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Convention Concerning the Protection of the World Cultural and Natural Heritage

IUCN Evaluation of Nominations of Natural and Mixed Properties to the World Heritage List

Report to the Bureau of the World Heritage Committee
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Prepared by IUCN – The World Conservation Union

22 February 2002

Table of Contents

1. INTRODUCTION.....iii

2. IUCN TECHNICAL EVALUATION REPORTS.....1

A. Nominations of natural properties to the World Heritage List.....1

Pendjari and W National Parks (Benin).....3

Rift Valley Lakes Reserve (Kenya).....5

Uvs Nuur Basin (Mongolia/Russian Federation).....7

B. Nominations of mixed properties to the World Heritage List.....9

Archipelago of La Maddalena (Italy).....11

THE WORLD HERITAGE CONVENTION

IUCN TECHNICAL EVALUATION REPORTS

22 February 2002

1. INTRODUCTION

This technical evaluation report of natural sites nominated for inclusion on the World Heritage List has been conducted by the Programme on Protected Areas (PPA) of IUCN – The World Conservation Union. PPA co-ordinates IUCN's input to the World Heritage Convention. It also co-ordinates activities of IUCN's World Commission on Protected Areas (WCPA) which is the world's leading expert network of protected area managers and specialists.

In carrying out its function under the World Heritage Convention IUCN has been guided by four principles:

(i) the need to ensure the highest standards of quality control and institutional memory in relation to technical evaluation, monitoring and other associated activities;

(ii) the need to increase the use of specialist networks of IUCN, especially WCPA, but also other relevant IUCN Commissions and specialist networks;

(iii) the need to work in support of the UNESCO World Heritage Centre and States Parties to examine how IUCN can creatively and effectively support the World Heritage Convention and individual sites as "flagships" for biodiversity conservation; and

(iv) the need to increase the level of effective partnership between IUCN and the World Heritage Centre, ICOMOS and ICCROM.

Members of the expert network of WCPA carry out the majority of technical evaluation missions. This has allows for the involvement of regional natural heritage experts and broadens the capacity of IUCN with regard to its work under the World Heritage Convention. Reports from field missions are comprehensively reviewed by the IUCN World Heritage Panel. PPA then prepared the final technical evaluation reports which are outlined in this document.

IUCN also has placed emphasis on providing input and support to ICOMOS in relation to cultural landscapes and other cultural nominations which have important natural values. IUCN recognises that nature and culture are strongly linked and that many natural World Heritage sites have important cultural values.

The WCPA membership network now totals over 1300 protected area managers and specialists from 120 countries. This network has provided much of the basis for conducting the IUCN technical evaluations. In addition, the Protected Areas Programme has been able to call on experts from IUCN's other five Commissions (Environmental Law, Education and Communication, Ecosystem Management, and Environmental, Economic and Social Policy), from other specialist officers in the IUCN Secretariat, and from scientific contacts in universities and other international agencies. This highlights the considerable "added value" from investing in the use of the extensive networks of IUCN and partner institutions.

2. FORMAT

Each technical evaluation report presents a concise summary of the nomination, a comparison with other similar sites, a review of management and integrity issues and concludes with the assessment of the applicability of the criteria, and a clear recommendation to the World Heritage Bureau. Standardised data sheets, prepared for each nomination by UNEP - the World Conservation Monitoring Centre (UNEP-WCMC), are available in a separate document.

3. SITES REVIEWED

- At the time of writing, one evaluation report on a mixed nomination has been prepared by IUCN in 2002.

IUCN will provide a supplementary report to the April 2002 Bureau which will include the technical evaluation of one natural site nomination and one deferred natural site for which additional information has been received. The field inspection of one of these sites took place in February and the evaluation report was still under preparation at the time of printing of this report.

