaration, addressed to the MAP Focal Points, urging action at a high level to protect the Mediterranean monk seal. He also asked how the need for urgent action would impact on the SAP BIO. In reply, it was pointed out that, within their SAP BIO plans, two countries had action plans for the species.

78. One representative considered that Annex 1 of document UNEP(DEC)/MED WG. 232/8 did not take into consideration the need for an ecosystem approach to protect the species and expressed concern at the recommendations proposed by the Secretariat in its report. His Government preferred that only the recommendations contained in the experts' report be forwarded to the Contracting Parties.

79. One representative remarked on the huge amount of funds spent over all the years for the conservation of the species (salaries, installations, boats, etc.), without positive results. Another representative stressed that the protection of the species, even if it was present in only a few countries, was a collective responsibility. Others noticed the weak interest that NGOs assign to the monk seal protection. Several representatives pointed to the need to encourage the designation of areas with a high density of individuals as areas for special, strong implementation of the Action Plan.

80. The Secretariat stressed that RAC/SPA was very concerned at the poor results of the implementation of the Action Plan to conserve the species, and was frustrated at the lack of progress since the last meeting of the NFPs for SPAs and at the constant delays in the taking of concrete decisions to conserve the species. It was necessary to sound a cry of alarm to halt the decline of the Mediterranean monk seal. As for the application of paragraph 21 of the Action Plan, RAC/SPA considered that there was insufficient scientific and practical knowledge to permit the animals to be handled correctly. The Secretariat stressed that it was necessary to address that lack of knowledge urgently, since such knowledge would be imperative in the near future.

81. The Meeting agreed to take note of the report of the experts, contained in document UNEP(DEC)/MED WG. 232/Inf.6.

82. The Meeting recommended that a high-level meeting be convened by UNEP-MEDU to adopt a strategy to face the decline of the species through the implementation of the Action Plan. The Contracting Parties directly concerned with the conservation of the Mediterranean monk seal would be invited to attend the meeting, as well as relevant international organizations, IGOs and NGOs.

83. The Meeting also recommended that RAC/SPA prepare a proposal for a declaration on the status of the Mediterranean monk seal, to be made by the Contracting Parties at their next ordinary meeting.

b) Action Plan for the Conservation of Mediterranean Marine Turtles

84. The Director of RAC/SPA drew participants' attention to section 2 of the report on the activities carried out by RAC/SPA since the Fifth Meeting of the National Focal Points for SPAs (UNEP(DEC)/MED WG.232/8). He particularly highlighted the importance of the First Mediterranean Conference on Marine Turtles (Rome, 24 to 28 October 2002) and extended thanks to the Government of Italy and to ICRAM for their assistance to RAC/SPA, and to the Bonn and Berne Conventions in organizing the Conference and in helping to make it a success. Many representatives echoed those sentiments.

85. The Director also drew attention to information papers on the standardization of tagging techniques (UNEP(DEC)/MED WG.232/Inf.9) and on the guidelines to improve the involvement of marine turtle rescue centres (UNEP(DEC)/MED WG. 232/Inf.10).

86. A number of representatives described their activities for the conservation of marine turtles, many of which had already been noted in their national reports, and expressed thanks to RAC/SPA and to the NGOs for the assistance provided. They congratulated the first conference scientific committee members for their great contribution and invited the three international organisations to work jointly for the organisation of the second Mediterranean conference on marine turtles.

87. The observer from MEDASSET, noting the positive results in the implementation of the Action Plan, was proud to have been associated in the cooperative efforts with RAC/SPA and Parties, and looked forward to further fruitful cooperation.

88. The observer from CMS also pointed to the excellent cooperation between partners in the activities to conserve Mediterranean marine turtles and expressed the willingness of his organization to continue such cooperation in the run up and organizing of the Second Mediterranean Conference on Marine Turtles.

89. One representative, pointing to the proliferation of tagging programmes and the confused situation in identifying tags, urged action to standardize that activity. He considered that a workshop on the subject, particularly on PIT tags, should be held, perhaps within the framework of the planned Second Mediterranean Conference on Marine Turtles.

90. Other representatives highlighted the great importance of translating and adapting the manual for fishermen into local languages for distribution to fishers and other members of the public. Yet others pointed to the importance of increasing the number of rescue centres.

91. Concerning specific requests for further assistance, the representative of Lebanon requested further support for activities associated with conservation of the population of green turtles identified along the Lebanese coast. The representative of Albania sought assistance and cooperation with organizations and centres working on the conservation of species of Mediterranean marine turtles, in order to obtain experience and to improve working procedures.

92. The Meeting approved the recommendations on the Action Plan, for transmission to the Thirteenth Meeting of the Contracting Parties to the Barcelona Convention. The recommendations are contained in Annex IV to the present report.

93. In addition, the guidelines to improve the involvement of marine turtle rescue centres are contained in Annex VIII to the present report.

c) Action Plan for the Conservation of Cetaceans in the Mediterranean Sea

94. Introducing the item, the Director of RAC/SPA highlighted the excellent cooperation with ACCOBAMS, which had permitted the preparation of various documents with the aim of setting up a network on cetacean strandings in all coastal countries. A workshop had also been organized, with the support of the Government of Tunisia, to assist countries in preparing action plans in line with the relevant provisions of the Barcelona Convention.

95. The Executive Secretariat of ACCOBAMS expressed thanks to RAC/SPA for ensuring the subregional coordination of the Agreement provisions and proposed cooperation in the publication of the relevant documents. It informed the meeting about the support of several NGOs for the Agreement actions (ASMS, WDCS, SEC, IFAW). The Secretariat presented the survey of sperm whale populations that will be in the Ionian Sea this summer thanks to the support of IFAW international NGO (International Fund for Animal Welfare). It announced that this field survey will permit the training of several scientists from Party countries (Albania, Tunisia, Morocco, Syria, Libya, Malta) and non-party countries (Italy, Greece, Egypt, Turkey). The Executive Secretariat also mentioned the support given to the SEC (Spanish Society for Cetology) for the training of scientists from Morocco, Syria and Libya. It reiterated the offer to increase cooperation with RAC/SPA.

96. Referring to the competence, scientific gravitas and effectiveness of ACCOBAMS, several representatives proposed the inclusion of a recommendation encouraging all Contracting Parties to sign the Agreement.

97. One representative proposed to study ways in which to make ACCOBAMS a kind of guiding body for operational-level cetacean conservation activities in the Mediterranean, with RAC/SPA retaining its organizational role. Another representative made the counter-proposal that RAC/SPA should assume responsibility for ACCOBAMS activities in the Mediterranean.

98. The Director of RAC/SPA welcomed those proposals, and noted that, while the operational modalities and the timetable still had to be defined, the result could only be a synergy-induced increase in effectiveness.

99. The Meeting approved the recommendations on the Action Plan, as amended, for transmission to the Thirteenth Meeting of the Contracting Parties to the Barcelona Convention. The recommendations are contained in Annex IV to the present report.

d) Action Plan for the Conservation of Marine Vegetation in the Mediterranean Sea

100. Introducing the most recent of the four Action Plans, the Director of RAC/SPA said that it had already permitted concrete results to be obtained in the field of mapping and monitoring *Posidonia* meadows thanks to the active participation of concerned countries and to the cooperation of specialised institutions. Thanks to the support provided by the Government of Monaco, RAC/SPA had been able to assist several countries in the region in the study and conservation of sea grasses. The Director of RAC/SPA reported that, thanks to the cooperation of the Greek authorities, through the national centre for marine research, the Second Mediterranean Symposium on marine vegetation would be held in Athens on 12 and 13 December 2003.

101. The representative of Tunisia reported on activities carried out in his country for the mapping of sea grass meadows, and thanked RAC/SPA for its support.

102. The representative of Slovenia said that concrete activities had been carried out in his country to study, map and conserve an important sea grass meadow site. In that connection, he thanked RAC/SPA and the Government of Monaco for their support.

103. The observer from SEAGRASS 2000 was pleased to be invited to attend the Meeting of SPA Focal Points for the first time. Underlining the importance and the urgency of the work to be carried out for the conservation of meadows and primary vegetation, she assured RAC/SPA of her organization's willingness to pursue effective cooperation with RAC/SPA in that field.

104. At the suggestion of one representative, the Meeting invited RAC/SPA to work on standardizing the map symbols used for mapping marine meadows and other marine vegetation formations.

Information note concerning the future development of Action Plans for the conservation of species adopted within MAP

105. The Secretariat introduced the information note it had prepared on the subject (UNEP(DEC)/MED WG.232/Inf.4), which was aimed to stimulate thought about the future of action plans and which set out ideas concerning general orientations for models of implementation of such plans and for the creation of new plans. He said that the current entry into force of a more up-to-date and modern SPA Protocol called for a re-thinking and a re-organization of the concept of the action plan for the conservation of Mediterranean species and enumerated some of the reasons for that. Based on those considerations, it could be envisaged that future action plans might best function as a result of cooperative efforts between RAC/SPA and each Party, and he elaborated on the possible tasks envisaged for both sides in that exercise. In addition, action plans that had so far been species-oriented could be ecosystems-oriented, aiming at the conservation of species through ensuring the integrity of particular ecosystem types.

106. In reply to one representative, who pointed out that the existing action plan for Mediterranean vegetation was already oriented toward an ecosystems approach,

the Secretariat explained that, even when an action plan applied an ecosystems approach, its aim was still the conservation of species. Another representative saw problems the defining the terminology and the subdivisions of an action plan based on an ecosystems approach.

107. While it was observed that any change in the orientation of the action plans would affect the assessment of the activities of RAC/SPA, the Secretariat pointed out that it would still continue to look at the role of all the stakeholders in an action plan and to ensure coordination.

108. The Meeting considered that the ideas set out in the information note provided a strong basis for reflection in considering the future activities of the Regional Activity Centre.

Collaboration with other organizations

109. The Director of RAC/SPA reported on the different cooperative links which RAC/SPA had established with relevant international organizations. He recalled that, within the framework of the SAP BIO Project, very close cooperation had been established with several organizations, namely those participating in the Advisory Committee of SAP BIO.

110. The observer from CMS confirmed his organizations' interest in strengthening cooperation with RAC/SPA, which could be expanded to also cover the relevant Agreements under the CMS.

111. The Executive Secretary of ACCOBAMS recalled that RAC/SPA acted as subregional coordinating unit for the Mediterranean within the framework of the Agreement. He offered to activate the Agreement Scientific Committee for all matters related to the implementation of the MAP action plan for the conservation of cetaceans.

112. The observer from IUCN, expressing satisfaction at the cooperation that had existed between RAC/SPA and the IUCN Mediterranean Centre at Malaga since the very opening of the centre, reaffirmed his wish to strengthen the cooperation and the partnership with RAC/SPA and the other components of MAP.

113. The representative of REMPEC confirmed the availability of its organisation to share its expertise with RAC/SPA in the elaboration of emergency plans for SPAs.

Agenda item 10 - Other activities

114. The Secretariat, with reference to the relevant sections of the report on RAC/SPA's activities (document UNEP(DEC)/MED WG.232/8), as well as to other documentation prepared on the issues, informed participants about activities that were not covered by the previous items of the agenda.

a) Draft classification of coastal (terrestrial and wetland) habitat types for the Mediterranean region

115. The Director of RAC/SPA drew attention to section 10 of document UNEP(DEC)/MED WG.232/8, covering data collection and assistance to countries for preparing inventories of species and sites. He gave the background to the development of the proposed new classification system, and pointed to the document which contained the draft classification list (UNEP(DEC)/MED WG.232/11), which was the culmination of all the work done to date.

116. The Secretariat explained that the proposed draft classification was harmonized with the existing habitat classification systems (Corine biotopes and Natura 2000). As for the wetland classification, the Secretariat emphasized that, thanks to the collaboration with MedWet, the proposed classification merged the classifications used by MedWet and within the framework of Corine biotopes, providing an interface for cross-referencing.

117. One observer stressed the need to elaborate such a draft classification for pelagic habitats.

b) Draft Mediterranean Initiative on Taxonomy

118. The Director of RAC/SPA drew attention to document UNEP(DEC)/MED WG.232/12, which had been prepared in accordance with the request of the Twelfth Meeting of the Contracting Parties. He said that the draft had been elaborated in collaboration with an ad hoc group of experts who had met in Tunis from 3 to 5 April 2003.

119. The Meeting congratulated the Secretariat and those who had assisted in the task to prepare the draft initiative on taxonomy, which was considered vital as a tool for work in other areas.

120. One representative considered that taxonomy and reference collections were needed for the region. Centres of excellence existed and had to be used. In addition, he considered that the initiative should be implemented in close relationship with the Global Taxonomy Initiative of the Convention on Biological Diversity.

121. Another representative expressed concern at the loss of precious reference collections from universities and marine biology stations and considered that attention should be drawn to the need to halt such a loss of the biodiversity heritage.

122. One view held that RAC/SPA having no means to face the Initiative requirements should call upon relevant organizations in order to allocate them an active role in implementing of the said initiative. The Contracting Parties should urge their representatives in those organizations to examine what could be done to promote the implementation of the Mediterranean Initiative on Taxonomy.

123. The Draft Mediterranean Initiative on Taxonomy is contained in Annex X to the present document.

c) Mediterranean Clearing-house Mechanism on Marine and Coastal Biodiversity

124. The Secretariat introduced information paper UNEP(DEC)/MED WG.232/Inf.12, on the development of a clearing-house mechanism on marine and coastal biodiversity, stressing that the clearing-house mechanism lay within the framework of the development of the global clearing-house mechanism of the Convention on Biological Diversity.

125. The Meeting took note of the status of the preparations for the clearing-house mechanism.

d) Common criteria for the inclusion of additional species in the annexes of the SPA Protocol

126. The Director of RAC/SPA said that, because of time constraints and the complexity of the task, the Secretariat had been unable to finalize the elaboration of common criteria for the inclusion of additional species in the annexes of the SPA Protocol. He drew attention to the information paper UNEP(DEC)/MED WG.232/Inf.11.

127. The Secretariat explained that a number of Parties had asked about amending the annexes to the SPA Protocol, but to make such amendments the criteria were needed. The formulation and finalization of such criteria had proved to be an immensely difficult task. Criteria existed for the amendment of the lists and annexes of other international agreements, but it was difficult to apply such global criteria at the regional level. In the coming biennium, RAC/SPA would be seeking collaboration with IUCN and other partner organizations to elaborate the criteria.

128. The observer from IUCN, noting that the criteria elaborated in the framework of the IUCN were fast becoming an international standard, considered that it was a waste of resources to have parallel systems of criteria for listing species. He pointed that the system of criteria of IUCN include guidelines for regional red list. The observer from IUCN formulated three suggestions: of working with the Secretariat to apply the latest set of IUCN criteria, of including in the SPA annexes any species found in the top three IUCN categories, and of drawing up a Mediterranean Red List of species.

129. One representative considered that the process would not be so easy and said that, once the categories of conservation for Mediterranean species had been defined, they should be referred to experts and taxonomists in the region for verification. An other representative indicated that the finalisation of amendment procedures shouldn’t postpone possible amendments to lists of species annexed to the Protocol.

130. The Meeting agreed to use the document prepared by the Secretariat as a basis for further discussion and to urge the Secretariat to follow up on the matter with other international organizations.

Agenda item 11 - Evaluation of RAC/SPA and new orientation for its activities and structure

131. Introducing the item, Mr. Hoballah explained that the evaluation of RAC/SPA was one component of a wider assessment of MAP and its elements that was being conducted. The MAP Coordinating Unit (MEDU) had commissioned three consultants to carry out the evaluation of RAC/SPA: Mr. Ghazi Bitar; Mr. Giulio Relini, and Mr. Michael Smart. Their terms of reference had included the use of questionnaires and the conducting of interviews with the Focal Points of the Contracting Parties, but also with IGO and NGO partners. An initial draft of their report had been prepared and it was expected that a draft would be submitted to the meeting of the MAP Focal Points for their review and comment.

132. He pointed to the need for participants to consider the evaluation of RAC/SPA in a realistic way, noting that significant good work had been carried out, but recognizing the possible need for a change of orientation. Participants should ask themselves: What are the expectations? Are they justified? Can the Centre meet them? Should the working method be changed and, if so, how? How can it be improved? What are the constraints and the alternatives? How can synergies with partners be used constructively?

133. Following the presentation of the progress of the evaluation, having gone around the table permitted a fruitful exchange of ideas about the question.

Agenda item 12 - Programme-Budget of RAC/SPA for 2002-2003

134. The Director of RAC/SPA drew attention to Annex III of the report on the activities carried out by RAC/SPA since the Fifth Meeting of the National Focal Points for SPAs (UNEP(DEC)/MED WG.232/8), which contained the main lines of the activities that RAC/SPA intended to suggest to the Contracting Parties for the period 2004-2005.

135. In answer to a query as to why no indicative figures were given, which would at the very least enable priorities to be set, the Director explained that that had been the practice in the past. However, it was the current practice for the Regional Activity Centres to set out only the broad lines of their activities, and to bring to the attention of the MAP Focal Points the importance of the various activities.

136. On the understanding that it was the accepted current practice for RACs to provide only a list of proposed activities, with no indicative figures, the Meeting agreed to forward to the Contracting Parties the list of proposed activities of RAC/SPA for the period 2004-2005. However, a number of representatives said that they felt uncomfortable with a procedure which gave no role to the NFPs for SPAs in defining the priorities and levels of budget allocations for RAC/SPA.

Agenda item 13 - Any other matters

137. No other matters were raised for discussion.

Agenda item 14 - Adoption of the report of the Meeting

138. The Meeting adopted the present report on its work on Friday, 20 June 2003, on the basis of the draft report.

Agenda item 15 - Closure of the Meeting

139. After the customary exchange of courtesies, the Meeting was closed on Friday, 20 June 2003 at 4.45 p.m.

ANNEX I
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ANNEX II
AGENDA OF THE MEETING

AGENDA OF THE MEETING

Agenda item 1 - Opening of the Meeting

Agenda item 2 - Rules of Procedure

Agenda item 3 - Election of Officers

Agenda item 4 - Adoption of the Agenda and organisation of work

Agenda item 5 - Country Reports on Conservation of Natural Sites and Species

Agenda item 6 - New Action Plans for species

a) Draft Action Plan for the conservation of bird species listed in the Annex II of the SPA Protocol
b) Draft Action Plan for the conservation of Mediterranean species of cartilaginous fish
c) Draft Action Plan concerning Species Introductions and Invasive Species in the Mediterranean Sea

Agenda item 7 - Strategic Action Plan for the Conservation of Biological Diversity (SAP BIO) in the Mediterranean Region

Agenda item 8 - Development of marine and coastal protected areas

Agenda item 9 - Implementation of the Action Plans for the conservation of species adopted within MAP

Agenda item 10 - Other activities

Agenda item 11 - Evaluation of RAC/SPA and new orientations for its activities and structure

Agenda item 12 - Programme-Budget of RAC/SPA for 2004-2005

Agenda item 13 - Any other matters

Agenda item 14 - Adoption of the Report of the Meeting

Agenda item 15 - Closure of the Meeting

ANNEX III
STATUS OF THE IMPLEMENTATION OF THE SPA PROTOCOL
(since the last meeting of national focal points for SPAs, April 2001)

FOREWORD

With the aim of making the best possible use of available time at their meetings, National Focal Points for SPAs agreed during their Fifth Meeting (Valencia, April 2001) that, starting from the Sixth Meeting of NFPs for SPAs, delegates would submit their country presentations to the Secretariat two months before the meeting, to enable them to be compiled into a working document of the meeting. Only if they considered it necessary to make comments on the status of implementation of the SPA Protocol or to provide supplementary or updated information would delegates need to make a further presentation at the meeting itself. The content of the working document would be subsequently annexed to the report of the meeting (Annex III).

The present document on the status of the implementation of the SPA Protocol includes deux sections:

- A synthesis of the reports presented by the delegations, setting out the main achievements and the gaps.

- The texts of the reports submitted by national focal points to RAC/SPA before the meeting of national focal points for SPAs.

The synthesis of national reports appearing at the beginning of the present document includes only reports received in time by RAC/SPA. This synthesis is based on the same format adopted for the country reports on natural sites and species conservation that comprises the following items:

- Institutional framework
- Legal framework governing the conservation of species and sites
- Status of signature/ratification of the relevant international agreements
- Marine and coastal protected areas
- Protected marine and coastal species of fauna and flora
- Implementation of the national biodiversity strategy and action plans with regard to the Mediterranean marine and coastal zone
- Observation/studies about alien species recorded in the Mediterranean marine and coastal zone
- List of country and/or Mediterranean endemic species
- Activities undertaken in the framework of the implementation of (i) the Action Plan for the Management of the Mediterranean Monk Seal, (ii) the Action Plan for the Conservation of Mediterranean Marine Turtles, (iii) the Action Plan for the Conservation of Cetaceans in the Mediterranean Sea and (iv) the Action Plan for the Conservation of Marine Vegetation in the Mediterranean Sea
- Activities related to the inventories (completed or ongoing) of sites using the Standard Data-Entry Form (SDF) for national inventories of natural sites of conservation interest

- Collaborative activities undertaken within the framework of the implementation of the Protocol and/or the Action Plans, especially at bilateral or sub-regional levels
- Status of implementation of the recommendations of earlier meetings of the focal points for SPAs and of the Contracting Parties.

STATUS OF THE IMPLEMENTATION OF THE SPA PROTOCOL

Synthesis of National Reports on the implementation of the Protocol concerning specially protected areas and biological diversity in the Mediterranean

Introduction

In anticipation of the Meeting of National Focal Points for SPAs, planned for Marseilles, from 17 to 20 June 2003, RAC/SPA requested countries that are Party to the Barcelona Convention to prepare National Reports, giving an up-to-date report on the situation as regards putting the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (SPA Protocol) into effect in their respective countries, according to the pre-established 12-point plan. So far (5 June 2003) 16 countries (Albania, Bosnia & Herzegovina, Cyprus, Croatia, Egypt, Israel, Italy, Lebanon, Libya, Malta, Monaco, Morocco, Slovenia, Spain, Syria and Tunisia) have sent in Reports. The present document, a summary of the information gathered from these responses, has been prepared according to the same structure as that followed in preparing the National Reports, including elements which should reflect the progress made in implementing the SPA Protocol. What these National Reports have shown generally is that few Specially Protected Areas have been declared in hard fact since the last Meeting of Focal Points in 2001 in Valencia, attention having rather been given to institutional aspects and the legislative and regulatory framework. As to the countries' support for the pertinent international agreements, eight instruments have been considered, i.e. the SPA Protocol, the Barcelona Convention for the protection of the Mediterranean against pollution, the Ramsar Convention on wetlands, the Convention on Biological Diversity (CBD), the Bern Convention on the conservation of European wildlife and natural habitats, the Bonn Convention on the conservation of migratory species of wild fauna, the Convention on international trade in threatened species (CITES), and the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic area (ACCOBAMS).

I. Institutional framework

In this part of the Report, the countries were asked to appoint their national authorities in charge of environmental activities generally and the implementing and monitoring of the SPA Protocol in particular, including the concrete measures taken to protect threatened species of marine turtle, cetaceans, monk seals, endangered marine vegetation and sensitive and/or threatened habitats.

In most of the countries, it is the central public administrative authorities, usually represented by the Ministry for the environment, that bear responsibility for putting the Protocol into effect, but it can be, according to the case, a specialist Ministry or a Ministry responsible for other sectors, such as the Ministry of Agriculture, Fishing and Water Resources; then the environment comes under a specific department, or is shared, according to speciality, by two or more departments, such as forests, or fishing, as is the case in Tunisia, Albania, Malta and Cyprus, for example. In other countries (Bosnia & Herzegovina, Spain and, partially, Italy) environmental issues

come under the central government and also the regional authorities where local or regional questions are concerned; this is particularly so in Spain, where the country is organised as 17 autonomous regions with regional governments that enjoy prerogatives that affect local aspects of environment protection. In the Ministries responsible for the environment, there are specific administrative units in charge of policy on SPAs and the conservation of biodiversity, and thus responsible for the effective implementing of the pertinent elements of the SPA Protocol. For several years now, there has been a growing awareness of the importance of protected areas, including wetlands, natural sites and nature parks, nature reserves, threatened and/or protected animal and plant species and sensitive habitats and ecosystems. In many countries, laws have been passed and regulatory steps taken to protect species and their habitats, and to protect coastal wetlands and the richness they contain against the damage inherent in the exploiting of these resources (especially fishing and leisure activities), including those which are of economic and commercial interest.

Among the 16 countries that have sent in Reports, two (Spain and Italy) belong to the European Union. They have thus taken the legal steps necessary to adapt the EU Directives to their national environmental legislation, including on protected areas, habitats, coastal wetlands and protected species. Among these Directives is one on the conservation of natural habitats and wild flora and fauna, one enacting an outline law on protected areas, one protecting the sea and marine areas and one concerning the Directive on the conservation of birds.

An overview of the responses, country by country, appears below:

Albania:
A Ministry of the Environment was set up in 2001, with 6 departments, one responsible for nature protection and another for environmental impact assessment, plus an inspectorate with regional environmental agencies covering the whole country.

Bosnia & Herzegovina:
In accordance with the Dayton Peace Accord, two bodies are responsible for the conservation and promotion of the environment – the Federation of Bosnia/Herzegovina and the Srpska Republic. There is no constitutional basis for setting up environment and nature protection bodies. This explains why it has not signed international agreements. Bosnia & Herzegovina has stood as candidate for the European Environment Protection Agency and intends to become a member of the European Union. According to the Constitution, it is the Federation of Bosnia/Herzegovina that is responsible for issuing regulations about environment protection, done jointly by the Federal Government and the cantons. According to the Dayton Accord, enforcing the existing environment and nature protection regulations is still the responsibility of both the two bodies mentioned above and the cantons.

Cyprus:
The main departments involved are within the Ministry of Agriculture, Natural Resources and Environment: the Department of Fisheries and Marine Research, which covers all aquatic (marine and freshwater) species and habitats, with the Fisheries Law and Regulations. The Forestry Department, which covers coastal

Forest areas with the Forest Law and Regulations. The Environment Service is planned to cover the Habitat Directive provisions with a new law on Nature (which is now pending).

Croatia:
Ministry of Environmental Protection and Physical Planning is a governmental authority in charge of nature and biodiversity protection. Among the 7 Ministry's divisions, two are competent in thoses provinces and are: Nature Conservation Division and Environmental Protection Division. The latter is in charge of implementing the Barcelona Convention and its Protocols.

Egypt:
The Nature Conservation Sector (NCS) of the Egyptian Environmental Affairs Agency (EEAA) is the body responsible for activities related to nature conservation in Egypt.

Spain:
As well as the central government in Madrid there are 17 autonomous districts and 2 autonomous towns that represent the regional power. Respecting international commitments and adapting European policy to Spain are the responsibility of the central government. At central level, the Ministry of the Environment, with its board for nature conservation, which itself has a sub-department for the conservation of biodiversity, is responsible for implementing the Protocol. As for the autonomous regions, these do not have specific ministries for environmental issues, but there is a sector-based environmental conference that makes sure that there is coordination on the subject between the regional ministries. Coordination between the central government and the regional governments is ensured by an advisory committee for the environment; this includes representatives from the regions, the central government and the research institutes.

Israel:
The Authority for the Protection of Nature and the National Parks, which comes under the Ministry of the Environment, is the statutory body for nature conservation; other ministries, however, are involved in particular conservation fields. The Ministry of the Environment acts at local, regional or national level.

Italy:
At central level, the Italian Ministry of the Environment, with a sea protection department and a nature conservation department, is responsible for the protection of biodiversity. But the Ministry of Agricultural and Forestry Policy also makes a contribution to this, via its fishing and agriculture department. In certain cases, the protection of local coastal areas falls to the regional authorities.

Lebanon:
There are agencies at the dual regional and local level that work to constitute environmental management capacity. At governmental level, a Ministry of the Environment was set up in 1997 with, among other objectives, that of protecting the environment and creating nature reserves. The Environment Code makes impact studies compulsory for any development project.

Libya:
The General Environment Authority, coming under the Secretariat for Resources, is responsible for the sustainability of resources, environment protection and the conservation of biodiversity. Specialist centres like the Tajura marine biology centre under the General Secretariat for marine resources and agriculture, and the agricultural research centre of the General Water Authority are involved in environmental issues.

Malta:
The coordination and implementation of environmental and conservation policies come under the Maltese Authority for the Environment and Planning. Its environment protection department contains 3 units, one of which is in charge of nature protection and is responsible for implementing the Protocol on SPAMIs.

Morocco:
There is a Secretariat for the Environment, but the authority responsible for biodiversity and protected area issues is the Ministerial Department for Forestry and the Fight against Desertification. Otherwise, the Report gives no additional details about the responsibilities of each department.

Monaco:
No information about this subject is given in the Report.

Slovenia:
Since January 2002, implementing the Protocol on SPAMIs has been made the responsibility of the Republic of Slovenia's Nature Conservation Institute, which is a public corporation coming under the Ministry of the Environment, Planning and Energy. Protected areas, and areas declared by the former law as being part of the natural heritage, are brought together in a new law as 'natural features of value'.

Syria:
The Ministry of State for the Environment is responsible for all environment-related issues and aspects. Biodiversity and protected area activities are the responsibility of a Department set up in 1996, which acts as the focal point for the Biodiversity Convention; it comes under the Minister of State for the Environment. The other national authorities whose activities concern specific environmental aspects are the Ministry of Agriculture and Agricultural Reform, the Ministry of Irrigation and the Higher Council for Aquatic Life. Implementation of the National Strategy and the Action Plan on biodiversity is largely influenced by the State Planning Commission, which judges the validity of biodiversity conservation projects and recommends funding for them.

Tunisia:
Several public bodies deal with the environment generally and with nature conservation and protection in particular. They mainly come under the Ministry of Agriculture, the Environment and Hydraulic Resources (a result of the merging in 2002 of the Ministry of Agriculture and Hydraulic Resources and the Ministry of the Environment). Several NGOs existing at national and local level are active in the field of the environment and nature protection.

The Protocol on SPAMIs is the responsibility, at implementation level, of the Ministry of Agriculture, the Environment and Hydraulic Resources and of the agencies coming under it (the National Environment Protection Agency – ANEP – and the Agency for the Protection and Development of the Littoral – APAL).

II. Legal framework governing the conservation of species and sites

As has been said above, an effort has been made to improve and adapt national law on the conservation of marine and coastal biodiversity; what needs more attention now is putting the available and future legal instruments into effect.

Albania:
Since 1991, several laws on the environment have been passed, particularly regulating fishing and agriculture, forests and water resources. From 2000 to 2002, several bills were prepared and 7 of them were ratified by Parliament. We may mention the Law on the Environment, the Law on Protected Areas and the Law on Impact Studies, as well as the Decree that regulates the procedure for proclaiming protected areas. Despite this effort to promote environmental law, gaps still exist, particularly as regards the coastal area, landscape diversity, etc.

Bosnia & Herzegovina:
Bosnia & Herzegovina has no environmental laws of its own. Nature protection is governed by the 1995 rules from the former Croatian Republic of Bosnia & Herzegovina, the implementing decree of which has set up the two Nature Parks of Hutovo Blato and Blidinje. Several laws have been drafted with the aid of the PHARE European Programme, one of these on nature protection and the other on environment protection.

Cyprus:
The Fisheries Law and Regulations provide for the protection and management of aquatic species and habitats. Already many species and so is one coastal/marine protected area, for marine turtles. The *Posidonia* meadows are also protected from trawling. Most of the European Directives have been incorporated into Cyprus law; the Habitat and Bird Directives are now pending. The town and country Planning, the Foreshore Protection and the Forest Law are also relevant.

Croatia:
Law on Environmental Protection (OG 82/94, 128/99) regulates environment protection in its general provisions, whereas Law on Nature Protection (OG 30/94, 72/94) is implementing this protection by establishing protected parts of nature: national parks, nature parks, strict reserves, special reserve, park forests, protected landscapes, monuments of nature, monuments of park-architecture and individual plant and animal species.

Egypt:
The 1983 Law defines the legal framework for setting up protected areas; the 1994 Law makes the EEAA responsible for the management and conservation of biodiversity. The EEAA also makes sure that international agreements are put into effect.

Spain:
The Law on the conservation of protected areas and of wild fauna and flora is the basic legislation at central and regional level. A set of rules related to protected areas has long been in force, including those regulations that transpose European directives, like for example the Directive on Habitats, and several royal decrees on protected areas and threatened species. Autonomous regions have developed legislation instituting measures that are sometimes more restrictive than the national or European norms in the field of protection.

Israel:
The basic legal instrument is the Law on Memorial Sites, National Parks, Nature Reserves and National Sites. This also provides for systems of declaring nature reserves and national parks, and making a list of protected areas. Since the last Meeting of Focal Points, one marine reserve, two coastal reserves and two national parks have been declared. The National Strategic Action Plan for Biodiversity has not yet come into force.

Italy:
The main laws include one that results from an adaptation of the European Directive on natural habitats and wild flora and fauna, one that is an outline law for protected areas, one on protecting the sea and marine protected areas, and one referring to the European Directive on the conservation of birds. There are also several regulations made to implement these laws, such as those dealing with fishing and hunting and those resulting from international agreements.

Lebanon:
Decisions have been made to conserve species and sites, particularly the Law declaring the Tyre coast a nature reserve, the decision to ban fishing for marine turtles, the decision protecting, and banning the fishing of, whales, monk seals and marine turtles and the decision banning the fishing of sponges for a 5-year period.

Libya:
The Law on protecting some animal and tree species, the Law on protecting marine resources, with special mention of protected marine areas, and the Decree on banning hunting activities, including the hunting of marine species like the turtle and other species that appear in the Protocol on SPAMIs, are mentioned to show the interest in the conservation of nature and of biodiversity.

Malta:
The main legal framework for the conservation of species and sites is the Law on Environment Protection and the Law on Development Planning, as amended and replaced by the 1997 and 2001 Acts. Many regulatory tools have been instituted for the implementing of these laws, such as those concerning the protection of reptiles, birds, and species of fauna and flora that are traded in, marine mammals and Genetically Modified Organisms. Other Acts deal with aspects affecting biodiversity, such as the Act on the development and conservation of fisheries, the Act on animals' welfare, and the Act on soil conservation.

Morocco:
The main legislative acts are the Dahirs (Laws) on the creation of national parks, policing hunting and fishing in continental waters, and a Ministerial Decree on the procedure for creating national parks. A law on protected areas, and an implementing decree, are being drafted and will facilitate the classifying of identified protected areas and help set up a national network of such areas.

Monaco:
No information about the legal aspects concerning the implementation of the Protocol or other relevant instruments is given in the National Report.

Slovenia:
The Nature Conservation Act, passed in 1999, provides for the conservation of biodiversity, protection of sites, guidelines to be taken into account when planning the use of nature property, protection of the cultural heritage and permits for activities that affect nature and nature protection. By virtue of this Nature Conservation Act, protected areas are classified as 'natural features of value'. The Law provides for and decides on threatened animal and plant species, protected areas and the management of these, and protection measures for natural sites.

Syria:
The main legal instruments mentioned in the Report and which are directly related to marine biodiversity and marine habitats come under the fishing regulations or those of the fight against marine pollution.

Tunisia:
Several laws and decrees are in force, among which is the 1994 Law on Fishing, the Law on Marine Public Land, and the Law setting up the Agency for the Protection and Development of the Littoral. Two other laws are being drafted, one concerning genetically modified organisms and the other the creation and management of marine and coastal protected areas.

III. Status of signature/ratification of the relevant international agreements

Convention / Pays	ACCOBAMS	AEWA	SPA	Barcelona	Bern	Bonn	CBD	CITES	Ramsar
Albania [1]	Ac/2001	-	S/1995	Ac/1990	Ev/1999	EV/2001	Ac/1994	-	EV/1996
Algeria	-	-	S/1995	Ac/1981	-	-	R/1995	EV/1984	EV/1984
Bosnia-Herzegovina	-	-	-	Suc/1992	-	-	Ac/2002	-	EV/1992
Cyprus [2]	S/1996	-	S/1995	R/1979	EV/1988	EV/2001	R/1996	EV/1975	EV/2001
Croatia	R/2000	EV/2000	S/1995	Suc/1991	EV/2000	EV/2000	R/1996	EV/2000	EV/1991
Egypt		EV/1999	R/2000	Ap/1978	-	EV/1983	R/1994	EV/1978	EV/1988
Spain [3]	R/1999	EV/1999	R/1998	R/1976	EV/1986	EV/1985	R/1993	EV/1986	R/1976
France	S/1996	S/1998	S/1995	Ap/1978	EV/1990	EV/1990	R/1994	EV/1978	EV/1986
Greece	S/1996	S/1998	S/1995	R/1979	EV/1983	EV/1999	R/1994	EV/1993	EV/1975
Israel [2]	-	-	S/1995	EV/1978	-	EV/1983	R/1995	EV/1980	EV/1997
Italy [4]	S/1996	-	R/1999	R/1979	EV/1982	RV1983	R/1994	EV/1979	EV/1977
Libanon	En cours	EV/2002	-	Ac/1977	-	-	R/1994	-	EV/1999
Libya	Ac/2002	En cours	S/1995	R/1979	-	EV/2002	R/2001	EV/2003	EV/2000
Malta	R/2001	-	R/1999	R/1977	EV/1994	EV/2001	R/2000	EV/1989	EV/1989
Morocco	R/1999	S/1997	S/1995	R/1980	EV/2001	EV/1993	R/1992	EV/1976	EV/1980
Monaco	R/1997	EV/1999	R/1997	R/1977	EV/1994	EV/1993	R/1992	EV/1978	EV/1997
Slovenia	-	-	-	Ac/1994	EV/2000	EV/1999	R/1996	EV/2000	EV/1991
Syria	Ac/2002	-	-	Ac/1978	-	-	R/1996	EV/2003	EV/1998
Tunisia	Ac/2002	-	R/1998	R/1977	EV/1996	EV/1987	R/1993	EV/1975	EV/1981
Turkey	-	-	S/1995	R/1981	EV/1984	-	R/1997	EV/1996	EV/1994

Ac: Accession; **Ap**: Approval; **EV**: Entry into force; **R**: Ratification; **S**: Signed; **N**: Notified; **NS**: Not Specified in the Report

Acronyms and abbreviations used in the Table:
ACCOBAMS: Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic area (entered into force on 1 June 2001)
AEWA: African-Eurasian migratory water bird agreement
SPA: Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean
Barcelona: Convention for the Protection of the Mediterranean against Pollution
Bern: Convention on the Conservation of European wildlife and Natural Habitats
Bonn: Convention on the Conservation of Migratory Species of Wild Fauna
CBD: Convention on Biological Diversity
CITES: Convention on the International Trade in Endangered Species
Ramsar: Convention on Wetlands

IV. Protected marine and coastal species of fauna and flora

Pays / Espèce**	Albanie	Bosnie-Herzégovine	Croatia	Cyprus	Egypt	Israël*	Italy	Liban	Libye	Malte	Monaco*	Maroc	Slovénie	Espagne	Syrie	Tunisie*
Magnoliophyta																
Posidonia oceanica				x	x		x						x	x		
Zostera marina					x		x						x			
Zostera noltii					x		x						x			
Chlorophyta																
Caulerpa ollivieri					x		x						x			
Phaeophyta																
Cystoseira amentacea (inclus					x		x			x			x			

[1] L'Albanie participe, par voie d'accession, au Protocole sur la Biodiversité en Méditerranée.
[2] Chypre, la Croatie (par succession), l'Egypte et Israël ont ratifié la Convention sur la Protection de l'Héritage Culturel et Naturel Mondial ; Malte y a également adhéré en 1978.
[3] Le rapport de l'Espagne cite deux accords internationaux récents, à savoir la Convention sur les Paysages Européens (non encore entré en vigueur) et l'Accord sur la Conservation de l'Albatros et des Pétrels (dans le cadre de la Convention de Bonn); la liste des activités pour la mise en œuvre dont le Plan d'Action pour la gestion du phoque moine de Méditerranée, le Plan d'Action pour la Conservation des tortues marines méditerranéennes et le Plan d'Action pour la conservation des cétacés en Méditerranée est fixée.
[4] L'Italie a signé, avec la France et Monaco, l'Accord sur le sanctuaire des cétacés dans le bassin Sardo-Liguro-Provençal, accord ratifié en novembre 2001. Par ailleurs, un projet méditerranéen d'identification des zones d'intérêt pour les cétacés a été exécuté, visant la collecte de données scientifiques pour l'application des conventions pertinentes comme la CDB, la Convention de Berne, la Convention de Barcelone et les accords d'ACCOBAMS ainsi que la Directive Européenne sur les Habitats.

var. stricta et *var. spicata)*																
Cystoseira mediterranea					x		x			x			x			
Cystoseira sedoides					x		x						x			
Cystoseira spinosa (inclu *C. adriatica)*					x		x			x			x			
Cystoseira zosteroides					x		x			x			x			
Laminaria rodriguezii					x		x						x			
Rhodophyta																
Goniolithon byssoides					x		x			x			x			
Lithophyllum lichenoides					x		x			x			x			
Ptilophora mediterranea					x		x						x			
Schimmelmannia schousboei					x		x						x			
Porifera																
Asbestopluma hypogea					x		x						x			
Aplysina sp. plur.					x		x						x			
Axinella cannabina				x	x		x						x			
Axinella polypoides				x	x		x						x			
Geodia cydonium				x	x		x						x			
Ircinia foetida					x		x						x			
Ircinia pipetta					x		x						x			
Petrobiona massiliana					x		x			x			x			
Tethya sp. plur.					x		x						x			
Cnidaria																
Astroides calycularis					x		x			x			x	x		
Errina aspera					x		x						x			
Gerardia savaglia					x		x						x			
Echinodermata																
Asterina pancerii				x	x		x						x	x		
Centrostephanus longispinus				x	x		x			x			x	x		
Ophidiaster ophidianus				x	x		x			x			x			
Bryozoa																
Hornera lichenoides					x		x						x			
Mollusca																
Ranella olearia (= Argobuccinum olearium = A. giganteum)					x		x						x			
Charonia lampas (= Ch. rubicunda = Ch. nodifera)					x		x			x			x	x		
Charonia tritonis (= Ch. seguenziae) Dendropoma petraeum				x	x		x			x			x	x		
Erosaria spurca				x	x		x			x			x			
Gibbula nivosa				x	x		x			x			x			
Lithophaga lithophaga			x	x	x		x			x			x			
Luria lurida (= Cypraea lurida)				x	x		x			x			x			
Mitra zonata					x		x			x			x			
Patella ferruginea					x		x						x	x		
Patella nigra					x		x						x			
Pholas dactylus				x	x		x			x			x			
Pinna nobilis				x	x		x			x			x	x		
Pinna rudis (= P. pernula)					x		x						x			
Schilderia achatidea					x		x			x			x			
Tonna galea				x	x		x			x			x			
Zonaria pyrum					x		x			x			x			
Crustacea																

Ocypode cursor				x	x		x						x			
Pachylasma giganteum					x		x						x			
Pisces																
Acipenser naccarii					x		x						x			
Acipenser sturio					x		x						x			
Aphanius fasciatus				x	x		x			x			x			
Aphanius iberus					x		x						x			
Cetorhinus maximus					x		x			x			x			
Carcharodon carcharias					x		x			x			x			
Hippocampus ramulosus				x	x		x			x			x			
Hippocampus hippocampus				x	x		x			x			x			
Huso huso					x		x						x			
Lethenteron zanandreai					x		x						x			
Mobula mobular				x	x		x			x			x			
Pomatoschistus canestrinii					x		x						x			
Pomatoschistus tortonesei					x		x						x			
Valencia hispanica					x		x						x			
Valencia letourneuxi					x		x						x			
Reptiles																
Caretta caretta	x			x	x		x	x	x	x			x	x		
Chelonia mydas				x	x		x	x	x	x			x	x		
Dermochelys coriacea				x	x		x	x	x	x			x	x		
Eretmochelys imbricata					x		x	x	x				x	x		
Lepidochelys kempii					x		x	x	x				x			
Trionyx triunguis					x		x	x	x				x			
Aves																
Pandion haliaetus					x		x						x			
Calonectris diomedea					x		x						x			
Falco eleonorae					x		x						x			
Hydrobates pelagicus					x		x						x			
Larus audouinii					x		x						x			
Numenius tenuirostris					x		x						x			
Phalacrocorax aristotelis					x		x		x				x			
Phalacrocorax pygmaeus	x				x		x		x				x			
Pelecanus onocrotalus					x		x						x			
Pelecanus crispus					x		x						x			
Phoenicopterus ruber					x		x						x			
Puffinus yelkouan					x		x						x			
Sterna albifrons					x		x		x				x			
Sterna bengalensis					x		x		x				x			
Sterna sandvicensis	x				x		x		x				x			
Mammalia																
Balaenoptera acutorostrata			x		x		x	x		x	x		x	x		
Balaenoptera borealis			x		x		x	x		x	x		x	x		
Balaenoptera physalus			x		x		x	x		x	x		x	x		
Delphinus delphis	x		x	x	x		x		x	x	x		x	x		
Eubalaena glacialis			x		x		x	x	x	x	x		x			
Globicephala melas			x		x		x	x		x	x		x	x		
Grampus griseus			x		x		x		x	x	x		x	x		
Kogia simus			x		x		x	x		x	x		x			
Megaptera novaeangliae			x		x		x	x		x	x		x	x		
Mesoplodon			x		x		x			x	x		x			

densirostris																
Monachus monachus			x	x	x		x	x		x	x		x	x		
Orcinus orca			x		x		x	x		x	x		x	x		
Phocoena phocoena			x		x		x		x	x	x		x			
Physeter macrocephalus			x		x		x	x		x	x		x	x		
Pseudorca crassidens			x		x		x	x		x	x		x			
Stenella coeruleoalba			x	x	x		x		x	x	x		x	x		
Steno bredanensis			x		x		x		x	x	x		x			
Tursiops truncatus	x		x	x	x		x		x	x	x		x	x		
Ziphius cavirostris			x	x	x		x	x		x	x		x			

* Status of protection of species of fauna and flora is not specified in the Report.
** Have been taken into account in this table species appearing in the Annex II to the SPA Protocol.

V. Implementation of the national biodiversity strategy and action plans with regard to the Mediterranean marine and coastal zone

An analysis of the situation reveals differences, as regards both available means and results obtained or expected, between the countries of the northern shore, which are or will become members of the European Union and which, as well as their own means, benefit from European programmes like NATURA 2000 for the inventorying of sites (where the designations have been done in accordance with the EU Directive on habitats in the 5 member Mediterranean countries), and the other Mediterranean countries. As part of the partnership with Europe, the SMAP Programme (Short- and Medium-Term Action Programme on Environmental Priorities) has chosen from among its fields of action the integrated development of coastal areas, including the conservation of biodiversity. It should also be noted that the SAP BIO Project, approved by the Barcelona Convention, and in which 17 countries are participating, has enabled all the countries to prepare reports that give up-to-the-minute reports on their situation regarding environmental issues generally and nature and biodiversity conservation in particular. RAC/SPA plays a considerable part via the help it gives countries that are in need of this, in carrying out particular actions such as, for example, making an exhaustive inventory of the flora and fauna on Morocco's Mediterranean coast. Some Mediterranean countries have developed conservation policies in coastal areas and wetlands, but getting these conservation policies to harmonize with those elaborated and/or put into effect in various sectors of economic and social activity is something that still remains to be done.

VI. Observation/studies about alien species recorded in the Mediterranean marine and coastal zone

Species that are deliberately introduced (especially those introduced for the requirements of aquaculture), or indirectly introduced (in ballast water, or for ornamental fish-keeping), deserve more attention because of the effects they can have on local species and their habitats and ecosystems. Little information is available on this subject in the National Reports. Tunisia mentions several Lessepsian species of fish and shrimp, as well as one species sighted for the first time in the Mediterranean, *Libinia dubia*. In Italy, a governmental programme taking its inspiration from Article 13 of the SPAMI Protocol is being implemented to check ballast water, lay down guidelines for responsible aquaculture, and bring out a taxonomical diagnostic atlas for identified species. Two other programmes are mentioned, one of them on the distribution of *Caulerpa taxifolia* and *Caulerpa*

racemosa (two species which attract the attention of most of the countries) in Italian waters, and the other on the big gastropod *Rapana venosa*. Generally speaking, there is an interest in introduced species and scientists in the Mediterranean countries are drawing attention to the need to watch them closely (identification), follow their dissemination (speed of propagation and geographical range), and assess their impacts on local species and ecosystems, including the economic and social repercussions caused at the level of fishing, for example.

VII. Activities undertaken in the framework of the implementation of the Action Plans for the conservation of species adopted within MAP

The Action Plans in question concern the monk seal, marine turtles, cetaceans and Mediterranean vegetation. The degree to which the studies, investigations and elaboration of reports and documents have advanced differs from one country to the next and from one species to another; the most remarkable efforts seem to concentrate on marine turtles, especially *Caretta caretta*, and the monk seal; only a few countries (Spain, Malta and Italy) are starting to show an interest in cetaceans; as regards vegetation, two species *(Posidonia oceanica* and *Cymodocea nodosa*) attract the most attention. In this context, because of the lack of temporal references, there is a real desire to have a dynamic mapping of *Posidonia* meadows, since this phanerogam, so very interesting ecologically and biologically, is thought to be that most threatened by fishing activities and pollution in many parts of the Mediterranean. The MedWet/GEF Mediterranean Project on wetlands has enabled Egypt to carry out checks on the vegetation in three protected areas, but concrete conservation actions require means that for the time being are lacking. Cyprus bans dolphin fishing in its waters; the situation of these marine mammals does not seem to be a priority for the time being, but serious conflicts exist between these marine mammals and fishermen, particularly fishermen who fish for small pelagic fish. Awareness work, and – perhaps – an effort to compensate fishermen who have been harmed by dolphins (damage to fishing nets and to catch) could be envisaged in order to bring them together in mutual coexistence.

VIII. Activities related to the inventories of sites using the Standard Data-Entry Form (SDF) for national inventories of natural sites of conservation interest

Several countries (Bosnia & Herzegovina, Cyprus, Israel, Italy, Lebanon, Libya, Malta, Slovenia and Syria) used standard forms to enter data on natural sites of conservation interest. For some of these, this happened during assessment work done in the context of particular site identification projects, such as NATURA 2000, or of describing marine areas that could become SPAMIs and identifying new SPAs (RAMOGE). In Italy, a national programme of inventorying species and habitats was started to implement the SDFs.

IX. Collaborative activities undertaken within the framework of the implementation of the Protocol and/or the Action Plans, especially at bilateral or sub-regional levels

Most of the Mediterranean countries take part in the Barcelona Convention, the Convention on Biological Diversity, the Ramsar Convention, the Bonn and Bern Conventions and the CITES, but the degree of their effective involvement in the conservation of biodiversity and the designating and managing of Specially Protected Areas of Mediterranean Importance (SPAMI) is uneven. The countries of the north keep up certain relationships of collaboration with those of the south at bilateral, regional or sub-regional level, implementing resources that are precious but limited. Among the collaboration projects can be mentioned NATURA 2000, where sites will be designated in accordance with the European Directive on Habitats in five member countries of the European Union, and the Short- and Medium-term Action Programme on Environmental Priorities, entrusted to the European Commission. At sub-regional level, some countries are starting to collaborate together on subjects of common interest, for example the creation of a Sanctuary for Marine Mammals in the Corsica-Provençe-Ligurian Sea basin (between Monaco, France and Italy), or that of a sanctuary for cetaceans in the Losinj-Cress archipelago (between Monaco and Croatia), or the cooperation to establish an action plan for the management of a trans-border area (between Croatia and Bosnia/Herzegovina).

The SAP BIO Project was a catalyst for many countries which, participating in it, were able to appreciate their conservation and protection situation and concerns, and identified their needs in the fields of science, technique and finance relating to this.

At national level, public and/or non-governmental local bodies and associations are starting to be taken into account and should be further involved in the future, given the part they play in awareness for those actively involved in conservation and in managing SPAMIs and marine and coastal protected areas.

NATIONAL REPORTS ON THE IMPLEMENTATION OF THE PROTOCOL CONCERNING SPECIALLY PROTECTED AREAS AND BIOLOGICAL DIVERSITY IN THE MEDITERRANEAN

A L B A N I A

The Country Report
Meeting of National Focal Points for SPAs

Zamir DEDEJ
Arjana KOCA

Institutional Framework

In September 2001 the Albanian Government decided to establish the Ministry of Environment (MoE), considered as the fulfilment, from the administrative point of view, of the continues request of strengthening the role of environment in the decision bodies. It was an important step of institutional strengthening in the process of the consolidation of the governmental structure responsible of the environmental issues. The Ministry of Environment was based on the National Environmental Agency and was restructuring after the establishment with the approval of the Prime Minister. The new structure includes 6 Directorates, the Inspectorate and the PIU, named:

1. Directorate of Nature Protection
2. Directorate of Pollution and Prevent
3. Directorate of Policy Integration and Legislation
4. Directorate of Environmental Impact Assessment
5. Directorate of Communication and Foreign Relation
6. Directorate of Human Resources

The Inspectorate includes also the Regional Environmental Agencies distributed in all the country. The total number of the employer is 100.

Legal framework

There are a number of laws, which have been approved since 1991, and represent an important advancement in the legislative area:

- Laws on the Land and its Distribution (no. 7491 and no. 7501, 1991)
- Law on the Forests and the Forest Service Police (no. 7623, 1992)
- Law on City Planning (no. 7693, 1993)
- Law on Plant Protection Service (no.7662, 1993)
- Law on Protection of Medicinal and Taniferous Plants (no. 7722, 1993)
- Law on Development of Areas with Tourism Priority (no. 7665, 1993)
- Law on Hunting and Wildlife Protection (no. 7875, 1994)
- Law on Fishing and Aquaculture (no.7908, 1995)
- Law on Pastures and Meadows (no.7917, 1995)
- Law on Water Resources (no. 8093, 1996)

During 2000-2002 the Ministry of Environment concentrate a lot of efforts on the legislation and prepared about 10 draft laws (most of them was elaborated for many years). 7 of the draft laws had been approved already by the Parliament and among them we can mention:

1. The Law of Environment (nr. 8934, dt. 5.09.2002)
2. The Law of protection of the sea environment from the pollution and damages (nr. 8905, dt. 6.06.2002)
3. The Law on Protected Areas (nr. 8906, dt. 6.06.2002)
4. The Law on environmental impact assessment (nr 8990, dt. 23.01.2003)

From the drafts that are under discussion in the Parliamentary Group we can mention two: The Biodiversity Protection Law and the Law for the Transboundary Lake. Some by-laws and regulations based on these statutes have also been drafted and approved, as:

- The Government decree for stopping the logging in the forest
- The Government decision for the proclamation of the new nature monument in Albania
- Government decree for the administration of the protected areas
- Government decree for the procedures of the proclamation of the protected areas

With all the efforts made towards the improvement of the environmental legal system, there are still some gaps, especially related to the coastal zone, landscape diversity, etc.

International agreements

Albania is almost part of the main conventions related to the protection of nature. A list of these conventions and the date of entering in force will be attached to this document as Annex 1. The only thing to be mentioned during this period is the approval by the Parliament of the accession to the CITES as a good step forward in preventing the trade with protected species.

The engagement of Albania in international environmental conventions and agreements is nearby arriving to be completed; however, implementation and fulfilling the duties specified in those are still lacking in many instances.

Protected areas

A list of the existing protected areas in Albania you will find attached as Annex 2. There was not been any adding to the protected areas surface out of the nature monuments. Out of the proclamation of the new nature monuments there has been no adding to the protected areas surface. We must say that the "Law on Protected Areas" and the two government decisions (procedures and administration) filled very much the existing gaps related to the protected areas designation. In the mean time we had started the procedures for the designation of the protected areas in the district of Vlora.

Flora and fauna

The strictly protected species of fauna (based on the regulation No. 2, dated 23.07.1995 on administration and development of wild fauna and natural environment) recorded in the coastal lagoons (two Ramsar sites are included- Karavasta and Butrinti) are:

Mammals: *Lutra lutra, Canis aureus, Meles meles, Mustela putorius, Delphinus delphi, Tursiops truncatum.*

Birds: *Gavia stellata, Gavia arctica, Podiceps nigricollis, Phalacrocorax pygmeus, Egretta garzetta, Egretta alba, Charadrius alexandrinus, Charadrius hiaticula, Calidris alpina, Chalidris minuta, Tadorna tadorna, Recurvirostra avosetta, Lurus minutus, Larus melanocephalus, Larus genei, Sterna sadvicensis.*

Amphibia: *Salamandra salamandra, Triturus cristatus, Bufo viridis, Hyla arbora, Rana epeirotica, Rana dalmatina*

Reptiles: *Caretta caretta, Emys orbicularis, Mauremys caspica, Testudo hermani, Testudo marginata, Hemidoctylis turcicus, Lacerta virids, Lacerta trilineata, Podarcis muralis, Podarcis taurica, Coluber najadum, Coulber gemonensis, Elaphe situla, Elaphe quatuorlineta, Natrix tesellata, Telescopus fallax, Vipera amodytes*

The recorded alien species of flora in the Adriatic coast are: *Aster squamatus, Oenothera biennis, Acacia cyanophylla, Eucaliptus globules, Eucalyptus camaldulensis, Populus canadensis, Robinia pseudoacacia, Agave Americana, Carpobrotus edulis.*

Implementation of the National BSAP/Endemic Species

In the framework of implementing the biodiversity strategy, every year the Ministry of Environment monitors the flora of Adriatic Coast and the fauna of some coastal lagoons. Most of these areas are protected areas. Since last year the monitoring of Biodiversity is performed based on the monitoring of indicator species.

The status of fauna in the monitored lagoons during 2002 is difficult and remained on the level of previous two years without any amelioration. The situation is worst in the wetland system of Kune-Vaini (4th IUCN category - Managed Nature Reserve) where the number of birds is much lower than the carrying capacity of the area. Better is the situation in Karavasta where there is an increase in the number of nesting birds as a result of the presence of the fishing enterprise in the period 2001-2002. There is no increase for globally endangered *Pelicanus crispus* which is a permanent bird of this area. In Karavasta the situation is difficult for *Lutra lutra* and *Lepus europaeus* and stabilized with a slight up trend for *Canis aureus.*

Reasons for the difficult situation are: illegal hunting, prosecution of animals and capture for trade, continuous disturbance, illegal fishing, damage to the natural habitats, collection without criteria of mollusks (*Venus verrucosa, Lithophaga lithophaga* in Ksamil) during the touristic season, the low level of environmental education of people (missing of knowledge on scientific values of marine turtle, the fishermen maltreat these globally endangered reptiles). Some measures proposed are: ban on hunting in the wetlands areas for a period 3-5 years, drafting of management plans for these protected areas (there are two management plans for Karavasta and Butrinti that are for implementation), better cooperation between Environmental Inspectorate, Forest Police, Fishery Inspectorate and Coastal Guard for law implementation and enforcement to stop illegal hunting and fishing and poaching, awareness raising campaign on the importance of marine turtle and other marine mammals through a better cooperation between the Ministry of Environment and other responsible institutions.

