

**ANNOTATED FORMAT FOR THE PRESENTATION
REPORTS FOR THE AREAS PROPOSED
FOR INCLUSION IN THE SPAMI LIST**

MPA “TORRE GUACETO”

Index:

- 1- Presentation report
- 2- SDF
- 3- EMAS II Environmental Declaration (in italian; only in electronic form)
- 4- Torre Guaceto MPA Regulation (in italian; only in electronic form)
- 5- Management body Statute (in italian; only in electronic form)
- 6- S.C.I. Management Plan (in italian; only in electronic form)
- 7- Maps

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OBJECTIVE

The objective of this Annotated Format is to guide the Contracting Parties in producing reports of comparable contents, including the information necessary for the adequate evaluation of the conformity of the proposed site with the criteria set out in the Protocol and in its Annex I (Common criteria for the choice of protected marine and coastal areas that could be included in the SPAMI List).

CONTENTS

The presentation report shall include the following main information on: (i) identification of the proposed protected area (ii) site description (iii) its Mediterranean importance (iv) the activities in and around the area and their impacts (v) legal status (vi) management measures (vii) human and financial resources available for the management and the protection of the site.

SUBMISSION OF REPORTS

The reports should be submitted to the RAC/SPA two months before the meeting of National Focal Points for SPA in English or in French.

Dossiers should be compiled on A4 paper (210 mm x 297 mm), with maps and plans annexed on paper with a maximum size of an A3 paper (297 mm x 420 mm). Contracting Parties are also encouraged to submit the full text of the proposal in electronic form.

The requested annexes should be submitted on paper and, if possible, also in electronic form.

They are the following:

- Copies of legal texts
- Copies of planning and management documents
- Maps: administrative boundaries, zoning, land tenure, land use, and distribution of habitats and species, as appropriate
- Existing inventories of plant and fauna species
- Photographs, slides, films/videos, CD-ROMs
- List of publications and copies of the main ones concerning the site

N.B.: All the following sections have to be in the report submitted, even those sections or elements that do not apply to the proposed area. Where that is the case, please put “not applicable to the proposed area”.

1. IDENTIFICATION

1.1 COUNTRY/COUNTRIES (in the case of transboundary areas)

Italy

1.2 ADMINISTRATIVE PROVINCE OR REGION

Province of Brindisi
Region Puglia

1.3. NAME OF THE AREA

Area Marina Protetta “Torre Guaceto”
Marine Protected Area and Natural Reserve of “Torre Guaceto”

1.4 GEOGRAPHIC LOCATION

Describe its geographical boundaries, e.g. rivers, roads, geographical or administrative boundaries (do not describe the co-ordinates here; please make a separate annex with a map and a description of geographical co-ordinates as stated in the legal declaration of the area).

The Marine Protected Area, falling within the municipalities of Brindisi and Carovigno, is about 8 km long from the zone of Apani till the littoral of Punta Penna Grossa.

The coastline is characterized, along the western sector, by a series of small subrectangular coves with pocket beaches, until the eastwards projecting promontory of Torre Guaceto. At east of this promontory the coast is mainly sandy, with reduced rocky formations and low rocks emerging right in front of the promontory and eastwards from it (Scogli di Apani), and is characterized by a regular, sinuous coastline. The eastern coastal sector, furthermore, is incised by ten little valleys, oriented from South to North, some continuing also underwater.

Torre Guaceto, besides a MPA, is also a State Natural Reserve extending for about 1.200 ha, having a marine front of 8 km.

The area is more or less rectangular, reaching up to 3 km from the coast, and is crossed by the State Route 379.

The systems at both sides of the state route are radically different. The inland part is devoted to the typical agricultural practices of the area, continuing the plant cover present also outside the Reserve, with secular olive trees, mixed cultures, and red soils, not covered by vegetation.

In the area between the road and the coast, terrains are in a more natural condition.

The spatial succession ranging from beach, dune, and Mediterranean scrub ends up with agricultural areas (mainly vegetable gardens) and some reforestation of not high quality.

The second coastal stretch, developing southwards, does not include neither dunes nor beach. It is characterized by a low and rocky coast, with small beaches and whose vegetation reaches the coastline.

1.5. SURFACE OF THE AREA (total)

2.227 ha

1.6. LENGTH OF THE MAIN COAST (Km)

| |
|----------|
| 8.405 Km |
|----------|

2. EXECUTIVE SUMMARY (maximum 3 pages)

The first activities to protect Torre Guaceto date back to 1970, when the marquise Luisa Romanazzi Carducci entered the board of W.W.F. Italia, promoting the interest of the association for this territory. On May 18 1981 The Ministry of Agriculture and Forests, following the international Ramsar Convention, conferred the state of wetland of international interest to Torre Guaceto.

In 1987, the Ministry of Merchant Marine appointed W.W.F. Italia to set up a plan of feasibility for the institution of a marine reserve at Torre Guaceto. The reserve was then established with Ministerial Decree on December 4, 1991. The Ministry of Environment, with a Decree dated February 4 2000 declares the State Natural Reserve of Torre Guaceto. The 4th article of the Decree declares that the management of the reserve is a mixed consortium comprising the Town Administration of Brindisi and the no-profit environmentalist association World Wildlife Fund Italia-W.W.F. Italia.

The Marine Protected Area of Torre Guaceto has an extension of about 8 km, from the zone of Apani to the littoral of Punta Penna Grossa.

This MPA continues inland with the Terrestrial Reserve « Torre Guaceto ». The spatial succession ranging from beach, dune, and Mediterranean scrub ends up with agricultural areas (mainly vegetable gardens) and some reforestation of not high quality.

The second coastal stretch, developing southwards, does not include neither dunes nor beach. It is characterized by a low and rocky coast, with small beaches and whose vegetation reaches the coastline.

In the past, the wetland present in back of the promontory of Torre Guaceto was reclaimed, and this is detectable by the presence of tracks of canals. Such reclamation was aimed at draining the waters that were gathered in this zone due to the reduced slope of the terrain and to the surfacing of groundwaters. In spite of reclamation, part of the area always remained a wetland. When reclaimed grounds were not devoted to agriculture any more, they were again flooded, with the formation of permanent pools. The growth of groves of reeds partially closed the surfaces not covered by water. The wetland of Torre Guaceto is sustained by freshwater springs; its own name stems from the Arabic word GAW SIT: “site of the freshwater”. Being located along the coastline, however, the wetland is brackish. The system that originated from these processes has a great environmental interest, since it is ideal for the stopping over of migratory birds and, furthermore, is constantly inhabited by waterfowls, amphibians and insects typical of wetlands.

The part of territory between the state road and the coastline is characterized by a low density of settlements: the buildings of Punta Penna Grossa and the Tower of Guaceto are on the coast, whereas immediately inland there is the house of the watchman and, beyond the shrubs, some farmer houses.

The coastal stretch that delimits the MPA, in spite of being relatively short, is characterized by a much varied coastline; in particular, South of Torre Guaceto, the coast is linear and is made of cliffs of clay soil. In the vicinity of the tower, and for some hundred meters northwards, the coast is characterized by a small, notched rocky cliff with a series of small coves. After this coastal stretch, towards Punta Grossa, the shore becomes low and sandy.

At Torre Guaceto the dunes maintain their maximal expansion, since there are wide stretches of grey dunes that reach 15 m in height. The dune environment is diverse and is characterized by habitats of interest for the EU such as: dunes with meadows of *Brachypodium pinnatifidum* and annual vegetation; mobile littoral dunes with *Ammophila arenaria* (“White Dunes”); annual

vegetation of marine deposition lines, and the coastal rocks with Mediterranean coastal vegetation, with endemic *Limonium* spp..

The coastal area is incised by numerous and almost flat valleys, usually dry and not more than 10-15 m-deep, originating at the base of the ridge and running parallel to each other towards the Adriatic Sea. The Canale Reale is the most important of these incisions. It originated in the inner zones of the Taranto Murgia and, running for some dozens of km, pours water into the reserve, after having received the outflows of some large municipalities.

The euryhaline, eurythermic, brackish water community is characterized by the presence of the marine phanerogame *Nanozostera noltii*. The waters facing on the coast are inhabited by bird species with strong affinity for marine environments (e.g. divers, grebes, petrels, cormorants) and for swamps, like those of the order Anseriformes, that often rest and forage in the waters of the marine reserve). Many anatids rest in marine waters both during migration and in other periods of the year, when they are not active.

The species that make up the lagoonal, euryhaline and eurythermic community are usually buried in the sediments or live sessile to the substrates, such as polychaetes, bivalve molluscs and some anthozoans.

The submarine landscape is constantly characterized by two subsequent escarpments, parallel to the coastline and with a medium slope; their articulated physiognomy has a main convexity towards NE and is probably due to the control of tectonic lines directed towards the Appennines (NW-SE). The edge of the proximal escarpment is at 15/18 m depth, whereas that of the distal escarpment is at about 30/35 m. A third escarpment, of lesser extension, is localized off the western coast and is characterized by a medium-high sloping and whose edge is at about 35/38 m depth. These escarpments are divided by flat surfaces due both to erosion and, mostly, to deposition.

The rocky midlittoral is characterised by the presence of red algae as *Laurencia* sp, and *Corallina elongata* and by a Cystoserietum that forms belts along the rocky littoral.

The rocky infralittoral is characterized by photophylous algae and by sea urchin barrens and encrusting alge accompanied by the few animal species that resist the grazing activity of sea urchins. *Posidonia oceanica* meadows are one of the most characteristic habitats of the sandy infralittoral. The intricate morphology of the meadows forms a series of microhabitats that provide both food and shelter to numerous organisms, from fish and crustaceans to sponges, bryozoans, hydroids, anthozoans and bivalve molluscs. Patches of *Cymodocea nodosa* are also present.

In the C zone there are stretches of precoralligenous formations with many organisms in perfect state; particularly numerous are both the yellow and the white sea fans (*Eunicella cavolini*, *Eunicella singularis*). The localised abundance of such species confers to this habitat a special ecological value. Also the bryozoans *Sertella* sp. and *Myriapora truncata* are very common.