The specific files reviewed by IUCN are as follows:

A.	**Nominations of natural properties to the World Heritage List**	
	Pendjari and W National Parks	Benin
	Rift Valley Lake Reserves	Kenya
	Uvs Nuur Basin	Mongolia/Russian Federation
B.	**Nominations of mixed properties to the World Heritage List**	
	Archipelago of La Maddalena	Italy

4. REVIEW PROCESS

In carrying out the Technical Review, IUCN is guided by the Operational Guidelines, which requests IUCN "to be as strict as possible" in evaluating new nominations. The evaluation process (shown in Figure 1) involves five steps:

1. **Data Assembly**. A standardised data sheet is compiled on the site, using the protected area database at the World Conservation Monitoring Centre;

2. **External Review**. The nomination is sent to experts knowledgeable about the site, primarily consisting of members of IUCN specialist commissions and networks and contacts from the region (approx. 25 outside reviewers provided input in relation to the sites reviewed in 2002);

3. **Field Inspection**. Missions are sent to evaluate the site on the ground and to discuss the nomination with relevant authorities;

4. **IUCN World Heritage Operational Panel Review**. The IUCN World Heritage Operational Panel intensively reviews all field inspection reports and associated background material and agrees a final text and recommendation for each nomination; and

5. **Final Recommendations**. After the World Heritage Bureau has reviewed the evaluations, clarifications are often sought. Changes based on the Bureau's recommendations and on any further information from State Parties will be incorporated into the final IUCN evaluation report which is sent to the World Heritage Centre eight weeks prior to the Committee meeting.

In the evaluations, the Biogeographic Province concept is used for comparison of nominations with other similar sites. This method makes comparisons of natural sites more objective and provides a practical means of assessing similarity. At the same time, World Heritage sites are expected to contain special features, habitats and faunistic or floristic peculiarities that can also be compared on a broader biome basis.

It is stressed that the Biogeographical Province concept is used as a basis for comparison only and does not imply that World Heritage sites are to be selected solely on this criteria. The guiding principle is that World Heritage sites are only those areas of outstanding universal value.

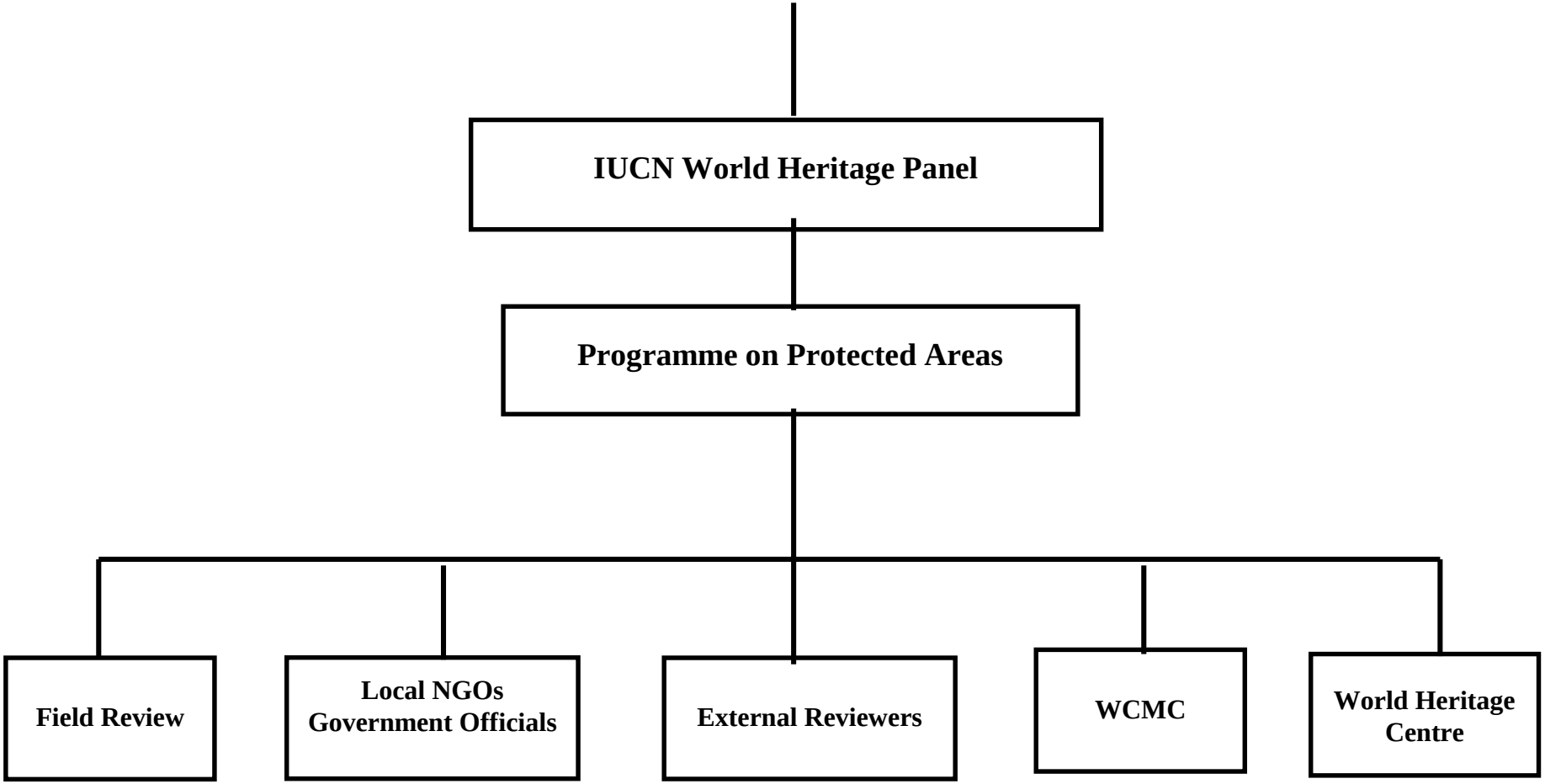
Finally, it is noted that the evaluation process is aided by the publication of some 20 reference volumes on the world's protected areas published by IUCN, UNEP, WCMC and several other publishers. These include (1) Reviews of Protected Area Systems in Oceania, Africa, and Asia; (2) the four volume directory of Protected Areas of the World; (3) the three volume directory of Coral Reefs of the World; (4) the six volume Conservation Atlas series; (5) The four volume "A Global Representative System of Marine Protected Areas; and (6) Centres of Plant Diversity. These documents together provide system-wide overviews which allow comparison of the conservation importance of protected areas throughout the world.