The system of sand dunes is better conserved in natural conditions comparing with that of other Mediterranean countries. On the other side the human activity through the development of infrastructure, urbanization and tourism is an increasing permanent threat for the ecosystem of beaches and dunes. Some of measures proposed are displacement of motor ways, ban on entrance and parking of cars on this belt, measures to be taken against erosion, better management of the areas that used for beaches, preparation of action plans for species and habitats for the dunes and beaches, designation of new protected areas, conservation of the uncial plant association and rare in the Mediterranean coast with dominance of *Ephedra distachya* in the Mount of Robi, etc.

The flora of Adriatic wetlands as a result of severe conditions (high salinity and often inundations) is better conserved comparing to the other vegetation of the coastal region. Among the proposed measures are: extension of protected areas to include wetlands, forestation with species of genus *Tamarix* (important for bird nesting), inclusion on the red Book of extinct species *Sarcopoterium spinosum* etc. The Mediterranean pine forests are threatened by the illegal logging and contraction for touristic reason. In these forests are found endemic species like *Aster albanicus subsp.paparistoi* and *Orchis albanica, O.X Paparisti* should be conserved and there is a proposal for their designation as nature monuments.

The rocky substrate in a slight belt of soil and the high salinity has brought the rarity of plant kinds in coastal rocks of Adriatic. The presence of *Limonium anfractus* (subendemic species) in the group of characteristic species indicates the special nature of this association in Albania. The botanists think that this is an endemic association labeled *Crithmo-Limonietum anfracti*.

The belt of embrional dunes is more attacked from the alien and invasive species than another habitat. The high dunes are also affected by alien species as result of wrong planting practices and tourism developed in this area. The coastal area with Mediterranean pine forests has also signs of wrong planting practices (*Eucaliptus and Robinia pseudacacia* etc.). For the other habitats (the first sand belt, wetlands, aluvional forests and coastal rocks) the presence of alien species doesn't play any role in the physiognomy of the plant associations related to these habitats.

Some of the bioindicator species are from the list of protected species such as *Aster albanicus subsp. paparistoi* (mediterrenean pine forests), *Pancratium maritimum* (high sand dunes), *Alnus glutinosa* and *Quercus robur* (aluvional forests), *Limonium anfractus* and Leucojum valentinum subspecie vlorense (coastal rocks).

Aster albanicus subsp.paparistoi is an endemic species of the Albanian coast, which is discovered 20 years ago by the Albanian botanists in two areas now is extinct from the Durres areal (a reason for it might be the intense tourism development) and is present only in Divjaka (near Karavasta lagoon). The other endemic species *Lucojum valentinum subsp.vlorense Pap.& Qosja* is found now not only on the rocks near the motor way near Uje i Ftohte (Vlore) but also and with lots of specimen in an area of 1000m^2 near the Old Church of Orikumi (Vlore).

Action Plan for the conservation of the Mediterranean Marine Turtles

The Global Environmental Facility Small Programs in Albania (GEF/SGP - Albania) has recently a grant to a local NGO aiming at protection of marine turtles in Albania. GEF/SGP - Albania has contacted RAC/SPA in Tunis through Albanian Ministry of Environment in supporting this activity with publication and materials. Tagging tools were received from RAC/SPA and were handed to Museum Natural Sciences in Tirana.

Activities made through the projects were:

1. Expeditions on the coastal areas of Albania in order to check for possible nesting sites along the coast

2. Awareness campaign among the local fisherman and coastal communities not to kill individuals incidentally caught by fishing gear
3. Tagging& release of captured individuals,

and results:

1. So far there has been no confirmed nesting site in Albania
2. Approximately 160 individuals belonging to *Caretta caretta* species have been released unharmed after accidental capture in fishing nets
3. 24 individuals have been tagged

There was a small problems related to the difficulty in applying tags due to incompatibility of pliers with tags.

Action Plan for the conservation of Marine Vegetation in the Mediterranean Sea

Another project for the Possidonia meadows was supported by GEF/SGP – Albania. The project consisted in several exploratory dives in the main Albanian ports and close to urban areas. The working hypothesis was that Possidonia was negatively affected by increased water turbidity and ephyfital growth as the result of enrichment coastal waters with nutrients derived from untreated sewage. In addition, damage of Possidonia habitat was documented in relation to a previous sand extraction activity. Dives were made in proximity of towns Shengjin, Durres, Vlora, and Saranda and Gjipea. The Ministry of Environment together with the GEF/SGP collaborates with RAC/SPA on this issue and an Italian expert will make a mission in Albania in the mid June.

Loss of Possidonia habitat was reported but such claims cannot be confirmed due to lack of historical records.

In two exploratory dives in proximity of Vlora harbor *Caulerpa racemosa var. laetevirens* was detected. This is the first reported case in Albania.

ANNEX 1

- On May 30, 1990, Albania participated by accession to the ***Barcelona Convention "For the Protection of the Mediterranean Sea against Pollution"*** (Barcelona, February 16, 1976). Protocol Concerning Mediterranean Specially Protected Areas (1982) and the Protocol for the Protection of Biodiversity in the Mediterranean Sea (1996).

- On October 4 1991, Albania ratified the ***ESPOO Convention (Finland) "On Environmental Impact Assessment in a Transboundary Context."***

- On March 18, 1992 Albania signed the convention ***"On the Protection and Use of Transboundary Watercourses and International Lakes"*** (Helsinki March 17, 1992). The ratification of the convention was done on January 5, 1994.

- The convention ***"On Transboundary Effects of Industrial Accidents"*** was approved in principle on March 18, 1992, and was ratified on January 5, 1994.

- On November 29, 1995 Albania participated by accession to the ***Ramsar Convention*** (Ramsar, 1971) or the "***Convention on Wetlands of International Importance especially as Waterfowl Habitat".***

- On October 31, 1995 Albania signed the Bern Convention (September 19, 1979) ***"For the Protection of Flora and Wildlife Fauna of the Natural Environment in Europe,***" which was ratified by the Parliament on March 2, 1998.

- Convention on ***Climate Change***. ?On October 3, 1994 Albania signed the basic text of this convention (New York, May 9, 1992). The Council of Ministers approved the accession of Albania to this convention by the decree no. 580 on June 29, 1993].

- Convention ***"On Biological Diversity***" Albania signed the convention on January 5, 1994 and it entered into force on April 5, 1994].

- ***The Convention on Combat Desertification*** (December 4, 1996), Albania accesses to the convention in December 1999.

- The ***Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters*** (Aarhus-Denmark, June 25, 1998), Albania was among the 35 countries, which signed this convention and ratified it in 2000

- ***The Convention on Protection of Migratory Species of Wildlife*** known also as the **Bonn Convention** (Bonn, on June 23, 1979). Albania has access by the Parliament decision in November 2000.

- ***The Convention on International Trade in Endangered Species of Wild Fauna and Flora*** **(**Washington, D.C., on 3 March 1973, amended at Bonn, on 22 June 1979). Albania access to this convention by Parliament decision in March 2002.

ANNEX 2

Protected areas according to districts and management categories (IUCN)

No	Designation	Surface in ha	District	Approved
Category I		**Strictly natural reserve/scientific reserve**		
1	Karavasta Lagoon	5 000	Lushnja	22.08.1994
2	Gashi River	3 000	Tropoja	15.01.1996
3	Rrajca	4 700	Librazhd	15.01.1996
4	Kardhiq	1 800	Gjirokastra	15.01.1996
	TOTAL	14 500		100,00 %
Category II		**National Park**		
5	Dajti mountain	3 300	Tirana	16.12.1960/66
6	Theth	2 630	Shkodra	21.11.1966
7	Lura	1 280	Dibra	21.11.1966
8	Pine of Divjaka	1 250	Lushnja	21.11.1966
9	Llogara	1 010	Vlora	21.11.1966
10	Fir of Drenova	1 380	Korça	21.11.1966
11	Tomorri mountain	4 000	Berat	15.01.1996/40
12	Valbona valley	8 000	Tropoja	15.01.1996
13	Fir of Hotova	1 200	Përmet	15.01.1996
14	Qafë Shtama	2 000	Kruja	15.01.1996
15	Zall Gjocaj	140	Mat	15.01.1996
16	Prespa	27 750	Korca	18.02.1999
	TOTAL	53.940		100.00 %
Category III		**Nature Monument ***		
17	Fir of Sotira	1 740	Gjirokastra	15.01.1996
18	Blue Eye	200	Delvina	15.01.1996
19	Vlashaj	50	Dibra	15.01.1996
20	Zhej	1 500	Gjirokastra	15.01.1996
	TOTAL	4 360		100.00 %
Category IV		**Natural managed reserve**		
21	Rrushkull	650	Durrës	1955,1977, 1983 6.12.1995
22	Pishë-Poro	1 500	Fier	1958/1977/1983
23	Velipojë	700	Shkodra	1958/1977/1983
24	Kune	800	Lezha	1940/1960/77/83
25	Maliq	50	Korça	1961/1977/1983
26	Patok-Fushëkuqe	2 200	Kurbin	1962/1977/1983

27	Karaburun	20 000	Vlora	1968/1977/1983
28	Pishë-Poro	1 770	Vlora	1969/1977/ 83
29	Vain	1 500	Lezha	1940,1969/77/83
30	Cangonji	250	Devoll	1960/ 1977/ 83
31	Bërzanë	880	Lezha	05.11.1977/1983
32	Levan	200	Fier	05.11.1977/1983
33	Qafëmollë-Derje	3 300	Tirana	1960/ 1977/ 1983
34	Balloll	330	Berat	05.11.1977/1983
35	Qafë-Bushi	500	Elbasan	05.11.1977/1983
36	Bogovë	330	Skrapar	05.11.1977/1983
37	Krastafillak	250	Korça	05.11.1977/1983
38	Kuturman	3.600	Librazhd	05.11.1977/1983
39	Kular	815	Lushnja	22.08.1994
40	Rrezoma	1 400	Delvina	15.01.1996
41	Tej Drini Bardhë	30	Has	15.01.1996
42	Shelegur	430	Kolonja	15.01.1996
43	Polis	45	Librazhd	15.01.1996
44	Stravaj	400	Librazhd	15.01.1996
45	Sopot	300	Librazhd	15.01.1996
46	Qarishtë	318	Librazhd	15.01.1996
47	Dardhë-Xhyre	400	Librazhd	15.01.1996
	TOTAL	42 898		100,00 %

Category V	**Protected landscape/seascape**			
47	Bizë	1.370	Tirana	15.01.1996
48	Bërdhet	670	Tirana	15.01.1996
49	Nikolicë	510	Devoll	15.01.1996
21	Lake Ohrid	27 323	Pogradec	18.02.1999
	TOTAL	29 873		100,00 %

Category VI	**Reserve of managed resources**			
50	Luzni-Bulac	5 900	Dibra	15.01.1996
51	Piskal-Shqeri	5 400	Kolonja	15.01.1996
52	Bjeshka e Oroshit	4 700	Mirdita	15.01.1996
53	Guri i Nikës	2 200	Pogradec	15.01.1996
	TOTAL	18 200		100,00 %

* This table is not been updated with the new proclaimed nature monument

Rapport d'avancement de la mise en œuvre du Protocole relatif aux aires spécialement protégées et à la biodiversité en Méditerranée.

1- **Pays** : Algérie.

2- **Auteur du rapport** : Mr Sid Ali RAMDANE / Point focal pour le Protocole

3- **Cadre institutionnel** : Ministère de l'aménagement du territoire et de l'environnement, composé entre autres, de douze Directions techniques dont la Direction de la conservation de la biodiversité, des espaces naturels, des sites et des paysages.

4- **Cadre juridique** régissant la conservation des **espèces** :

- Décret n°83-509 du 20 août 1983 relatif aux espèces animales non domestiques complété par l'arrêté du 17 janvier 1995 ;
- Décret exécutif n°93-285 du 23 novembre 1993 fixant la liste des espèces végétales non cultivées protégées ;
- Décret exécutif n°95-252 du 26 août 1995, complétant la liste des espèces végétales non cultivées protégées fixée par le décret exécutif n° 93-285 ;
- Décret exécutif n°95-323 du 21 octobre 1995 réglementant l'exploitation des ressources corallifères ;
- Décret exécutif n°95-429 du 16 décembre 1995 fixant les conditions et les modalités de délivrance d'autorisation pour la production, la détention, la cession, l'utilisation, le transport, l'importation et l'exportation des espèces végétales non cultivées ;
- Arrêté du 17 janvier 1995 complétant la liste des espèces animales non domestiques protégées ;
- Arrêté du 9 mars 1995 fixant les tailles marchandes des grands migrateurs halieutiques ;
- Arrêté du 18 juin 1997 fixant les conditions et les modalités de pêche aux coquillages vivants.

Cadre juridique régissant la conservation des **sites** :

- Décret n°83-462 du 23 juillet 1983 portant création du parc national d'El Kala ;
- Décret n°84-327 du 3 novembre 1984 portant création du parc national de Gouraya (wilaya de Béjaia) ;
- Décret n°84-328 du 3 novembre 1984 portant création du parc national de Taza ;
- Décret n°87-143 du 16 juin 1987 fixant les règles et modalités de classement des parcs nationaux et réserves naturelles ;
- Décret n°87-144 du 16 juin 1987 fixant les modalités de création et de fonctionnement des réserves naturelles ;

5- **Statut de signature /ratification des accords internationaux pertinents** :

- Décret présidentiel n°81-02 du 17 janvier 1981 portant ratification du protocole relatif à la prévention de la pollution de la mer Méditerranée par les opérations d'immersion effectuées par les navires et aéronefs, fait à Barcelone le 16 février 1976 ;

- Décret n°85-01 du 5 janvier 1985 portant ratification du protocole relatif aux aires spécialement protégées de la Méditerranée, signé à Genève le 3 avril 1982 ;
- Décret présidentiel n°95-163 du 6 juin 1995 portant ratification de la convention sur la diversité biologique, signé à Rio de Janeiro le 5 juin 1992 ;
- Décret n°82-440 du 11 décembre 1982 portant ratification de la convention africaine sur la conservation de la nature et des ressources naturelles, signée à Alger le 15 septembre 1968 ;
- Décret n° 82-441 du 11 décembre 1982 portant adhésion de la République Algérienne Démocratique et Populaire au protocole relatif à la protection de la mer Méditerranée contre la pollution d'origine tellurique, fait à Athènes le 17 mai 1980 ;
- Décret présidentiel n°83-580 du 22 octobre 1983 portant obligation de signalement aux capitaines de navires transportant des marchandises dangereuses, toxiques ou polluantes en cas d'événement en mer ;
- Décret n°82-439 du 11 décembre 1982 portant adhésion de l'Algérie à la convention relative aux zones humides d'importance internationale particulièrement comme habitats de la sauvagine, signée à Ramsar (Iran) le 02 février 1971 ;
- Décret n° 82-498 du 25 décembre 1982 portant adhésion à la convention sur le commerce international des espèces de faune et de flore sauvages menacées d'extinction, signée à Washington le 3 mars 1973 ;
- Décret n°85-112 du 7 mai 1985 portant adhésion de l'Algérie à la Convention Internationale pour la protection des végétaux, faite à Rome le 6 décembre 1951 ; révisée par la résolution 11/79 de la Conférence de la FAO du 10 au 29 novembre 1979 ;

6- **Les aires marines et côtières (nouveaux développements) :**

Les Iles Habibas ont été classées par :

- Décret n°03-147 du 29 mars 2003 portant classement des iles Habibas (Wilaya d'Oran) en réserve marine.

D'autres zones ont fait l'objet d'études spécifiques qui serviront d'argument à leur proposition de classement. Il s'agit de l'Ile Rechgoun (Wilaya d'Ain Témouchent).

Par ailleurs, trois (03) parcs nationaux littoraux ont fait l'objet d'une étude en vue de leur extension à la zone marine. Il s'agit des Parcs nationaux d'El Kala (Wilaya d'El Tarf), de Taza (Wilaya de Jijel), de Gouraya (Wilaya de Béjaia). Le parc national de Chenoua (Wilaya de Tipaza a également fait l'objet de la même attention dans le cadre de l'étude PAC-Algérie.

7- **Les espèces marines protégées de faune et de flore**

Par décret, le gouvernement a arrêté la liste des espèces protégées que l'on peut lister comme suit :

Faune:

Monachus monachus, Alcedo atthis, Larus audouinii.

Flore:

Posidonia oceanica.

8- **Mise en œuvre de stratégie nationale et de plans d'action en ce qui concerne la zone marine et côtière en Méditerranée**.

Le littoral et la zone côtière ont bénéficié d'une attention particulière par les pouvoirs publics à travers la mise en place d'un financement dans le cadre de la relance économique s'élevant à 1,9 Milliards DA. Des actions d'aménagement et de protection des ressources sont prévues et ont touché sept (07) Wilaya littorales sur les quatorze. Du point de vue législatif et institutionnel, **la loi relative à la protection et à la valorisation du littoral a été promulguée le 2 février 2002**. Le décret portant organisation et fonctionnement du **conservatoire national du littoral** est en phase finale de négociations avant sa promulgation.

Une opération d'envergure est en cours ; elle concerne l'élaboration du cadastre du littoral qui consiste en une évaluation des potentialités de cet espace, des infrastructures qui y existent ainsi que leurs multiples impacts. A la lumière des résultats qui découleront de cette importante opération, des actions préventives et curatives seront retenues.

9- **Observations et/ou études sur des espèces introduites enregistrées dans le domaine marin côtier méditerranéen**

Aucune

10- **Liste des pays et/ou espèces endémiques de Méditerranée**

Monachus monachus, Balaenoptera physalus, Bulleana glacialis, Delphinus delphis, Globicephala melaena, Grampus rozeti, Phocoena phocoena, Physeter macrocephalus, Stenella coeruleoalba, Tursiops truncatus, Ziphius cavirostris, Alcedo atthis, Larus audouinii, Phalacrocorax aristotelis, Phalacrocorax carbo.

11- **Les activités entreprises dans le cadre de la mise en œuvre du :**

a. Plan d'action pour la gestion du phoque moine de Méditerranée

Des actions limitées dans le temps et l'espace ont été entreprises par l'Université d'Oran concernant la prospection en vue d'identifier des sujets de phoque moine dans la zone ouest du pays. Il s'agira d'élargir systématiquement le champ d'investigations. Le PAS BIO a permis le lancement de la mise en place d'un programme de collecte de données sur le phoque moine en Algérie. Cette opération constitue en elle-même, un plan d'action qui a été évalué à 100.000 $ environ.

b. Plan d'action pour la conservation des Tortues Marines de Méditerranée

Aucune action spécifique n'a été engagée au sujet de ce programme. Aucune tortue marine n'a été aperçue sur les côtes algériennes

c. Plan d'action pour la conservation des Cétacés en Mer Méditerranée.

La procédure de signature de l'Accord sur les cétacés en Méditerranée et en mer noire a été engagée et se conclurait très prochainement.

d. Plan d'action pour la conservation de la végétation marine en Mer Méditerranée.

Dans le cadre des activités liées à la conservation de la végétation marine, une station pilote de surveillance des herbiers à posidonies (*Posidonia oceanica*) a été mise en place par l'Institut des Sciences Marines et de l'Aménagement du Littoral. Une étude a été menée dans le cadre du PAS BIO en vue d'étendre le champs

d'application par la mise en place d'un réseau de surveillance des herbiers de posidonies au niveau des baies de Bou Ismail, d'Alger et de Zemmouri. CE plan d'action a été évalué à 50.000 $ environ.

12-**Activités en relation avec les inventaires** (achevés ou en cours) de sites, en utilisant le Format Standard de Données **(FSD)** pour les inventaires nationaux des sites naturels d'intérêts pour la conservation.
Les sites choisis pour être proposés au classement sont étudiés actuellement sans utilisation du Format Standard de Données

13-**Activités de collaboration** entreprises dans le cadre de la mise en œuvre du Protocole et/ou des plans d'action spécialement aux niveaux national et sous régional.
Des contacts ont été entrepris avec les responsables tunisiens en vue de la création du sanctuaire marin algéro-tunisien mais qui n'ont pas été poursuivis.

14- **Etat de la mise en œuvre des recommandations** des réunions précédentes des points focaux nationaux pour les ASP et des Parties contractantes.
La mise en œuvre des recommandations est très laborieuse.

Bosnia and Herezegovina Country Report

Ivan Buntic

Ministry of Physical Planning and Environmental Protection, Mostar, Herzegovina-Neretva County, B&H

LEGAL FRAMEWORK FOR BOSNIA AND HERZEGOVINA

In accordance with Dayton Agreement, the responsibility for the protection, conservation and promotion of environmental issues is divided between entities (Federation B&H, Republic of Srpska). In July 1998, entity ministers have signed so called Szentender Agreement in Hungary that established joint body for the environment (Coordination Committee for the Environment) for Bosnia and Herzegovina, with the aim of coordination of the environmental regulations and politics on the state level.
There is no constitutional basis in B&H Constitution for the establishment of the institutions for the protection of nature and environment on the B&H level, which is taken as the main reason for non-signing the international conventions for the nature and environment protection.
Bosnia and Herzegovina has applied for the membership in European Agency for the Environmental Protection. The main aim of Bosnia and Herzegovina should be becoming the member of EU and that aim will take it inevitably to the positive changes in environmental policy of Bosnia and Herzegovina. The state is taking very first steps in systematic regulation of nature and environmental protection.

LEGAL FRAMEWORK FOR FEDERATION OF BOSNIA AND HERZEGOVINA

The Constitution of Federation of Bosnia and Herzegovina regulates the joint jurisdiction of federal and cantonal governments for the environmental protection policy, and jurisdictions can be implemented jointly or separately, or by cantons with federal coordination. Regarding jurisdiction, Constitution has specified the mutual agreement on continuous basis. In the implementation of this jurisdictions, regarding laws and other regulations that are binding on the territory of whole Federation, and in accordance with the Constitution and decisions of Parliament FB&H, federal government will act considering cantonal jurisdictions, different situations in each canton and in accordance with necessity for flexibility in implementation. Cantons have right to establish the policy and to implement the laws that are connected to each of these jurisdictions. Furthermore, it is specified that cantons have all jurisdictions that are not explicitly given to the federal government.
With Dayton Peace Agreement entities and cantons continued with implementation of existing regulations in the area of nature and environmental protection.
The first regulation that regulated completely the nature protection in Bosnia and Herzegovina was the regulation of ex Croatian Republic of Herzeg Bosnia dated 1995, i.e. Decree on Nature Protection, that was the basis for the defining of two nature parks in Herzegovina-Neretva Canton: Nature Park Hutovo Blato and Nature Park Blidinje.
PHARE Programme of European Commission financed the design of draft of set of laws for both entities. The project is completed and the drafts of laws are designed by international and domestic experts:
. Water protection law
. Waste law

. Nature protection law
. Air protection law
. Environmental protection law
. The following step is adoption of these laws in Parliament.

International conventions

As a heritor country, Bosnia and Herzegovina has become a member of some international conventions adopted by the former Yugoslavia (The Montreal Protocol on the Protection of the Ozone Layer, Convention on Long-range Transboundary Air Pollution), but would have to adopt also certain conventions the former Yugoslavia was not one of the signatories.
International treaties, conventions and protocols the B&H have approached or ratified:
. Convention on Long-range Transboundary Air Pollution, Geneva, 1979 (Official Gazette of RBH, 13/94)
. Protocol attached to the Convention on Long-range Transboundary Air Pollution, from 1979, on long-term financing of the cooperative programme of cooperation for observation and evaluation of long-range transmission of air pollutants in Europe (EMEP), Geneve, 1984 (Official Gazette of RBH, 13/94)
. Vienna Convention on Protection of Ozone Layer, Vienna, 1985 (Official Gazette of RBH, 13/94)
. Montreal Protocol on the Protection of the Ozone Layer, 1987
. United Nations Framework Convention on Climate Change, Rio de Janeiro, 1992 (Official Gazette of RBH, 19/00).

Natural heritage
. International Convention on Conservation of Flora, Rome, 1951 (Official Gazette of RBH, 13/94)
. UN Convention on Biodiversity, Rio de Janeiro 1992. BiH approached it on 26.08.2002; the ratification process is in progress
. UN Convention to Combat Desertification in Countries Experiencing Serious Draught and/or Desertification, Particularly in Africa, Paris, 1994 (BiH signed it on 26.08.2002)
. Convention on Wetlands of International Importance, Especially as Waterfowl Habitats, Ramsar 1971, ratification on succession, 2001.

Nuclear safety
. Convention on Assistance in Case of Nuclear Catastrophe or Radiological Disaster, Vienna, 1986 (Official Gazette of RBH, 13/94)
. Convention on Early Notification on Nuclear Disasters, Vienna, 1986 (Official Gazette of RBH, 13/94).

Water
. Convention for the Protection of the Mediterranean Sea from Pollution, Barcelona, 1976 (Bosnia and Herzegovina has been a member of MAP since 1994, but has not sign the Barcelona Convention)
. Protocol on Protection of Mediterranean Sea From Pollution From the Land-based Sources, Athens, 1980 (Official Gazette of RBH, 13/94)
. Protocol on Specially Protected Areas and Biodiversity of Mediterranean, Monaco, 1996 (Official Gazette of RBH, 13/94)
. International Convention on Prevention of Sea Pollution by Oil, London, 1954, (Official Gazette of RBH, 13/94)

. International Convention on Protection From Pollution From Ships, London 1973, (Official Gazette of RBH, 13/94).
Waste
. Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, Basel, 1989 (Official herald of BiH, 31/00)
. Addition to the Basel Convention on the Control of Hazardous Wastes and Their Disposal, Basel, 1997

Ratification of the following conventions is foreseen:
. Convention on evaluation of Transboundary Environmental Impact
. Convention on Transboundary Impact of Industrial Catastrophes
. Convention on Conservation and Usage of Transboundary Waters and International Lakes
. Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus convention)
. Convention on Conservation of Danube river basin has been signed recently.

An important step in ratification of these and future conventions and treaties is effecting of the Law on procedure of singing and implementing of international treaties which was adopted by the Parliamentary assembly of B&H.

Legal framework governing the conservation of species and sites belonging to Mediterranean climatic and ecological area is limited to Herzegovina-Neretva County. Two main sites of interest for MAP activities are inside this county. The first is short coastal line (24 kilometres only) with Neum bay in municipality of Neum town

The second is Hutovo blato wetlands, as a part of delta Neretva river complex, situated 20 km from the seashore, but possessing all characteristics of Mediterranean wetlands, both ecologically and biologically. The main characteristic of both ecosystems is close relations with adjacent Croatian areas. This means that coastline is situated inside famous Mali Ston Bay, well known as a shellfish site, and now proclaimed by Croatian authorities as a special reserve. On the B&H coast in Neum, the major activity is tourism and trade. The problem with sewage disposal was solved before twenty years, by building of 50-km long canalisation from Neum to offshore Croatian water near island Mljet. Hence, the water of Mali Ston Bay was preserved for aquaculture, especially shellfish rearing, and today present a first zone (EU regulation). The aquaculture was started inside Neum bay, so two fish farm (300 tons capacity) and smaller extensive mussel rearing existed today.
On the other side, Hutovo blato wetlands present well-preserved and protected site in the wider relations. This means that Park of Nature public enterprise was established in 1995 by decision of former Croatian republic Herzeg-Bosna. Today, Park of nature has 17 employees and is financed by Croatian part of Government of this two-national county. More funds, from federal and country level is needed in order to enhance Park structure
There is no protected marine and coastal species of fauna and flora in Bosnia-Herzegovina. This area is totally under-investigated, so funds have to be raised in order to describe flora and fauna of this marine area, before any step towards protection. The ecological studies about influence of fish farm on sea water quality is also necessary in order to preserve good water quality for tourism and shellfish rearing.
Presently, there is no strategy of national biodiversity, neither action plans considering Mediterranean coastal zone of Bosnia-Herzegovina.
We suppose that B&H marine waters are still free of any introduced species, But, final confirmation of this statement, is possible only after research of marine ecosystems.

Abundance of introduced species estruarine.wetlands area of Hutovo Blato is on critical level, especially in the two greates lake. The main reason for introduction of new species was to enhance economic properties of the wetlands.

List of endemic species: there is no endemic marine species. However, Hutovo blato wetlands are rich in fish and plant endemic species. Some of the interests are:
dentex trout, *Salmo dentex* (or according to new systematic, but without any scientific data *Salmo trutta dentex*), with specimens above 30 kilos.
Neretvanian nase, *Chondrostoma kneri*.

Because of the fact that marine area of B&H is practically small bay inside Croatian bay of Mali Ston, under strong influence of Neretva river estuary and closed to offshore waters, it is hardly to believe that monk seal, marine turtles and Cetaceans, should enter these waters. In fact, these animals were never seen in this bay. This means that no need exist to waste many on the implementation of these Action Plans in Bosnia-Herzegovina. Considering, Action Plan for the conservation of Marine vegetation, we need firstly to investigate their presence in B&H waters. To be honest, because of rocky coast and deep waters, we don't think that they are worth of Action Plan.
There is no inventory of sites using Standard Data-Entry Form (SDF).

I would like to stress that the Project titled "Development of new management policy for Hutovo Blato wetlands, /LIFETCY99/B&H/035, supported by the EU (Life Third Countries Program 1999) was completed at the end of the last year.
And the role of the REC mission is to assist in solving the environmental problems in Central and Eastern Europe through the promotion of cooperation among non-governmental organizations, governments, businesses and other environmental stakeholders, the free exchange of information and public participation in environmental decision making.
This non-governmental organization has recently been of a great assistance to local associations dealing with protection and improvement of the environment in the Canton that covers the Mediterranean wetland, the Neretva delta and the coastal and maritime area of Bosnia and Herzegovina, by giving them financial support through minor grants. Their project titled "Promotion of Networks and Exchanges in the Countries of South Eastern Europe" NERETVA DELTA /REReP 4.3.23. is just about to be completed.

One must mention here the activities of Bosnia and Herzegovina related to SAP BIO project, where the National Report was compiled, including priority activities, as well as the Action plans for coastal and maritime area, where we expect your assistance and realization of certain projects in foreseeable future.

Such projects, as well as possible implementation of certain future projects will give numerous information regarding biodiversity and its conservation in wetland, coastal and maritime area of Bosnia and Herzegovina. On the other hand there will be much more pages to add to different documents, such as, e.g. Country reports, or books "Legal analysis of the measures adopted by Mediterranean coastal states to minimize the impact to fishing activities on marine ecosystems and non-target species" which are sometimes understated or even blank.

Therefore I am kindly asking for your understanding when it comes to elaboration of this report or similar ones.

Country report 2003 Croatia

Country: Republic of Croatia

Authors of the Report:
Ms. Margita Mastrovic, Head of the Unit for the protection of the sea, Ministry of Environmental Protection and Physical Planning; NFP Coordinator for RAC/SPA;

Ms. Gordana Pavokovic, Staff Associate, Ministry of Environmental Protection and Physical Planning; NFP representative for RAC/SPA;

Institutional framework
Ministry of Environmental Protection and Physical Planning is a governmental authority in charge of managing of Croatian nature, environment and physical planning. Ministry is undertaking administrative and expert duties regarding environmental protection, nature protection and physical planning.
Ministry is structured into 7 divisions and 1 Institute: Two divisions that are competent for nature and biodiversity protection are: Nature Conservation Division and Environmental Protection Division. The first one take in charge overall nature and biodiversity protection according to the international conventions and agreements related to the nature and biodiversity protection. Environmental Protection Division and within it Marine and Coastal Protection Unit in Rijeka is in charge among others for protection of marine and coastal environment according the Barcelona Convention and its Protocols as well as for implementation of measures and organisation of activities according to the Adriatic Sea Pollution Contingency Plan, collection and management of data on coastal beach sea quality, preparation of sanitation programme for elimination of pollution of marine and coastal environment, developing of international cooperation etc.

Legal framework governing the conservation of species and sites
The Constitution of the Republic of Croatia (OG 8/98) legally defines all components of natural resources as being of interest for the Republic and enjoying its special protection.
The Declaration on Environmental Protection in the Republic of Croatia (OG 34/92) states the initial terms for establishment of efficient environmental and nature protection in accordance with economic development using the principles of sustainable development.
Law on Environmental Protection (OG 82/94, 128/99) which regulates environment protection in its general provisions, among other states that the basic goal of environmental protection in creating conditions for sustainable development is among other permanent preservation of authentically natural communities, biodiversity and preservation of environmental stability as well as rational use of national resources.
Law on Nature Protection (OG 30/94, 72/94) – according to this Law, nature protection is implemented by establishing protected parts of nature: national parks, nature parks, strict reserves, special reserve, park forests, protected landscapes, monuments of nature, monuments of park-architecture and individual plant and animal species.
New Nature Protection Bill was drafted and its official Governmental procedure completed and passed to the Parliament for enacting. This new Law will regulate the problematic of introduction of not indigenous species on the level of State and on the level of ecosystems

Status of signature/ratification of relevant international agreements
The Republic of Croatia has accepted the internationally established legal framework for the nature and environmental protection by succession, setting its constitutional determinants accordingly. Conclusion and Enforcement of International Treaties of 1991, in particular to the Resolution on Enforcing Multilateral International Treaties, the Republic of Croatia has become a Party to numerous international treaties, through ratification, or notification of succession.

Status of signature and ratification on international legal instruments

International legal instruments	Signed	Ratified
Convention on Biological Diversity	+	+ (1996)
Convention of Wetlands of International Importance	+	taken by succession 1993.
Convention Concerning the Protection of the World Cultural and Natural Heritage	+	taken by succession 1993.
Convention on the International Trade in Endangered Species of Wild Fauna and Flora	+	+ (1999)
Convention on the conservation of European wildlife and natural habitats	+	+ (2000)
Convention on the conservation of Migratory Species of Wild Animals	+	+ (2000)
Agreement on the Conservation of cetaceans of the Black Sea, Mediterranean Sea and contigenus Atlantic Area	+	+ (2000)
Agreement on the conservation of bats in Europe	+	+(2000)
Agreement on the conservation of African-Euroasian migratory waterbirds	+	+(2000)
Convention on European Landscapes	+	+(2000)
Protocol Concerning Special Protected Areas and Biological Diversity in the Mediterranean Sea	+	+(2001)

The principal activities in the Adriatic aimed at environmental protection with international co-operation are implemented within the UNEP-MAP and its centres, all within the Barcelona Convention for the Protection of the Mediterranean Sea against Pollution (1976, 1996) and the related Protocols.

Marine and coastal protected areas

Today around 9,9 % of land territory and 0,91 of aquatorium area is under protection in the Republic of Croatia. Most of the protected area (8,7 %) is related to the national (8) and nature parks (10), which are under state authority while the other categories of protected area are under counties authority. Out of 8 national parks, 5 are situated partly or completely in marine and coastal area, so as 5 of 10 nature parks.

In the period of 1999-2001 protected area in Croatia has been enlarged for one national park "North Velebit" and four nature parks: Ucka, Papuk, Žumberak and Samoborje Hills and Vransko Lake.

Protected marine and coastal species of fauna and flora

Some of the species of flora and fauna are protected either completely or by regulation of their collection for purposes of preparation and trade.

Protected species:

Group	Remark	Protected
Mammals	the majority of indigenous species excepting "problematic" and hunting species, + all other Cetaceans (X)	61+ X
Birds	all Croatian breeding birds and all other European species (X) excepting hunting species, cormorant on fishponds and starling and sparrows on agricultural land	283 + X
Reptiles	all indigenous species excepting nose-horned viper and common adder	34

Amphibians	all indigenous species (3 species of edible frog protected by ban on commercial gathering)	17 + 3
Invertebrates	forest ant, six butterfly species, three species of marine shellfish, all sea cucumbers (36 species), protection through ban of gathering, 120 species of mainland snails (+4 species of genus Helix protected through regulation of gathering), leech *Hirudinidae* (2 species), crayfish *Astacidae* (3 species). + date-shell *(Lithophaga lithophaga)*	137 + 40
Threatened fungi		130
Economically important fungi	protected through regulation of gathering	29
Higher plants		44
Total		777 + X

Implementation of National Biodiversity Strategy and Action Plans with regard to the Mediterranean coastal zone
The National Strategy and Action Plans for the Protection of Biological and Landscape Diversity was developed and adopted by Croatian parliament in June 1999. The NSAP is the first document by which the Republic of Croatia is trying to chart systematically and to plan comprehensively the nature protection activities. Implementation of NSAP goes through different projects, some of them directly connected to the coastal zone, like the GEF/UNEP project 'Conservation of biodiversity in coastal zone through integrated management' (COAST) and GTZ-Master plan.

Observations/studies about alien species recorded in the Mediterranean marine and coastal zone
There is permanent co-operation between oceanographic institutes in country with relevant governmental bodies, local governmental authorities, NGOs and other Mediterranean institutions on the problem related to the invasive *Caulerpa* species. Every year annual cartographic surveys and monitoring of Caulerpa taxifolia colonies are being conducted on determinate geographical locations and researching of algae biology and ecology.

List of country and/or Mediterranean endemic species
According to the National Biodiversity Strategy, in Croatia there are 1358 endemic taxa (species and subspecies): 439 endemic Plants (algae, mosses, spermatophytes) – Atlas of endemic flora is in preparation; 82 endemic Lichens; 108 endemic Vertebrates; 730 endemic Invertebrates. Complete list of endemic species is not yet available.

Activities undertaken in the framework of implementation of :
1. Action Plan for the Management of the Mediterranean Monk Seal

National Biodiversity Strategy and Action Plans envisage the Action Plan for the protection and reintroduction of the Mediterranean Monk Seal as well as Action plan on mapping and protection of submarine caves as a potential seal habitat. So far action plans haven't been elaborated and implemented. NGO 'Mediterranean Monk Seal' works on mapping of submarine caves as a potential seal habitat, as well as on education of local fisherman and school children.

2. Action Plan for the Conservation of Mediterranean Marine Turtles

Undertaken activities are scientific research and monitoring, research activities were oriented on movements and origin of the loggerhead sea turtle in Adriatic Sea and character migrations and identification of marine critical habitats. Due to the research results, loggerhead turtle is listed as priority species within the National Strategy for Biodiversity, but there are no specially protected area regarding marine turtles in Croatia.

3. Action Plan for the Conservation of Cetaceans in the Mediterranean Sea

Since 1987 a population of bottlenose dolphin has been studied in northern Adriatic. Implementation of Adriatic Dolphin Project is undertaken by NGO "Blue World" in co-operation with Croatian Natural History Museum. Veterinary Faculty in Zagreb also monitors dolphins and whales in Adriatic for several years now.

4. Action Plan for the Conservation of Marine Vegetation in the Mediterranean Sea

Research on marine vegetation has been implemented by scientific institutions for almost 30 years, there are several AP concerning research, cartography, monitoring and protection of the sea vegetation, but there is no systematic elaboration and implementation of them. *Posidonia oceanica* meadows cover a great deal of a sea bottom.

Activities related to the inventories (completed or ongoing) of sites using the Standard Data-Entry Form (SDF) for national inventories of natural sites of conservation interest.

So far SDF has not been used in establishing national inventory of natural sites of conservation interest. As a start, we intend to include SDF in Information system of environmental protection as well as to implement SDF in future project related to nature protection in the coastal marine areas.

Collaborative activities undertaken within the framework of the implementation of the Protocol and / or the Action Plans, especially at bilateral or sub-regional levels.

Croatia have been undertaken more actions within the framework of the implementation of the Protocol and Action Plans.

On the basis very fruitful co-operation several nature protection projects are in preparation in the Northern part of the Adriatic in collaboration with the Principality of Monaco.

Project for evaluation of the area Cutin in Cres-Lošinj archipelago as potential marine reserve important for dolphins and sea turtles is being implemented in 2002-2003, financed by Monaco

The Lower Neretva valley is the Ramsar site located partly in Bosnia and Herzegovina (Hutovo blato) and partly in the Republic of Croatia (the Neretva Delta. In 2001, in cooperation between the Ministry of Environmental Protection and Physical Planning of the Republic of Croatia and the Ministry of Construction, Physical Planning and Environmental Protection of the Hercegovina-Neretva County in Bosnia and Herzegovina, and with the financial support from the Ramsar Convention Small Grant Fund, the project entitled Preparation of the Transboundary Management Plan for the Lower Neretva Valley was completed.

The purpose of activities performed was to make the proposal of project for the preparation of a transboundary management plan as the basis for the beginning of cooperation and its further realisation, as well as for finding necessary financial resources. As a part of the project, an extensive documentation on the Lower Neretva valley was prepared, which will serve for further assessment and conservation of this area.

Country Report – Cyprus

Meeting of National Focal Points for SPA
Marseille - June 2003

***Country*:** CYPRUS

***Author*:** Myroula Hadjichristophorou, Fisheries and Marine Research Officer, Department of Fisheries and Marine Research. Ministry of Agriculture, Natural Resources and Environment.

Brief description of institutional framework: The Department of Fisheries and Marine Research is responsible for marine biodiversity and for coastal biodiversity of marine/aquatic origin. It is responsible also for habitat protection in the sea and on the coast in relation to species of marine/aquatic origin. The Forestry Department is related to coastal forest areas and the Town and Country Planning Department for land use issues. The Environment Service coordinates activities and issues and acts as the secretariat for the Environment Committee on which sit all Ministries and Departments involved in Environmental issues. A Technical Committee also exists that deals with technical/scientific issues.

Main Legal Instruments

In addition to the existing national legislation, which is listed below, Cyprus is in the European Union accession process and most of the EU Directives on the environment have been transcribed into national law or are in the final stages of their adoption. These include: Habitat Directive, Bird Directive, EIA Directive, and Access to Information Directive etc**.**

Environment:

Fisheries Law (CAP 135), Fisheries Regulations (273/90) – and amendments

Environmental Impact Assessment Law (No 57(1)/2001)

The Town and Country Planning Law (No. 90/72, Amending Laws 56/82, 7/90, 28/91, 91(I)/92, 55(I)/93, 72(1)/98, 59(1)/99 & 142(1)/99 and its Policy Statement for the Countryside

The Foreshore Protection Law (CAP 59 and No. 22/61, and Amending Laws)

The Forest law.

The Game and Wild Birds Protection and Management Law (39/1974) and Regulations (266/1996).

Protected areas and species*:*

Marine/coastal*:* Fisheries Law (CAP 135) and Regulations (273/90, 94/1994)(All marine waters and coastal to the extent the coastal area is a habitat for marine species e.g., turtle nesting beaches).

Coastal in forest areas*:* The Forest Law (No14/1967)

In the rest of the coastal area: The Town and Country Planning Law (No. 90/72, Amending Laws 56/82, 7/90, 28/91, 91(I)/92, 55(I)/93, 72(1)/98, 59(1)/99 & 142(1)/99 and its Policy Statement for the Countryside

The Foreshore Protection Law (No. 22/61, and Amending Laws)

***Fisheries**:*

Fisheries Law (CAP 135), including amendments of this law, and the Consolidated Fisheries Regulations of 1990 (No. 273/90) adopted on the basis of Article 6 of the Fisheries Law and Regulations 1994-2002.

Status of signature/ratification of relevant international agreements:

a. Conventions, Protocols etc ratified

Barcelona Convention (R – 1979) Amendments (Acc. 2001)
- SPA Protocol (R - 1988)
- Protocol on Specially Protected Areas and Biological Diversity (R - 2001)
- LBS Protocol (R - 1988) Amendments (Acc. 2001)
- Emergency Protocol (R -1979)
- Dumping Protocol (R – 1979) Amendments (Acc. 2001)
- Offshore Protocol (R 2001)

Bern Convention (R - 1988)
Convention on Migratory Species (R - 2001)
- ACCOBAMS (S)

RAMSAR (R - 2001)
Desertification (R – 2001)
Convention on Biological Diversity (Biodiversity Convention) (R - 1996)
Convention Concerning the Protection of the World Cultural and Natural Heritage (R - 1975)
CITES (R - 1974)
GFCM Agreement (FAO)
Aarhus Convention (S – 1999)

Note: S - Signed R- Ratified

Marine and coastal protected areas (new developments):

The NATURA 2000 Network
The study funded by the Life - Third Countries Programme, has been completed and a large amount of data has been collected and evaluated by an inter-departmental committee made up or representatives/experts from the relevant Departments. These included the Environment Service, the Departments of Forests, Fisheries and Marine Research, Geological Survey, Game Fund, Town Planning etc. The prescribed EU Data Forms and instructions were followed. The study included all habitat areas and species for inclusion in the Annexes of Directive 92/43 (the Habitat Directive) and in the Annexes of Directive 79/409 (the Birds Directive). Through this project, which ended at the end of 2001, 38 potential Natura sites were identified and described. Of these, 13 have coastal and marine components (two are marine sites only) and another three are coastal only (a total of 16).

Marine/Coastal Protected Areas

a. Lara/Toxeftra Turtle Reserve.
The Lara/Toxeftra area has been protected, since 1989, under the Fisheries Legislation as a coastal/marine reserve for turtle conservation (no change)

b. Larnaca Salt Lakes

The Larnaca salt Lakes have been protected since 1997 on the basis of a Council of Ministers decision. The Council of Ministers with the above Decision also approved the Management Plan for these lakes. The plan includes *inter alia* the acquisition of land adjacent to the lake and acquisitions are under way. A sum of about $12m has been pledged for these acquisitions. In 2001, the Main Larnaca Salt Lake has been declared as Cyprus' first RAMSAR site, with the ratification of this convention.

Other Coastal Protected Areas

The Policy Statement for the Countryside issued on the basis of The Town and Country Planning Law is also in place in the coastal zone and includes in the following categories and areas (in hierarchical order):

Nature Protection Shores and Areas: Cavo Greco, Makronissos, Randi Forest, Akamas.

Protected Areas: Pomos cliffs, Liopetri Estuary, Cavo Greco cliffs, Pissouri cliffs.

Areas of Outstanding Natural Beauty: Peyia, Kouklia, Pissouri, Neo Chorio.

On the basis of the Forest Law a number of forest areas on the coast are also specifically protected. The include Cavo Greco and the Akamas Forest.

Protected marine and coastal species of fauna and flora: The following aquatic species are specifically protected by the Fisheries legislation (this mentions that the killing, possession, selling or attempts at these, or the possession or selling of any parts or derivatives from these species is prohibited): Aquatic turtles (marine and freshwater - including their eggs), the Monk seal, all dolphin species and the crabs *Ocypode cursor* and *Potamon potamios*. In addition the collection of *Artemia salina* cysts from the salt lakes is prohibited

No species from inland waters (including the salt lakes) may be pursued, owned, killed etc without a permit in writing, from the Director of the DFMR.

The importation of live aquatic animals is controlled by the Fisheries legislation.

In addition, Cyprus implements the provisions of international Conventions that have been ratified (Bern, Barcelona - including its Protocol on SPA and Biodiversity - CITES, CBD) for the conservation of species and habitats and the species etc listed in these Conventions/Protocols are also protected.

***Implementation of national biodiversity strategy and actions with regard to the Mediterranean coastal zone*: -**

Observation/studies about alien species recorded in the Mediterranean coastal zone:

Studies, some detailed, have been made on invasive alien species such as *Caulerpa racemosa* and *Cladophora patentiramea* (?) and some papers have been published on the issue (see for example *Demetropoulos, A. and M. Hadjichristophorou. 2002. Alien marine species in the Mediterranean – on leaving the door open while closing the windows. T-PVS/Inf (2002) 33*. In Proceedings: Workshop on Invasive Alien Species on European Islands and Evolutionary Isolated Ecosystems, Convention on the Conservation of European Wildlife and Natural Habitats, Council of Europe. pp 34-36). Deliberate introductions of aquatic species are controlled by the Department of Fisheries and Marine Research.

List of country and/or Mediterranean endemic species (if available for the country): Within the NATURA 2000 project, a national archive of ecological data of Cyprus, BIOCYPRUS, has been produced which includes inventories of fauna and flora and habitats as well as their mapping. This includes the endemic species of plants and animals of Cyprus.

Activities undertaken in the framework of the implementation of*:*

a. ***Action Plan for the Management of the Mediterranean Monk seal***: There is ongoing activity related to Monk seal habitat protection within the wider Akamas Peninsula conservation proposal, which is currently being deliberated by Government. Monk seal sightings are monitored.
b. ***Action Plan for the Conservation of the Mediterranean Marine Turtles***: Conservation work on turtles is ongoing. This includes: The management of the Lara/Toxeftra turtle reserve and the protection of nests and hatchlings on the Polis/Limni loggerhead nesting beaches; operation of a hatchery for rescued nests from tourist beaches; training courses for Mediterranean scientists/managers of protected areas at Lara/Toxeftra Reserve, in cooperation with Cyprus Wildlife Society. Public awareness issues are pursued *inter alia* through an information center at Lara, documentaries for TV etc
c. ***Action Plan for the Conservation of Cetaceans in the Mediterranean***: All dolphin species are protected under the Fisheries Law. This is enforced by the Department of Fisheries and Marine Research. Compensation for damages to nets by dolphins was again granted to fishermen in 2002. Strandings are monitored.
d. ***Action Plan for the Conservation of Marine Vegetation in the Mediterranean*****:** Posidonia meadows are protected through banning trawling in shallow waters (less than 55m), under the Fisheries Law.

Activities related to the inventories (completed or ongoing) of sites using the standard Data-Entry Form (SDF) for national inventories of natural sites of conservation interest:
See text under Natura 2000 above

Collaborative activities undertaken within the framework of the implementation of the Protocol and/or the Action Plans, especially at bilateral or sub-regional levels:
Training courses in turtle conservation are being held every year for Mediterranean scientists/managers of protected areas, in collaboration with the Cyprus Wildlife Society. This includes trainees sponsored by RAC/SPA.

Status of implementation of the recommendations of earlier meetings of the Focal points and of the Contracting parties: *See actions above*

Country Report for the Meeting of National Focal Points for SPA

Country: Egypt

Authors of the report: Dr. Moustafa M. Fouda, Dr. Sherif M. Baha El Din

Institutional framework:
The Nature Conservation Sector (NCS) of the Egyptian Environmental Affairs Agency (EEAA) is the body responsible for activities related to nature conservation in Egypt.

Legal framework:
Law 102/1983 established the legal framework for the creation of protected areas in Egypt. NCS, as the responsible body within the EEAA, has the legal mandate to declare and manage protected areas in Egypt according to Law 102/1983. All development and other human activities are meant to be strictly controlled in protected areas. For example, hunting is forbidden, and certain types of development can be allowed in some cases, only after a thorough EIA process, and only within a given area of the protected area.

Law 4/1994 gives the EEAA the legal mandate over biodiversity management and conservation issues, coordination of hunting management and overseeing compliance to the provisions of international conventions.

Status of signature / ratification of relevant international agreements:

Convention Title	Date of Signature	Date of Enforcement	Ratification	Acceptance
Convention Relative to the Preservation of Fauna and Flora in Their Natural State, London, 1933	8.11.1933	14.1.1936	14.1.1936	21.2.1935
African Convention on the Conservation of Nature and Natural Resources, Algiers, 1968	15.9.1968	16.6.7969	16.3.1972	15.9.1968
Convention on Wetlands of International Importance Especially as Waterfowl Habitat, Ramsar, 1971	3.12.1988	9.9.1988	9.9.1988	7.2.1974
Convention Concerning the Protection of the World Cultural and Natural Heritage, Paris, 1972	7.2.1974	17.12.1975	7.2.1974	
Convention on International Trade in Endangered Species of Wild Fauna and Flora, Washington, 1973	4.1.1978	4.4.1978	4.1.1978	
Convention for the Protection of the Mediterranean Sea Against Pollution, Barcelona, 1976	16.2.1975	23.9.1978	24.8.1978	
Protocol Concerning Mediterranean Specially Protected Areas, Geneva, 1982	16.2.1983	23.3.1986	8.7.1983	
Protocol Concerning Specially Protected Area and Biological Diversity in the Mediterranean, Barcelona, 1995	16.2.1976	20.11.1999	10.6.1995	
Convention on the Conservation of Migratory Species of Wild Animals, Bonn, 1979	23.6.1979	1.11.1983	11.2.1982	
United Nations Convention on the Law of the Sea, Motego Bay, 1982	10.12.1982	26.8.1983	26.8.1983	
Convention on Biological Diversity, Rio de Janeiro, 1992	2.6.1992	29.12.1993	2.6.1994	
United Nations Conventions to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, Paris, 1994	14.10.1994	26.12.1996	7.7.1995	
Agreement on the Conservation of African-Eurasian Migratory Waterbirds, The Hague, 1995	20.8.1997	24.1.1999	22.11.1996	

Marine and coastal PA developments:
There are currently five PAs established along the Egyptian Mediterranean coast. These are from east to west: El Ahrash, Zaranik, Ashtum El Gamil, Lake Burullus and El Omayed. Three of these PAs (Zaranik, Burullus and El Omayed) have been the subject of a GEF funded project aiming at the enhancement of management of PAs in several Mediterranean countries (GEF/UNDP/MedWet Mediterranean Wetland Project). The three target PAs had extensive site diagnosis surveys conducted, leading to the development of management plans for each and the initiation of a variety of enabling, and training activities.

Practical measures are being initiated for the establishment of two new PAs on the Egyptian Mediterranean coast: one at El Qasr (south west of Marsa Matruh) and one at Salum (on the Libyan borders). It is expected that the two will be declared and practical measures to manage them be taken within two years. Initial funding for the management of the new PAs will come from a GEF/World Bank project for the sustainable agricultural development of the Egyptian western Mediterranean coast, part of the Matruh Resources Management Project II (MRMPII).

The GEF / UNDP Medicinal Plants Conservation Project is seeking at identifying important sites for plant diversity, with the aim of protecting them.
The Swiss fund supported a grass root effort to conserve biodiversity in the El Daba area, west of Alexandria, through local participatory initiatives and NGO involvement. The activity also aimed at identifying a new PA to be recommended as a new addition to the PA network in Egypt.

Protected marine and coastal species of fauna and flora:
The Egyptian constitution considers the provisions of any international convention to which Egypt is a signatory party as law in the country. Thus, all species listed in the various conventions to which Egypt is party (such as CMS) enjoy the appropriate level of protection in the country. In the attached appendices only the species for which specific decrees have been issued for their protection on the Mediterranean coast of Egypt.

Implementation of the NBSAP with regards to Mediterranean marine and costal zone:
Coastal and marine biodiversity received a high priority in Egypt's NBSAP. The NBSAP called for the establishment of a national marine and coastal management program, a national wetlands management program, and to establish a representative network of PAs and their appropriate management.

The EEAA established a national oil spill contingency plan designed to avert the negative consequences of oil spills, which is an important component of the management of marine and coastal resources. Currently the MedWet / GEF / UNDP Mediterranean Wetlands Project is developing a wetland conservation strategy for Egypt. Lake Burullus was established in recent years and two further coastal PAs will be established in the coming two years. The management of the Mediterranean PAs receives the highest priority from the EEAA.

Alien species
A workshop was held in May 2002 discussing the issue. Participating agencies included the EEAA (NCS), Universities, Ministry of Agriculture, Police, Transportation Ministry, and various concerned individuals and experts. The workshop summarised the state of knowledge on invasive species in Egypt and established recommendations for future action. Currently a national project to study (taxonomy, ecology, impacts) of alien invasive species of plants (especially agricultural weeds) and animals is being elaborated.

Egypt is participating in a Mediterranean wide initiative to study and control invasive marine organisms. Movement of alien species through the Suez Canal is seen as the primary cause for invasions of alien species into the Mediterranean.

Endemic species
There are seventeen endemic and near endemic plant species occurring in the Mediterranean coastal belt of Egypt. All are potentially globally threatened by various types and degrees of danger, e.g. *Helianthemum sphaerocalyx* can no longer be seen in its traditional (restricted) locality around Burg El Arab as this area has been subjected to extensive development and habitat alteration. There are four endemic and near endemic mammals occurring in the Mediterranean coastal belt of Egypt. There are no endemic bird species, but there are several endemic subspecies, these are mostly found in the Nile Valley and Delta. There are four endemic and near endemic species of reptiles and amphibia occurring in the Mediterranean coastal belt of Egypt. There are no endemic or near endemic species of fish or aquatic invertebrates occurring in Egyptian Mediterranean wetlands. There are 23 endemic or near endemic species of insect known to occur in the Mediterranean coastal belt of Egypt. No species are currently listed as globally threatened by IUCN, but national experts propose that all 23 endemic/near endemic species be listed as threatened. There are no endemic or near endemic species of scorpion occurring in the Egyptian Mediterranean region and none which are considered to be globally threatened. There are 51 endemic and near endemic species of spiders which have been recorded in the Mediterranean coastal belt of Egypt. None of these species is currently considered by IUCN as globally threatened.
(See appendix II for a list of species endemic (or near endemic) to the Egyptian Mediterranean coast).

Activities undertaken in implementation of the action plan for the conservation of Mediterranean Monk Sea
No action as Egypt is not a range state for the Monk Seal.

Activities undertaken in implementation of the action plan for the conservation of Mediterranean marine turtles
The entire Mediterranean coastline was surveyed to identify potential and actual nesting sites as part of a Darwin Initiative funded project. Site management measures are being taken for the main identified nesting hotspot in Zaranik Protected Area, now considered a core zone for the PA. Educational material was produced. A campaign was conducted to assess the impact of turtle catching and sale in Alexandria and to stop the practice. This was conducted in cooperation with local NGOs. A workshop was held in Cairo to discuss turtle conservation measures across the Mediterranean. The workshop focused on Egyptian issues.

Activities undertaken in implementation of the action plan for the conservation of cetaceans in the Mediterranean

No action due to the relatively low importance of Egypt for cetaceans (as far as known), lack of information and lack of resources.

Activities undertaken in implementation of the action plan for the conservation of marine vegetation in the Mediterranean

As part of the Med Wet / GEF Mediterranean Wetland Project surveys were undertaken of marine vegetation off three PAs. Scientific reports were prepared which include recent data on the marine vegetation in these areas. The lack of resources makes it extremely difficult to take further proactive measures to conserve marine vegetation.

Inventories

Over the past few years several inventory efforts have documented natural sites of conservation interest along the Egyptian Mediterranean coast. The Egyptian PA system plan includes a good coverage of conservation interest along the Egyptian Mediterranean coast, in addition the NCS maintains an updateable database of all Egyptian PAs. Both the Med Wet / GEF / UNDP Mediterranean Wetland Project and the GEF / UNDP Medicinal Plants Conservation Project have site inventory components, which have benefited our knowledge of important sites for biodiversity conservation in the Mediterranean coast of Egypt.