Coralligenous formations are comprised between 22 and 30 m depth, with discontinuous distribution and forming a series of patches on the sandy bottom. Coralligenous formations become scarcer at depths greater than 30 m, reaching a depth of 45 m, where the sandy bottom is replaced by mud.

Muddy bottoms are inhabited by a rich fauna of molluscs, brittle stars, sea stars, sea cucumbers, vagile and tubicolous polychaetes, with various types of tubular protections.

The low level of awareness demonstrated by local communities in respect to the potential of the institution of a nature Reserve, set one of the main targets of the MPA, aiming at rising the level of public appreciation and information so to rise trust in the Reserve and in the

Managing Consortium, informing locals about the opportunities offered by all models of sustainable development and by all the available benefits and special terms for any kind of activity allowed in the area.

The programmes of environmental education envisage a fundamental relationship with the school system and the Reserve of Torre Guaceto, after years of continuous activity, is now an important benchmark for environmental education in the whole Apulia Region, being visited thousands of students every year. Torre Guaceto is one of the most representative natural areas of the whole region.

3. SITE DESCRIPTION

3.1 TYPOLOGY OF THE SITE

3.1.1. Terrestrial surface, excluding wetlands (ha):

3,60 ha

3.1.2. Wetland surface (ha):

Not applicable to the proposed area

3.1.3. Marine surface (Sq. Km): Marine internal waters

Not applicable to the proposed area

Territorial sea

2.227 (ha)

High sea

Not applicable to the proposed area

3.2 MAIN PHYSICAL FEATURES

3.2.1. Geology/Geomorphology

Give a brief description of: (i) geological aspects (lithologic and tectonics); (ii) processes of sedimentation and erosion observable in the area; (iii) coastal geomorphology and (iv) island system. Indicate bibliographical sources.

The analysis of the detailed bathymetric map, compared with the mapping of communities, evidenced the salient morphological and sedimentological aspects of the coastal trait facing Torre Guaceto. This coastal belt (Ricchetti et al., 1994; Ricchetti e Pieri, 1999), characterized by the medium-low slope of the emerged area, presents in the western sector a series of small subrectangular coves with pocket beaches, reaching the little pronounced and eastward promontory of Torre Guaceto. Eastwards from the promontory, the geometry of the coast, mainly sandy with reduced rocky outcrops (Scogli di Apani), is characterized by a regular and sinuous coastline. The western sector, furthermore, is incised by ten valleys oriented from S to N, some continuing also in the submarine environment. Some of these incisions, especially at more than 30 m depth, present small detrital conoids of sandy nature at their mouths (Ambrosano et al., 1986).

The marine bottoms are always characterised by the presence of two orders of submarine cliffs, running parallel to the coast line, with a medium slope, whose physiognomy is articulated and presents a convexity towards NE, probably due to the control of tectonic lines directed towards the Appennines (NW-SE). The edge of the proximate cliff is at 15-18 m depth, whereas that of the most distal one is at 30/35 m. A third, lesser escarpment is localized off the western coastal sector and is characterized by a medium-high slope and whose edge is at 35/38 m depth. These escarpments are divided from each other by flat surfaces due to either erosion or, mainly, to deposition (Aiello et al., 1994).

The coastal platform goes from the coastline to about 5 m depth and at some places, for instance in the coves SE of Torre Guaceto, is wider and incised by grooves modelled in the emerged sector, where they are rich in sediments.

The submerged cliff, of recent genesis and at a short distance from the coast, reaches 25/30 m depth. Strips of marine terraces at about 8/10 and 12/15 m depth are present on it, probably due to pleistocenic establishment of the sea level, now colonized by coralligenous formations. As a whole, the physiography of the proximal cliff is almost straight in the western trait, whereas in the central-eastern one is convex northwards and sinuous, being incised by submarine V-shaped grooves.

Therefore, the morphological evolution of the coast in this zone generated a peculiar horizontal inversion of the coastal relief, due to the progressive replacement, by erosion phenomena of the late pleistocene-holocene, of a prominent cliff with the present-day bay with a concave northwards morphology.

The distal, submerged coastal cliff, of most ancient age, is at a short distance from the foot of the proximal one and has its base at about 46/48 m depth, probably being confined at its margins by minor tectonic alignments of anti-Appenine orientation (NE-SW) that controlled its structuring (Argnani et al., 1996), on which deeper valley incisions were formed, with a bowl section, especially in the eastern area. Along this escarpment, at about 35 m in the western part, and 40 m depth in the eastern part, circumscribed strips of marine terraces are present, covered by fine sand or, at greater depth, by silts.

At some places, both at the foot and along the proximate and distal escarpments and perpendicular to the submarine incisions, the isobate have a convex trend, suggesting the presence of depositional morphologies probably formed by sediment accumulation due to mass or dejection movements, mainly made of sandy or silt-sandy deposits and also by detritic and more coarse materials.

It is probable that structural paleocliffs were modelled during the postglacial rise of the sea level, as witnessed by the presence of terraces and paleo-incisions due to a riverine genesis in emerged environments, being then dislocated by late-Quaternary tectonic movements (Westaway, 1993) that dismembered them laterally.

The emerged coast, modelled by the mechanic action of waves, is characterized both at east and west of the Promontory of Torre Guaceto by two primary grooves that generate two coastal coves and proceed underwater in SW-NE direction, with a sinusoidal path reaching about 15 m depth. Between this depth and about 25/30 m, the grooves cut the proximal escarpment reaching the margin of the most distal one. At greater depth, up to 35 m, at the base of the distal escarpment, it is evident the continuation of the western valley, masked by sediments.

Numerous secondary grooves, oriented as the primary ones, can be detected in the whole submarine area, forming a late-pleistocenic hydrographic reticulum with parallel pattern.

At greater depths, the morphology of the bottom is more regular, with a constant and feeble slope, whereas the soft bottom is mainly made of silt (Viel *et al.*, 1986).

BIBLIOGRAPHY:

Aiello G., Bravi S., Budillon F., Caruso A., D'Argenio B., De Lauro M., Ferraro L., Marsella E., Molosso F., Pelosi N., Sacchi M., Toscano F., Tramontano M.A., 1994. La piattaforma continentale pugliese al largo di Brindisi e tra Capo d'Otranto e S. Maria di Leuca (Adriatico meridionale): approccio ad uno studio integrato di geologia marina. Crociera GMS 94-01, agosto 1994 - Primo leg, Rapp. Tecnico n.2, C.N.R., *Ist. Geol. Mar. Geomare Sud*, Napoli: 59 pp.

Ambrosano E., Ferretti O., Falcinelli F., 1986. Tipologia geomorfologica costiera e caratterizzazione mineralogica dei sedimenti di spiaggia del litorale pugliese. In: Indagine Ambientale del Sistema Marino Costiero della Regione Puglia. Elementi per la Definizione del Piano delle Coste. ENEA, Roma: 55-67.

Argnani A., Bonazzi C., Evangelisti D., Favali P., Frugoni F., Gasperini M., Ligi M., Marani M., Mele G., 1996. Tettonica dell'Adriatico meridionale. *Mem. Soc. Geol. It.*, **51** (1): 227-237.

Ricchetti G., D'Alessandro A., De Fino M., La Volpe L., Luperto Sinni E., Piccarreta G., Posenato R., Reina A., 1994. Geologia delle aree di avampaese. Guida alla escursione precongressuale e alla escursione tematica sul Cretaceo murgiano. *Soc. Geol. It.*: 86 pp.

Ricchetti G., Pieri P., 1999. Guide Geologiche Regionali. (A cura di) Puglia e Monte Vulture. *Soc. Geol. It.*, BE-MA Ed.: 287 p

Viel M., Damiani V., Setti M., 1986. Caratteristiche granulometriche e composizione mineralogica dei sedimenti della Piattaforma Pugliese. In: Indagine Ambientale del Sistema Marino Costiero della Regione Puglia. Elementi per la Definizione del Piano delle Coste. ENEA, Roma: 127-146.

Westaway R., 1993. Quaternary uplift of Southern Italy. *J. Geoph. Res.*, **98** (B12): 741- 772.

3.2.2. Other interesting physical features: Such as hydrodynamics, volcanic formations, caves, underwater formations, etc.

The Marine Protected Area of Torre Guaceto is located in the southern part of the Adriatic Sea, where the basin reaches its maximal depths: the South Adriatic trench reaches 1200 m. The basin has a crucial importance since it is there that the deep thermohaline current of the Eastern Mediterranean is triggered, providing nutrients to the surface portion of the water column and creating proper conditions for the development of complex trophic chains.

The southern part of the Adriatic is the richest of the whole basin in terms of diversity of water masses, being characterized by surface, intermediate and deep waters. The *Adriatic Surface Waters* (ADSW) undergo a clear seasonal temperature cycle, with maximal values in the summer and maximal depth of the mixed layer during the winter. Coastal waters are always separated and can be distinguished from the other water masses during all seasons, due to the inflow of freshwater during both spring and summer. The *Levantine Intermediate Water* (LIW) is found between 150 and 400 m, it is defined by salinity higher than 38.6 psu, and temperature higher than 13.5°C, occupying almost the whole water column during the fall. At deeper levels both the deep water masses formed in the Adriatic are found: the *Northern Adriatic Deep Water* (NAdDW) formed by the cooling effect caused by strong north-west winds, and the *Southern Adriatic Deep Water* (SAdDW) formed in the southern part of the basin due to an almost permanent cyclonic circulation that is stronger in the winter creating conditions that are conducive to the production of dense water through a convective mechanism. These two water masses of the southern Adriatic basin spread through the Ionian Sea, the first flowing along the Italian shelf and the other along the sea bottom.

The surface circulation of the whole Adriatic is cyclonic, with a coastal current that flows along the eastern coasts of the basin, hence named *East Adriatic Current* (EAC), then flowing along the southwards along the western coast, the *Western Adriatic Current* (WAC), reaching the strait of Otranto. The intensity and wideness of the WAC depend on winds and riverine inputs, having a prominent role in providing nutrients for the primary production of the Adriatic basin.