As in previous years, this report is a group product to which a vast number of people have contributed. Acknowledgements for advice received are due to the external evaluators and reviewers and numerous IUCN staff at Headquarters and in the field. Many others contributed inputs during site inspections. This support is acknowledged with deep gratitude.

This report presents the official position of IUCN.

Figure 1

IUCN REPORT TO WORLD HERITAGE BUREAU AND COMMITTEE



2. IUCN TECHNICAL EVALUATION REPORTS

A. Nominations of natural properties to the World Heritage List

WORLD HERITAGE NOMINATION - IUCN TECHNICAL EVALUATION

PENDJARI AND W NATIONAL PARKS (BENIN)

The field inspection of this site took place in early February 2002. The evaluation report will be included in the supplementary report to the April Bureau meeting.

The 2001 World Heritage Bureau requested confirmation from the State Party on the Wildlife Sanctuary status of Lake Elmenteita. At the time of writing no additional information has been received from the State Party. Should additional information be received before the April Bureau meeting, IUCN will report verbally to the Bureau.

WORLD HERITAGE NOMINATION - IUCN TECHNICAL EVALUATION

UVS NUUR BASIN (MONGOLIA/RUSSIAN FEDERATION)

A revised nomination was received from the World Heritage on 1 February and IUCN is in the process of clarifying the new information received. The evaluation report will be included in the supplementary report to the April Bureau meeting.