Collaborative activities

Egypt has participated in many regional activities related to biodiversity conservation in the Mediterranean. The Med Wet / GEF Mediterranean Wetland Project represents one of the most prominent of these activities, conducted on a regional basis. Egypt is also cooperating in the formulation of a regional strategy to combat alien species in the Mediterranean.

Implementation of recommendations of earlier SPA meetings

A national committee was establishedto consider: a strategy for the conservation of marine and costal biodiversity in the Egyptian Mediterranean. A consultant was identified and assign preparation of a national report on Strategic Action Plan for the Conservation of Biodiversity in the Mediterranean Region (SAB BIO Project). This report was revised and accepted by the committee. This was followed by a detailed action plan on several issues, and were sent to RAC/SPA.

Appendix I: Protected marine and coastal species of fauna and flora

Mammals

SPECIES (ENGLISH)	(LATIN)
Four-toed Jerboa	*Allactaga tetradactyla*
Cape Porcupine	*Hystrix africana*
Mole Rat	*Spalax leucodon*
Red Fox	*Vulpes vulpes*
Rüppel's Sand Fox	*Vulpes rueppelli*
Fennec Fox	*Vulpes zerda*
Egyptian Mongoose	*Herpestes ichneumon*
Sinai Leopard	*Panthera pardus jarvisi*
Cheetah	*Acinonyx jubatus*
Dorcas Gazelle	*Gazella dorcas*
Slender-horned Gazelle	*Gazella leptoceros*

Reptiles & amphibians

NAME (ENGLISH)	(LATIN)
Egyptian Spiny-tailed Lizard	*Uromastyx aegyptius*
African Chamaeleon	*Chamaeleo africanus*
Mediterranean Chamaeleon	*Chamaeleo chamaeleon*
Desert Monitor	*Varanus griseus*
Nile Monitor	*Varanus niloticus*
Egyptian Sand Boa	*Eryx jaculus*
Black Cobra	*Walterinnesia aegyptia*
Nile Crocodile	*Crocodylus niloticus*
Egyptian Tortoise	*Testudo kleinmanni*
Loggerhead Turtle	*Caretta caretta*
Green Turtle	*Chelonia mydas*
Hawksbill Turtle	*Eretmochelys imbricata*
Nile Soft Shell Turtle	*Trionyx triunquis*

Birds

SPECIES (ENGLISH)	(LATIN)
Little Grebe	*Tachybaptus ruficollis*
White Pelican	*Pelecanus onocrotalus*
Dalmatian Pelican	*Pelecanus crispus*

Bittern	*Botaurus stellaris*
Little Bittern	*Ixobrychus minutus*
Squacco Heron	*Ardeola ralloides*
Cattle Egret	*Egretta ibis*
Little Egret	*Egretta garzetta*
Great White Heron	*Ardea alba*
Grey Heron	*Ardea cinerea*
Purple Heron	*Ardea purpurea*
Black Stork	*Ciconia nigra*
White Stork	*Ciconia ciconia*
Glossy Ibis	*Plegadis falcinellus*
Spoonbill	*Platalea leucorodia*
Greater Flamingo	*Phoenicopterus ruber*
Ruddy Shelduck	*Tadorna ferruginea*
Shelduck	*Tadorna tadorna*
Wigeon	*Anas penelope*
Mallard	*Anas platyrhynchos*
Garganey	*Anas querquedula*
Marbled Duck	*Marmaronetta angustirostris*
Pochard	*Aythya ferina*
Ferrugineous Duck	*Aythya nyroca*
White-headed Duck	*Oxyura leucocephala*
Honey Buzzard	*Pernis apivorus*
Black-shouldered Kite	*Elanus caeruleus*
Black Kite	*Milvus migrans*
Red Kite	*Milvus milvus*
White-tailed Eagle	*Haliaeetus albicilla*
Lammergeyer	*Gypaetus barbatus*
Egyptian Vulture	*Neophron percnopterus*
Griffon Vulture	*Gyps fulvus*
Black Vulture	*Aegypius monachus*
Short-toed Eagle	*Circaetus gallicus*
Bateleur	*Terathopius ecaudatus*
Marsh Harrier	*Circus aeruginosus*
Hen Harrier	*Circus cyaneus*
Pallid Harrier	*Circus macrourus*
Montagu's Harrier	*Circus pygargus*
Gabar Goshawk	*Micronisus gabar*
Goshawk	*Accipiter gentilis*
Sparrowhawk	*Accipiter nisus*
Levant Sparrowhawk	*Accipiter brevipes*
Buzzard	*Buteo buteo*
Long-legged Buzzard	*Buteo rufinus*
Lesser Spotted Eagle	*Aquila pomarina*
Spotted Eagle	*Aquila clanga*
Steppe Eagle	*Aquila nipalensis*
Tawny Eagle	*Aquila rapax*
Imperial Eagle	*Aquila heliaca*
Golden Eagle	*Aquila chrysaetos*
Booted Eagle	*Hieraaetus pennatus*
Bonelli's Eagle	*Hieraaetus fasciatus*
Osprey	*Pandion haliaetus*
Lesser Kestrel	*Falco naumanni*
Kestrel	*Falco tinnunculus*
Red-footed Falcon	*Falco vespertinus*
Merlin	*Falco columbarius*
Hobby	*Falco subbuteo*
Eleonora's Falcon	*Falco eleonorae*
Sooty Falcon	*Falco concolor*
Lanner	*Falco biarmicus*
Saker	*Falco cherrug*
Peregrine	*Falco peregrinus*
Barbary Falcon	*Falco pelegrinoides*
Chukar	*Alectoris chukar*
Barbary Partridge	*Alectoris barbara*
Water Rail	*Rallus aquaticus*
Spotted Crake	*Porzana porzana*
Little Crake	*Porzana parva*
Baillon's Crake	*Porzana pusilla*
Corncrake	*Crex crex*
Purple Gallinule	*Porphyrio porphyrio*
Crane	*Grus grus*

Demoiselle Crane	*Anthropoides virgo*
Houbara	*Chlamydotis undulata*
Painted Snipe	*Rostratula benghalensis*
Oystercatcher	*Haematopus ostralegus*
Black-winged Stilt	*Himantopus himantopus*
Crab Plover	*Dromas ardeola*
Stone Curlew	*Burhinus oedicnemus*
Senegal Thick-knee	*Burhinus senegalensis*
Cream-coloured Courser	*Cursorius cursor*
Collared Pratincole	*Glareola pratincola*
Black-winged Pratincole	*Glareola nordmanni*
Kittlitz's Plover	*Charadrius pecuarius*
Kentish Plover	*Charadrius alexandrinus*
Spur-winged Plover	*Hoplopterus spinosus*
Sociable Plover	*Chettusia gregaria*
White-tailed Plover	*Chettusia leucura*
Lapwing	*Vanellus vanellus*
Black-tailed Godwit	*Limosa limosa*
Bar-tailed Godwit	*Limosa lapponica*
Whimbrel	*Numenius phaeopus*
Slender-billed Curlew	*Numenius tenuirostris*
Curlew	*Numenius arquata*
Red-necked Phalarope	*Phalaropus lobatus*
Grey Phalarope	*Phalaropus fulicarius*
White-eyed Gull	*Larus leucophthalmus*
Great Black-headed Gull	*Larus ichthyaetus*
Caspian Tern	*Sterna caspia*
Common Tern	*Sterna hirundo*
Rock Pigeon	*Columba livia*
Stock Pigeon	*Columba oenas*
Turtle Dove	*Streptopelia turtur*
Palm Dove	*Streptopelia senegalensis*
Great Spotted Cuckoo	*Clamator glandarius*
Cuckoo	*Cuculus canorus*
Senegal Coucal	*Centropus senegalensis*
Barn Owl	*Tyto alba*
Striated Scops Owl	*Otus brucei*
Scops Owl	*Otus scops*
Eagle Owl	*Bubo bubo*
Little Owl	*Athene noctua*
Long-eared Owl	*Asio otus*
Short-eared Owl	*Asio flammeus*
Nightjar	*Caprimulgus europaeus*
Egyptian Nightjar	*Caprimulgus aegyptius*
Swift	*Apus apus*
Pallid Swift	*Apus pallidus*
Alpine Swift	*Apus melba*
Little Swift	*Apus affinis*
White-breasted Kingfisher	*Halcyon smyrnensis*
Little Green Bee-eater	*Merops orientalis*
Blue-cheecked Bee-eater	*Merops superciliosus*
Bee-eater	*Merops apiaster*
Roller	*Coracias garrulus*
Abyssinian Roller	*Coracias abyssinicus*
Hoopoe	*Upupa epops*
Wryneck	*Jynx torquila*
Dunn's Lark	*Eremalauda dunni*
Bar-tailed Desert Lark	*Ammomanes cincturus*
Desert Lark	*Ammomanes deserti*
Hoopoe Lark	*Alaemon alaudipes*
Dupont's Lark	*Chersophilus duponti*
Thick-billed Lark	*Rhamphocorys clotbey*
Calandra Lark	*Melanocorypha calandra*
Bimaculated Lark	*Melanocorypha bimaculata*
Short-toed Lark	*Calandrella cinerea*
Lesser Short-toed Lark	*Calandrella rufescens*
Crested Lark	*Galerida cristata*
Thekla Lark	*Galerida theklae*
Wood Lark	*Lullula arborea*
Skylark	*Alauda arvensis*
Temminck's Horned Lark	*Eremophila bilopha*
Sand Martin	*Riparia riparia*

Swallow	*Hirundo rustica*
Red-rumped Swallow	*Hirundo daurica*
House Martin	*Delichon urbica*
Richard's Pipit	*Anthus novaeseelandiae*
Tawny Pipit	*Anthus campestris*
Tree Pipit	*Anthus trivialis*
Meadow Pipit	*Anthus pratensis*
Red-throated Pipit	*Anthus cervinus*
Water Pipit	*Anthus spinoletta*
Yellow Wagtail	*Motacilla flava*
Citrine Wagtail	*Motacilla citreola*
Grey Wagtail	*Motacilla cinerea*
White Wagtail	*Motacilla alba*
Black-capped Bulbul	*Pycnonotus xanthopygos*
Common Bulbul	*Pycnonotus barbatus*
Rufous Bush Robin	*Cercotrichas galactotes*
Robin	*Erithacus rubecula*
Thrush Nightingale	*Luscinia luscinia*
Nightingale	*Luscinia megarhynchos*
Bluethroat	*Luscinia svecica*
Black Redstart	*Phoenicurus ochruros*
Redstart	*Phoenicurus phoenicurus*
Whinchat	*Saxicola rubetra*
Stonechat	*Saxicola torquata*
Isabelline Wheatear	*Oenanthe isabellina*
Wheatear	*Oenanthe oenanthe*
Pied Wheatear	*Oenanthe pleschanka*
Cyprus Wheatear	*Oenanthe cypriaca*
Black-eared Wheatear	*Oenanthe hispanica*
Desert Wheatear	*Oenanthe deserti*
Finsch's Wheatear	*Oenanthe finschii*
Red-rumped Wheatear	*Oenanthe moesta*
Red-tailed Wheatear	*Oenanthe xanthoprymna*
Mourning Wheatear	*Oenanthe lugens*
Hooded Wheatear	*Oenanthe monacha*
White-crowned Black Wheatear	*Oenanthe leucopyga*
Rock Thrush	*Monticola saxatilis*
Blue Rock Thrush	*Monticola solitarius*
Ring Ouzel	*Turdus torquatus*
Blackbird	*Turdus merula*
Black-throated Thrush	*Turdus ruficollis*
Fieldfare	*Turdus pilaris*
Song Thrush	*Turdus philomelos*
Redwing	*Turdus iliacus*
Mistle Thrush	*Turdus viscivorus*
Graceful Warbler	*Prinia gracilis*
Scrub Warbler	*Scotocerca inquieta*
Grasshopper Warbler	*Locustella naevia*
River Warbler	*Locustella fluviatilis*
Savi's Warbler	*Locustella luscinioides*
Moustached Warbler	*Acrocephalus melanopogon*
Sedge Warbler	*Acrocephalus schoenobaenus*
Marsh Warbler	*Acrocephalus palustris*
Reed Warbler	*Acrocephalus scirpaceus*
Clamorous Reed Warbler	*Acrocephalus stentoreus*
Great Reed Warbler	*Acrocephalus arundinaceus*
Olivaceous Warbler	*Hippolais pallida*
Olive-tree Warbler	*Hippolais olivetorum*
Icterine Warbler	*Hippolais icterina*
Spectacled Warbler	*Sylvia conspicillata*
Subalpine Warbler	*Sylvia cantillans*
Ménétries' Warbler	*Sylvia mystacea*
Sardinian Warbler	*Sylvia melanocephala*
Cyprus Warbler	*Sylvia melanothorax*
Rüppell's Warbler	*Sylvia rueppelli*
Desert Warbler	*Sylvia nana*
Orphean Warbler	*Sylvia hortensis*
Barred Warbler	*Sylvia nisoria*
Lesser Whitethroat	*Sylvia curruca*
Whitethroat	*Sylvia communis*
Garden Warbler	*Sylvia borin*
Blackcap	*Sylvia atricapilla*

Yellow-browed Warbler	*Phylloscopus inornatus*
Bonelli's Warbler	*Phylloscopus bonelli*
Wood Warbler	*Phylloscopus sibilatrix*
Chiffchaff	*Phylloscopus collybita*
Willow Warbler	*Phylloscopus trochilus*
Goldcrest	*Regulus regulus*
Firecrest	*Regulus ignicapillus*
Spotted Flycatcher	*Muscicapa striata*
Arabian Babbler	*Turdoides squamiceps*
Fulvous Babbler	*Turdoides fulvus*
Nile Valley Sunbird	*Anthreptes platurus*
Shining Sunbird	*Nectaninia habessinica*
Golden Oriole	*Oriolus oriolus*
Isabelline Shrike	*Lanius isabellinus*
Red-backed Shrike	*Lanius collurio*
Lesser Grey Shrike	*Lanius minor*
Great Grey Shrike	*Lanius excubitor*
Woodchat Shrike	*Lanius senator*
Masked Shrike	*Lanius nubicus*
Hooded Crow	*Corvus corone*
Starling	*Sturnus vulgaris*
Rose-coloured Starling	*Sturnus roseus*

Appendix II: List of species endemic (or near endemic) to the Egyptian Mediterranean coast

Flora

Allium mareoticum
Allium crameri
Echinops taeckholmianus
Euphorbia punctata
Helianthemum sphaerocalyx
Sonchus macrocarpus
Zygophyllum aegytium
Fumaria microstachys
Ebenus armitagei
Viola scorpiuroides
Zilla biparmata
Papaver macrostomum
Plantago chamaepsyllium
Bellevalia salah-eidii
Leopoldia albiflora
Leopoldia salah-eidii
Leopoldia bicolor

Mammals

Pallid Gerbil *Gerbillus perpallidus*
Four-toed Jerboa *Aleactaga tetradactyla*
Flower's Shrew *Crocidura floweri*

Reptiles and amphibians

Egyptian Tortoise *Testudo kleinmanni*
Savigny's Agama *Trapelus savignyi*
Egyptian Leopard Lizard *Acanthodactylus pardalis*
Nile Delta Toad *Bufo kassasii*

Insects

Euzanitis alfierii
Acmoeodern pharao
Sphenoptern acarba
Sphenoptera kasimi
Sphenoptera lottei
Sphenoptera andresi
Buprestis humeralis
Meliboeus latesculptus
Conophorus aegypticus
Crocidium aegyptiacum (Possibly Extinct)
Ulidia fascialis
Atylotus farinosus
Cyrtosia tetragramma
Cyrtosia separata
Empididei cus mariouti
Basila nana
Cylindrothorax verrucicallis
Chalogenia theryi
Anisatamia ruficornis
Thyridantheax unicolor
Cytherea nucleorum

Spiders

Agelena timida
Cheiracanthium dubium
Dysdera lubrica
Dorceus quadrispilotus
Eresus petagnae
Berlandian venatrix
Drasodes aegyptius
Drasodes alexandrinus
Mnosia pharao
Pterotricha procera
Scotophaeus senilis
Setaphis mollis
Talanities ornatus
Zelotes curinus
Zelotes inauratus
Zelotes picinus
Zelotes triticulus
Hersiliola lucasi
Bathyphantes extricatus
Mesiotelus alexandrinus
Arctosa depuncta
Lycorma alexandria
Lycorma peregrina
Lycosa nitotica
Lycosa truculenta
Pardosa iniqua
Pardosa inquieta
Pardosa observans
Pirata proxima
Dysderina scutata
Philodromus lugens
Thanatus flavus
Dolomedes hyppomene
Nilus curtus
Zimirina vastitatis
Attus mouffeti

Festucula vermiformis
Heliophanus glaucus
Synageles repudiatus
Scytodes immaculata
Dyschiriognatha argyrostilba
Tetragnatha filiformis
Tetragnatha flava
Steatoda venator
Ozptila subclavata
Synema candicans
Zodarion cambridgei
Zodarion expers
Zodarion occitaneum

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RAPPORT DE LA FRANCE SUR LES ACTIONS MENEES POUR LA CONSERVATION DES SITES ET DES ESPECES

1- CADRE INSTITUTIONNEL

Le vote des lois ainsi que la ratification des traités et accords internationaux sont assurés en France par un parlement composé de deux chambres: l'Assemblée nationale et le Sénat.

La protection de la nature et des paysages relève du Ministère de l'Ecologie et du Développement Durable.

En son sein, c'est la Direction de la Nature et des Paysages qui assume, notamment, les attributions en matière de conservation et de réhabilitation du patrimoine naturel, des sites, des paysages, des milieux et de la diversité biologique (faune et flore sauvages et écosystèmes.)

2 – CADRE JURIDIQUE REGISSANT LA CONSERVATION DES ESPECES ET DES SITES

L'ensemble du dispositif législatif relatif à la conservation des sites et des espèces animales et végétales, la protection et la mise en valeur du littoral, les écosystèmes aquatiques, les sites et les zones humides, notamment, à été codifié dans le code de l'environnement qui a été adopté le 18 septembre 2000. En janvier 2002, ce dispositif a été modifié pour la Corse.

3 – RATIFICATION DES ACCORDS INTERNATIONAUX PERTINENTS

La France est partie à la plus part des conventions internationales: Barcelone (pour la protection de la mer Méditerranée contre la pollution et les trois protocoles qui s'y rattachent), Ramsar (zones humides), Bonn (conservation des espèces migratrices appartenant à la faune sauvage), Berne (conservation de la vie sauvage et des milieux naturels de l'Europe), Rio (diversité biologique.)

Elle vient d'adopter l'accord sur les cétacés et d'engager la procédure de ratification de l'accord ACOBAMS.

Le protocole relatif aux aires spécialement protégées de la Méditerranée et à la diversité biologique n'est pas encore ratifié mais le dossier est en cours.

Par ailleurs, la France vient de terminer la transcription, dans son droit interne des directives européennes "oiseaux, habitats, faune, flore" et de ratifier l'accord AEWA sur les oiseaux d'eau.

Elle est aussi partie à la convention Patrimoine mondial de L'UNESCO ainsi qu'à la convention européenne du paysage.

En avril 2003, sur proposition du gouvernement, le Parlement français a voté la création d'une zone de protection écologique en Méditerranée (ZPE.) Cette zone a pour effet d'étendre significativement le territoire maritime sur lequel la France peut exercer des pouvoirs de police à l'encontre des actes de pollution par les navires au-delà des eaux territoriales.

4- LES AIRES PROTEGEES MARINES ET COTIERES (NOUVEAU DEVELOPPEMENT 2000, 2001, 2002)

Le littoral français s'étend sur environ 1700 km de côtes en Méditerranée. 123 aires protégées ont été inscrites à ce jour, qui ont été retenues selon différents niveaux de critères biologiques et

esthétiques. 110 d'entre elles appartiennent aux espaces du Conservatoire de l'espace littoral et des rivages lacustres.

Deux aires marines viennent d'être reconnues ASPIM:

- Le Parc national de Port-Cros et

- Le Sanctuaire pour la conservation des mammifères qui a été adopté par l'Italie, la principauté de Monaco et la France et ratifié le 21 février 2002.

Le Parc marin des Bouches de Bonifacio est protégé, côté français, par la réglementation "réserve naturelle" depuis 2001.

La nouveauté dans le domaine provient des expériences en cours en matière de directives territoriales d'aménagement. Depuis 1998, 5 directives sont expérimentées soit à l'embouchure de fleuves, Seine, Loire, soit dans les secteurs fortement urbanisés comme l'aire métropolitaine marseillaise, les Alpes maritimes (Nice), l'agglomération lyonnaise, soit encore dans des régions à risques, comme les Alpes du Nord.

En plus des orientations fondamentales et des principaux objectifs de l'Etat en matière d'aménagement, des grandes infrastructures de transports, de la localisation des grands équipements, elles visent à garantir la préservation des espaces naturels, des sites et des paysages. Elles permettent, notamment, de veiller au respect des dispositions de la loi littoral dans ces secteurs sensibles où l'urbanisation représente un danger pour la préservation des espaces et des espèces.

5- LES ESPECES MARINES PROTEGEES DE FAUNE ET DE FLORE

Les textes législatifs sur la protection de la faune et de la flore sont maintenant rassemblés dans le code de l'environnement. On peut citer quelques exemples d'espèces protégées sur tout le territoire et en tout temps.

Dans le domaine de la faune

-Tortues marines: *Caretta caretta*, (caouane): à signaler une ponte à Porto Vecchio, en Corse en 2002; *Chelonia mydas* (tortue verte), *Eretmochelys imbricata* (Caret), *Dermochelys coriacea* (tortue luth), *Lepidochelys kempii* (tortue de kemp.)

-Mollusques gastéropodes: *Patella ferruginea*, (patelle géante) bivalves, *Pinna nobilis*, (grande nacre, jambonneau hérissé), *Pinna permula*, (jambonneau rude), *Lithophaga lithophagta*, (datte de mer),

- Crustacés *Scyllarides latus*, (grande cigale de mer),

- Echinodermes oursins *Centrostphanus logispinus*, (oursin diadème, oursin à longs piquants.)

Dans le domaine de la flore, les espèces ci-après sont protégées en tous temps et sur tout le territoire: monochotylédone *Cymodocea nodosa*, (cymodocé, paille de mer), *Posidonia oceanica*, (pelotte de mer, chiendent marin.)

Il existe également des protections plus spécifiques concernant plusieurs espèces:

- Poissons: *Epinephelus marginatus* (mérou brun) bénéficient d'une protection contre la chasse sous-marine et la pêche à l'hameçon par arrêté du préfet de région.

- Monocotylédones: *Zostera noltii* (zostère naine, varech de noltii) et *Zostera marina* (zostère marine, varech des bords de mer) bénéficient également d'une protection légale pour la région Proence-Alpes-Côte d'Azur (arrêté du 9 mai 1994-ENVN 9430087 A- relatif à la liste des espèces végétales protégées en région Provence-Alpes-Côte d'Azur.)

6- MISE EN ŒUVRE DE STRATEGIE NATIONALE ET DE PLANS D'ACTION EN CE QUIK CPONCERNE LA ZONE COTIERE ENMEDITERRANEE

Un document de référence a été élaboré par la direction de la nature et des paysages dans le cadre de la convention pour la diversité biologique. Il est joint au rapport. Une révision de cette stratégie nationale est en cours afin d'être déposée à la COP 7 de la CDB.

7- OBSERVATION/ ETUDES SUR LES ESPECES INTRODUITES ENREGISTREES DANS LE DOMAINE COTIER MEDITERRANEEN

Le ministère de l'écologie et du développement durable a coordonné et financé un grand programme pluridisciplinaire concernant l'espèce envahissante *Caulerpa taxifolia*; ce programme d'une durée de 3 années a été confié à 8 équipes scientifiques. Un nouveau programme plus large, "Invasions Biologiques" a permis de renforcer cette initiative depuis l'année 2001.

Des opérations ponctuelles de contrôle de la progression de *Caulerpa taxifolia* sont réalisées dans des espaces considérés comme "sanctuaires" pour leurs qualités biologiques et paysagères (Parc national de Port-Cros.) Ces recherches systématiques et annuelles de *Caulerpa taxifolia* conduisent à un désherbage manuel par découpage du substrat meuble ou à l'utilisation de cuivre sur substrat rocheux ou profond.

8- LISTES DES ESPECES ENDEMIQUES DE MEDITERRANNEE

Officiellement, il n'a pas été établi de listes sur la Méditerranée

9 – LES ACTIVITES ENTREPRISES DANS LE CADRE DE LA MISE EN ŒUVRE DES :

- a Plan d'action pour la conservation des tortues marines de Méditerranée

Un réseau d'observateurs a été mis en place le long du littoral méditerranéen de la France avec un coordinateur régional, responsable du réseau. L'agrément d'un centre de soins est à l'étude. Une banque de données des marquages et des observations en Méditerranée française a été intégrée dans la banque de données du service du patrimoine naturel du Muséum National d'Histoire Naturelle à Paris.

Dans le cadre du plan d'action, nous accordons la priorité pour promouvoir des actions visant à réduire les mortalités des individus adultes. En conséquence, il faut veiller particulièrement aux mortalités accidentelles causées par les engins de pêche.

b- Plan d'action pour la conservation des cétacés en Méditerranée

La France est associée à Monaco et à l'Italie dans le cadre de la création d'un sanctuaire pour la conservation des cétacés en mer Méditerranée. Ce sanctuaire qui a fait l'objet d'un accord tripartite à Rome, le 25 novembre 1999, couvre une surface de 87 500 km2 dans le bassin tyrrhéno-corso-provençal.

Les caractéristiques physiques et climatiques de ce bassin créent des conditions tout particulièrement favorables au développement de la production primaire permettant d'initier des chaînes alimentaires complexes dont les cétacés constituent les maillons ultimes. Les populations, estimées à plusieurs dizaines de milliers sont constituées par 12 espèces différentes.

Si les cétacés sont particulièrement visés par les mesures de protection, il est indéniable que d'autres grands groupes zoologiques profitent de ces mesures tout au long de la chaîne trophique (oiseaux, grands céphalopodes, sélaciens, tortues marines…)

La France relance un programme d'études animé par le parc national de Port-Cros pour ce sanctuaire.

c- Plan d'action pour la conservation de végétation marine en Méditerranée.

Actions réalisées à ce jour:

1- Cartographies biocénotiques (milieu marin et lagunes), environ 1200 km de côte ont été cartographiées avec une bonne précision (10 m)

2- Réseaux de surveillance Posidonies, le réseau de la région PACA est opérationnel depuis 1983, celui de la région Corse devrait débuter en 2003.

3- Plan de gestion: à ce jour toutes les aires spécialement protégées ont rédigé ou finalisent la rédaction de ce document. En dehors de ces secteurs, plusieurs contrats de baies ont également été finalisés.

4- Constitution de bases de données bibliographiques par les universités de Marseille, Nice, Corte et le GIS (Groupement d'intérêt scientifique) Posidonie. Un exemplaire de cette base (programme de données) a été transmis au CAR/ASP.

5- Participation à des réunions des partenaires de ce Plan d'action (Marseille, mai 2002)

6- Organisation de séminaires de formation sur le milieu littoral sur l'initiative de la DIREN (Direction Régionale de l'Environnement) associant services de l'Etat, collectivités locales et scientifiques.

10- ACTIVITES EN RELATION AVEC LES INVENTAIRES (achevés ou en cours) DE SITES, EN UTILIS1ANT LE FORMAT STANDARD DE DONNEES (FSD) POUR LES INVENTAIRES NATIONAUX DES SITES NATURELS D'INTERET POUR LA CONSERVATION

Deux catégories d'inventaires sont en cours d'élaboration:

- Zones Naturelles d'Intérêt Floristique Et Faunistique (ZNIEFF): on en compte une centaine en Méditerranée;
- Sites Natura 2000 au nombre d'une quinzaine.

11- ACTIVITES DE COLLABORATION ENTREPRISES DANS LE CADRE DE LA MISE EN OEUVRE DU PROTOCOLE ET/OU DES PLANS D'ACTION, SPECIALEMENT AUX NIVEAUX NATIONAL ET SOUS-REGIONAL

Collaboration entre l'Italie, Monaco et la France pour la création d'un sanctuaire pour les mammifères marins dans le bassin Corse-Provence-Mer Ligure.

Collaboration Corse-Sardaigne sur l'inventaire du mérou; Réserve naturelle de Bagnas-Ecole pratique des Hautes-études sur des inventaires scientifiques.

La création en 2002 d'un forum d'échanges sur les aires marines protégées françaises a permis les 12 et 13 mai 2003 à une vingtaine de gestionnaires de ses familiariser avec le droit de la mer.

CONCLUSION

D'importantes difficultés subsistent dans la protection des zones côtières et du milieu marin méditerranéen:

-La côte française est fortement urbanisée; aussi toute action de protection doit-elle s'appuyer sur une large concertation entre les collectivités locales, les élus et l'Etat. La protection à long terme s'accompagne souvent de conflits avec les promoteurs immobiliers, ce qui retarde d'autant la mise en œuvre de gestion concrète.

- Les spécialistes sont en nombre insuffisant pour réaliser tous les inventaires nécessaires. Néanmoins, la France élargit ses préoccupations d'inventaires normalisés en milieux marins et milieux tropicaux (ZNIEFF Mer, ZNIEFF DOM.)

- Le développement d'infrastructures routières, l'urbanisation, la pollution tellurique, le développement de certaines activités sportives (scooters des mers) ou touristiques ("whale watching") sont autant de sujets qui mobilisent les services soucieux de la conservation harmonieuse de la Méditerranée.

National Report of GREECE –2001-2003

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Brief description of the institutional framework

The overall responsibility for the coordination of implementation of environmental policies lies with the General Directorate of the Environment in the Ministry of Environment- Physical Planning and Public Works. In the implementation of the SPA protocol, competence lies jointly with the Ministry of Environment- General Directorate for Environment, the Ministry of Agriculture- General Directorate of forests, General Directorate of Research and Agricultural Applications and General Directorate of fisheries, and the Ministry of Merchant Marine- Port authorities. Environmental authorities at the Regional, Prefecture and Municipality levels contribute at the enforcement of national laws and regulations. Other stakeholders, including Environmental Non Governmental Organisations are also partners is several activities.

Brief description of the legal framework governing the conservation of species and sites
No significant changes

Status of signature / ratification of the relevant international agreements

Conventions ratified: Paris, Ramsar, Barcelona (Rev.1995), Bern, Bonn, Washighton, Rio-Biodiversity, European Convention for Landscape
Agreements and Protocols ratified: SPA, Eurasian Migratory birds
Agreements and Protocols signed, in the process of ratification: ACCOBAMS, SPA (rev.1995)

Marine and coastal protected areas (new developments)

1. New developments concern the operation and management of existing coastal and marine protected areas, as well as the setting up of new operational protected areas. More particular:

- The Management Authorities of the National Marine Park of Alonissos Northern Sporades, of the National Park of Samaria and the National Park of Schinias Marathonas have been legally established.
- The Management Authorities of 6 coastal Ramsar sites have also been established (Delta Evrou, Delta of Axios- Loudias –Aliakmon, Messolonghi- Aetolikon lagoons, Amvrakikos gulf wetlands, Kotychi – Strofylia forest and wetlands.
- Finally, Management Authorities along with definition of boundaries in 3 new protected areas which include marine and coastal elements have been established (Mt Parnon- Moustos wetland, the gorges and estuaries of rivers Kalamas and Acherontas, and the Aegean islands of Karpathos and Saria).

The above mentioned Management Bodies operate with a Board comprising representatives of the Ministries of Environment and Agriculture, of the Regional Environmental Services,

the elected Prefecture Councils, the Municipalities, the co-operatives of users of the sites and environmental NGOs.

2. Further to that, the marine component of the Greek contribution to the NATURA 2000 Ecological network has been strengthened with the addition of several important bird areas for coastal and marine bird species as Special Protection Areas.

Protected marine and coastal species of fauna and flora
No additions were made to the existing lists. Numerous projects carried out including actions for marine turtles, monk seals, endangered sea birds.

Implementation of the national biodiversity strategy and action plans with regard to the Mediterranean marine and coastal zone.
A review of the draft National strategy was initiated in order to accommodate the goal of halting biodiversity loss by 2010 and the European Biodiversity Action Plans. This review is expected to be finalized within 2003.

Observation/ studies about the alien species recorded in the Mediterranean marine and coastal zone
A review of the literature between 2001-2003 is not yet available (see previous report)
List of country and /or Mediterranean endemic species
A review of the literature between 2001-2003 is not yet available (see previous report)
Activities undertaken in the framework of the implementation of existing Action Plans:

1. Action plan for the Mediterranean monk seal

Since Greece is one of the two Mediterranean countries where monk seal populations present the higher density, the implementation of the National Strategy for the Protection of the Mediterranean Monk Seal (Archipelagos and Mom, 1996) has been continued and reinforced. Activities include actions directed to reduce adult mortality, establishment of a network of marine reserves, research – data collection and rehabilitation and information programmes.

The operation of the National Marine Park of Alonissos- Northern Sporades has continued to contribute successfully to the conservation of the largest population of the species with a high rate of births and no incidents of adult mortality. Conservation measures are also enforced in the southern Aegean Region (protected area of Karpathos- Saria) and in the rest of the strongholds of the species. All sites holding an importance for the species have been included in the NATURA 2000 ecological network of the European Communities. Detailed information on population sizes and proposed future actions can be found in the document prepared for RAC/SPA by the expert group of monk seals (meeting in Syria, 2002)

2. Action Plan for Marine turtles

Greece is also an important host of sea turtle nesting activities and the implementation of conservation actions has continued and expanded. Activities include protection and management of critical habitats, reducing mortality at sea, information – education and training, scientific research and monitoring.
The operation of the National marine Park of Zakynthos has continued to contribute successfully to the conservation of the largest nesting population. All sites holding an

importance for the species have been included in the NATURA 2000 ecological network of the European Communities

3. Action Plan for Cetaceans

The implementation of this Action Plan has been limited. Monitoring and rescue activities have continued in some areas of special interest. Sites holding an importance for these species have been included in the NATURA 2000 ecological network of the European Communities.

4. Action Plan for Marine Vegetation

The implementation of this Action Plan has been limited, however activities with regard to monitoring, conservation and public awareness have been implemented and specific importance has been attached to it in the procedure of evaluating impact assessments in the coastal zone. The most important and representative locations for marine vegetation have been included in the NATURA 2000 ecological network of the European Communities.

Activities related to the inventories of sites using the standard Data entry form

The database of sites included in the NATURA 2000 ecological network of the European Communities includes information on marine and coastal sites, habitats and species. It is not foreseen that a separate inventory and database would be created in the near future.

Collaborative activities undertaken within the framework of the implementation of the protocol/ and /or the Action Plans, bilateral / sub-regional levels

No information available

Status of implementation of earlier meetings recommendations of the focal points and of the contracting Parties

No information available

Report of Israel

Meeting of National Focal Points for SPA

Marseille, France 17-20 June 2003

Prepared by Dr. Eliezer Frankenberg

Institutional framework

The Ministry of the Environment is the government ministry responsible for the protection of the environment. The Nature and National Parks Protection Authority, Israel's statutory agency for nature conservation, is under the jurisdiction of the Minister of the Environment. Other governmental bodies, such as the Ministry of the Interior and the Ministry of Agriculture, constitute additional partners within the framework of their responsibility for various laws that are related to the protection of special areas and the biodiversity in the Mediterranean Sea.

The Ministry of the Environment is responsible for a wide range of environmental subjects including administration, public relations and interaction with citizens. The Ministry operates on local, regional and national levels. At the national level it is responsible for formulating an integrated and comprehensive national environmental policy and for developing specific strategies, standards and priorities for environmental protection and resource conservation.

The National Parks, Nature Reserves, National Sites and Memorial Sites Law, 1998, (first version was on 1963) ensures, among other things that all stakeholders are represented on the National Parks, Nature Reserves and National Sites Council. It advises the relevant ministries, planning bodies and local authorities on implementation of the law, including recommendations for new sites for protection and protection of natural assets.

The main legal instruments

The following list of existing legislation enables the protection of species and sites:

- Forest Ordinance, 1926;
- Fishing Ordinance, 1937;
- Wildlife Protection Law, 1955;
- Plant Protection Law, 1956;
- Water Law, 1959;
- Streams and Springs Authorities Law, 1965;
- Planning and Building Law, 1965;
- Prevention of Marine Pollution by Oil Ordinance, 1980;
- National Masterplan for National Parks, Nature Reserves and Landscape Reserves, 1981;

- Planning and Building Regulations (Environmental Impact Statements), 1982;
- Prevention of Marine Pollution (Dumping of Waste) Law, 1983;
- National Masterplan for the Mediterranean Coast, 1983;
- Prevention of Marine Pollution from Land Based Sources Law, 1988;
- Hazardous Substances Law, 1993;
- Prohibition of Vehicle driving Along the Coast Law, 1997.
- National Parks, Nature Reserves, Memorial Sites and National Sites Law, 1998

The law provides the legal structure for the protection of natural habitats, natural assets, wildlife and sites of scientific, historic, architectural and educational interest in Israel. It establishes systems for declaring nature reserves and national parks and for listing protected natural assets. The law prohibits taking, destroying, possessing or trading in protected natural assets.

Status of ratification of relevant international agreements

Israel is party to the following relevant agreements:

- International Convention for the Prevention of Pollution of the Sea by Oil, 1952, in force in Israel: 1966.
- International Convention for the protection of New Varieties of Plants (UPOV), 1961 as revised in 1972, 1978 and 1991, in force in Israel: 1996.
- Convention on Wetlands of International Importance Especially as Waterfowl Habitats (Ramsar) 1971, in force in Israel: 1997.
- Convention on International Trade in Endangered Species of Wild Fauna and Flora 1973, in force in Israel: 1980.
- International Convention for the Prevention of Pollution from Ships 1973, modified 1978 and amended 1983, in force in Israel: 1980.
- Convention for the Protection of the Mediterranean Sea against Pollution (Barcelona) 1976, in force in Israel: 1978.
- Protocol Concerning Cooperation in Combating Pollution of the Mediterranean Sea by Oil and Other Harmful Substances in Case of Emergency 1976, in force in Israel: 1978.
- Protocol for the Prevention of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft 1976, in force in Israel: 1984.
- Protocol for the Protection of the Mediterranean Sea Against Pollution from Land-based Sources 1980, in force in Israel: 1987.
- Protocol Concerning Mediterranean Specially Protected Areas 1982, in force in Israel: 1987.
- Convention on the Conservation of Migratory Species of Wild Animals 1979, in force in Israel: 1983.
- African-Eurasian Migratory Water Birds Agreement 1996, in force in Israel: 2002.
- International Convention on Oil Pollution Preparedness Response and Cooperation 1990, in force in Israel: 1998.
- Convention on Biological Diversity 1992, in force in Israel: 1995.

- United Nations Framework Convention on Climate Change 1992, in force in Israel: 1996.
- United Nations Convention to Combat Desertification 1994, in force in Israel: 1996.
- Convention Concerning the Protection of the World Cultural and Natural Heritage 1972, in force in Israel: 2000.

Marine and coastal protected areas

Since the last NFP meeting, Valencia 2001, one marine reserve, two coastal reserves and two coastal national parks were declared.

Protected marine and coastal species of fauna and flora

There have been no additional changes in legislation since 1983. There is an effort to update the list.

Implementation of the national biodiversity strategy

Israel has begun preparations for its National Biodiversity Strategic Action Plan, however, it is not yet in its implementation phase.

The government recently took an important strategic decision regarding the preparation of a national sustainable development strategy that will be submitted to the government by the end of 2003.

Alien species

In the Israel Limnologic and Oceanographic Research Institute, samplings are done for records of Erithrean taxa and monitoring of populations of established alien species. In the last year there were many new records and changes in populations.

Activities undertaken in the framework of the implementation of:

A. Action plan for the management of the Mediterranean monk seal:

A program for the reintroduction of monk seals to the coastal area of Israel has been prepared and submitted to the NPA but not yet implemented.

B. Action plan for the conservation of Mediterranean marine turtles, as part of the recommended program by RAC/SPA:

Special priority is focused on protecting endangered marine turtles, both C. caretta and Chelonia mydas. As part of a national management program implemented since 1993, the coast is surveyed each morning during the nesting period by rangers of the Nature and Parks Authority. All nests discovered during the survey are excavated and the eggs translocated to several hatcheries. The hatchlings are released immediately after emergence

or on the following night at their original nesting beach. The percentage of young released is very high, so that the improvement of the Mediterranean population of sea turtles is expected to be noticed in several years. In addition, a sanctuary for the rescue of injured or sick turtles was opened and is active.

C. Action plan for the conservation of cetaceans in the Mediterranean Sea:

The Israeli Marine Mammal Research and Assistance Center conducts surveys and collects observations on cetaceans.

D. Action plan for the conservation of marine vegetation in the Mediterranean:

The conservation of marine vegetation relies on the existence of marine protected areas.

Activities related to the inventories using standard data-entry forms

No activity using the SDF has been undertaken.

Collaborative activities undertaken within the implementation framework

Some activity was taken in the framework of the SAP-BIO project. The initiation of a SMAP Rosh-Hanikra project is underway.

Status of implementation of the recommendations from earlier meetings

Various activities have taken place to promote the management and conservation of special areas and biodiversity of the Mediterranean Sea and its coasts. Examples include the preparation of a management plan for the conservation of fish populations, a survey of islets on the coastline of Israel, fish surveys and a fancy report, bilingual and with many photographs, on the Shikmona marine nature reserve. Israel is also taking measures to declare marine reserves as RAMSAR sites.

The Sixth Meeting of National Focal Points for SPAs
(Marseilles, 17-20 June 2003)

National Report

ITALY

Giulio Relini - NFP – University of Genova and the Ministry of the Environment

Institutional Framework

The Ministry of the Environment (law 349/1986) (Ministero dell'Ambiente e della Tutela del territorio) is the body with main responsibility for Nature and Biodiversity protection and conservation: in particular the two directorates "Direzione per la Difesa del Mare" and "Direzione Conservazione della Natura". Biological resources and biodiversity management is also carried out by the Ministry of Agricultural and Forestry Policy and in particular by the Fishery and Aquaculture Directorate. The Ministry of Foreign Affairs is involved in all international agreements.
Regional authorities can protect some local coastal zones, including marine areas.

Legal Framework governing the conservation of species and sites (main legal instruments)

The main Italian laws are the DPR 357/97 dealing with Habitat Directive 43/92/EC (Conservation of Natural Habitats and Wild Flora and Fauna), the 394/91 (Frame law on protected areas), the 979/82 (protection of the sea and marine protected areas), the 157/92 referring to E.C. Directive 409/79 on conservation of birds. There are many other additional rules in different laws also dealing with hunting and fishery and the ratification of international agreements.

Status of signature/ratification of relevant international agreements

Italy has ratified and adopted into its legislation all the international agreements, conventions, except ACCOBAMS, dealing at least in part with marine environment etc. (Rio 1992: law 124/84; Ramsar 1971: 448/76; Bern 1979: 503/81; Bonn 1979: 42/83; CITES 1973: 874/75, 150/92, 59/93; Barcellona 1995: 175/1999). In particular, the ASPIM protocol was ratified by Law 175 (25/05/1999, G.U. (Official Journal) no. 140 suppl. ord. 17/06/1999). Italy, represented by the Liguria Region, participates in the RAMOGE agreement on the marine environment between Marseilles and La Spezia. As a member of the GFCM-FAO (General Fisheries Council for the Mediterranean) Italy is actively co-operating in the Adriamed and Medsudmed programmes for the management of fisheries resources in the Adriatic Sea and Sicilian Channel respectively. Participating to ICCAT and to the IWC (International Whaling Commission) and within the GFCM-FAO, Italy is involved in the assessment of the implementation of the FAO Code of Conduct for Responsible Fishery. The agreement for the setting up of a Cetacean Sanctuary in the Sardo-Liguro-Corso-Provençal Basin was signed by France, Monaco and Italy the 25th November 1999 in Rome and ratified by Italian law 391 of 11 November 2001. The three Parties met in Monaco the 17th February 2003 and decided the official name: Pelagos: sanctuary for marine mammals in the Mediterranean, the general frame for the management has recently been reactivated as required by inclusion of this area in the SPAMI list.
The ACCOBAMS protocol is ready to be signed.

Marine and coastal protected areas

Marine Parks. Laws 979/82 and 394/91 provided for the setting up of 46 marine parks in the Italian seas. Five more have since been added: Torre del Cerrano (Law 344/97), the Cetacean Sanctuary (Law 426/98) and the Maddalena – Capo Murro di Porco peninsula (DL. 8.03.2001), Pozzuoli Gulf (Naples) and Gaiola Gulf (Naples) (388/2000 and DM 7/08/2002); 14 have been established and have a management body (Isola di Ustica, 1986; Miramare, 1986; Isole Tremiti, 1989; Capo Rizzuto, 2002; Torre Guaceto, 1991; Isole Egadi, 1991, 1993, 1996; Isole Ciclopi, 1989; Porto Cesareo, 1998; Penisola del Sinis - Isola di Mal di Ventre, 1997, 1999; Punta Campanella, 1997; Tavolara-Punta Coda Cavallo, 1998; Cinque Terre, 1997; Ventotene e S. Stefano, 1997; Portofino, 1998-99; Capo Carbonara, 1998-99), Secche di Tor Paterno (Latium) 2000. Eight parks have been established but have not yet the management body: Porto Cesareo 1997; Tavolara - Punta Coda Cavallo, 1997-2001; Capo Gallo – Isola delle Femmine 2002; Capo Caccia – Isola Piana 2002; Isola dell'Asinara 2002; Isole Pelagie, Lampedusa, Linosa 2002; Golfo Pozzuoli 2000-2002; Golfo di Gaiola 2000-2002.

There are also some coastal and marine areas which are protected and managed by NGOs, eight biological protection zones (Zone di Tutela Biologica, Article 98 of fishery Law 963/1965) and 43 "artificial reefs" for protection of the environment against illegal trawling and restocking of biological resources. At least 15 are large and effective.
With regard to wetlands, 103 main sites were selected, 47 of which correspond to the Ramsar Convention and 68 are coastal with at least partially marine or brackish environments.
In the frame of Natura 2000 (EC Directives 43/92 and 409/79) Italy has proposed more than 2500 SIC (Site of Community Importance) and 385 ZPS (Zone of Special Protection), 50% of which are marine or coastal. Marine SIC are at least 84 mainly established because of the presence of *Posidonia oceanica*.

Protected marine species of fauna and flora

Protected marine species in Italy (the list is in the report of Valencia NFP meeting, 2001) are 53 vertebrates (birds excluded), 50 invertebrates and 18 macrophyta. The strictly protected species (e. i. excluding species listed in the annex 3 of ASPIM and V of Habitat Directive 92/43) are 37 vertebrates, 35 invertebrates and 16 plants (4 seagrasses and 12 macroalgae).

Implementation of the national biodiversity strategy and action plans with regard to the Mediterranean coastal zone

Although the National Plan of Biodiversity has not yet been produced, many measures are in place. Particular attention has been placed on fishing activities, for example by integrating tourism activities with fisheries or creating fishing areas where local communities cooperate in defining rules for the local fisheries, as that for clam. The Ministry of Environment has also committed ENEA to produce an integrated plan of coastal area development.
The 6th Triennial Fisheries Plan refers specifically to the conservation and sustainable use of marine and coastal biological diversity, and a group for the elaboration of sustainable indicators was established.
Special national plans are being prepared for Selachians, Cetaceans, Monk Seal and Sea Turtles, in coordination with ICRAM and the Ministry of the Environment).

Observations/Studies on alien species recorded in the Mediterranean marine and coastal zone Updating of relevant inventories

Inside the Italian Society for Marine Biology (SIBM) a working group chaired by Prof. Anna Occhipinti Ambrogi has been set up since 1998 with the aim of studying the problem of marine allochthonous species in Italy and collaborating with the ICES Working Group on Introductions and Transfers of Marine Organisms (WGITMO) ICES/IOC/IMO Study Group on Ballast and other Ship Vectors (SGBOSV) at present chaired by S. Gollasch. In 2001 SIBM produced a study under contract by the Ministry of Environment (Inspectorate for the Defence of the Sea) including survey of the Ports of Genoa, Salerno and Palermo considered target sensible areas for new introductions and stations to be monitored in the time for change (qualitative and quantitative) of the benthos communities. In total there are 123 allochthonous species in Italy: 34 are macrophytes (33 algae and 1 phanerogam), 70 invertebrates (among which there are 14 polychetes, 22 molluscs and 17 crustaceans) and 19 are fish of which 4 of Elasmobranchs (the detailed list is in the report of Valencia). It would be interesting, if more informations were available, to subdivide these 115 species into at least 3 categories defined by Eno *et al.* (1997) : non-native species, introduced but nonsettled species, vagrant species. Three other programs are carried out by ICRAM:

1) The ALLOCHTONOUS SPECIES program is presently articulated on the "changes of the interspecific biodiversity of fishes of the Mediterranean Sea, as a biological indicator of the tropicalisation phenomenon".
2) ALIEN (Atlantic and Lessepsian Immigrant Environmental Noises) program, in which the environmental and genetical consequences of immigration of allochtonous species are estimated and the main reasons for their penetration are evaluated.
3) INTRODUCTION OF NON-INDIGENOUS AND GENETICALLY MODIFIED SPECIES, a government-funded program stemming from the application of article 13 of ASPIM. The project lasts two years and is dealing mainly with:
    - the formulation of a taxonomic and diagnostic atlas for the identified species of each taxonomic group, realized through GIS.
    - the monitoring of ballast waters.
    - the drawing up of guidelines for aquaculture practices (one of the main causes for the penetration of alien species) to avoid the expansion of this phenomenon.

Two main national projects on NIS have been proposed by SIBM: one on *Caulerpa taxifolia* and *Caulerpa racemosa* distribution in the Italian seas, the second on the large gastropod *Rapana venosa*.

List of Italian or Mediterranean endemic species

In the checklist of Italian Fauna (57,344 species) endemic species are recorded for each taxon; 204 are marine (Protozoans excluded) (annexe 1).
Marine macroflora is represented by 924 species (Furnari *et al.* 2003), about 25% are endemic of the Mediterranean sea and 21 are Italian endemic (annexe 2).

Activities undertaken to implement Action Plans

On behalf of the Ministry of the Environment and with the collaboration of General Directorate for Fishery (Ministry for Agriculture and Forest Policy), the SIBM, the Centro Studi Cetacei and other organizations, the ICRAM has prepared a three-year Italian Action Plan for the conservation and management of Cetaceans, Monk Seal, Marine Turtles, Sharks. They are not yet officially approved and financed.
At present there is no proposal for national action plan for marine vegetation, though the mapping of Posidonia beds all around Italy is in progress, in accordance with the "National Plan for the detection and valorisation of *Posidonia oceanica* and the study of the measures that safeguard it from any phenomena that imply its destruction and decline" foreseen by Law n° 426/98. Maps are ready for Tuscany, Latium, Liguria, Basilicata, Puglia, Sicily and Sardinia.
An important contribution to our knowledge of the status of Cetaceans and Marine Turtles has been made by the Centro Studi Cetacei, which publishes an yearly report on stranded, rammed or accidentally caught animals along the coast of Italy.
Ministry of Environment has published volumes dealing with National Action Plan for conservation of slender billed curlew (*Numenius tenuirostris*), Audovin Gull (*Larus audovinii*) and wetlands.

Activities related to the inventories (completed or ongoing) of sites using the Standard Data-Entry Form (SDF) for national inventories of natural sites of conservation interest

ICRAM has devised, funded and coordinated a scientific programme called "Sistema Afrodite" for the inventory and monitoring of the core zones of Italian Marine Protected Areas, to be completed in a three years span (2001-2004).
In addition to the main goal of helping the creation of a national MPA network, the objectives of "Sistema Afrodite" include the creation of a shared, standardised base of knowledge, the promotion of a higher level of cooperation among scientists in Italy and in the Mediterranean countries. Among several activities habitat and species inventories is performed through first nation-wide application of the Standard Data Entry Forms. To help in the preparation of the inventories, ICRAM has provided for the preparation of a manual for the identification of Mediterranean marine habitat and species (contracted to SIBM).
For each species and habitat a fact sheet was prepared with drawings and/or colour photos, as well as descriptions of the main characteristics to enable identification. An English version is in progress.
The DIP.TE.RIS (Dipartimento per lo Studio del Territorio e delle sue Risorse) of Genoa University was asked by the RAMOGE to study an area near Ventimiglia (Capo Mortola) and to use the Standard Data-Entry Form for the description of marine habitat.

Collaborative activities undertaken within the framework of the implementation of the Protocol and/or Action Plans, especially at bilateral or sub-regional levels

Agreements and collaborative schemes are in progress involving France, Monaco and Italy to promote the Marine Mammals Sanctuary in the Corso-Ligurian Provençal basin.
A second collaborative scheme is underway between France and Italy to promote the Bocche di Bonifacio international marine park (Sardinia and Corsica). A third one in the frame of RAMOGE.