Within the general cyclonic circuit, the Adriatic shows three cyclonic sub-circulations, located in the northern, central and southern part of the basin respectively; the localization and dynamics of the third one are sharply influenced by the presence of the South-Adriatic trench. The zone of Torre Guaceto, along the Italian coast, is primarily influenced by the WAC. Along the Italian coast, the coastal flow towards SE is about 45-70 km wide, with velocities reaching 30 cm/s. In the southern Adriatic the current expands offshore during summer, fall, and winter, whereas it tends to become narrower during the spring; the greatest width of this current is 50 km, and the highest velocities, stronger in the summer than in the winter, are reached at about 10 km offshore the Apulian coast.

3.2.3. Length of beaches (in Km), including islands:

a) Length of sandy beaches:

3 Km

b) Length of pebble or stony beaches:

5,405 Km

c) Length, height and depth of active sand-dunes:

2 km, 15 m, 11 m

3.3 FRESHWATER INPUTS

3.3.1. Mean annual precipitation (in mm)

630-720 mm

3.3.2. Main water courses (permanent and seasonal)

The coastal area is crossed by numerous valley grooves with almost flat bottom, generally dry and not more than 10-15 m deep, that originate at the base of the escarpment and run parallel towards the Adriatic (Table 13) ; the only exception is the Canale Reale, the most important of these grooves, that originates in the inner zones of the Tarantine Murgia and, after a course of some dozens of km, pours just in the reserve of Torre Guaceto, after having received the wastewaters of several large municipalities.

The Canale Reale is normally dry for its whole length, with the exception of the last part that is nourished by the waters of some spring, the main one, Pozzella, has a fairly good capacity (ca15 l/sec), near the mouth of the canal, for other infiltrations, the capacity is even higher (ca 40 l/sec).

3.3.3. Estuarine areas: Existence and brief description

Not applicable to the proposed area

3.3.4. Freshwater springs: Existence and brief description, including marine offsprings

The wetland of Torre Guaceto is fed by freshwater springs; its name derives from the Arabic word GAW SIT, namely "place of fresh water". Being located along the coast, however, the wetland is brackish.

3.4 BIOLOGICAL FEATURES (B2, Annex I)

3.4.1. Habitats:

A brief description of dominant marine and terrestrial habitats, on the basis of the habitat classifications adopted within the framework of MAP (and their coverage in ha)

The main biocenosis present in MPA of Torre Guaceto are:

- I. 2. 1. Biocenosis of supralittoral sands
- I. 2. 1. 5. Facies of phanerogams which have been washed ashore (upper part)
- I. 4. 1. Biocenosis of supralittoral rock
- I. 4. 1. 2. Pools with variable salinity (mediolittoral enclave)
- II. 3. 1. 1. Facies of banks of dead leaves of *Posidonia oceanica* and other phanerogams
- II. 4. 1. Biocenosis of the upper mediolittoral rock
- II. 4. 1. 3. Association with *Nemalion helminthoides* and *Rissoella verruculosa*
- II. 4. 2. Biocenosis of the lower mediolittoral rock
- II. 4. 2. 4. Association with *Ceramium ciliatum* and *Corallina elongata*
- II. 4. 2. 6. Association with *Enteromorpha compressa* (*Ulva compressa*)
- III. 1. 1. Euryhaline and eurythermal biocenosis
- III. 1. 1. 4. Association with *Zostera noltii* (*Nanozostera noltii*) in euryhaline and eurythermal environment
- III. 2. 2. Biocenosis of well sorted fine sands
- III. 2. 3. 4. Association with *Cymodocea nodosa* on superficial muddy sands in sheltered waters
- III. 5. 1. *Posidonia oceanica* meadows (= Association with *Posidonia oceanica*)
- III. 5. 1. 3. Facies of dead « mattes » of *Posidonia oceanica* without much epiflora
- III. 6. 1. Biocenosis of infralittoral algae
- III. 6. 1. 1. Overgrazed facies with encrusting algae and sea urchins
- III. 6. 1. 2. Association with *Cystoseira amentacea*
- III. 6. 1. 35. Facies and association of Coralligenous biocenosis (in enclave)
- IV. 1. 1. Biocenosis of coastal terrigenous muds
- IV. 3. 1. Coralligenous biocenosis
- IV. 3. 1. 7. Association with *Lithophyllum frondosum* e *Halimeda tuna*
- IV. 3. 1. 10. Facies with *Eunicella cavolinii*
- IV. 3. 1. 11. Facies with *Eunicella singularis*
- IV. 3. 1. 14. Facies a *Parazoanthus axinellae*

Other biocenosis present in the reserve are :

- I. 2. 1. 1. Facies of sands without vegetation, with scattered debris
- II. 4. 2. 9. Association with *Gelidium* spp.

It is evident an increasing cover of the invasive algae *Caulerpa racemosa*

The terrestrial habitats present in are (from the Appendix F):

- I.1.1.2 Mediterranean halo-nitrophilous pioneer communities
- I.1.3.3 Mediterranean halo-psammophile meadows
- I.1.6 Mediterranean salt steppes (Limonietalia)
 - I.1.6.1 Mediterranean sea-lavender salt steppes
- I.2.1.1 Unvegetated sand beaches and microbial mats
- I.2.1.2 Sand beach driftline communities
 - I.2.2.1.2 White dunes (Shifting dunes along the shoreline with *Ammophila arenaria*)
 - I.2.2.2.3 Dune fine-grass therophyte communities
 - I.2.2.4 Dune *juniper thickets*
- I.4 Sea-cliffs and rocky shore
- I.5.1 Lithogenic rock stacks and islets
- II.1 Standing freshwater
- III.2.1.2.2 Oleo-Lentiscetum matorral without carob tree
 - III.2.1.3.1 *Juniperus oxycedrus* arborescent matorral
 - III.2.1.3.2 *Juniperus phoenicea* arborescent matorral
 - III.2.1.3.3 *Calycotome infesta* arborescent matorral
- IV.4 Temperate broad-leaved evergreen forests
- V.1.1.1 Common reed beds
- V.1.1.2 Common clubrush beds
- V.1.1.3 Reedmace beds

3.4.2. List of regionally important species (flora and fauna) (B-2a, Annex I)

List here ONLY those species protected by international agreements, particularly those marine species included in Annex II of the Protocol, which are present in the area. Any other species may be listed if it is clearly considered of regional importance given its high representation in the area. Display the species list under the headings Marine Plants, Terrestrial Plants, Marine Invertebrates, Fish, Amphibians and Reptiles, Birds, and Mammals. For each species state:

1. its relative abundance as Common (C), Uncommon (U) or Occasional (O),
2. Its global status as rare (r), endemic (e) and/or threatened (t), and
3. its status as an important resident population (R), or important for its breeding (B), feeding (F), wintering (W) or migratory passage (M)

| SPECIES | Rel. Abundance (C) (U) (O) | Global STATUS (r) (e) (t) | Local STATUS (R) (B) (F) (W) (M) |
|----------------------------------------------------------|-------------------------------|------------------------------|-------------------------------------|
| MARINE INVERTEBRATES | | | |
| PORIFERA | | | |
| <i>Aplysina aerophorba</i> | (U) | (t) | (R) |
| <i>Axinella cannabina</i> | (C) | (t) | (R) |
| <i>Axinella polypoides</i> | (C) | (t) | (R) |
| <i>Ircinia foetida</i> (<i>Sarcotragus spinosulus</i>) | (C) | (t) | (R) |
| <i>Spongia</i> (<i>Spongia</i>) <i>officinalis</i> | (U) | (t) | (R) |
| CNIDARIA | | | |
| <i>Eunicella cavolini</i> | (C) | (t) | (R) |
| <i>Eunicella singularis</i> | (C) | (t) | (R) |
| <i>Eunicella verrucosa</i> | (C) | (t) | (R) |
| <i>Parazoanthus axinellae</i> | (C) | (t) | (R) |
| <i>Cladocora caespitosa</i> | (C) | (t) | (R) |
| <i>Balanophyllia europea</i> | (C) | (t) | (R) |

| | | | |
|------------------------------------------------|-----|---------|-----|
| ECHINODERMATA | | | |
| <i>Paracentrotus lividus</i> | (C) | (t) | (R) |
| MOLLUSCA | | | |
| <i>Dendropoma petraeum</i> | (C) | | |
| <i>Lithophaga lithophaga</i> | (C) | (t) | (R) |
| <i>Luria lurida</i> | (O) | | |
| <i>Pinna nobilis</i> | (O) | (t) | (R) |
| <i>Tonna galea</i> | (O) | | |
| CRUSTACEA | | | |
| <i>Homarus gammarus</i> | (C) | (t) | (R) |
| <i>Palinurus elephas</i> | (C) | (t) | (R) |
| BRYOZOA | | | |
| <i>Myriapora truncata</i> | (C) | (t) | (R) |
| <i>Sertella sp.</i> | (C) | (t) | (R) |
| <i>Pentapora fascialis</i> | (C) | (t) | (R) |
| PISCES | | | |
| <i>Epinephelus marginatus</i> | (C) | (t) | (R) |
| <i>Pomatoschistus sp.</i> | | (t) | |
| <i>Sciaena umbra</i> | (C) | (t) | (R) |
| <i>Umbrina cirrosa</i> | (O) | (t) | (R) |
| REPTILES | | | |
| <i>Caretta caretta</i> | (O) | (t) | (M) |
| AVES | | | |
| <i>Calonectris diomedea</i> | (C) | (t) | (W) |
| <i>Puffinus yelkouan</i> | (C) | (t) | (W) |
| MARINE PLANTS | | | |
| MAGNOLIOPHYTA | | | |
| <i>Posidonia oceanica</i> | (C) | (e) (t) | (R) |
| <i>Zostera noltii (Nanozostera noltii)</i> | (C) | (e) (t) | (R) |
| PHAEOPHYTA | | | |
| <i>Cystoseira amentacea=</i> | (C) | (t) | (R) |
| RHODOPHYTA | | | |
| <i>Lithophyllum lichenoides (L. bissoides)</i> | (C) | (t) | (R) |

3.4.3. Flora: Describe in a few sentences the main plant assemblages significant in the area.

Coastal Habitats of European Interest (Direttiva Habitat) present within the MPA boundaries are:

- Dunes with *Brachypodietalia* meadows and annual vegetation
- Mobile dunes of the littoral cordon including the presence of *Ammophila arenaria* (“White Dunes”)
- Annual vegetation of marine deposits
- Rocky shores with coastal Mediterranean vegetation with endemic *Limonium* spp.