IUCN TECHNICAL EVALUATION REPORTS

B. Nominations of mixed properties to the World Heritage List

WORLD HERITAGE NOMINATION – IUCN TECHNICAL EVALUATION

ARCHIPELAGO OF LA MADDALENA (ITALY)

1. DOCUMENTATION

i) **IUCN/UNEP-WCMC Data Sheet**: (unavailable)

ii) **Additional Literature Consulted**: Conservation of Mediterranean Island Plants: 1. Strategy for Action. Delanoë, O, B de Montmollin & L. Olivier. 1996; **Archipelago of La Maddalena** "Scuola Media Statale G. Garibaldi La Maddalena". Rabuini, B. (ed). Ente Parco Nazionale Arcipelago di La Maddalena. 1999; **Background Papers - Filling Critical Gaps and Promoting Multi-Site Approaches to New Nominations of Tropical Coastal, Marine and Small Island Ecosystems**, IUCN/UNESCO Workshop, Vietnam February 2002 (draft); **'Governance' Issues Related to Management Effectiveness of Marine Protected Areas, Workshop Report** (draft) IUCN/WCPA/WWF, Venezuela, November 2001 (draft) IUCN/WCPA/WWF. 2001.

iii) **Consultations:** 6 external reviewers contacted; Park President and park staff; officials from the Italian Ministry of Culture and Ministry of Environment; scientific and technical consultants; representatives of the Museo Archeologico and Dolphin Research Centre, Caprera Island; and local government officials.

iv) **Field Visit**: Meriwether Wilson, October 2001

2. SUMMARY OF NATURAL VALUES

The Archipelago of La Maddalena (ALM) is located in the Bonifacio Straits between the islands of Sardinia (Italy) and Corsica (France) and consists of 7 large granite islands and 55 smaller islets. The islands within the nominated area represent a total land surface area of 5,134ha. The entire archipelago is incorporated within the La Maddalena National Park. Each island is surrounded by a 300-500m marine protected area and the total marine component of the park is 4,000ha. A marine buffer zone of 9,000ha surrounds the archipelago and is included within the nominated area The total length of the 'marine coastline' is approximately 180kms.

La Maddalena is characterised by the interaction of the deep waters and powerful currents of the Bonifacio Straits with granite rock and strong winds. These elements have created an interesting ecology and scenic landscape. The archipelago is dominated by weathered granitic rock and clear waters producing scenic vistas and underwater spectacles. One island (Spiaggia Rose) is well known for its pink sand beach due to dense bryozoan communities. Over 700 species of plants comprise the islands' sparse maquis vegetation. The influence of strong winds, arid conditions and poor soils has resulted in the evolution of some endemic plant species and a of a range of climax communities dominated by shrub species such as *Artemisia* and Juniper.

The benthic marine community is relatively undisturbed with the most notable species including extensive seagrass (*Posidonia)* beds and thick calcareous carpets of red algae. The ribbed Mediterranean limpet is common and is a key indicator species found only in unpolluted oxygenated waters.

The marine and terrestrial vertebrates are representative of the central-western Mediterranean region. There are significant and geographically isolated reptile populations including Sardo-Corsican endemics and some species classified as globally endangered by IUCN, such as the European Leaf-toed Gekko and Hermann's tortoise.

La Maddalena is important for various whale species and is an important reproductive area for the Bottlenose Dolphin. Monk seals were common in the 1960s. Although now rare throughout the region, increased sightings are being reported. The constellation of islands and islets which comprise La Maddalena archipelago are an

important trans-Sahara migratory flyway, resting and nesting area for marine birds, such as Cory's shearwater, common tern, northern gannet and Audouin's gull.

3. COMPARISONS WITH OTHER AREAS

Udvardy's Mediterranean Sclerophyll Biogeographic Province, which encompasses the coastal areas of the entire Mediterranean Basin and most of the Black Sea, includes eight natural World Heritage sites: Plitvice Lakes National Park (Croatia); 'Cape Girolata, Cape Porto, Scandola Nature Reserve, and the Piana Clanches in Corsica' (France); Aeolian Islands (Italy); Doñana National Park (Spain); Ibiza Biodiversity and Culture (Spain); Hierapolis-Pamukkale (Turkey); and Ichkeul National Park (Tunisia). Two of these sites -- Plitvice Lakes (Croatia) and Hierapolis-Pamukkale (Turkey) -- are terrestrial sites which do not include typical Mediterranean vegetation and so are not comparable to ALM.