Status of implementation of the recommendations of earlier meetings of the focal points for SPAs and of the Contracting Parties

As described in the previous point Italy has implemented recommendations dealing with SPAMI protocol.
In addition Ministry of Environment has funded a project on cartography of biocenosis. For marine part the following products were prepared: a) cartography of the main coastal marine biocenosis up to 50 m depth all around Italy at the scale 1 : 250.000; b) map of the coast typology and of the sediments for the extension estimated for biocenosis; c) map of the water quality on the basis of naturality index, limited to the used methodology and to some sample stretches of the seashore; d) map of the distribution of the marine species

under protection according to the Habitat Directive 92/43 and the second annex of the SPAMI protocol; e) map of the distribution of the main non indigenous species (NIS) recently introduced in the Italian sea.
The most important and most waited for product is the marine biocenosis mapping. The need to have a cartography of biocenosis at a national level is even more urgent as regards the sea part, because no comprehensive work exists as yet, excluding the attempt made during the Biotaly project to identify the SICs, which regards basically the rough mapping of the *Posidonia oceanica* and *Cymodocea nodosa* meadows.
The check list of marine macrophyta of Italian waters has been published.
Large volume on iconography with splendid colour plates on Mammals, Birds, fresh water fishes and orchids have been published with the support of the Ministry of Environment. Each sheet is supplemented by scientific data on biology and ecology and by distribution maps. Following article 19 of SPA protocol (publicity, information, public awareness and education) Ministry of Environment has prepared special campaigns on marine protected species and MPA with the aid of NGO and published pamphlets and produced CD-rom and VHS video for each MPA. All material was distributed during special meetings as the Second National Conference of Protected Areas (Torino, 11-13 October 2002) or to the schools. Annex 1

ANNEX 1

List of endemic marine animals in Italy

Turbellaria (n°1)
Rhopalura intoshi Metschnikoff, 1881

Kamptozoa (n°5)
Loxocalyx cochlear (O. Schmidt, 1876)
Loxocalyx neapolitanus (Kowalesky, 1866)
Loxocalyx pes (O. Schmidt, 1878)
Loxocalyx raja (O. Schmidt, 1876)
Loxosomella globosa Bobin & Prenant, 1953

Mollusca Gastropoda (n°15)
Rissoa italiensis Verduin, 1985
Rissoa multicincta Smriglio & Mariottini, 1995
Rissoa panhormensis Verduin, 1985
Alvania aeoliae Palazzi, 1988
Alvania clathrella (L. Seguenza, 1903)
Alvania dianiensis Oliverio, 1988
Alvania dictyophora (Philippi, 1844)
Alvania disparilis Monterosato, 1890
Alvania gagliniae Amati, 1985
Alvania sororcula (Granata-Grillo, 1877)
Alvania subareolata (Monterosato, 1869)
Alvania weinkauffi jacobusi (Oliverio, Amati & Nofroni, 1986)
Onoba dimassai Nofroni & Giusti, 1990
Laeviphitus verduini van Aartsen, Bogi & Giusti, 1989
Cyclostremiscus dariae Liuzzi & Stolfa-Zucchi, 1979

Anellida Polichaeta (n°27)
Schroederella laubieri Badalamenti & Castelli, 1990
Aricidea mariannae Katzmann & Laubier, 1975
Aricidea pseudannae *Katzmann & Laubier, 1975*
Paraonides myriamae Katzmann & Laubier, 1975
Pseudophelia translucens Katzmann, 1973
Clavodorum adriaticum (Katzmann, 1973)
Sphaerodoropsis longiparapodium Katzmann, 1973
Gyptis arenicola (La Greca, 1946)
Microphtalmus tyrrhenicus Zunarelli Vandini, 1967
Otopsis chardyi Katzmann, Laubier & Ramos, 1974
Synelmis dineti *Katzmann, Laubier & Ramos, 1974*
Exogone cognettii Castelli, Badalamenti & Lardicci, 1987
Autolytus neapolitanus Cognetti, 1953
Rullierinereis anoculata Cantone, 1982
Micronereis siciliensis Cantone, 1971
Platynereis nadiae Abbiati & Castelli, 1992
Onuphis falesia Castelli, 1982
Lysibranchia paucibranchiata Cantone, 1983
Euniphysa italica Cantone & Gravina, 1991
Lumbrinereis longipodiata Cantone, 1989
Fabriciola tonerella Banse, 1956
Pseudofabricia aberrans Cantone, 1972
Pseudofabriciola analis Fitzhugh, Giangrande & Simboura, 1993
Bispira mariae Lo Bianco, 1893
Chone longiseta Giangrande, 1992
Demonax tommasi Giangrande, 1994
Serpula cavernicola Fassari & Mollica, 1991

Pogonophora (n°1)
Siboglinum carpinei (Ivanov, 1970)

Echiura (n°2)
Maxmuelleria gigas (M. Müller, 1852)
Protobonellia brevirhynchus Murina, 1982

Oligochaeta (n°13)
Aktedrilus magnus Erséus, 1980
Aktedrilus mediterraneus (Erséus, 1980)
Aktedrilus sardus *Erséus, 1987*
Gianius densespectinis (Erséus, 1987)
Thalassodrilus messanensis *(Erséus, 1987)*
Pectinodrilus rectisetosus (Erséus, 1989)
Heterodrilus arenicolus Pierantoni, 1902
Heterodrilus subtilis (Pierantoni, 1917)
Limnodriloides agnes Hrabe, 1967
Limnodriloides pectinatus Pierantoni, 1904
Limnodriloides roseus Pierantoni, 1904
Tectidrilus pranzoi Erséus, 1987
Tubificoides vestibulatus Erséus & Bonomi, 1987

Pycnogonida (n°4)
Anoplodactylus compositus Chimentz, Cottarelli & Tosti, 1991
Neopallene campanellae Dohrn, 1881
Nymphon parasiticum Merton, 1906
Nymphon puellula Krapp, 1974

Ostracoda (n°74)
Philomedes levis G.W. Müller, 1894
Pseudophilomedes angulata *G.W. Müller, 1894*
Pseudophilomedes foveolatus *G.W. Müller, 1894*
Cycloleberis lobiancoi *(G.W. Müller, 1894)*
Polyleberis mackenziei Kornicker, 1974
Prionotoleberis gyion *Kornicker, 1974*
Archiconchoecia striata *G.W. Müller, 1894*
Cytherella alvearium Bonaduce, Ciampo & Masoli, 1976
Microcytheriura nigrescens G.W. Müller, 1894
Leptocythere bitubercolata *Bonaduce, Ciampo & Masoli, 1976*
Leptocythere punctatella Bonaduce, Masoli & Pugliese, 1977
Leptocythere rara *G.W. Müller, 1894*
Callistocythere adriatica Masoli, 1968

Callistocythere gilva *Bonaduce, Ciampo & Masoli, 1976*
Callistocythere mediterranea *(G.W. Müller, 1894)*
Urocythereis flexicauda *Bonaduce, Ciampo & Masoli, 1976*
Microcythere dentata *G.W. Müller, 1894*
Microcythere depressa *G.W. Müller, 1894*
Microcythere gibba *G.W. Müller, 1894*
Microcythere hians *G.W. Müller, 1894*
Microcythere levis *G.W. Müller, 1894*
Microcythere nana *G.W. Müller, 1894*
Microcythere obliqua *G.W. Müller, 1894*
Microcythere rara *G.W. Müller, 1894*
Microcythere vitrea *Bonaduce, Ciampo & Masoli, 1976*
Cytheromorpha nana Bonaduce, Ciampo & Masoli, 1976
Loxoconcha concentrica Bonaduce, Ciampo & Masoli, 1976
Loxoconcha geometrica Bonaduce, Ciampo & Masoli, 1976
Loxoconcha parallela *G.W. Müller, 1894*
Loxoconchidea minima *Bonaduce, Ciampo & Masoli, 1976*
Pseudoloxoconcha minima *G.W. Müller, 1894*
Sagmatocythere littoralis *(G.W. Müller, 1894)*
Cytheropteron garganicum *Bonaduce, Ciampo & Masoli, 1976*
Cytheropteron hadriaticum *Bonaduce, Ciampo & Masoli, 1976*
Cytheropteron monoceros *Bonaduce, Ciampo & Masoli, 1976*
Cytheropteron rarum *G.W. Müller, 1894*
Cytheropteron sulcatum *Bonaduce, Ciampo & Masoli, 1976*
Cytheropteron zinzulusae *Bonaduce, Ciampo & Masoli, 1976*
Eucytherura angulata *G.W. Müller, 1894*
Pedicythere phyrne *Bonaduce, Ciampo & Masoli, 1976*
Pedicythere tessellata *Bonaduce, Ciampo & Masoli, 1976*
Semicytherura abdita *Bonaduce, Ciampo & Masoli, 1976*
Semicytherura acuta *(G.W. Müller, 1912)*
Semicytherura aenariensis *Bonaduce, Ciampo & Masoli, 1976*
Semicytherura amorpha *Bonaduce, Ciampo & Masoli, 1976*
Semicytherura occulta *Bonaduce, Ciampo & Masoli, 1976*
Semicytherura rarecostata *Bonaduce, Ciampo & Masoli, 1976*
Semicytherura stilifera *Bonaduce, Ciampo & Masoli, 1976*
Semicytherura tergestina *Masoli, 1968*
Semicytherura trachina *Bonaduce, Ciampo & Masoli, 1976*
Tuberculocythere infelix *(Bonaduce, Ciampo & Masoli, 1976)*
Typhlocythere ruggierii *Bonaduce, Ciampo & Masoli, 1976*
Xestoleberis ventricosa *G.W. Müller, 1894*
Bythoceratina reticulata *Bonaduce, Ciampo & Masoli, 1976*
Bythocythere minima *Bonaduce, Ciampo & Masoli, 1976*
Cytherois incongruens *G.W. Müller, 1894*
Paracythere minima G.W. Müller, 1894
Paracytherois acuminata G.W. Müller, 1894
Paracytherois oblonga G.W. Müller, 1894
Paracytherois rara G.W. Müller, 1894
Paradoxostoma acuminatum G.W. Müller, 1894
Paradoxostoma maculatum G.W. Müller, 1894
Paradoxostoma rubrum G.W. Müller, 1894
Paradoxostoma triste G.W. Müller, 1894
Argilloecia levis *G.W. Müller, 1894*
Pontocypris acuta *Bonaduce, Ciampo & Masoli, 1976*
Pontocypris declivis G.W. Müller, 1894
Pontocypris levis G.W. Müller, 1894
Pontocypris maculosa G.W. Müller, 1894
Pontocypris mediterranea G.W. Müller, 1894
Pontocypris obtusa (G.W. Müller, 1894)
Pontocypris pellucida G.W. Müller, 1894
Propontocypris setosa (G.W. Müller, 1894)
Propontocypris succinea (G.W. Müller, 1894)

Copepoda (n°18)
Leptocaris igneus Cottarelli & Baldari, 1982
Harpacticus flexulosus Ceccherelli, 1988
Tisbe inflatiseta Volkmann, 1979
Tisbe pontina Volkmann-Rocco, 1969
Tisbe reluctans Volkmann-Rocco, 1968
Dactylopusia vulgaris dissimilis Brian, 1921
Psyllocamptus eridani Ceccherelli, 1988
Apodopsyllus lynceorum *Cottarelli, 1971*
Leptastacus uncinatus Cottarelli & Venanzetti, 1989
Arenopontia nesaie Cottarelli, 1975
Cylinula arganoi *Cottarelli & Venanzetti, 1989*
Stenocaropsis similis Cottarelli & Venanzetti, 1989
Minervella baccettii Cottarelli & Venanzetti, 1989
Psamathea nautarum Cottarelli & Venanzetti, 1989
Pseudonychocamptus colomboi Ceccherelli, 1988
Laophontina paradubia Cottarelli, 1983
Echinolaophonte minuta Cottarelli & Forniz, 1991
Echinolaophonte veniliae Cottarelli, Forniz & Bascherini, 1992

Mysidacea (n°1)
Siriella castellabatensis Ariani & Spagnuolo, 1976
Amphipoda (n°40)
Ampelisca intermedia Bellan-Santini & Diviacco, 1990
Autonoe viduarum (Myers, 1974)
Aurobogidiella italica (G. Karaman, 1979)
Bogidiella paraichnusae G. Karaman, 1979
Marinobogidiella tyrrhenica (Schiecke, 1979)
Corophium minimum Schiecke, 1979
Corophium rotundirostre Stephensen, 1915
Amphitopsis depressa Schiecke, 1976
Apherusa ruffoi Krapp-Schickel, 1969
Neogammarus festai Ruffo, 1937
Parhyale eburnea Krapp-Schickel, 1974
Iphimedia gibbula Ruffo & Schiecke, 1979
Iphimedia vicina Ruffo & Schiecke, 1979
Gammaropsis emancipata Krapp-Schickel & Myers, 1979
Megamphopus brevidactylus Myers, 1976
Leucothoe serraticarpa Della Valle, 1893
Idunella excavata (Schiecke, 1973)
Idunella nana (Schiecke, 1973)
Lepidepecreum crypticum Ruffo & Schiecke, 1977
Prachynella mediterranea (Ruffo, 1975)
Tryphosella simillima Ruffo, 1985
Cheirocratus monodontus G. Karaman, 1977
Maera schieckei G. Karaman & Ruffo, 1971
Psammogammarus gracilis (Ruffo & Schiecke, 1976)
Harpinia agna G. Karaman, 1987
Harpinia ala G. Karaman, 1987
Harpinia zavodniki G. Karaman, 1987
Phoxocephalus aquosus G. Karaman, 1935
Podocerus schieckei Ruffo, 1987
Bathyporeia sardoa Bellan-Santini &Vader, 1988
Bathyporeia sunnivae Bellan-Santini &Vader, 1988
Stenothoe antennulariae *Della Valle, 1893*
Stenothoe elachista Krapp-Schickel, 1976
Syrrhoites barnardi G. Karaman, 1986
Syrrhoites capricornia Bellan-Santini, 1985
Talorchestia pelecaniformis Bellan-Santini & Ruffo, 1986
Caprella telarpax Mayer, 1890
Liropus elongatus Mayer, 1890
Liropus minimus Mayer, 1890
Euscelus steueri Spandl, 1924

Crustacea decapoda *(n°1)*
Paguristes streanensis Pastore, 1984

Pisces (n°2)
Acipenser naccarii Bonaparte, 1836
Knipowitschia panizzae (Verga, 1841)
Alburnus albidus (Costa, 1838)
Alburnus alburnus alborella (De Filippi, 1844)
Chondrostoma genei (Bonaparte, 1839)
Chondrostoma soetta Bonaparte, 1840
Leuciscus lapacinus Stefani, Serra, Loffredo & Fossa, 1987
Leuciscus lucumonis Bianco, 1982
Rutilus erythrophtalmus Zerunian, 1982
Rutilus rubilio (Bonaparte, 1837)
Sabanejewia larvata (De Filippi, 1859)
Salmo fibreni Zerunian & Gandolfi, 1989
Salmo (trutta) marmoratus (Cuvier, 1817)
Knipowitschia punctatissima (Canestrini, 1864)
Padogobius martensii (Günther, 1861)
Padogobius nigricans *(Canestrini, 1867)*
Pomatoschistus canestrinii (Ninni, 1883)
Total: 204

ANNEX 2

List of endemic algea in Italy

✍✍**R -** *Antithamnionella elegans* (Berthold) J.H. Price et D.M. John v. *decussata* Cormaci et G. Furnari

✍✍**C -** *Bryopsis dichotoma* De Notaris

✍✍**R -** *Ceramium inconspicuum* Zanardini

✍✍**R -** *Cordylecladia guiryi* Gargiulo, G. Furnari et Cormaci

✍✍**F -** *Cystoseira brachycarpa* J. Agardh emend. Giaccone v. *claudiae* (Giaccone) Giaccone

✍✍**F -** *Cystoseira hyblaea* Giaccone

✍✍**C -** *Derbesia corallicola* Funk

✍✍**F -** *Ectocarpus siliculosus* (Dillwyn) Lyngbye v. *venetus* (Kützing) Gallardo

✍✍**R -** *Gracilaria dendroides* Gargiulo, De Masi et Tripodi

✍✍**R -** *Grateloupia cosentinii* Kützing - Furnari 1984

✍✍**R -** *Halymenia asymmetrica* Gargiulo, De Masi & Tripodi

✍✍**R -** *Hypnea furnariana* Cormaci, Alongi et Dinaro

✍✍**F -** *Leptonematella neapolitana* (Schussnig) Cormaci et G. Furnari

✍✍**R -** *Lithothamnion minervae* Basso

✍✍**R -** *Osmundea pelagiensis* G. Furnari

✍✍**R –** *Osmundella maggsiana* Serio, Cormaci, G.Furnari

✍✍**F -** *Phaeostroma bertholdii* Kuckuck

✍✍**R -** *Polysiphonia perforans* Cormaci, G. Furnari, Pizzuto et Serio

✍✍**R -** *Pseudocrouania ischiana* Funk - Furnari 1984

✍✍**CY –** *Shizotrix codiiformis* (Giaccone) Giaccone

✍✍**F -** *Taonia lacheana* Cormaci, G. Furnari et Pizzuto

✍✍**C -** *Ulva neapolitana* Bliding

Country Report
Sixth meeting of National Focal points for SPA

Country: Lebanon
Author of the Report: Lina Yamout

Institutional Framework:

Today there is stronger recognition in Lebanon that environmental protection requires a collaborative and concerted efforts from all. Working within the framework of an evolving legal and regulatory framework, government agencies at the national and local levels are becoming more aware of the need to consider the environmental impacts of their policies and actions, and are gradually building their capacity to manage the environment.

A number of laws, decrees, and ministerial decisions govern environmental management in Lebanon. Chief among them are the law no: 216/93 ammended by law 667/97 establishing the Ministry of Environment, defining its mandate and organizing the ministry thus giving it the responsibility to protecting the environment and fighting all types of pollution from different sources, classification of natural sites, identification and establishment of nature reserves, participation of international environmental agreements and planning environmental national and international activities, and law no: 444/2002 (code of the environment) making environmental impact assessment mandatory for any development project and applying the polluter pays principle.

Legal Framework Governing the conservation of Species and Sites.

Decision 90/1- 19/11/2000, MOE: Provides environmental guidelines for construction in river basins and sensitive ecosystems.

Decision 37, COM – 23/12/97: reasserts the application of the national ban on hunting until the hunting law of 18/6/1952 is revised and promulgated.

Decision 55, COM – 8/11/2001: Approves MOE draft Law to update hunting law of 1952.

Law 708 - 5/11/98: Declares the Tyre Coast Nature Reserve.

Law 121 – 12/3/1992: Declares Palms Islands Nature Reserve.

Decision 279/1- 19/11/98, MOA: Banning of fishing of marine turtles.

Decision 125/1- 23/9/99, MOA: Protecting Wales, Monk seals, Marine Turtles and banning their fishing.

Decision 281/1- 1911/98, MOA: Banning fishing of Sponges for a period of 5 years.

Status of signature/ratification of the relevant international agreements.

Lebanon has signed and ratified the following Conventions and protocols:

-Convention on Biological diversity (Law No: 360/94 dated: 1/8/1994)
-Protocol Concerning Mediterranean Specially Protected Areas (Law No: 292/94 dated: 22/2/1994)
-Convention on Wetlands of international Importance especially as Waterfowl Habitat.(Ramsar) (Law No: 23/99 dated: 23/2/1999)

-Protocol for the protection of the Mediterranean Sea against Pollution from Land-based Sources. (Law No: 292/94 dated: 22/2/1994)
-Protocol Concerning Co-operation in Combating Pollution of the Mediterranean Sea by Oil and other Harmful Substances in Cases of Emergency (Law No: 126/77) dated: 30/6/1977)
-Convention for the Protection of the Mediterranean Sea against Pollution (Decree-Law No: 126/77 dated: 30/6/1977)
-Protocol for the Prevention and Elimination of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft (Decree-Law No: 1260/77 dated: 30/6/1977)
AEWA: African-Eurasian Waterbird Agreement: ratified in 2002
ACCOBAMS: ratification underway.

Marine and Coastal Protected Areas:

Tyre Coast Nature Reserve (Law no: 708 – dated 5/11/98)
Palms Islands Nature Reserve (Law no: 121 –dated 12/3/1992)

Four sites have been recognized as Ramsar Sites: Tyre Coast Nature Reserve, Palm Islands Nature Reserve, Ammiq marches and Ras El Chaqaa.

Within the framework of the Coastal Areas Management Programme (CAMP)- Lebanon Project, the Ministry of Environment invited institutions to submit their proposals for conducting the thematic activity for " Marine Conservation Areas". One of the tasks to be performed by the selected institution is to elaborate technical documents for declaring the Damour Beach and the Damour River, and Naqoura marine and coastal area as protected areas.
The institution has recently been selected and will start implementing the thematic activity in the near future.

Protected Marine and Coastal Species of Fauna and Flora

All species within coastal and marine nature reserves are considered protected.

The Minister of Agriculture issued Decision no: 1259/1- dated 23/9/99) to protect Whales, Monk seals and Marine turtles and ban their fishing.

Implementation of the national biodiversity strategy and action plans with regard to the Mediterranean marine and coastal zone.

Lebanon has prepared a National Biodiversity Strategy and Action Plan in 1998 in order to fulfill the requirement of article 6 of the Convention on Biological Diversity.

In this context, several international projects are being executed for the protection and management of marine and coastal zones.

"The Palm Islands Nature Reserve" along with two other forest nature reserves :Horsh Ehden and Al-Shouf Cedars are being supported by a five year project executed by the Ministry of environment with a budget of 2.5 million USA Dollars funded by GEF/UNDP ending in November 2003. The "Tyre Coast Nature Reserve" and Ammiq marches are being supported by a four year MedWet Coast Project executed by the Ministry of Environment with a budget of $ 392,489 funded by The Fonds Francais Pour L'Environnement for a period of 4 years starting since March 2002.

The Coastal Area Management Program (CAMP) executed by the Ministry of Environment and funded by the Mediterranean Action Plan (MAP) for a period of 2 years starting since September 2001 aiming at protecting the coastal resources of south Lebanon by developing and applying methods and

tools of integrated coastal and marine areas management to the economic and social development activities of the area.

Biodiversity Enabling Activity (Phase II) is executed by the Ministry of Environment and funded by GEF for a period of one year aiming at assisting the Ministry of Environment to further assess national capacity building needs and priorities and to determine the necessary mechanisms to protect national biodiversity.

Observation/studies about alien species recorded in the Mediterranean marine and coastal zone.

Observations of marine algae in the Lebanese sea by some scientists have recorded the presence of the following algaeal species:

Green algae (originating from the indopacific ocean)
Caulerpa racemosa,
Caulerpa mexicana
Caulerpa scalpelliformis

Red Algae (originating from the indopacific ocean)
Asparagopsis taxiformis

Brown Algae (invasive)
Stypopodium schimperi

Marine Phanerogame (originating from the indopacific ocean)
Halophila stipulacea

List of country and or/ Mediterranean endemic species (if available for the country)

1- List of endemic species in Palm Islands Nature Reserve
Endemic plant species:
Aristolochia parvifolia
Arthrocnemum macrostachyum

Endemic Amphibians and Reptiles
Lacerta laevis laevis

2- List of endemic species in Tyre Coast Nature Reserve
Endemic plant species:
Lemna paucicstata
Crocus hyemalis
Ficus sycomorus
Arthrocnemum macrostachyum
Melilotus siculus
Euphrbia geniculata
Ludwigia stolonifera
Daucus aureus
Ipomoea palmata
Ambrosia maritima
Eclipta prostrata

Endemic Amphibians and Reptiles
Acanthodactylus shreiberi

a-c. Activities undertaken for the Management of the Mediterranean Monk Seal and Cetaceans

The National Center of Marine Studies in Lebanon being a member in the adhoc committee established by the Ministry of Environment to follow-up issues related to the implementation of SPA Protocol, is following up the activities related to Monk seals and cetaceans. In this regard the center is gathering information about these mammals to carry out the necessary studies and to take necessary measures to protect them in collaboration with the Ministry of Environment.

In November 2003, a dolphin was found dead on the shore of Palm Islands nature reserve (North of Lebanon), another dolphin was observed by fishermen dead near the shore of Tripoli (North of Lebanon), information about these animals were recorded for further identification.

b. Action Plan for the Conservation of the Mediterranean Marine Turtles

A survey to assess marine turtle nesting along the Lebanese coast was organized between the Ministry of Environment with the support of the regional Activity Center for Specially Protected Areas and the Mediterranean Association to save the Sea Turtles and was carried out between the period of 23rd July to 6th August 2001. This survey will help in the preparation of national action plan for the conservation of marine turtles.

Awareness campaigns about the importance of the marine turtles are being conducted for schools and local communities**.**

A poster presentation of marine turtles has been produced within the framework of the protected areas project executed by the Ministry of Environment. The Ministry has distributed the posters to all concerned in addition to Ministry of Education to disseminate them to public schools in Lebanon.

Activities related to the inventories (completed or ongoing) of sites using the Standard Data-Entry Form (SDF) for national inventories of natural sites of conservation interest.

These activities has not been executed yet

Collaboration activities undertaken within the framework of the implementation of the Protocol and/or the Action Plans, especially at bilateral or sub-regional levels.

Under the framework of the Strategic Action Plan for the Conservation of marine and coastal Biodiversity in the Mediterranean Region (SAB- BIO) project which is implemented within the framework of the MAP, a National Report of the Country of Lebanon has been prepared which will constitute a major input for preparing the SAP BIO.
The Report has identified 5 national conservation priorities, for which 5 NPs were developed and submitted to RAC/SPA:
Priority Action 1: Establish conservation strategies for coastal habitats
Priority Action 2: Updating of legislation and development of guidelines for marine and coastal conservation
Priority Action 3: Awareness campaigns for the Lebanese coastal communities and public sector
Priority Action 4: Develop monitoring strategies for marine and coastal biodiversity
Priority Action 5: Determine the physical parameters of the Lebanese marine environment

Status of implementation of the recommendations of earlier meetings of the focal points for SPAs and of the Contracting Parties.

The implementation of the national action plans developed within the SAP BIO will form the basis for the implementation of the SPA's Protocol.

A proposed Action Plan for Tyre Coast and Palm Islands Nature Reserves has been prepared and submitted to RAC/SPA within the framework of SAP BIO, for approval and then to secure the necessary funds for its implementation.

Country Report of the Libyan Arab Jamahiriya
To the sixth meeting of National Focal Points for SPAs
Marseilles; 17-20 June 2003

Prepared by:
Mr. Abdulmaula HAMZA and Dr. Abdulfatah BOARGOB

Institutional framework

Many institutes, research centers and official authorities are involved in nature conservation and Environmental works in Libya.

The Environment General Authority (EGA) The sole national environmental institution; established by the decree No.263/1999 to substitute the Technical Centre for Environment Protection (TCEP). EGA is affiliating the secretary of resources, environment and urban planning and carries its functions according to the Law No. 7 of 1982 and its executive regulation. According to this law EGA is scientific, controlling, and consulting body concerned with the environmental issues in terms of maintaining the natural resources, protecting the environment, and conserving the various elements of the biological diversity. In addition to the coordination with other national authorities and international organizations for sustaining the environment and promote public awareness especially those related to nature conservation and sustainable use of resources for the sake of future generations.

Marine Biology Research Centre (MBRC) is the other national institute dealing especially with marine environment**;** it was established by the Act No. 1582/1981, located on the coast of Tajura (15 km east of Tripoli); the centre has its own general director and is affiliated to General Secretary of Marine Wealth and Agriculture.
Duties of the center are many but it mainly conducting studies on marine living and non-living resources and to provide consultation on marine issues. And cooperate with national, regional and international similar institutions through joint research projects, symposia, conferences and exchange information.
In addition to the country municipalities (Shabiyate) other institutes and authorities may involve in marine and coastal environment, like Agricultural Research Center, Water General Authority, Industrial Research center and Petroleum Research enter.

Legal Framework for species conservation

Since long decades the Libyan legislator defined the high importance of nature conservation and species protection, therefore many laws and decrees has been issued, including:

- Law No.28/1968 on hunting which included many aspects regarding hunting activities, seasons, licensing and it annexed some species of national importance to pan its hunting.
- Law No.5/1982 for the protection of forest lands.
- Act Law No.7/1982 concerning Environment Protection, with special articles on marine environment and species and the necessity to be conserved by establishing of natural reserves.

- Law No. 15/1982 on the protection of some animal species and trees.
- Law No.14/1989 on the protection of marine resources. With special reference to marine protected areas.
- Decree No.453/1993 on banning of hunting and trade of marine turtles and tortoises as an endangered species.
- Decree No.6/1996 on banning of all hunting activities of game animals as well as some marine species like turtles and other rare/endangered species listed in SPA protocol.

Status of signature/ratification of the relevant international agreements

The below table summarizes the Libyan position regarding the different environmental agreements:

No.	Convention	Place of signature	Status	
			Signed	Ratified
1.	Agreement for the Establishment of a General Fisheries Council for the Mediterranean	Rome	6/12/1949	14/5/1963
2.	International Plant Protection Convention	Rome	6/12/1951	9/7/1970
3.	International Convention for the Prevention of Pollution of the Sea by Oil, 1954	London	12/5/1954	18/5/1972
4.	United Nations Convention for the Conservation of World Cultural and Natural Heritage	Barcelona	23/11/1972	13/1/1979
5.	The Convention for Protection of the Mediterranean Sea Against Pollution and its Protocols	Barcelona	16/12/1976	31/1/1979
6.	African Convention for Protection of Nature and Natural Resources	Algeria	15/9/1968	16/7/1969
7.	United Nations Convention on Combating Desertification	Paris	17/6/1994	22/7/1996
8.	RAMSAR Convention on Wetlands	Ramsar	2/2/1971	13/6/2000
9.	Convention on the Conservation of Migratory Species (CMS)	Bonn	1/11/1979	00/1/2002
10.	CMS – Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area	Monaco	24/11/1996	00/1/2002
11.	Convention on International Trade in Endangered Species	Washington	3/3/1973	00/1/2002
12.	United Nations Convention on Biological Diversity	Rio De Janero	5/6/1999	R.2001
13.	Emergency Protocol of Barcelona Convention	Barcelona	16/2/1976	31/1/1979
14.	Land-base Resources Protocol of Barcelona Convention	Athens	17/5/1980	6/6/1989
15.	Dumping Protocol of Barcelona Convention	Barcelona	16/2/1976	31/1/1979
16.	Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean.	Barcelona	10/6/1995	not ratified yet
17.	Amendments on Land-base Resources Protocol	Syracuse	7/3/1996	Not ratified
18.	Amendments on Dumping Protocol	Barcelona	10/6/1995	not Ratified.
19.	Amendments on Barcelona Convention	Barcelona	10/6/1995	not Ratified.

S. = Signed
R. =Ratified
S not R. = Signed but not Ratified yet.

Marine and coastal protected areas

The new developments were the changes in administrative affiliation of the eleven declared protected areas. The technical committee on protected areas and wildlife was discomposed, and the national parks and protected areas are affiliated to respective shabiyah where they are situated. EGA is communicating and coordinate efforts with different national official and public authorities to setup a new system for administrating the national parks and protected areas.

One of the action plans prepared within SAPBIO project was **a National Action Plan on Proposed New Marine and Coastal Protected Areas and National Parks**, and it includes a description of eight sites in need for conservation.

Protected marine and coastal species of fauna and flora

The protected faunal species includes: marine turtles, dolphins, monk seals, some marine birds like sterns and cormorants, with regard to floral species most medical important plants like rosemary, Thymus are under high pressure of grazing and human use, in fact there is an urgent need to update the list of endangered species .

Implementation of national biodiversity strategy and action plans:

The national biodiversity strategy was prepared by EGA, and it is under revision by the General Peoples Congress. Concerning the activities related to the action plans of SPA protocol, EGA has signed a memorandum of cooperation (MOC) in El-byda city on the 26th of May 2001, for executing field studies on three topics: monk seal habitats, marine vegetation and Assessment study of biodiversity in Al-Jabel Al-Akhdar.

Monk seal study composed of three phases, the first phase was conducted in May 2002 in collaboration of ICRAM center, and the final report of this phase is under preparation.
Assessment study of biodiversity in Al-Jabel Al-Akhdar will take place during the last months of this year 2003, in collaboration with WWF med-PO and by coordination of RACSPA. Marine vegetation study is still under assessment, and it was proposed to done by the help of University of Corsica-France.

Observation/studies on alien species

No studies or observation have made so far.

List of country and /or Mediterranean endemic species :

Not available.

Activities undertaken in the framework of implementation of:

a. A.P. for Mediterranean Monk seal: see **Implementation of national biodiversity strategy and action plans**.
b. A.P. for conservation of marine turtles: EGA has signed a memorandum of cooperation with RAC/SPA to organize special day for marine turtles on 28 Aug.2001. **A National Action Plan for conservation of marine turtles and its habitats** has been prepared in the framework of SAPBIO project. Coloring book for children was produced by EGA and distributed in the country and some copies were sent to the center too, with medium size poster and information leaflet on sea turtles.
c. A.P. on cetacean's conservation: During the filed study on monk seal some information about cetacean species in the Libyan waters were included, according to fishermen sightings.
d. A. P. on marine vegetation conservation: After the field study of marine vegetation Farwa lagoon which conducted in summer 2000, EGA included this issue in Elbyda MOC with RACSPA, and we still planning to conduct a series of field studies on marine vegetation habitats along the Libyan Coast. During Oct.2001 two Libyan researchers has participated in a RAC/SPA training course on marine vegetation conservation.
e. A.P. for conservation of marine birds: in the framework of SAPBIO project, a **national action plan for conservation of marine birds** has been prepared by one of EGA researchers.
f. A national report on coastal and marine biodiversity was prepared prior to the preparation of the national SAPBIO project.

Activities related to Inventories by SD Forms:

SDF system has been used in the marine vegetation study of Farwa lagoon, and we encourage our researchers to use it in future studies and surveys.

Collaborative activities undertaken to implement the protocol and the Action Plans:

1. About 300 copies of the children coloring booklet on Turtles, posters and leaflets has been sent to the center for distribution at north African countries.
2. Joint field study on the status of the Egyptian tortoise *Testudo klenmanni* at Al-Jebal Al-akhdar during April 2002, with the Egyptian Tortoise program researchers.
3. Joint field study on the coastal wetland's waterfowl populations was conducted during April 2001 in cooperation with Office Nationale de l'Chass et l'animux sovage - France.
4. One of EGA researchers has participated in field survey of slender billed curlew, which organized during January 2003 by UNEP-AEWA and Association les Amis des Oiseaux in Tunisia.

Country report at the sixth meeting of the national Focal Points for SPAs

1. Country: Malta

2. Authors of report: Ms. Carmen R. Mifsud and Mr. Alfred E. Baldacchino

3. Brief description of the Institutional Framework

Organisational structure
The overall responsibility for the co-ordination and implementation of environmental policies and conservation lies within the Environment Protection Directorate of the Malta Environment and Planning Authority. The Environment Protection Directorate has three main units, namely: Nature Protection Unit; Pollution Control, Wastes and Minerals Unit; and Resources Management Unit.
The Malta Environment and Planning Authority is formed by the Planning Directorate and the Environment Protection Directorate, and was established through the merger of the two Directorates in March 2002.
The Malta Environment and Planning Authority is in portfolio of the Ministry for Rural Affairs and the Environment.
The Nature Protection Unit within the Environment Protection Directorate is the Unit whish is responsible for the implementation of the SPABIM protocol.

4. Brief description of the Legal framework governing the conservation of species and sites (main legal instruments):

The Environment Protection Act and Development Planning Act
The most important national acts concerning the protection of biota are two, namely the Environment Protection Act of 2001 (which replaced the Environment Protection Act of 1991) and the Development Planning Act of 1992 (and amended by Acts XXI of 1992, XVI of 1997, XXIII of 1997 and XXI of 2001).

Current legislation concerning Maltese biota [excluding fisheries], is essentially based on various **acts**, **regulations** and **government/legal notices.** The protection of species and sites is thus achievable in Malta either through primary legislation (passed directly through parliaments) or through subsidiary legislation.

The Environment Protection Act [Act XX of 2001], is essentially a framework law with no clear-cut obligations, but with various mandatory provisions granting the Minister responsible for the environment the possibility of issuing subsidiary legislation on various issues related to, amongst others, the protection of biological diversity.

Subsidiary Legislation of the Environment Protection Act

The following is a list of subsidiary legislation emanating from both Acts.

a) **Fungus Rock Nature Reserve Regulations**
St. Paul's Islands Nature Reserve Regulations
(Legal Notices 22 of 1992 & 25 of 1993 respectively)

b) **Reptiles Protection Regulations**
(Legal Notice 76 of 1992)

c) **Birds and Wild Rabbit (Declaration of Protected Species and Nature Reserves) Regulations**
(Legal Notice 144 of 1993, as amended by Legal Notice 150 of 1993, Legal Notice 215 of 1997 and Legal Notice 106 of 1998)

d) **The Protection of Birds and Wild Rabbit Regulations**
(Legal Notice 146 of 1993, as amended by Legal Notice 45 of 1996, Legal Notice 23 of 1997, Legal Notice 216 of 1997, Legal Notice 75 of 1998, Legal Notice 333 of 2001 and Legal Notice 1 of 2002)

e) **Flora and Fauna Protection Regulations**
(Legal Notice 49 of 1993, as amended by Legal Notice 161 of 1999)

f) **Marine Mammals Protection Regulations**
(Legal Notice 77 of 1992, as amended by Legal Notice 155 of 1997, Legal Notice 214 of 2000 and Legal Notice 128 of 2001)

g) **Tree and Woodland Protection Regulations**
(Legal Notice 12 of 2001)

h) **Motor Vehicles (Offroading) Regulations**
(Legal Notice 196 of 1997)

i) **Trade in Species of Fauna and Flora Regulations**
(Legal Notice 19 of 1992 as amended by Legal Notice 96 of 1992, Legal Notice 22 of 1995, Legal Notice 140 of 1997 and Legal Notice 244 of 2000)

j) **Importation of Skins of Certain Seal Pups and Derived Products Regulations**
(Legal Notice 335 of 2001, as entered in force via Legal Notice 50 of 2002)

k) **Capture and Killing Methods Prohibition Regulations**
(Legal Notice 167 of 2002)

m) **Convention on Biological Diversity Incorporation Regulations**
(Legal Notice 160 of 2002)

n) **Regulations concerning Genetically Modified Organisms**
(Legal Notice 169 of 2002, Legal Notice 170 of 2002, Legal Notice 194 of 2002 & Legal Notice 290 of 2002)

Presently other regulations are being drafted to transpose the EU Habitats Directive.

The Development Planning Act
(DPA – Cap. 356/Act I of 1992 as amended, 28th October 1992)
The Development Planning Act (DPA, Act I of 1992 as amended) has as one of its aims the harmonisation of 'development' with the environment. In this sense, the act also adopts the Structure Plan for the Maltese Islands, and also provides for the scheduling of a number of important areas in the Maltese Islands.

The version of the Structure Plan currently in force (Malta Structure Plan, 1992) has a total of 320 separate policies. Some of these policies are directly or indirectly related to biodiversity. However not all of these policies are implemented, and their effectiveness of some of these policies can be also attained through provisions of the Environment Protection Act or its subsidiary legislation.

Other National Legislation Relevant to Biodiversity
A number of legal environmental provisions were also catered for by other laws, particularly the **Code of Police Laws,** the **Fees Ordinance** and the **Police Licences Act** [Act XXXIV of 1949 as amended].

Apart from these, other Acts deal with related aspects of the environment and hence directly or indirectly affect biota. Example:

- The **Fisheries Conservation and Management Act** (Cap. 425, Act II of 2001).
- The **Plant Quarantine Act** (Cap. 433, Act XVIII of 2001).
- The **Animal Welfare Act** (Cap. 439, Act XXV of 2001).
- The **Sand (Preservation) Act** (Cap. 127, Act XVI of 1949 as amended); and
- The **Fertile Soil (Preservation) Act** (Cap. 236, Act XXIX of 1973.

5. Status of signature/ratification of the relevant international agreements

A number of international treaties concerning nature protection exist. The present status of Malta in relation to the main international treaties concerned with nature protection and other conventions/treaties related to the protection of nature and natural resources is shown in Table 1 below.

Table 1:
The status of Malta in relation to the main international treaties with relevant provisions on nature protection, in chronological order by date of adhesion (ratification or accession) by Malta. Pollution and waste treaties are excluded from this list, unless directly relevant to nature protection.

Treaty	Entered in force	Adhesion by Malta	Status
International Plant Protection Convention [IPPC]	3 April 1952	13 May 1975	Accession
Convention for the Protection of the Mediterranean Sea against Pollution [Barcelona Convention]	16 February 1976	30 December 1977	Ratification
Convention concerning the Protection of the World Cultural and Natural Heritage [World Heritage Convention]	17 December 1975	14 November 1978	Accession
Protocol concerning Mediterranean Specially Protected Areas [SPA Protocol]	23 March 1986	11 January 1988	Ratification
The Convention on Wetland of International Importance especially as Waterfowl Habitats [Ramsar Convention]	1975	19 August 1988	Accession
Convention on International Trade in Endangered Species of Wild of Flora and Fauna [CITES]	1 July 1975	17 April 1989	Accession
Amended International Plant Protection Convention [FAO-Amended IPPC]	4 April 1991	16 November 1990	Acceptance
United Nations Convention on the Law of the Sea [UNCLOS]	16 November 1994	20 May 1993	Ratification
Convention on the Conservation of European Wildlife and Natural Habitats [Bern Convention]	1 June 1982	26 November 1993	Accession
United Nations Framework Convention on Climate Change [UNFCCC]	21 March 1994	17 March 1994	Ratification
United Nations Convention to Combat Desertification in those Countries experiencing Serious Drought and/or Desertification, particularly in Africa [UNCCD]	26 December 1996	30 January 1998	Ratification
Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean [Amended Barcelona Convention]	Not in Force	28 October 1999	Ratification
Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean [SPABIM Protocol]	12 December 1999	28 October 1999	Ratification

United Nations Convention on Biological Diversity [CBD]	29 December 1993	12 December 2000	Ratification
Convention on the Conservation of Migratory Species of Wild Animals [Bonn Convention]	3 November 1983	13 February 2001	Accession
Agreement on the Conservation of Bats in Europe [EuroBats]	16 January 1994	13 February 2001	Accession
Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area [ACCOBAMS]	1 June 2001	13 February 2001	Ratification
Agreement on the Implementation of the Provisions of the United Nations Convention on the Law of the Sea relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks	11 December 2001	11 November 2001	Accession
European Landscape Convention [Florence Convention]	Not in Force	–	Signed
Memorandum of Understanding concerning Conservation Measures for the Slender-billed Curlew	10 September 1994	–	–
Agreement on the Conservation of African Eurasian Migratory Waterbirds [AEWA]	1 November 1999	–	–
Cartagena Protocol on Biosafety to the Convention on Biological Diversity [Cartagena Protocol]	Not in Force	–	–
Convention on the Protection of the Environment through Criminal Law	Not in Force	–	–

Malta is also subject to relevant provisions of the European Union *Acquis Communautaire*, in view of Malta's status as a European Union Candidate Country.

6. Marine and Coastal Protected Areas (new developments since the last meeting of the focal points for SAP's)

Through the Emerald Network the Selection of terrestrial and land-coastal areas sites have already been delineated. At the moment of writing these sites are awaiting further evaluation and approval by the relevant authorities.
The marine sites are also being delineated.

The data commissioned so far includes the:

- the mapping of *Posidonia oceanica* in Maltese waters;
- work has also commenced on the **Common Database on Designated Areas** (CDDA).

Declaring Marine Protected Areas
A number of Marine Conservation Areas (MCAs) have been identified. Yet, to date no marine protected area has been declared, although the sea around the islet of Filfla fulfils this function to an extent, because in this area diving, anchoring, mooring and any other activities are not allowed, except for fishing.

7. Protected Marine and coastal species of fauna and flora

Protected marine reptiles

Dermochelys coriacea	Leatherback turtle	Il-Fekruna s-sewda
Caretta caretta	Loggerhead turtle	Il-Fekruna l-komuni
Chelonia mydas	Green turtle	Il-Fekruna l-Hadra

CETACEA

Balaenoptera acutorostrata	Minke whale
Balaenoptera borealls	Sei whale
Balaenoptera physalus	Fin whale
Delphinus delphis	Common Dolphin
Eubalena glacialis	Northern right whale
Globicephala melas	Long finned pilot whale
Grampus griseus	Risso's dolphin
Kogia simus	Dwarf sperm whale
Megaptera novaeangliae	Humpback whale
Mesoplodon densirostris	Blainville's beaked whale
Orcinus orca	Killer whale
Phocoena phocoena	Common/Harbour Porpoise
Physter macrocephalus	Sperm whale
Pseudorca crassidens	False killer whale
Sousa chinensis	Indo pacific Humpback dolphin
Stenella coeruleoabla	Striped dolphin
Steno bredanensis	Rough toothed dolphin
Tursiops truncatus	Bottlenosed dolphin
Ziphius cavirostris	Cuvier's beaked whale

PINNIPEDIA

Monachus monachus Mediterranean Monk Seal (extinct from the Maltese Islands, although lately was seen in high seas near the Malese Islands.)

Coastal and marine Flora protected by law

Other Fauna protected

Sponges		
PORIFERA		
Petrobiona massiliana	Sponge	
CNIDARIA		
Antipathes spp.	Black coral	
Astoides calycularis	Star coral	
Cladocora caespitosa	Stone/white coral	
Corallium rubrum	Red coral	
CRUSTACEA		
Potamon fluviatile lanfrancoi	Maltese freshwater crab	Il-Qabru
MOLLUSCA		
Charonia rubicunda		
Charonia tritonis		
Dendropoma petraeum		
Erosaria spurca		
Gibbula nivosa		
Lampedusa melitensis		
Lithophaga lithophaga		
Luria lurida		
Mitra zonata		
Pholas dactylus		
Pinna nobilis		
Ranella olearia		
Schilderia achatidea		
Tonna galea		
Zonaria pyrum		
ECHINODERMATA		
Centrostephanus longispinus	Needle spined sea-urchin	
Ophidiaster ophidianus	Violet starfish	
ELASMOBRANCHII		
Carcharodon carcharias	Great white shark	
Cetorhinus maximus	basking shark	
Mobula mobular	Devil ray	
ACTINOPTERYGII		
Aphanius fasiatus	Maltese killifish	
Hippocampus hippocampus	Short-nosed sea-horse	
Hippocampus ramulosus	Long nosed sea-horse	

Algae protected by law

FUCHOPHYTA		
Cystoseira amentacea s.l.	Rainbow Bladder weed	Ic-Cistosejra l-Kahla
Cystoseira mediterranea	Sea-Fir	Ic-Cistosejra
Cystoseira spinosa sl.	Sea-Fir	Ic-Cistosejra
Cystoseira zosteroides	Sea-Fir	Ic-Cistosejra
RHODOPHYTA		
Goniolithon byssoides	Stone weed	Il-Litofillum
Lithophyllum lichenoides	Stone-Weed	Il-Litofillum

Coastal plants and trees

Bryophyta		
Riella helicophylla	Liverwort	
[Critically endangered-possibly extinct]		
Cupressaceae		
Tetraclinis articulata	Araar Tree /Sandarac Gum tree	Is-Sigra ta' l-Gharghar
Asteraceae		
Palaeocyanus crassiflius	Maltese Rock- centuary	Widnet il-bahar
Helichrysum melitense	Maltese everlasting	Is-Sempreviva ta' Ghawdex
Hyoseris frutescens	Maltese Hyoseris	Iz-Zingland ta Ghawdex
Brassicaceae		
Enarthrocarpus pterocarpus	winged radish	Ir-Ravanell ta' l-Egittu
Chenopodiaceae		
Cremnophyton lanfrancoi	Maltese cliff-orache	Il-Bjanka ta' l-Irdum
Cynomoriaceaea		
Cynomorium coccineum	Malta fungus	L-Gherq Sinjur
Scrophulariaceae		
Linaria pseudolaxiflora	Maltese toadflax	Il-Pappocci ta' Malta
Orchidaceae		
Ophrys lunulata	Crescent orchid	L-Orkida tal-Qamar

This orchid is critically endangered and possibly extinct although this is still not confirmed

All the species which are recorded in the Maltese Islands and which are protected by international conventions, are protected in the Maltese Islands, with the exception of those on which a reservation was made both to the Bern Convention and also to the SPABIM Protocol (1999). These include amongst others: *Lamna nasus, Paracentrous lividus*, *Ephinephalus marginatus*, etc… .

8. Implementation of the national Biodiversity Strategy and action plans with regards to the Mediterranean marine and coastal zone

Plans are underway for its establishing of a National Biodiversity Strategy.
With regards to action plans, the Nature Protection Unit has already drafted a number of action plans especially those under the framework of the SAP-BIO.

The Biodiversity Action Plan Programme which involves the drawing up of management plans for the protection of endangered species and their habitats, and includes also eradication plans or control mechanisms for invasive alien species, is being implemented in phases and is currently at the initial stage, which involves the identification of endangered species requiring special conservation measures.
In this respect, a list of endangered species requiring special conservation measures has been drafted with the help of an *ad-hoc* committee set up on the issue, which has to be supplemented with data arising from a number of specific tenders to fill in gaps on some of the lacunae.

The **action plans within the SAP-BIO framework** are the following:

1. Action plan for the conservation of marine turtles in the Maltese Islands;
2. Action plan for the conservation of Cetaceans with particular reference to the "priority species" listed by ACCOBAMS, the sperm whale, the common bottlenose dolphin, and the short-beaked common dolphin;
3. Action plan for the estimation of the sustainability of grouper fishing in Malta;
4. Action Plan for the micro-cartography, mapping and surveillance of the *Posidonia oceanica* meadows in the Maltese Islands;
5. Action Plan for the conservation of shark, ray, and skate (including the estimation of sustainability of the impact of fishing operations) in the Maltese waters.

A number of management plans for protected areas have also been issued and are being implemented either by the Environment Protection Directorate staff responsible for such sites or by NGO's or other stakeholders entrusted with the management of such sites.

9. Observations/Studies about alien species recorded in the Mediterranean marine and coastal zone

A tender on the setting up of a list of alien flora of the Maltese Islands (where 'flora' includes macro-algae, macro-fungi, bryophytes, vascular plants and lichens) has also been issued and commissioned in 2001.

The tender also specifies the methods to be applied for controlling or eradicating the species in question and in fact after this tendering phase, measures will be taken in line with the tender recommendations to eradicate or control the species in question.

It is hoped that similarly studies may be commissioned in the near future for the setting up of lists of alien fauna. Some studies are also being conducted with the University of Malta on the status and effect on the local ecosystems of the alien invasive species *Caulerpa racemosa.*
A number of scientific papers, research and graduate and post-graduate studies have also been carried out by the University students or researchers on alien species e.g. an alien crab which is proliferating around the Maltese Island's waters.

10. List of country and/or Mediterranean endemic species (if available for the country)

Gibbula nivosa
Lithphyllum lichenoides
Cystoseira sp. growing in our waters most of which are endemic to the Mediterranean (a peculiarity of this genus is in fact speciation in the Mediterranean).

11. Activities undertaken In the framework of the implementation of the:
a) AP for the Mediterranean monk seal

- legally protected
- Species has been confirmed to be a vagrant only in the last few years since it had not been seen since the mid 1800.
- No specific action plan is needed since it is 'extinct' from the Maltese Islands although it may occasionally occur in the Maltese territorial waters.

b) AP for the conservation of the Mediterranean marine turtles

Please refer to point 8 above on the national AP for turtle conservation in the Maltese Islands

- Legally protected
- A code of practice for beached turtles is currently being drawn up
- A questionnaire for fishermen regarding the method of catchments of these accidentally caught species and other important data pertaining to the capture has been drawn and is awaiting dissemination
- The national aquaculture centre is working with the Environment Protection Directorate in order to help in the rehabilitation of these accidentally caught reptiles which are landed by fishermen;
- A local veterinarian is also helping out with the operations and with the extraction of the hook for these accidentally caught reptiles
- Due to the high number of accidentally caught species, a programme for checking out these captures is also envisaged through the help of RAC/Specially Protected Areas
- There are also plans to translate the fishermen handling booklet into Maltese and to disseminate this to local fishermen and other sea-users.
- Tagging programme with RAC/SPA's tags is underway;
- A local database with sightings (from fisherman) and with beaching is currently has been initiated some months ago;
- Malta forms part of the international network

c) AP for the conservation of cetaceans

- all are legally protected;
- Plans for updating the 1999 code of practice for cetacean standing;
- A local database with sightings (from fisherman) and with beaching has recently been initiated;
- Malta forms part of the international network;
- Malta intends to participate in the programme organised by IFWA for sighting the sperm whale in the Mediterranean;

d) AP for the conservation of Marine vegetation

- Algae have been legally protected
- A survey for the mapping and assessing of the state of health of the *Posidonia* meadows in the Maltese Islands has been undertaken last summer.

11. Activities related to the inventories of sites using the SDF for national inventories of natural sites of conservation interest

This has been undertaken in the pilot programme of the CAMP site between Rdum il-Majjiesa and Ras ir-Raheb. Moreover the SDF have been evaluated in another exercise for suggestions of sites for inclusion in the SAC's of the natura 2000 or Emerald network. New biocenosis or facies have been suggested in line to the Maltese situation and those which are absolutely not present locally have been identified (Borg and Schembri, 2002).

13. Status of Implementation of the recommendations of earlier meetings of the focal points for SPAs and of the contacting parties

This has been incorporated in point 11.

MONACO Contribution à la mise en œuvre du Protocole ASP 2001-2002

1. Cadre institutionnel

Les actions de conservation de la biodiversité marine sont placées sous la tutelle du Département des Travaux Publics et des Affaires sociales et plus directement de la Direction de l'Environnement, de l'Urbanisme et de la Construction.
Les questions qui touchent à la pêche sont placées dans le domaine de compétence de la direction de Affaires maritimes et de la police maritime.

2. Cadre juridique

Le code de la mer, loi 1198 du 27 mars 1998, couvre toutes les questions se rapportant au domaine marin et en particulier la conservation et la gestion de la diversité biologique.
Ses textes d'application sont actuellement à l'étude.

3. Statut des signatures/ratifications des accords internationaux pertinents

	ASP	Ramsar	CDB	Barcelone/95	CITES	ACCOBAMS	Berne	Bonn	AEWA
Monaco	R/1997	R/1997	R/1992	Ap/1997	R/1978	R/1997	R/1994	R/1993	R/1999

4. Les aires protégées marines et côtières

- Réserve marine du Larvotto.
- Sanctuaire pour les Mammifères marins (ASPIM). La coordination de l'élaboration du Plan de gestion de cette ASPIM est effectuée par un groupe de travail franco-italo-monégasque. Sa présentation à la Réunion des Parties contractantes pour adoption est envisagée en 2004.

5. Espèces protégées de faune et de flore

Tous les Mammifères marins sont totalement protégés et les filets maillants dérivants interdits. Les posidonies le sont également au travers de la protection de l'unique herbier situé sur le territoire national.
Sont également protégés les mérous et les corbs (Corvina nigra).

6. Mise en œuvre de la stratégie nationale pour la biodiversité et des plans d'action pertinents pour la biodiversité et des plans d'action pertinents pour la zone côtière méditerranéenne

Voir le Programme d'actions stratégiques pour la conservation en Méditerranée (PAS-BIO, juillet 2002) pour les études et conclusions antérieures à juillet 2002.

Les études réalisées pour le compte de la Direction de l'Environnement, de l'Urbanisme et de la Construction. depuis juillet 2002 sont les suivantes :

- Cartographie des biocénoses sous-marines de la Réserve du Larvotto- Limites inférieures et supérieures de l'herbier de Posidonies (décembre 2002- J. De Vaugelas, L. Trastour),

- Cartographie des peuplements superficiels de macroalgues du littoral Monégasque (décembre 2002- D. Soltan).

7. Observations/études sur les espèces non indigènes signalées dans la zone côtière méditerranéenne

- Rapport sur l'étude des populations de Caulerpes de la Principauté de Monaco (décembre 2001- Gis Posidonie).

8. Liste des espèces endémiques

N'a pas de signification à l'échelle de la Principauté.

9. Activités dans le cadre de la mise oeuvre des Plans d'action.

a) Plan d'action pour la Conservation des Cétacés en mer Méditerranée :

La Principauté est particulièrement active dans ce domaine en collaboration multilatérale au sein de l'ACCOBAMS et de l'Accord instaurant l'ASPIM "Pélagos: sanctuaire pour les Mammifères marins".

Législation :
Tous les Mammifères marins sont totalement protégés et les filets maillants dérivants interdits.

Sensibilisation/éducation :
La sensibilisation à la conservation des Cétacés s'effectue au travers des actions éducatives et médiatiques organisées avec l'appui du secrétariat permanent de l'ACCOBAMS ou dans le cadre de la mise en œuvre de l'Accord créant le sanctuaire pour les Mammifères marins.

b) Plan d'action sur la végétation marine :
Les posidonies le sont également au travers de la protection de l'unique herbier situé sur le territoire national.

Actions entreprises récemment:

- Positionnement des limites inférieures et supérieures de l'herbier de Posidonies de la Réserve du Larvotto (décembre 2002)- Etat de santé de l'herbier.

- Cartographie des macroalgues du littoral monégasque (décembre 2002)

c) Plans d'action sur la conservation des phoques moines et des tortues marines :

Sans objet

10. Activités d'inventaires de sites utilisant le Format Standard des Données (FSD) pour les inventaires nationaux des sites naturels d'intérêt pour la conservation.

Le FSD a été utilisé dans le cadre RAMOGE pour la description et l'identification des zones marines susceptibles de devenir des ASP.

11. Activités de collaboration entreprises dans le cadre de la mise en œuvre du Protocole et /ou des plans d'action, spécialement aux niveaux national et sous-régional.

Coopération régionale et sous régionale.

La Principauté est particulièrement active au sein de l'ACCOBAMS, de l'Accord RAMOGE et de l'Accord créant le sanctuaire "pelagos" pour les Mammifères marins.

Coopération Bilatérale

La Croatie

La Coopération dans le domaine de la protection de la biodiversité marine en Croatie engagée depuis l'année 2000, s'est poursuivie en 2002 par le financement d'un nouveau projet visant à améliorer la connaissance des habitats au niveau de l'archipel de Losinj-Cress, dans le but de proposer des mesures visant à assurer sa conservation. 16 000 Euros ont été alloué à cette activité en 2002.

Cette zone étant réputée pour la présence de nombreuses espèces de cétacés, cette activité a été mise en œuvre en collaboration avec l'Accord ACCOBAMS. Le financement des recherches sur cette zone se poursuivra en 2003 et aboutira à la mise en œuvre d'une protection légale de la zone et l'application de mesures de gestion, à même d'assurer une protection sur le long terme du patrimoine naturel de l'archipel.

Dans le cadre de son implication dans la région Adriatique, la Principauté a apporté son soutien à l'initiative MedWet pour un projet visant à améliorer la gestion d'une zone Humide transfrontalière entre la Bosnie-Herzégovine et la Croatie.

Cette zone humide qui est l'une des plus importante en méditerranée abrite une très grande richesse en terme de biodiversité et est le lieu de très nombreuses activités humaines (agriculture, pêche, chasse, tourisme).

Cette initiative a pour finalité l'élaboration d'un plan de gestion qui vise à permettre une exploitation durable de cette zone et qui passe par une coopération entre les habitants de cette zone et donc entre la Bosnie Herzégovine et la Croatie. Compte tenu de l'importance économique de cette région, ces deux pays accueillent très favorablement ce projet de coopération. Monaco a consacré 15.000 euros à ce projet en 2002.

La Slovénie

Suite aux activités qui avaient été menées en 2001 dans une zone protégée Slovène pour la sensibilisation du public dans le domaine de la protection du milieu marin, la Principauté a participé en 2002 à un programme visant à améliorer la connaissance de la biodiversité marine en Slovénie, pour un montant de 15.000 Euros.

Plus précisément, cette nouvelle activité qui s'inscrit dans le cadre du « Plan d'Action pour la conservation de la végétation marine en mer méditerranée » adopté par les pays méditerranéens permettra d'améliorer la connaissance des herbiers et d'accroître leur protection en Slovénie.

REUNION DES POINTS FOCAUX NATIONAUX POUR LES AIRES SPECIALEMENT PROTEGEES

Marseille 17 – 20 Juin 2003

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Rapport national

Pays : Maroc

Cadre institutionnel : Département des Eaux et Forêts et de la Lutte Contre la Désertification/Administration publique.

Cadre juridique :

- Dahir du 11 septembre 1934 sur la création des parcs nationaux ;
- Arrêté du 26 septembre 1934 fixant la procédure à suivre pour la création des parcs nationaux ;
- Dahir du 21 juillet 1923 sur la police de la chasse ;
- Dahir du 2 juin 1950 créant un conseil supérieur de la chasse ;
- Dahir du 11 avril 1922 sur la pêche dans les eaux continentales.

Le statut de signature/ratification des accords internationaux pertinents :

- La convention de Washington CITES ratifiée par le Maroc en 1975 ;
- La convention Ramsar sur les zones humides ratifiée en 1980 ;
- La Convention de Bonn sur les Espèces Migratrices de la faune sauvage (CMS) ratifiée en 1993 ;
- La convention sur la Diversité Biologique ratifiée en 1995 ;
- Le protocole sur les aires spécialement protégées, ratifiée par le Maroc en 1995 ;
- La convention de Berne relative à la conservation de la vie sauvage et du milieu naturel de l'Europe, ratifiée par le Maroc en 2001.

Les aires protégées marines et côtières de la façade méditerranéenne bénéficiant d'une importance particulière sont au nombre de sept. Il s'agit de :

- **Parc national d'Al Hoceima** : ce parc fait partie de la zone d'intervention du projet GEF de gestion des aires protégées. Les actions entreprises concernent la mise place des infrastructures de base, construction et équipement, acquisition des véhicules et du matériel informatique, formation du personnel, prospection de la partie marine du parc en vue de l'élaboration du plan de gestion dans le cadre du projet MedMPA et actions de développement rural participatif.

- **SIBE de Jbel Moussa** : concerné par la projet GEF, les actions programmées pour ce site concernent des études de la biodiversité et études relatives aux aspects socio-économiques en vue de l'élaboration et de la mise en œuvre du plan d'aménagement et de gestion du SIBE.

- **SIBEs de Embouchure de la Moulouya, Cap des trois fourches, Beni Snassen, Lagune de Nador et Gourougou** concernés par le Projet MEDWETCOAST de conservation des zones humides et des écosystèmes côtiers de la région méditerranéenne. Ce projet régional d'une durée de 5 ans, financé par le FEM et FFEM. vise la mise en œuvre d'une politique méditerranéenne de protection de la biodiversité et la gestion durable de ces SIBEs. Les actions entreprises concernent des études de diagnostic des sites servant de base pour l'élaboration des plans d'aménagement et de gestion de ces milieux .Des actions de renforcement des capacités du personnel chargé de la gestion de ces SIBEs ont été également entreprises.

Les espèces marines protégées de faune et de flore :

La liste exhaustive des espèces marines de la faune et de la flore méditerranéenne est en cours d'être finalisée dans le cadre du programme de prospection du RAC/SPA et du projet MedWetCoast .

Mise en œuvre de la stratégie nationale en ce qui concerne la zone marine et côtière en Méditerranée :

Le Plan Directeur des Aires Protégées a identifié pour le cas du Maroc un réseau national d'aires protégées parmi lesquels figurent les sites précités de la méditerranée.

La mise en œuvre du plan d'aménagement et de gestion du Parc National d'Al Hoceima ainsi que l'élaboration et la mise en œuvre du plan d'aménagement et de gestion du SIBE de Jbel Moussa se font actuellement dans le cadre du projet GEF de gestion des aires protégées tandis que les plans d'actions relatifs aux SIBEs de : Embouchure de la Moulouya, Cap des trois fourches, Beni Snassen, Lagune de Nador et Gourougou se font dans le cadre du Projet MEDWETCOAST de conservation des zones humides et des écosystèmes côtiers de la région méditerranéenne.