Marine habitats:

In the rocky mesolittoral, *Laurencia* spp. and *Corallina elongata* are particularly abundant.

Cystoseira spp. fringes are present along the rocky shores, with low percent cover both near the tower of the MPA and on the north coast of the islands within the A zones.

In the rocky inlets near the tower featured by low water movements, the assemblage is dominated by algae of the genus *Ulva*.

In the shallow sublittoral, algal assemblages are well represented at a depth comprised between 1 and 8 meters, both in the two A zones and in the C zone. Those assemblages are dominated by *Acetabularia acetabulum* and *Halimeda tuna*, by the brown algae *Padina pavonica* and by the red algae *Amphiroa rigida*.

Posidonia oceanica represents the 20% of the whole area, mostly in the C zone, interspersed between patches of sands and dead matte until a depth of 17 meter. Only the 0.5% of the *Posidonia* meadow is under full protection regime, and also small patches of *Cymodocea nodosa* has been found. The invasive species *Caulerpa racemosa* is also very common. Euryhaline and eurythermal biocenosis is featured by the presence of the marine phanerogam *Nanozostera noltii*.

3.4.4. Fauna: Describe in a few sentences, which are the main fauna populations present in the area.

In close proximity of the coastline lives bird species, such as divers, grebes, petrels, cormorants. There are also typically swampy species of the order of Anseriformes, which use the waters of the AMP as a stop area. Many species of Anatidae use the AMP waters as a rest stop during the migratory phase and during the daily inactivity during the other periods of the year as well.

Bare rocks with encrusting red algae (RCEO) are characterised by the grazing activity of sea urchins, namely *Paracentrotus lividus* and, above all *Arbacia lixula*. On these rocky barrens there are few organisms that are able to cope with the sea urchin's grazing pressure. Among these can be cited the sponge *Chondrilla nucula*, the anthozoan *Balanophyllia europaea* and vermetid molluscs.

Some traits of precoralligenous formations, mostly localised in front of the Tower of Guaceto, at 15-17 meter depth, are characterised by patches of high density of gorgonians of the species *Eunicella cavolinii*, *E. singularis* and *E. verrucosa*. The localised abundance of such species confers to this habitat a special ecological value, also considering that gorgonians are usually found at higher depths elsewhere in the Mediterranean.

Hard bottoms made by biogenetic formations (coralligenous) are present between 22 and 35 meter depth. The distribution of coralligenous habitat is not continuous, with patches that alternate with sandy bottom. Below 35 meters the presence of coralligenous is only occasional and it disappears at a depth of 45 meter, where the sands are substituted by muddy substrates. The basal portion of the biogenetic formations is mostly made by calcareous red algae of the genus *Peyssonnelia* and by encrusting bryozoans. The higher portion is mostly represented by massive sponges (*Agelas oroides*, *Axinella* sp. and *Petrosia ficiformis*), the anthozoan *Parazoanthus axinellae*, erect bryozoans (*Myriapora truncata*, *Pentapora* sp. and *Adeonella* sp.) and the ascidian *Halocynthia papillosa*. It is also worthy noting, at 25-30 m depths the presence of the erect sponges of the genus *Axinella*. The large size of these colonies confers a peculiar aspect to the subtidal environment of the AMP of Torre Guaceto.

Within the *Posidonia oceanica* seagrass meadows the typical species are anthozoans (*Cerianthus membranaceus*), bivalves molluscs (*Pinna nobilis*) and bryozoans (*Electra posidoniae*, *Schizobrachiella* sp., *Calpensia* sp.).

The species characterizing the euryhaline and eurythermal biocenosis generally are buried in the sediments or fixed to the substratum such as polychaetes (*Arenicola marina*, *Sabella spallanzanii*, *Myxicola infundibulum*, *Fabricia stellaris*), bivalve molluscs (*Pecten jacobaeus*, *Tellina* sp., *Tapes* sp., *Donax* sp., *Callista* sp., ecc.) and some anthozoans (*Condylactis aurantiaca*). This species has been found very abundant in the A zone on sandy substrate.

Muddy substrate is featured by high density values with molluscs, ophiuroids, asteroids, holoturians, and several species of polychaetes (vagiles, with chitinous tubes, or with aggregates of inorganic grains).

3.5. HUMAN POPULATION AND USE OF NATURAL RESOURCES

3.5.1 Human population

a) Inhabitants inside the area:

| | Number | Date of data |
|-------------------------------------------|-------------------------------------|--------------|
| Permanent | Not applicable to the proposed area | |
| Seasonal number (additional to permanent) | Not applicable to the proposed area | |

DESCRIPTION OF THE POPULATION

Not applicable to the proposed area

MAIN HUMAN SETTLEMENTS AND THEIR POPULATIONS

There are no residents in the MPA. The municipalities of Brindisi, with 91.664 inhabitants, and Carovigno, with 15.098 inhabitants, plus the coastal settlements deriving from these communities in the summer season, are present near the MPA.

3.5.2 Current human use and development

Briefly describe the current use of the area by subsistence, artisan, commercial and recreational fishing, hunting, tourism, agriculture and other economic sectors.

The main activities in the vicinity of the MPA are devoted to tourism, coastal fisheries, handmade production, and small-scale agriculture.

b) Enter how many of the users depend on these resources, seasonality, and assessment of the social and economic importance of their use and of the perceived impact on the conservation of the area, in a score of 0-1-2-3 (meaning null, low, medium, high).

| ACTIVITY AND CATEGORY | ASSESS IMPORTANCE OF | | Estimated No. of Users | Seasonality |
|----------------------------------|----------------------|-----------------|------------------------|-------------|
| | Socio-economic | Conserv. Impact | | |
| FISHING | | | | |
| Subsistence | 2 | 2 | | |
| Commercial, local | 1 | 1 | | |
| Commercial, non-local | 0 | 0 | | |
| Controlled recreational | 1 | 1 | | |
| Un-controlled recreational | 2 | 1 | | |
| Other | | | | |
| TOURISM | | | | |
| Regulated | 2 | 2 | | |
| Unregulated | 2 | 2 | | |
| Indicate the type of tourism | | | | |
| -..... | 0 1 2 3 | 0 1 2 3 | | |
| -..... | 0 1 2 3 | 0 1 2 3 | | |
| . | | | | |
| . | | | | |
| Tourism facilities | 1 | 1 | | |
| FOREST PRODUCTS | | | | |
| Subsistence | 0 | 0 | | |
| Non-timber commercial, local | 0 | 0 | | |
| Non-timber commercial, non-local | 0 | 0 | | |
| Timber commercial, local | 0 | 0 | | |
| Timber commercial, non-local | 0 | 0 | | |
| | | | | |
| Agriculture | 1 | 1 | | |
| Stockbreeding | 1 | 1 | | |
| Aquaculture | 2 | 2 | | |
| EXTENSIVE STOCK GRAZING | | | | |
| Subsistence | 1 | 1 | | |
| Commercial, local | 1 | 0 | | |
| Commercial, non-local | 0 | 0 | | |
| OTHER ACTIVITIES | | | | |
| - | 0 1 2 3 | 0 1 2 3 | | |
| - | 0 1 2 3 | 0 1 2 3 | | |

3.5.3. Traditional economic or subsistence uses

Name any environmentally sound traditional activities integrated with nature, which support the well being of the local population. E.g. land, water use, target species, if closed seasons or closed zones are used as management techniques.

The main activities in the MPA are related to fishery, tourism and environmental education.

4. MEDITERRANEAN IMPORTANCE OF THE SITE

This Section aims at stressing the importance of the site for conservation at the regional or global scales, as set in Art. 8 para. 2 of the Protocol and B2-a, B2-b and B2-c in Annex I.

4.1 PRESENCE OF ECOSYSTEMS/HABITATS SPECIFIC TO THE MEDITERRANEAN REGION

Name the type of habitats considered of Mediterranean specificity, on the basis of the habitat classifications adopted within the framework of MAP, and their estimated cover (Ha).

- I. 2. 1. Biocenosis of supralittoral sands
- I. 2. 1. 5. Facies of phanerogams which have been washed ashore (upper part)
- I. 4. 1. Biocenosis of supralittoral rock
- I. 4. 1. 2. Pools with variable salinity (mediolittoral enclave)
- II. 3. 1. 1. Facies of banks of dead leaves of *P. oceanica* and other phanerogams
- II. 4. 1. Biocenosis of the upper mediolittoral rock
- II. 4. 1. 3. Association with *Nemalion helminthoides* and *Rissoella verruculosa*
- II. 4. 2. Biocenosis of the lower mediolittoral rock
- II. 4. 2. 4. Association with *Ceramium ciliatum* and *Corallina elongata*
- II. 4. 2. 6. Association with *Enteromorpha compressa* (*Ulva compressa*)
- III. 1. 1. Euryhaline and eurythermal biocenosis
- III. 1. 1. 4. Association with *Nanozostera noltii* in euryhaline and eurythermal environment
- III. 2. 2. Biocenosis of well sorted fine sands
- III. 2. 3. 4. Association with *Cymodocea nodosa* on superficial muddy sands in sheltered waters
- III. 5. 1. *Posidonia oceanica* meadows (= Association with *Posidonia oceanica*)
- III. 5. 1. 3. Facies of dead «mattes» of *Posidonia oceanica* without much epiflora
- III. 6. 1. Biocenosis of infralittoral algae
- III. 6. 1. 1. Overgrazed facies with encrusting algae and sea urchins
- III. 6. 1. 2. Association with *Cystoseira amentacea*
- III. 6. 1. 35. Facies and association of Coralligenous biocenosis (in enclave)
- IV. 1. 1. Biocenosis of coastal terrigenous muds
- IV. 3. 1. Coralligenous biocenosis
- IV. 3. 1. 7. Association with *Lithophyllum frondosum* e *Halimeda tuna*
- IV. 3. 1. 10. Facies with *Eunicella cavolinii*
- IV. 3. 1. 11. Facies with *Eunicella singularis*
- IV. 3. 1. 14. Facies a *Parazoanthus axinellae*

For the moment it is impossible to give an absolute value of covering

4.2 PRESENCE OF HABITATS THAT ARE CRITICAL TO ENDANGERED, THREATENED OR ENDEMIC SPECIES

A critical habitat is an area essential to the conservation of the species concerned. These species should be those included in Annex II of the Protocol. E.g. Islets and sea stacks, as small islands in the sea or in large bodies of water, mostly important for water-bird colonies; caves appropriate for monk seals; undisturbed sand beaches where marine turtle nesting occurs; coastal lagoons where threatened fish or bird species feed or breed; tidal flats, coastal or benthic substrates important for marine invertebrates, etc.