There are two World Heritage sites with predominantly marine features in the Western Mediterranean - Ibiza Biodiversity and Culture (Spain) and the 'Cape Girolata, Cape Porto, Scandola Nature Reserve, and the Piana Clanches in Corsica' (France). The Corsican site contains typical Mediterranean maquis vegetation and similar bird species to ALM but also contains the last ospreys of the Mediterranean and other raptors, such as the bearded vulture and peregrine falcon. Its terrestrial area is over 50% larger than the land surface of ALM and, with the adjacent 300,000ha Corsica Regional Nature Park, the Corsican site is of far greater natural integrity. The dramatic red cliffs and lava formations of the Piana Clanches and surrounding areas are also scenically far more spectacular than the landscape of ALM Covering 4,200ha the marine part of the Corsican site is similar in size to the marine core of ALM while the 8,564ha marine area of Ibiza is more than twice the size of ALM. Both Ibiza and Corsican contain *Posidonia* seagrass beds. Those found in Ibiza are considered to be the best preserved in the Mediterranean and were one reason for its inscription on the World Heritage List. The ecological processes associated with the seagrass beds in Ibiza are considered universally outstanding in terms of their influence on coastal dynamics -- beach formation, oxygenation of waters and coast protection. The greater extent of the seagrass beds in Ibiza means that these processes are more evident at this site than in ALM. Ibiza is also important in terms of local endemic plants species (11 species) and avifauna with 205 recorded species, 171 of which are migratory, which justified the site being listed under the Ramsar Convention. In conclusion, both existing marine sites are of significantly higher conservation value than ALM.

Other sites with coastal/marine components are the Aeolian Islands (Italy), Doñana National Park (Spain) and Ichkeul (Tunisia). In terms of ecology the sites in France and Spain are most comparable to ALM. Although there are marine reserves in the Aeolian Islands, the boundary of the World Heritage site coincides with the shoreline and therefore does not contain marine features. The maquis vegetation of the Aeolian site has been highly modified but the site is important for migratory bird species, and has been designated an Important Bird Area for congregatory species by BirdLife International. The scenic value of the volcanic cones of the Aeolian Islands that rise out of the surrounding sea are a far more impressive than the granite landscape/seascape of ALM.

While Doñana is predominantly a terrestrial wetland site, it contains a large stretch of undeveloped coastline containing a mobile dune system. Plant succession in the wake of the advancing dunes was a key factor in the site being inscribed under criterion (ii) -- ecological processes. While containing many Atlantic and North African species, Doñana demonstrates a high variety of plant species and plant communities typical of the Mediterranean. Some 750 species of plants have been identified in Doñana, including two species new to science and at least 45 new to Europe. Along with Ichkeul, Doñana is one of the most important sites for migrating birds in Mediterranean. Some 365 bird species have been recorded in Doñana and 185 in Ichkeul. Maddalena is considered by BirdLife International to be a site containing globally threatened species, however, there are 15 other such sites in Sardinia alone and the Ibiza, Doñana, Aeolian and Corsican sites also have this status. In terms of importance for bird life it is thus difficult to make a case for the outstanding universal values of ALM.

The granitic geology and resulting landscape features of La Maddalena Archipelago differ from other geographically similar archipelagos, e.g. the Toscana Archipelago, Hyeres Islands and the Aegean Islands, all of which have been radically altered by deforestation, grazing and tourism development. The only archipelago with similar geology to La Maddalena is the Ciloe Archipelago in Chile, but the landscape varies considerably. The La Maddalena Archipelago is part of a geomorphic feature that continues from southern to northern Sardinia, however, in the southern areas the large granitic masses and outcrops have been altered by quarrying, road building, ports and large-scale tourism. Only Lavezzi Archipelago in southern Corsica is similar in character and

integrity to La Maddalena. However, apart from the geology, the landscape of the ALM site is typical of many other sites in the Mediterranean.