Les activités entreprises dans le cadre de la mise en œuvre des plans d'action :

Les actions entreprises en faveur de la protection du phoque moine de la méditerranée concernent tout d'abord la prospection des sites potentiels pouvant abriter cette espèce, qui a abouti à l'observation d'un seul individu au niveau de la zone d'action du projet MedWetCoast (Cap des trois Fourches). Les plans d'aménagement de ces sites seront élaborés incessamment. Quant aux espèces de cétacés, des Tortues marines (*Careta careta*) ainsi que la végétation marine, il y a lieu de signaler les activités d'inventaires entreprises dans le cadre du même projet cité ci-dessus. Les actions de protection de ces espèces seront identifiées au niveau des plans d'aménagement et de gestion de ces sites.

Les inventaires de sites au niveau de la région méditerranéenne ont été entrepris dans le cadre de l'étude nationale sur les aires protégées. Le nombre de sites identifiés s'élevé à 14 SIBEs .Il s'agit des SIBEs suivants : Parc national d'Al Hoceima, Cirque d'El Jebha, Côte de Ghomara**,** Embouchure de la Mouloya, Cap des trois fourches, Beni Snassen, Lagune de Nador et Jbel Gourougou, Sebkha Bou Areg, Perdicaris, Cap Spartel, Koudiat Taifour, Lagune de Smir et Jbel Moussa.

La prospection de la façade méditerranéenne est poursuivie par les chercheurs nationaux, dans le but d'identifier des sites naturels d'intérêt pour la conservation.

Activités de collaboration

Dans le cadre de la mise en œuvre de la stratégie nationale sur les aires protégées, le Maroc a entamé un Projet GEF de gestion des aires protégées. Son champ d'intervention comprend 3 parcs nationaux : **Al Hoceima**, Haut Atlas Oriental et Toubkal et 10 SIBE dont celui de **Jbel Moussa**. D'une durée de 6 ans, le projet s'articule autour des composantes suivantes : (i) renforcement des capacités nationales d'intervention (ii) mise en œuvre des plans d'aménagement et de gestion des parcs nationaux retenus (iii) élaboration et mise en œuvre des plans d'aménagement et de gestion des SIBE/réserves (iv) sensibilisation et communication.

Une synergie entre les activités de ce projet au niveau du parc national d'Al Hoceima et celui de MEd MPA est recherchée, afin de rationaliser les efforts et les moyens humains et financier disponibles.

Autres activités

- Elaboration, d'un projet de circulaire portant sur "**l'organisation et l'attribution des structures régionales et provinciales de gestion des aires protégées**". Il permettra ainsi d'instituer, au niveau des Direction Régionales des Eaux et Forêts, une section des aires protégées et les parcs nationaux seront dotés d'une autonomie en terme d'espace et de personnel.

- Préparation, d'une loi sur les aires protégées et un avant-projet de décret d'application de cette loi. La loi traite des différentes catégories d'aire protégées, du zonage, de la création des aires protégées et ses effets, de l'administration et gestion. Ce dispositif juridique permettra le classement des différentes aires protégées identifiées et aidera à la mise en place du réseau national.

- Mise en place au niveau du Secrétariat d'Etat Chargé de l'Environnement du CHM-Maroc Clearing House Mechanism ou Centre d'Echange d'Information qui représente une plateforme d'information et de communication marocaine sur la mise en œuvre de la Convention sur la Diversité Biologique. Il s'adresse à tous les acteurs oeuvrant dans le domaine de la biodiversité sur les plans national et international: les administrations, les universités, les chercheurs, les ONGs et les médias et les organisations internationales.

SLOVENIA – COUNTRY REPORT 2001 - 2003

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INSTITUTIONAL FRAMEWORK

The follow up and the implementation of the Protocol on Specially Protected Areas and Biological Diversity in the Mediterranean is from January 2002, according to the new Law on nature Conservation, entrusted to the Institute of the Republic of Slovenia for Nature Conservation, Regional Office Piran (which replaced the "natural heritage part" of the former Regional Institute for the Conservation of Natural and Cultural Heritage Piran). The Institute is a public institution with the Ministry of Environment, Physical Planning and Energy acting as competent ministry.

LEGAL FRAMEWORK

Following the guidelines of the Rio Convention on Biodiversity and taking into account the need for efficient implementation mechanisms for nature protection, the Slovenian parliament adopted in June 1999 the Nature Conservation Act (Uff. Boll. No. 56/99, 31/00, 119/2002 in 22/2003) that replaced and upgraded the Natural And Cultural Heritage Act. The Nature Conservation Act thus among other issues includes provisions on:
- biodiversity conservation (plant and animal species, genetic material, ecosystems),
- the protection of valuable natural features through protection of sites,
- nature protection guidelines which have to be taken into account in physical planning, the use of a natural asset and the protection of cultural heritage,
- permits for activities affecting nature and nature protection consents.

All protected areas and areas declared by the previous law as simply natural heritage, are in the Nature Conservation Act gathered under the term *valuable natural features*. Concerning their protection the Nature Conservation Act defines:
- the acquisition of status (national or local importance),
- measures for the protection of valuable natural features (substitute state action, contract on protection, contract of stewardship, protection, temporary protection, restrictions of activities or use, restoration, right of pre-emption, restrictions on legal transactions, expropriation, property right restrictions and compensation, compensation for damage caused by animals of protected species),
- protected areas and their management (natural monuments, strict nature reserves, nature reserves, national, regional and landscape parks),
- minerals and fossils (definition and ownership, protection, finds, exploration, export),
- endangered plant and animal species (determination of endangerment, measures of protection).

One of the most important tools provided by the Nature Conservation Act is the obligatory acquisition and inclusion of nature protection guidelines in physical plans and documents and plans for the use of a natural asset. The inclusion and especially the consideration of the nature protection guidelines is the

condition for issuing the nature protection consent to further activities based on the above-mentioned plans and documents.

SIGNATURE / RATIFICATION OF THE RELEVANT INTERNATIONAL AGREEMENTS

In November 2002 the Slovene parliament ratified:

- the Amendments to the Convention for the Protection of the Mediterranean Sea Against Pollution adopted by the Contracting Parties in Barcelona the 10th of June 1995,
- the Amendments to the Protocol for the protection of the Mediterranean Sea against Pollution from Land-Based Sources and Activities, adopted by the Contracting Parties in Siracusa the 7th of March 1996,
- the Amendments to the Protocol for the Prevention and Elimination of pollution of the Mediterranean Sea by Dumping from Ships and Aircraft or Incineration at Sea, adopted by the Contracting Parties in Barcelona, the 10th of June 1995,
- The Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean, adopted by the Contracting Parties in Barcelona, the 10th June 1995.

As for other relevant international documents concerning nature protection the situation is as follows:

- World Heritage Convention (ratified in 1992),
- Ramsar Convention (notified in 1992),
- Barcelona Convention (notified in 1992),
- Alpine Convention (ratified in 1995),
- Bonn Convention (ratified in 1998),
- Bern Convention (ratified in 1999)
- Washington Convention (ratified in 1999

MARINE AND COASTAL PROTECTED AREAS

The situation concerning marine and coastal protected areas did not change much in-between the 5th and the 6th Focal Points meetings. According to that, the protected areas are the following: Cape Madona natural monument (marine), Strunjan Nature reserve (marine and coastal), Štjuža lagoon (coastal lagoon), Debeli rtic natural monument (marine and coastal), Škocjanski zatok Nature Reserve (coastal lagoon) and Secovlje salt-works landscape park, Ramsar site from 1993 (coastal). For the last two sites management plans were drafted and management entrusted to an NGO (Škocjanski zatok) and the salt producing company (Secovlje salt-works Landscape Park). With the new Nature Conservation Act national importance is granted to all the marine and coastal protected areas. According to that, a new governmental decree was already replaced the municipal one (from 1990) for the Secovlje Landscape Park. Others are bound to follow in the coming two years.

PROTECTED MARINE SPECIES OF FAUNA AND FLORA

An important governmental decree on the Red Lists of plant and animal species was adopted by the Slovene parliament in 2002. The Red Lists are the formal basis for adopting due protection and conservation measures. The decree includes numerous animal marine species, among them also species listed in the Annexes II and III of the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean.

IMPLEMENTATION OF NATIONAL BIODIVERSITY STRATEGY AND ACTION PLANS WITH REGARD TO THE MEDITERRANEAN COASTAL ZONE

The coastal zone is properly included in the National biodiversity strategy, which was finalized by the end of the year 2001, while the Action plans are still being developed. Beside that it has to be mentioned that the sea is supposed to be included in the state physical plan as one of the ecological important areas, to which – according to the new Nature Conservation Act – specially protection measures should be granted. Another important tool concerning the conservation of biodiversity in the forthcoming years could be the National Priority Actions and National Action Plans developed under the SAP BIO project.

OBSERVATIONS / STUDIES ABOUT ALIEN SPECIES RECORDED IN THE MEDITERRANEAN COASTAL ZONE

There were no specific studies or observations with alien species as target in the Slovenian sea between 2001 and 2003. There are however some data (concerning also the introduction of species through ballast waters) that could be further elaborated and presented within the Action plan that is being developed by RAC/SPA.

ACTIVITIES UNDERTAKEN IN THE FRAMEWORK OF THE IMPLEMENTATION OF DIFFERENT ACTION PLANS

Marine Turtles

In the last biennium the activities were limited to gathering information's on turtles caught by fishermen (mainly Piran area), their tagging and release. The activities are carried out by the Piran Aquarium in collaboration with the Institute of the Republic of Slovenia for Nature Conservation, Regional Office Piran. The results of the work were presented at the First Mediterranean Symposium on Marine Turtles held in Rome. New developments are foreseen in 2003 and hopefully for the next years. Financing of the drafting and implementation of the Action Plan was accorded between the Ministry of Environment, Physical Planning and Energy and the company Petrol. The agreement (signed for 2003 but hopefully with a follow-up in the next years) includes awareness activities specially targeted at fishermen (with leaflets, awards for data on turtles etc.), compiling of data, elaboration of a data base and presentation of the results.

Cetaceans

Following the awareness campaign that was carried out in the year 2000, thanks to the financial support of the Regional Activity Centre for SPA, no major activities were undertaken since. There are currently three small NGOs working on dolphins and there was a first meeting in order to define the basis for a national Action Plan. A draft is supposed to be presented to the Ministry by the end of 2003.

Marine vegetation

No national Action Plan was drafted yet. In spite of that important activities are being carried out concerning *Posidonia oceanica*. A Memorandum of Understanding accorded in 2002 between the Principality of Monaco, RAC/SPA and the Institute of the Republic of Slovenia for Nature Conservation, enables the implementation of activities concerning research, cartography, marking of the lower limit, monitoring and awareness.

The activities, undertaken within the framework of the three action plans are not yet satisfactory. Two main reasons could be mentioned. One concernes the fact that the agreement about the SPA post at

the Institute of the Republic of Slovenia for Nature Conservation, Regional Office Piran, announced in the previous NFP meeting, was not put into force. Another important reason is that all the available human resources are engaged in activities concerning the accession of Slovenia in the European Union (designation of Natura 2000 sites etc.)

ACTIVITIES RELATED TO THE INVENTORIES (COMPLETED OR ONGOING) OF SITES USING THE STANDARD DATA-ENTRY FORM (SDF) FOR NATIONAL INVENTORIES OF NATURAL SITES OF CONSERVATION INTEREST

A draft inventory of natural sites of conservation interest is completed. However the activities concerning the use of Standard Data-Entry Forms were up to now linked to the Natura 2000 sites, which are considered as matter of high priority. Due to the compatibility of both instruments (Natura 2000 and SPA Protocol SDF), the national inventory of natural sites of conservation interest (including the SDF) is supposed to be completed within the next biennium.

COLLABORATIVE ACTIVITIES UNDERTAKEN WITHIN THE FRAMEWORK OF THE IMPLEMENTATION OF THE PROTOCOL AND/OR THE ACTION PLANS, ESPECIALLY AT BILATERAL OR SUB-REGIONAL LEVELS

It has to be stressed out again the extremely good experience concerning the collaboration not only with the Regional Activity Center for Specially Protected Areas in Tunis but in the last biennium also with the Principality of Monaco. With the financial help of RAC/SPA and the Office for International Cooperation for Environment and Development of the Principality of Monaco several important activities were carried out. One set of activities, concerning the presentation of a protected area, including awareness campaign, installing signposts, printing leaflets and marking the outer limit of the area, was concluded successfully by the end of 2002. The other set of activities, to be carried out in 2002 and 2003 concerns the *Posidonia oceanica* meadow. The activities include among other things research on the ecological parameters in the area, the marking of the lower limit, aerial photography and cartography and awareness campaign.

STATUS OF IMPLEMENTATION OF THE RECOMMENDATION OF EARLIER MEETINGS OF THE FOCAL POINTS FOR SPAS AND OF CONTRACTING PARTIES

The most important improvement concerns undoubtedly the ratification (November 2002) of the amended Barcelona Convention and it Protocols, among them also the protocol on Specially Protected Areas and Biological Diversity in the Mediterranean. There are ongoing activities concerning the management of protected areas (Secoveljske soline Landscape Park) and the improvement of their legal status. Las but not least, activities have been started in the framework of the implementation of the Action Plans on marine turtles and the one on marine Vegetation.

SPANISH COUNTRY REPORT TO THE MEETING OF NATIONAL FOCAL POINTS FOR SPA 2003

COUNTRY
Spain

AUTHOR OF THE REPORT

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BRIEF DESCRIPTION OF THE INSTITUTIONAL FRAMEWORK

Spanish Constitution of 1978 establishes a decentralised political and administrative structure within the Kingdom of Spain, and adopts a division of the Spanish territory into 17 Autonomous Communities and 2 Autonomous Cities. In addition of its competence on national basic legislation, including environmental legislation, Central Administration is also responsible of the adaptation of European jurisdiction, as well as the fulfilment of international commitments, whereas the Autonomous Administrations can develop their own regulations, establish further protection measures, and being responsible of the natural resources management.

Central Government
The Ministry of Environment was established in May 1996. In relation with the conservation of species and habitats, the responsible institution is the Deputy Directorate-General of Biodiversity Preservation, within the Directorate-General of Nature Preservation. The National Park Unit Service independent body within the Ministry of Environment cooperates with Regional Governments in National Parks management. In dependency to the Ministry, it is worthy to mention the existing Advisory Council for Environment, which consists of representatives from Regional and Central Governments, research institutions, trade unions and social stakeholders.

Regional Governments
The Autonomous Regions institutional distribution is not equitable. It is mainly formed by a Regional Ministry or Department, which in some cases should unified in various departments, and which takes over the responsibilities related to the environment and nature preservation - Environment, Agriculture, Territorial Policy Department. The Sectorial Conference of Environment is the main agency for the inter-administration co-ordination and the unified action of Autonomous and Central Governments. There is also a National Commission of Nature Protection (established in 1989) that arranges coordination in the aforementioned matters within such Sectorial Conference.

BRIEF DESCRIPTION OF THE LEGAL FRAMEWORK GOVERNING THE CONSERVATION OF SPECIES AND SITES

Act 4/1989 on Preservation of Protected Areas and the Wild Flora and Fauna defines the Spanish basic jurisdictional framework in the nature preservation and natural resources management context, as well as the commitments distribution outline in relation with Central and Autonomous Governments. Many Autonomous Regions have developed the basic jurisdiction from the State, or have adapted European Regulations directly, in order to establish measures which are even more protective than the National or European standards. An existing legislative body, which regulates issues related to protected areas, recovery of species and natural resources management, is in force from a long time.

Royal Decree 1997/1995, of 7 December, transposed the European Habitats Directive 92/43/EEC to the Spanish legislation. In 1999, Boletín Oficial del Estado (BOE), *Spanish Official Journal*, published the ratification of the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean.

The 1995 Criminal Code establishes environmental crime patterns, including crimes against natural resources and environment, and crimes related to protection of flora and fauna.

List of main legal instruments about conservation of species and habitats

- Act 4/1989, of 27 March, Preservation of Protected Areas and Wild Flora and Fauna. (BOE n. 74, 28/03/1989).
- Act 40/1997 and Act 41/1997, of 5 November, reform of Act 4/1989 (BOE n. 266, 06//11/1997).
- Royal Decree 1997/1995, of 7 December, measures settle down to contribute to protect biodiversity by means of conservation of natural habitats and wild fauna and flora (BOE n. 310, 28/12/1995 and BOE n. 129, 28/05/1996).
- Royal Decree 1193/1998, of 12 June, reform of Royal Decree 1997/1995 (BOE n. 151, 25/06/1998).
- Royal Decree 439/1990, of 30 March, the National Catalogue of Threatened Species is regulated (BOE n. 82, 05/04/1990).
- Orders of 9 July 1998, 9 June 1999, 10 March 2000, 28 May 2001 and 21 October 2002, modifications of the National Catalogue of Threatened Species (BOE n. 172, 20/07/1998; BOE n. 191, 11/08/1998; BOE n. 148, 22/06/1999; BOE n. 72, 24/03/2000; BOE n. 96, 21/04/2000; BOE n. 134, 05/06/2001; BOE n. 265, 05/11/2002).

✍ Act 15/2002, of 1 July, and Act 53/2002, 30 December , modifications of Act 4/1989 (BOE n. 157, 02/07/2002 and BOE n. 313, 31/12/2002).

STATUS OF SIGNATURE/RATIFICATION OF THE RELEVANT INTERNATIONAL AGREEMENTS (listed in order of date of ratification or acceptation):

New international Agreements:
2000 European landscape Convention (not yet into force).
2002 Agreement on the conservation of albatrosses and petrels – Bonn Convention.

MARINE AND COASTAL PROTECTED AREAS (since April 2001)

Habitats Directive 92/43/EEC is the EU's main contribution to the nature conservation, and therefore, Natura 2000 Network is mainly one of its most advanced instruments to protect numerous marine and coastal areas. There are 95 proposed coastal and marine Sites of Community Interest (SCIs) on the Mediterranean Sea during this period (including the proposals for amendments previously done) to the European Commission to be declared as Special Areas of Conservation (SACs).

First Spanish areas included in the SPAMI List (November 2001):

NAME	*SURFACE coastal and marine (Has)*
ANDALUSIA	
Isla de Alborán	26.456,7
Cabo de Gata-Níjar	49.547
Fondos marinos del Levante almeriense	6.313,5 (marine)
CATALONIA	
Cabo de Creus	13.886
Islas Medas	511
VALENCIA REGION	
Islas Columbretes	12.306
MURCIA REGION	
Mar Menor y zona oriental mediterránea de la costa de la Región de Murcia	27.503

New Protected Areas by Regional and National legislation:

NAME	*PROTECTION FIGURE*	*STATEMENT DATE*
ANDALUSIA		
Barrier Reef of Posidonia	Natural Monument	02/10/2001
Terreros Island and Negra Island	Natural Monument	02/10/2001
San Cristóbal Rocks	Natural Monument	02/10/2001
Estrecho	Natural Park	04/03/2003
VALENCIA REGION		
Irta	Natural Reserve	01/01/2002
Sierra de Irta	Natural Park	01/01/2002
BALEARIC ISLANDS		
S'Albufereta	Natural Reserve	09/11/2001
Cape Freu	Natural Reserve	09/11/2001
Cape Farrutx	Natural Reserve	09/11/2001
Levant Peninsula	Natural Park	09/11/2001
Estany Pudent and others	Natural Reserve	19/12/2001
The Salinas of Eivissa and Formentera	Natural Park	19/12/2001

Ministry of Agriculture, Food and Fisheries and Regional Governments has established since 1982 thirteen "Marine Reserves for Fisheries" created under the protection of fishing legislation, in the Mediterranean Sea. During this period has been established the Marine Reserve for Fisheries "Migjorn de Mallorca", in the Balearic islands.

PROTECTED MARINE AND COASTAL SPECIES OF FAUNA AND FLORA

Total number of species included in the National Catalogue of Threatened Species (National range):
Marine flora: 1
Marine invertebrates: 9
Marine vertebrates:Fish: 3
Mammals: 17
The following marine and coastal species are present in the Mediterranean basin:

IN DANGER OF EXTINCTION
INVERTEBRATES
Patella ferruginea.

VERTEBRATES
Mammals: *Monachus monachus.*

SENSITIVE TO HABITAT ALTERATION
INVERTEBRATES
Asterina pancerii.
VERTEBRATES
Mammals: *Megaptera novaeangliae.*

VULNERABLE
INVERTEBRATES
Pinna nobilis, Charonia lampas lampas, Dendropoma petraeum, Astroides calycularis.
VERTEBRATES
Mammals: *Balaenoptera physalus, Balaenoptera musculus, Balaenoptera borealis, Physeter macrocephalus, Tursiops truncatus, Delphinus delphis.*

OF SPECIAL INTEREST
INVERTEBRATES
Centrostephanus longispinus.
VERTEBRATES
Fishes: *Petromyzon marinus.*
Reptiles: *Dermochelys coriacea, Caretta caretta, Chelonia mydas, Eretmochelys imbricata.*
Mammals: *Globicephala macrorhynchus, Orcinus orca, Globicephala melas, Grampus griseus, Stenella coeruleoalba.*

The Regional Authorities will carry out Conservations Plans for each species according to Act 4/1989, and several Regions have their own Regional Catalogues.

IMPLEMENTATION OF NATIONAL BIODIVERSITY STRATEGY AND ACTION PLANS WITH REGARD TO THE MEDITERRANEAN COASTAL ZONE

The Spanish Strategy for the Conservation and Sustainable Use of Biological Diversity was introduced in 1999. Regional Governments are free for the implementing the National Strategy directly or for drawing up their own strategies designed to address local needs.

Plans for Sustainable Development in Productive Sectors
The Spanish Strategy aims to be the base on the one action plans must be built on. These action plans must carry out the principles and objectives of the Convention on Biological Diversity in different social sectors. For this purpose, it indicates those sectors whose performances have a negative repercussion in biodiversity conservation. In these sectors, plans should be draft to collect the suitable measures, which should be implemented in order to minimize or eliminate those negative impacts. These sectors are agriculture, forestry, fishing and aquaculture, game and fisheries, energy, tourism, industry, land use planning, transport, hydrological policy, public health and trade.

OBSERVATION/STUDIES ABOUT ALIEN SPECIES RECORDED IN THE MEDITERRANEAN COASTAL ZONE

Spain participates in the International Research Project "EPIDEMY" by means of the Natural Resources Department of the Institut Mediterrani d'Estudis Avançats of the Scientific Research High Council (CSIC), which works in collaboration with the Biology Department of the Balearic Islands University.

This project aims to know the biology of the foreign species in the Mediterranean terrestrial ecosystems, affecting the coastal ecosystems. Their risks for the local flora, and the eradication methods are evaluated. As it is a project of extensive geographical scope, the number of species subject to study is also very high. Within the first stages, the list of species studied in every area and the protocols of works were set up. In addition, these first phases were focused on the biological study of the selected species, paying a special attention to aspects such as, inter alia the reproduction biology, the dynamics of populations and the distribution of natural communities.

On the other hand, Balearic and Murcia Regional Governments have implemented a programme that targets *Caulerpa taxifolia.* The basic aims are to control the known stands and keep the coastline under surveillance in order to detect , as far as possible, new stands of this and other species of exotic algae along the coasts.

LIST OF COUNTRY AND/OR MEDITERRANEAN ENDEMIC SPECIES (IF AVAILABLE FOR THE COUNTRY)

Red Books and Atlas contain a lot of information about conservation status of many species (for example, *Posidonia oceanica* or *Patella ferruginea*), but more information is needed about some taxonomic groups like marine invertebrates to establish a list of Spanish or Mediterranean endemic species.

ACTIVITIES UNDERTAKEN IN THE FRAMEWORK OF THE IMPLEMENTATION OF:

a) ACTION PLAN FOR THE MANAGEMENT OF THE MEDITERRANEAN MONK SEAL

Monk Seal is extinct since 50s in Spanish waters, although there are references, mainly in Chafarinas Islands, coming from north-African populations. Spanish efforts are directed towards Atlantic populations (international cooperation).

b) ACTION PLAN FOR THE CONSERVATION OF MEDITERRANEAN MARINE TURTLES

In Spain there is a Recovery Centres network, supported by Regional Authorities and NGOs, where marine turtles are taken in, threaten and returned to the sea. Also these places play an important role in awareness information.

The Ministry of Environment and Regional Governments will carry out a programme on coordination of tagging marine turtles in Spanish coasts. A plan aimed at working together and developing a standard tag and methodology accepted for all investigation groups working in this issue.

In 2001 it has been detected the nesting of *Caretta caretta* in the Almería coast. For this reason it is implementing a monitoring, control and surveillance programme for this species.

c) ACTION PLAN FOR THE CONSERVATION OF CETACEANS IN THE MEDITERRANEAN SEA

An important project to identify Areas of Special Interest for cetaceans in Spanish Mediterranean coasts has been carried out (1999-2002) by the University of Barcelona, University of Valencia, University of Madrid and the Alnitak NGO, with the technical and economic support of the Ministry of Environment. The so-called "Mediterranean Project" has as the main output a scientific data set suitable for the application of diverse conventions and agreements, as Convention of Biological Diversity, Bern Convention, Barcelona Convention, ACCOBAMS Agreement and Habitats Directive. It has been proposed 16 areas for cetaceans, and they have been studied applying a socio-economic assessment, in order to get adequate conservation measurements.

A project on conservation of *Tursiops truncatus* has finalized in 2002. Its main scope was the populations study and the interaction of species with fisheries; the output deals with conservation measures of *Tursiops truncatus* populations in Spanish waters.

d) ACTION PLAN FOR THE CONSERVATION OF MARINE VEGETATION IN THE MEDITERRANEAN SEA

Ministry of Environment and Regional Governments are working on surveillance and eradication of colonies of invasive species like *Caulerpa taxifolia*, which affects the endemic species *Posidonia oceanica*. On the other hand, *Posidonia oceanica* meadows are including in Natura 2000 network.

ACTIVITIES RELATED TO THE INVENTORIES (COMPLETED OR ONGOING) OF SITES USING THE STANDARD DATA-ENTRY FORM (SDF) FOR NATIONAL INVENTORIES OF NATURAL SITES OF CONSERVATION INTEREST

Inventory of habitats of the European Habitats Directive (1993)
Cetacean National Inventory (1998)
Atlas of freshwaters fishes (2000)
Atlas of Amphibious and Reptiles (2002)
Atlas of terrestrial mammals (2002)
Atlas of Birds (ongoing)
Atlas of threatened vascular flora (ongoing)
Atlas of natural and semi-natural habitats, which has been elaborated according to the compilation of the Spanish habitats not included in the Habitats Directive (2002).

Ministry of Environment is working now (with Regional Governments) in finalisation of Natura 2000 Network (National inventory of natural sites for European Union) using the Natura 2000 Form. Using those Atlas and Natura 2000 Form, Authorities will fill in the SDF for National Inventory in a future date.

COLLABORATIVE ACTIVITIES UNDERTAKEN WITHIN THE FRAMEWORK OF THE IMPLEMENTATION OF THE PROTOCOL AND/OR THE ACTION PLANS, ESPECIALLY AT BILATERAL OR SUB-REGIONAL LEVELS

No activities have been realized by now in the framework of the implementation of the Protocol in a regional or international level. However, an important cooperation program for the Mediterranean basin (Azahar Programme) is in the first stage, coordinated by the Ministry of Foreign Affaires.

STATUS OF IMPLEMENTATION OF THE RECOMMENDATIONS OF EARLIER MEETINGS OF THE FOCAL POINTS FOR SPAs AND OF THE CONTRACTING PARTIES

Syrian Arab Republic

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Institutional framework:

During the past two decide. Syria has paid increasing attention to environmental issues, so that, Syria began formulating the national environmental institutions responsible for Environmental Affairs, which will achieve the necessary steps in coordination and cooperation with other national ministries, institutions, and organizations. These institutions are:

1- The Council of Environment Protection:

The Council is the highest national authority on environmental issues in general. It is headed by the Deputy Prime Minister and composed of 17 Ministers and 6 representatives of other institutions, representing those of Government Ministries with environmental concerns.

2- Ministry of State for Environmental Affairs:

The Ministry of State for Environmental Affairs (MSE) is the lead Ministry in the Government on all matters relating to the Environment and is in charge of policy formulation, inter-sect oral coordination and regulatory and research functions.

Biodiversity and Protected Areas Directorate:

The Directorate is affiliated in the MSE, was established in 1996 to take responsibility for the issues related the Biodiversity and as the National focal points of the Biological Diversity Convention and other conventions related to Biodiversity protection.

The mains activities until 2003 were:

Preparation of the Biodiversity Country Study.

Preparation of the National Biodiversity Strategy and Action Plan (NBSAP),which had been adopted from the Supreme Council for Environmental Safety on 13/5/2002.

Implementation of the additional activities related to biodiversity strategy such as:

- Threats on Biodiversity.
- Needs of the protection of Biodiversity.

The preparation for some projects which will be implemented during the next few years such as :

- Cedar – Fir Protected Area project
- Jabal Abdel Aziz, Frounlok, Abo Khobais Protected Areas.

The Directorate plays an important role in the development of a comprehensive system of protected areas and Biodiversity protection in Syria.

3- General Commission for Environmental Affairs:

- In 1991 a Presidential Decree (N0. 11) established the General Commission for Environmental Affairs (GCEA), which aims to consolidate the basic rules of the environment safety and protecting it from pollution. Therefore, it undertakes 18 tasks in cooperation and coordination with the concerned public sectors, the main tasks are:

1-Limiting the existed environmental problems and involving in researches and necessary scientific studies to solve those problems.

2- Forming the general policy for environmental protection.

3- Improving the general environmental awareness.

4- Preparing standards and measurement standardization of environmental element.

5- Monitoring the activities, which have environmental impact in the public and private sectors to detect its observance to environmental and adopted standards.

The other institutions in Syria which have undertaken duties and responsibilities for the protection of aquatic life are:

4- Ministry of Agriculture and Agrarian Reform (MAAR):
The MAAR is an important and active Ministry in the utilization and conservation of biodiversity in Syria through the Forestry, Badia, Lands and Fishes Directorates. This ministry is concerned mainly in Agro-biodiversity.

5- The Supreme Council of Aquatic life:
This council is lead by the Minister of the Agriculture and compose members of various ministries concerned. It has the responsibility of overall planning for biodiversity conservation in the aquatic (marine & freshwaters).

6- Ministry of Higher Education;
This Ministry has an important role in the implementation of the studies and researches related to marine and terrestrial biodiversity components.

7- Ministry of Irrigation:
The Ministry of Irrigation, according to Law 16 dated 1982, has responsibility for the protection of all freshwater and resources from pollution, as well as for conserving the different watersheds throughout the country. The Coastal Basin Directorate of the Ministry of Irrigation has an additional task of protecting the marine coastal waters from pollution.

8- Ministry of Transport (Directorate of Ports), Ministry of Interior and Ministry of Local Administration:
The most important role to be played by the Ministries of Interior and Local Administration in the implementation of the NBSAP is the timely and effective implementation of all laws, decrees and orders related to conservation and legal use of Biodiversity resources in Syria.

9- Commission for State Planning:
Commission for State Planning will play a vital role in the implementation of the National Biodiversity Strategy and Action Plan (NBSAP) by determining which projects serve the needs of Biodiversity conservation and sustainable use. It can then allocate the necessary budget for their implementation through the use of national funds, or request external funding when necessary.

10- Ministry of Trade:
Although the Ministry of Trade is not currently active in Biodiversity issues, however its important role is expected to play in the implementation of the CITES Convention and to control the import and handling of genetically modified organisms (GMOs).

Legal framework:

The main laws related to Biodiversity protection including marine protection is:
1-Presidential Law No.50 dated 8 / 7 / 2002.
2-Presidential Decree (1991): established the General Commission for Environmental Affairs (GCEA).
3-Ministerial Decree No. 1552 (1989): About the expanding mesh sizes of fishing nets.
4-Presidential Law No. 10(1974): Combat of oil pollution in the sea.
5-Presidential Decree No.2445 (1971): Establishment the Directorate of combat water pollution (sea, lakes, rivers,).
6-Ministerial Decision No.460 (1965): Regulating fishing in the sea.
7-Presidential Law No.30 (1964): Protection, regulation of the fishing of the aquatic species in marine waters (It is being under revision and a new version is about to be issued shortly).

Status of signature / ratification of the relevant international agreement:

In the past few years, the Syrian government has taken a number of important steps towards the conservation of biodiversity and its sustainable use. It has also entered into and is implementing a number of agreements and Conventions on biodiversity issues such as:

Conventions/ Agreements
Convention on Biological Diversity.
RAMSAR Convention on Wetlands.
World Heritage Convention for Cultural and Natural Sites.
Convention on the Protection of the Mediterranean sea Against Pollution (Barcelona, 1976).
Convention on the International Trade in Endangered Species of Wild Fauna and Flora (CITES) (1973)
Convention on Migratory Species of Wild Animals (CMS) (Bonn 1979).
Agreement on the conservation of cetaceans of black sea, Mediterranean sea and contiguous Atlantic area (ACCOBAMS).
African – Eurasian Migratory Water Bird Agreement (AEWA).

Marine and coastal protected areas:

1- Until now Syria has only two marine and coastal protected Areas:

1- Oum – Altoyour.
2- Ras Ben Hani

2- The concerned authorities had implemented two field mission to identify another proposed sites to declare its as protected areas in the future such as:

1- Arwad Island (Syrian Spongia).
2- Jone Jabla.
3- The Ministry of State for Environmental Affairs started the implementation of the Syrian part of the Regional Project for the Management Development of Protected Areas Med MPA has started on 2002.

Implementation of national biodiversity strategy and action plan with regard to the Mediterranean coastal zones:

The most important points related to the conservation of marine Biodiversity in the national Strategy for the short and long terms were:

1-Prepare project proposals for the management of all legislated marine protected areas such as Oum Al-Toyour.
2-Begin the process of legislating all the suggested marine protected areas to provide an adequate coverage of the remaining marine ecosystems.
3-Promote cooperation between Syrian Government Ministries, Agencies and various community based organizations in developing marine life management policies that would guarantee the continued existence of wild flora and fauna along the Syrian shore of the Mediterranean Sea.
4-Modernize and apply the Law No.30 of 1964 that protects aquatic species, decrees that regulate fishing in marine waters, and all the relevant instructions of the Ministries of Agriculture and Environment.
5-Control in an effective manner all sources of pollution and actively penalizes all violators.
6-Establish a system of marine protected areas consist of legislated and proposed areas

7-Build sewage treatment stations to treat the liquid waste generated by coastal cities before dumping it into the sea.
8-Propagate marine species that are threatened and promote fish farming.

The Syrian government works to implement the procedures related the above steps for example:
The Supreme Council for the conservation of Aquatic Organisms that was formed and met since months ago. The council took a set of decisions to the protection of marine organisms in regard of many issues such as abolishing trawling fishery by the end of 2005.

- During the last year, illegal fishery control using electricity and dynamites was strictly executed. We can now even say that such illegal fishing became quite rare.
- With the coordination and back-up of RAC/SPA, training courses and awareness campaigns in the field of marine life conservation and protection were executed.

Observation / studies about alien species recorded in the Mediterranean marine and coastal zone:
Research projects are already under way at the High Institute of Marine Research in Lattakia to study the alien species in the Syrian coastal areas and their relation to the environmental factors. The major project (in cooperation with the Marine Research Center in Lebanon) has been started in September 2002 to survey the Syrian and Lebanese marine waters for alien speices and will be ended in September 2004.

List of country endemic species (if available for the country):
The list of endemic species has not been yet prepared for the country.

Activities undertaken in the framework of the implementation of:

a. **Action Plan for the Management of Med. Monk Seal.**
b. **Action Plan for the conservation of Med. Marine turtle.**
c. **Action Plan for the conservation of Cetaceans in the Med. Sea.**
d. **Action Plan for the conservation of Marine Vegetation in the Med. Sea.**

All of the above mentioned activities have been taken into account in the general management and conservation strategy of marine biodiversity. No specific Action Plan has so far been adopted for the country.

Activities related to the inventories (completed or ongoing) of sites using the Standard Data- Entry Form (SDF) for national inventories of natural sites of conservation interest.
One of the NBU's action plan activities through 2001 – 2004 is the establishment of a comprehensive Data–Base for the biodiversity components including marine Fauna and Flora

Collaborative activities undertaken within the framework of the implementation of the Protocol and/or the Action Plans, especially at bilateral or sub-regional levels:
There are some activities related to research collaboration between the research institutions in Syria and other institutions of similar activities in Lebanon and Turkey in regards of Biodiversity studies. The implementation of action Plans is always in the scope of the collaboration.

Status of implementation of the recommendations of earlier meetings of the focal points for SPAs and the Contracting Parties.
The former recommendations of earlier meetings of the NFPs for SPAs have been taken into account in national policies related to the protection of marine Biodiversity.
Some activities have been implemented specially in the field of Training, Awareness, and protection.

Rapport National tunisien sur la mise en œuvre du Protocole ASP

Pays : Tunisie
Auteur du rapport : Habib BEN MOUSSA

Brève description du cadre institutionnel

Nombreuses structures administratives et de recherche suivent et veillent à l'application des protocoles et des textes législatifs en vigueur. Les principaux département et institutions s'occupant de la conservation de la Biodiversité sont : La Direction Générale de l'Environnement et de la Qualité de la vie, l'Agence de Protection et de l'Aménagement du littoral (APAL), L'Agence nationale pour la protection de l'Environnement (ANPE) et différentes directions du Ministère de l'Agriculture, de l'Environnement et des Ressources Hydrauliques. La Tunisie Abrite également le CAR/SPA (Centre d'activités régionales pour les aires spécialement protégées; ex: Centre des aires protégés).

Des institutions de recherche à l'Instar de l'institut National des Sciences et Technologie de la Mer (INSTM), l'institut national agronomique de Tunisie (INAT) et l'Université jouent un rôle très important dans le domaine de la biodiversité

La Tunisie dispose également d'un tissu associatif très actif dans ce domaine

Brève description du cadre juridique régissant la conservation d'espèces et de sites (prière de lister les instruments légaux les plus importants)

Parmi les textes juridiques en application en Tunisie on pourrait citer :

- Décret n°91-362 du 13 mars 1991 relatif aux études d'impact sur l'environnement
- Loi 94-13 du 31 janvier 1994 relative à l'exercice de la pêche et Arrêtés du Ministère de l'Agriculture.
- Loi 94-35 du 24 février 1994 relative au Code du patrimoine archéologique, historique et des arts traditionnels.
- Loi 95-72 du 24 juillet 1995 relative à la création de l'Agence de Protection et d'Aménagement du Littoral
- Loi 95-73 du 24 juillet 1995 relative au Domaine Public Maritime
- Loi 94-122 du 28 novembre 1994 portant promulgation du Code de l'aménagement du territoire et de l'urbanisme.
- Loi 95-75 du 7 août 1995, autorisant l'adhésion de la Tunisie à la convention de Berne relative à la conservation de la vie sauvage et du milieu naturel de l'Europe.
- Loi 96-29 du 3 avril 1996, instituant un plan national d'intervention d'urgence pour la lutte contre les pollutions marines.
- Loi 96-41 du 10 juin 1996 relative aux déchets et au contrôle de leur gestion et de leur élimination
- Loi de ratification des amendements à la convention de Barcelone et de ses protocoles.
- Projet de loi national relatif au OGM est en cours d'approbation.
- Un projet de loi sur la création et la gestion des aires protégées marines et côtières a été élaborée et soumis dans le circuit légal d'approbation.

Le statut de signature/ratification des accords internationaux pertinents

Parmi ces accords signés par la Tunisie, 12 s'intéressent directement à la biodiversité :

- Convention relatives au commerce international des espèces animales et végétales sauvages menacées de disparition(CITES) , Washington 1971.
- Convention relative à la protection du patrimoine culturel et naturel (UNESCO), Paris 1971.
- Convention africaine pour la conservation de la nature et ressources naturelles. Alger, 1975.
- Convention Relative aux zones humides d'intérêt international pour la protection des oiseaux. Convention de Ramsar, Iran, I971.
- Convention relative à la protection des espèces terrestres migratrices. Bonn, 1979.
- Protocole ratifiant la convention relative aux zones humides d'intérêt international pour la conservation des oiseaux marins. (Amendement de la convention de Ramsar) Paris 1982.
- Conventions de l'ONU relative à la diversité Biologique. New-York, 1992.
- Convention de l'ONU pour la lutte contre la désertification dans les pays souffrant de la forte sécheresse ou la désertification en Afrique. ONU, 1994.

- Convention de Bern relative à la conservation des la vie terrestre et le milieu naturel européen. BERN, 1979.
- Protocole Relatif aux aires spécialement protégées ASP et la Diversité Biologique en mer Méditerranée. Barcelone, 1995.
- Protocole Relatif aux aires spécialement protégées ASP et la Diversité Biologique en mer Méditerranée. Monaco, 1996.
- Convention Internationale pour la conservation des cétacés en Mer noire, Mer Méditerranée. Monaco, 1996
- Protocole de Carthagène de la CDB ratifié le 25 juin 2002.

Les aires protégées marines et côtières (nouveau développement depuis la dernière réunion des points focaux pour les ASP)

Depuis l'inscription de l'Archipel de la Galite, des îles Zembra Zembretta et des îles Kneiss parmi les ASPIM, la Tunisie a entrepris les actions suivantes :

Le plan de gestion des de la Galite a été réalisé et approuvé par le comité de pilotage crée à cet effet. La mise en œuvre du plan de gestion de la Galite a bénéficié d'un accord officiel de financement de la part du Fonds Français pour l'Environnement Mondial.

Le plan de gestion de Zembra Zembretta est en cours d'élaboration dans le cadre des projets MedWetCoast et MedMPA. Le comité de pilotage examinera le plan de gestion au cours du premier semestre 2003. La mise en œuvre du plan de gestion est en partie financée dans le cadre desdits projets.

Le plan de gestion des îles Kneiss a été élaboré dans le cadre d'un projet européen INCO-DC. Une convention de collaboration avec une ONG locale (APNES) a été signée en vue de contribuer à la mise en œuvre du plan de gestion

Les espèces marines protégées de faune et de flore

La Tunisie dispose un inventaire global de la biodiversité biologique. Celui ci a été établi suite à une étude entreprise en 1998 par le Ministère de l'Environnement sur la biodiversité. Il a mis en évidence une forte biodiversité sur les côtes tunisiennes.

Espèces continentales

Especes Vegétales	Nombre
Espèces végétales autochtones	2163
Espèces exotiques acclimatées	761
Total espèces végétales	2924
Espèces animales	
Invertébrés terrestres	254
Vertébrés terrestres	504
Total espèces animales	758
Total espèces Continentales	3682

Espèces des zones humides et marines

Flore spécifique des zones humides et marines	Nombre
Microphytes	200
Macrophytes	449
Total Flore des zones humides et marine	649
Faune spécifique des zones humides et marines	
Zooplancton	150
Invertébrés	1030
Vertébrés	306
Total faune des zones humides et marines	1486
Total espèces des zones humides et marines	2135
Total biodiversité biologique tunisienne	5817

Espèces menacées

Espèces végétales
Vingt deux espèces végétales sont susceptibles d'être menacées. Il s'agit de *Corralina elongata, Gymnogongrus crenulatus, Halarachnion ligulatum, Hypnea cervicornis, Lithophyllum fortuosum, Nemastoma dichotomum, Neogonolithon notorisii, Cystozeirz caespitosa, Cystozeira elegans, Cystozeirz ercegovicii, Cystozeira mediterranea, Cystozeira sauvageaulana, Cystozeira schffreni, Cystozeira sedoides, Cystozeira spinosa, Cystozeira stricta, Cystozeira zoteroides, Dictyopteris membranacea, Laminaria rodriguezii, Penecillus capitatus, Posidonia oceanica, Zostera marina*

Espèces animales
L'inventaire disponible, indique que plus de trente espèces marines faunistiques sont en danger potentiel. Ces espèces sont classées par groupes d'espèces zoologiques dans le tableau Suivant.

Goupe d'espèces	Zone Nord	Centre	Sud - Est
Porifères			
Aplysina aerophoba			X
Axinella cannabina	X		
Axinella polypoides	X	X	X
Ircinia faetida			X
Geodium cydonium	X		X
Tethya auranthium			X
Cnidaires			
Astroides calycularis	X		
Echinodermes			
Centrostephanus longispinus	X		
Ophidiaster ophidianus	X		
Mollusques			
Charonia rubicunda	X		
Luria lurida			En voie de disparition
Patella ferruginea	X		
Patella nigra	X		
Pinna nobilis	X	X	X
Pinna rudis	X		
Tonna galea	X		
Zonaria pyrum			En voie de disparition
Poissons			
Aphanius fasciatus	X	X	X
Cethorinus maximus	X		
Carcharodon carcharias	X		
Hippocampus hippocampus	X	X	X
Hippocampus ramulosus	X	X	X
Mobula mobular	X	X	X
Reptiles			
Caretta caretta	X	X	X
Chelonia mydas		X	X
Dermochelys coriacea		X	X
Mammifères			
Balaenoptera acutorostrata	X	X	
Balaenoptera borealis	X		
Balaenoptera physalus	X	X	X
Delphinus delphis	X	X	X
Physeter macrocephalus	X		
Tursiops truncatus	X	X	X
Monachus monachus	Disparu		

Mise en œuvre de stratégie nationale et de plans d'action en ce qui concerne la zone marine et côtière en Méditerranée

La stratégie nationale de protection de la zone côtière est mise en œuvre particulièrement par l'APAL dont le plan d'action comporte la protection des zones naturelles sensibles définies en tant que patrimoine, naturel, culturel ou paysagers nécessitant une intervention pour sa préservation.
D'autres plans d'action rentant dans le cadre du code de la forêt ou celui de la pêche sont également mis en œuvre pour la préservation de certains habitats sensibles.
En outre la mise en application de la stratégie nationale de le biodiversiité et de son plan d'action est susceptible de renforcer les actions entreprises.

Observation/études sur les espèces introduites enregistrées dans le domaine marin et côtier méditerranéen

Dans le cadre du projet du projet PAS Bio la Tunisie a élaboré un plan d'action sur les espères marine invasives. Ce rapport a démontré la présence d'un nombre relativement important d'espèces d'origine lessepsienne et atlantique (annexe1)

Liste des espèces endémiques de Méditerranée et/ou du pays (si disponible pour le pays)

Pas de nouvelles espèces endémiques découvertes durant la période couvetre par le rapport.

Les activités entreprises dans le cadre de la mise en œuvre du :

a. Plan d'Action pour la Gestion du Phoque Moine de Méditerranée

Une mission de prospection et d'inventaire de grotte favorable au phoque moine été réalisée dans l'archipel de la Galite en collaboration avec le RAC/SPA, ICRAM et l'INSTM.

b. Plan d'Action pour la Conservation des Tortues Marines de Méditerranée

La Tunisie a créé un centre de soins pour les Tortues marine à Monastir dans le cadre de collaboration entre l'APAL et l'INSTM et continue à assurer la compagne de suivi et de gestion de la nidification de Caretta caretta en collaboration ave le lCar/ASP

c. Plan d'Action pour la Conservation des Cétacés en Mer Méditerranée

Des compagnes d'observation sont entreprises régulièrement par l'INSTM en collaboration avec RIMMO, un plan d'action est envisagé avec la collaboration l'ACCOBAMS

d. Plan d'Action pour la Conservation de la Végétation Marine en Mer Méditerranée

Un programme de cartographie de l'herbier sur l'ensemble des côte tunisienne est en cours de réalisation, ce programme permettra de déboucher sur un plan d'action.

Activités en relation avec les inventaires (achevés ou en cours) de sites, en utilisant le Format Standard de Données (FSD) pour les inventaires nationaux des sites naturels d'intérêt pour la conservation

Réalisées pour les zones sensibles et les ASPIM.

Activités de collaboration entreprises dans le cadre de la mise en œuvre du Protocole et/ou des plans d'action, spécialement aux niveaux national et sous-régional

Projet de collaboration avec Monaco sur la formation des plongeurs tunisiens dans le domaine des études de fonds marins.

Etat de la mise en œuvre des recommandations des réunions précédentes des points focaux nationaux pour les ASP et des Parties contractantes

Annexe 1

1 – 1 Mollusques exotiques

***Pinctada radiata* :** neuf ans après l'ouverture du canal de Suez en 1869, la pintadine *Pinctada radiata*, mollusque bivalve de la famille des Pteriidae, d'origine indopacifique fait son apparition en Méditerranée en Alexandrie. Environ 15 ans après, elle était présente dans le golfe de Gabès puis dans le golfe de Tunis (Dautzenberg, 1895). Elle était citée comme abondante dans la région du golfe de Gabès. Elle est toujours commune à très commune dans le médio et l'infralittoral.

***Crepidula fornicata* :** ce Mollusque introduit est présent en Tunisie, dans la région du golfe de Gabès (Fehri-Bédoui, 1986). Il est originaire de l'Atlantique nord américaine.

***fulvia fragilis* (Forsskäl in Niehbur, 1775) :** Ce bivalve est introduit en Méditerranée progressivement à travers le canal de Suez . Il a été signalé en Tunisie dans le golfe de Gabès (Passamonti, 1996). Les dernières prospections (printemps 2002) montrent l'abondance de cette espèce dans cette même région (données non publiées).

1 – 2 Crustacés exotiques

***Alphaeus crassimanus* :** cette espèce lessepsienne de Crustacé de la famille des Alpheidae est apparue en Tunisie depuis les années 50 (Forest & Guinot, 1956).

***Trachypenaeus curvirostris* :** cette espèce de crevette Penaeidae est lessepeienne, elle est pêchée commercialement en Méditerranée orientale, particulièrement en Egypte et en Turquie.
Elle est apparue dans la région du golfe de Gabès en 1993 (Zaouali, 1993) où elle est pêchée au chalut benthique (1 Kg par trait de chalut de 2 heures). Elle est sans valeur commerciale pour le moment (Bradai, 2000).

Cette espèce est pêchée régulièrement dans le golfe de Gabès en même temps que l 'espèce commerciale *P. kerathurus*. Cette cohabitation pourrait avoir des effets de compétition négatifs surtout que cette espèce a dominé la crevette royale en Egypte.

***Metapenaeus monoceros* (Famille Penaeidae) :** espèce lessepsienne à distribution spatiale limitée, en Méditerranée, aux côtes les plus orientales. Elle est apparue en Tunisie en 1994-1995, dans la région du golfe de Gabès (Missaoui & Zaouali, 1995 ; Enzenross & Enzenross, 2000). Depuis, elle est devenue très abondante surtout de Mahrès à Skhira par des profondeurs allant de 20 à 50 m.

Nous avons réalisé en automne 1998, 74 traits de chalutage benthique expérimental (107 heures) dans la région du golfe par des profondeurs allant de 20 à 50 m. Dans la production commerciale, nous avons enregistré 1012 Kg de crevettes (9,5 Kg / h) dont 504 Kg de crevette royale *Penaeus kerathurus* et 508 Kg de crevette blanche *Metapenaeus monoceros* (Bradai, 2000).

La valeur commerciale de cette nouvelle espèce est de loin moindre que celle de la crevette autochtone *Penaeus kerathurus*.

***Eucrate crenata* De Hann, 1835 (Famille Goneplacidae) :** une espèce d'origine indopacifique, signalée en Egypte en 1924 et qui a émigré, d'une façon relativement récente, dans le golfe de Gabès, vraisemblablement autour de 1985 (Zaouali, 1992).

***Libinia dubia* H. Milne Edwards, 1834 (Famille Majidae) :** ce crabe est une espèce originaire des côtes américaines, les limites de sa distribution vont de Massachusetts jusqu'à Floride et Texas, aux Bahamas et Cuba.

Il n'a pas été signalé auparavant en Méditerranée. Il a été décrit pour la première fois dans les eaux tunisiennes, au golfe de Gabès, par des profondeurs allant de 5 à 25 m, principalement entre Zarrat et Mahrès (Enzenross & Enzenross, 2000)). Il serait introduit dans la région dans les eaux de ballast des pétroliers.

De nouvelles prospections effectuées au mois de mars 2000 ont montré que cette espèce gagne du terrain dans la région du golfe de Gabès. Elle a été en effet, observée en abondance au Nord de Sfax à Sidi Mansour par faible profondeur. Sur 15 kg de déchets benthiques ramenés par le mini chalut (Kiss) opérant sur l'herbier de posidonie, nous avons isolé un échantillon de 2 Kg de ce crabe renfermant 46 individus (31 femelles et 15 mâles) (Bradai, 2000).

1 – 3 Végétaux exotiques

Caulerpa racemosa : cette algue verte, d'origine tropicale, a été signalée en Tunisie dans le port de Sousse (Hamel, 1926), à Mahdia et dans le golfe de Gabès par 15 m de profondeur (Ben Alaya, 1971), à Salakta sur les blocs rocheux du port (Ben Alaya, 1971 ; Ben Maiz, 1984 ; Ben Maiz et al., 1987), au large de Monastir dans l'herbier de Posidonie (Ben Mustapha & Hattour, 1992) et aux alentours des îles Kuriat (Bradai & Jribi, 1997).
Nous l'avons observée également dans la région du golfe de Gabès par des profondeurs importantes (72 m) formant des pelouses sur fond sableux avec des débris coquillers et mélobésiers (Hamza et al., 1995) et plus récemment (juillet 2000) à la Chebba et dans le port d'El Ataya à Kerkennah (Bradai, 2000). L'espèce prend un caractère envahissant et sa distribution a atteint les côtes nord (Langar et al., 2001)

***Caulerpa taxifolia* :** Les premières signalisations de cette espèce invasive remonte au mois de mars 2000 dans la rade de Sousse (Langar et al., 2000). Les zones touchées actuellement sont La rade de Sousse, El Kantaoui, marina de Monastir, Sidi Daoud (données non publiées). La présence de *Caulerpa taxifolia* dans une rade et dans son voisinage suggère son introduction à travers l'ancrage des bateaux. Le caractère envahissant de cette algue et sa présence dans cette région de la Méditerranée (température plus élevée qu'en Méditerranée nord occidentale) devraient nous inciter à renforcer le contrôle de notre littoral.

1 – 4 Poissons exotiques

***Stephanolepsis diaspros* (Fraser – Brünner, 1940) (Monacanthidae) :** les premières mentions de cette espèce dans la région du golfe de Gabès datent dans les années 1965 – 1966 (Chakroun, 1966). Actuellement, ce baliste est commun par faible profondeur dans toute la région du golfe de Gabès. Les tailles, pour un échantillon de 133 individus pêchés au chalut benthique en décembre 1998, varient de 35 à 200 mm (moyenne de 95,4 mm) (Bradai, 2000).

***Siganus luridus* (Rüppell, 1828) (Siganidae)** un spécimen de *S. luridus* a été capturé pour la première fois le 20 décembre 1969 dans le golfe de Tunis (Chakroun & Bouhlel, 1971). Le 20 novembre 1974, un autre spécimen a été observé au marché de Sfax (Ktari & Ktari, 1974). De 1986 à 2001, nous en avons pêché une centaine d'individus dans la région de Sfax principalement aux filets trémail et au mini-chalut opérant sur l'herbier de Posidonie. Cette espèce a été pêchée également au centre, au large de Mahdia. La longueur totale varie de 150 à 258 mm (moyenne de 190,97 mm) (Bradai, 2000). Il s'agit d'adultes, la taille de première maturité sexuelle étant de 120 à 160 mm (George, 1972). En mer Rouge (région de Jeddah) les captures commerciales sont composées de spécimens de 180 à 280 mm (moyenne de 210 mm) (Amin et Hussein, 1985).

***Siganus rivulatis* Forsskal, 1775, (Siganidae)** : un spécimen a été observé pour la première fois le 20 novembre 1974 au marché de Sfax (Ktari & Ktari, 1974). L'individu observé provient sans aucune doute de la région du golfe de Gabès. Le 6 mai 1995, nous avons observé deux individus de 256 et de 276 mm de LT débarqués également à Sfax (Bradai, 2000) et un autre individu en octobre 2001 à Kerkennah (région du golfe de Gabès).

***Priacanthus hamrur* (Forsskäl, 1775) (Priacanthidae) :** un spécimen de 232 mm a été capturé pour la première fois en Méditerranée le 7 avril 1980 dans la zone Centre à Mahdia (Abdelmouleh, 1981) ;

***Sphoeroïdes pachygaster* (Müller et Troschel, 1848) (Tetraodontidae)** : cette espèce est considérée comme typique de la faune ichtyologique de l'Atlantique oriental tropical et subtropical et de l'Afrique de l'Ouest (golfe de Guinée) (Blache et al., 1970). 3 spécimens ont été observés dans la région du golfe de Gabès le 25 mars 1992 (Bradai et al., 1993). Trois autres individus ont été capturés dans cette même région le 3 juillet 1992, le 27 mars 1996 et le 23 mai 2000. Les longueurs totales de ces spécimens varient de 165 à 410 mm (Bradai, 2000).

***Solea senegalensis* Kaup, 1858 (Soleidae)** : elle a été observée pour la première fois en Tunisie dans le golfe de Tunis en 1979 (Goucha & Ktari, 1981). Actuellement, elle est fréquente dans la région nord de la Tunisie. Elle a été observée également dans le golfe de Hammamet (Jarboui et al., 1998).

***Seriola carpenteri* Mather, 1971 (Carangidae)** connue en Atlantique de l'Est, de l'Angola au golfe de Biscaye, a été signalée une seule fois à Lampedusa, proche des côtes de la Tunisie (Pizzicori et al., 2000). Vu l'état de maturité des spécimens capturés, il semble que cette espèce s'adapte bien aux conditions de cette aire géographique.

***Chaunax suttkusi* Caruso, 1949 (Chaunacidae)**, connue à l'Est et à l'Ouest de l'Atlantique, a été signalée à deux reprises dans le détroit siculo-tunisien donc proche des côtes tunisiennes (Ragonese et Giusto, 1997 ; Ragonese et al., 2001).

***Seriola fasciata* (Bloch, 1793) (Carangidae)** a été capturée pour la première fois au mois de mai 1996 dans la région du golfe de Gabès à La Skhira, Il s'agit d'un individu juvénile. Quelques individus, également juvéniles, ont été capturés au centre du pays au large de Monastir en 2000 dans des pêcheries de coryphène. Cette espèce est apparemment rare dans l'Atlantique -est, elle est connue à Madère où l'espèce est abondante localement. En Méditerranée, elle a été signalée à deux reprises, le 19 octobre 1989 sur les côtes espagnoles (Massuti & Stefanescu, 1993) et également au mois d'octobre 1997 dans le golfe du Lion (Quignard & Tomasini, 2000).