Name the habitat types and the species linked to it.

- I. 2. 1. 5. Facies of phanerogams which have been washed ashore (upper part)
- II. 3. 1. 1. Facies of banks of dead leaves of *P. oceanica* and other phanerogams
- II. 4. 1. 3. Association with *Nemalion helminthoides* and *Rissoella verruculosa*
- III. 1. 1. 4. Association with *Nanozostera noltii* in euryhaline and eurythermal environment (*Nanozostera noltii*)
- III. 5. 1. Posidonia oceanica meadows (*Posidonia oceanica*; *Pinna nobilis*; *Paracentrodus lividus*)
- III. 6. 1. Biocenosis of infralittoral algae (*Lithophaga lithophaga*)
- III. 6. 1. 2. Association with *Cystoseira amentacea* (*Cystoseira amentacea*)
- III. 6. 1. 35. Facies and association of Coralligenous biocenosis (in enclave)
- IV. 3. 1. Coralligenous biocenosis (*Homarus gammarus*, *Palinurus elephas*)
- IV. 3. 1. 10. Facies with *Eunicella cavolinii* (*E. cavolini*)
- IV. 3. 1. 11. Facies with *Eunicella singularis* (**E. singularis**)

4.3 OTHER RELEVANT FEATURES (Art. 8 paragraph 2 in the Protocol)

4.3.1. Educational Interest (B-3 in Annex I)

E.g. particular values for activities of environmental education or awareness

Since the weakest aspect for the success of the Reserve is the scarce awareness of the local community in respect to the potential for development deriving from the institution of the Reserve itself, a great effort was devoted to activities aimed at informing the locals so to increase their trust in the Reserve and in the Managing Committee, providing information on the opportunities offered by the models of sustainable development and on the available benefits and special terms for the populations living in the vicinity of the Reserve.

In the formats of environmental education, the relationships with schools were paramount and the Reserve of Torre Guaceto is an important reference in all programmes of environmental education since many years, being visited by many thousands of students every year, being one of the most representative natural areas of the whole region.

Activities of environmental information, formation and education are parts of a wider regional strategy, since the Experience Centre of Torre Guaceto, located in the Visitors Centre at Serranova, is part of the network In.F.E.A. (Informazione, Formazione ed Educazione Ambientale: Environmental Information, Formation and Education) of the region Apulia.

Activities devoted to environmental education:

ciclotrekking, to explore the various landscapes of the Reserve;

walking excursions to become familiar with nature through the hands, feet, eyes, nose, and mouth, to think and remember;

seawatching activities, snorkeling in the Mediterranean to collect impressions and emotions.

Yoga and nature, experiences of yoga in the Reserve. Cradled by the waves, massaged by warm sand, to slowly walk and stop to breath energy and enhance self-awareness;

Looking for Gold in the Park, walks in the secular olive tree garden of the reserve, with tasting of Apulian oils to discover the value of biological agriculture, of the Lands and the Gold of the Park;

Invitation to sailing, experiences to discover sailing in the Reserve, under the guidance of the Sailing Centre;

Apnea environment, experiences of discovery of the wonders of the submarine world, of the wellbeing of apnea diving and of the techniques of relax to increase self-confidence;

Invitation to snorkeling, short introduction courses to learn how to snorkel in security to discover the submarine world.

4.3.2. Scientific Interest (B-3 in Annex I)

Explain if the site represents a particular value for research in the field of natural or heritage sciences.

The scientific interest of the MPA resides in the presence of environments of EU interest such as: coastal dunes, brackish lagoons with *Zostera noltii* (*Nanozostera noltii*), infralittoral sands with *Posidonia oceanica* meadows and the presence of both precoralligenous and coralligenous formations. All these habitats are important and must be monitored over the long term.

4.3.3. Aesthetic Interest (B-3 in Annex I)

Name and briefly describe any outstanding natural features, landscapes or seascapes.

The spatial succession, from beach to dunes to Mediterranean shrub, are particularly captivating from a point of view that is not only scientific but also aesthetic.

The wetlands and the dune system have a great environmental interest, since they are sites for the rest of migratory birds and, furthermore, are characterized by a permanent fauna of birds, amphibians and reptiles living in wetland environments, being also inhabited by species of floristic importance.

Large, secular olive groves are carefully maintained, and the divisions of properties is made with ancient stone walls made with local stones taken from the ground during plowing.

One objective is to qualify the management of secular olive groves, a strong and distinctive mark of the agricultural landscape of the area of Torre Guaceto, meanwhile reducing the impact of agriculture on ecosystem health. The Reserve of Torre Guaceto, within the framework of TWReferenceNET, is promoting a pilot action named "Oro del Parco" (Gold of the Park) to convert live and oil production to biological practices.

The littoral trait of the MPA, in spite of its short extension, is characterized by a much varied coastline. In particular, in the southern part, the straight coast is characterized by a clay cliff. Near the tower, and northwards to it, the coast is characterized by a rocky cliff with a series of small coves and pocket beaches. Further north, following this rocky trait, the coast is low and sandy.

4.3.4. Main cultural features

Indicate if the area has a high representative value with respect to the cultural heritage, due to the existence of environmentally sound traditional activities integrated with nature which support the well-being of local populations.

Tourism has a great potential aimed at the offer of a diverse array of services, aimed at enhancing ecotourism, seaside tourism, rural tourism, eno-gastronomic tourism. All these activities can be connected with the thematic itineraries already present in the Reserve (Road of the DOP Oil Hill of Brindisi, or the Itinerary of Rupicolous Settlements).

The high archaeological relevance of the Reserve, due to the presence of a neolithic village, justifies the proposal of a series of actions to enhance the value and the knowledge to the public at large of this cultural heritage.

The presence of a rural village (Serranova) outside the reserve, allows the creation of a logistic centre, with services and laboratories, to be used for the scopes of the Reserve itself, giving renewed momentum to a rural village subjected to depopulation.

5. IMPACTS AND ACTIVITIES AFFECTING THE AREA

5.2 IMPACTS AND ACTIVITIES WITHIN THE SITE

5.1.1. Exploitation of natural resources

Assess if the current rates of exploitation of natural resources within the area (sand, water and mineral exploitation, wood gathering, fishing, grazing...) are deemed unsustainable in quality or quantity, and try to quantify these threats, e.g. the percentage of the area under threat, or any known increase in extraction rates.

Use of maritime national properties and adjacent areas: impact on aquatic populations deriving from the collection of coastal benthic organisms by visitors of the Reserve; impact on the abiotic compartment of the aquatic environment due to non-authorized entrance of aquascooters in the southern zone of the MPA; impact on the soil of the coastal zone due to non-authorized parking of cars the cause an emergency situation in the A Zone of Apani, where the cliff is liable to collapse and the consequent prohibition to remain within 5 m from the foot of the cliff itself.

5.1.2. Threats to habitats and species

Mention any serious threats to marine or coastal habitats (e.g. modification, desiccation, disturbance, pollution) or to species (e.g. disturbance, poaching, introduced alien species...) within the area.

Waters from the Canale Reale. The water of the Canale Reale pours into the A zone of the MPA, subjected to total protection, in front of the terrestrial reserve. The total that receives fresh- and brackish water is of 144 ha. Impact on the biotic components or on the abiotic variables of the water compartment due to the overcoming of the Law Decree 152/99 and for non controlled discharges of undetermined organic and inorganic pollutants. Impact on the soil compartment of the coastal zone due to the possible presence of pollutants that can percolate into the soil.

5.1.3. Demand by an increased population and infrastructures

Assess whether the current human presence or an expected increase in frequentation (tourism, passage of vehicles and boats) and any human immigration into the area, or plans to build infrastructures, are considered a threat.

- Navigation in the MPA with the vessels of the Managing Agency (impact on the abiotic compartment of water and air, and on the soil compartment of the coastal zone);

- SCUBA diving to monitor and control the state of submerged habitats and infrastructures; being carried out for scientific and control scopes, these activities are authorized in the three zones of the MPA (A, B, C). In order to reduce environmental pressures, these activities are carried out by specialized personnel. Operators, however, might cause damage to the benthos with trampling if not properly balanced. This might present some problem when sea fans are present, i.e. in the C zone;

- Tourist diving; the impact might be due to scant experience in diving by the visitors who, if not properly balanced, might cause damage the benthic populations on hard bottoms.

5.1.4. Historic and current conflicts

Make a brief statement of any historic or current conflicts between users or user groups.

No conflicts among stakeholders are present

5.2 IMPACTS AND ACTIVITIES AROUND THE SITE

In Art.7.2-e the Protocol calls for the regulation of activities compatible with the objectives for which a SPA was declared, such as those likely to harm or disturb species or ecosystems (Art.6.h), while Section B4 in Annex I asks to consider “the existence of threats likely to impair the ecological, biological, aesthetic or cultural value of the area” (B4-a in Annex I), recommending the existence, in the area and its surroundings, of opportunities for sustainable development (B4-d) and of an integrated coastal management plan (B4-e).