The nomination document notes the presence of 52 species of endemic plants in ALM, however, most of these species are western Mediterranean endemics (Sardinia, Corsica, Balearic Islands, Italian Islands and Sicily) and only one or two species are endemic to ALM. The level of endemism of the Archipelago is therefore relatively low. Higher levels of endemism are found in archipelagos of the Aegean and on Mount Etna in Sicily. Within the Udvardy Mediterranean Biogeographic Province there are eight centres of plant diversity and endemism. Two of these are associated with island sites: 'Crete'; and the 'Troodos Mountains' of Cyprus.

The distinguishing features of La Maddalena are its scenic landscape, some endemic terrestrial flora, birdlife, marine biodiversity and low human impact. From the above comparison, however, it is secondary in importance to many other sites in the region and does not stand out as distinctive for its natural values.

4. INTEGRITY

4.1. Legal Protection and Transboundary Co-operation

The entire archipelago has been designated as National Park since 1994 with funds granted to the Park since 1999. The archipelago is a site of Community Interest under the EU Habitat Directive 92/43. The entire area is also part of the international transboundary Ligurian Cetacean Sanctuary created in 1999 by the Governments of Italy, France and Monaco. Furthermore, there is ongoing dialogue between Italy and France to create the "International Marine Park of the Straits of Bonifacio" incorporating the Italian La Maddalena National Park with French Lavezzi Archipelago, a National Park in southern Corsica which has similar geomorphological and marine features.

4.2 Management

The Park does not have a management plan but there is extensive documentation of the flora, fauna, zoning and cultural elements of the Park, as well as considerable legislative and public awareness machinery in place, which serve to guide Park management. There is good collaboration with the forestry department and the Navy, which help Parks staff with enforcement. The Park also enjoys a good relationship with the Italian academic community, and the local community including schools and the Town Council of La Maddalena. While the Park was established in 1994, it has received regular dedicated funding from the Italian Government only since 1999. Since 1999, a range of buildings have been restored to provide park offices and NGO environmental centres on Caprera. There is now an established core staff of approximately 10 persons who have put in place a set of rules and regulations (see below) and have developed working relationships with Corsican scientific counterparts and other National Parks in Italy. In summary, ALM has proven to be a highly energised functioning marine-island park in a very short time.

The National Park is subject to a range of regulations that have been in force since 1996. These prohibit activities such as construction, and mining and the introduction of exotic species. Management measures are also in place which control visitor numbers and activities; direct research; and promote public awareness and involvement in the protection of the Park. A strict zoning scheme is also in place which prohibits access to sensitive areas such as bird nesting sites.

4.3 Human Use

Only the main island in La Maddalena has permanent human settlement. There is day visitation to the nearby island of Caprera connected by a causeway, but this is strictly managed as a park area with a recreation and education emphasis. The other main islands of Razzoli, Santa Maria, Budelli, Spargi and Santo Stefano are all uninhabited. In general, the flora of all of the islands is undisturbed and represents various climax communities and marine communities are relatively intact for this region. The coastlines are not degraded structurally nor from litter. There are wild boars on one island which the park is keen to eliminate.

Given the high population density of nearby coastal areas of Italy and France, it is unusual that the larger islands of the archipelago have not been developed for industrial or holiday homes over the last 100 years. This is due largely to two factors, which are critical for future maintenance of the archipelago's integrity:

a) while the islands have been known as a 'yachting playground', great pride is taken in the wild and remote and sculptural features of the islands and Italians in particular wish to keep these areas open to all but yet kept wild. The Town Council noted that they were determined that the islands should not become exclusive, and are much valued as a place for weekend picnics.

b) despite the de facto public character and use of the area, most islands within the nominated area are privately owned in some cases by the same family for centuries, and to date they have not wished to develop their properties aside from a few small weekend houses.

4.4 Threats

There are potential threats to the integrity of La Maddalena Archipelago if tourism management is not developed in concert with the natural heritage goals of the Park. Present threats are of four kinds, though they could be resolved through adequate planning, zoning, legislation, enforcement and education:

a) *Yachting:* La Maddalena has been a popular yachting destination for the last 100 years. This predominately has impacts on the many bays and beaches that dot the coastline. There are also pollution issues from sewage and waste discharges from the yachts.

b) *Unplanned tourism development:* Because of live-aboard yachts there has been little pressure to develop on-land accommodation facilities. At present only the main island of La Maddalena has facilities for tourists (three hotels). Except for 2-3 houses on a few of the other islands that belong to private owners and a small dorm-based sailing school on Caprera, there are no overnight facilities on the smaller islands. The main island has only a few thousand residents clustered around La Maddalena town, with some houses scattered throughout the island.