***Pisodonophis semicinctus* (Ophichtidae)**, un seul spécimen de cette espèce exotique, à affinité chaude, a été capturé sur les côtes algériennes (Bauchot, 1986 ; Fischer et al., 1987). En Tunisie, nous l'avons pêchée pour la première fois au chalut benthique dans le golfe de Gabès par 15 m de profondeur le 4 juin 1998. Un deuxième individu fut pêché au filet trémail dans le canal de La Goulette (golfe de Tunis) le 2 octobre 2000 (Ben Salem, comm. Pers.). Ces deux individus mesurent respectivement 786 et 550 mm de Lt. (Bradai, 2000).

***Parexocoetus mento* (Valenciennes, 1846) (Exocoetidae)**, espèce indo-pacifique signalée pour la première fois en Méditerranée à Palestine (Brun, 1935) puis successivement à Rhodes (Tortonese, 1938), en Libye (Ben Tuvia, 1966) et en Albanie (Parin, 1986). Elle a été observée pour la première fois en Tunisie au sud des îles Kerkennah (région du golfe de Gabès) en juin 2000. Un seul spécimen de 70 mm de Lt a été examiné parmi d'autres pêchés en même temps par une madrague mobile (données non publiées) .

***Pempheris vanicolensis* (Pempheridae)**, deux spécimens de ce migrant lessepsien ont été capturés pour la première fois sur les côtes tunisiennes le 24 septembre 2001 au chalut benthique au large de Sfax. Ils mesurent 120 et 132 mm, puis deux autres individus de 125 et 115 mm de longueur totale furent observés dans des « cherfia » à Kerkennah le 7 octobre et le 24 novembre 2001 (Bradai & Bouain, 2001).

Country Report to the Meeting of National Focal Points for SPAs

Country: Turkey

Author of the report: Ministry of Environment and Forestry

Institutional framework: Ministry of Environment and Forestry,
General Directorate of Natural Protection and National Parks

Legal framework governing the conservation of species and sites

Law on Environment (1983)
Law on the Protection of Natural and Cultural Assets (1983)
Regulation on CITES (2001)
Regulation on Wetlands (2002)
Aqua-products Law (1971)
Coastal Law (1990)
Hunting Law (1937)

Status of signature/ratification of the relevant international agreements

Ramsar Convention
Barcelona Convention
Bern Convention
CITES Convention
Convention on Biological Diversity

Marine and Coastal Protected Areas

Although there is no special marine protection area in Turkey, most of the Specially Protected Areas and some of the National Parks partially cover marine and coastal areas.

Protected Marine and Coastal Species of fauna and flora

Marine and coastal species of fauna and flora listed at the annexes of the Bern Convention are under protection (*Caretta caretta, Chelonia mydas*, *Monk seal*, etc.).

Observation/studies about alien species recorded in Mediterranean marine and coastal zone

List of country and/or Mediterranean endemic species

Activities undertaken in the framework of the implementation of:

a. Action Plan for the management of the Mediterranean Monk Seal

Protection of the Mediterranean Monk Seal in Turkey: The Foça and Yalikavak Pilot Projects

An international Conference was held in Antalya in 1991 in order to determine national and international strategies for protecting the Mediterranean monk seal, and Foça and Yalikavak were selected as pilot regions. A national Committee was formed under the coordination of the Ministry of Environment and Forestry. All fishing was banned in the pilot regions and some educational activities were undertaken to gain the support of students, fishermen, local administrators and tourists. The public was informed through the press. The fundamental threat to the seals was the destruction of habitat, and it was suggested new protection areas be established around Mersin and fethiye that could be effectively monitored where the seals are most frequently seen. It was also noted that these areas should be conserved. The Siren Rocks located in the West of the Orak Island in the Foça region is a natural paradise for both seals and humans due to its unique beauties and features and it has been designated as a specially protected area.

b. Action Plan for the Conservation of Mediterranean Marine Turtles

Turkish Law has several sections about conservation of natural assets. The responsibilities and tasks related to these statuses are distributed among different ministries and independent institutions under these ministries. The strict nature reserves, national parks, nature parks and permanent wildlife reserves are under the control of Ministry of Environment and Forestry. Specially Protected Areas, which is the related body of the Ministry of Environment and Forestry. Natural SIT Areas are under the control of Ministry of Culture and Tourism. 17 major nesting beaches on the Turkish Mediterranean coast, most of which are under protection by some or several of these laws are officially designated as marine turtle nesting beaches. The status "Marine Turtle Nesting Beach" provides no direct protection, but facilitates the declaration of formal protection statues. Developments on coastal zones are under regulation by Turkish Coastal Law. This regulation is based on zonation and limitation of development in a gradual manner in zones starting from the surf. These turtle beaches are introduced from west to east. The threats and the protection status are also explained. Five of these beaches are in SPAs. Most of the marine turtle nesting beaches in Turkey are natural SIT areas due to having scientifically, ecologically and aesthetically important areas on land or underwater.

c. Action Plan for the Conservation of Cetaceans in the Mediterranean

d. Action Plan for the Conservation of Marine Vegetation in the Mediterranean

ANNEX IV
RECOMMENDATIONS

RECOMENDATIONS

1. IMPLEMENTATION OF THE ACTION PLAN FOR THE MANAGEMENT OF THE MEDITERRANEAN MONK SEAL

Proposed recommendations for the further implementation of the Action Plan

Recommendations addressed to the Contracting Parties

Take note of the proposal elaborated by the experts appointed by RAC/SPA.

Invite all concerned parties to hold a high level meeting, in order to define the way to urgently implement actions taking as a base the experts' report on the matter.

Promote the creation of protected zones in those areas where the Mediterranean monk seals concentrate.

Recommendations addressed to the Secretariat (RAC/SPA)

Provision of assistance to countries to implement urgent actions for an effective protection of monk seals in the Mediterranean.

Preparation of an evaluation report on the status of the Mediterranean monk seal for submission to the next meeting of the Contracting Parties.

2. IMPLEMENTATION OF THE ACTION PLAN FOR THE CONSERVATION OF MEDITERRANEAN MARINE TURTLES

Recommendations for the further implementation of the Action Plan

Recommendations addressed to the Contracting Parties

Take note of the “Guidelines to improve the involvement of marine turtle rescue centres” as an additional tool to reduce mortality and sensitise the public.

Support the creation of rescue centres where necessary. The already existing centres should follow the above guidelines.

Promote the exchange of experience.

Recommendations addressed to the Secretariat (RAC/SPA)

Translation the fishermen's guide into local languages adapted to the context.

Organization of a coordination workshop on the standardization of tagging programmes and centralization of information.

Establishment of collaboration with FAO-GFCM to undertake educational campaigns for fishers to correctly haul, handle, release and record incidentally caught turtles

Creation of a permanent website for assembling available data of interest for the conservation of marine turtles in the Mediterranean. The site of the Mediterranean Conference will be used and will also include a Mediterranean newsletter, as recommended by the Action Plan.

Organization of the second Mediterranean Conference on Marine Turtles

3. IMPLEMENTATION OF THE ACTION PLAN FOR THE CONSERVATION OF CETACEANS IN THE MEDITERRANEAN SEA

Recommendations for further implementation of the Action Plan

Recommendations addressed to the Contracting Parties

Take note of the "ACCOBAMS/ CAR/ASP Guidelines for the development of National Networks of Cetacean Strandings" and promote the development of such networks at national level.

Take note of the "Document on recommendations for a code of conduct for whale-watching in the Mediterranean Sea" and recommend the adoption of the guidelines finalised by ACCOBAMS.

Invite the Countries which have not yet done so to join ACCOBAMS.

Promote research programmes to identify critical areas for the threatened *Tursiops truncatus* and *Delphinus delphis* populations and discover the wintering areas of *Balaenoptera physalus.*

Recommendations addressed to the Secretariat (RAC/SPA)

In the framework of the RAC/SPA-ACCOBAMS cooperation:

Assistance to countries in creating national stranding networks and attempt to set up a regional network for strandings in close coordination with the ACCOBAMS Secretariat;

Invitation the countries which have not yet done so to join ACCOBAMS;

Assistance to countries in elaborating National Action Plans for the Conservation of Cetaceans;

Assistance to countries in promoting practices aimed at broadening coastal fishermen's activities to include alternative activities that are more compatible with the conservation of dolphin populations;

Collaboration with the relevant organizations to assess the level and effect of by-catch on cetacean populations in Mediterranean fisheries.

4. IMPLEMENTATION OF THE ACTION PLAN FOR THE CONSERVATION OF MARINE VEGETATION IN THE MEDITERRANEAN SEA

Recommendations for further implementation of the Action Plan

Recommendations addressed to the Contracting Parties

Take the necessary steps to carry out, within the programmed deadlines, the activities envisaged in the implementation calendar of the Action Plan for the Conservation of Marine Vegetation.

Grant, according to the terms of paragraphs 25 and 26 of the Action Plan for the Conservation of Marine Vegetation in the Mediterranean Sea, the status of Action Plan Associate to the Greek National Centre for Marine Research (NCMR, Greece), and the title of Action Plan Partner to Nautilus (Italy).

Recommendations addressed to the Secretariat (RAC/SPA)

Implementation assessment of the Action Plan for the Conservation of Marine Vegetation in the Mediterranean Sea, including a report on this subject to be presented at the next Meeting of National Focal Points for SPAs.

5. ELABORATION OF THE ACTION PLAN FOR THE CONSERVATION OF CARTILAGINOUS FISHES (CHONDRICHTHYANS) IN THE MEDITERRANEAN SEA

Proposed Recommendations

Recommendations addressed to the Contracting Parties

Adopt and implement the Action Plan for the Conservation of Cartilaginous Fish (Chondrichthyans) in the Mediterranean Sea.

Recommendations addressed to the Secretariat (RAC/SPA)

Work for the implementation of the actions provided for in the Action Plan according to the implementation timetable:

- establish a network and directory of collaborators ;
- support the defining of Protocols for (I) monitoring commercial landings and discards by species and (II) recording data on rarely observed, endangered and protected species;
- contribute to information campaigns and publishing materials for public awareness;
- create guidelines for reducing the presence of sensitive species in by-catch and releasing them if caught, prepared and published in the appropriate languages;
- organize a symposium on Mediterranean chondrichthyan fishes;
- support the establishing of, or feed the existing, centralized databases.

6. ELABORATION OF THE ACTION PLAN FOR THE CONSERVATION OF BIRD SPECIES LISTED IN ANNEX II TO THE PROTOCOL CONCERNING SPECIALLY PROTECTED AREAS AND BIOLOGICAL DIVERSITY IN THE MEDITERRANEAN

Proposed recommendations

Recommendations addressed to the Contracting Parties

Adopt and implement the Action Plan for the Conservation of Bird Species Listed in Annex II to the SPA Protocol and Biological Diversity.

Recommendations addressed to the Secretariat (RAC/SPA)

Work in collaboration with the Action Plan partners for the implementation of the actions provided for in the Action Plan, according to the implementation timetable.

7. ELABORATION OF THE ACTION PLAN CONCERNING SPECIES INTRODUCTIONS AND INVASIVE SPECIES IN THE MEDITERRANEAN SEA

Proposed Recommendations

Recommendations addressed to the Contracting Parties

Adopt and implement the Action Plan concerning Species Introductions and Invasive Species in the Mediterranean Sea.

Recommendations addressed to the Secretariat (RAC/SPA and REMPEC)

Work for the implementation of the actions provided for in the Action Plan according to the implementation timetable.

8. ASSISTANCE TO COUNTRIES IN THE SELECTION, ESTABLISHMENT AND MANAGEMENT OF SPECIALLY PROTECTED AREAS

Proposed Recommendations

Recommendations addressed to the Contracting Parties

Support the requests formulated by Parties to designate certain SPAMIs as PSSAs.

Include on the SPAMI List the sites proposed by the Focal Points Meeting for SPAs.

Establish contingency plans for the protection of SPAMIs in case of accidental pollution

Recommendations addressed to the Secretariat (RAC/SPA)

Assistance to countries to improve the management of marine protected areas (MPAs)
Assistance to countries to prepare and implement prevention and contingency plans for MPAs.

9. TRAINING ACTIVITIES CONCERNING SPECIALLY PROTECTED AREAS AND SPECIES CONSERVATION

Proposed Recommendations

Recommendations addressed to the Contracting Parties

Take note of the Mediterranean Initiative on Taxonomy and promote its implementation at national and regional level.

Invite the representatives from the concerned international and regional organizations to request the participation of these organizations on the implementation of this initiative.

Promote the training of taxonomists, inviting the concerned university institutions to encourage post-university specialization in taxonomy as well as organizing national and/or bilateral cooperation systems to encourage students to specialize in taxonomy (fellowships, grants, etc.).

Recommendations addressed to the Secretariat (RAC/SPA)

Development, through bilateral cooperation and other appropriate channels, of a regional training programme on the management of protected areas, taking into account the existing initiatives at national and regional level.

Contacts with the relevant international organizations and collaboration with them in implementing the Mediterranean Initiative on Taxonomy, particularly through training courses for taxonomists.

10. DATA COLLECTION AND ASSISTANCE TO COUNTRIES FOR PREPARING INVENTORIES OF SPECIES AND SITES

Proposed Recommendations

Recommendations addressed to the Contracting Parties

Take note of the Reference List of Coastal (terrestrial and wetland) Habitat Types for the Selection of Sites, adopted by the Focal Points Meeting for SPAs, to be included in the National Inventories of Natural Sites of Conservation Interest, and apply the classification as an indicator tool.

Recommendations addressed to the Secretariat (RAC/SPA)

Integration of the Reference List of Coastal (terrestrial and wetland) Habitat Types for the Selection of Sites to be included in the National Inventories of Natural Sites of Conservation Interest in the Standard Data Entry Form (SDF) and assistance to the Contracting Parties in its use.

Assistance to countries in carrying out case studies on Inventories of Natural Sites of Conservation Interest, using the Standard Data-entry Forms (SDF).

11. PROJECT FOR THE ELABORATION OF THE STRATEGIC ACTION PLAN FOR THE CONSERVATION OF BIOLOGICAL DIVERSITY IN THE MEDITERRANEAN REGION (SAP BIO)

Proposed Recommendations

Recommendations addressed to the Contracting Parties

Adopt the Strategic Action Plan for the Conservation of Biological Diversity in the Mediterranean Region (SAP BIO) and take the necessary measures to implement it at national and regional levels.

Recommendations addressed to the Secretariat (RAC/SPA)

Carrying out actions provided for in the follow-up chapters of SAP BIO concerning the preparatory phase and the launching of SAP BIO. Identification of bilateral and multilateral mechanisms, with a view to facilitate the financing and implementation of SAP BIO.

12. DISSEMINATION OF INFORMATION

Proposed Recommendations

Recommendations addressed to the Contracting Parties

To ask RAC/SPA to continue working to optimise the diffusion of the activities carried out

Recommendations addressed to the Secretariat (RAC/SPA)

Production of printed material on different supports, including new electronic forms (CDs etc)

13. COOPERATION AND SYNERGY
Proposed Recommendations

Recommendations addressed to the Contracting Parties

Facilitate linkages with other regional inter-governmental processes that can assist in implementing agreed actions in the framework of the protocol.

Recommendations addressed to the Secretariat (RAC/SPA)

Reinforce existing partnerships for the implementation of national and regional actions, identifying additional opportunities for joint implementation and fund-raising with international and national partners, thereby increasing cooperation and synergies through appropriate means.

ANNEX V
DRAFT ACTION PLAN FOR THE CONSERVATION OF BIRD SPECIES LISTED IN ANNEX II TO THE PROTOCOL CONCERNING SPECIALLY PROTECTED AREAS AND BIOLOGICAL DIVERSITY IN THE MEDITERRANEAN

FOREWORD

The Action Plan for the conservation of bird species listed in Annex II of the protocol SPA and biological diversity follows a series of four Action Plans adopted by the parties to the Convention for the Protection of the marine environment and the coastal region of the Mediterranean. These Action Plans deal respectively with the management of the monk seal, and the conservation of marine turtles, cetaceans, and marine vegetation. They identify and lay out priorities and activities that need to be undertaken to attain their specific objectives. They also urge and encourage co-ordination and co-operation amongst Mediterranean states to work towards the achievement of conservation of a species or a group of species within this region.

The elaboration of this Action Plan follows various initiatives taken by other organisations, such as BirdLife International Partners in the Mediterranean countries, WWF, IUCN, Medmaravis, Tour du Valat, on the conservation of biodiversity, particularly with respect to birds, and their important sites and habitats.

In 1995 the Parties to the Barcelona Convention adopted a new protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean. Annex II of this new protocol lists the endangered or threatened species found in the Mediterranean, including 15 bird species.

Various actions are being taken at national level and at species level by several NGOs, particularly BirdLife International partners in their respective countries, to counteract some of the threats, which are being faced by a number of the species dealt with by this Action Plan.

CONTENTS

DRAFT ACTION PLAN FOR THE CONSERVATION OF BIRD SPECIES LISTED IN ANNEX II TO THE PROTOCOL CONCERNING SPECIALLY PROTECTED AREAS AND BIOLOGICAL DIVERSITY IN THE MEDITERRANEAN

1. Introduction

1.1 General overview of the avifauna of the Mediterranean

Birds have always fascinated and captivated humankind's imagination. Their beauty and their song, as well as their power of flight have inspired humankind throughout the millennia. Their aesthetic, recreational, social and economical value is now recognized worldwide. Birds know no boundaries and they play an important part in nature's ecosystems. They are also good indicators of the health status of the environment. In spite of all this it hass also been humankind who throughout the years has threatened their existence.

The Mediterranean is the home of several hundred bird species, some of which occur exclusively in this climatic zone. The seabirds that are found along the crowded coastal zone and the islands of this almost land-locked sea are the resilient ones and include, amongst others, the rare and localised species, Larus audouinii.

Pelagic bird species in the Mediterranean are relatively few, but one still finds several fine colonies of Calonectris diomedea, Puffinus yelkouan, Puffinus mauretanicus and Hydrobates pelagicus breeding along sea-cliffs or on small isolated rocky islands and islets.

Coastal seabirds, such as terns, occur in the river deltas and also on inland saltwater lagoons. Many coastal species, however, are also found breeding in sub-optimal and man-modified habitats such as salinas, while others rely on municipal waste dumps and discards from fishing boats for their food.

The ornithological year of the Mediterranean is dominated by the seasonal migrations of birds from Europe to Africa and vice versa, and several European bird species over-winter in the Mediterranean basin.

Bird Species as listed in Annex II – List of Endangered or Threatened Species

Pandion haliaetus
Calonectris diomedea
Falco eleonorae
Hydrobates pelagicus *
Larus audouinii
Numenius tenuirostris
Phalactrocorax aristotelis **
Phalacrocorax pygmeus
Pelecanus onocrotalus
Pelecanus crispus
Phoenicopterus ruber
Puffinus yelkouan ***
Sterna albifrons
Sterna bengalensis
Sterna sandvicensis

* The Mediterranean population belongs to *melitensis*
** The Mediterranean population belongs to *desmarestii*
*** This has recently been split into two species *Puffinus yelkouan* and *Puffinus mauretanicus*

1.2 An overview of threats

Among the species listed as endangered or threatened there are those:

- Which are globally threatened;
- Which are endemic to the region and have an unfavourable conservation status;
- Whose populations are not concentrated in the Mediterranean but which have an unfavourable conservation status in the region.
- Whose populations are not concentrated in the Mediterranean, have a healthy conservation status but are regarded as a flagship species.

Birds have something in common. They are all threatened by several threats including amongst others:

- Oil pollution
- Direct and indirect depletion of food resources
- Non-sustainable forms of tourism
- Disturbance
- Direct persecution (such as illegal hunting and the use poison)
- Mortality from by-catch
- Loss of habitats
- Degradation of habitat, particularly wetlands and small islands of high biological importance for birds.
- Introduction of and predation by alien species

1.3 Ecology and status of the species

The biology, ecology, distribution and conservation status of the 15 bird species has been presented in an information document entitled "List of Threatened Bird Species as Adopted by the Barcelona Convention". It is composed of an annotated List compiled by Medmaravis and edited by J. Criado, J. Walmsley and R. Zotier (April 1996) and gives the status, population size and trend, ecology, threats and conservation measures of each species. This has been complemented by other national, regional and global contributions, particularly by BirdLife International.

There are still many gaps in our knowledge concerning coastal and pelagic birds and their habitats in the Mediterranean, particularly seabird movements and their distribution at sea. There is a crying need for mapping of breeding, feeding, moulting and wintering areas of pelagic birds in the Mediterranean.

1.4 Geographical scope of the plan

The plan covers the sea and the countries, which have a Mediterranean coastline excluding the parts of these countries, which are not of a Mediterranean bio-climate. Some of the species, such as Puffinus mauretanicus, and Puffinus yelkouan, have a restricted breeding range in the Mediterranean. Others, such as Falco eleonorae, have migration routes and/or wintering areas outside the Mediterranean. There are other species, such as Pelecanus onocrotalus, Phoenicopterus ruber, Pandion haliaetus, Sterna sandvicensis, and Sterna albifrons, which are widespread elsewhere, but have a limited range

and/or a small population in the Mediterranean. For one of the species, Numenius tenuirostris, which is a globally endangered species, the Mediterranean is part of its wintering range.

2. Action Plan objectives and targets

2.1 The main objective

The main purpose of the Action Plan is to maintain and/or restore the population levels of bird species found in the SPA Protocol's Annex II to a favourable conservation status and to ensure their long-term conservation.

2.2 Other objectives

1. To share knowledge and expertise between the Mediterranean countries.
2. To co-ordinate efforts among Mediterranean countries and other relevant initiatives and agreements to ensure the implementation of these activities.
3. To encourage a synergic approach among the Mediterranean countries in the protection of these bird species and their habitats.
4. To encourage research to fill the many gaps in our knowledge concerning coastal and pelagic birds in the Mediterranean, particularly seabird distribution and their movements, feeding, moulting and wintering areas at sea.

3. Strategic approach

In the implementation of the plan prioritisation will be addressed at three levels:

* Species level

- The present Action Plan should be implemented for all the species found in Annex II of the Protocol SPA and biological diversity.
- The conservation of those species, which are globally threatened, is to be considered one of the main priorities of the present Action Plan.
- The conservation of other species, which have an unfavourable conservation status at the regional level, should also be a priority.

* National level

- To map the distribution of the species on land as well as at sea.
- To identify important bird areas at sea.
- To identify and control threats.
- To identify, on the basis of the best available data, areas which should be protected.
- To carry out proper environment impact assessments for all proposed development where any one of the species is found.
- To elaborate and implement appropriate legislation.
- To pursue the principles and requirements of Agreements and Conventions.

***Regional (Mediterranean) level**

- To strengthen co-operation and exchange of information and experiences in research.
- To disseminate information.
- To promote and support the identification of important bird areas at sea.
- To promote the creation and monitor protected areas of coastal and marine important bird areas.
- To prevent and control the expansion of invasive alien species, particularly in small islands of high biological importance for birds .
- To identify and monitor the migratory hotspots

Collaboration at a broader international level with relevant Conventions/Agreements such as the Berne convention, the Bonn convention, in particular with AEWA Agreement, should be sought whenever appropriate.

4. Actions to achieve the objectives of the Action Plan

4.1 Protected areas

- Important bird areas at sea should be identified and should be given legal protection status.
- The breeding sites of all threatened species should be legally established as protected areas with an adequate management plan.
- Coastal and marine protected areas of importance to birds should be continuously monitored and properly managed.

4.2 Legislation

- Species should be afforded all round legal protection by the Contracting Parties in those countries where they breed as well as in those countries where they occur during other seasons, as per the guidelines provided by RAC/SPA (see para. 5).
- Legislation should include dissuasive penalties.
- Assessment of environmental impact on these species and their habitats by any type of development should be legally obligatory.

4.3 Research

- In view of the existing gaps in our knowledge concerning coastal and pelagic birds and their habitats in the Mediterranean, especially of their movements and distribution at sea, priority must be given to the mapping of breeding, feeding, moulting and wintering areas of the species concerned.
- Resources should be made available for researchers to fill the gaps of our knowledge, such as the establishment of a Mediterranean seabirds atlas, and monitoring population size and breeding success of less known species.

4.4 Awareness, Education & Training

- Contracting parties should promulgate the legislation concerning the endangered bird species.
- Contracting parties should seek and/or provide the training of personnel ~~of~~ monitoring, conserving and managing protected areas of importance to birds.
- The organisation of ornithological training courses in situ for trainers and personnel should be initiated and supported by RAC/SPA and the partners of the Action Plan.
- Public awareness and education programmes and campaigns highlighting the vulnerability of threatened species directed particularly to stakeholders and decision makers, should be planned and implemented in co-operation with non-government organisations.

4.5 National Action Plans

- Contracting Parties should establish National Action Plans for the conservation of endangered and threatened bird species in the Mediterranean.
- National Action Plans should take into consideration the implementation of the actions relevant to the respective countries proposed in this Action Plan.
- Future National Action Plans should address the current factors causing loss or decline of the bird species in Annex II, suggest appropriate legislative matters, give priority to the protection and management of sites, and ensure continued research and monitoring of populations and sites.
- Contracting Parties should apply and implement those Action Plans which are already in existence.

5. Implementation

5.1 Regional co-ordination structure

Regional co-ordination of the implementation of the present Action Plan will be guaranteed by the Mediterranean Action Plan's (MAP) secretariat through the regional Activity Centre for Specially Protected Areas. The main functions of the co-ordinating structure shall consist in:

- Promoting co-operation among contracting Parties in those actions executed in transboundary areas and at sea in national waters and beyond.
- Promoting the development of a regional network for monitoring populations and distribution of Mediterranean threatened bird species, in co-ordination with other organisations.
- Supporting and collaborate with contracting Parties in the establishment of important bird areas at sea.
- Providing elaborated guidelines to assist countries in their efforts to afford adequate legislative protection to the endangered species.
- Elaborating guidelines for monitoring and management plans in collaboration with experts and other interested organisations.
- Organising meetings of experts on specific subjects relating to the ecology and conservation of the bird species found in Annex II.
- Preparing reports on progress in the implementation of this Action Plan.

Complementary work done by other international organisations and aiming at the same objectives, shall be encouraged, promoting co-ordination and avoiding possible duplication of efforts.

5.2 Participation

- Any concerned international and or national organisation is invited to participate in the necessary actions for the implementation of this Action Plan.
- Links with other bodies responsible for Action Plans dealing with one or more species found in Annex II should be made to strengthen co-operation and avoid duplication of work.

5.3 Title of Partner of the Action Plan

To encourage and reward contributions to the work of applying the Action Plan, the Contracting Parties may at their ordinary meetings grant the title of "Action Plan Partner" to any organisation (governmental, Non-governmental, economic, etc.) that has to its credit concrete actions likely to help the conservation of birds found in Annex II of the Protocol. Conditions for the awarding of the Partner title shall be adopted by the Contracting Parties following the advice given by the meeting of National Focal Points for SPA.

The co-ordination structure shall set up a mechanism for regular dialogue between the participating organisations and where necessary, organise meetings to this effect. Dialogue should be made mainly by mail, including email.

5.4 Assessment and revision

National focal points, in collaboration with national experts, will be expected to:

- assess the implementation progress of the AP during their meetings.
- suggest recommendations to be submitted to the Contracting Parties.
- suggest adjustments to the implementation timetable.

5.5 Timing

The actions advocated by the present Action Plan are to be carried out over a three-year period, starting from when the Action Plan is adopted by the Contracting Parties. At the end of this period, RAC/SPA will prepare a report on the progress so far made in implementing the advocated actions, and will submit this to the National Focal Points for SPAs, who will make follow-up suggestions to the Parties.

5.6 Timetable

Action	Deadline	By whom
Organisation of the first Mediterranean symposium on ecology and conservation of the bird species found in Annex II.	Beginning of the year 2005	RAC/SPA and Partners
Launching of the procedures for legal protection of species	1 year after adoption	Contracting Parties
Establishment of research programmes to fill the knowledge gaps about the threatened species.	1 year after adoption	Contracting Parties
Establishment of a directory of organisations and experts concerned with the threatened and endangered bird species in the Mediterranean.	End of year 2004	RAC/SPA
Establishment of National Action Plans for the conservation of endangered and threatened bird species in the Mediterranean.	2004-2006	Contracting Parties
Application and implementation of any Action Plans where they are already in existence.	2004-2006	RAC/SPA & Contracting Parties
Setting up of a regional network for monitoring populations and distribution of Mediterranean threatened bird species, in co-ordination with other organisations .	End of year 2005	RAC/SPA & Partners
Legal establishment of breeding sites as protected areas with adequate management plans.	End of year 2005	Contracting Parties
Elaborating guidelines for monitoring and management plans in collaboration with experts and other interested organisations.	2004-2006	RAC/SPA & Partners
Identification of important bird areas at sea.	2004-2006	Contracting Parties
Mapping of breeding, feeding moulting and wintering areas of pelagic species.	2004-2006	Contracting Parties
Preparation of reports on progress in the implementation of this Action Plan.	End of year 2006	RAC/SPA
Training courses.	2004-2006	RAC/SPA, Partners & Contracting Parties

Proposed Specific Plans

These Action Plans should be implemented in all the Mediterranean states where the species breed, winter or occur on migration. They should be reviewed and updated every three years. If sudden major environmental changes occur, which may affect any of the species' populations where the species occur in the Mediterranean, an emergency review should be immediately undertaken. The current status given below covers the countries that have a Mediterranean coast. Proposed actions, which apply to all species should include inter alia the initiation of public awareness campaigns of the plight of these species and the preparation of National Action Plans. Other ongoing Action Plans, which have been developed by other institutions, and which cover some of the species, are listed below, and should be taken in consideration and implemented where these species occur.

Cory's Shearwater
Calonectris diomedea

✍ Current status

The nominate subspecies Calonectris d. diomedea is restricted to the Mediterranean. It breeds in sea-cliffs, and on rocky islands and islets. The population has been estimated at less than 76,000 pairs, but surveys in the eastern part of the Mediterranean and in the Adriatic are lacking. There has been a considerable decline of the species throughout the Mediterranean.

✍ Current factors causing loss or decline

Introduced mammals, such as Rattus sp., which affect breeding success; illegal hunting; taking of eggs and/or chicks; mortality from bycatch (longlines), development close to colonies and disturbance, and possibly oil spills and chemical pollution of the sea.

✍ Status under international instruments

Annex I - European Union Directive on the conservation of wild birds (79/409/EEC/1979).
European Union Regulation laying down certain technical measures for the conservation of fishery resources in the Mediterranean (1626/94 (EC) 1994).

✍ Current Action Plans

None

✍ Action Plan objectives and target

To halt the decline of the population and maintain healthy colonies.

✍ Proposed action

- Inventory and map critical habitats supporting the colonies, particularly in the eastern part of the Mediterranean.
- Confer strictly protected status on the species.
- Prohibit all type of disturbances to the breeding colonies, including the taking of eggs and young.
- Monitor and warden colonies, which are under the threat of disturbance.
- Create SPAs where the species' breeding colonies exist.
- Plan, regulate and/or manage activities and processes of coastal and infrastructure development near to known colonies.
- Prevent oil spills and chemical pollution of the sea.
- Monitor levels of Mercury and Chlorinated hydrocarbons in populations.
- Develop and implement management projects targeting the conservation of the breeding habitat and strict control of introduced mammals, as well as preventing the introduction of alien predatory species.
- Identify important bird areas at sea for the species.
- Elaborate an action Plan to reduce mortality at sea especially from by-catch

Mediterranean Shearwater
Puffinus yelkouan

✍ Current status

The two subspecies of the endemic Mediterranean Shearwater have recently been given species status and are now considered as two separate species Balearic Shearwater Puffinus mauretanicus* and Levantine Shearwater Puffinus yelkouan. As both species still appear in the protocol under one species they are being treated jointly hereunder. The Balearic Shearwater breeds in the Balearic Islands while the Levantine Shearwater breeds the Thyrrhenean, Adriatic and Aegean Seas. Both are pelagic species, which breed on rocky islands and islets. The population of the Balearic Shearwater has been estimated at about 1750 (2002 figures by Spanish Working Group on Balearic Shearwater) pairs, while that of the Levantine Shearwater probably at less than 16,500 pairs. Some pairs probably breed along the North African coast.

✍ Current factors causing loss or decline

Lack of food resources; lack of protection of breeding colonies; predation by Rats Rattus sp, Yellow-legged Gulls Larus cachinnans, and possibly feral cats; disturbance; collection for food (at least until 1970s); some mortality from bycatch (nets); and possibly oil spills and chemical pollution of the sea.

✍ Status under international instruments

Appendix II - Convention on the Conservation of European Wildlife and Natural Habitats (1979).
European Union Regulation laying down certain technical measures for the conservation of fishery resources in the Mediterranean (1626/94 (EC) 1994).

✍ Current Action Plans

Species Action Plan for the Balearic Shearwater Puffinus mauretanicus in Europe prepared by BirdLife International on behalf of the European Commission (final draft December 1999).
A national action Plan for the conservation of the Puffinus maureticanus was adopted by Spanish government in 1999.
Official Working Group in Spain (Ministry of Environment) to reveal status and propose conservation actions for Puffinus maureticanus.

✍ Action Plan objectives and target

To halt the decline of the two species, to restore their numbers to former status and to increase the knowledge about their biology.

✍ Proposed action

- Inventory and map critical habitats supporting the colonies.
- Confer strictly protected status on the species.
- Prohibit all type of disturbances to the breeding colonies, including the taking of eggs and young.
- Monitor the population dynamics of the species and warden colonies.

* the Balearic Shearwater is classed as a critically threatened species by BirdLife International because of extreme risk of extinction in three generations (current decline over 7% annually).

- Control and if possible eradicate rats and predators in the colonies affected by introduced mammals and prevent any further introduction of terrestrial mammals in breeding colonies.
- Ensure the protection of the breeding habitat and create SPAs where the species' breeding colonies exist.
- Plan, regulate and/or manage activities and processes of coastal and infrastructure development near to known colonies.
- Promote adequate fishing practices, which take into account the conservation of the species.
- Prevent oil spills and chemical pollution of the sea.
- Undertake surveys of colonies and research on the conservation biology of the species.
- Identify important bird areas at sea for the species.
- Elaborate an action Plan to reduce mortality at sea especially from by-catch.

Storm Petrel
Hydrobates pelagicus

✍ Current status
Pelagic species breeding in small to very large colonies mainly on islets and in caves along the coast. Subspecies melitensis is endemic to the Mediterranean. Important breeding colonies are found in Malta, Sardinia and Sicily. Breeding surveys are totally lacking for the Adriatic and eastern Mediterranean. A general decline has been recorded.

✍ Current factors causing loss or decline
Loss of habitat; disturbance; predation by Rattus sp. and Yellow-legged Gull Larus cachinnans; possibly oil spills and chemical pollution of the sea.

✍ Status under international instruments
Appendix II - Convention on the Conservation of European Wildlife and Natural Habitats (1979).
Annex I - European Union Directive on the conservation of wild birds (79/409/EEC/1979).
European Union Regulation laying down certain technical measures for the conservation of fishery resources in the Mediterranean (1626/94 (EC) 1994).

✍ Current Action Plans
None

✍ Action Plan objectives and target
To halt its decline and maintain healthy breeding colonies.

✍ Proposed action
- Inventory and map critical habitats supporting the colonies, particularly in the eastern part of the Mediterranean.
- Confer strictly protected status on the species.
- Prohibit all type of disturbances to the breeding colonies.
- Monitor and warden colonies, which are under threat.
- Create SPAs where the species' breeding colonies exist.
- Plan, regulate and/or manage activities and processes, which may result in loss of habitat and the introduction and spread of invasive alien species, particularly mammals and Yellow-legged Gull Larus cachinnans.
- Control or eradicate alien species that have become invasive.
- Prevent oil spills and chemical pollution of the sea.
- Identify important bird areas at sea for the species.

Shag
Phalacrocorax aristotelis

✍ Current status

The Mediterranean Shag Phalacrocorax aristotelis desmarestii is an endemic subspecies, which is present in western Mediterranean (Balearic Islands, Corsica and Sardinia), and the Adriatic, Aegean and Black Seas, breeding along the coast on rocky islands and islets. Mediterranean population is less than 10,000 pairs.

✍ Current factors causing loss or decline

Human disturbance; oil pollution; habitat loss; mortality from bycatch; Seine net fishing and long-line hauling close to colonies and moulting areas.

✍ Status under international instruments

Appendix II - Convention on the Conservation of European Wildlife and Natural Habitats (1979) (79/409/EEC/1979).
European Union Regulation laying down certain technical measures for the conservation of fishery resources in the Mediterranean (1626/94 (EC) 1994).

✍ Current Action Plans

Species Action Plan for the Mediterranean Shag Phalacrocorax aristotelis desmarestii in Europe prepared by BirdLife International on behalf of the European Commission (final draft December 1999).

✍ Action Plan objectives and target

To ensure the survival of the Mediterranean populations.

✍ Proposed action

- Inventory and map critical habitats.
- Confer strictly protected status on the species.
- Prohibit all type of disturbances to the breeding colonies.
- Monitor populations.
- Create SPAs where the species' populations breed and encourage buffer zones surrounding breeding areas including adjacent sea area.
- Plan, regulate and/or manage activities and processes of coastal and infrastructure development near to breeding sites.
- Take measures to influence fishing policies in order to avoid negative effects on food stocks and food availability, and to avoid mortality from bycatch.
- Prevent oil spills and chemical pollution of the sea.
- Identify important bird areas at sea for the species.

Pygmy Cormorant
Phalacrocorax pygmeus

✍ Current status
The main breeding populations in the Mediterranean of this globally threatened species are found in Albania, Serbia, Greece, Turkey, with some pairs in Israel and Italy. It is restricted to lowland freshwater and brackish habitats, and in winter frequents coastal lagoons, deltas, rivers and riparian forests. The whole population of the Mediterranean countries is probably less than 2,500 pairs.

✍ Current factors causing loss or decline
Degradation and loss of wetland habitat; disturbance and hunting; destruction of breeding colonies.

✍ Status under international instruments
Appendix II - Convention on the Conservation of European Wildlife and Natural Habitats (1979).
Appendix II - Convention on the Conservation of Migratory Species of Wild Animals (1979).
European Union Regulation laying down certain technical measures for the conservation of fishery resources in the Mediterranean (1626/94 (EC) 1994).
Listed in the AEWA Action Plan (Column B Category 1)

✍ Current Action Plans
Action Plan for the Pygmy Cormorant (Phalacrocorax pygmeus) in Europe prepared by BirdLife International on behalf of the European Commission (February 1996).
Globally threatened birds in Europe Action Plans. Council of Europe – BirdLife International – EU Life-Nature (1996).

✍ Action Plan objectives and target
To maintain the recent increase of the species' population size and distribution.

✍ Proposed action
- Afford strict protection to the species and its habitat, particularly from hunting, disturbance and development.
- Manage wintering and breeding sites in order to meet the species' requirements.
- Monitor breeding and wintering populations.
- Monitor water levels and quality at breeding sites.
- Create SPAs where the species' breeding colonies exist.
- Research its feeding and dispersal ecology.
- Develop education campaigns hunters.
- Restore degraded wetlands used by the species.

White Pelican
Pelecanus onocrotalus

✍ Current status

In the Mediterranean it breeds in Turkey and Greece. Numbers declined in the last thirty years. Nests on the ground in large reedbeds, bare earth or rocky islands, in isolation from the mainland to be safe from mammalian predators.

✍ Current factors causing loss or decline

Habitat loss and destruction; depletion of fish stocks; persecution and disturbance; pollution, flooding; disease; collision with electric power lines.

✍ Status under international instruments

Class A - African Convention on the Conservation and Natural Resources.
Appendix II - Convention on the Conservation of European Wildlife and Natural Habitats (1979).
Appendix I (Pal.) II (Western Pal.) - Convention on the Conservation of Migratory Species of Wild Animals (1979).
European Union Regulation laying down certain technical measures for the conservation of fishery resources in the Mediterranean Current Action Plans (1626/94 (EC) 1994).
Listed in the AEWA Action Plan (Column A Category 1a/3c).

✍ Current Action Plans

None

✍ Action Plan objectives and target

To reverse the decline of the breeding populations in the Mediterranean.

✍ Proposed action

- Confer strictly protected status on the species.
- Prohibit all type of disturbances to the breeding colonies and their habitat.
- Monitor and warden breeding colonies.
- Create SPAs where the species' breeding colonies exist.
- Plan, regulate and/or manage activities and processes of: coastal development and infrastructure that impacts and/or fragments habitats; pollution; and overexploitation of fish stocks.
- Develop education campaigns aimed at local fishermen.
- Restore degraded wetlands used by the species.
- Create artificial nesting site close to foraging sites.

Dalmatian Pelican
Pelecanus crispus

✍ Current status

Vulnerable and globally threatened. In the Mediterranean small populations (totalling 1000 pairs) breed mainly in Albania, Greece and Turkey. Breeds on inland and coastal wetlands and nests on floating islands of reeds and on bare ground on islands, isolated from mainland to be safe from mammalian predators. Up to about 3000 birds winter in Albania, Greece, Syria and Turkey.

✍ Current factors causing loss or decline

Wetland drainage resulting in a sharp decline of available breeding sites; collisions with electric wires; persecution due to competition with commercial fisheries.

✍ Status under international instruments

Class A - African Convention on the Conservation and Natural Resources (1968).
Appendix II - Convention on the Conservation of European Wildlife and Natural Habitats (1979).
Appendix I & II - Convention on the Conservation of Migratory Species of Wild Animals (1979).
Appendix I - Convention on International trade in Endangered Species of Wild Fauna and Flora (1973).
European Union Regulation laying down certain technical measures for the conservation of fishery resources in the Mediterranean (1626/94 (EC) 1994).
Listed in the AEWA Action Plan (Column A Category 1a/1c).

✍ Current action plans

Action Plan for the Dalmatian Pelican (Pelecanus crispus) prepared by BirdLife International on behalf of the European Commission (April 1996).
Globally threatened birds in Europe Action plans. Council of Europe – BirdLife International – EU Life-Nature (1996).
A national action plan lead by the institute of ornithology in Croatia to re-introduce Pelecanus crispus in Croatia.

✍ Action plan objectives and target

To prevent any declines and to increase the population size to a level at which it can be regarded as safe.

✍ Proposed action

- ✍ Confer strictly protected status on the species and its habitat during breeding and wintering in all range states
- ✍ Establish wardened buffer zones around breeding colonies.
- ✍ Prohibit all type of disturbances to the breeding colonies.
- ✍ Create SPAs where the species' breeding colonies exist.
- ✍ Plan, regulate and/or manage activities and processes of coastal and infrastructure development near to known colonies.
- ✍ Manage in a sustainable way or restore where necessary all wetlands where the species occur.
- ✍ Replace overhead electricity wires by thick cables or lay them underground.
- ✍ Monitor continually the breeding and wintering populations
- ✍ Develop education campaigns for local fishermen and hunters, and decision-makers.

Greater Flamingo
Phoenicopterus ruber

✍ Current status

In the Mediterranean, it breeds in localised sites in suitable wetlands, mainly in Spain, France and Turkey, as well as in Italy. Breeding colonies are established at sites free from human disturbance and secure from terrestrial predators. Breeding is irregular with numbers fluctuating from one season to another. Substantial numbers also occur in Greece and Cyprus but do not breed. Mediterranean population seems to be separated from Asiatic populations, with minimal exchange and overlap in Libya and Egypt.

✍ Current factors causing loss or decline

Urban development; habitat loss for tourism development; disturbance; hunting.

✍ Status under international instruments

Class A - African Convention on the Conservation and Natural Resources (1968).
Appendix II - Convention on the Conservation of European Wildlife and Natural Habitats (1979).
Appendix II - Convention on the Conservation of Migratory Species of Wild Animals (1979).
Annex I - European Union Directive on the conservation of wild birds (79/409/EEC/1979).
European Union Regulation laying down certain technical measures for the conservation of fishery resources in the Mediterranean (1626/94 (EC) 1994).
Listed in the AEWA Action Plan (Column B Category 2a)

✍ Current Action Plans

None

✍ Action Plan objectives and target

To maintain healthy breeding populations.

✍ Proposed action

- Confer strictly protected status on the species.
- Prohibit all type of disturbances to the breeding colonies.
- Monitor and warden breeding colonies.
- Create SPAs where the species' breeding colonies exist.
- Plan, regulate and/or manage activities and processes of coastal and infrastructure development near to known colonies.
- Restore wetlands where the species used to breed.

Osprey
Pandion haliaetus

✍ Current status

A cosmopolitan species, which is vulnerable in several regions. Less than 70 pairs have been known to breed regularly in the last fifteen years in the Mediterranean (Balearic Islands, Corsica, Morocco and Algeria). Some local small populations have disappeared from other islands (e.g. Ibiza, Sicily & Sardinia).

✍ Current factors causing loss or decline

Habitat destruction and disturbance at breeding sites related to tourism. Some mortality also from illegal poaching and electrocution also occur.

✍ Status under international instruments

Class B - African Convention on the Conservation and Natural Resources (1968).
Appendix II - Convention on the Conservation of European Wildlife and Natural Habitats (1979).
Appendix II - Convention on the Conservation of Migratory Species of Wild Animals (1979).
Annex I - European Union Directive on the conservation of wild birds (79/409/EEC/1979).
European Union Regulation laying down certain technical measures for the conservation of fishery resources in the Mediterranean (1626/94 (EC) 1994).

✍ Current Action Plans

None

✍ Action Plan objectives and target

Reverse the decline of the breeding population in the Mediterranean.

✍ Proposed action

- Make an inventory and map critical habitats supporting the remaining breeding pairs.
- Confer strictly protected status on the species.
- Prohibit the destruction of its habitat, and the disturbance, taking or trade of the species.
- Use area-based measures to protect and restore its habitats.
- Create SPAs where it breeds.
- Plan, regulate and/or manage activities and processes of coastal and infrastructure development near to known breeding sites.
- Research the causes for the decline of the species.

Eleonora's Falcon
Falco eleonorae

✍ Current status

Breeds in colonies along the coast of the mainland or on rocky islands, which are often uninhabited. The total world population is estimated at 6,200 pairs but no comprehensive census has been carried out. Almost all the entire population breeds on rocky Mediterranean islands. The Aegean islands and Crete hold about 70% of the whole population, but other substantial colonies are also found in Spain, Italy and Tunisia.

✍ Current factors causing loss or decline

Predation by cats and rats; human disturbance in colonies; habitat degradation; taking of eggs and young; hunting; accidental poisoning from pest control methods.

Status under international instruments

Class B - African Convention on the Conservation and Natural Resources (1968).
Appendix II - Convention on the Conservation of European Wildlife and Natural Habitats (1979).
Appendix II - Convention on International trade in Endangered Species of Wild Fauna and Flora (1973).
Annex I European Union Directive on the conservation of wild birds (79/409/EEC/1979).
Current Action Plans
International Species Action Plan Eleonora's Falcon Falco eleonorae prepared by BirdLife International on behalf of the European Commission (final draft December 1999).

✍ Action Plan objectives and target

To maintain the colonies at the level of 1999, through preserving the breeding sites particularly the uninhabited islands.

✍ Proposed action

- Confer strictly protected status on the species.
- Prohibit all type of disturbances to the breeding colonies, including the taking of eggs and young.
- Monitor and warden colonies, which are under threat.
- Create SPAs where the species' breeding colonies exist.
- Plan, regulate and/or manage activities and processes, which may result in loss of habitat and the introduction/spread of invasive alien species.
- Control or eradicate alien species that have become invasive.
- Carry out breeding surveys in eastern Mediterranean countries.
- Prevent poisoning through awareness and cooperation of with farmers.

Slender-billed Curlew
Numenius tenuirostris

✍ Current status
Globally threatened. Once described as common in the Mediterranean region, it is now one of the rarest and least known species in the Western Palearctic. Migrates from Siberia across eastern and southern Europe to winter in North Africa. On passage, occurs in a wide range of habitats: salt marshes, saltpans, brackish lagoons, dry fishponds, steppe and freshwater marshes.

✍ Current factors causing loss or decline
Habitat loss in passage and wintering areas. Other factors unknown.

✍ Status under international instruments
Appendix II - Convention on the Conservation of European Wildlife and Natural Habitats (1979).
Appendix I - Convention on the Conservation of Migratory Species of Wild Animals.
Appendix I - Convention on International trade in Endangered Species of Wild Fauna and Flora (1973).
Annex I - European Union Directive on the conservation of wild birds (79/409/EEC/1979).
European Union Regulation laying down certain technical measures for the conservation of fishery resources in the Mediterranean (1626/94 (EC) 1994).
Memorandum of Understanding concerning Conservation Measures for the Slender-billed Curlew under the Bonn Convention (CMS) (1994).
Listed in the AEWA Action Plan (Column B Category 1a/1b/1c).

✍ Current Action Plans
International Action Plan for the Slender-billed Curlew prepared by BirdLife International on behalf of the European Commission (February 1996).
Globally threatened birds in Europe Action Plans. Council of Europe – BirdLife International – EU Life-Nature (1996).

✍ Action Plan objectives and target
To provide safe passage and wintering grounds in the Mediterranean.

✍ Proposed action
- Confer strictly protected status on the species and on its "look-alike" species, where it occurs on passage and during winter.
- Monitor and warden wintering sites
- Afford appropriate protection and management of all passage and wintering grounds.
- Plan, regulate and/or manage activities and processes of development near wintering sites.
- Train wardens, ornithologists and hunters in the identification of the species.
- Increase public awareness of the species critically threatened status amongst politicians, decision-makers and hunters.
- Ratify the AEWA Agreement in those countries where it is lacking.

Audouin's Gull
Larus audouini

✍ Current status

Endemic species to the Mediterranean. Its main breeding populations occur in the western Mediterranean in coastal and island sites in Spain and in Corsica. Other colonies occur in other parts of the Mediterranean including Greece, Turkey, Tunisia and Sardinia. It was close to extinction in the 1970s, but better enforcement protection measures resulted in an increase in the breeding population.

✍ Current factors causing loss or decline

Habitat alterations at breeding sites; changes in fishing practices and competition mainly with the Yellow-legged Gull Larus cachinnans; egg collection and human persecution and disturbance. The depletion of food resources and chemical pollution and spills as threats and limiting factors are not properly known.

✍ Status under international instruments

Appendix II - Convention on the Conservation of European Wildlife and Natural Habitats (1979).
Appendix I & II - Convention on the Conservation of Migratory Species of Wild Animals (1979).
Annex I - European Union Directive on the conservation of wild birds (79/409/EEC/1979).
European Union Regulation laying down certain technical measures for the conservation of fishery resources in the Mediterranean (1626/94 (EC) 1994).
Listed in the AEWA Action Plan (Column A Category 1a/3a).

✍ Current Action Plans

International Action Plan for Audouin's Gull (Larus audouinii) prepared by BirdLife International on behalf of the European Commission (March 1996).
Globally threatened birds in Europe Action Plans. Council of Europe – BirdLife International – EU Life-Nature (1996).
Action Plan to restore the Audouin's Gull Larus audouinii by Government Committee of Palm Islands Nature Reserve in Lebanon.
Official Working Group in Spain (Ministry of Environment) to reveal status and propose conservation actions for Larus audouinii.

✍ Action Plan objectives and target

To maintain a healthy breeding population and increase the number of colonies.

✍ Proposed action

- Inventory and map critical habitats supporting the colonies, particularly in the eastern part of the Mediterranean.
- Confer strictly protected status on the species.
- Prohibit all type of disturbances to the breeding colonies, including the taking of eggs and young.
- Monitor and warden colonies, which are under threat.
- Create SPAs where the species' breeding colonies exist.

- Plan, regulate and/or manage activities and processes of coastal and infrastructure development near to known colonies.
- Control or eradicate invasive competitive species and terrestrial mammals at colonies.
- Prevent oil spills and chemical pollution of the sea.
- Identify important bird areas at sea for the species.
- Elaborate an action Plan to reduce mortality at sea especially from by-catch.

Lesser Crested Tern
Sterna begalensis

✍ Current status

In the Mediterranean, a small localised population (exact breeding population unknown but probably less than 4,000 pairs) of the endemic subspecies Sterna bengalensis emigrata breeds on two Libyan offshore islands. Occasional breeding has also been recorded in France, Greece, Italy and Spain.

✍ Current factors causing loss or decline

Occasional disturbance by fishermen; probably predation by Yellow-legged Gull Larus cachinnans; and possibly oil pollution and toxic chemicals.

✍ Status under international instruments

Appendix II - Convention on the Conservation of European Wildlife and Natural Habitats (1979).
Appendix II - (African pops.) Convention on the Conservation of migratory Species of wild Animals (1979).
European Union Regulation laying down certain technical measures for the conservation of fishery resources in the Mediterranean (1626/94 (EC) 1994).
Listed in the AEWA Action Plan (Column A Category 1/c).

✍ Current Action Plans

None

✍ Action Plan objectives and target

To maintain a healthy population and possibly to increase the population size.

✍ Proposed action

- Confer strictly protected status on the species.
- Prohibit all type of disturbances to the breeding colonies, including the taking of eggs and young.
- Monitor and warden colonies, which may be under the threat of disturbance.
- Create SPAs where the species' breeding colonies exist and prohibit access to known sites except for scientific purposes.
- Investigate whether local fisheries impacts on the bird's breeding success.
- Prevent oil spills and chemical pollution of the sea.
- Establish population size and trends.

Sandwich Tern
Sterna sandvicensis

✍ Current status
In the Mediterranean, a population of probably less then 3,000 pairs nests in colonies mainly in river deltas, on sandbanks and in salinas. Also migrates from elsewhere into the Mediterranean for wintering.

✍ Current factors causing loss or decline
Coastal development; disturbance by humans and animals; predation.

✍ Status under international instruments
Appendix II Convention on the Conservation of European Wildlife and Natural Habitats (1979).
Appendix II Convention on the Conservation of Migratory Species of Wild Animals (1979).
Annex I European Union Directive on the conservation of wild birds (79/409/EEC/1979).
Listed in the AEWA Action Plan (Column A Category 3a/3c).

✍ Current Action Plans
None

✍ Action Plan objectives and target
To maintain healthy breeding colonies

✍ Proposed action
- Inventory and map critical habitats supporting the colonies, particularly in the eastern part of the Mediterranean, where breeding surveys are lacking.
- Confer strictly protected status on the species.
- Prohibit all type of disturbances to the breeding colonies.
- Monitor and warden colonies, which are under the threat of disturbance.
- Create SPAs where the species' breeding colonies exist.
- Plan, regulate and/or manage activities and processes of coastal and infrastructure development that impacts on wetlands and other breeding habitats.
- Restore wetlands sites where the species breed.

Little Tern
Sterna albifrons

✍ Current status
Mediterranean population mainly along southern coastline and western basin, where its actual size is unknown. Quantitative data from the eastern Adriatic and eastern Mediterranean countries are lacking. Breeds in rivers and deltas, estuaries, lagoons and salinas.

✍ Current factors causing loss or decline
Habitat loss; disturbance; predation; colony destruction.

Status under international instruments
Appendix II - Convention on the Conservation of European Wildlife and Natural Habitats (1979).
Appendix II - Convention on the Conservation of migratory Species of wild Animals (1979).
Annex I - European Union Directive on the conservation of wild birds (79/409/EEC/1979).
European Union Regulation laying down certain technical measures for the conservation of fishery resources in the Mediterranean (1626/94 (EC) 1994).
Listed in the AEWA Action Plan (Column A Category 3/a).

✍ Current Action Plans
None

✍ Action Plan objectives and target
To maintain healthy breeding colonies.

✍ Proposed action
- Inventory and map critical habitats supporting the colonies, particularly in the eastern Adriatic and eastern Mediterranean countries where quantitative data are lacking.
- Confer strictly protected status on the species.
- Prohibit all type of disturbances to the breeding colonies.
- Monitor and warden colonies, which are under the threat of disturbance.
- Create SPAs where the species' breeding colonies exist.
- Plan, regulate and/or manage activities and processes of coastal and infrastructure development near to known colonies.
- Establish population size and trends.
- Restore wetlands where they are known to breed.

ANNEX VI
DRAFT ACTION PLAN FOR THE CONSERVATION OF CARTILAGINOUS FISHES (CHONDRICHTHYANS) IN THE MEDITERRANEAN SEA

FOREWORD

Chondrichthyan fishes constitute a class within the zoological classification which includes the cartilaginous fish commonly named sharks, skates, rays and chimaeras. The skates and the rays, or batoids, are flattened shark-like fish.

The Action Plan for the Conservation of Chondrichthyan Fishes in the Mediterranean Sea is in line with :
1) the Barcelona Convention adopted by the Mediterranean countries, in particular the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean;

2) the International Plan of Action for the Conservation and Management of Sharks (IPOA-Sharks) proposed by FAO and adopted by the UN member states in 1999 [Note: in the FAO documents 'sharks' is used for chondrichthyans];

3) the UN Fish Stocks Agreement (UN Agreement on Straddling Fish Stocks and Highly Migratory Fish Stocks) in effect since 11th December 2001;

4) paragraph 31 of the Implementation Plan of the Resolution of the World Summit for Sustainable Development adopted in Johannesburg in September 2002.

In the implementation of the IPOA-Sharks, the Mediterranean Action Plan for the Conservation of Chondrichthyan Fishes constitutes a proposal for regional strategies, pointing out priorities and actions to be undertaken at national and regional level, since regional coordination is needed to ensure implementation of conservation measures. The IPOA-Sharks suggests that member states of the FAO should develop national action plans when their fishing fleets conduct target or by-catch fisheries for sharks. With regard to this recommendation, the Contracting Parties to the Barcelona Convention are strongly urged to elaborate national action plans according to the priorities herein defined, in order to ensure the conservation, management and long-term sustainable use of the chondrichthyan resources in their environment.

Within the framework of the Barcelona Convention, some chondrichthyans are already protected: namely the great white shark (Carcharodon carcharias), the basking shark (Cetorhinus maximus) and the Mediterranean devil ray (Mobula mobular). Also, some Mediterranean countries have taken specific protection measures for these species to reinforce their conservation status. Other chondrichthyans appear on the IUCN Red List and in the appendices to the Bern and Bonn Conventions, and some have been in the CITES appendices.

Although such conservation measures that focus on particular species have been proving to be useful at species level, they are not sufficient at ecosystem level. That

is why habitat and environment parameters should be included in the Action Plan. As a result, the guidelines for elaborating an Action Plan are the following:

- species conservation
- biodiversity maintenance
- habitat protection
- management for sustainable use
- scientific research
- monitoring
- funding for research, implementation and monitoring
- public awareness
- international cooperation for controls in the open sea.