5.2.1. Pollution

Name any point and non-point sources of external pollution in nearby areas, including solid waste, and especially those affecting waters up-current.

- Waters from the wetland. The water coming from the wetland, covering an extension of 1,2 km², pours in the A no-take zone of the MPA through a series of superficial canals. Impact on the communities and on the abiotic variables of the water compartment and on the populations of the coastal zone for the overcoming of the ex Legislative Decree 152/99 and for uncontrolled discharges of undetermined organic and inorganic pollutants in the wetland. Impact in the compartment soil of the coastal zone due to the possibility of presence of pollutants that can percolate into the soil;

- Marine pollution due to the stranding of solid inorganic reject and to the organic charge that is transported along the littoral from the Northern Adriatic and from Albania due to winds and currents, causing their accumulation near the Promontory in the A Zone. The accumulation of detritus of varied nature is particularly critical when northern winds blow (about 180 days per year). Impact on the communities of the water compartment since the presence of hydrocarbons might represent an impact for benthic organisms; impact on the abiotic variables of the water compartment since the intense passage of large ships offshore the MPA can determine the presence of episodes of oil spills in the water, impact on the coastal zone due to the stranding of oil on the coastline. The accumulation of stranded rejects on the coast also represents an aesthetic impact.

5.2.2. Other external threats, natural and/or anthropogenic

Briefly describe any other external threat to the ecological, biological, aesthetic or cultural values of the area (such as unregulated exploitation of natural resources, serious threats on habitats or species, increase of human presence, significant impacts on landscapes and cultural values, pollution problems, any sectorial development plans and proposed projects, etc.), likely to influence the area in question.

5.2.3. Sustainable development measures

Comment whether the area is covered by an integrated coastal management plan, or bordering upon a zone under such a plan. Are there other opportunities for sustainable development provided for in the neighbouring areas?

The area is engaged in activities that are compatible with a policy of sustainable development

6. EXPECTED DEVELOPMENT AND TRENDS¹

The foreseeable development and trends of the site do not appear in the list of common criteria for the choice of protected marine and coastal areas that could be included in the SPAMI list, as established in the Protocol and its Annex I. Moreover, this is not always easy to assess and it is necessary to have knowledge about the site, which is not always available to all managers of protected areas; Thus, it is not obligatory to fill in the boxes in this Section 6.

On the other hand, the assessment of this foreseeable evolution and trends constitutes a dynamic supplement to the static knowledge of the site, as it appears in Sections 3, 4 and 5 above. Moreover, it is of significant importance for the definition of the objectives and the management plan of the site.

It thus appears desirable to bringing out the main outlines at least in respect to the following points:

6.1 EXPECTED DEVELOPMENT AND TRENDS OF THREATS TO AND PRESSURES UPON THE AREA

Deal briefly in succession with:

- The demographic development in and around the site
- The development of economic activities (other than tourism and recreation) within the area
- The development of local demand on tourism and recreation
- The development of tourism pressure on the area

In relation to the individuated driving forces (touristic diving, visits on federal properties and nearby areas, illegal fisheries, outflow of water from the Canale Reale and from the wetland, marine pollution) the environmental analysis for the EMAS registration of the Reserve set these objectives:

TOURIST DIVING:

- Maintenance of vessels according to the current norms so to minimize impacts;
- Adoption of the Regulations for the Use of Vessels;
- Predispose a register of the submarine SCUBA activities; for each guided visit the date, the site of diving, the generalities of participants and of the guides will be recorded;
- Regulation of the modalities of development of submarine activities:
 - Diving in the MPA must be carried out by respecting the current regulations and, in any way, in the presence of one guide for each group of five divers.
 - Divers will be accompanied to the diving site with the vessels and the personnel of the Management Agency, that will provide technical assistance to the diving activities.
 - The maximum number of daily dives is 72, including the dives of the guides; in no case it is allowed that more than 12 divers (ten visitors and 2 guides) visit the same site together.

¹ By expected development and trends are meant the development, which is thought most likely to occur in the absence of any deliberate intervention to protect and manage the site.

- It is forbidden to touch the marine bottom during the dives.
- Implementation of courses organized by the Managing Agency finalized to the respect of the MPA by its visitors.

USE OF FEDERAL PROPERTIES AND NEARBY AREAS:

- Environmental restoration of dunes and prohibition of entrance in this environmental system.
- Activities of awareness about the ways of non impacting visits of the MPA.
- Control activities by the Coast Guard
- Integrative actions to control the MPA
- Decrease of the number of illegal parkings present on the maritime federal property.
- Service conferences with the organs appointed at controlling the territory to foster the integration and the efficacy of the control activities and of the federal property, including the disposal of rejects.
- Involvement of Civil Protection (Protezione Civile) in the management of the traffic of vehicles near the maritime federal property in the periods of maximal affluence of visitors
- Indication in the contractual phase with professional Subjects about the ways of carrying out the development of educational and touristic activities

ILLEGAL FISHERIES

- Coordination with the forces aimed at control and defence of the resources
- Information about the prohibitions enforced in the MPA

WATERS OF THE CANALE REALE

- Assemblage of the data about balneability collected by ARPA Apulia, Province of Brindisi

WATERS OF THE WETLANDS

- Activities are in course to involve the farmers present in the terrestrial reserve into sustainable agricultural practices;
- Set up of signals evidencing the prohibitions in the terrestrial Reserve;
- Characterize the optimal periods for the activities of control and monitoring by weekly meeting to plan activities
- Stipulate a protocol with the certification agency ICEA, to promote techniques of sustainable agriculture in the Terrestrial Reserve

MARINE POLLUTION

- Use of special vessel to collect solid rejects transported by marine currents
- Cleaning of marine bottoms by volunteers
- Enhance the awareness about the problems of marine pollution in the visitors of the reserve.
- Analysis of the merceological typologies according to the Ronchi decree about the rejects present on the marine bottom and on the maritime federal property
- Activities of visual control inside the MPA of the presence of oil and organic pollutants

6.2. POTENTIAL CONFLICTS IN THE AREA

Make a brief statement of potential use conflicts between the users or group of users of the site.

No real socio-economic conflicts are running in the area.

6.3. EXPECTED DEVELOPMENT AND TRENDS OF THE NATURAL LAND ENVIRONMENT AND LANDSCAPES OF THE AREA:

as expected arising from the evolution of the pressures

not applicable to the proposed area

6.4. EXPECTED DEVELOPMENT AND TRENDS OF THE MARINE ENVIRONMENT AND SEASCAPES OF THE AREA:

as expected arising from the evolution of the pressures

No real changes are expected, because the activities of control and protection are efficient

7. PROTECTION REGIME

7.2 LEGAL STATUS (General Principles “e” and Section C-2 both in Annex I)

7.1.1. Historical background of the protection of the site

The first initiatives to enhance protection of the area of Torre Guaceto date back to 1970 when the marquis Luisa Romanazzi Carducci entered the national board of W.W.F. Italia and started to promote interest on the territory.

After the failure of the hypothesis of building a nuclear power plant in the zone, and of another plan of touristic development in the area with the construction of touristic settlements, on May 18 1981, the Ministry of Agriculture and Forests, after the decree of the President of the Republic of March 13 1976, according to the Ramsar Convention of February 2 1971, declared Torre Guaceto as a wetland of international interest.

In 1987, W.W.F. Italia, appointed by the Ministry of Merchant Marine, realized the feasibility plan for the institution of a marine reserve at Torre Guaceto. The reserve was instituted on December 4 1991, with a decree of the Ministry. The MPA was entrusted to the Brindisi Coast Guard that, in those years, carried out a precious action of guardianship of the territory.

Within the framework of the EU programme “Natura 2000” and of the linked Italian programme “Bioitaly”, the Region Apulia, according to the EU Habitat Directive 92/43 proposed Torre Guaceto as a site of Community Interest naming it “Torre Guaceto Macchia San Giovanni (IT9140005)”. Furthermore, the Region Apulia individuated the wetland of Torre Guaceto as a Zone of Special Protection (ZPS) (IT9140008) according to the EU directive 79/409 “Birds”.

For all the above reasons, the Ministry of the Environment, with a Decree of February 4 2000 instituted the Natural State Reserve of Torre Guaceto. The decree individuated in its article 4 the management organisms as a mixed consortium among the Municipality of Brindisi, the Municipality of Carovigno and the no-profit Environmentalist Association World Wildlife Italia-W.W.F. Italia. In the same article, the decree individuates the same consortium as management agency of the marine natural reserve of Torre Guaceto.

7.1.2. Legal texts currently ruling the protection on the site

Enter the national conservation category, the dates and the present enforcement status of the legal instrument declaring the protection of the area. Consider both the land and the marine areas of the site. Include the full text(s) as an annex.

Interministerial decree 4 December 1991. Institution of the marine Natural Reserve "Torre Guaceto". (Attached)

Decree of the Ministry of the Environment, 4 February 2000. Institution of the State Natural Reserve named «Torre Guaceto». (Attached)

Regulation decreed by Ordinance of the Coast Guard of Brindisi N° 25/2006 (Attached)

7.1.3. Objectives (General Principles “a” and D-1 in Annex I)

Name in order of importance the objectives of the area as stated in its legal declaration.