The Town Council is involved in ongoing discussions with developers to develop areas of La Maddalena and other islands into large-scale up-market resorts. The Town Council is preparing a development 'master plan' which has in some cases promoted large-scale resort developments. However, the Council assured the IUCN mission that it does not wish to develop the islands that are currently undeveloped and that it would like to see any economic development done in a manner that is sympathetic with the maritime, island and cultural heritage. All activities within the park, which includes La Maddalena town, have to be approved by the park, so there is also a legal imperative for sound planning and development.

c) *Italian and US Navy bases:* The island of La Maddalena hosts a two small naval bases - one is Italian and the other a US navy base, the latter functioning primarily as a submarine service centre. The infrastructure of each of these bases is contained within small areas and most of the residents live on the bases. The bases add considerable income to the islands but there are no plans for enlargement, and there appears to be a good relationship between the park and the navies.

d) Fishing: There were concerns raised by external reviewers about overfishing in Sardinian waters and the impact that this will have on the Park. The limiting of commercial fishing in areas adjacent to National Park may be worth considering.

A comprehensive management plan is needed to address the issues outlined above as well as the general management of the National Park. Future preparation of a management plan for the Park should pay careful attention to the link between conservation and development.

5. ADDITIONAL COMMENTS

This area is well known for its integrated cultural and natural heritage resulting from its strategic and geographic location and associated 'maritime history', which supports a 'landscape' approach to this site. There are a number of prehistoric sites at Spargi and Santo Stefano, including submerged Roman shipwrecks, resulting in the establishment of a small naval history museum in La Maddalena town. There is an integrated 'fortifications' system that was built on the main islands of the archipelago from 1870-1945. This is reputed to contain some of the most intact individual fortifications in the Mediterranean. Most of these are built very low to the ground and of local rock materials, so they are barely visible. The cultural components are integral to the natural aspects of this site, presenting both challenges and opportunities for interpreting and preserving the natural and cultural heritage of this site.

6. APPLICATION OF CRITERIA

The Archipelago of La Maddalena was nominated under criteria (ii), (iii) and (iv).

Criterion (ii): Ecological processes

The location of the La Maddalena Archipelago in the Bonifacio Straits, and respective deep, clear waters with granitic islands, has resulted in unusual marine and terrestrial communities, including important populations of birds, marine mammals and land and marine plants. Although of regional significance for ecological study ALM does not contain globally outstanding examples of ecological processes that compare to the coastal dynamics of Ibiza's seagrass beds or the mobile dune system of Doñana. IUCN does not consider that the nominated site meets this criterion.

Criterion (iii): Superlative natural phenomena or natural beauty and aesthetic importance

In terms of natural beauty, the weathered granite and clear waters of ALM provide scenic vistas but the landscape is not as dramatic as nearby World Heritage sites such as the volcanic cones of the Aeolian Islands or the cliffs of the Corsican Clanches, and not as significant at the global level when compared with sites inscribed under criterion (iii). IUCN does not consider that the nominated site meets this criterion.

Criterion (iv): Biodiversity and threatened species

There are a wide range of marine and terrestrial flora and fauna that are typical of this region, and the site is clearly important at a national level. However, there are other sites in the region and globally which are of far greater importance for biodiversity conservation. IUCN does not consider that the nominated site meets this criterion.

7. RECOMMENDATION

That the Bureau does not recommend the inscription of the Archipelago of La Maddalena on the World Heritage List under natural criteria. The Bureau may wish to commend the State Party for the protection of this area and its efforts in transboundary co-operation. The Bureau may also wish to encourage the State Party to develop a comprehensive management plan for the park with emphasis on conservation and future development of the area.