Thus, implementation of the Action Plan should involve a great number of stakeholders and its success requires increasing cooperation between different jurisdictions, professional fishermen, conservation and environmental bodies, recreational and game fishing associations, scientific and research organisations and academic institutions, and military and administrative bodies, at national, regional and international levels.

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DRAFT ACTION PLAN FOR THE CONSERVATION OF CARTILAGINOUS FISHES (CHONDRICHTHYANS) IN THE MEDITERRANEAN SEA

INTRODUCTION

1. The Contracting Parties to the Barcelona Convention, within the framework of the Action Plan for the Protection of the Marine Environment and the Sustainable Development of the Coastal Area of the Mediterranean (MAP Phase II), give priority to ensuring the protection of sensitive species, habitats and ecosystems in the Mediterranean Sea.

2. The decline of some chondrichthyan populations has become a matter for international concern, and a growing number of organisations have expressed the need for urgent measures to be introduced for the conservation of these fish. To this end, RAC/SPA was entrusted (Monaco, November 2001) by the Contracting Parties to the Barcelona Convention with the task of elaborating an action plan, herein presented, for the conservation of the chondrichthyan populations of the Mediterranean.

3. Chondrichthyan fishes have specific biological characteristics, such as low reproduction productivity due to late sexual maturity and low fecundity, which make them vulnerable to long-lasting stresses and disturbances and slow to recover once depleted.

4. For chondrichthyan fishes, there also exists a close relationship between the number of young produced and the size of the breeding biomass (stock-recruitment relationship) and complex spatial structures (size/sex segregation and seasonal migration) that contribute to their vulnerability to habitat deterioration, environmental pollution, and over-exploitation.

5. Most sharks and some skates and rays are apex predators and have an important trophic function in the marine ecosystem. Therefore, the ecosystem approach is particularly important to understand the role of these fishes in the structuring and functioning of this system. The integrated effects of irresponsible fishing[1], pollution, and habitat destruction can result in changes in abundance, size structure and biological features, and in the extreme could lead to extinction. The indirect impacts include changes in species prey/predator composition, with species replacement, since fishing tends to remove larger species and larger individuals from ecosystems. Exploitation of chondrichthyans should respect the principles of sustainability and the precautionary principle as defined in the FAO Code of Conduct for Responsible Fisheries.

[1] The terms 'fishing' and 'fisheries' refer to both commercial and recreational fishing/fisheries throughout the entire text.

6. The chondrichthyan fish fauna of the Mediterranean is relatively diverse, with a total 86 species including 47 species of shark, 38 species of batoid and one chimaera. Some of them have commercial importance and have been exploited over the ages as target species or by-catch; others are very rare and may never have been common. However, there is evidence of the important negative impact of unmanaged and irresponsible fisheries on the populations of these chondrichthyan species.

7. Today, the serious threats to the populations of chondrichthyan fishes are widely acknowledged: mainly unmanaged and irresponsible fishing, pollution and the negative aspects of some littoral development. These threats affect both chondrichthyan biodiversity and abundance. The Mediterranean Sea being a semi-enclosed sea with strongly populated coastal countries, critical habitats have been damaged by some littoral development and pollution. Pollution may harm the marine ecosystem because contaminants, concentrating along the food webs, can alter the physiology and good functioning of individuals and populations.

8. Although the Mediterranean chondrichthyan fish fauna have been studied for a long time, scientific research still needs to be undertaken to study the biology, ecology, population dynamics and status of stocks of most of the species. These studies are necessary to better understand their ecological role. The taxonomic status of several species is still uncertain. A few species are endemic to the Mediterranean. Some Red Sea species penetrate into the eastern Mediterranean through the Suez Canal (Lessepsian migrants); the evolution of the populations of these species, and the effect of these invaders on the Mediterranean ecology, should be carefully studied.

9. Since many chondrichthyans are wide-ranging and/or migratory, regional coordination is required for research, monitoring and enforcement. Also, information should be widely disseminated amongst the public to make it aware of the threats to chondrichthyans and the urgent need for their conservation and the management of their exploitation.

A. OBJECTIVES

10. The present Action Plan is aimed at promoting:

    10.1. The general conservation of the chondrichthyan populations of the Mediterranean, by supporting and promoting national and regional programmes for sustainable fisheries of commercial stocks either as they are target and accessory species;

    10.2. The protection of selected chondrichthyan species, whose populations are considered endangered;

    10.3. The protection and the restoration of critical habitats, such as mating, spawning and nursery grounds;

10.4. The improvement of scientific knowledge by research and scientific monitoring, including the creating of regional standardised databases;

10.5. The recovery of depleted chondrichthyan stocks;

10.6. Public awareness and capacity-building about conservation of chondrichthyans.

B. PRIORITIES

11. The following general priorities are recommended:

11.1. Urgent provision of legal protection status for the endangered species identified at regional and national level. To this end, the following species should have priority: sawfishes (Pristis spp.) (assessed as "Critically Endangered" (CR) in the IUCN Red List 2000), the sand tiger sharks (Carcharias taurus and Odontaspis ferox) and the gray skate (Dipturus batis), (preliminarily assessed as "Critically Endangered" (CR) and "Endangered" (EN) by the IUCN at the Mediterranean level, respectively), as has already been achieved at regional level for the basking shark (Cetorhinus maximus), the great white shark (Carcharodon carcharias), and the giant devil ray (Mobula mobular).

11.2. Other species are currently data-deficient with inadequate information to assess extinction risk. Thus there is an urgent need to assess the threatened status of species such as hammerhead sharks (Sphyrna spp.), guitarfishes (Rhinobatos spp.), and the speckled skate (Raja polystigma).

11.3. Develop management programmes for sustainable fisheries catching, as target or by-catch, the following species:

*11.3.1. Primarily for the main commercial species: the dogfish (Squalus acanthias), the thresher sharks (Alopias spp.), the makos (Isurus spp.), the porbeagle (Lamna nasus), the blue shark (Prionace glauca).

*11.3.2. Secondly, for the other commercially important species: the angel sharks (Squatina spp.), the catsharks (Scyliorhinus spp. and Galeus melastomus), the hound sharks (Mustelus spp. and Galeorhinus galeus), the requiem sharks (Carcharhinus falciformis, C. limbatus, C. obscurus and C. plumbeus), the skates (Leucoraja spp., Raja spp.), and the stingrays (Dasyatis spp.).

11.4. Encourage fishing practices that reduce unwanted chondrichthyan by-catch and/or facilitate live release and ban wasteful practices such as finning.

11.5. Identify critical habitats for their protection and restoration, especially mating areas, and spawning and nursery grounds.

11.6. Develop research programmes on general biology, ecology and population dynamics especially for the above species, with particular regard to reproduction and growth parameters.

11.7. Develop both systems for the monitoring of fisheries and fishery-independent monitoring programmes.

11.8. Develop training to ensure capacity-building at national and regional level, mainly in the following fields: taxonomy, biology, ecology, monitoring methods and stock assessment.

11.9. Develop information and education programmes for professional and public awareness.

C. IMPLEMENTATION MEASURES

In order to implement the above-mentioned general priorities, specific measures should be taken at national and regional level:

C.1. Protection

12. Legal protection should be given to endangered species (cf. paragraphs 10.2 and 11.1) in accordance with national and international laws and conventions. The status of Mediterranean chondrichthyans should be regularly reviewed in order to recommend, when necessary, legal protection for threatened species.

C.2. Fisheries management

13. According to the principles of the IPOA-Sharks and of the UN Straddling Fish Stocks Agreement, states that contribute to fishing mortality for a species or stocks should participate in their management.

14. Existing assessment reports and fisheries management programmes should be adjusted to chondrichthyan fishes or specific plans should be developed within the framework of the IPOA-Sharks.

15. It is urgent to collect precise fisheries statistics, mainly on catches and landings by species. For this purpose, field identification sheets should be published in appropriate languages, with the vernacular names included, and dispatched to fishery people. Also, data on fishing efforts should be collected, as far as possible.

16. Management programmes for chondrichthyan fishes should be based on sustainable management based on studies of the assessment of stocks and populations.
    Management should also concern by-catch and reduce incidental catches.
    To this end, guidelines for reducing and releasing unwanted by-catch and protected species should be published in the appropriate languages and circulated to all potential users.

17. Implementing a permanent monitoring of fisheries where chondrichthyans are target or by-catch species is a fundamental management measure, useful for the conservation or sustainable exploitation of these species. This action would permit the timely detection of an obvious decline in their biomasses, or capture, that could be an unequivocal sign of over-fishing. This monitoring could be done through surveys, landing-site observation and the examining of logbooks. This action should also address sightings (strandings and observations at sea) and incidental catches.

18. For most species, cooperative management is necessary at national, regional and international levels. The mechanisms for achieving a cooperative approach may consist of the following elements:
    - information on existing exploited resources and management systems;
    - the defining and provision of legal instruments;
    - the use of a participatory planning approach;
    - the defining of clear management agreements;
    - the building and development of national groups.

19. Mediterranean countries should ban finning (i.e. the wasteful practice of slicing off the shark's fins and discarding the body at sea). Mediterranean countries should oblige fishermen to land shark specimens whole. This is partly to promote standardised data reporting and facilitate species identification.

C.3. Critical habitats and environment

20. Field studies are needed to inventory and map critical habitats around the Mediterranean.

21. Legal protection should be given to these habitats, in conformity with the national and international laws and conventions on the subject, to prevent their deterioration due to the negative effects of human activity. When these habitats have deteriorated, restoration programmes should be undertaken. One example of legal protection is the creation, where possible, of marine protected areas in which human activity is regulated.

22. Such protection measures could be part of fishery management programmes as well as of integrated coastal zone management.

C.4. Scientific research and monitoring

23. Parallel to protection and conservation measures, properly funded and staffed scientific research programmes should be undertaken or developed, mainly on species biology and ecology, emphasising growth, reproduction, diet, geographical and bathymetric distribution, migration, population genetics and dynamics and risk assessment. Regional tagging (conventional, pop-up and satellite tag) programmes should be developed for migratory species. Also, fishing efforts exploratory cruises and the status of resources within the precautionary principle, should be assessed. In the same way, discard should be evaluated in terms of quantity and composition. Research on tools to avoid or reduce by-catch should be fostered.

24. For the monitoring of fisheries, the standardised collection of data at landing places and fish markets should be supplemented and completed by on-board observation programmes to gather precise data on fisheries and on species biology. Also logbooks adapted to chondrichthyan fisheries should be distributed to fishermen. The following set of data would be required for commercial target and by-catch species:
    - species composition of the catch with length frequency distribution by sex;
    - retained catch by species in number and weight;
    - discarded catch in number and weight (+ reasons for discard);
    - product form (whole, headed, gutted, fillets, fins);
    - gear and vessel specifications and cruise characteristics;
    - trade and market values.

    Furthermore samples (vertebrae, dorsal spines) should be taken and adequately preserved for age determination, and also tissue samples for genetic analysis (DNA).

25. Mediterranean countries should design, at both national and regional level, specific programmes, or widen existing ones, to cover the whole Mediterranean Sea, and to collect standardised quantitative data to estimate fish density (relative abundance). This would help evaluate the risk status of the various species.

C.5. Capacity building/training

26. The Contracting Parties should promote the training of specialists, fisheries officers and managers in the study and conservation of chondrichthyan fishes. To this end, it is important to identify already existing initiatives and to give priority to taxonomy, conservation biology and techniques for monitoring research programmes (cf. above paragraph on scientific research).

27. Training programmes should also focus on methods of fisheries data collection and stock assessment, especially data analysis.

C.6. Education and public awareness

28. For protection and conservation measures to be effective, public support should be obtained. In this respect, information campaigns should be directed at national authorities, residents, teachers, visitors, professional fishermen, sport anglers, divers and any other stakeholder. Publication materials should be produced to present the life history, and vulnerability, of chondrichthyans.

29. Also, guidelines for chondrichthyan watching should be published and widely distributed to potential observers such as anglers, yachtsmen, divers, shark-fans, etc, in order to make them actively involved in the conservation of chondrichthyan fishes.

30. In this process of education and public awareness, the help of associations and other bodies involved in nature conservation should be solicited.

C.7. Regional coordinating structure

31. All the above-mentioned recommended actions related to the protection and the conservation of species and their habitats, and the research and educational programmes, should be monitored and implemented, with as much regional cooperation between all the countries operating in the Mediterranean basin as is possible.

32. These actions should be undertaken in cooperation with, and with the support of, other regional fisheries organisations (e.g. GFCM, ICCAT), through establishing MoUs where necessary. Non-governmental organisations, associations and national environmental bodies should also be involved.

33. Implementation of the present Action Plan will be regionally coordinated by the Mediterranean Action Plan's (MAP) Secretariat through the Regional Activity Centre for Specially Protected Areas (RAC/SPA). The main functions of the coordinating structure shall consist in:
    - favouring and supporting the collection of data and publishing and circulating results at Mediterranean level;
    - promoting the drawing up of inventories of species and areas of importance for the Mediterranean marine environment;
    - promoting transboundary cooperation;
    - preparing reports on progress in the implementation of the Action Plan, to be submitted to the Meeting of National Focal Points for SPAs and to meetings of the Contracting Parties;
    - organising meetings of experts on specific subjects relating to Mediterranean chondrichthyans, and training courses;
    - promoting the review of status of species and fisheries by relevant organisations;
    - three years after the adoption of the Action Plan, coordinating the organisation of a Mediterranean symposium aiming at defining the state

of knowledge on chondrichthyan fishes and taking stock of the progress made in implementing the Action Plan;

- five years after the adoption of the Action Plan, organising a meeting to review the progress of the Action Plan and to propose a revision of the Action Plan if needed.

34. Complementary work done by other international organisations with the same objectives shall be encouraged by RAC/SPA, promoting coordination and avoiding possible duplication of effort.

35. Initiatives aiming at ensuring enforcement of the current Action Plan, particularly in international waters, should be promoted.

D. PARTICIPATION IN THE IMPLEMENTATION

36. Implementing the present Action Plan is the responsibility of the national authorities of the Contracting Parties. Parties should facilitate coordination between their national, environmental and fisheries departments to ensure implementation of activities directed at protected and non-protected chondrichthyan species. Organisations or bodies concerned are invited to associate themselves with the work of implementing the present Action Plan. At their ordinary meetings, the Contracting Parties may, at the suggestion of the Meeting of National Focal Points for SPAs, grant the status of 'Action Plan Associate' to any organisation or laboratory which so requests and which carries out, or supports (financially or otherwise) the carrying out of, concrete actions (conservation, research, etc.) likely to facilitate the implementation of the present Action Plan, taking into account the priorities contained therein. NGOs can submit their applications directly to RAC/SPA.

37. The coordinating structure shall set up a mechanism for regular dialogue between the Action Plan Associates and, where necessary, organise meetings to this effect. Dialogue should be conducted mainly by mail, including e-mail.

E. TITLE OF ACTION PLAN PARTNER

38. To encourage and reward outside contributions to the Action Plan, the Contracting Parties may at their ordinary meetings grant the title of 'Action Plan Partner' to any organisation (governmental, NGO, economic, academic etc.) that has to its credit concrete actions likely to help protect chondrichthyan fishes in the Mediterranean. The title of Action Plan Partner will be awarded by the Contracting Parties following recommendations made by the Meeting of National Focal Points for SPAs.

F. ASSESSING THE IMPLEMENTATION AND REVISION OF THE ACTION PLAN

39. At each of their Meetings, the National Focal Points for SPAs will assess the progress made in implementing the Action Plan, on the basis of national reports and of a report made by the RAC/SPA on implementation at regional level. In the light of this assessment, the Meeting of the National Focal Points for SPAs will suggest recommendations to be submitted to the Contracting Parties, and, if necessary, suggest adjustments to the timetable given in the Annex to the Action Plan.

Annex:

Implementation Timetable

ACTION	DEADLINE	BY WHOM
Tools		
1. Establishing of network (e.g. FTP site) and directory of collaborators (cf. § 33 of C.7 "Regional coordinating structure")	1 year after adoption	RAC/SPA
2. Field identification sheets available in appropriate languages (cf. § 15 of C.2. "Fisheries management")	1 year after adoption	Contracting Parties & RFMOs
3. Support the defining of a protocol for monitoring commercial landings and discards by species (cf. § C.2. "Fisheries management")	1 year after adoption	RAC/SPA and Contracting Parties
4. Protocols for recording data on rarely observed, endangered and protected species (cf. § C.1. "Protection")	1 year after adoption	RAC/SPA
5. Information campaigns and publishing materials for public awareness (cf. § C. 6 "Education and public awareness")	2 years after adoption	RAC/SPA
6. Guidelines for reducing the presence of sensitive species in by-catch and releasing them if caught, prepared and published in appropriate languages (cf. § 16 of C.2 "Fisheries management")	2 years after adoption	RAC/SPA
7. Guidelines for chondrichthyan watching (cf. § 29 of C.6 "Education and public awareness")	3 years after adoption	RAC/SPA
8. Symposium on Mediterranean chondrichthyan fishes (cf. § 33 of C.7 "Regional coordinating structure")	3 years after adoption	RAC/SPA
9. Meeting to review progress made on the Action Plan (cf. § 33 of C.7 and § F "Assessing the implementation and revision of the Action Plan")	5 years after adoption	RAC/SPA
Legal processes		
10 a. Legal protection established for endangered species, recommended in this Action Plan, identified by country 10 b. Urgent assessment of the status of data deficient species (cf. § 11.1. of B "Priorities"; C1 "Protection")	1 year after adoption	Contracting Parties, intervening at national and regional level
11. Regulations enacted for prohibiting "finning" (cf. § 19 of C.2 "Fisheries management")	2 years after adoption	Contracting Parties & RFMOs

12. Critical habitats legally protected to reduce negative effects of human activities (cf. § C.3 "Critical habitats and environment")	4 years after adoption	Contracting Parties
13. Facilitating the enforcement of legal measures aiming to set up a system for enforcement of monitoring fisheries in international waters (cf. § 35 C. 7 "Regional coordinating structure")	4 years after adoption	Contracting Parties and RAC/SPA
Monitoring and data collection		
14. Establishing research programmes, mainly on the biology, ecology and population dynamics of the main species identified by the countries (cf. § C. 4 "Scientific research and monitoring")	1 year after adoption	Contracting Parties
15. Implementing a monitoring system for commercial and recreational fisheries (cf. § C.2. "Fisheries management")	1 year after adoption	Contracting Parties
16. Support the establishing of, or feed the existing, centralised databases (cf. § C.7 "Regional coordinating structure")	1 year after adoption	Contracting Parties and RAC/SPA
17. Preliminary inventory of critical habitats (mating, spawning and nursery grounds) (cf. § 11.4 of "Priorities" and § C.3 "Critical habitats and environment")	2 years after adoption	Contracting Parties
Management and assessment procedures		
18. Review of the status of Mediterranean chondrichthyan species (cf. § 11.2 of B "Priorities"; 12 of C.1 'Protection'; 25 of C.4 "Scientific research and monitoring")	1 year after adoption	International organisations
19. Description of fisheries and identification of management needs (cf. § C.2. 'Fisheries management')	1 year after adoption	Contracting Parties & RFMOs
20. Elaboration of National chondrichthyan Plans (cf. § C.1 'Protection', C.2. "Fisheries management", & C.3 "Critical habitats and environment")	1 year after adoption	Contracting Parties
21. Elaboration of management plans for fisheries exploiting chondrichthyan fishes (cf. § 11.3.1 and 11.3.2 of B "Priorities"')	4 years after adoption	Contracting Parties & RFMOs

ANNEX VII
DRAFT ACTION PLAN CONCERNING SPECIES INTRODUCTIONS AND INVASIVE SPECIES IN THE MEDITERRANEAN SEA

CONTENTS

DRAFT ACTION PLAN CONCERNING SPECIES INTRODUCTIONS AND INVASIVE SPECIES IN THE MEDITERRANEAN SEA

INTRODUCTION

1. The Contracting Parties to the Barcelona Convention, as part of the Mediterranean Action Plan, give priority to the conservation of the marine environment and to the components of its biological diversity. This has been confirmed on several occasions, particularly by the adopting (Barcelona, 1995) of the new Protocol concerning specially protected areas and biological diversity in the Mediterranean (SPA Protocol) and of its Annexes.

2. Elaborating and implementing action plans to confront the threats hanging over the elements that make up biological diversity is an effective way of guiding, coordinating and stepping up the efforts made by the Mediterranean countries to safeguard the region's natural heritage.

3. The SPA Protocol invites the Contracting Parties to take "all appropriate measures to regulate the intentional or non-intentional introduction of non-indigenous or genetically modified species into the wild and prohibit those that may have harmful impacts on the ecosystems, habitats or species".

4. As to those species which have already been introduced, the SPA Protocol stipulates that when a scientific assessment has revealed that these are causing or are likely to cause harm to ecosystems, habitats or species, the Contracting Parties strive to implement all possible measures to eradicate them.

5. The Convention on Biological Diversity calls on in its Article 8 (h) each Contracting Party, as far as possible and as appropriate, to prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species.

6. The introduction of non-indigenous species into Mediterranean coastal waters has recently increased, and certain of these have proved to be invasive. Whether intentional or non-intentional, the introduction of a non-indigenous species can cause often irreversible damage to the receiving ecosystem, with harmful effects both ecologically and socio-economically.

7. It is recognized that aquatic organisms enter the Mediterranean from adjacent seas without human intervention through natural paths[1] (e.g. the Strait of Gibraltar). It is also recognised that the fauna and flora of the Mediterranean Sea are mainly of Atlantic origin. The entry of species into the Mediterranean Sea has been increasing over the last few decades because of various factors, mainly of anthropic origin. The main known vectors of species introduction into the Mediterranean Sea are:

- Entry of Red Sea organisms through the Suez Canal, built in the 19th century
- Shipping (ballast water[2] and sediments, fouling[3])
- Aquaculture[4] (both marine and brackish water)
- Trade in live marine organisms (e.g. aquarium activities, fishing bait) and scientific research.

The same vectors may facilitate secondary introductions within and outside the Mediterranean.]

8. Although only some of the non-indigenous species succeed in establishing viable populations, the environmental consequences are, in many cases, negative for the Mediterranean indigenous species. The invasive species are seen as being among the main threats to marine biological diversity in the Mediterranean. It is imperative to take immediate steps to prevent the introduction of non-indigenous species, control the spread of those already introduced and endeavour to mitigate the damage they cause to the marine ecosystem. The present Action Plan is being elaborated on the basis of the data available; it will be adapted, if necessary, as and when new data is available.

9. When implementing the present Action Plan, Parties will refer to the definitions and guiding principles set out in Decision VI/23, adopted within the CBD framework, until these are submitted for in-depth discussion at the workshop mentioned in paragraph 21 below, with a view to arriving at guiding principles

[1] Other less important causes of marine species introduction into the Mediterranean Sea are reported (sea birds, epibiontes on migratory animals and on drifting plastics, boat anchors, indigestible eggs and spores in predator stomachs, etc.).

[2] Ballast water is used to weight and thus stabilise ships, especially during trips when they are empty. In the past, ships were weighted with solid materials (stones, sand etc.), but for several years now sea water has been commonly used for all modern ships. Although most species contained in the ballast water are no longer alive when they reach the place where the ballast is discharged, or do not survive in the environment they are poured into, some of these species do manage to settle and form viable populations.

[3] Several species of alga and of marine invertebrate cling to ships' hulls and may thus travel over long distances and settle in new zones. Regular introductions happen all around the world through the movement of ships.

[4] Importing live animals for aquaculture purposes is the main way of intentional introduction of marine species into the Mediterranean. It is impossible in practice to avoid species introduced for aquaculture purposes escaping from their breeding facilities and forming viable populations in the natural environment. Moreover, several cases of incidental introduction have been reported for those species that accompany species imported for the purposes of aquaculture.

and approaches to be included in the guidelines provided for in paragraph 20 of the Action Plan.

10. The actions advocated by the present Action Plan are to be carried out over a three-year period, starting from when the Action Plan is adopted by the Contracting Parties. At the end of this period, RAC/SPA will prepare a report on the progress so far made in implementing the advocated actions, and will submit this to the National Focal Points for SPAs, who will make follow-up suggestions to the Parties.

11. Considering the world-wide scope of the issue of non-indigenous species introduction, it is important that the implementation of the present Action Plan be done in consultation and collaboration with the initiatives undertaken in this field in other regions and/or by international organisations.

A. OBJECTIVES OF THE ACTION PLAN

12. The main objective of the present Action Plan is to promote the development of coordinated measures and efforts throughout the Mediterranean region in order to prevent, control and monitor the effects of species introduction, particularly by:

- strengthening the capacity of the Mediterranean countries to deal with the issue of non-indigenous species introduction
- strengthening the institutional and legislative frameworks at the level of the countries of the region
- collecting reliable and pertinent scientific data that can be used for decision-making where necessary
- setting up mechanisms for cooperation and the exchange of information between the states of the region
- elaborating guidelines and any other technical documentation.

B. PRIORITIES

B.1 <u>At regional level</u>

13. Considering the breadth and complexity of the issue of non-indigenous species introduction, priority at regional level should be given to:

- coordinating and supporting the compiling and regular updating of Mediterranean-wide lists of non-indigenous species[5], including information on their ecology, biology and habitats. Lists should distinguish between species that are harmful to human health, invasive or both, and provide information on such a classification
- elaborating and adopting at regional level guidelines intended to assist the relevant national authorities
- coordinating the actions taken by neighbouring states to prevent and control the introduction of non-indigenous species

[5] The lists of exotic species being compiled within the framework of CIESM and any other recognised publication could be used as reference and a source of information.

- Establishment of monitoring and early warning networks
- supporting cooperation at international level.

B.2 At national level

14. Considering the lack of the data and knowledge necessary for risk assessment and the implementation of preventive and control actions, priority at national level should be given to:
- encouraging all necessary actions (e.g. research work, data collection, monitoring, etc.) aimed at improving the available knowledge
- coordinating the actions that are necessary for the regular provision of supplementary information for the national and Mediterranean-wide reference lists of non-indigenous species
- supporting information exchanges and concerted actions at regional level
- encouraging the implementation of scientifically-backed regionally-harmonised measures of prevention and control.

C. ACTIONS REQUIRED TO ATTAIN THE OBJECTIVES OF THE ACTION PLAN

C.1 At national level

C.1.1. Data collection

15. The Contracting Parties are invited to assess the situation as regards the introduction of marine species and compile the available information to prepare national reports using the relevant forms available within the framework of the international organisations. To this end, they will be assisted by RAC/SPA, if necessary. The national reports will particularly deal with:
- known or potential vectors for the introduction of marine species into the national territory
- steps taken at national level to prevent and control the introduction of marine species
- the national institutional framework that governs the controlling of species introduction
- inventorying the non-indigenous marine species reported in the national territory
- the relevant documentation available
- participation at pertinent international initiatives, including joining international agreements and bilateral cooperation.

16. The Parties are requested to prepare programmes for data collection and monitoring, particularly of:
- the presence of non-indigenous marine species and the state of their population trends, including those used in aquaculture
- the impact of non-indigenous species on the indigenous biodiversity[6]

[6] (E.g.: ecology, biology, local distribution, etc.)

- the origin of ballast water discharged into their territorial waters, using the monitoring protocols used by relevant International Organisations.

C.1.2. Legislation

17. Those Contracting Parties which have not yet enacted national legislation for controlling the introduction of marine species must do so as quickly as possible. All the Contracting Parties are strongly recommended to take the necessary steps to express in their national laws the provisions of the pertinent international treaties and guidelines and codes adopted on the subject within the context of international organisations[7].

C.1.3. Institutional framework

18. A mechanism should be set up, if possible at the level of each country, to promote and coordinate the following actions:

- inventorying paths of introduction
- compiling an inventory of introduced species
- establishing a directory of relevant specialists and organisations
- setting up a group of experts who will be responsible for assessing suggestions for introduction, and analysing risks and possible consequences, in close consultation with the other Parties and relevant International Organisations.
- identifying and inventorying public and private actors whose activity could introduce marine non-indigenous species
- developing relevant training programmes
- strengthening and where necessary setting up systems to control the intentional import and export of non-indigenous marine species
- developing and implementing risk-assessment techniques
- promoting relevant scientific research
- cooperating with the concerned authorities in neighbouring states regarding the detection of introduced species and risk assessment
- participating in international initiatives on invasive species
- developing programmes to raise the awareness of the general public and target groups, including decision-makers, concerning the risks associated with species introduction

[7] Many organisations have elaborated codes, guidelines or other tools providing technical and legal recommendations for the better control of species introductions and mitigation of their negative impacts. Those tools which are most pertinent for the Mediterranean region are:

- Guiding principles for the prevention, introduction and mitigation of impacts of alien species (elaborated within the framework of the Convention on Biological Diversity)
- Recommendation no. 57 on the Introduction of Organisms belonging to Non-Native Species into the Environment (adopted within the framework of the Bern Convention)
- The IUCN Guidelines for the prevention of biodiversity loss caused by alien invasive species
- The Code of Practice on the Introductions and Transfers of Marine Organisms (developed by the International Council for the Exploration of the Sea)
- Guidelines for preventing the introduction of unwanted aquatic organisms and pathogens from ships' ballast water and sediment discharges (adopted within the framework of the IMO)
- The precautionary approach concerning the introduction of species (developed by the FAO).

- developing monitoring programmes for hotspots (ports, coastal lagoons, aquaculture sites, sensitive zones, etc.).

C.1.4. National Plans

19. To ensure more efficiency in the measures envisaged in the implementation of this Action Plan, Mediterranean countries are invited to establish National Plans to control the introduction of non-indigenous marine species and to mitigate their negative impact. Each National Plan, taking into account the concerned country's specific features, must suggest appropriate institutional and legislative measures. The National Plan shall be based on the available scientific data and will include programmes for (i) the collection and regular updating of data, (ii) training and refresher courses for specialists, (iii) awareness-raising and education for the general public, actors and decision-makers and (iv) coordination and collaboration with other states. The national plans must be brought to the attention of all concerned actors and, when possible, coordinated with the relevant National Plans.

C.2 At regional level

C.2.1. Data collection and dissemination

20. With a view to providing the concerned national authorities with the necessary scientific and technical documentation, the two following tools will be elaborated, working hand in hand with the Mediterranean experts and international organisations:

- guidelines for controlling the vectors of introduction into the Mediterranean of non-indigenous species and invasive marine species
- a guide for risk analysis assessing the impacts of the introduction of non-indigenous species.

21. A workshop made up of experienced Mediterranean scientists should convene to review the available data on non-indigenous species in the Mediterranean, identifying the most important taxonomic and geographic gaps and suggesting a programme to rectify these. The workshop should also have a session that examines the different vectors of non-indigenous species introduction and proposes possible control measures for their prevention. The guidelines and the guide referred to in the above paragraph 20 will be reviewed during the workshop.

22. A regional mechanism for collecting, compiling and circulating information on invasive non-indigenous species should be set up as part of the present Plan and harmonised with the Mediterranean Clearing House Mechanism developed in collaboration with the CBD Secretariat. It will in particular include:

- procedures for notifying the fact that non-indigenous marine species have been detected in the Mediterranean
- a database on invasive marine species (taxonomy, ecology, affected ecosystems or species, means of fighting the problem, specialists, etc.)

- systems for circulating information on the impacts due to the introduction of species and on the approaches to prevention and management
- a procedure for the rapid circulation of information on new introductions of species
- links of cooperation and exchange with the main pertinent world or regional initiatives.

C.2.2. Regional project on fouling and ballast water and sediments

23. Given the importance of shipping-mediated introductions of non-indigenous species into the Mediterranean, it is strongly recommended that within the context of the present Action Plan, a regional project be developed to overcome gaps for the Mediterranean countries, and strengthen the capacities of the countries to reduce the transfer of aquatic organisms via ships' ballast water and sediments and hull fouling. For elaborating and implementing the regional project, it is necessary to work closely with the IMO and the joint GEF-UNDP-IMO ballast water management programme.

C.2.3. Training

24. To support implementation of the present Action Plan, a regional training session should be organised in collaboration with the concerned international organisations. In particular, it will deal with the main following themes:

- The legislative and institutional aspects related to controlling the introduction of non-indigenous marine species
- Assessing the risks linked to the introduction of non-indigenous species and to the means of fighting against and eradicating them
- Management of ships' ballast water with a view to minimising transfers of marine organisms
- Identification of non-indigenous species.

C.2.4. Public education and awareness

25. With a view to promoting the Mediterranean countries' national programmes for raising the awareness of the general public and target groups, including decision-makers, about the risks associated with introducing non-indigenous marine species into the Mediterranean, it is recommended that RAC/SPA, in collaboration with the relevant national authorities and international organisations, prepare brochures, posters and other educational and awareness materials. These will be made available to the National Focal Points for SPAs for them to circulate in their respective countries.

D. REGIONAL COORDINATION

26. Regional coordination of the implementing of the present Action Plan will be guaranteed by the Mediterranean Action Plan's (MAP) Secretariat through the Regional Activity Centre for Specially Protected Areas. The main functions of the coordinating structure shall consist in:

- taking in hand the implementation of those actions required at regional level to attain the present Action Plan's objectives (Section C.2 above)
- insofar as its means permit, assisting the Contracting Parties in implementing the actions required at national level to attain the present Action Plan's objectives (Section C.1 above)
- identifying hotspots as regards non-indigenous species (at geographic and species level)
- regularly reporting to the National Focal Points for SPAs about the implementation of the present Action Plan, and preparing the report mentioned in paragraph 10 above
- collaborating with the concerned organisations and endeavouring to ensure that the Mediterranean region is involved in the pertinent international and/or regional initiatives
- promoting exchanges among Mediterranean specialists.

E. PARTICIPATION IN THE IMPLEMENTATION

27. Implementing the present Action Plan is the province of the national authorities of the Contracting Parties. The concerned international organisations and/or NGOs, laboratories and any organisation or body are invited to join in the work necessary for implementing the present Action Plan. In addition to collaborating and coordinating with the Secretariats of the relevant Conventions, RAC/SPA should invite IMO and FAO to join and contribute to the implementation of the present Action Plan. It will set up a mechanism for regular dialogue between the participating organisations and, where necessary, organise meetings to this effect.

Annex
IMPLEMENTATION TIMETABLE

Action	Deadline*
1. Developing programmes to raise the awareness of the general public and target groups, including decision-makers, concerning the risks associated with species introduction (see paragraph 18 of the Action Plan)	As soon as possible
2. Setting up a mechanism to promote and coordinate the actions listed in paragraph 18	6 months
3. Preparation of National Reports (see paragraph 15 of the Action Plan)	9 months
4. Inventorying introduction vectors (see paragraph 18 of the Action Plan)	9 months
5. Elaborating the regional project on fouling, ballast water and sediment (see paragraph 23 of the Action Plan)	9 months
6. Elaborating education and awareness material (see paragraph 25 of the Action Plan)	9 months
7. Establishing a directory of relevant specialists and organisations (see paragraph 18 of the Action Plan)	1 year
8. Setting up a group of experts who will be responsible for assessing suggestions for introduction, and analysing risks and possible consequences (see paragraph 18 of the Action Plan)	1 year
9. Convening the workshop referred to in paragraph 21 of the Action Plan	1 year
10. Launching the procedures for enacting or strengthening national legislation governing the control of non-indigenous species introduction (see paragraph 17 of the Action Plan)	18 months
11. Organising the regional training session (see paragraph 24 of the Action Plan)	18 months

* Starting from when the Action Plan is adopted by the Contracting Parties

IMPLEMENTATION TIMETABLE (continued)

Action	Deadline*
12. Developing programmes for data collection and monitoring (see paragraph 16 of the Action Plan)	2 years
13. Strengthening and where necessary setting up systems to control the intentional import and export of non-indigenous marine species (see paragraph 18 of the Action Plan)	2 years
14. Developing and implementing risk-assessment techniques (see paragraph 18 of the Action Plan)	3 years
15. Preparing the Guidelines for controlling the vectors of non-indigenous species and invasive marine species introduction into the Mediterranean (see paragraph 20 of the Action Plan)	2 years
16. Preparing the Guide for risk analysis and impact assessment as regards the introduction of non-indigenous species (see paragraph 20 of the Action Plan)	2 years
17. Setting up the Regional Mechanism for collecting, compiling and circulating information on invasive non-indigenous species (see paragraph 22 of the Action Plan)	2 years
18. Compiling an inventory of introduced species. Identifying and inventorying public and private actors whose activity could introduce marine non-indigenous species (see paragraph 18 of the Action Plan)	3 years
19. Elaborating the National Plans (see paragraph 19 of the Action Plan)	3 years
20. Preparing the report on the progress made in implementing the Action Plan (see paragraph 10 of the Action Plan)	3 years

* Starting from when the Action Plan is adopted by the Contracting Parties

ANNEX VIII
GUIDELINE TO IMPROVE THE INVOLVEMENT OF MARINE RESCUE CENTRES FOR MARINE TURTLES

FOREWORD

The creation of Rescue Centres, where stranded or hurt sea turtles can be cured and rehabilitated has been considered for some years as being one of the contributions in reducing their mortality rate (National Research Council, 1990). Recently, in the Mediterranean Sea, a number of rescue centres were founded, which carry out activities that focus on the rescue of sea turtles. However, not all of these centres provide adequate technical facilities and specialised personnel. Above all, they do not operate according to ethical, scientific and principle conservational criteria. Unfortunately, it has been determined that in some countries there are no specific laws that regulate the activities of sea turtles rescue centres. Thus, without governmental control, many of the existing centres are unregulated. For this reason, priority actions need to be undertaken by United Nation Environment Programme (UNEP) to implement the Action Plan for the Conservation of Mediterranean Marine Turtles. This action plan was discussed at the last meeting of experts, held in Tunisia in 1999 (UNEP/OCA, 1999). During that meeting, it was determined that there was an immediate need to formulate and declare common "guidelines" that would regulate activities at each centre. The guidelines will be created with respect to turtle biology and authentic conservation principles. These guidelines will also function as a base for each nation's regulation.

The scope of this document is to suggest and define guidelines, which could be adopted, for the entire Mediterranean network of sea turtle rescue organisations.

CONTENTS

I. Introduction

The main objective of the rescue centre is to adopt all the necessary steps that are required for the release of the injured sea turtles back into their natural environment. However, to be able to make a real contribution to the numbers of sea turtles in the wild, it is fundamental that the sea turtles, that will be reintroduced into their natural habitat, are in good health (Jacobson, 1999).

A sea turtle rescue centre should be officially recognized by the assigned authorities and must undergo periodic inspection. It should also maintain proper documentation, relative to cases treated, and must be able to furnish the paperwork upon request. Furthermore, all case results, whether positive or negative, should be accurately published. In the U.S. there are specific state and federal government guidelines regulating sea turtles holding and rearing operations; these include tank dimension, feed and environmental requirements (Higgins, 2003).

The rescue centre should be fully supported by either public or private funding, because sea turtles rehabilitation is expensive. If funding cannot be guaranteed, adequate care may be difficult to provide to the injured animals. The Centre should be considered a non-profit organisation and it should operate solely for the well-being, respect and protection of the sea turtles.

The care and rehabilitation of the sea turtle cannot ignore specific scientific competence. A centre should be either associated with a University or a Research Institute or should be under the direct supervision of external experts. The scientific qualification and experience of the Centre's staff is also a fundamental prerequisite.

The rescue centre should periodically hold training sessions for people who are willing to work to provide care for the animals and/or maintain the turtle rescue facilities.

It is widely believed that sea turtles are of robust constitution and are easy to care for since they are amongst the few aquatic organisms, which are able to survive unfavourable conditions and tolerate the effects of improper care for a long period. This is due to their particular physiology and, especially, to their low metabolism. Being ectothermic animals, all the vital functions of sea turtles are affected by external environmental temperatures (Mrosovsky, 1980; Spotila and Standora, 1985; Burggren et al. 1997). Low temperatures affect their immune system making them more susceptible to pathogenic infections. Other effects include poor food intake, slow digestive process and, above all, the inability to metabolise pharmaceutical drugs making them ineffective. In contrast, high temperatures result in hypothermic stress with negative consequences on metabolic functions (Glazebrook and Campbell, 1990; Zapata et al; 1992; Campbell, 1996; Whitaker and Krum, 1999). Consequently, the negative effects of improper care or non-specific medical prescriptions may only appear after a long time, when, unfortunately, it may be too late to save the turtle. (Warwick et al, 1995).

Sea turtles are sensitive to pain, and are not able to communicate their pain through sound. Therefore, it is necessary to administer anaesthesia for all operations and diagnostic testing, otherwise such cruelty can be considered a criminal offence and punishable by law. In the case of severely injured and suffering animals, sedatives should be administered (see. Jacobson, 1987; Mautino and Page, 1993; Jacobson, 1999).

Accidental capture and the consequent trauma, physical pain, improper transportation and unfavourable maintenance conditions (temperature, salinity, poor food and water quality and inadequate treatments) cause stress (George, 1996). In stressed sea turtles, the adrenal glands release corticosterone, which may reduce the turtles' humoral and/or cell-mediated defense mechanisms, thus, inhibiting the ability of the immune system to respond to infectious agents (Morris and Owens, 1982).

In brief, the creation of a sea turtle rescue centre in the Mediterranean is a valuable initiative. To avoid mistakes and negative consequences to the animals, it is essential that all sea turtle rescue centres should:

- Respect the common guidelines
- Operate solely for the well-being, respect and protection of the sea turtles
- Hold current permits from the proper authorities and undergo periodic inspections
- Be fully supported by public or private funding
- Have specific scientific competence
- Hold periodic training sessions

II. Organisation and Coordination of a sea turtles rescue network

A. Current Institutions Involved In The Recovery Of Stranded Sea Turtles In The Mediterranean

Currently, it cannot be said with certainty how many centres exist, in the Mediterranean, that provide care for stranded sea turtles. This attempt to list those organisations and institutions involved in sea turtles rescue is very subjective and has to be considered with care. Some of the institutions known to the author and listed also by Kasparek (2001), which are involved in the rescue of sea turtles, are named in the following list. This list, however, is not inclusive and should not be taken as the final list, but as an invitation to be completed with the names of those organisations, which were not mentioned.

Croatia:	Sea Turtle Rescue Centre Aquarium Pula Verudela
Greece:	ARCHELON - Sea Turtle Protection Society of Greece (STPS) Athens
	Hydrobiological Station of Rhodes
Libya:	Marine Biology Research Centre (MBRC) Tajura
Israel:	The Israeli Sea Turtle Rescue Centre.
Italy:	Stazione Zoologica Anton Dohrn Napoli
	Fondazione Cetacea Riccione
	Fondo Siciliano per la Natura (SWF) Comiso
	Centro Recupero Fauna Selvatica - Isola di Lampedusa
	Centro di recupero per le tartarughe marine di Linosa
Spain:	Acuicultura Ceuta, S.A. (Ceuta)
	Centro de Recuperación de Especies Marinas Amenazadas (CREMA) (Andalousia)
	Centro Veterinario y Recuperación de Especies "Equinac" (Andalousia)
	Centro de Recuperación de Fauna Salvaje del Parque Natural "El Valle" (Murcia Region)
	Instituto Cavanilles de Biodiversidad y Biología Evolutiva, Universidad de Valencia (Valencia Region)
	Centro de Recuperación y Estudio del Medio Natural "El Saler" (Valencia Region)
	Centro de Recuperación de Fauna Silvestre "Santa Faz" (Valencia Region)
	Aqualandia España, S.A. (Mundomar) (Valencia Region)
	Centre de Recuperació d'Animals Marins de Catalunya (CRAM) (Catalonia)
	Fundació Marineland-Palmitos (Balearic Islands)
Tunisia:	Station de Protection et de Soin des Tortues marines Monastir

B. Division and Definition of Rescue Centres and Emergency Centres

An initial step towards a Mediterranean sea turtles rescue network is proposed here by the separation of two types of turtle rehabilitation centres. The first type is a complex, well equipped and permanent structure while the other is a more simple,

less costly and temporary structure. The first type is hereafter termed rescue centre and the latter will be referred to as an Emergency Centre.

A Rescue Centre is a facility, set up according to the guidelines, that is required to perform comparable to a proper hospital, must be situated in a permanent structure and have the appropriate equipment and qualified personnel.

An Emergency Centre, follows the same general guidelines as the Rescue Centre, but is a simpler structure and has less specialised facilities. It can do simple procedures such as first aid treatments but for cases that are more difficult, it will transport animals to the connected Rescue Centre.

The considerable expenses involved in the creation and maintenance of a rescue centre will undoubtedly pose a limiting factor in establishing the ultimate number of centres in the Mediterranean area. Therefore, an ideal solution would be to construct two or three strategically positioned Rescue Centres in each country. In addition, a series of Emergency Centres should be created to support the Rescue Centres, thus significantly contributing to the prevention of the decline of sea turtles in our waters (Fig A). Both Rescue Centres and Emergency Centres should follow all national regulations as well as the technical and behavioural guidelines.

An important starting point, towards the realisation of a Mediterranean-wide rescue network, would be to hold a meeting between all organisations and institutions involved in sea turtle stranding programs. This meeting is essential, as it will determine the accurate number and location of each potential Emergency or Rescue Centre.

Knowledge of the neighbouring institutions is the base for the creation of collaboration on the national level, whereby communication between the Rescue Centres within each country is a fundamental prerequisite. The Rescue Centres could communicate on the Mediterranean level via an over-looking organisation which could serve as a international coordinator, such as, Regional Activity Centre for Specially Protected Areas, (RAC/SPA, Fig B).

Apart from the national and international organisation, the common base for all interventions of all centres should be the guidelines as proposed below.

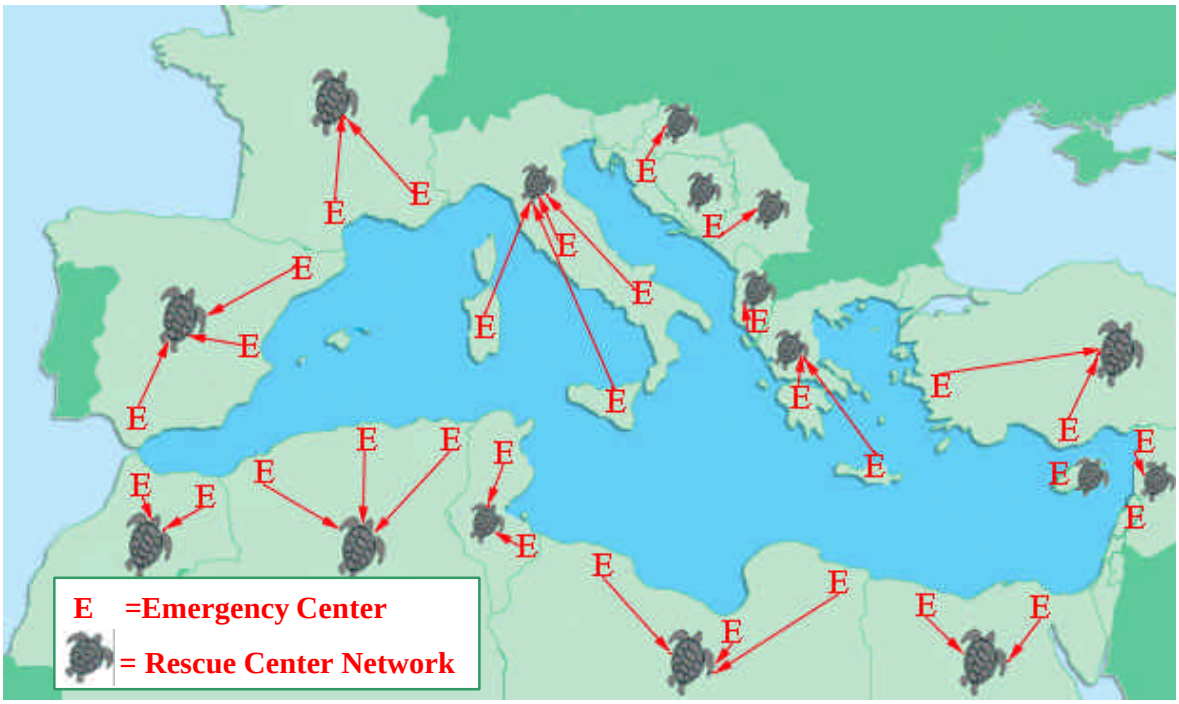

Fig. A Hypothetical distribution of Rescue and Emergency Centres

Fig. B Example of coordination of a Sea Turtle Rescue Network

III. Requisite Guidelines

A. Sea Turtle Rescue Centre

The sea turtles Rescue Centre should be structured and organised so as to carry out year-long activity. Its success will depend on: the type of equipment with which it is furnished and the methods used in the treatment and maintenance of the animals its shelters. Therefore, besides being operated by skilled staff with herpetologic experience, it should also have the following characteristics:

- the dimensions should not only be large enough to allow the predisposition of all the technical installations, but also the dimensions of the rooms and spaces to ensure proper functioning;

- the Centre's location should be easy to reach, preferably, within proximity of the coast;

- it should be closely linked with a University, a Scientific Institute or Research Centre; this would consent, when necessary, advice on what direction the scientific research should be carried out, the use of specific equipment, immediate diagnostic test results and the collaboration of a 'scientific advisor'.

From a functional point of view, the Centre should be equipped with standard fresh water, electrical, gas and telephone systems according to legal requirements, and an adequate seawater distribution circuit. If the building is near the sea, water circulation can either be open or semi-open, whereas, a closed water circulation system is required if the facility is far from the sea (Tab. I; a, b, c).

Thermostatic systems should be always present. Proper water filtration should be foreseen in both the semi-open and closed systems. An incinerator for the carcasses or a special convention with an authorised organisation are also necessary.

A rescue centre should include the following sections:

- Reception and Emergency
- Surgery Radiology
- Convalescent Pools
- Treatment Pools
- Kitchen
- Locker room and equipment storeroom
- Laboratory
- Post-mortem
- Secretariat

1. Reception and Emergency

These premises should have a wide entrance to facilitate the transportation of large containers. Animals that have been rescued will be registered in this area and then undergo initial diagnostic evaluation. It should therefore be furnished with basic equipment such as:
- 1 platform balance for medium to large-sized animals, 2-3 scales to weigh small-sized animals;
- 1 plastic, observation table whose characteristics are raised edges, a slanted surface and an opening in the centre of the table. The table should be connected to both fresh and seawater systems;
- 1 lamp (at least 100W) to illuminate the table.

2. Surgery

Surgical and endoscopic operations should be performed in this area. For these reasons, it should be separated from the other rooms to guarantee a sterile environment. This area should, at least, include:

- 1 operating table
- 1 lamp with 3 bulbs for the operating table
- a kit of surgical instruments
- autoclave with accessories to sterilise instruments
- endoscope
- laparoscope
- doppler ultra-sound

3. Radiology

In order to respect the current security regulations this area should be separated from the others. It must also be equipped with the proper radiographic equipment and a connecting room for X-ray development. Alternatively, provided they are not too distant, the Centre could use the services of other public or subsidised radiology departments in another facility.

4. Convalescent pools

Pools, functioning with seawater, which hold both active turtles and those no longer requiring topical treatment, should be placed in this area. This area should be well-lit. Both this area and the pools should be easy to clean and inspect. Roofing or shade-screening, over the pools, should be provided to minimise exposure to excessive heat and sunlight. It is, however, preferable to have air-conditioning to protect the animals from extreme temperatures. Young turtles may also benefit if half of the pool is fitted with a cover in order to permit them to hide, thereby, decreasing stress levels. The seawater that supplies the pools should be filtered if there is a closed or semi-open circulation system. Water quality should be controlled every day with special instruments in order to strictly respect the salinity and pH values of the Mediterranean. The pools should be supplied with a continuous circulation of water. Each pool should be equipped with one or two inflowing water faucets, a drainage hole in the upper portion and another drainage with a faucet on

the bottom. Furthermore, the edges of the pools should be smooth and rounded, with no inside protrusions. The materials should be seawater resistant, non-toxic and easily cleanable.

It is advisable to have pools of various dimensions to permit different-sized animals to move freely and come to the surface to breathe or remain at the bottom. The minimum furnishings should be as follows:

- 10 large pools (at least 1000 liters)
- 20 medium-sized pools (at least 500 liters)
- 20 small-sized pools (at least 200 liters)

5. Treatment pools

This space should be equipped with basins for the treatment of both animals kept, temporarily, without water for therapeutic reasons (e.g. pulmonary infections, open wounds) as well as those particularly debilitated or in post-operative lapse. This area should contain dry pools and shower boxes. The pools consist of different sized basins, preferably, made of plastic for easy and quick cleaning. Their bottoms should be lined with foam pads.
Shower boxes are pools with a bottom drain or containers fitted with both bottom drainage and a continuous water spray system to wet the turtle. This keeps the weak turtle wet and the water drainage protects it from drowning. The shower box should also have a foam pad lining the bottom.

6. Kitchen

This room is used for food storage and preparation. A sink with fresh water, a refrigerator, a freezer, a cupboard for containers, a worktable with a mixer, a scale, and a kit containing scissors, knives etc. should be supplied.

7. Locker room and equipment storage room

This area should be used by staff members who are obliged to change their clothes before entering or exiting the Centre. Consequently, a sufficient number of lockers and a shower should be found in this room. The storage room should stock the necessary aquariological equipment for the maintenance of the pools (tools, a provision of faucets, tubes, siphons etc....).

8. Laboratory

Depending on the research to be conducted, the laboratory should be furnished with the proper equipment. Fundamental equipment should include a worktable, a fan, a precision scale, microcentrifuge, binoculars, a microscope and a refrigerator to store medicinal drugs. Certain types of drugs should be stored in a locked cupboard with a stock book indicating the precise use of these drugs.

9. Post-mortem

This area should be isolated to prevent contamination of the other spaces and it should be furnished with both air suction and fresh water systems. The equipment required comprehends a dissection table with the same features as the observation table in the Reception - Emergency, a cupboard to store instruments, test tubes, containers etc.

At least one kit and a thermal bag for the transportation of specimens necessary to perform necropsies on beach-stranded turtles should be available at all times.

10. Secretariat

This area will be reserved for all administrative work in relation to the staff and the technical functioning of the Centre.
The secretariat will be in charge of public relations and the filing of dossiers, compiled for each sea turtle, to be made available to the designated authorities responsible for the welfare and protection of the animals. Furthermore, they are to manage the records pertinent to the reception and use of pharmaceutical drugs.
Telephones, faxes and computers are the equipment necessary for proper functioning.

B. Sea Turtle Emergency Centre

Despite the absence of proper pools and equipment, the Emergency Centre can house injured and debilitated turtles awaiting transportation to the nearest Rescue Centre. The Centre should, at least, have:

- a surgery to receive the animals and give first aid treatment. It should also be supplied with a table for physical check ups and a locker to store first-aid medicinal drugs;
- an air-conditioned or sheltered room, respecting hygienic norms, to house the animals;
- proper and different-sized, seawater proof containers.

The staff at the Emergency Centre is to strictly avoid taking autonomous initiatives and abide by the following indications during the various phases.

After rescue:

- ensure that the sea turtle receives maximum tranquillity, protect it from the curiosity of the crowd, avoid rough handling etc.;
- before transportation, keep the turtle in the shade in summer and shelter it from the cold in winter;
- pick the turtle up from the edges of the plastron and not the pinna;
- never place the hands in front of the mouth;
- use a stretcher made from soft plastic;
- place the turtle into the container in a plastron-down position;
- use plastic containers with no corners or protrusions on the inside and line the bottom with a foam pad or beach towel;
- the turtle is not to be transported in water ;
- in summer, moist towels can be placed over the carapace without obstructing breathing;
- in winter, the shell and skin should be coated with lanolin or Vaseline to prevent from drying;
- do not attempt to remove or pull nylon threads from the mouth or cloaca;
- do not transport in open vehicles in excessive heat or cold.

Arrival at the Emergency Centre:

- no flipper is to be tagged to prevent blood loss in anaemic animals;
- no surgical operation is to be performed e.g. removal of fishing hooks;
- do not give any type of medication except for local external treatment such as stopping hemorrhages, the disinfection of wounds and the removal of net shreds, petroleum, cords etc.;
- maintain the turtle in a sheltered, if possible, air- conditioned setting.

Awaiting transportation to the Rescue Centre:

- if the sea turtle does not have deep wounds and does not appear weak, it can be put into a pool with seawater. In this case, the same maintenance criteria indicated for the convalescence pools in the Rescue Centre are to be applied (see page 19);
- if the sea turtle is either injured, debilitated, immobile or fresh water replacement in the pools is not possible, it is best to keep it in a soft-bottomed pool with no water. This pool is to be situated in an air-conditioned environment to avoid extremely low or high temperatures. To prevent dehydration the turtle is to be covered with wet towels or coated with Vaseline.

IV. An outline of the problems most commonly found to affect sea turtles

Sea turtles are naturally affected by a variety of health problems such as parasitism. Within this context, such pathologies will not be evaluated as they are considered to be dependent on natural causes. Nevertheless, some animals presenting serious symptoms of debilitation could be infested by an excessive quantity of endoparasites. In similar cases, it would be opportune to subject them to specific therapy upon arrival at the Rescue Centre (Lauckner, 1985; Campbell, 1996).

Most sea turtle injuries are provoked by: impact with water craft, accidental capture in fishing gear and nets and unfavourable environmental factors including the effects of human activities. Consequently, the most common problems that they can manifest when rescued are:

Traumatic injury, ingestion of fishing hooks and mono- filaments, entanglement in fishing lines or nets, gastrointestinal obstruction, buoyancy disorders, emaciation, hypothermia, intoxication by petroleum products.

Traumatic injury can occur when boat propellers cut into the turtle or the impact of a boat hitting the turtle can cause internal injury. Injury can also be associated with fishing activities when turtles get caught in nets, knocked against the ship's deck, harpooned and injured by fishermen or entrapped in trawl nets.

Ingestion of fishing hooks can cause severe esophageal, stomach and intestinal lesions. The ingestion of mono-filaments contribute to severe intestinal lesions.

Entanglement of sea turtles in a variety of fishing gear, cables, plastic wastes and packaging string could impede the sea turtles from eating or surfacing for air. When rescued, some trapped turtles may be found in a comatose and anoxic state. Trailing debris could cause constriction of the neck and flipper and consequent amputation of the limbs, which could lead to death from infection.

Gastrointestinal obstruction is caused by the ingestion and accumulation in the digestive tract of non- biodegradable wastes thrown into the sea by man. Various types or pieces of material such as plastic, glass, metal etc. could easily be mistaken for food and accidentally ingested when foraging occurs in dirty areas. Gastrointestinal obstruction, likewise, could be caused by the accumulation of crustacean or shell in the intestine. It appears that this could be due to the ingestion of a considerable quantity of these invertebrates found in an area where there had been a concentration of shell refuse from trawl fishing.