The MPA pursues the following objectives:

- * The conservation and valorization of the national marine and coastal natural heritage of the area, with special reference to water quality, to the geomorphological features, to the flora and the fauna and, especially, to the bird fauna in relation to the designation of part of the area as wetland of international interest as envisaged by the decree of the President of the Republic n. 448/1976;
- * The realization of programmes of study and research aimed at the systematic knowledge of the area, also to modify and integrate the delimitation and the planning of the protected area as established in the institution decree, and also to define an optimal model of integrated management of the area itself, so to pursue the conservation and the valorization of the natural heritage;
- * The study and the planning of a rational management of the fish resources in the various zones, according to the modalities envisaged by the institutional decree, so to reach a level of compatibility of fisheries activities with the primary aim of the reserve, i.e. nature conservation, envisaging, then, within the framework of systematic research, also the interventions aimed at the repopulation of the fish communities in the nearby zones;
- * The promotion of a socio-economic development compatible with the naturalistic and landscape relevance of the area, also privileging the already existing traditional activities; within the framework of the promotion of a sustainable development of the above stated aims, for the activities of canalization of touristic fluxes and of guided visits, the determination of the regulation of these activities will envisage specific facilitations for collective transport vehicles preferably managed by residents in the municipalities of Brindisi and Carovigno.

7.1.4. Indicate whether the national protection regime arises from international treaties enforced or from implementation measures of treaties (Art. 6.a in the Protocol).

not applicable to the proposed area

7.2 INTERNATIONAL STATUS

7.2.1. Transboundary or high seas areas

Complete this section only if the area is transboundary, totally or partially in the high sea, or within areas where the limits of national sovereignty or jurisdiction have not yet been defined. In this case, mention the modalities of the consultation (Art. 9 para. 3A in the Protocol and General Principles “d” in Annex I).

The Torre Guaceto MPA is not a transboundary area

7.2.2. International category

Mention if the area, or part of it, has been designated and on what date, with an international conservation category (e.g. Specially Protected Area, Biosphere Reserve, Ramsar Site, World Heritage Site, European Diploma, Natura 2000, Emerald network, etc.).

Ramsar site no. 215 Italy, Torre Guaceto, designated 21/07/81, 940 ha, Montreux Record 31/12/93, removed 21/03/00

Natura2000-Special Protection Area (SIC): IT9140005 “Torre Guaceto Macchia San Giovanni”

Natura2000-Special Protection Area (ZPS): IT9140008 “La zona umida di Torre Guaceto”

7.3 PREVIOUS LEGAL BACKGROUND AND LAND TENURE ISSUES

Briefly mention if the area or part of it is subject to any legal claim, or to any file open in that connection within the framework of an international body. Describe the land tenure regimes within the area, and append a map if existing.

not applicable to the proposed area

7.4 LEGAL PROVISIONS FOR MANAGEMENT (Section D-1 in Annex I)

7.4.1. Zoning

Briefly state if the legal text protecting the area provides for different zones to allocate different management objectives of the area (e.g. core and scientific zones in both land and sea, fishing zones, visitation, gathering, restoration zones etc) and in this case the surface area in ha of these zones. Include a map as an annex

The Marine Protected Area is located in front of Torre Guaceto Nature Reserve and its maximum depth is 50 meters. It is delimited by the lines joining the points showed below (see the attached map, number 1, at the institutive decree):

- A) latitude 40°45'24"North; longitude 17°46'04"East;
- B) latitude 40°43'15" North; longitude 17°50'56"East;
- C) latitude 40°41'44"North; longitude 17°49'36"East;
- D) latitude 40°43'24"North; longitude 17°46'00"East.

The Marine Protected Area has been divided into zones having different type of protection:

A Zone, no-entry, no-take zone. It includes the marine area defined by the lines joining the points showed below(see the attached map, number 1, at the institutive decree):

- E) latitude 40°43'09"North; longitude 17°47'48"East;
- F) latitude 40°42'45"North; longitude 17°48'54"East;
- G) latitude 40°42'15"North; longitude 17°48'28"East;
- H) latitude 40°42'57"North; longitude 17°47'36"East;

Also it includes the marine area defined by the lines joining the points showed below (see the attached map, number 1, at the institutive decree):

- I) latitude 40°42'28"North; longitude 17°49'24"East;
- L) latitude 40°42'16"North; longitude 17°49'48"East;
- M) latitude 40°41'56"North; longitude 17°49'30"East;
- N) latitude 40°42'06"North; longitude 17°49'09"East;

B Zone, the General Reserve. It includes the marine area defined by the lines joining the points showed below (see the attached map, number 1, at the institutive decree):

- O) latitude 40°43'54"North; longitude 17°46'24"East;
- E) latitude 40°43'09"North; longitude 17°47'48"East;
- H) latitude 40°42'57"North; longitude 17°47'36"East;
- P) latitude 40°43'18"North; longitude 17°46'24"East;

C Zone of Partial Reserve. It includes the marine area remaining.

7.4.2. Basic regulations

Mention the provisions, which apply to the area concerning the implementation of Article 6 of the Protocol (paragraphs a to i), Section D5 (a to d) in the Annex I and Article 17 of the Protocol.

The delimitation of the MPA Torre Guaceto as well as its division into the areas A, B and C are established by the Decree issued by the Ministry of the Environment, on 4 February 2000.

The total MPA Torre Guaceto has a surface of 2.227 ha.

Torre Guaceto MPA is divided in three zones, according to the different protection:

A ZONE: no entry-no take zone.

B ZONE, the General Reserve:

In this zone, fishing, harvesting; entry, sailing and approaching of all kinds of craft are forbidden, according to the Decree of the Ministry of the Environment.

C ZONE, Partial Reserve.

In this zone fishing is allowed according to the Decree of the Ministry of the Environment.

7.4.3. Legal competencies

Section D4 in Annex I states that the competence and responsibility with regard to administration and implementation of conservation measures for areas proposed for inclusion in the SPAMI List must be clearly defined in the texts governing each area. Additionally Art.7.4. of the Protocol calls for the provision of clear competencies and co-ordination between national land and sea authorities, with a view to ensuring the appropriate administration and management of the protected area as a whole. Mention in which way do the legal provisions clearly establish the institutional competencies and responsibilities for the administration and conservation of the area, and if being the case, their co-ordination means, including those between land and sea authorities.

The MPA Torre Guaceto has been established with the law of the Department of the Environment (Ministry of the Environment) of 4h December 1991.

The establishment of this MPA is provided for by two national laws: the *Legislation regarding the defense of the sea* (n. 979 of 31st December 1982) and the *Outline Law on protected areas* (n. 394 of 6th December 1991).

The aims of MPA Torre Guaceto areas are both the safeguard of the sea biodiversity and biological resources and the promotion and the enhancement of the local economic activities, provided that they are compatible with the importance of the naturalistic aspects and of the landscape of the area.

The Management Consortium is formed by the Municipality of Brindisi, Municipality of Carovigno and W.W.F. Italy for Nature Onlus.

7.4.4. Other legal provisions

Describe any other relevant legal provisions, such as those requiring a management plan, the establishment of a local participation body, binding measures for other institutions or economic sectors present in the area, allocation of financial resources and tools, or any other significant measures concerning the protection and management of the area or its surrounding zones.

Tourist operators

Professional fishermen

Scuba divers

Representatives of the scholastic Institutions, of working associations and of the recognized environmental associations

Agricultural operators

8. MANAGEMENT

Through the General Principles, para. (e) in the Annex I, the Parties agree that the sites included in the SPAMI List are intended to have a value as examples and models for the protection of the natural heritage of the region. To this end, the Parties ensure that sites included in the List are provided with adequate legal status, protection measures and management methods and means.

8.1 INSTITUTIONAL LEVEL

8.1.1. Authority/Authorities responsible for the area

The responsible of the MPA is a Consortium constituted by the Municipalities of Brindisi, Carovigno and W.W.F. Italy for Nature Onlus.

8.1.2. Other participants in the management body

Such as other national or local institutions, as stated in Section D6 in Annex I.

The Reserve Commission, established with DEC/DPN n. 1377, 12/07/2004, supports the Management Consortium in the management of the marine protected area, by elaborating proposals and suggestions related to its functioning and management. In particular, it states its opinion:

- about the enforcement and organization regulations of the marine protected area and any proposal of change regarding them;
- about the annual management programs;
- about the budget and the final balance;
- about the annual report on the functioning of the marine protected area;
- about the request of change in the perimeter of the marine protected area and in the relative discipline of safeguard suggested by the Managing Authority;
- any time it is required by these regulations.

The Reserve Commission consists of:

- Chairman;
- Two experts designated by the Minister of the Environment;
- A member of the environmental association more representative;
- A member of the Environmental Ministry;
- Two members of the coastal Municipality;
- A member of the territorial Region interested;
- A member of the interested economy and productive categories designated by the Chamber of Commerce for every province of the Reserve;
- A member of Education Office ;
- A member of the cultural and environmental administration;
- The commander of Coastal Guard.

8.1.3. Participants in other committees or bodies

Such as a scientific committee, or a body of representatives from the local stakeholders, the public, the professional and non-governmental sectors, as in Sections B4-b and B4-c in Annex I.

TORRE GUACETO MPA COUNCILS

Tourist operators Council
Professional fishermen Council
Scuba divers Council
Agricultural Council

8.1.4. Effectiveness

As stated in Section B4 of Annex I, assess as very low, low, moderate, satisfactory, very satisfactory, and comment as needed on the following aspects:

A) EFFECTIVENESS OF THE CO-ORDINATION, WHERE EXISTING:

Very satisfactory

B) QUALITY OF INVOLVEMENT BY THE PUBLIC, LOCAL COMMUNITIES, ECONOMIC SECTORS, SCIENTIFIC COMMUNITY:

Moderate for the public community; satisfactory for the economic sectors and very satisfactory for scientific community.

8.2 MANAGEMENT PLAN (as set out in D7 of Annex I)

8.2.1. Management Plan

State if there is a management plan (MP) and in this case include the document as an annex. In the absence of a MP, mention if the main provisions governing the area and the main regulations for its protection are already in place and how (D7 in Annex I) and if the area will have a detailed management plan within three years (D7 in Annex I).

The area is managed through the regulation of the reserve formulated by the management body, approved by the Reserve Commission and enforced by an ordinance of the Coast Guard of Brindisi. (attached).

The Management Consortium of Torre Guaceto has approved the management plan of the Site of Community Interest (MP) (Dir. 92/43 EC) "Torre Guaceto Macchia San Giovanni" code IT9140005 (attached); The document has been sent to the Ministry of Environment for its approval.