Emaciation could be attributed to different causes: the most common are esophageal lesions caused by hooks, ingestion of anthropogenic debris, excessive presence of ectoparasites (leeches, barnacles) and endoparasites (protozoans, helminths). Sea turtles, appearing severely emaciated and debilitated, are often affected by digenetic trematode infestation. Digenetic trematode of the family Spirochiidae are common to the cardiovascular system of the sea turtle (Wolke et al.,

1982; Dailey et al., 1991). These cardiovascular flukes create multiple diffuse egg granulomas and vasculitis in most tissues. The liver, spleen and lungs are commonly affected by trematode-induced vasculitis, resulting in the marked debility of the affected sea turtles (Glazebrook et al., 1981; 1989). The diagnosis of trematode infestation is usually made by the histological examination of necropsy tissues.

Buoyancy disorders, characterised by the inability to normally float on the surface or submerge, are caused by the escape of air from the respiratory tract, usually, a result of trauma to the lungs where air becomes trapped in the coelomic cavity. Abnormal buoyancy may also result from excessive gas in the gastrointestinal tract, sometimes, provoked by an obstructive lesion.

Hypothermia occurs when a turtle is exposed to cold water for a period of time. As the core body temperature of the turtle drops, it is unable to function properly. Inshore populations of sea turtles are more susceptible to cold stunning because the water temperature can rapidly change in shallow waters (George, 1996). Sea turtles, affected by this condition, become inactive and vulnerable to any type of infection like those localised in the lungs caused by a bacterial or mycotic induced pneumonia (Lauckner, 1985).

Intoxication by petroleum products can affect sea turtles when they encounter waters that contain chemical pollutants such as petroleum products left by oil spills. These sea turtles may be covered with oil or tar and may also have ingested this material and suffer from toxicosis.

V. Evaluation of the causes of injury and first aid on sea turtles

The ill or injured sea turtle, immediately after being rescued, is to be taken to the Rescue Centre. If the Centre is too far or an immediate transfer is not possible to provide, the animal can be, temporarily, transported to the Emergency facility. The transport is to be carried out by the Emergency Centre's skilled staff members or by volunteers who have been, opportunely, trained on the handling of the animal (see page 11).

A preliminary evaluation, by means of an accurate observation, is to be made upon arrival at the Centre. This will indicate what measures are to be taken. As a general rule, the animal is not to undergo an operation or medical therapy until the blood test results are known. Upon arrival, an experienced staff member is to give the turtle an accurate eye examination.

The examination of the sea turtle is to begin by recording the animal's weight and measurements. Then an assessment of the animal's general conditions (good, normal, bad) is to be made. Oral cavity should be also examined to see ulceration or presence of mucoid exudates. Blood tests and X-rays are to follow. A personal file for each sea turtle is to be compiled (Tab. II). This file has to be updated daily with the treatments carried out and the results obtained.

A. Emaciated turtles

Underweight or malnourished turtles may exhibit the following characteristics. They lack muscle mass and fat tissues beneath the pinna. The skull appears to be prominent and the occipital is particularly protruding. The eyes may appear sunken, especially, when the head is elevated. The plastron may be sunken or appear indented in the centre and if skin ulcerations are present, they are a common indication of chronically debilitated animals. The bony spicules on the plastron may perforate the skin and become evident. The carapace is soft.
Ill turtles are, generally, covered with barnacles, worms and crabs. The presence of leeches on the skin, eyes, mouth and cloaca are further signs of a state of debilitation (Lauckner, 1985; Campbell, 1996).

Emaciated sea turtles, awaiting diagnostic testing, can be given an injection of Ringer's solution (15 ml x Intra coelomatic q 24h) (Stein, 1996). After the blood test results are obtained, the veterinarian will establish what fluid and dosage are to be administered (see: Campbell, 1996; Whitaker and Krum, 1999).

Animals that are too debilitated should be maintained out of water initially. In any case, before any sea turtle is placed in water the following conditions are to be evaluated. The animal should be able to raise its head to, at least, a 45° angle with respect to its body, move its fin in a coordinated manner and regulate its weight in a water column. The animals that do not require being kept in water can be placed in the treatment pools (page 9) and maintained according to the criteria previously elaborated (page 10).

Debilitated turtles or those covered with barnacles and marine algae should initially be placed in fresh water, maximum 24 hours (Campbell, 1996), which helps in the removal of marine organisms. Turtles that are active, showing no abnormalities and are free of barnacles, are to be kept in salt water with a salinity level equal to that of seawater which for the Mediterranean Sea is 37-38 g/liter.

B. Dehydrated turtles

A turtle's state of dehydration is established on the evaluation of haematocrytes and other blood test parameters. Nevertheless, other observations can be indicative to assess the level of dehydration, namely, turgidness of the skin, enophthalmos level, tearing, urine production and the creasing condition of the carapace and plastron (Whitaker and Krum, 1999).

No pharmacological treatment is to be prescribed before the test results are obtained. (Mader, 2002). Animals that are able to swim can be put into pools containing fresh water for 24 hours (Campbell, 1996).

C. Injured sea turtles

Most of the injuries affecting sea turtles are caused by the crashing impact with boats. The injuries mainly involve the head, carapace and the pinna. Each wound must be carefully examined to establish both the degree of extension and the depth. Fractures or lesions, present on hard body parts, are to be treated as soon as possible. Firstly, the sea turtle is to be freed of any debris, washed in hydrogen peroxide, a physiological solution or fresh water and disinfected with Betadine 5% (Frye, 1991). Animals with serious and extended cuts on the carapace should be maintained in a clean environment in pools without water (treatment pools) for a period from 2 to 6 weeks. This will ensure that the infections caused by pathogens in the water will be limited and will make the treatment more effective. The use of hard materials such as acrylic and fibreglass to seal fractures present on the carapace is not recommended as these materials delay the healing of the wound and because the debris can cause infection to the underlying soft tissues (Walsh, 1999). The wound is to be regularly medicated. The majority of traumatic wounds respond well to the Tegaderm technique (for the procedure see Campbell,1966; Walsh, 1999). After the blood test results are obtained, the veterinarian will prescribe, if necessary, an antibiotic. It should be noted that old wounds, apparently healed, could have caused internal damage. Phenomena such as 'increased buoyancy' due to spinal cord injury or 'debilitation' caused by dead bones and debris that have remained inside the animal are signs of internal damage.

D. Removal of fishing hooks and foreign bodies

Depending on their position in the digestive tract, foreign bodies and fishing hooks can either be removed by hand, with an endoscope or by means of a surgical operation. Fishing hooks that are in the stomach or intestine are very often expelled spontaneously after some times if they are not entangled to the tissues (experienced at the Rescue Centre of the SZN). At any rate, if the object or hook is found in the bottom portion of the digestive tract and the animal is active and eats and defecates regularly, it is advisable not to subject the animal to a surgical operation. Considering that a surgical operation could cause complications or negative consequences, it is to be performed only if, strictly, necessary. The staff, involved in such an operation, should be highly experienced in similar techniques and the anesthetic dosage to be given (Pokras,1992; Ross and Ross, 1999). With regards to anesthetics, it should be pointed out that injectable anesthetics like Ketamina and gassy ones like isofluoran should be used (see Bennet, 1996). A combination of the aforementioned anesthetics guarantees major success of the operation and prevents post-operative complications (George, 1996).

Before the operation, the sea turtle is to be kept on an empty stomach for two days and receive the proper antibiotics. Following the operation, that is to be performed in an adequate operating room and not in a haphazard setting, the animal is to be placed in a shower box in a 20°C. temperature-controlled environment until it is able to raise its head to breathe.

E. Buoyancy

A sea turtle affected by buoyancy disorders floats on the surface and cannot dive. The extreme posterior end of the carapace is often kept above the water surface.
Buoyancy disorders, not related to pathological factors (see page 12) but the result of air in the coelomic cavity caused by stress or trauma to the lungs, can regress spontaneously if the sea turtle is left peacefully in little water. Some can live in this state forever. However, they can no longer be released into their natural habitat. To help them compensate for abnormal buoyancy a belt, fitted with weights, can be applied (Campbell, 1996).

F. Cold stunning

'Cold stunning' phenomena, even if not documented, have been verified in the Mediterranean when water temperatures go below the average seasonal temperatures for fairly long periods. A recent case was recorded in southern Italy between the end of December, 2001 and the beginning of January, 2002 (Bentivegna et al. in press). These animals present symptoms of lethargy, hypothermia and other problems such as ischemic lesions on which bacteria and fungi thrive. The first remedy is to keep the turtles in a warm setting to raise body temperature and apply Vaseline to prevent dehydration. If they are able to remain in water, they should be maintained in seawater and brought slowly up to 25 C°. Blood tests will be necessary to determine the status of the animal. The lesions will be treated daily with Betadine 5% compresses. (Glazebrook and Campbell, 1990; Zapata et al, 1992; Campbell, 1966).

G. Intoxication by petroleum products

The external presence of petroleum or tar can be washed away with dish detergent or vegetable oils. Oral residues of similar products in the mouth can be broken down using organic fats such as mayonnaise. If ingestion is suspected, charcoal-containing compounds, like kaolin-pectin, may decrease the absorption of hydrocarbons responsible for organ damage. Additional supportive therapy such as fluids may be helpful (Campbell, 1966; Walsh, 1999).

H. Diagnostic Testing

The formulation of a correct diagnosis is necessary to conduct through testing. An eye examination should follow a blood test that takes note of complete blood count. A serum analysis should also be taken. Despite the costs of these tests, they are necessary to give a more accurate diagnosis and determine consequent treatment (George,1996, Campbell, 1996; Walsh,1999).

Hematologic/plasma chemistry parameters are expected to vary with age, sex, season, location, maturity and nutritional status of the turtle, however relatively few publications exist about the normal reference values in sea turtles. Therefore, it would be desirable for each Centre to develop a complete database about the variability of blood parameters analysed in order to obtain a full understanding of the blood profile (Jacobson, 1998).

Blood is taken from the supravertebral dorsal occipital venous sinus in the neck and the site is prepared with a disinfectant for venipuncture in a sterile ambient (Owens and Ruiz, 1980). Ideally, VACUTAINER® Blood Collection Tubes should be used instead of normal syringes as they are easier to handle (Esperienced by the staff of Rescue Centre of SZN).

An x-ray is essential. The radiograph is useful to evaluate the extent of external trauma, detection of foreign bodies, bone fracture, assessment of the health of the respiratory (for the methodology see Whitaker and Krum, 1999). The use of the ultrasound as a diagnostic tool is particularly well suited to evaluate soft tissues such as intestine, liver and kidneys (Whitaker and Krum, 1999). Doppler ultrasound is a useful and common method to detect blood flow and localise both arteries and venes (Hochsheild et al, 2002). In critical cases a Doppler flow detector can help to realise an arterial pulse, thus to confirm that a turtle is still alive.

The laparoscopy enables the clinician to perform an internal examination and conduct biopsies in sea turtles without having to resort to major surgery.

The endoscopy provides a non-surgical alternative for foreign body extraction and inspection of the stomach. Protection of the flexible endoscope is provided by passing it through a wooden-bite block or short-padded PVC pipe widget into the oral cavity. Heavy sedation is often required to carry out a complete and successful examination (Bentivegna et al., 1995; Whitaker and Krum, 1999).

Microbiological testing is also required to establish if the origin of a lesion is mycotic or bacterial. It is also useful to diagnose a septicaemia or check for parasites in the feces (Mader, 2002).

VI. Maintenance of the sea turtles in a convalescent pool

The water temperature in convalescent pools should be maintained between 18°C to 26°C. Water temperatures should be kept stable and a weekly physiological-chemical evaluation (pH, salinity, nitrites, nitrates, ammonia) should be made during treatment.

The pools should be supplied with natural water preferably taken directly from the sea.

A seawater distribution circuit could either be open or semi-open. If the system is open and the area from which the water is taken is not polluted, a filter is not required as the water discharged will not be reused. In this type of system an accumulation basin to decant and thermostabilise the seawater, after taking it from the sea, is necessary (Tab I, a).

The semi-open system, like the open one, also necessitates a decanting basin and thermostat and filtration systems. In fact, some of the water discharged from the pools will return to the same pools after having been filtered (Tab I, c).

If the continuous use of seawater is not feasible a closed system will be adopted. In this case, effective thermostat and filtration systems to guarantee water quality will be required. The system can be centralized (Tab I, b) or separate for each pool.

In pools of, at least, 1000 litre capacity, the entering and exiting water flows will be regulated to ensure total water replacement 3 to 4 times every 12 hours, whereas, in pools, characterised by an inferior volume capacity, water replacement should occur 7 to 8 times every 12 hours.

The sea turtle is, tendentiously, a solitary animal. In a confined environment, it has great difficulty in managing to share the same pool without displaying aggressive behavior (Bentivegna and Cirino, 1987).

In spite of this aspect of the sea turtle's nature, the animal is to be housed in the Rescue Centre in isolated tanks for hygienic reasons. To reduce the risk of contagion each pool should have its own cleaning equipment (abrasive cloth, sponges, siphons, etc.).

The staff, responsible for the care of the animals, have to learn to respect some hygienic norms such as washing their hands with a disinfectant or, better still, wearing disposable gloves after having handled an animal in a tank.

Sea turtles dirty the water a lot, especially, after eating. The dirty water could worsen their general health conditions as it could cause eye inflammation and it could favour or increase the mycotic and bacterial proliferation on wounds and lesions.

It is indispensable that the tanks are regularly cleaned, even twice a day, above all, after the animals have eaten and defecated. If the water is quite clean this operation can be carried out by partially draining the tank and with a siphon proceed to the removal of debris on the bottom. However, if the water is quite dirty and milky, it should be completely drained. In any case, the tanks should be drained completely every two days and rinsed accurately with fresh water and then seawater. If the sea turtle is kept in the tank during the cleaning, the work should be quickly and delicately done in order not to stress the sea turtle too much.

Tank disinfection should occur once a week, using the following procedure:

- drain the tank and remove the turtle positioning it in a basin lined with a foam pad;
- accurately rinse and clean the walls and bottom of the tank with fresh water;
- rub the tank walls and bottom with its own sponge soaked in a Betadine solution
- (5 ml x 100 ml fresh water);
- let the solution stand for 30 minutes;
- rinse the tank thoroughly with fresh water, carefully eliminating any residue of the disinfectant solution;
- fill the tank with seawater and reposition the turtle when the water level is at least 20 cm;
- Moreover, once a month cleaning of the water supply pipes should be carried out to prevent possible incrustation from polluting the inflowing water. Sponges, brushes and a lot of fresh water are needed to clean the tubes.

Turtles require natural sunlight. Direct sunlight may provide certain benefits not available to sea turtles housed indoors in an artificial light setting. Full-spectrum artificial lighting that provides ultraviolet (UV) A, UV B, and infrared light may benefit sea turtles specially youngs when natural sunlight is unavailable. Weekly sunbathing is advisable when natural light is unavailable (Mader, personal communication). A regulated stable photoperiod, respecting the light and darkness rythms of the seasons, should be provided. Conditions of closely- positioned constant lighting are unnatural for turtles and likely to act as low-level chronic stressors. For general considerations on lighting see: Boyer and Boyer, 1996; Gehrmann, 1996.

During convalescence, the turtle should be correctly fed with a balanced diet that ensures the proper daily intake of protein, fat, moisture, carbohydrates, vitamins and minerals. The scientific literature can provide several examples of a correct dietary plan for the sea turtle (Stickney et al., 1973; Choromanski et al., 1987; Donoghue and Langenberg, 1996). The amount of food may vary with each turtle (Whitaker and Krum, 1999). The feeding strategy is generally to provide approximately 7% of the turtle's body weight in grams of food per day (Cambell, 1996). Weight gains and losses can be used as a guide for dietary management. For turtles that have undergone surgery or have serious injury, the food should be broken down into small pieces to make it more digestible. Fish such as anchovies and mackerel are highly recommended in these cases. Clams and squid should be avoided, as they are difficult to digest. Lettuce can be given to both omnivorous and herbivorous turtles.

If frozen fish is given, make sure it has not been conserved for more than 4 months. In the aforementioned case add vitamin supplements prescribed by the veterinarian (Whitaker and Krum, 1999).

Dehydrated turtles or those suffering from hypoglycemia require injections of physiological solutions directly into the coelomic cavity (prescribed by veterinarian). Forced feeding with a tube is quite a delicate procedure that requires experience (see Campbell, 1996; Walsh, 1999; Whitaker, 1999 for food components and procedure).

During convalescence, blood tests, weight variation, capacity to swim and surface and feces testing for the presence of parasites should be monitored. The data should be recorded daily on a personal file to assess the turtle's conditions.

V. Phase preceding release

The main focus and final step of the rehabilitation process is releasing the turtle into its natural environment. The successful treatment of traumatic problems should ensure adequate health and the turtle's consequent release. Therefore, an absolute requirement for the turtle's release is complete recovery and good health (Bentivegna, 2001).

So, before proceeding with this final phase, besides medical and regular growth evaluation, the following steps should be carried out:

- transfer the turtle to the largest pool;
- acclimatise to the seawater temperatures in the release area;
- feed with live prey to reinforce hunting instinct;
- observe for swimming and diving capacities.

In correlation with the points mentioned above, the site, period and method of release are to be established according to the following criteria:

- the release site should not be far from the location where the animal was found and it should not be too anthropic;
- water temperature should be at least 16-17 °C; although the optimum temperature is 18 °C;
- release should occur from a boat or from the shore.

The sea turtle should be tagged with an ID before being released. It is recommended that there be only one standard ID tag type and model for all turtles released into the Mediterranean. The œuntry and rescue centre codes, progressive ID number assigned to each animal, address and the phone number of the Central Organisation (i.e. RAC/SPA) should be indicated on the tag.

To evaluate the success of the methods utilized in the care and rehabilitation of severely injured animals, the Rescue Centre should set up a monitoring programme, respecting the guidelines formulated by the IUCN (1988), to verify the health conditions and the survival of these animals.

VII. Other function of a rescue centre

A. Awareness programme

The majority of sea turtles, accidentally captured or sighted in difficulty, require care and an observation period in the Rescue Centre. Therefore, the authorities responsible for patrolling the coastline and waters, fishermen and citizens should be made aware of the existence of the Rescue Centre and contact the centre when necessary. With this objective in view, the centre should organise the distribution of didactic and informative material. A brief 'vademecum', featuring clear behavioural indications to assume in the presence of an injured sea turtle, should be given to the harbour office, coastal guard, diving and tourist centres etc. Fishermen could be supplied with a more detailed first-aid pamphlet with pictures illustrating how to reanimate a sea turtle caught in a net and the preliminary care to be given as they bring it to shore.

This awareness campaign should get support from the mass media that has a greater potential to reach the public at large. Considering the charisma that the sea turtle exerts on the public this should not be too difficult to achieve.

An educational policy promoted by articles, newspapers, seminars, conferences, school, university and social centre meetings could be facilitated by establishing a territorial cooperation network. Scientific institutions and centres, together with, wildlife associations, students and volunteers could ensure a prompt rescue of sea turtle specimens, even in locations, distant from the Centre.

Finally, an area in the Centre, destined to educating the public, could be supplied with didactic tools (computer, video, poster, books etc...).

The centre can also set up pools and aquariums exhibiting sea turtles that can no longer be released into their natural habitat owing to their injuries. These initiatives are not only valuable from an educational point of view but also incisive as a conservation message.

B. research

The sea turtles treated in a Rescue Centre represent a biological sample that would be hard for scientists in a different context to obtain, due to the logistical difficulties involved in long-term sampling of such a migratory, solitary and wild marine population. For these reasons those involved in the protection of sea turtles both in marine and nesting habitats should be encouraged to routinely collect material, in order to avoid the loss of valuable scientific information. The absence of an ongoing project should not have to prevent these collections as they can be made with limited resources and until new questions or opportunities for the analysis develop, the samples can be stored. A Rescue Centre can be involved in genetic, biochemical or even histological research projects.

Genetic study is increasingly being used to study the biology and conservation of sea turtles (Norman et al., 1994; Bowen et al., 1993) as, in fact, the management of a sea turtle population is based on the identification of genetically and demographically discrete stocks over the vast geographical range occupied by turtles throughout their lifetime. Knowledge of the distribution, migratory routes, and stock composition is vital to set a good management and conservation strategy, improving the understanding of some of the fundamental aspects of the biology and ecology of the sea turtle populations. The "mark and recapture" studies have been used to obtain this, however the small sample size and difficulties involved in carrying out a tagging program in all the nesting habitats, such as the ability to mark all the individuals in a population, as well as the problem of chronic tag loss prevent a full understanding of the population dynamics of these species (Laurent et al., 1998). For conservation management it is extremely important to have some molecular markers enabling the identification of the individuals treated in a Rescue Centre with respect to their origin.

For genetic study it would be possible to collect blood and tissue. For the collection of blood from live sea turtles see page 17.

Small muscle pieces provide a simple and inexpensive way to obtain samples for genetic studies from dead animals (Norman et al., 1994). This tissue is preferable to other internal organ tissue such as kidney, liver and heart as the presence of enzymes in these tissues will cause a rapid degradation of DNA following death. Muscle tissue, however, is stable for long periods of time although this does depend on the environmental conditions, and fresher samples are preferable.

Preservation and storage of blood and tissue samples are found in Bowen et al., 1994; Encalada et al., 1998; Amos and Hoelzel, 1991.

Evaluation of the Ecotoxicological Risk to Xenobiotic in Sea Turtle Tissue. Sea turtles have a long life span, and are carnivorous during at least one phase of their life cycle. They have a coastal foranging habitat, except for Dermochelys coriacea which feed on macroplancton and are pelagic throughout their lifetime. These animals, therefore, similarly to marine mammals and seabirds, have the potential to bioaccumulate chemical pollutants such as heavy metals and organic compounds which could play an important role in the decline of sea turtles, affecting both their mortality and fertility. Unfortunately, despite the numerous studies that have been carried out on marine mammals and seabirds, data on bioaccumulation and the toxic effects of persistent chemicals in marine turtles is very limited. Moreover, even if a rescue centre is not supposed to be equipped to carry out chemical analyses, it should still be involved in the collection of the samples. It is, in fact, extremely important that the analyses be performed on very fresh tissues to avoid the loss of the contaminants or a change in the chemical forms and distribution of the pollutant, which are often very difficult to obtain. Alongside and during its normal activities a rescue Centre should be prepared to select those animals that have recently died, collect and store the tissue for future study and evaluation of the hazards caused by the persistent pollutant. This can provide a baseline for future comparisons within

different areas or between different turtle species, and the ability to assess, which chemical compounds are potentially harmful to these species.

Muscle, liver, kidney, lung, testis or ovary, pancreas, spleen, and brain tissues should be collected in a minimum quantity of 20 g and stored in zip lock plastic bags to prevent any contamination. The samples can then be frozen at - 20 °C and stored for several years until the chemical analysis is completed.

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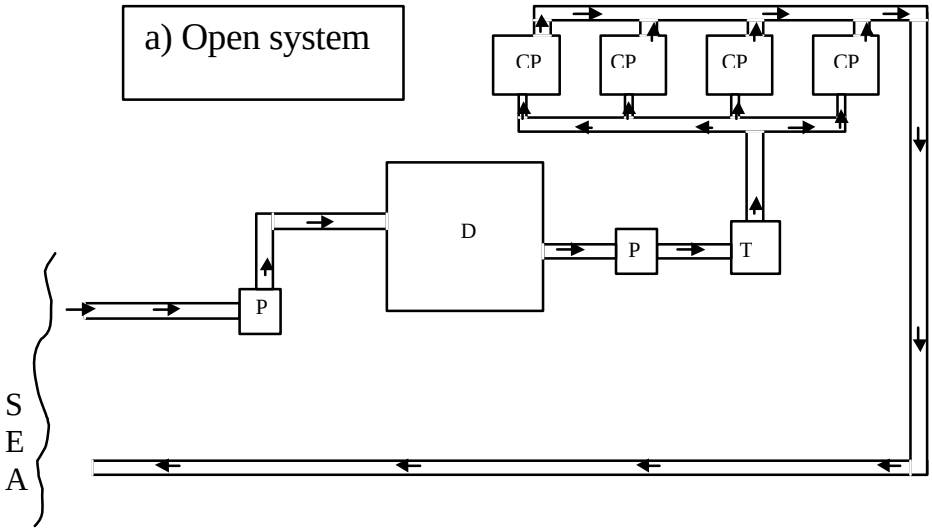
TABLE I

a) Open system



P = Pump

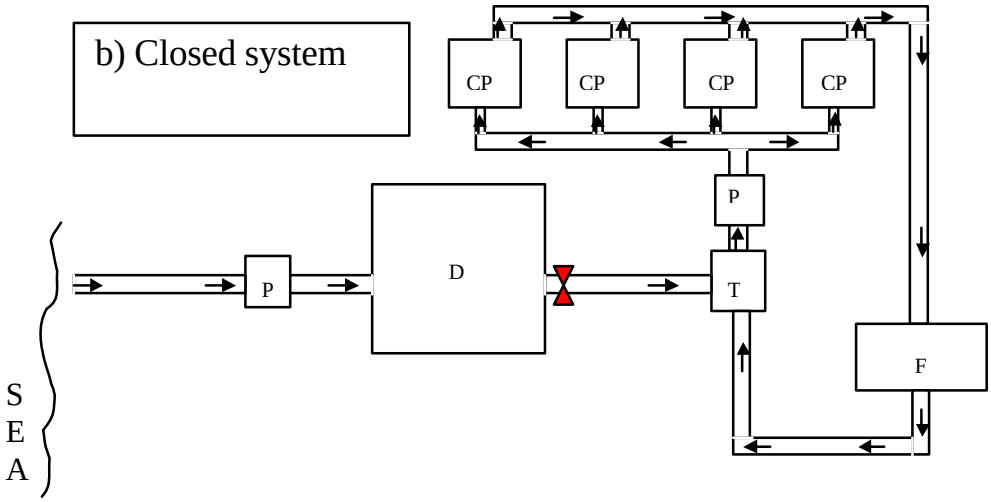
D = Decantation Tank

F = Filter

T = Temperature Control

CP = Convalescence Pools

b) Closed system



c) Semi-Open system

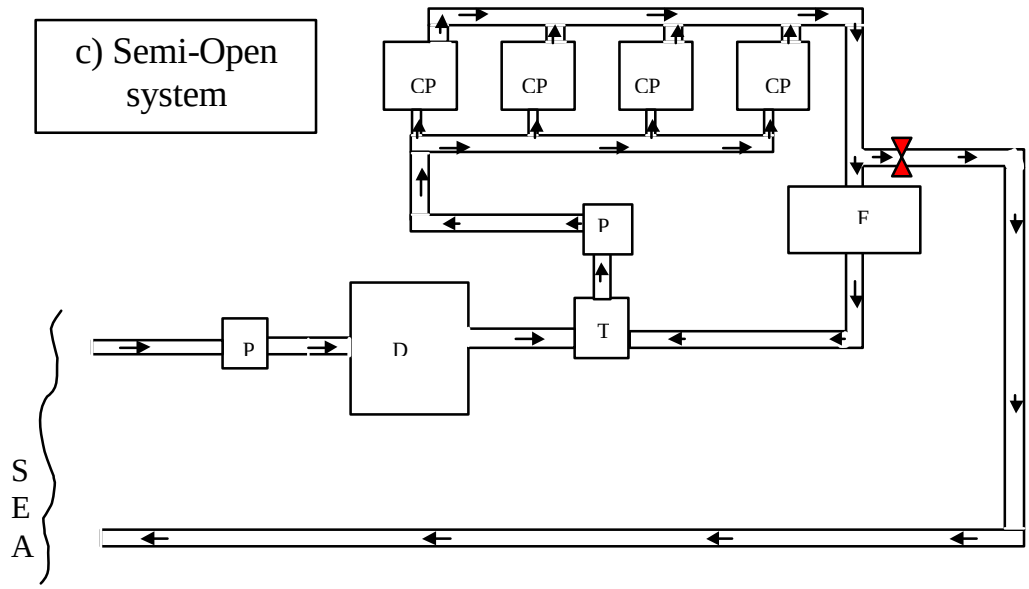


TABLE II

Name or Tag Number_____

Species_____ Date of arrival:____/____/_____

Location
_____
___

Weight _____

Size: SCL_____ SCW_____ CCL_____ CCW_____

Condition at arrival:
_____
_____
_____
_____

Case History:
_____
_____
_____
_____
_____
_____
_____

ANNEX IX
DRAFT CLASSIFICATION OF COASTAL (TERRESTRIAL AND WETLAND) HABITAT TYPES FOR THE MEDITERRANEAN REGION

FORWARD

At their Tenth Ordinary Meeting (Tunis, 18-21 November 1997), the Contracting Parties to the Convention for the Protection of the Mediterranean Sea against Pollution adopted common criteria for preparing national inventories of natural sites of conservation interest. The criteria provide for drawing up a reference list of marine and coastal natural habitat types on the basis of a model classification to be established by the Regional Activity Centre for Specially Protected Areas (RAC/SPA).

Within this context and with a view to assisting the Contracting Parties to compile inventories of natural sites of conservation interest, RAC/SPA has, in collaboration with experts from the Mediterranean countries and the concerned international organisations, elaborated the following technical tools: (i) the Standard Data-Entry Form (SDF) for national inventories of natural sites of conservation interest, (ii) a classification of Mediterranean marine habitat types, (iii) a reference list of Mediterranean marine habitat types and (iv) a reference list of species.

After working on the technical tools related to the marine environment, RAC/SPA was requested by the Contracting Parties to complete these technical tools with a view to also covering terrestrial coastal environments.

A Meeting of Experts on coastal (terrestrial and wetlands) habitat types in the Mediterranean region (Montpellier, France, 1-3 November 2001) was held to define a reference classification of coastal (terrestrial and wetland) habitat types for the Mediterranean region and to draw up a list of Mediterranean coastal (terrestrial and wetland) habitat types of conservation interest.

As agreed by the above mentioned meeting, a working group including Mediterranean experts and MedWet representative meet in Tunisia from 12 to 13 April 2003 to work on practical modes of simultaneous application of the two systems to inventory the Mediterranean coastal sites containing wetlands, and furthering the MedWet typology concerning marine areas to take into account the classification of marine habitat types adopted within the MAP framework.

The Meeting's work on this item led to a version of Draft Classification of coastal (terrestrial and wetland) habitat types for the Mediterranean region and Draft Reference List of Mediterranean coastal (terrestrial and wetland) habitat types of conservation interest. This new versions appears below.

Draft Classification of coastal (terrestrial and wetland) habitat types for the Mediterranean region

(as harmonized with MedWet habitat classification and adopted by the sixth meeting of Focal Point Meeting)

PROPOSED CLASSIFICATION OF COASTAL MEDITERRANEAN HABITAT TYPES WITH EQUIVALENT CODES

(New code, code, Palearctic codes and MedWet codes)

New Code	Habitats	Palearctic Code	MedWet Code Notes (dominant factors)
I	**COASTAL AND HALOPHYTIC COMMUNITIES**	1	
I.1	**SALTMARSHES, SALT STEPPES, SALT SCRUBS**	15	E-EP-- P-EP--
I.1.1	**Annual salt pioneer swards**	15.1	E-EPGB
I.1.1.1	Glasswort swards	15.11	E-EPGB/S *Thero-Salicornietea*
I.1.1.2	Mediterranean halo-nitrophilous pioneer communities	15.12	E-EPGB/F *Frankenietea*
I.1.2	**Perennial salt pioneer swards**	15.2	E-EPRB
I.1.2.1	Flat-leaved cordgrass (*Spartina*) swards	15.21	E-EPRB/M *Spartina maritima*
I.1.2.2	Rush-leaved cordgrass (*Spartina*) swards	15.22	E-EPRB/D *Spartina densiflora*
I.1.3	**Mediterranean and thermo-Atlantic salt meadows**	15.5	E-EPAB E-EPRB E-EPUB
I.1.3.1	Mediterranean tall rush saltmarshes	15.51	E-EPAB
I.1.3.2	Mediterranean short rush, sedge, barley, clover salt meadows	15.52	E-EPUB/T *Trifolion maritimi*
I.1.3.3	Mediterranean halo-psammophile meadows	15.53	E-EPRB/P *Plantaginion crassifoliae*
I.1.3.4	Mediterranean saltmarsh grass swards	15.55	E-EPUB/P *Puccinellion festuciformis*
I.1.3.5	Mediterranean saltmarsh driftlines	15.56	E-EPUB/S *Thero-Suaedetalia*
I.1.3.6	Mediterranean saltmarsh couch-wormwood stands	15.57	NW
I.1.3.7	Mediterranean fine-leaved rush beds	15.58	E-EPRB/J *Juncus subulatus*
I.1.4	**Mediterraneo-nemoral saltmarsh scrubs**	15.6	E-EP--
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I.1.4.2	Mediterranean *Limoniastrum* scrubs	15.63	E-EPU-/L *Limoniastrum monopetalium*
I.1.5	**Mediterraneo-Canarian xero-halophile scrubs**	15.7	
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I.1.6	**Mediterranean salt steppes**	15.8	P-EPU-/-
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IV.3.2	**Mixed oak-elm-ash forests of great rivers**	44.4	P-FDTF/U (>6 m) P-UDTF/U (<6m) *Ulmenion minoris*
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V.1.1.7	Halophile clubrush beds	53.17	P-EP-B/M *Scirpion maritimi*
V.1.2	**Large sedge communities**	53.2	P-EP-F
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V.1.3	**Fen-sedge beds**	53.3	P-EP-F/D *Cladium mariscus*
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VIII.2	**Coastal traditional agro-ecosystem habitats**		
VIII.3	**Sacred site habitats with biological features of interest**		
VIII.4	**Other non-natural habitats**		
VIII.4.1	Salinas		E-O-AH
VIII.4.2	Littoral water-retaining facilities		L-O-PF/A *artificiel*
VIII.4.3	Artificial islets and beaches		
VIII.4.4	Extensive or semi-intensive fish farms		E-O-A- *artificiel*
VIII.4.5	Decommissioned extraction sites.		
VIII.4.6	Historic gardens or reserves used as recreational areas		

Draft Reference List of Habitat Types for the Selection of Sites to be included in the National Inventories of Natural Sites of Conservation Interest

(AS harmonized with other habitats classifications)

COASTAL TERRESTRIAL HABITAT TYPES
(New codification, Palearctic codes and MedWet codes)

New codification	Habitats	Palearctic Code	MedWet Code Notes (dominant factors)
I	**COASTAL AND HALOPHYTIC COMMUNITIES**	1	
I.1	**SALTMARSHES, SALT STEPPES, SALT SCRUBS**	15	E-EP-- P-EP--
I.1.1	**Annual salt pioneer swards**	15.1	E-EPGB
I.1.1.1	Glasswort swards	15.11	E-EPGB/S *Thero-Salicornietea*
I.1.1.2	Mediterranean halo-nitrophilous pioneer communities	15.12	E-EPGB/F *Frankenietea*
I.1.2	**Perennial salt pioneer swards**	15.2	E-EPRB
I.1.2.1	Flat-leaved cordgrass (*Spartina*) swards	15.21	E-EPRB/M *Spartina maritima*
I.1.2.2	Rush-leaved cordgrass (*Spartina*) swards	15.22	E-EPRB/D *Spartina densiflora*
I.1.3	**Mediterranean and thermo-Atlantic salt meadows**	15.5	E-EPAB E-EPRB E-EPUB
I.1.3.1	Mediterranean tall rush saltmarshes	15.51	E-EPAB
I.1.3.2	Mediterranean short rush, sedge, barley, clover salt meadows	15.52	E-EPUB/T *Trifolion maritimi*
I.1.3.3	Mediterranean halo-psammophile meadows	15.53	E-EPRB/P *Plantaginion crassifoliae*
I.1.3.4	Mediterranean saltmarsh grass swards	15.55	E-EPUB/P *Puccinellion festuciformis*
I.1.3.5	Mediterranean saltmarsh driftlines	15.56	E-EPUB/S *Thero-Suaedetalia*
I.1.3.6	Mediterranean saltmarsh couch-wormwood stands	15.57	
I.1.3.7	Mediterranean fine-leaved rush beds	15.58	E-EPRB/J *Juncus subulatus*
I.1.4	**Mediterraneo-nemoral saltmarsh scrubs**	15.6	E-EP--
I.1.4.1	Mediterranean saltmarsh scrubs	15.61	E-EP--
I.1.4.2	Mediterranean *Limoniastrum* scrubs	15.63	E-EPU-/L *Limoniastrum monopetalium*
I.1.5	**Mediterraneo-Canarian xero-halophile scrubs**	15.7	
I.1.5.1	Mediterranean halo-nitrophilous scrubs	15.72	
I.1.6	**Mediterranean salt steppes**	15.8	P-EPU-/-
I.1.6.1	Mediterranean sea-lavender salt steppes	15.81	P-EPU-/L *Limonium spp*
I.1.6.2	Mediterranean esparto salt steppes	15.82	
I.1.7	**Mediterranean gypsum scrubs**	15.9	
I.1.7.1	South-eastern Iberian gypsum scrubs	15.93	
I.1.7.2	Afro-Mediterranean gypsum scrubs	15.94	
I.1.8	**Saharo-Sindian saltmarshes**	15.C	
I.1.8.1	Northern Sinai saltmarshes	15.C1	

I.2	**COASTAL SAND DUNES AND SAND BEACHES**	16	M-SS-S P-----
I.2.1	**Sand beaches**	16.1	M-SS-S
I.2.1.1	Unvegetated sand beaches and microbial mats	16.11	M-SS-S
I.2.1.2	Sand beach driftline communities	16.12	
I.2.1.3	Saharo-Sindian sand beach communities	16.14	
I.2.2	**Dunes**	16.2	
I.2.2.1	Shifting dunes	16.21	
I.2.2.1.1	Embryonic dunes	16.211	
I.2.2.1.1.1	Western Tethyan embryonic dunes	16.2112	
I.2.2.1.1.1.1	Western Tethyan sand couch dunes	16.21121	
I.2.2.1.1.1.2	Western Tethyan *Sporobolus* dunes	16.21122	
I.2.2.1.1.1.3	East Mediterranean embryonic dunes	16.21123	
I.2.2.1.2	White dunes	16.212	
I.2.2.1.2.1	Western Tethyan white dunes	16.2122	
I.2.2.1.2.1.1	Mediterraneo-Atlantic marram grass dunes	16.21221	
I.2.2.1.2.1.2	Northern Mediterranean marram grass dunes	16.21222	
I.2.2.1.2.1.3	Cyrno-Sardinian marram grass dunes	16.21223	
I.2.2.1.2.1.4	Aegean white dunes	16.21224	
I.2.2.1.2.1.5	Southeastern Mediterranean white dunes	16.21225	
I.2.2.2	Fixed dunes (Grey dunes)	16.22	
I.2.2.2.1	Mediterraneo-Atlantic grey dune communities	16.223	
I.2.2.2.1.1	Tyrrhenian *Crucianella* communities	16.2232	
I.2.2.2.1.2	Southwestern Mediterranean *Crucianella* communities	16.2233	
I.2.2.2.2	East Mediterranean grey dune communities	16.224	
I.2.2.2.2.1	Adriatic grey dunes	16.2241	
I.2.2.2.2.2	Eastern Ionian *Ephedra* dune communities	16.2242	
I.2.2.2.2.3	Aegean *Ephedra* dune communities	16.2243	
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I.2.2.2.2.4.1	Southeastern Mediterranean *Ononis* dune communities	16.22441	
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I.2.2.2.2.4.3	Southeastern Mediterranean tall cane dune communities	16.22443	
I.2.2.2.2.4.4	Southeastern Mediterranean *Nitraria* dunes	16.22444	
I.2.2.2.2.4.5	Southeastern Mediterranean *Juncus* dune communities		
I.2.2.2.2.4.6	Southeastern Mediterranean *Inula* dune communities		
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I.2.2.2.4	Tethyan dune deep sand therophyte communities	16.228	

I.2.2.2.4.1	Mediterraneo-Atlantic dune malcolmia communities	16.2281	
I.2.2.2.5	Dune Mediterranean xeric grasslands	16.229	
I.2.2.3	Dune nemoral thickets	16.25	
I.2.2.3.1	Western nemoral mixed dune thickets	16.252	
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I.2.2.4.1	Dune prickly juniper thickets	16.271	
I.2.2.4.2	Lycian juniper thickets	16.272	
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I.2.2.5.1	Dune sclerophyllous retam brushes	16.281	
I.2.2.5.2	Dune sclerophyllous thickets	16.282	
I.2.2.5.3	Dune sclerophyllous low scrubs	16.283	
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I.2.3.2	Dune-slack pioneer swards	16.32	P-EP-F/B *Juncenion bufonii*
I.2.3.3	Dune-slack fens	16.33	P-EPUF/F *Dune-slack fens*
I.2.3.4	Dune-slack grasslands and heaths	16.34	
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I.4.2.1	Tethyan sea-cliff communities	18.22	M-SR-S/V
I.4.2.2	Western Tethyan sea-cliff communities	18.221	M-SR-S/V
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II.1.1.2	Eutrophic waterbodies	22.13	L-O-PF/E P-O-PF/E *Eutrophic*
II.1.1.3	Dystrophic waterbodies	22.14	L-O-PF/D P-O-PF/D *Dystrophic*
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II.1.2.2	Eutrophic temporary waterbodies	22.23	P-O-PF/U *Eutrophic temporary*
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II.1.4.2	Rooted submerged vegetation	22.42	P-AZ-F LLAZ-F
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II.2.4.1	Mediterranean river mud communities	24.53	
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III.2.1	**Arborescent matorral**	32.1	
III.2.1.2	Olive and lentisc matorral	32.12	
III.2.1.2.1	*Oleo-Lentiscetum* matorral with carob tree		
III.2.1.2.2	*Oleo-Lentiscetum* matorral without carob tree		
III.2.1.3	Juniper matorral	32.13	
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III.2.1.3.2	*Juniperus phoenicea* arborescent matorral	32.132	
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III.2.1.5	Arbor-vitae matorral	32.15	
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V.1.1.1	Common reed beds	53.11	P-EP--/P *Phragmytes australis*
V.1.1.2	Common clubrush beds	53.12	P-EP--/R *Scirpus lacustris*
V.1.1.3	Reedmace beds	53.13	P-EP--/T *Typha spp*
V.1.1.4	Medium-tall waterside communities	53.14	P-EP--/O *Oenanthion aquaticae*
V.1.1.5	Water-fringe grass beds	53.15	P-EP--/G *Glyceria + Leersia*

V.1.1.6	Reed canary-grass beds	53.16	P-EP--/A *Phalaris arundinacea*
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V.1.2.1	Large *Carex* beds	53.21	P-EP-F/C *Carex spp*
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V.1.6	**Riparian cane formations**	53.6	P-EPUF
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ANNEX X
DRAFT MEDITERRANEAN INITIATIVE ON TAXONOMY

FOREWORD

In accordance with the recommendations of the Twelfth ordinary meeting of the Contracting Parties (Monaco, November 2001), RAC/ASP prepared a Draft Mediterranean Initiative on Taxonomy.

This Draft Initiative was elaborated in collaboration with an ad hoc group of experts that met in Tunis from the 3rd to the 5th of April 2003.

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DRAFT MEDITERRANEAN INITIATIVE ON TAXONOMY

Preamble

During the Fifth Meeting of National Focal Points for SPAs (Valencia 23-26 April 2001), those taking part in the working group entrusted with examining the issue of the Mediterranean Initiative on Taxonomy (Work Group 3) stressed the importance of taxonomy for adequate knowledge of the constituent elements of taxonomy and for implementing assessment methods, and made a number of recommendations to be integrated in a Mediterranean strategy that should take other initiatives, particularly the world taxonomy initiative undertaken in the CBD context, into account.

Reviewing the taxonomy situation in the participants' countries, the work group highlighted the following main points:
In reviewing the situation of taxonomy in participants' countries, the Working Group identified the following points:

- The number of taxonomists is declining in the majority of the countries of the region. This is due to the fact that taxonomy does not number among the priorities set for research, and students are no longer drawn by this discipline;

- Authorities dealing with conservation of biodiversity call upon universities and researchers to assist them in taxonomy. The implementation of conservation programmes will be affected by the lack of taxonomists in the medium term if adequate measures are not taken;

- Natural history museums play an important role in taxonomy and in the maintenance of reference collections.

Based on the above items and in view to compensate for the gaps highlighted by those items, the working group put forward the following recommendations:

1. Invite the Contracting Parties to attach greater importance to taxonomy and to strive to increase the number of specialists in Mediterranean taxonomy;

2. Compile an inventory of taxonomy specialists in Mediterranean countries for those taxons that are important for the implementation of the SPA Protocol;

3. Prepare an inventory of laboratories with marine taxonomic competence, the capacities at their disposal, and their possibility of taking on students for training in taxonomy. The inventory should also encompass specialized scientific societies (e.g. societies for herpetology, ichthyology, etc.);

4. Identify the urgent needs of countries in the field of taxonomy;

5. Launch programmes to train taxonomists and to provide study grants and other means to encourage students to specialize in taxonomy. In this way, the bilateral cooperation mechanisms could be put to use;

6. Given the important role of reference collections in taxonomic work, it is important to carry out a study of the situation of reference collections of Mediterranean marine species. This study should lead to a programme for their development, continuance and networking as tools to support taxonomic work;

7. Promote the organization of thematic workshops on taxonomy to allow exchanges between Mediterranean taxonomists;

8. Elaborate and update guides for the identification of marine species;

9. The implementation of the above recommendations should be integrated into a Mediterranean strategy, which must take account of other initiatives, particularly the Global Taxonomy Initiative undertaken within the framework of the CBD.

I. Objectives of the Mediterranean Initiative on Taxonomy

The Mediterranean Initiative on Taxonomy should particularly enable us to work to revive taxonomy for the marine domain in the Mediterranean region, developing Mediterranean skills and encouraging the establishing of national strategies, coordination and exchange on the subject.

II. Priorities of the Mediterranean Initiative on Taxonomy

Putting the Initiative into affect requires organising tasks. Operational and temporal priority could be given to the following taxonomical groups:

- Species that build up habitats.
- Species that are indicators of environmental quality.
- Species that make a contribution to marine resources, either directly or indirectly, by their role in trophic networks.
- Endemic species.
- Threatened species.

III. Work programme of the Mediterranean Initiative on Taxonomy

On the basis of the recommendations made by the work group for the elaboration of a Mediterranean strategy on taxonomy, and bearing in mind other initiatives, particularly the world taxonomy initiative undertaken in the CBD context, three main lines of attack were followed with a view to defining the Initiative's terms of reference, which are : (i) inventorying national needs, (ii) training and (iii) reference collections and guides.

1. Inventorying national needs

To assess national needs, the following resources are to be inventoried:

- Specialists and other specialised persons.
- Guides.
- Inventories.
- Reference collections.
- Training.

We should make it clear that the term 'need' encompasses in its definition the idea of lack as well as the notions of biodiversity importance and specificity at national level. Needs change and must be assessed on the basis of forecasts.

The mode of assessment depends on the results of a survey based on the elaboration of a questionnaire concerning the following points:

- scientific and technical needs (disciplines, taxonomical groups, infrastructure, equipment, staff, training, etc.);

− needs for fulfilling the country's international obligations in terms of biodiversity and of institutions.

2. Training

Taxonomy skills around the Mediterranean remain extremely uneven; they are often insufficient for implementing the objectives of the SPA Protocol. Thus there is a need for a strategy to train and promote staff who are competent in this field. Implementing this Initiative must be integrated in a Mediterranean strategy. It must focus on the following points:

1. Distinguish beforehand two training stages: preliminary general training and specialist training.
2. Mention the lacks and take the survey on needs into account.
3. Establish criteria for priority.
4. Three levels must be taken into account:
   - Existence of reception laboratories.
   - Funding.
   - Level of training to be attained.
5. Inventory summer schools and the possibility of creating new ones.
6. Envisage means of access to training by inventorying:
   - the laboratories willing to receive young researchers.
   - current courses.
   - bilateral agreements.
   - computerized systematics networks.
7. Set up systems for assessing the existing training courses.
8. Envisage means of encouraging exchanges between countries.
9. Assess the possibility of creating means of training by RAC/SPA.
10. Establishing a quality protocol for classifying existing courses of study.
11. Assess the possibility of integrating training in pilot projects.
12. Make sure that the discipline that has to benefit from training cycles will be lasting.
13. Assess the possibility of coordinating training programmes.
14. Establish a tool for inventorying financing outlines.
15. Get accreditation for training centres.

To achieve these points, it is advocated that work should be done in the following manner:

2.1. Inventory

The starting point is a survey of the facts. A widely circulated questionnaire will enable the inventorying of people working in taxonomy in scientific institutions, laboratories and universities around the Mediterranean.

The questionnaire must contain:
1. A list, addresses, and CVs of the taxonomists in marine flora or fauna in your laboratory (their level of experience and specialisation).
2. Projects being worked on or completed over the last ten years.

3. Publications in marine taxonomy over the last ten years.
4. Your requirements for promoting work in marine taxonomy: specialisations that are lacking, training, taxonomical guides, other.
5. Staff who have enjoyed study or training grants where the taxonomy of a group of marine flora or marine flora in the Mediterranean is included.
6. A list of taxa to be checked.

The questionnaire will reveal the lacks and requirements. Bearing these identified gaps in mind, and based on the Initiative's priorities, an operational (temporal) **scale of priorities** between the taxonomical groups will be established, using criteria. The following criteria are suggested, but are not exhaustive:

- Species that build up habitats.
- Species that are indicators of environmental quality.
- Species that make a contribution to marine resources, either directly or indirectly, by their role in trophic networks.
- Endemic species.
- Threatened species.

Particular attention should be paid to selecting the staff whom this training will concern. The motivation and lasting nature of the elements selected must be guaranteed. One indispensable condition is that they are affiliated members of an institution or research centre concerned. It is also essential that the recruitment be geographically fair.

2.2. Training levels

Several levels must be considered:

✍**In-work training** : The aim will be to promote the skills of researchers working in their respective institutions. Several measures must contribute to this goal:

- Make suitable documentation accessible, providing it in the form of guides, reference works, CDs or other digital forms
- Initiate researchers into the computer resources related to taxonomy and biodiversity
- Create distance-learning systematics modules
- Promote reference collections as a training tool
- Facilitate the sending of problematic material for consultation by experts, centres of renown and qualified museums or other international experts (CITES Rules)
- Set up a programme for short consultant expert assignments
- Integrate researchers in Pilot Projects under the direction of national or international experts
- Encourage participation at regional or international workshops and conferences
- Inform students about the demand for taxonomists.

✍**Training through regional training courses**: This concerns young researchers whose experience is still limited. The aim is to perfect their knowledge through intensive theoretical and practical teaching done by experienced teachers.

Training will consist of traditional taxonomy with more recent techniques using molecular biology
To this end, RAC/SPA, in cooperation with the UNEP (MAP, Athens), will organise a series of regional training courses, in French and in English in turn. The programme for the courses will be established by the consultants, bearing in mind the needs of the countries bordering on the Mediterranean, as well as pre-established priorities

Existing training courses must be inventoried and made use of. They must be made accessible to young researchers recruited in the Mediterranean. Examples are: the courses organised by COI/UNESCO, CETAF's educational courses, the Consortium of European Taxonomic Facilities, and others.

✍**Training through research :** The aim is advanced specialisation and will concern those researchers who have already reached a certain level of experience. The given training here is guided research in specialist laboratories under the direction of recognised, highly competent, experts.

For that aim, it is envisaged to :

- Promote the funding of theses that deal with taxonomy.
- Make an inventory of the experts and laboratories willing to receive young researchers as well as the fields of expertise available.
- Take advantage of the bilateral agreements and mechanisms that provide for the exchange of staff.

✍**Training technicians :** To sort biological material, to conserve specimens in collections, and to computerize data.

2.3. Professional follow-up

Make sure that there are lasting jobs that correspond to the training received.

3. Guides and collections

3.1. Reference collections

With a view to inventorying and making best use of the existing reference collections in the Mediterranean and helping to circulate them and identify their weak points, it is recommended that:

1. a single questionnaire be established, of the kind that was suggested in the working document entitled " Assessing the state of taxonomy of marine plant organisms in the Mediterranean countries ", which would be used to collection information.
2. the National Focal Points be invited to designate a national consultant with responsibility for answering the questionnaire, and the RAC/SPA circulate this to the list of specialists the Centre has in its possession in order to have the most exhaustive information possible. RAC/SPA should also post this questionnaire on its web site.

3. the database generated by this questionnaire be continuously managed and updated, according to an appropriate schedule.
4. a request be made to prepare a technical handbook that would help in creating, keeping up, managing and maintaining reference collections.
5. each country identify at least one national institution that would be in charge of managing and maintaining in good condition its reference collection/s, or creating these, if necessary. It is suggested that the grouping of collections or of the institutions containing them be done on a national scale, dependent on one united authority.
6. the creation of a Mediterranean taxonomical society be promoted, one that would form a union of all the marine biology societies and associations (pertinent to taxonomy) and encourage the participation of volunteers interested in nature conservation and in environmental education.
7. a new mechanism be set up for subscribing to the Protocol on Specially Protected Areas and biological diversity in the Mediterranean, which would encourage the member states of the Barcelona Convention to create reference collections and train taxonomists, thus ensuring the continuity of existing collections and the creation of new collections.
8. that researchers be requested to place their personal collections with public collections, thus facilitating knowledge about these, and enabling them to be consulted.
9. that collections be equipped with documents referring to the entire collection, as well as the samples placed. These documents must also include observations on typical samples and their place of origin, for them to be processed on a Geographical Information System (GIS).

3.2. Guides

It is recommended that:

1. The National Focal Point designate a consultant with the following duties:
    a. collecting and listing all the existing guides and inventories in his/her country,
    b. inventorying the publications in his/her country's libraries that relate to taxonomy,
    c. outlining current programmes and projects aimed at bringing out new guides and inventories.
2. The most pertinent existing guides be translated under the supervision of specialists, and circulated to help all the Mediterranean countries to inventory their biodiversity.
3. RAC/SPA, via its Focal Points, identify the most problematic taxonomical groups and develop specific guides on these groups.

4. Database and observatory

It is recommended that a regional Mediterranean 'observatory' be set up as part of the RAC/SPA's activities and attributions; its task would be collecting, managing and keeping up to date all the databases related to reference collections, taxonomists and guides, inventories and publications on marine diversity. These Mediterranean databases would help enrich world taxonomy.

Also, observations and sightings and personal communications must be gathered together, and accompanied by a validity scale.
In areas where there is a lack of national experts, it is necessary to assess the means of setting up a Task Force that will intervene, when the country so requests.

IV. Support for implementing the Initiative

Implementing and monitoring the Initiative must be supported, as well as by the points developed above, by the following main actions:

- Organization of thematic workshops.
- Monitoring and validating the information collected by a board which will validate the experts' database.
- Regularly assessing how far the Initiative has advanced.
- Once the inventorying of resources at country level has been done, it will be useful to check whether there is a total regional absence of knowledge concerning precise taxonomical groups. If so, skills from outside the Mediterranean could be used to fill the gaps.
- A career path should be promoted for the taxonomy profession.

Inventorying national needs, training and guides and collections require the circulation of a questionnaire. It is recommended that one single questionnaire be established, structured around four items:

- guides and collections,
- training,
- needs,
- specialists.

Circulating this questionnaire will call on the National Consultants, who will be responsible for answering the questionnaire.

V. Regional and international coordination

Implementing the present Initiative is the responsibility of the Contracting Parties' national authorities. The implementing will be regionally coordinated by the Secretariat of the Mediterranean Action Plan (MAP) via the RAC/SPA (Regional Activity Centre for Specially Protected Areas). RAC/SPA's functions in this respect will mainly consist of:

- Ensuring that the actions required at regional level to attain the objectives of the present Initiative are put into effect.
- Helping, as far as its means allow, the Contracting Parties to implement the actions required at national level to attain the objectives of the present Initiative.
- Assessing how far the Initiative has progressed, and preparing a report.
- Informing the National Focal Points for ASPs at each of their Meetings about the progress made in implementing the present Initiative, establishing regular

consultation between the Associates for implementing the Plan, and organising, when necessary, Meetings to this effect (mention FAO, UNESCO, CIESM, OBIS).

- Collaborating with the concerned organisations and working so that the Mediterranean region participates in the pertinent international and/or regional initiatives. In this context, international and/or non-governmental organisations, laboratories and any concerned organisation or body are invited to join in the work of implementing the present Initiative.
- Ansuring that skills at regional level harmonize, on the basis of inventories of resources and needs, with the aim of setting up a regional network of skilled expertise on taxonomy in the Mediterranean.

VI. Financing the Initiative

Implementing the Initiative will mainly be based on resource networking and multilateral exchanges; this should have a multiplier effect on resources and permit a reduction in the cost of the Initiative. Also, funding should depend on all the existing programmes and conventions.

For that aim, RAC/SPA, with the support of the MAP Coordination Unit and, its national focal points for SPAs, should get in touch with the aforementioned programmes and conventions to invite them to support the working programme of the present Initiative as part of their intervention priorities.

Special attention should be accorded to scholarships, to allow mainly postgraduates enjoying long-lasting stays in specialised laboratories. In this regard, Mediterranean countries are invited to make taxonomy part of their priority topics while awarding postgraduate scholarships.

Moreover, the following bodies will be contacted in order to invite them to contribute in the financing of this programme: UNEP/MAP (Mediterranean Action Plan), the Mediterranean countries financing services of bilateral and multilateral cooperation, the European Commission and the GEF (Global Environmental Facility).

While promoting the diversification of the Initiative work programme financing sources, RAC/SPA should make sure that these financing sources are coherent. In this framework, integrated projects will be prepared and proposed to potential silent partners. A research for sponsors, including in the private sector, will be carried out in the early stage of this initiative implementing.

VII. Implementation timetable

Actions	**References in the document**	**1rst year** (1)	**2nd year**	**3rd year**	**4th year**	**5th year**
Evaluation of resources	III.1, III.2, III.3.1					
Evaluation of needs	III.1, III.2., III.3.1					
Existing or planned guides	III.2.1, III.2.2, III.3.2.					
Elaboration of new guides	III.2.1, III.3.2					
Training	III.2.2					
Collections	III.2.2, III.3					
Collection Manual	III.3.1					
Thematic workshops	IV			*		*
Evaluation	IV			*		*

Legend

Extended action

* Limited action

(1) The years specified in the above timetable are counted from the date of adoption of the Initiative by the Contracting Parties to the Barcelona Convention