8.2.2. Formulation and approval of the Management Plan

Mention how the MP was formulated, e.g. by an expert team and/or under consultation and/or participation with other institutions or stakeholders. State the legal status of the MP, whether it is officialized, and how, and if it is binding for other institutions and sectors involved in the area.

The MP has been formulated according to the guidelines of Ministerial Decree 03/09/2002 "Management SCI guide lines"

The MP has been formulated by an expert team with the participation of institutions and stakeholders.

8.2.3. Contents and application of the Management Plan

State the degree of detail in the MP by entering YES or NO in the following list of potential contents, and assess the degree of implementation of the MP by using the 0-1-2-3 score on the right hand side:

| | Existing in MP | Degree of application |
|--------------------------------|----------------|-----------------------|
| Detailed management objectives | YES | 3 |
| Zoning | YES | 3 |
| Regulations for each zone | YES | 3 |
| Governing body(ies) | YES | 3 |
| Management programmes as: | | |
| Administration | YES | 3 |
| Protection | YES | 3 |
| Natural resource management | YES | 3 |
| Tourism and Visitation | YES | 2 |
| Education and Training | YES | 2 |
| Research and Monitoring | YES | 3 |
| Services and Concessions | YES | 2 |
| Fund raising activities | YES | 3 |
| Periodic revisions of the MP | YES | 2 |

8.3 PROTECTION MEASURES

By Art. 6 of the Protocol the Parties agree to take all the necessary protection measures required for the conservation of the area, particularly the strengthening the application of the other Protocols to the Convention, and through the regulation of any other activity likely to harm the natural or cultural value of the area, such as economic, recreation or research activities. As per Section D2 in Annex I, the protection measures must be adequate to the site objectives in the short and long term, and take in particular into account the threats upon it.

8.3.1. Boundaries and signing

Briefly, state if the boundaries of the area and its zones are adequately marked in the field, both on land, in the sea, and at the principal points of access.

The boundaries of the area and its zones are adequately marked in the land with signs, in the sea with buoys; The signs are also present in the main street of access to the area, in the airport of Brindisi and in the harbour of Bari.

8.3.2. Institutional Collaboration

Name the different national and local institutions or organisations with legal responsibilities or involved in the protection and surveillance of land and sea zones, and any measures or mechanisms through which their coordination is pursued.

The National Forestry Guard has the responsibility of the surveillance of the protected land; the Municipality Police of Brindisi and Carovigno has also the responsibility of the surveillance of the protected land; the National Coast Guard has the responsibility for the surveillance of the protected sea zones; the Regional Agency for Environmental Protection has the responsibility for the environmental monitoring protection.

The Management Consortium of Torre Guaceto each year organized a meeting for the coordination of protection and surveillance measures.

8.3.3. Surveillance

Consider the adequacy of the existing protection means (human and material), and your present ability to survey land and sea uses and accesses

The management body of Torre Guaceto integrate the activity of surveillance of the national and local institutions with own personnel (five units).

The Torre Guaceto MPA has two rubber boats and one jeep for the surveillance and the protection of the area. The Management body has also a boat to collect floating rubbish and debris.

The adequacy of the surveillance and protection is very high, this is demonstrated by international scientific publication.

8.3.4. Enforcement

Briefly, consider the adequacy of existing penalties and powers for effective enforcement of regulations, whether the existing sanctions can be considered sufficient to dissuade infractions, and if the field staff is empowered to impose sanctions.

The existing penalties are adequate and they are sufficient to dissuade infractions, the field staff is not empowered to impose sanctions, but in the next months the Province of Brindisi will organize a course for Volunteer Ecological Guard.

The personnel of MPA Torre Guaceto will attend this course, at the end of the course the field staff will be empowered to impose sanctions.

9 AVAILABLE RESOURCES

9.1 HUMAN RESOURCES (Art. 7.2.f in the Protocol)

9.1.1. Available staff

Assess the adequacy of the human resources available to the management body, in number of employees and training level, both in central headquarters and in the field. Indicate if there are staff training programmes.

11 members are involved with the following functions: Director, environmental responsible, administrative responsible, public relationship responsible, administrative secretary, field staff.

Some consultants are involved in monitory activities.

9.1.2. Permanent field staff

Answer YES or NO on the current existence of the following FIELD staff categories. If YES, enter the number of staff either permanent or part-time in that category, and evaluate on a 0-1-2-3 score (0 is low, 3 is high) the adequacy of their training level.

| | YES/NO | NUMBER Permanent/Part-time | ADEQUACY OF TRAINING LEVEL |
|------------------------------------------------------|--------|-------------------------------|-------------------------------|
| Field Administrator | YES | 1 | 3 |
| Field Experts (scientific monitoring) | YES | 4 | 3 |
| Field Technicians (maintenance, etc) | YES | 5 | 3 |
| Wardens | YES | 5 | 2 |
| Of which marine wardens | YES | 2 | 2 |
| Guides | YES | 4 | 3 |
| Other | NO | | |

9.1.3. Additional Support

Briefly, describe if the area currently has the advantage of other external human resources in support of its objectives, either from other national or local institutions, volunteer programmes, non-governmental organisations, academic or international organisations. Mention if there are any significant changes in prospect for the near future.

The local unit of CONISMA (Inter-Universitary National Consortium of sea science) is involved in the monitory program and in a lot of research activities about the marine habitats of MPA.

There are many forming Agency which select students involved in many activities of the MPA.

9.2 FINANCIAL RESOURCES AND EQUIPMENT

By Art. 7 in the Protocol, the Parties agree to adopt measures or mechanisms to ensure the financing of the specially protected areas (Art.7.2.d), and the development of an appropriate infrastructure (Art.7.2.f). The General Principles para. "e" in the Annex I call upon the Parties to provide the areas with adequate management means.

9.2.1. Present financial means

Note if the basic financing is ensured: a core funding for basic staff, protection and information measures. Who provides this core funding? Briefly assess the degree of adequacy of the present financial means for the area, either low, moderate, satisfactory; e.g. the implementation of the management plan, including protection, information, education, training and research.

The funding for the basic staff, protection and information measures are provided by the Environmental Ministry

These financial means aren't sufficient for the implementation of the management plan, including protection, information, education, training and research.

9.2.2. Expected or additional financial sources

Briefly describe any alternative sources of funding in use or planned, and the perspectives for long-term funding from national or other sources.

The Management Body provides funds adhering to Community Program (INTERREG, LIFE, LEADER), because of the insufficient funds given by the Environmental Ministry.

9.2.3. Basic infrastructure and equipment

Answer YES or NO to the following questions, and if YES, assess with a score of 1-2-3 (1 is low, 3 is high) the adequacy of the basic infrastructure and equipment.

| | YES/NO | ADEQUACY |
|-----------------------------------------------|--------|----------|
| Office and/or laboratory in the field | YES | 2 |
| Signs on the main accesses | YES | 2 |
| Guard posts on the main accesses | NO | |
| Visitors information centre | YES | 2 |
| Self guided trails with signs | NO | |
| Terrestrial vehicles | YES | 2 |
| Marine vehicles | YES | 2 |
| Radio and communications | YES | 1 |
| Environmental awareness materials | YES | 2 |
| Capacity to respond to emergencies | YES | 2 |
| Comment on basic infrastructure and equipment | | |

9.3 INFORMATION AND KNOWLEDGE

By Section D3 of Annex I, the Parties agree that the planning, protection and management of a SPAMI must be based on an adequate knowledge of the elements of the natural environment and of socio-economic and cultural factors that characterize each area. In case of shortcomings in basic knowledge, an area proposed for inclusion in the SPAMI List must have a programme for the collection on the unavailable data and information.

9.3.1. State of knowledge

a) Assess the general state of knowledge of the area.

| | | | |
|--|--|---|--|
| | | 3 | |
|--|--|---|--|

b) Briefly describe the extent of knowledge of the area, considering at least specific maps, main ecological processes, habitat distribution, inventories of species and socio-economic factors, such as artisan fishing.

The knowledge of the AMP is high, considering the main ecological processes, habitat distribution, inventories of species and socio-economic factors the AMP. This is due to the numerous research programme that have been realized, with the production of the biocenotic map.

9.3.2. Data collection

Describe and assess the adequacy of any programme and activities to collect data in the area.

The Management Body with the collaboration of the University of Lecce and Inter-Universitary National Consortium of Sea Science is carrying out many studies about marine biodiversity; particularly, attention is given to the structure and dynamics of benthic communities to evaluate the protection effect.

The structure and abundance of fish populations are recorded periodically too, and the spill over effect evaluated.

The main physical and chemical parameters of the water column are checked periodically (see monitoring)

9.3.3. Monitoring programme

Section D8 in Annex I states that to be included in the SPAMI List, an area will have to be endowed with a monitoring programme having a certain number of significant parameters, in order to allow the assessment of the state and trends of the area, as well as the effectiveness and protection and management measures, so that they may be adapted if need be (indicators may, for instance, supply information about species status, condition of the ecosystem, land-use changes, extraction of natural resources -sand, water, game, fish-, visiting, adherence to the provisions of the management plan, etc.).

a) Is there a monitoring programme?

| | |
|-----|--|
| YES | |
|-----|--|

b) If NO, are there plans to start one, and when?

c) If YES, assess as low, medium, satisfactory, its adequacy and present level of development.

The adequacy of the MP is satisfactory.

d) If YES, who is/are carrying out the monitoring programme?

The monitoring programme is carrying out by the field staff, consultants and University Departement.

e) If YES, briefly describe how the monitoring programme will be used in reviewing the management plan.

If the MP will point out some mistakes about the management plan and action plans, the Management body will modify the Management Plan.

10. Other information, if any

11. CONTACT ADDRESSES

(name(s), position(s) and contact address(es) of the person(s) in charge with the proposal and that compiled the report)

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12. SIGNATURE(S) ON BEHALF OF THE STATE(S) PARTY/PARTIES MAKING THE PROPOSAL



13. DATE